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GRADUATE COLLEGE

THE FARMERS' SEARCH FOR ORDER

(1880-1910)

A DISSERTATION

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirements for the

degree of

DOCTOR OF PHILOSOPHY

BY

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1974

THE FARMERS' SEARCH FOR ORDER

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PREFACE

In a subtle and sophisticated study, The Search For Order, Robert H. Wiebe in 1967 advanced the thesis that America from 1877 to 1920 was searching for order. Beneath all the surface ripples of rapid change there lay a deep-flowing current, which gave unity and meaning to the period as a whole. According to Wiebe these years "witnessed a fundamental shift in American values, from those of the small town in the 1880's to those of a new, bureaucratic-minded middle class by 1920."[1] In commenting about the importance of this study, David Donald, a prominent historian, noted that "for many years to come this will be not merely the standard book in its field, but the take-off book--the book that every serious student of American history will have read and pondered, the book that will shape the pattern of future research and writing on the whole broad era from 1877 to 1920."[2]

After reading and pondering The Search For Order this writer came to the conclusion that Wiebe's description of Americans searching for stability might specifically be applied to farmers around the turn of the twentieth century. I have always been extremely interested in the attitudes and interests of agrarian people. The first seventeen years of my life were spent on a small cotton farm in southeast Missouri. During these years on the farm, I encountered firsthand the difficulties

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[1]Robert Wiebe, The Search For Order (New York: Hill and Wang), p. vii.

[2]Ibid., p. ix.

and anxieties experienced by a rural society. Through the influence of Dr. Gilbert C. Fite, I began to concentrate on the farmers from approximately 1880 to 1910. Their difficulties and the painful attempts to solve their problems brought to mind similar experiences during the 1940's and 1950's in the "bootheel" of Missouri.

In their search for order, farmers were forced to accept and adjust to the realities of an industrialized society. By 1880 the dynamic forces of industrialism and urbanism were beginning to profoundly affect the nature of rural life in the United States. Modern technology introduced new types of economic disparities and social dislocations, which affected both the country and city. These forces necessitated adjustments in methods and attitudes on the part of the farmer. Many progressive farmers in the years from 1880-1910 accepted the challenge of industrial progress by recognizing that they could not remain static. They realized that they must adjust their operations and business practices to fit a rapidly changing economy. Many conservative farmers exhibited bewilderment and pessimism at the changes and refused to accept them. They continued to use traditional and outdated methods. Others met the problems squarely by adopting new techniques and arrangements which emphasized efficiency and productivity. Not content to simply "stick their heads in the sand" and let the rest of the world go by, these progressive farmers optimistically searched for security and order by emulating the techniques and practices of the business community. Progressive farmers saw the necessity of fitting their farming operations into industrial society. By adapting efficient and businesslike techniques to their own unique situation, many progressive farmers

recognized that they would be in a much better position to compete successfully with others in society. In many ways, progressive farmers succeeded in adjusting to these profound changes and emulating business-like methods.

In what ways did farmers emulate the business community and in the process possibly achieve a measure of stability and order? As industrial developments forced farmers into a more commercialized position, with goods destined for distant markets, a train of new and complex problems developed. Farmers were thrown into competition with one another; they were forced to produce at the lowest possible cost. Having no way of fixing prices or controlling output, farmers were squeezed by high freight rates, monopolies, loan sharks, and commission men. Agricultural leaders convinced many progressive farmers that the only way they could fight their battles was by economic organization. Through the Grange and the Farmers' Alliance, agrarians established cooperative enterprises which would theoretically enable them to perform the function of middlemen, manufacturers, capitalists, and bankers. Because of lack of capital and inexperience these ventures met with only short-lived success, but they encouraged successful cooperation after 1895. Many cooperatives organized at the turn of the century succeeded by avoiding the mistakes of the past and putting into practice businesslike techniques.

In addition to cooperation, farmers attempted to adjust to commercialization and urbanization through the introduction of labor and timesaving techniques. Farm mechanization increased efficiency in agriculture and was a major force in bringing more land under cultivation.

Improved machinery enabled farmers to produce up to and beyond market demand, enlarge their farms, reduce labor requirements and lightened farm toil. The development and growth of rural free delivery of mail, the telephone and automobile narrowed the gap between country and city and further encouraged farm efficiency.

As commercialism exerted a greater impact, many progressive farmers began to identify more closely with the attitudes of businessmen. Farm journals, agricultural colleges and agricultural reformers constantly encouraged farmers to think more in terms of efficiency and increasing their cash income. Using businessmen as a model, many progressive farmers became aware of their own commercial proprietary interests. The changing attitudes of farm employers toward farm and city labor illustrated their empathy with businessmen. By viewing their working force as a business problem, many farm owners sought to increase efficiency through contractual agreements, the utilization of mass labor and hiring of temporary seasonal migrants. Many owners coldly viewed farm laborers as factors of production in achieving a desired result. Stratification of employers and workers resulted in a great deal of impersonalization. Also, a growing gap developed between farm owners and city workers. Labor's agitation for shorter hours and higher pay seemed to offend some of the deepest convictions of the farmer, who had to work long hours on his own enterprise.

And finally, by responding to educational forces which encouraged scientific techniques, progressive farmers conserved their soil, successfully combatted plant diseases and insects and introduced new and better varieties of crops. The Department of Agriculture, land grant

colleges, experiment stations, journals and private businesses encouraged economic advancement by sending out technical experts and professionals who taught and illustrated techniques which would increase efficiency and production. Not by choice but through necessity and urgency, the more progressive and advanced farmers emerged as businessmen by 1910.

In addition to physical adjustments, farmers mentally came to terms with industrialization. While denouncing big business in exaggerated terms and at the same time reaffirming their own moral and physical purity, farmers nonetheless accepted and emulated industrial techniques. In 1971, Dr. Robert Shalhope, a professor at the University of Oklahoma, introduced me to an author who substantiated my views that farmers were unconsciously searching for psychological order. In his scholarly essay in the William and Mary Quarterly, "Toward a Republican Synthesis," Shalhope analyzed and described the ideas of a sociologist, Clifford Geertz.[3]

In his "Ideology as a Cultural System," Geertz provided a method of understanding the attitudes of the American farming community and what they were attempting to do around the turn of the century. Prior to that time I was torn between the views of two outstanding historians, John D. Hicks and Richard Hofstadter, who seemingly characterized the farmer in a totally different framework.

In 1931, John D. Hicks, writing during a time of economic crisis in the United States, believed that the farmer of the West and South in

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[3]Robert Shalhope, "Toward a Republican Synthesis: The Emergence of an Understanding of Republicanism in American Historiography." William and Mary Quarterly, XXIX (January, 1972), pp. 79-80.

the latter part of the nineteenth century truly experienced tremendously difficult economic problems. His book, The Populist Revolt pictured the farmer as a victim of the grinding burden of debt, suffering intensely because of diverse weather conditions and taken advantage of by the eastern capitalists. Through his writings, the farmer came to symbolize a defenseless hero, battling courageously against tremendous odds. The agrarians believed that the solution to their problems and ultimate survival depended upon their ability to wrest control from the eastern capitalist who manipulated finances, land and transportation to their own advantages. Hicks strengthened the adage of Thomas Jefferson who stated that "those who labor in the earth are the chosen people of God and that virtue resides in the hearts of the agriculturists." Because of the Populist Revolt many readers sympathized with the hapless agrarian, believing that his problems were indeed real, having originated from the exploitation of the bankers, railroads, and big businessmen.[4]

Hicks' interpretation remained popular until 1955 when Richard Hofstadter published his views of the nineteenth century farmer. His influential book, The Age of Reform, stimulated an era that questioned the views of the traditional agrarian historians. Hofstadter characterized the farmer as a small commercial agrarian suffering from depression and status anxiety. In his opinion, the difficulties confronting the farmers originated not with a pathological society but on the contrary a paranoia on the part of the farmers, which included the qualities of heated exaggeration, suspicion and conspiratorial fantasy. Far from

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[4]John D. Hicks, The Populist Revolt (Minneapolis: University of Minnesota Press, 1931).

being stable frontier heros, he described them as being ignorant and selfish country businessmen who worked very hard, moved all too often, gambled with their land and made their way alone. Instead of blaming himself, the farmer constantly fabricated conspiratorial fantasies against the eastern capitalist and also manifested strains of anti-Semitism in speech and writing. Nothing was wrong with the society in which they lived but rather a serious flaw was found in the agrarian perception of their environment. According to Hofstadter, the economic grievances were not actually real but revealed a distorted vision by the farmers.[5]

These two interpretations seem to be irreconcilable, emphasizing views entirely opposed to each other. But, it is possible that both manifest a true conception of the farmer. In his article in 1964, Geertz makes it possible to intertwine both interpretations into a meaningful and adequate description of the agrarian. Geertz emphasizes that when people cry out, utilizing words that convey fears of oppression and conspiracy, this implies that unconsciously, social strain is being experienced by the participants. Language, according to Geertz, is used as a symbol for social strain, replacing overt action. In other words, the farmers of the nineteenth century truly experienced economic difficulties and manifested their confusion and frustration by voicing fantasies of conspiracy and anti-Semiticism. Whatever the people expressed verbally was psychologically true and they actually believed

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[5]Richard Hofstadter, The Age of Reform (New York: Alfred A. Knopf, 1955).

what they said. If this view is correct, the reality of economic grievances by Hicks and the conspiratorial fantasies of society by Hofstadter can be rationally accepted. The farmers were looking for a road map to prosperity and security. They desperately sought for a solution to their problems which seemed to threaten their very survival. The language expressed by the agrarians served as a distorted ideology which symbolically relieved the social strain and economic dislocations they were experiencing.[6]

Throughout this study I use two terms which might seem vague without explanation. These words are "progressive" and "businesslike." Used in a general way the term "progressive" refers to anyone who might be advancing, enterprising, forward looking, up-to-date and modern. In the first chapter I attempted to describe in detail a farmer who was progressive in the general sense. It would, of course, be erroneous to take for granted that all progressive farmers in the general sense would fit neatly into the category of those who consciously searched for order by attempting to emulate the efficiency policies of the business community. After the first chapter, my definition of a progressive farmer is one who usually possessed those general characteristics and in addition consciously put into practice those features which came about through the emulation of big business.

The term "businesslike" also needs to be qualified. Farmers copied those practices of big business which brought order, system and efficiency to their own unique situation. For example, it was impractical

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[6]Clifford Geertz, "Ideology as a Cultural System," reprinted in D. E. Apter, Ideology and Discontent (New York: Free Press, 1964), pp. 47-76.

to emulate the ruthlessness and brutal competition of industrial leaders, but farmers could utilize friendly cooperation and scientific methods. The first chapter describes those practices which farmers could effectively use and those which were impractical. In this study, four major features which brought stability to the business community merited emulation by farmers: organization to control competition, improved technology, a more efficient employer-employee relationship and professionalization through education. By modifying these techniques to their situation progressive farmers likewise achieved greater harmony. When statements are made which suggest that farmers are not "business-like" it usually means that they were not systematic, efficient, orderly or lacking method in operation.

I wish to acknowledge those people who were kind enough to read the paper and offer their advice and opinions. My principal adviser, Gilbert C. Fite, deserves special recognition for his insight, constructive advice and patience during the writing of the dissertation. Dr. Fite is a scholar, outstanding teacher and above all, a kind and considerate man. Although Dr. Fite assumed the presidency of Eastern Illinois University three years ago, he graciously consented to continue the guidance for the paper. His knowledge of agrarian history was invaluable in studying and writing about the farmer from 1880-1910. I appreciate so much the interest of Norman Crockett, David Levy, Robert Shalhope, Jonathan Spurgeon and Rufus Hall, not only during the dissertation stage but all through the program. Dr. Crockett was very helpful in the initial stages of the paper, while Dr. Shalhope and Dr. Levy made very constructive suggestions during the latter stages.

I would also like to thank the staff at the National Agricultural Library in Beltsville, Maryland for their valuable assistance. To Dr. Vivian Wiser of the Bureau of Agricultural Economics, my appreciation for her assistance and advice. For their typing, I wish to extend my appreciation to Marilyn Buchanan and Rita McGinnis. Joy McMillon did an excellent job in correcting grammatical mistakes and faulty sentence structure.

Behind every married student who succeeds in attaining a Ph.D. degree, there is usually a patient and understanding wife. The pressures of graduate school can be lessoned by a wife who cheerfully accepts the fact that a doctorate degree involves sacrifices on the part of both. Throughout the doctoral program, Anna provided encouragement, unselfishness, patience, and financial assistance. For these reasons I wish to dedicate this paper to her.

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THE FARMERS' SEARCH FOR ORDER

CHAPTER I

A TRANSFORMATION IN FARMING

In 1909 President Theodore Roosevelt declared: "There has never been a time when the American farmer was as well off as he is today."[1] This optimistic remark by the President coincided with a period of unparalleled prosperity which extended from shortly after the turn of the century to 1919. These years have been commonly termed the "Golden Age of Agriculture." Many economists and historians attribute this era of agrarian prosperity to the upward swing of the price level and the abundance of gold. It is true that wheat rose from 72 cents a bushel in 1896 to 98 cents in 1909, corn from 21 cents to 57 cents and cotton from 6 cents to 14 cents a pound; but this natural upswing does not fully account for the prosperity of the pre-war agrarian community.[2] In order to comprehend adequately the reasons for this unparalleled period of prosperity, it is imperative to note the transformation in attitudes, philosophies, and goals characterizing the farming community from 1880 to 1910. The "Golden Age of Agriculture" was ushered into being not

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[1]Report of the Commission on Country Life, February 9, 1909, 60th Congress, 2nd Session, Senate Document 705, p. 36.

[2]Hofstadter, The Age of Reform, p. 110.

only by natural causes but also by the initiative of farmers and the transformation of agrarian attitudes.[3]

After viewing Millet's deeply moving painting, "The Man with the Hoe," Edwin Markham penned these words:

> Bowed by the weight of centuries, he leans
> Upon his hoe and gazes on the ground
> The emptiness of ages in his face.
>
> Who made him dead to rapture and despair,
> A thing that grieves not and that never hopes,
> Stolid and stunned, a brother to the ox?
> . . . . . .
>
> Down all the stretch of Hell to its last gulf
> There is no shape more terrible than this.
> . . . . . .
>
> Through this dread shape the suffering ages look;
> Time's tragedy is in that aching stoop;
> Through this dread shape humanity betrayed, plundered,
> profaned, and disinherited,
> Cries protest to the Judges of the World,
> A protest that is also prophecy.[4]

In the painting Markham visualized a peasant farmer brutalized by oppression and degraded by hopeless and joyless labor facing a future of drudgery. Although the author of this poem intended to characterize the peasantry of the Old World rather than the American farmer, it serves as an excellent illustration contrasting two periods of United States agrarian history. Compared to the American farmer in 1910, the farmer in 1880 appeared as backward and crude as the peasant pictured in Millet's painting. So great was the contrast between Millet's picture and many wide-awake, intelligent young farmers present at the turn of the century

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[3]Progressive Farmer (Raleigh, N.C.), XXIV (July 8, 1909), p. 3.

[4]Farm Journal (Philadelphia and Chicago), XXIII (December, 1899), p. 300.

that one can scarcely conceive that they engaged in the same occupation. Between 1880 and 1910 a transformation in farming occurred which could not be measured in terms of crops raised. Rather the change reflected a different outlook and the farmers' adoption of a different system.[5]

In the 1870's and 1880's many people characterized farming as a life of drudgery, loneliness, monotony, overwork, and isolation. The Dakota Farmer depicted farming during these earlier years as a means of making a living for those who could not survive any other way. This assumption held that anyone possessing minimal skills and education could farm; in fact, there was little to learn.[6] The Journal of Agriculture, published in St. Louis, contended that when the farmer in 1870 plowed his land

> he realized that he was plowing; casting seed on the newly turned soil he knew that he was sowing, but he never comprehended why he did it or what the results of the process would be. Without the slightest degree of certainty, he looked and hoped for the exceptional year of above average abundance that would enable him to reduce the mortgage; yet he brought nothing more substantial than hope and expectations, supplemented by tireless, delving industry toward this end.[7]

Older generations of farmers complained of a bitter and tragic struggle as they groped and fumbled in a haphazard fashion searching for the answers to their many problems.[8]

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[5]Dakota Farmer (Aberdeen, S.D.), XXIII (November 15, 1903), p. 2.

[6]Dakota Farmer, XXX (April 1, 1910), p. 5.

[7]Journal of Agriculture (St. Louis), XLVIII (May 10, 1906), p. 8.

[8]California Cultivator (Los Angeles and San Francisco), XXXV (December 8, 1910), p. 585.

By the turn of the century the word "farming" assumed a new meaning. A. J. Lockridge, speaking before the twentieth session of the Farmer's National Congress in 1900, noted that "farming is no longer a mere occupation--a common dumping ground for dullards, shallow pated triflers and weak-kneed failures in other pursuits--but it is a profession."[9] The risks and uncertainties that had formerly tossed the farmer back and forth between hope and despair were partially being mastered. Utilizing scientific principles, many farmers substituted systematic and well organized business practices for the irregular and uncertain aspects of previous days. The older methods which might be appropriately termed "muscle farming" gave way to practices requiring greater mental activity. A more intensive farming, requiring improved equipment and a better knowledge of scientific principles replaced an exploitive, extensive system based upon one crop. By 1910 such conveniences as telephones, daily mail, electricity, and automobiles replaced much of the drudgery, loneliness, and isolation that had plagued the agrarian community in previous years.[10] This transformation in farming and farm life symbolized the passing of Markham's "Man With the Hoe." By 1910 a new version of the "Man With the Hoe" described the agrarian community with greater accuracy than the original poem. Of the "New Farmer" Arthur J. Burdick, writing for Up-To-Date Farming stated:

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[9]A. J. Lockridge, "The Mission of the Farmer," Official Proceedings of the Farmers National Congress, 1900 (Greenville, Pennsylvania: Advance Argus Company, 1900), p. 91.

[10]Progressive Farmer, LXIV (March 1, 1906), p. 3; Kansas Farmer (Topeka), XLIV (March 15, 1906), p. 282; Southern Cultivator (Nashville), LX (May 15, 1902), p. 3; Herbert N. Casson, "The New American Farmer," American Reviews, XXXVII (May, 1908), p. 589.

> The centuries bow not this creature, man, who wields,
> with zeal, the sharpened, nimble hoe.
> He stoops not earthward from a mighty weight
> Of empty ages and of sodden woe.
> The centuries to him have wisdom lent;
> The years have brought him wealth of knowledge rare
> To nature's secrets he has won the key
> And Nature gives him plenty and to spare.
> His brow is broad, bright his eye . . .
> Lord of the soil. The earth his throne;
> The hoe his scepter is. He wields it well
> And, by his arts, and skill, subdues the earth
> And brings the rich soil neath his magic spell.
> He needs not pity who can give command
> To earth to yield, and have it even so.
> There is no kingdom half so fair as that
> Of him whose emblem is the humble hoe.[11]

Before tracing the transformation of attitudes among the farmers and the subsequent changes in farming, several terms must be identified and defined. It would be incorrect and misleading to assume that farmers as a whole spearheaded the transformation of agricultural practices. It is therefore necessary to identify that group of farmers who emulated and adapted the businessman's techniques and to determine insofar as possible what percentage of the farming community was involved.

In 1910 the California Cultivator noted that the majority of farmers in the late 19th and early 20th centuries refused to take advantage of sound business techniques.[12] C. W. Fiske's "Challenge of the Country" reported that

> in all fairness it must be said, the modern gospel of progressiveness has not been everywhere accepted, far from it. Plenty of farmers, doubtless the majority, are still following the old traditions. Country folks as a rule are conservative. They like the

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[11] Up-To-Date Farming (Indianapolis), VI (September 15, 1903), p. 1.

[12] California Cultivator, XXXV (December 8, 1910), p. 585.

old ways and are suspicious of "new-fangled" notions.[13]

The Prairie Farmer, an agricultural newspaper published in Chicago, described the nonprogressive farmer as one

> who depletes the average crops of the State in which he lives. The average of Illinois must be the man who reduces the average of corn (40 bu.) down to 27 bu. per acre. He never reads a journal for which he has to pay money but gets what little reading he can through clap trap papers sent to induce him to pay money for some fake or scheme of the alleged journal. The average farmer is the man who does not keep books that would enable him to see how his business stands from year to year.[14]

Resisting change, the nonprogressive farmer clung to old notions and practices handed down to him from earlier generations. He never bought or produced new grains; he used the same implements as his father and remained on the farm simply in "the man with the hoe" predicament, never putting to work the same thought and organization used in other occupations or professions. Generally, the average farmers in 1910 were superstitious and suspicious of new ideas, still planting their crops by the moon; one-horse farmers who simply existed and were satisfied.[15] In most cases the nonprogressive farmer worked long and hard. W. J. Spillman, an employee of the Department of Agriculture, described such a man in 1906 who

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[13]George W. Fiske,"Triumphs of Scientific Agriculture," from Essays on Agriculture edited by Shirley Dare Babbitt and Lowry Charles Wimberly (Doubleday, Page and Company: Toronto, 1921), p. 271.

[14]Prairie Farmer (Chicago), LXIV (May 21, 1892), p. 328.

[15]California Cultivator, X (August, 1896), p. 237; Southern Planter, (Raleigh, N.C.), LXI (July, 1900), p. 403; Wallaces' Farmer (Des Moines), XXVIII (May 15, 1903), p. 715; Progressive Farmer, XXV (April 23, 1910), p. 10.

> would work from four o'clock in the morning till nine o'clock at night. He was a poor man and thought he had to do this or starve. Of course, he never had time to read the papers and he knew nothing of the improvements that were going on in the methods of farming. He plowed two or three inches deep and raised six or seven bushels of wheat to the acre. Most of his horses died of starvation and overwork and in two years he had squandered a patrimony inherited from his father and left the country in a covered wagon with two crow baits which were only called horses by courtesy.[16]

In contrast to the average farmer the "progressive" or business-like farmer made better use of the rigorous and exhausting sixteen-hour work day. The difference between these two types of agrarians revealed one as a thinker, planner, organizer, and innovator and the other as a staid worker who relied simply on hard work and luck. The successful farmer realized the fact that hard work alone was not sufficient; it had to be accompanied by some hard thinking.[17] The progressive farmer envisioned his occupation as a business, keeping careful account each year of what every activity cost him and what returns it produced. He took into consideration the proper utilization of capital, the apportioning of expenses, the selection and balancing of enterprises in order to avoid economic waste, and the standardization of factors related to agriculture production. Consequently, the farmer judged with a fair degree of accuracy, for example, what his cotton crop paid him and how he could feed his stock most economically. He studied his own special situation with respect to markets and sought to produce commodities which would

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[16]W. J. Spillman, "Successful Farm Management," 1906, p. 1. Records of the Bureau of Agricultural Economics, National Archives, Record Group 83.

[17]Dakota Farmer, XXIII (April 1, 1903), p. 1; Kansas Farmer, XXXV (July 29, 1897), p. 10.

bring the most remunerative prices.[18] To some degree the progressive farmer was becoming a practical scientist, translating scientific information into common practice. This additional knowledge involved an understanding of the soil and its conservation, a thorough knowledge of fertilization, systems of crop rotations, and tillage procedures. Progressive farming did not necessarily imply the trying of every new machine, the testing of every theory, or the radical changing of farm work methods, but it required men who were constantly striving for better things, and refusing to be satisfied with results previously achieved.[19]

The progressive did not try to get along without modern field machinery or to avoid buying or borrowing from his neighbor. The editor of the Prairie Farmer concluded in 1893 that the businesslike farmer

> did not increase his practical knowledge while sitting on a box at the corner grocery or loafing in the saloon, but rather he took advantage of farmer's institutes, agricultural colleges, correspondence courses, bulletins and farm journals; and he was willing to impart this information to others.[20]

His home could usually be distinguished from others because he purchased household conveniences and provided his family with the best transportational facilities available.[21] The New England Farmer, published in

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[18]Dakota Farmer, XXIV (April 15, 1904), p. 21; The Wisconsin Farmer (Madison), XXV (April 24, 1896), p. 257; J. H. Arnold, "The Farm Management Methods of Studying Agriculture Problems," p. 1. Records of Bureau of Agricultural Economics, National Archives, R. G. 83.

[19]Southern Planter, XXIV (May, 1905), p. 391; Texas Farmer (Dallas), XXIV (December 19, 1903), p. 3; Journal of Agriculture, XLII (Sept. 27, 1900), p. 609; Oregon Agriculturist and Rural Northwest (Salem), XIV (Oct. 15, 1904), p. 35.

[20]Prairie Farmer, LXV (August 12, 1893), p. 2.

[21]Dakota Farmer, XXIII (August 15, 1903), p. 15; Florida Agriculturist (Jacksonville), XXXII (July 12, 1905), p. 433.

Brattleboro, Vermont, announced in 1906 that the progressive "was no longer a farmer merely because he did not know enough to be anything else, but a farmer because he knew enough not to be something else."[22]

Although progressive farmers were not in the majority, their contribution toward increased productivity and improved standards of living was great. Farm journals indicated that as leaders in their occupation, this group assumed the role of evangelists for the vast nonprogressive majority. Imitation, when intelligently practiced, proved to be the best educational method. The Southern Planter noted in 1888 that other farmers noticed the rewards and benefits stemming from the progressives' imitation of businesslike methods and as a result began cautiously to apply these principles to their own situation.[23]

Because of the application of businesslike techniques and an emphasis upon scientific principles by the turn of the century, successful farming required more skill and training. Farm journals noted that terms such as "clodhopper," "country rube," "hayseed," "bumpkin," "hick," and "hillbilly" were used less frequently.[24] Although a majority remained unconvinced, progressive farmers, nevertheless, attacked the old notion that anyone could farm. Many believed that with the introduction of new machinery, better farming techniques, and improved transportation and communication, farming demanded better management than ever before.

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[22]New England Farmer (Brattleboro, Vt.), XX (June 9, 1906), p. 1.

[23]Southern Planter, XLIX (August, 1888), p. 412.

[24]Wilson Gee, The Social Economics of Agriculture (New York: The MacMillan Company, 1932), p. 17.

Because of these advances Wallaces' Farmer reported by the turn of the century that a city dweller who hoped to succeed in farming would find it more difficult. Some farmers bemoaned the fact that laborers lacked the proper training skills needed for the successful operation of the farm.[25] In 1909 Henry Wallace, editor of Wallaces' Farmer, optimistically indicated that "although the agrarian community as a whole did not realize the importance of the progressive, these individuals proved to be the hope of their generation and upon them depended very largely whether farmers as a class could maintain their position in society."[26]

In considering the farmer's emulation of business techniques, several points must be qualified and clarified. It would be misleading to assume that farmers copied businessmen in all aspects or to the extent that no distinction between the two could be noticed. In many instances farmers very capably learned from businessmen and successfully applied business techniques to their own particular circumstances, but in other situations agrarians found it impossible or at least very difficult to imitate business practices because of the nature of their occupation.

The problems which farmers faced in their attempt to emulate business techniques revolved around the inability to control production or prices. The farmer could never know in advance how much he would produce since he had no way of governing weather conditions. Moreover, he could not foresee the hordes of insects and diseases that might destroy crops and livestock. He might try to grow an 80 bushel crop of corn or

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[25]Wallaces' Farmer, XXXIV (February 19, 1909), p. 258.

[26]Ibid.

a 40 bushel crop of wheat and miserably fail, not because of poor management, poor land, or laziness, but simply because climatic conditions were unfavorable for top production. In another year he might raise 20 percent more than expected because of an ideal situation. Because of these unknown factors which injected a high degree of chance in his operations, the hapless farmer tended to produce full capacity every year, thus often creating overproduction, surpluses, and low prices.[27] In addition, supply and demand usually determined the price of farm products. When farmers overproduced, a reduction of farm prices usually followed. For example, in 1866 the average farm price of wheat was $1.52, but by 1869 it had dropped to 76 cents, illustrating the impact of a bumper crop. Between 1874 and 1919 the cotton and wheat prices especially suffered because of bountiful harvests.[28] W. J. Spillman wrote of a farmer in 1908 who put a majority of his land in potatoes because large profits were being made from that product. When he shipped his first carload to a commission merchant in a northern state, he received a telegram from the commission man saying: "Potatoes sold for thirty dollars less than freight charges. Wire thirty dollars immediately." To this, the farmer replied, "I have no money, will ship more potatoes."[29]

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[27]Kansas Farmer, XXXVI (January 6, 1898), p. 2; Wallaces' Farmer, XXXV (May 20, 1910), p. 799; William C. Smith, The Business of Farming (Cincinnati: Steward and Kidd Company, 1914), p. 96.

[28]Gilbert C. Fite and Jim E. Reese, An Economic History of the United States (Boston: Houghton Mifflin Company, 1965), p. 436.

[29]W. J. Spillman, "What is Farm Management," 1915, p. 3. Records of Agricultural Economics, National Archives, R. G. 83.

In addition to these problems facing the farmer, he also had to contend with a competitive market. With the development of better transportation, farmers competed with producers, not only in their own region and state but all over the world. Wheat producers in Minnesota competed with grain farmers in Kansas and the Dakotas; these in turn competed with the Canadian, Russian, and Australian wheat growers. This nationwide and worldwide competition drove prices of agricultural commodities down to the lowest common denominator.[30]

A third problem connected with price regulation concerned the fairly long time that elapsed between planting and breeding, and marketing. For example, it required from four to ten months for field crops to mature, two to three years to produce a steer, three years for a dairy cow and from five to six years for a horse fit for city or foreign market. The farmer produced for markets so far in advance that price predictions were seldom accurate. He could only speculate about prices he might receive two years in advance for the feed given to the weaning calves or for the finished product.[31] Wheat farmers in the Middle West invested labor and capital from six to ten months without getting any return. Having expended continuously for months as the crop matured, farmers desperately needed money at harvest time, thus necessitating a a speedy sale. Therefore, for the last half of every year, farmers

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[30]Fite and Reese, Economic History of the United States, p. 433; Theodore Saloutos, "The Agricultural Problem and Nineteenth-Century Industrialism," Agricultural History, XXII (July, 1948), p. 162.

[31]Wallaces' Farmer, XXXIV (August 25, 1905), p. 989.

became urgent sellers, accepting such unremunerative prices as a crowded and depressed market offered.[32]

Furthermore, the solitary life of the individual farmer naturally worked against price controls through cooperation. Because they recognized the need for unified action, some favored marketing controls through coops, but to no avail. Thus they continued to operate under highly competitive conditions. Because of the influence of the anti-trust Populist Party in the 1880's and 1890's, it is assumed that farmers regarded all combinations with intense hatred. Some trusts were clearly inimical to the general welfare, but other combinations brought together means of accomplishing things for good that could not otherwise have been done. Many farmers thus distinguished between combinations detrimental to the public and those that were beneficial. The Farm Journal in 1908 concluded that if combinations acquired power to overtax the public or to build a monopoly upon the grave of its competitors, they were harmful, but if they benefited the public by employing and directing human energy, they were good.[33] The New England Farmer in 1906 stated that

> trusts are not wrong in principle, but only when they use their powers unjustly. Combinations which exist only to secure fair and just conditions for the business are a positive benefit to the industrial world. It is only when they overreach their purposes in the greed for gain that they become evil.[34]

In the 1870's many farmers believed that Standard Oil Company, through concentration and combination, made better oil by scientific and

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[32]Southern Planter, LIV (September 1893), p. 537.

[33]Kansas Farmer, XL (Sept. 25, 1902), p. 939; New England Farmer, LXXXV (Oct. 13, 1906), p. 2; Farm Journal, XXXII (May, 1908), p. 219.

[34]New England Farmer, LXXXV (Oct. 13, 1906), p. 2.

costly methods of refining, sold at greatly reduced rates, paid large dividends on their stock, and furnished higher wages for labor. However, in the 1890's the attitude of farmers changed because Standard Oil's monopoly destroyed competition both in the purchase of raw materials used in the manufacturing of the commodity and in the sale of the finished product to the consumer.[35] The Wisconsin Farmer in 1904 asserted that combinations such as Standard Oil, U. S. Steel, and the Sugar Industry were detrimental since they lessened the ability of city laborers to purchase and consume, compelling them to live on the cheaper farm products such as potatoes and cabbage instead of ham and roast beef.[36]

On the other hand, many farmers defended the International Harvester Company when it was prosecuted for violation of the Kansas anti-trust law in 1908. The Orange Judd Farmer concluded that this combination had not increased the price of implements, machines, and repairs.[37] Also, in Texas, the Texas Farmer contended that a majority of farmers in that state disapproved the prosecution of the Kirby Lumber Company in 1902 for violation of the anti-trust laws. In their opinion the company, through combination, performed a service by being large enough to bid for or accept large orders for quick shipments and strong enough to protect trade and give continuous and remunerative employment to the home people.[38] Therefore, farmers in most cases, had no quarrel

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[35]Journal of Agriculture, L (April 16, 1908), p. 3.

[36]Wisconsin Farmer, XXIII (January 21, 1904), p. 33.

[37]Orange Judd Farmer (Chicago), XLIV (March 7, 1908), p. 305.

[38]Texas Farmer, XXII (January 25, 1902), p. 8.

with legitimately conducted corporations because they were necessary for carrying on transportation, trade, and manufacture.

Although in many instances a majority of progressive farmers favored legitimate and helpful combinations, they realized that business emulation would be difficult. Farmers' trusts were theoretically possible, but agrarians realized that such combinations were not feasible because of the nature of farming.[39] It was isolation, not principle, that prevented farmers from establishing combinations similar to labor and big business. Even with the telephone, free mail delivery, and the automobile, most agrarians lived so independently that it proved difficult to secure cooperation among them even when unity would have been advantageous. Because they continually worked alone, farmers tended to be individualistic and independent, conditions which nullified their influence on one another.[40] An anonymous farmer writing to this point in the Farm Journal in 1890 correctly observed that "we are scattered; we are many; we are independent on our own farms."[41] In 1904 the editor of Wallaces' Farmer concluded that if a dozen railroad men in New York found it difficult to combine, how could thousands and millions of farmers scattered over the country ever form a binding agreement

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[39]Wisconsin Farmer, XXXIII (April 10, 1908), p. 527; Wallaces' Farmer, XXX (August 25, 1905), p. 989.

[40]Edward C. Parker, "Farming as a Business Enterprise," The American Monthly Review of Reviews, XXXIII (January, 1906), p. 63; W. J. Spillman, "What is Farm Management," p. 2; W. J. Spillman, "Agriculture, Fifty Years Ago and Now," p. 1. Records of the Bureau of Agricultural Economics, National Archives, R. G. 83.

[41]Farm Journal, XIV (October, 1890), p. 174.

on prices.[42] When farmers attempted to control the market after the turn of the century through limited price fixing cooperatives, they met severe difficulties. In 1902 J. A. Everitt, founder of the Society of Equity, envisioned a gigantic holding movement which would restrict production, withhold surpluses, control markets, and place farming on a profitable basis. Most farmers regarded the plan with suspicion, realizing that such a combination, patterned after industry, would be impossible.[43] In 1906 when tobacco growers in Kentucky decided to combine in order to control prices, many independent farmers could not be compelled to sell their tobacco to this central agency. Rampant lawlessness resulted when members of the farmers' cooperative attempted to coerce the independents to join their cause. Nightriders, bands of armed men, shamefully abused the independents by visiting towns at night and burning warehouses and barns in an effort to compel the "Hill Billies" to pool their crops or, as a last resort, to force them to refuse to grow tobacco the next year. This suppressive action during 1906-1907 on the part of the nightriders prompted many agrarians to leave the state and caused a standstill of business in Kentucky.[44] To many, this event

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[42]Wallaces' Farmer, XXIX (January 8, 1904), p. 34.

[43]Texas Farmer, XXIV (Sept. 26, 1903), p. 8; Wallaces' Farmer, XXXIV (April 2, 1909), p. 504; Up-To-Date-Farming, IX (May 15, 1906), p. 9; Robert H. Brahmer, "The American Society of Equity," Agricultural History, XXIV (January, 1940), pp. 34, 35.

[44]Theodore Saloutos, Farmer's Movement in the South (Berkeley and Los Angeles: University of California Press, 1960), p. 176; Up-To-Date-Farming, XI (April 1, 1908), p. 3; Orange Judd Farmer, XLIV (May 16, 1908), p. 616.

revealed the inherent weaknesses of a farmer's combination attempting to control prices. The Wisconsin Farmer reasoned in 1908 that if a farmer's organization proved impractical in a narrow limit and with a variety of tobacco that might not be grown in any other part of the world, how could a universal farmer's trust ever produce anything other than confusion and ultimate bankruptcy. Therefore, the tardiness or difficulty of farmers in promoting and defending their interests could hardly be attributed solely to sheer ignorance and indifference on their part, but rather to the inherent nature of farming.[45]

During the late nineteenth century farmers suffered a cost-price squeeze. This meant that farmers paid high prices for goods they purchased in comparison to the prices they received in selling. The exchange value between agricultural products and non-farm goods bought by farmers was disproportionate.[46]

While this seemed to be the farmers' plight, businessmen, on the other hand, effectively controlled their prices. Generally, businessmen were able to fix the price of their goods by manufacturing only that amount which could be sold at a profitable price, thus avoiding large surpluses which would depress the market. Because manufacturers adjusted supply to demand they usually calculated their margin of profit quite accurately. Unlike farmers who succeeded only under proper climatic conditions, industrialists in most cases were the complete masters of

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[45]Wisconsin Farmer, XXXIII (April 10, 1908), p. 527.

[46]Fite and Reese, An Economic History of the U.S., p. 434; Gilbert C. Fite, Farm to Factory: A History of the Consumer's Cooperative Association (Columbia: University of Missouri Press, 1965), p. 4.

their situation.[47] While farmers became increasingly competitive, business and industry stabilized their operations by reducing or eliminating competitors. By establishing combinations such as pools, trusts, and holding companies, businessmen avoided the low prices that accompanied competition. Instead of letting the free market control prices, businessmen combined and cooperated to such an extent that they were able to govern the cost of commodities.[48] Also, because industrial and transportational concerns were few in number, compared to the millions of farmers, it was comparatively easy for them to get together and by formal agreements eliminate the downward pressures which competition normally produced.[49]

Because farmers could not control their production like businessmen, they were forced to emulate those business methods which could effectively be adapted to their own situation. For instance, in 1905 The Southern Farmer compared the farm to a manufacturing plant with problems which were similar. The farmers' chief source of production was the soil. He utilized workers and machines to sow and harvest crops produced on the land.[50] The same factors which received the most attention in any factory were the principles needed for successful farming. In the business world, success and profit depended primarily upon technological and business efficiency. This did not mean that every farmer kept a complicated set of books and an office equipped with all the

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[47]Fite and Reese, Economic History of the U.S., p. 435.

[48]Ibid., p. 433. [49]Ibid., p. 434.

[50]Southern Planter, VI (April, 1905), pp. 300, 301; Kansas Farmer, XXXVI (January 6, 1898), p. 2.

modern conveniences, but it meant that his work should be as much regulated by efficiency and correct systems as that of a commercial firm. In emulating business, farmers attempted to conduct their operations as effectively as possible and at minimum cost.[51] By utilizing labor more efficiently, farmers operated their work in a smoother fashion and in addition saved time and money. By recognizing the real cost of farming operations such as labor, machinery, interest, taxes, depreciation, repairs, and expenditures for seeds and plants, the farmer might eliminate or reduce some of the expenses of production. Like the businessman, progressive farmers learned to take an inventory of their capital, stock, and equipment. They considered the type of farming to which the soil and climate were adapted; they recognized the cost and sources of restoring fertility. Efficiency on the farm involved the utilization of laborsaving equipment calculated to reduce the production cost of a certain crop or product in such a way as to cover the expense of the machine.

Although their knowledge of markets was limited and production remained uncontrollable, farmers, through better business methods, cooperation, and organization, solved some of the obstacles which confronted them.[52] As with all successful businesses, farm efficiency and effectiveness revolved around men who were open-minded, adventuresome, and unafraid of experimentation and new techniques. By 1910 many progressive farmers

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[51] Orange Judd Farmer, XXXIII (November 22, 1902), p. 567; Southern Cultivator, XLVIII (June, 1890), p. 287; Andrew Boss, Farm Management (Chicago and New York: Lyons and Carnahan, 1914), p. 23.

[52] Kansas Farmer, XLI (March 19, 1903), p. 326; Boss, Farm Management, p. 24; Smith, Business of Farming, pp. 216-217.

could be classified as businessmen because of their success in adapting the desirable techniques of business to their own situation.[53]

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[53]Kansas Farmer, XLI (March 19, 1903), p. 327.

CHAPTER II

THE FARMERS' SEARCH FOR ORDER

The Civil War accomplished more than merely the destruction of slavery and the preservation of the Union. The great conflict ushered into being a new social and economic order which emphasized much greater structure and organization in society. Between the depression of the 1870's and the beginning of the twentieth century many people began to appreciate the old adage, "united we stand, divided we fall."[1] Truly, it was an age of organization. Big business initiated a movement which eventually led to an organizational and structural atmosphere characterizing all aspects of society. Business history after 1870 proved to be a response to changing conditions and opportunities, thus calling for a new direction in industrial development.

Because of tremendous westward expansion from 1815 to 1850, the building and extension of a vast railroad network, and the growth of a national market beginning in the 1880's, American industry underwent a significant transformation.[2] Prior to the Civil War most factories were owned privately, by partners, or by small corporations, but after the Panic of 1873, because of an enlarged market, a period of fierce

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[1]Southern Cultivator, LXIII (February 1, 1905), p. 1.

[2]Alfred D. Chandler, "The Beginning of Big Business in American Industry," Business Historical Review, XXXIII (Spring, 1959), p. 1.

competition between the many small businesses developed. To escape price cutting and to protect themselves from other competitors, owners first used the device of pooling, through which the several manufacturers of a product entered into a "gentleman's agreement" on the price to be charged or the geographical area in which each would sell his goods. In the 1880's pools gave way to trusts, formed when previously competing firms handed over their stock to a board of trustees.[3]

American industrialization was not a continuous story of "robber barons" and monopolies that fleeced the public, who in turn rose in righteous anger and demanded that government check corporate greed. Undeniably, there were robber barons, monopolies, bloated profits, righteous anger, and a great deal of greed, but not all of it was corporate.[4] Aside from responding to an expanding market, combinations, consolidation and vertical integration came about because of throat-cutting competition, inefficiency in operations, and a general atmosphere of business instability and chaotic conditions. Combinations and consolidations succeeded in providing organization and structure to industry, thus creating a measure of order. Big businessmen became harassed and uneasy about rapid, unpredictable economic change, thus necessitating organization for their own protection. Many businessmen, far from

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[3]Samuel P. Hays, The Response to Industrialism (Chicago: The University of Chicago Press, 1957), p. 29; Fite and Reese, Economic History of the U. S., pp. 348-371.

[4]James A. Barnes, "The Farmer Faces Industrialization," Current History, XXVI (February, 1954), pp. 81-86; Edward C. Kirkland, "Divide and Ruin," Mississippi Valley Historical Review, XLIII (June, 1956), pp. 3-17; Thomas C. Cochran, "The Legend of the Robber Baron," The Pennsylvania Magazine of History and Biography, LXXXIV (July, 1950, pp. 307-321.

fearing governmental regulation, preferred, and in many cases, initiated uniform federal action as a means of creating stability.[5]

Huge consolidations such as Standard Oil and U. S. Steel developed techniques which greatly improved efficiency and stability. Corporate departments managed such major industrial processes as purchasing, manufacturing, marketing, and finance as well as a central office which coordinated and supervised the activities of the departmental agencies. Because of the consolidation of plants under a single manufacturing department, central traffic, purchasing and engineering organizations came into existence. Large scale buying improved routing of raw materials and finished products, and increased systematic plant layout and location with regard to materials and markets, provided greater efficiency. Also, to provide stability and protection, different functional departments coordinated their work by keeping data on costs, sales, and marketing activities. Within each combination, information about markets, supplies, and operating performances filtered up through several levels of departmental hierarchy. Executives on each level specialized in either sales, production, purchasing or finance. In addition, combinations and consolidations financed research centers which improved the efficiency of industry and created plants for the manufacture of by-products, Because of the utilization of electricity in the plants and better transportation facilities, business leaders developed new

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[5]Gabriel Kolko, Railroad and Regulation, 1877-1915 (Princeton: University Press, 1965), p. 239; Kolko, The Triumph of Conservatism (New York: Free Press of Glencoe, 1963), pp. 11-25; See also Robert H. Wiebe, Businessmen and Reform (Cambridge: Harvard University Press, 1962).

techniques and business innovations.[6]

Regardless of the controversy surrounding the combinations and consolidations, the impact that they exerted upon society needs no clarification. In response to western expansion and an intense desire for stability and orderliness, big business, through organization and the development of efficiency techniques, provided a pattern or blueprint for the rest of society to follow. Because elements in American society realized that big business created a preponderance of power that could only be matched by emulation of its methods and techniques, these corporations became the catalysts for a society bent on imitating structure and organization. For this group the motto "united we stand, divided we fall" epitomized the attitude sweeping the country.[7]

A further move in the direction of a more structural economic order was the creation of trade associations. These were cooperative organizations of businessmen engaged in a particular trade or industry for the purpose of protecting and promoting their mutual interests to increase profits and improve service to the public. Because these organizations solved various production and distribution problems pertaining to manufacturers, wholesalers, and retailers, many characterized them as educational institutions from which recent and accurate information regarding problems within their industry could be found.

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[6]G. Harold Powell, Cooperation in Agriculture (New York: The MacMillan Co., 1914), p. 2; Chandler, "The Beginning of Big Business," pp. 26-28.

[7]Southern Cultivator , LX (April 15, 1902), p. 3; Wisconsin Farmer, XIX (March 19, 1900), p. 209; Kansas Farmer, XXXIX (December 19, 1901), p. 1096.

During the latter half of the nineteenth century, the U. S. Brewers Association, National Association of Wool Manufacturers, the American Paper and Pulp Association, and the National Association of Retail Grocers contributed valuable service to their respective industries. Trade Associations, therefore, resulted from the business world's realization that unrestricted competition would be unnatural and fallacious and that constructive, intelligent competition together with studied cooperation was not only desirable but essential to industrial welfare.[8]

Labor, too, saw the value of organization. The formation of unions transformed the aims and activities of American labor from a diffuse, general reform movement into a compact, disciplined fighting group seeking limited and concrete economic gains. Because of mass production and the powerful grip exerted by business combinations and consolidations, the working class organized new labor organizations that concentrated on improving labor's position within the wage system instead of seeking to escape from it into ownership.[9] The new movement found expression in the American Federation of Labor, formed in 1886. Unlike earlier unions, the A F of L accepted the implication of modern industrialism and the wage system. Samuel Gompers and other leaders realized that business organization and concentration was to be a

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[8]Joseph Henry Foth, Trade Associations (New York: The Ronald Press Co., 1930), pp. 3, 4, 10; Emmett Hay Naylor, Trade Associations, Their Organization and Management (New York: The Ronald Press Co., 1921), pp. 3, 4, 23; George P. Lamb and Sumner S. Kittelle, Trade Associations, Law and Practice (Boston: Little, Brown and Co., 1956), p. 1.

[9]Henry Pelling, American Labor (Chicago: University of Chicago Press, 1960), pp. 79-102; Selig Perlman, A Theory of the Labor Management (New York: The MacMillan Co., 1928), pp. 200-207.

permanent fixture of American life, to which a realistic response must be made. Their union, established just as the Knights of Labor lost momentum, was an efficient organization interested in programs that demonstrably and immediately improved the lot of the workers. The A F of L welcomed social critics, consumers, and politicians, but they had to be laborers first. Unconcerned about conditions in some future utopia, the organization worried about "conditions here and now." Working primarily through collective bargaining, the A F of L emphasized higher wages, shorter hours, and better conditions in the shop. This union was the first national labor organization which adopted the strike as a principal weapon in its struggle to obtain a larger share of the good things of life for workingmen. By "fighting fire with fire," labor realized the practicality of efficient organization and realistic programs. By 1900 its membership climbed to 500,000. Although many workers in previous years had expressed dissatisfaction with the "system," the A F of L accepted industrialism and concentrated on working out a place within it. Its very success in coping with day-to-day problems through collective action cemented labor's attachment to the new industrial society.[10]

Even professional men recognized the need for unity as they organized for mutual protection and efficiency. In the latter part of the nineteenth century lawyers, doctors, teachers, and others, seeing the need for organization, created their own professional societies. By adopting a central examining board of skilled physicians to control

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[10]Powell, Cooperation in Agriculture, p. 3; Hays, The Response to Industrialism, p. 48.

admission to practice, the American Medical Association came into being in 1901. With the establishment of the American Bar Association in 1878, lawyers demanded modern scientific safeguards limiting entry into their field, with their own men as the gatekeepers. Teachers began to organize to deal with such problems as tenure, precise salary scales with regular increments, professionalized school administration, non-partisan school boards, and definite procedures for promotions. These grievances and demands eventually led to the establishment of the National Educational Association in 1905. Other professionals recognized the need for organization and structure in the 1880's by establishing such associations as the American Historical Society, the American Political Science Association, the American Economic Association, and the American Statistics Association.[11]

These elements of society which organized to protect their interests placed farmers in a weak and unfair position. On April 28, 1887 a North Carolina journal described the deplorable situation confronting the farmers throughout the United States:

> There is something radically wrong in our industrial system. There is a screw loose. The wheels have dropped out of balance. The railroads have never been so prosperous and yet agriculture languishes. The banks have never done a better or more profitable business, and yet agriculture languishes. Manufacturing enterprises never made more money or were in a more flourishing condition, and yet agriculture languishes. Salaries and fees were never so temptingly high and desirable, and yet agriculture languishes.[12]

The period of Reconstruction had produced a type of agricultural revolution throughout the South. The large plantation owners, unable to cope

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[11]Powell, Cooperation in Agriculture, p. 3; Hays, The Response to Industrialism, p. 48.

[12]Progressive Farmer, (April 28, 1887), p. 2.

with free labor costs and poor cotton prices, either sold their land or developed new arrangements for production. Large estates were divided into segments, thus ushering into being the "era of small farms."[13] Although the demise of the plantation system brought expressions of satisfaction throughout the South, it produced a series of seemingly insurmountable problems. The farmer could not borrow money from banks or other local capitalists because of his small acreage and limited production. Consequently, commission merchants borrowed money from the banks and loaned it to storekeepers who in turn extended credit to the farmers in the form of supplies.[14] This gave rise to the notorious crop lien or mortgage system which plagued all of the cotton growing states. In Arkansas it became known as the "anaconda" policy due to its resemblance to a snake that swallows things whole.[15] The "anaconda" system or the crop lien policy amounted to serfdom for the farmer. Under this system, the farmer gave a lien or a mortgage on his crop which resembled a deed. In exchange for food, clothing, and farm equipment, the farmer pledged his future crop which would enable him to pay

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[13]Henry W. Grady, "Cotton and its Kingdom" found in Joel Chandler Harris, Life of Henry W. Grady including his Writings and Speeches (New York: Cassell Publishing Company, 1890), p. 265; M. B. Hammond, The Cotton Industry (New York: The MacMillan Company, 1897), p. 144.

[14]George K. Holmes, "The Peons of the South," Annals of the American Academy of Political and Social Science, IV (September, 1893), p. 266; Hallie Farmer, "Economic Background of Southern Populism," South Atlantic Quarterly, XXIX (January, 1930), p. 78; Grady, "Cotton and its Kingdom," p. 268.

[15]Frank M. Drew, "The Present Farmers' Movement," Political Science Quarterly, VI (June, 1891), p. 284; W. Scott Morgan, History of the Wheel and Alliance and the Impending Revolution (Hardy, Arkansas: J. H. Rice and Sons, 1889), p. 58.

the debt.[16] This meant that the farmer lost his independence, having no other recourse but to deliver his crops to the merchant, pay him for handling it, and accept the settlement that he offered. In Georgia during the 1870's and 1880's, the farmer paid an average of 54 percent interest on all the supplies he purchased.[17]

After harvesting his crops, the farmer immediately placed a lien on the next year's crops in order to put seed in the ground the next spring. In the 1880's Alabama farmers mortgaged their entire cotton crop before they could plan the harvest. Agricultural leaders estimated that 90 percent of the farmers in that state were involved in the lien system.[18] In describing the nature of the mortgage system in Arkansas, one anonymous writer revealed that

> the instant one of these anaconda mortgages is executed the maker becomes practically the slave of the mortgage; he is deprived of all means of obtaining credit elsewhere; he is compelled to trade with the holder of the mortgage; he cannot object to the quality or the quantity of the goods offered him, nor to the prices charged. If he wants a pair of No. 8 shoes and the trader has a pair of No. 12 unsalable boots, he must take the latter; if he wants a bushel of corn meal, and the trade has a barrel of sour flour, he must take it at a price double that of the sound barrel. If the season is favorable and the industry of the tenant is likely to be rewarded with a bountiful crop, so much the worse for him; commodities at still higher prices are forced on him until the limit of the value of his crop is reached.[19]

Throughout the South farmers remained victims of the system, not knowing what prices they would pay for goods, uninformed about the worth

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[16]Holmes, "The Peons of the South," p. 266; Grady, "Cotton and Its Kingdom," p. 268; H. B. Hammond, "The Southern Farmer and Cotton," Political Science Quarterly, XII (September, 1897), p. 461.

[17]Grady, "Cotton and its Kingdom," p. 268.

[18]Farmer, "Economic Background of Southern Populism," p. 85.

[19]Morgan, History of the Wheel, pp. 58-59.

of cotton, and ignorant of their credit accounts.[20] Because the merchant completely controlled the farmers through the mortgage system, he dictated the crops to be raised, and since cotton was usually marketable, merchants demanded that only this crop be grown. As a result, farmers concentrated on one crop and bought butter, melons, meat, bread, hay, and stock from merchants, who charged an exorbitant price.[21] The farmers could not possibly prosper, paying 75 cents a bushel for corn, $30 a ton for hay, and $20 a barrel for pork while they sold cotton for 8 cents a pound.[22] Many contemporaries suggested that the farmers could regain their independence by providing their own provisions instead of depending upon the merchant.[23]

The ignorance and gullibility of the debtor further aggravated the situation caused by the crop lien system. Farmers blindly accepted the merchant's word regarding the amount they owed and the price paid for their cotton. In many cases, the slick, fast-talking merchant altered the figures, forged signatures, and juggled balances.[24]

Not only did the lien system affect the farmer financially, but it also created despair. Bound helplessly to the merchant, sinking

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[20]Charles H. Otken, The Ills of the South (New York: G. P. Putnam's Sons, 1894), p. 23.

[21]George K. Holmes, "The Peons of the South," p. 267; Hammond, The Cotton Industry, p. 151; Grady, "Cotton and Its Kingdom," p. 269.

[22]Grady, "Cotton and Its Kingdom," p. 270.

[23]Holmes, "Peons of the South," p. 270; Edward W. Bemis, "Discontent of the Farmer," Journal of Political Economy, I (March, 1893), p. 196; C. W. Davis, "Why the Farmer is Not Prosperous," Forum, IX (April, 1890), p. 231; Grady, "Cotton and Its Kingdom," p. 270.

[24]Otken, The Ills of the South, p. 50; Farmer, "Economic Background of Southern Populism," p. 85.

deeper and deeper into debt, farmers became discouraged and disheartened. All incentive gone, they neglected the maintenance on aging buildings, fences, and farm machinery. Many farmers grew lax in meeting their obligations, moving to poorer farms where they lived on the very margin of subsistence.[25]

In the older southern states of Georgia and Alabama where more fertilizers were required, farmers badly needed credit. As a result, a larger proportion of the farms in Alabama and Georgia became more involved in the lien system than in Texas and Arkansas.[26] The southern farmers found themselves inextricably entangled in debts, discouraged and pessimistic toward the future. They saw no way out of their dilemma, and as a result, they simply ceased to struggle.[27]

In the newly settled Plains states farmers experienced severe difficulties but of a somewhat different nature than those in states of the deep South and Southwest. One of the farmer's troubles in that region was the unreliability of the climate. This helped create a "Boom and Bust" situation. For example, in the summer of 1885 a boom began in Kansas, Nebraska, and Dakota.[28] Due to the relatively inexpensive or

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[25]Hammond, The Cotton Industry, pp. 158-160; Farmer, Economic Background of Southern Populism, p. 88.

[26]U. S. Bureau of the Census, Eleventh Census (1890), "Report on Farms and Homes," p. 22; Hammond, "The Southern Farmer and Cotton," p.462.

[27]C. F. Emerick, "An Analysis of Agricultural Discontent in the United States," Political Science Quarterly, II (December, 1896), p. 603; Farmer, "Economic Background of Southern Populism," p. 213; Hammond, The Cotton Industry, pp. 158-160.

[28]Charles Moreau Hargen, "New Era in the Middle West," Harper's Monthly, XCVII (July, 1898), p. 276; Raymond C. Miller, "The Economic Background of Populism in Kansas," Mississippi Valley Historical Review, XI (March, 1925), p. 469.

free land available as well as a widespread advertising campaign, settlers flocked to these states and territories.[29] Many believed that life in Kansas or Nebraska meant perpetual June weather in a land flowing with milk and honey.[30] Not only did advertisements provide incentive for land-hungry farmers, but they also encouraged eastern capitalists to loan money to almost anyone who had some land for security. A manager of a large investment and loan company concluded that

> It is a fact that during many months of 1886 and 1887 we were unable to get enough mortgages for the people of the East who wished to invest in that kind of security. My desk was piled every morning with hundreds of letters, each enclosing a draft and asking me to send a farm mortgage from Kansas or Nebraska.[31]

Five mortgage companies at Topeka, Kansas reported that they loaned $22,000,000 and of this sum 90 percent was invested in Kansas.[32] Due to the prosperous conditions, farmers borrowed heavily to expand their operations and improve their living standards. The height of the boom came in 1887. Speculation became rampant; prices were very good, and the value of land soared. For instance, one farm near Abilene, Kansas, which was purchased for $6.25 an acre sold for $275 an acre in 1887.[33] The prosperity of these two states, which was artificially maintained

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[29]Miller, "Economic Background," p. 471; Hallie Farmer, "The Economic Background of Frontier Populism," Mississippi Valley Historical Review, X (March 1924), p. 409.

[30]J. S. Painter, "Southwest Kansas," Transactions of the Kansas State Historical Society, IV (Topeka: Kansas Publishing House, 1890), p. 285.

[31]W. F. Mappin, "Farm Mortgages and the Small Farmer," Political Science Quarterly, IV (September, 1889), p. 438; Harger, "New Era in Middle West," p. 277.

[32]J. W. Gleed, "Western Mortgages," Forum, IX (March, 1890), p. 93.

[33]T. C. Henry, "A Story of a Fenceless Winter Wheat Field," Transactions of the Kansas State Historical Society, IX (Topeka: Kansas Publishing House, 1906), p. 504.

by speculation and investment, came to a halt in the winter of 1887-1888.[34] Numerous crop failures due to a lack of rainfall brought about the wholesale collapse.[35] During the 1880's, especially in Nebraska, rainfall was above normal, causing many people to believe that moisture followed the plow.[36] However, 1887 marked the beginning of a drought which drove thousands of farmers out of the Plains. A local writer in Nebraska described the conditions there:

> Week after week, the hot burning sun glared down from a colorless steel-blue sky. The dread hot winds blew in from the South. Day after day they continued. All fodder, small grain and corn were cut short. Where farming had been carried on extensively rather than intensively the yield amounted to precisely near nothing.[37]

For the farmer, crop failures meant that he could not make payments on the mortgages which were so generously made during the boom period.[38]

To make matters worse, a severe drop in farm prices accompanied the drought. According to one authority it took approximately 50 cents to raise a bushel of wheat while it was worth 40 cents a bushel in the local market.[39] The price of corn dropped so low in the early 1890's that instead of selling it on the market, farmers used it for fuel rather than the more expensive coal.[40] The situation worsened when

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[34]Harger, "New Era in the Middle West," p. 277.

[35]Farmer, "Economic Background of Frontier Populism," p. 416

[36]John D. Barnhart, "Rainfall and the Populist Party in Nebraska," American Political Science Review, XIX (August, 1925), p. 532.

[37]Ibid., p. 534. [38]Ibid.

[39]L. D. Lewelling, "Problems Before the Western Farmer," North American Review, CIX (January, 1895), p. 17.

[40]Miller, "The Economic Background of Populism," p. 476.

interest rates and the price of consumer products remained the same or failed to decline with farm prices.[41] Many settlers eventually lost their farms because of their inability to pay interest rates and principal.

Lack of rainfall, depreciation of property values, and the decline of farm prices propelled a mass exodus from western Kansas and Nebraska after 1887. Thousands of settlers deserted their heavily-mortgaged farms and began the long trek back to the East. On many of the white covered prairie schooners, the discouraged farmers painted such phrases as: "In God we trusted; in Kansas we busted," or "Going back to the wife's folks."[42] Between 1888 and 1892, one-half of the people of western Kansas left the area while as many as 30 percent left western Nebraska.[43]

Meanwhile, remaining farmers in Kansas and Nebraska seemed totally bewildered and began searching for causes. Refusing to blame themselves or climatic conditions, farmers became convinced that eastern capitalists caused all their troubles. The chief capitalistic enemies were the men who owned the western railroads and who set the excessively high freight rates. For instance, when the farmers shipped corn from Nebraska to Chicago they received nine cents a bushel at the railroad station, while the railroad company received fifteen cents a bushel

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[41]Lewelling, "Problems Before the Western Farmer," p. 17.

[42]Harger, "New Era in the Middle West," p. 277; Miller, "Economic Background of Populism," p. 477.

[43]G. C. Fite, "Flight from the Farm," Nebraska History, XL (September, 1959), p. 170.

for hauling it.[44] The agrarians opposed the view that rates should be based upon the service rendered and insisted that the charges should stem from the cost of producing the crop. Farmers also accused the railroads of stock-watering and overcapitalization.[45] According to many farmers, the elevators often owned by the railroads became oppressive by refusing to allow grain to be loaded directly into the cars from farm wagons and cutting out competition.[46] They were not satisfied with the weighing and billing procedure, nor the service rendered by the railroad. Farmers in the Midwest believed that railroads undervalued their property for taxation purposes and overvalued it for rate-making. In their view, it was simply another example of a capitalistic monopoly attempting to rob them of their sweat-earned rewards.[47]

In addition to the railroads, farmers of the Middle West blamed the financiers of the East for the decrease in the volume of money, and they criticized the middleman who gained an enormous profit handling their goods. The saying, "The farmer accepts what he is paid and pays what he is asked," could have originated in this period, for he had little bargaining power. One writer stated that the middleman came to symbolize "the heartless and soulless corporation."[48] Many farmers who

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[44]Hallie Farmer, "The Railroads and Frontier Populism," Mississippi Valley Historical Review, XIII (December, 1926), p. 388.

[45]Thomas L. Greene, "Railroad Stock-Watering," Political Science Quarterly, VI (September, 1891), p. 474.

[46]Ibid., p. 390.

[47]Fite and Reese, Economic History of the U.S., p. 437.

[48]Ibid., p. 439.

had gone in debt in order to purchase land and machinery were forced to pay excessive interest rates ranging from 8 to 12 percent in some of the Western states while the returns for farm produce dwindled. Farmers also believed that they paid more than their share of taxes. While eastern capitalists were able to avoid full payment because much of their wealth was comprised of intangible assets such as stocks and bonds, or cash, which could be easily hidden from the tax collectors, farmers, on the other hand, could not hide farm real estate from the eyes of the tax collectors.[49]

Truly, farmers faced a multitude of complex and troublesome economic problems. Farmers believed they were being exploited. Why, they asked, were other groups prosperous and so many farmers poor? Because of these problems, unorganized farmers, who acted as individuals, concluded that they could not operate successfully in a society which was highly organized and controlled. The question was whether they could emulate other elements of society in organization and increased efficiency and thereby meet their problems and disadvantages.

Social strain was being experienced by farmers because of economic dislocations and confusion as to their role in a structured society. They sought to ease their plight by crying out in symbolic language against the eastern capitalists, whom they portrayed as leaders in a conspiracy. The distorted ideology expressed through language replaced overt action and served as a temporary roadmap toward order. In their search for permanent order and stability, farm editors and leaders began to encourage progressive farmers to emulate other elements of society in organization and increased efficiency and thereby meet their problems.

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[49]Ibid., p. 441.

CHAPTER III

ORGANIZE OR PERISH

In order to solve many of their economic problems, some farm leaders in the latter part of the 19th century called for agrarian political action and assistance from the government.[1] Many farmers believed that if business could control the government through hand-picked political figures and favorable legislation, farmers could do likewise. James Baird Weaver in 1892 expressed the attitude of many farm leaders in this period by advocating "that force must be met with force. The States should pass penal statutes which will visit personal responsibility upon all agents and representatives of the trust who aid or assist in the transaction of its business within the State."[2]

In the 1870's leaders of the Grange demanded government control and regulation of railroads. Stephen M. Smith, Secretary of the Farmer's State Association of Illinois, concluded that "the Legislature has a right to control the railroads. It has a right to know just how much the service which these render costs, and to enact laws that higher than certain rates are extortionate."[3] So influential was the Grange that

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[1]Fite, Farm to Factory, p. 5.

[2]James Baird Weaver, A Call to Action: An Interpretation of the Great Uprising, Its Sources and Causes (Des Moines: Iowa Printing Co., 1892), p. 441.

[3]Edward W. Martin, History of the Grange Movement (Chicago: National Publishing Company, 1874), p. 370.

it partially controlled the governments of several midwestern states and helped to force through legislation, called the Granger laws, fixing maximum freight and passenger rates for railroads. In Illinois, the storage rates for grain elevators were also set by law.[4]

By the late 1880's many farmers were calling for government ownership of railroads, a graduated income tax, repeal of harsh convict laws, prohibitive taxes on speculative landholding, and free schools.[5] N. B. Ashby, the Lecturer of the Northern Farmer's Alliance in 1890, said that "public functions should never be permitted to be controlled by private corporation. . . . There is a growing feeling that our government must own railroads or be owned by railroad corporations."[6] In the 1880's and 1890's farmers were quite successful in electing sympathetic allies to the state and national legislature. For example, in 1888, the Agricultural Wheel, a farm organization established in Arkansas, succeeded in electing an Independent to Congress and fourteen Wheel candidates to the Arkansas state legislature.[7] In 1890 Alliance farmers in Georgia "controlled the State Convention, chose the Governor, wrote the platform, named three-fourths of the Senators and four-fifths of the Representatives."[8]

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[4]Solon Justus Buck, The Granger Movement (Cambridge: Harvard University Press, 1933), pp. 194-205.

[5]Morgan, History of the Wheel, pp. 72-75.

[6]N. B. Ashby, The Riddle of the Sphinx (Des Moines: Industrial Publishing Co., 1890), pp. 140-141.

[7]Clifton Paisley, "The Political Wheelers and Arkansas' Election of 1888," The Arkansas Historical Quarterly, XXV (Spring, 1966), p. 17.

[8]Anonymous, "The Farmer's Alliance in the Southeast," Harpers' Weekly (December, 1890), p. 970; Arnett, The Populist Movement, p. 116.

As an additional counterpart to business control, many farmers argued that inflation of the currency through the free and unlimited coinage of silver would raise prices and help depression-ridden farmers.[9] In 1894 after reviewing the uncertainty and economic distress of the country in his Coin's Financial School, William H. Harvey concluded that "Wall Street looks in vain for an excuse to account for the failure of prosperity to return since the repeal of the silver purchase act."[10] Inflation seemed to be the solution to the farmer's problems. The Populist Party, organized in 1890, spoke to their needs by emphasizing, among other things, free and unlimited coinage of silver. After suffering defeat in the presidential election of 1892 and gaining momentum in the Congressional elections of 1894, farmers placed their hopes in the hands of William Jennings Bryan. Appealing to farmers by campaigning for free silver, Bryan anticipated victory in 1896. Unfortunately, in that election, characterized as the most important contest between 1860 and 1912, W. J. Bryan and the agrarians were defeated by William McKinley and the industrialists. Even so, some of the programs which farmers advocated were eventually adopted.[11] Thus, from the early 1870's, beginning with the Grange movement, to the Populist defeat in 1896, farmers sought to counteract business control of government by taking an active role in legislative and political matters.

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[9]Fite, Farm to Factory, p. 5.

[10]William H. Harvey, Coin's Financial School (Chicago: Chicago Publishing Co., 1894), p. 4.

[11]John D. Hicks, The Populist Revolt, pp. 404-421.

While many farmers clamored for some kind of governmental assistance for agriculture, other farm leaders were advocating self-help through economic organization. They believed that farmers could increase their bargaining power by collective or group economic action.[12] One of the first to advocate organization was Oliver H. Kelley, a native of Boston, Massachusetts, who had served several years as a clerk in the Bureau of Agriculture in Washington, D. C. In January, 1866 the Department sent him on a three month fact-finding trip through the southern states. Noting the farmers' apathy toward progressive agriculture, Kelley felt this attitude could be traced back to their lack of organization for economic and social purposes.[13] In 1868 he urged them to remember that "united action is necessary to secure success, but to encourage and maintain progressive success, this unity must be made solid and permanent, not trivial and spasmodic."[14] Speaking in 1870, Kelley got to the heart of the farmer's problem when he said that

> merchants have their Board of Trade, Shoemakers have Knights of St. Crispin. Lawyers have their conventions and physicians their conclaves, where prices are fixed, and one dare not disobey the edicts of these unions. But how is it with the Agriculturist? Alas! We have nothing of the kind. Each one is working away against all the world and against each other, unaided and alone. Immense in numbers and wealth, superior to any other calling in these great sources of power, yet we are powerless. An immense helpless mob surging to and fro, without aim or method; the little squads of well-drilled lawyers and doctors charge through and through our poor disordered mass, and freely plunder our pockets.

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[12]Fite, Farm to Factory, p. 5.

[13]Buck, The Granger Movement, p. 41; Martin, History of the Grange Movement, p. 536.

[14]O. H. Kelley, The History of the Patrons of Husbandry (Philadelphia: J. A. Wagenseller, 1875), p. 68.

> Railroads, telegraphs, commission men, mechanics, join in the pursuit with no fear of successful resistance. Like rabbits, we are the prey of hawks by day and owls and foxes by night. Is there no remedy for this? . . . are we willing to admit that, strong as we are in numbers and wealth, we are incapable of self-defense?[15]

Kelley went on to point out that laborers fixed the prices of assistance in the harvest, threshers proposed the price for threshing, railroads fixed prices of grain carried to Chicago; elevators fixed the price of handling it; and buyers finally agreed how much they would give for the grain.[16] "This wheat," Kelley noted, "goes through steamers, sloops, more elevators, more speculators, canals, railroads, etc.; each one absolutely making his own terms, and only the producer and consumer are helpless."[17] The only way farmers could overcome these problems in his opinion was by self-help and economic cooperation. He concluded that "farmers have the power; we must use it. The farmers have got the lines, why don't they drive?"[18]

In 1872 another leader of the Grange, Dudley W. Adams, spoke before the Granges of Muscatine and Union Counties, Iowa. The newly elected Master of the National Grange emphasized that agriculture

> followed as a business, with a reasonable regard to business principles, can be made a business success. . . . We work too much and think too little. We make our hands too hard, while our brains are too soft. The day is long past when muscle ruled the world. . . . It is not the skillful hand, the strong arm, or the watchful eye alone that will in these days bring success to the farmer. These are needful, but a cultivated, intelligent, active brain to direct them is ten times more important. Again I say, we work too much and think too little.[19]

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[15] Ibid., p. 265.

[16] Ibid., p. 266.

[17] Ibid.

[18] Ibid.

[19] Martin, History of the Grange Movement, pp. 522, 523, 524.

Dudley noted that because farmers worked like oxen and not like men and depended on muscle alone instead of making it an auxiliary of the mind, they growled at members of all other industries for combining to oppress the poor farmer.[20] He argued that speakers at agricultural and political meetings and writers in agricultural papers accused organized society of sponging, cheating, and oppressing "until themselves and most farmers really believe that the tillers of the soil are the most industrious, moral, intelligent, hardworking, abused, persecuted lambs in the world, and everybody else are wolves, seeking whom they may devour."[21] In an angry polemic, he called farmers the pawns of organized society by "stupidly hoeing corn fifteen hours a day and selling it at twenty cents a bushel, and then laying awake nights, growling at railroad men and merchants. The dog who barks at the moon comes nearer accomplishing his purpose than such a growler."[22] Dudley believed that the only effective means of competing against others in society involved intelligent organization and cooperation. In this way farmers could govern the price of commodities, influence and make their marks on the institutions of the country, and place themselves in the foremost rank in the nation.
"I speak it in sorrow," Dudley lamented, "that the farmers can furnish but comparatively few men whose minds are fitted to organize great enterprises."[23] Emphasizing the importance of self-help and cooperation, the Master of the National Grange concluded that

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[20] Ibid., p. 525.

[21] Ibid.

[22] Ibid.

[23] Ibid., p. 527.

> human beings are like pebbles on the sea shore; by rubbing against each other they become rounded, smooth, polished, symmetrical; alone, they are rough, uncouth, repulsive. Farmers are too much alone. We need to meet together to rub off the rough corners and polish down into symmetry. We want to exchange views and above all we want to learn to think.[24]

In the early 1880's W. Scott Morgan of Prairie County, Arkansas, an advocate of rural organization and a leader of a farm organization called the "Agricultural Wheel," graphically described the basic problems of farmers and the possible solution.[25] In his History of the Wheel and Alliance and the Impending Revolution, published in 1889, Morgan stated that the

> agricultural masses, who are the most numerous, are kept divided upon great issues which affect their welfare. They are robbed by an infamous system of finance; plundered by tariff companies; imposed upon by an unjust system of tariff laws; deprived of land; fleeced by exorbitant exactions of numerous trusts; they are preyed upon by merchants, imposed upon by lawyers, misled by the politicians and seem to be regarded as the legitimate prey of all other classes.[26]

Morgan and other leaders of the "Wheel" believed that the needs of the farmers had to be met through their own initiative in the form of united action. He observed that farmers, in previous times, had invited lawyers and doctors to address them on questions relating to agricultural interests. In Morgan's opinion, it was essential for farmers to be more than just passive spectators, listening half-heartedly to lecturers who engaged in non-agricultural pursuits. In order to alleviate some of

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[24]Ibid.

[25]George Brown Tindall, (ed.), A Populist Reader, Selections from the Works of American Populist Leaders (New York: Harper and Row, 1966), p. 11.

[26]Morgan, History of the Wheel, pp. 15-16.

their difficulties, farmers had to look more to themselves rather than politicians, economists, and men of other occupations.[27] An editor in California, Missouri agreed with Morgan's views by urging farmers to take initiative on their own rather than accepting a parasitic reliance upon other groups. "Why make a jackass out of yourself," he wrote, "when a little horse sense would save you from becoming a beast of burden."[28]

In addition, Morgan also stressed the essential importance of cooperation and organization. In order to be effective in society, he believed, any body of men had to organize. Morgan reasoned that "lawyers, teachers, physicians, bankers, and tradesmen of all classes have their organizations through which they expect to protect their interests, become more proficient in their respective callings, and wield a more perfect and powerful influence. Then why not adopt the same methods?"[29] The philosophies of Morgan and other leaders of the Wheel eventually laid the ideological foundation for the emulation of successful techniques of big business and labor unions. Leaders of the "Agricultural Wheel" viewed cooperation as an important science and not a passing incident of the industrial movement to be discarded or supplemented by something better after it had served its purposes. Morgan concluded that farmers should adopt effective economic organization because

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[27]Ibid., p. 176; C. S. Walker, "The Farmer's Movement," Annals of the American Academy of Political and Social Sciences, IV (March, 1894), pp. 791-2.

[28]Homer Clevenger, "The Teaching Techniques of the Farmers' Alliance: An Experiment in Adult Education," Journal of Southern History, XI (November, 1945), p. 508.

[29]Morgan, History of the Wheel, p. 144.

> cooperation is the highest of the social sciences--it deals with the social and industrial relations of man in all their ramifications. It is the normal condition of man under a high state of Civilization--it is practical Christianity.[30]

W. W. Tedford, President of the Wattensas Farmer's Club in Prairie County, Arkansas, which provided the impetus for the Agricultural Wheel, contended that organization was an imperative for survival in the new industrial society. Recommending the organization of the Agricultural Wheel for this reason in 1882, Tedford stated that he was "in favor, sink or swim, live or die, survive or perish, of launching our little bark Union on the rolling billows of opposition, and of lashing ourselves each to his post, until by the help of Israel's God we have ridden safely into the harbor of peace, liberty and prosperity."[31]

Leaders of the Alliance movement in the 1880's and 1890's reiterated the importance of self-help, organization, and cooperation. Nelson Dunning, Associate editor of The National Economist, the weekly organ of the Southern Alliance, gave special attention to the need for unity.[32] Writing in 1891, Dunning believed that "the American farmer, in his present condition, is a living example of the folly and disaster which inevitably follow, where one class of citizens permits another class to formulate and administer all economic legislation. In other words, he is the victim of misplaced confidence."[33] Alliance leaders stressed the fact that practically all manufactured products or even

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[30]Ibid., p. 175.

[31]Ibid., p. 64.

[32]Tindall, A Populist Reader, p. 97.

[33]Nelson A. Dunning, The Farmer's Alliance, History and Agricultural Digest (Washington: The Alliance Publishing Company, 1891), p. 5.

raw materials were subject to the guidance of an organization or combination, with the exception of the farm. Because of this, the farmer became the easy prey of others. Dunning believed that when others in society organized it increased their strength, making them a more dangerous enemy, thus calling for a stronger defense. It remained for the farmer himself to solve the problems instead of relying upon legislators, politicians, and economists.[34] Dunning noted:

> Organization, unity of action and continuity of purpose will in the end unite all sections, enrich all communities, and make every citizen equal before just laws. Intelligence to organize, fellow-feeling enough to unite, and manhood sufficient to stand firm, are the necessary requirements to bring this about. Organization is the order of the day. It is the motive power that rules and guides the world. Without it the best of causes will not succeed, while with it the worst cause may prosper for a time. In the great struggle of life, as society is now constituted, organizational evil must be met with organized good; organized greed with organized equity. In the combination of kindred forces lie the astonishing results of modern undertaking.[35]

Although individualism was noble, Dunning believed that trait practiced to an extreme would spell ruin for the farmer. By comparing individual enterprises to organized ones, Dunning pointed to the dangers of unorganized effort. Death, error in judgment, or bad habits could wreck an individual enterprise, but these contingencies were impossible with proper organization.[36] He went on to conclude that

> members of the organization may die, but the organization continues. The aggregate business intelligence of the whole membership is used, and not the single ideas of one. Organizations go on, live on; gathering experience which is stored up; gathering special information which is safely put away; increasing in wealth of which the outside world has no knowledge; using their power when least expected, and for objects that require years of patient waiting and calculation to perfect and mature. These considerations not only

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[34] Ibid., p. 7. [35] Ibid. [36] Ibid.

> recommend a system or organization to all progressive minds, but make them absolutely necessary for success in modern business. One thing is certain--organization as a factor of our modern civilization has come to stay. It cannot be eliminated, but may be, to a greater or less extent, will be sought under all conditions and by all classes of people, and those who ignore its power or underestimate its strength are sure to have cause for regret in the end.[37]

In his opinion, farmers should organize for the same reason as their enemies, for individual benefits through combined effort. He believed that farmers should "organize to watch their enemies, to consider their motives, and, if possible checkmate their designs, when aimed at you or your business. This is a selfish world, and they who fail to realize this fact are quite sure to find it out when too late."[38]

Shortly after the turn of the century, agricultural leaders intensified their efforts in advocating self-help and organization. James Butler, Secretary of the Farmer's Cooperative Grain and Livestock Association, wrote in 1901 that "this is an age of evolution; the individual is lost sight of, and associations are at the helm."[39] He noted that railroads had bound themselves into communities of interests; skilled labor had associated into a hundred or more different trade unions; and every manufactured commodity was controlled by associations. Butler sadly reported that

> the farmer is still the same individual he was a century ago. He is between the upper and nether millstone being reduced to dust, he is, so to speak, up against all of these combinations single handed and alone, and is the only man in the world that cannot put his own price on the products of his own labor. The success of the world's

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[37] Ibid., pp. 7-8.

[38] Ibid., p. 9.

[39] Kansas Farmer, XXXIX (June 20, 1901), p. 563.

> great captains has been their ability to concentrate and hold a superior force against the weakest part of the opposing forces. In action there is strength.[40]

Writing for the Kansas Farmer in 1902, Butler emphasized that

> there is a work to be done and you must go at this work in a business way and employ and pay for services in the same liberal manner that other companies of like magnitude pay. All successful business combinations have been accompanied by unity of action on and loyalty to plans adopted. Businessmen do not stand back and sulk because all their views are not embodied in a plan. They work for success and make improvements as fast as success can be demonstrated to the management. Farmers must act in this same way to be successful. The great mass of farmers have not yet aroused from their slumber, awakened to their interest, or realized their power.[41]

A. R. Sprague, President of Southern California Deciduous Fruit Exchange and Manager of the California Fresh Fruit Association, encouraged farmers of Southern California to organize the marketing of their products. Fruit growers were sending tens of thousands of cars of perishable products yearly without any common plan, glutting first one market and then another. Many growers lost heart and refused to send their fruit to market, preferring rather to let it rot under trees where it fell. Sprague stressed what previous leaders had fervently preached:

> All the rest of the industrial world has set about the correction of such extravagant waste and the California fruit grower is almost the only class that now disregards this law of "organize or perish." It is the method tried thousands of times in the last few years and always successful when fairly tried. It is cooperate and be as faithful to your own organization as are other kinds of cooperators to theirs.[42]

Charles S. Barrett of Union City, Georgia became President of the Farmer's Union in 1906. Addressing the Farmers Educational and

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[40] Ibid.

[41] Kansas Farmer, LX (June 2, 1902), p. 33.

[42] California Cultivator, XVII (July 26, 1901), p. 49.

Cooperative Union of America in September of 1908, Barrett spoke candidly to the audience:

> Without organization and cooperation, without education and persistence, never-tiring effort, without sacrifice and obedience to discipline, you can never obtain the true reward for your labor; you can never rise, as a class, above the hardships and oppressions that have always been visited upon the man who creates wealth by the sweat of his brow; you can never win the income to which you are entitled, that you may properly feed and clothe and house your wife and educate your children. Without organization you will be as helpless against the man who would prey upon your efforts as one man would be against an army.[43]

Barrett believed "kings, lords and barons" of industry and finances in 1908 had speedily adjusted themselves to conditions. They recognized that organizational system and business-like methods had taken the place of the old ways of concentrating wealth. Barrett stressed that

> the producer of cotton and corn and wheat and what-not has not placed himself upon a plane of equality with the modern kings, lords and barons. He has failed to fight with the modern weapons of organization, system and cooperation; and he pays the penalty. He clings to the methods that were in use at the time of Adam, and complains because of the results.[44]

Repeating the message of earlier leaders, the Farmer's Union President complained that farmers brought their products to market and took what was given them. The buyer simply dictated what he was willing to give, and the producer humbly accepted. "What other corporation, one horse or Standard Oil," Barrett asked, "would calmly submit to such conditions? Is it any wonder, then, that wealth is accumulated in a few hands; that we find trouble developing our waste places; that the farmer as a class is the poorest of our population, when he should be the richest?"[45]

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[43]Quoted in George McGovern (Ed.), Agricultural Thought in the Twentieth Century (Indianapolis: The Bobbs-Merrill Company, Inc., 1967), p. 46.

[44]Ibid., p. 47.

[45]Ibid.

In his book The Mission, History and Times of the Farmer's Union, published in 1901, Barrett noted that if Standard Oil, the Swifts, the Cudahys and the Nelson-Morris Company owned their power of control to simple cooperation, the farmer could do likewise.[46] Summing up, Barrett concluded that farmers worked and starved and saved for years to secure a little patch of dirt upon which to build a home. "But in this age," he noted, "the trend under speculation is towards the accumulation of vast estates and a complete control of that substance produced by the farmer. A complete system of cooperation is the only means by which these speculators can be met and defeated."[47]

In the early 1900's James A. Everitt urged farmers to apply self-help and cooperation in overcoming their economic problems. Everitt claimed to spend much time in thought; in fact, his every waking moment, he said, was given over to "originating ideas and revolving plans in my brain."[48] In 1904 he asserted that:

> If the farmer is to be free himself from the compulsion to which he is now subjected, he must do so by his own act. A prosperity won by one's own efforts is better and more securely based than that created and guaranteed by government. The solution of the problem is not to be found in Washington but on the farm. There is no need to ask for favors. . . . It is clear that the farmers need not look to law-makers, Divine Providence, or anywhere but to themselves.[49]

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[46]Charles Simon Barrett, The Mission, History and Times of the Farmer's Union (Nashville: Marshall and Bruce Company, 1909), p. 93.

[47]Ibid., p. 96.

[48]Theodore Saloutos and John D. Hicks, Agricultural Discontent in the Middle West, 1900-1939 (Lincoln: University of Nebraska Press, 1951), p. 113; J. L. Nash, "Building a Farmers' Monopoly," World Today, XIII (July, 1907), p. 717; Robert Lee Hunt, A History of Farmer Movements in the Southwest (College Station, Texas, 1935), pp. 104-108.

[49]Up-To-Date Farming, VII (July 1, 1904), p. 14.

According to Everitt, if farmers realized the importance of initiative and self-help, organization would naturally follow. From the very beginning he stressed that farmers should organize not for political, but for business reasons. It was crucial for farmers to have something to say about prices received and in some way control production. "Working single and alone," Everitt believed, "farmers are as powerless to make progress as are the beasts that meekly serve them without thought of their own share in the value of their labor."[50] He stressed that the larger the class to which an individual belonged, the weaker he was. The agricultural class was the largest class; therefore, the individual farmer was the weakest person when standing all alone.[51]

Everitt reasoned that if farmers organized and cooperated they could become the "third power." According to Everitt, the first power was the money force which he believed to be the strongest of the three. He did not condemn the concentration of money in great enterprises because he conceived that "aggregated wealth is to some extent a necessity in order to carry out undertakings of magnitude."[52] The second power was organized labor, a force so strong that capital was compelled to treat labor on a just and equitable basis. Everitt noted that "it is no longer the individual workman that the capitalist has to deal with, but a solid phalanx of individuals, a body cooperative. . . . Without organization, the skilled labor of America would be impotent before the

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[50]Up-To-Date Farming, VII (December 1, 1908), p. 2.

[51]Up-To-Date Farming, VII (June 15, 1904), p. 1.

[52]Up-To-Date Farming, VI (May 1, 1903), p. 4.

money power."[53] The third power or force which Everitt called "the upheaval of the base" because it supported all other forces in the creation and application of the wealth of the nation, constituted the producing class; the farmers and agriculturists of the land, if properly organized. Everitt reasoned that"when the farmers were organized and cooperated they would be the greatest union and the most powerful body on earth. Then the unit, or individual farmer will be as strong to accomplish any object for his good as the combined strength of the millions of units."[54] In Everitt's opinion, farming constituted a business quite as truly as manufacturing and that the same laws governed both. Thus, if farmers wanted to be the "third power" the farmers "should learn from the experience of other workers units, combination, cooperation, mutual helpfulness, each for all and all for each, instead of the fierce guerilla warfare of competition."[55]

In addition to the efforts of general farm organization leaders, editors and writers for major farm journals from every section of the country attempted to persuade farmers of the virtues of self-help and cooperation. The Southern Planter, published in Raleigh, North Carolina, in 1888 reported that organization was the watchword of the hour. According to one writer:

> The dullest man must see that every interest is organizing in its behalf and those who fail to follow this example will stand a poor chance in the competition of the future. The great trouble is

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[53] Ibid.

[54] Up-To-Date Farming, VII (January 15, 1905), p. 6.

[55] Up-To-Date Farming, VII (October 1, 1904), p. 12.

> that where farmers are not organized they will talk about it all winter, but won't get ready to act until spring, when there is a hurry of work and then it is too late. Make a start now in some form.[56]

A writer for the Kansas Farmer in 1897 noted that the farmers of Kansas were certainly as intelligent as the average businessman. When the manufacturers got an oversupply of products on hand they stopped production, thus keeping up prices; but "when the farms get a short crop the railroad company puts up the freight." The writer concluded by asking, "Is it not time for farmers to begin the study of cooperation?"[57]

James B. Simpson, writing for the Texas Farmer in 1900, noted that the farmer was the prey of all trusts and combinations, and he pleaded with farmers to help themselves by cooperation.[58] The Southern Cultivator, published in Atlanta, after noting in 1902 that all other trades had organized, believed "that there is but one remedy left for the farmer, and that is to combine to protect themselves both in buying and selling."[59] And finally, Aaron Jones, writing for the New England Farmer in 1906, observed that

> Practical cooperation is the tendency of the age. All other professions and industries do not hesitate to avail themselves of it in various ways that give them great advantage over individual effort. Farmers need cooperation more than any other business and they use it less.[60]

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[56]Southern Planter, XLIX (February, 1888), p. 68.

[57]Kansas Farmer, XXXV (June 17, 1897), p. 2.

[58]Texas Farmer, XII (July 21, 1900), p. 2.

[59]Southern Cultivator, LX (April 15, 1902), p. 3.

[60]New England Farmer, LXXXV (August 18, 1906), p. 1.

Farm leaders during the latter part of the 19th and the early part of the 20th century attempted to awaken and alarm the farmer concerning his plight. Their unified clarion call resounded over and over: stability would come only when farmers practiced self-help and cooperation. Farm leaders insistently warned that other occupations were organizing and reaping benefits, while individualistic farmers stubbornly resisted change and obstructed programs. Their plea stressed that "united we stand, divided we fall," and "organize or perish." One Question remained: could individualistic farmers take the ideology and philosophy of farm leaders concerning economic organization and put it into action?

CHAPTER IV

COOPERATION: BUSINESS FAILURE AND SUCCESS

In 1874 Edward Winslow Martin's History of the Grange Movements spared no words in condemning the profits of the middleman. After noting that farmers paid too much for farm machinery, Martin said that "the immense profits of general agents and sub-agents have been added to the manufacturer's prices; then, when cash has not been paid, the prices have been still further increased to cover interest at twenty percent. The grand result is, that the farmers pay from 50 to 100 percent more for their machinery than they ought."[1] The "Patron's Handbook" of 1874 stated the chief problem of the farmer in this manner: "We must dispense with the surplus of middlemen, not that we are unfriendly to them, but we do not need them. Their surplus and their exactions diminish our profits."[2] These statements by contemporaries expressing their discontent regarding such grievances as lack of competition among buyers of farm products, poor services, dishonest grading, short weights, and excessive commissions pointed up a need for cooperative organization.

Farmers believed that they could increase their bargaining power by group action. Organization would enable them to exert some influence on the prices which they received for their produce, and by cooperating

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[1]Martin, History of the Grange Movements, p. 337.

[2]Quoted by Fite and Reese, Economic History, p. 445.

as consumers they could buy their non-farm commodities at cheaper prices. Farmers hoped that cooperative action would compel manufacturers to lower their prices and reduce or eliminate the middleman's margin on the sale of agricultural produce.[3]

Cooperative leaders expressed a keen interest in the efficient methods of distribution employed by American industrialists. They felt that the business world's techniques were admirable and adaptable to the farmers' situation.[4] According to one authority, the cooperatives had no special methods, they simply imitated the practice of the private business organization. The Rural Northwest, a popular farm paper, described a cooperative in this way: "There is no mysterious power about a cooperative organization. The more nearly it resembles other successful organizations in its business methods the more it is to succeed."[5] Henry Wallace, editor of Wallaces' Farmer, believed that the cooperative constituted the highest form of business and was "the only way in which general business could fully square itself with the teachings of the Sermon on the Mount."[6]

Farm cooperative ventures were not new in the 1870's. Prior to that period a number of cooperative dairy establishments, fruit, cotton,

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[3]Miller, "Economic Background of Populism," p. 425; Oklahoma Champion (Stillwater), I (February 6, 1896), p. 3; Henry H. Bakken and Marvin A. Schaars, The Economics of Cooperative Marketing (New York: McGraw-Hill, 1937), p. 8.

[4]Theodore Saloutos and John D. Hicks, Agricultural Discontent in the Middle West, p. 60; E. G. Nourse, "The Outlook for Cooperative Marketing," Journal of Farm Economics, IV (April, 1922), p. 80.

[5]Rural Northwest (Portland), XII (March 15, 1903), p. 193.

[6]Wallaces' Farmer, XIV (April 21, 1899), p. 358.

livestock, and wool marketing associations had been organized. These associations were primarily local in scope, and their activities continued for only a short time.[7] With the establishment of the Grange in 1867, under the direction of O. H. Kelley, business cooperation grew in popularity. The Grange proposed to "stimulate cooperation among farmers, to encourage farmers to be more self-sufficient, to urge diversified production, to eliminate middlemen, to obtain lower interest rates, and to advance the cause of education among ourselves and for our children."[8] At its annual meeting in St. Louis in 1874 the National Grange adopted a declaration of purposes, which contained this statement: "We propose meeting together, talking together, working together, buying together, selling together, and, in general acting together for our mutual protection and advancement."[9] To farmers complaining of burdensome expenses and high prices, the Grange furnished a standard under which, it was believed, their scattered forces might unite for the march to prosperity. Farmers quickly saw that membership fees in the Grange were but a fractional part of the sum which the Order promised to save them every year by cooperative buying and selling.[10]

During the early history of the Order, members banded together locally and appointed agents to secure supplies at lower prices by

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[7]Bakken and Schaars, The Economics of Cooperative Marketing, p. 66.

[8]Fite and Reese, Economic History, p. 443.

[9]R. H. Elsworth, The Story of Farmers' Cooperatives, Farm Credit Administration Circular No. 23 (Washington, 1928), p. 4.

[10]Fite, Farm to Factory, p. 6; Solon Buck, The Granger Movement, pp. 238-240.

bulking orders and dealing as directly as possible with manufacturing and jobbers. The agents also attempted to limit the profits of middlemen by shipping produce directly to large markets instead of disposing of it to the local dealers and commission men. Aside from effecting great savings for members, Grangers believed that these operations would naturally tend to force local dealers to lower their prices in order to meet the competition, thus benefiting many who were not members of the Order.[11]

Eventually, local agencies merged into county or district councils and these in turn grew into state bodies. Unfortunately, the National Grange failed to work out a comprehensive cooperative program, so that each State Grange was left to its own devices.[12] State purchasing agents saved farmers thousands of dollars by negotiating with manufacturers and wholesalers of implements, supplies, and staple foods. In Iowa alone it was estimated that Grangers saved 15 percent on family supplies and 20 percent on farm machinery through the agency system.[13] As an example of the difference between individual and cooperative buying, a reaper which had been retailing at $240 was sold to Granges for $140.[14] In Chicago, Montgomery Ward and Company sold household and

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[11]Kelley, Patrons of Husbandry, pp. 35, 79, 112-114. Everett E. Edwards, "American Agriculture--the First 300 Years," Yearbook of Agriculture, 1940 (Washington: U. S. Government Printing Office, 1941), p. 243; Fite, Farm to Factory, p. 6.

[12]Edwards, "American Agriculture," p. 243; Fite, Farm to Factory, p. 6.

[13]Fite, Farm to Factory, p. 6.

[14]Buck, Granger Movement, p. 244.

farm supplies at low marginal prices, thus bringing considerable savings to cooperative members.[15]

State Granges not only employed purchasing agents, but also those who could profitably market their goods. In Iowa, where cooperation first achieved marked success, Grange marketing agents shipped 5 million bushels of grain and large numbers of cattle and hogs direct to Chicago, effecting a saving of 10 to 40 percent by the end of 1872.[16] The Alabama, Mississippi, and Louisiana State Granges employed cotton selling agencies who negotiated with New York, New Orleans, and Liverpool. In 1874 the Louisiana Grange conducted $744,000 worth of business through cotton-selling state and local agents.[17] It appears that state grange agents of one sort or another sprang up in the decade of the seventies throughout the United States from Maine to California.[18]

In spite of temporary success, some agency systems ultimately failed. Many mercantile companies issued lists of goods and prices to be distributed among Grangers, but sometimes farmers refused to pay for commodities when they were delivered. In some cases the agents, employed by farmers, absconded with funds entrusted to them. Often Grange members lost faith in the agency system because organizations did not

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[15]Prairie Farmer, XLV (February 14, 1874), p. 52; Thomas Clark Atkeson, Semi-Centennial History of the Patrons of Husbandry (New York: Orange Judd Co., 1916), p. 81; Benjamin Horace Hibbard, Marketing Agricultural Products (New York: D. Appleton and Co., 1922), pp. 201-202; Prairie Farmer, XCIII (February 12, 1921), p. 274.

[16]Buck, The Granger Movement, pp. 243-244.

[17]Prairie Farmer, XCIII (February 12, 1921), p. 275.

[18]Buck, The Granger Movement, p. 255.

always provide an efficient system of distribution.[19] Although the agency system disappeared, while it was in active operation it effected great reductions in the cost of implements and supplies and saved the patrons a considerable amount in commission on produce.[20]

During the early period of the Grange, farmers believed that if savings could be made through cooperative purchasing and selling, even more benefits could be derived from manufacturing their own products. In Iowa the state agent found it impossible to induce manufacturers of harvesters to sell to the Grange at wholesale rates. Thus, in 1873, Iowa Grangers investigated the possibilities of manufacturing their own harvesters. After purchasing the patent on a machine known as the Werner harvester for $1000, Grangers established factories in Iowa, Minnesota, and Nebraska. By the summer of 1874, Grangers had manufactured 250 machines, selling them for $140 each, a savings of 50 percent.[21] Many of the machines proved to be defective, and others arrived too late from the foundries to be used in the harvest. In nearly every case, factories lost money on the venture. In addition, the Marsh Harvester Company in 1875 threatened suits for infringement of patents, annulling any further production of the harvesters.[22]

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[19]Holmes, Farmers Cooperatives, p. 8; Hibbard, Marketing Agricultural Products, p. 201; Fite, Farm to Factory, p. 7.

[20]Fite and Reese, Economic History, p. 445.

[21]Prairie Farmer, XIIV (1873), p. 139; Western Rural, XIII (June 12, 1875), p. 188.

[22]Ibid.

In Iowa during the 1870's, the Grange also established a twine binder plant, but its machine lacked standardization and inexperienced agents sold the unsatisfactory binders to farmers who were unfamiliar with them. Meanwhile, independent manufacturers bent all their energies toward overcoming these initial difficulties.[23] General implement factories manufacturing seeders, hay rakes, and cultivators, sprang up in Kansas, Louisiana, Missouri, Wisconsin, Illinois, Indiana, and Tennessee. Granges manufactured sewing machines and twine binders, attempting to reduce the prices by at least half.[24] In the South farmers founded grist mills, hemp factories, pork packing establishments, and starch factories, while in the North they established cooperative creameries.[25]

Unfortunately, however, many Granger manufacturing plants were established and managed by farmers who had never learned the first principles of business life. Although patrons bought patents and established farm implement factories, their efforts were short-lived due to a lack of capital and skill. Furthermore, the improvements of skilled and experienced competitors soon made cooperative products obsolete.[26]

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[23]Prairie Farmer, XCIII (February 12, 1921), p. 274; Hibbard, Marketing, p. 201.

[24]Country Gentleman, LXXXV (May 15, 1920), p. 171; Florence Parker, The First 125 Years (Superior, Wisconsin: Cooperative Publishing Association, 1956), p. 17; Ralph Smith, "The Cooperative Movement in Texas, 1870-1890," Southwestern Historical Quarterly, XLIV (July, 1962), p. 40.

[25]Prairie Farmer, XCIII (February 12, 1921), p. 275.

[26]Kansas Farmer, XLI (February 5, 1903), p. 141; H. Clyde Filley, Cooperation in Agriculture (New York: John Wiley and Sons, Inc., 1929), p. 358; Ralph Smith, "The Cooperative Movement in Texas, 1870-1890," p. 40.

In 1875 the National Grange abandoned the agents and commissions for the Rochdale Plan, by which shares were sold to members for the establishment of a cooperative. This proved better suited than the agency system for the needs of farmers. Borrowing the principles from English workingmen of the 1840's, the Grange applied these ideas to an agrarian people suffering from the predominance of industrialization.[27] Grange leaders used businesslike methods to establish principles which would govern consumer and marketing cooperatives, insurance companies, and even banks. Under the Rochdale system, the leaders emphasized net savings rather than profits. For example, cooperative elevators would theoretically reduce the cost of handling grain from the farmer's wagon to the market by charging regular prices, but distributing profits back to the member on a pro-rata basis according to the amount purchased. Thus, the elevator would effect a net savings by returning part of this profit back to its patrons at the end of the year.[28]

At the end of each quarter the member in a consumer cooperative store presented his tickets and received a dividend set at a certain percentage based upon the value of his purchases; the greater the value of his purchases the larger the amount of his dividend.[29] Clarence Poe, editor of The Progressive Farmer, contrasted a cooperative with a

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[27]Norman, "Business Cooperatives Organized in Agriculture," p. 256; Hamilton, "Judicial Tolerance," p. 256; G. Harold Powell, Cooperation in Agriculture (New York: The MacMillan Co., 1914), p. 16.

[28]Filley, Cooperation in Agriculture, p. 2; Hibbard, Marketing Agricultural Products, p. 292; Joseph G. Knapp, Farmers in Business (Washington: American Institute of Cooperation, 1963), p. 22.

[29]Norman, "Business Cooperation in Agriculture," p. 256; Filley, Cooperation in Agriculture, p. 22.

private corporation when he described a corporation "as an aggregate of dollars for the purpose of hiring men to make profits for the dollars while a cooperative association comprised a collection of men for the purpose of hiring dollars to make savings."[30]

Secondly, under the Rochdale plan, consumer and marketing cooperatives would reward their members in proportion to patronage based on volume of business instead of paying them in porportion to the number of shares they purchased. The man who purchased shares received a set percent on his capital investment and was limited to the amount of capital stock he might control. This kept the shares well distributed and increased the democratic aspects of the program. Therefore, the success of the cooperative rested largely upon the member who conducted a large amount of business rather than those who supplied capital and received shares of stock.[31]

A third principles of the Rochdale plan emphasized that each member was entitled to only one vote regardless of how many shares of stock he held in the cooperative corporation. Generally, if a stockholder owned fifty shares of stock, he possessed fifty votes, but farmer cooperatives stressed the democratic idea of one man, one vote.[32]

Fourthly, the original owners of cooperative stores sold goods at regular retail prices and required cash payment. Had the Coops

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[30]Wilson Gee, The Social Economics of Agriculture (New York: The MacMillan Co., 1932), p. 286.

[31]Powell, Cooperation in Agriculture, p. 41; Hayes, Response To Industrialism, p. 59.

[32]Hayes, Response to Industrialism, p. 59; Saloutos and Hicks, Agricultural Discontent, p. 60; Filley, Cooperation in Agriculture, p. 22.

extended credit they might have found themselves short of goods and without money to pay for them. They also felt that to grant credit to some and accept cash from others represented rank discrimination.[33]

Finally, in the Rochdale system, ownership was to be limited to farmers, landowners, or producers who expected to do business with the organization. Usually the only prerequisite for membership was the willingness of members to cooperate. When any member dropped out and wanted to dispose of his shares, he was not permitted to transfer indiscriminately because that recipient might prove to be an enemy of the organization. The transfer of stock required approval by the board of directors.[34]

From 1875-1880, the enthusiasm and craze for cooperation resulted in the establishment of economic ventures of every conceivable form. After 1875 Grangers began to expand their power through cooperative purchasing associations. In 1875 farmers in Allegan County, Michigan organized the Cooperative Association of the Patrons of Husbandry, modeled after the Rochdale system. Serving families belonging to the 15 granges in the county, the association functioned as an order-buying club, each family making out a list of its needs for 30 days. Eventually, after acquiring a stock of goods, the association established a country store in order to serve the patrons better.[35] In Ohio Grange farmers

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[33]Filley, Cooperation in Agriculture, p. 22.

[34]Bakken and Schaars, The Economics of Cooperative Marketing, p. 15; L. J. Norton and L. L. Scranton, The Marketing of Farm Products (Danville, Illinois: Interstate Printing Co., 1934), p. 137.

[35]Elsworth, The Story of Farmers' Cooperatives, p. 5.

organized the Cincinnati Grange Supply House in the middle 1870's to supply goods to local granges and cooperatives in Ohio and surrounding states.[36] Thousands of cooperative stores dotted the agrarian landscape promising savings for the consumer who had suffered from the middleman system. Many of these stores had been organized before the establishment of the Rochdale plan, selling goods at reduced prices. Although a large number failed, others succeeded by reorganizing according to the Rochdale system.[37]

In 1876 Grange farmers established the Johnson County Cooperative Association at Olathe, Kansas to operate a general store. Following the Rochdale plan "in its purity," the store had sales of $41,000 in the first year. In 1891 sales totaled nearly $270,000. The main store sold groceries, meats, "gentlemen's goods, custom-made and in cloth," ladies furnishings, hardware, and agricultural implements. There was a printing and publishing business as a sideline activity. In 1891 it was stated that "these 700 grangers are today worth $150,000, more than they would have been had they never undertaken this cooperative work."[38]

During the late 1870's there was at one time a Grange store in practically every county in the state of Ohio.[39] Cooperative stores in Texas especially prospered. In 1885, 150 of these cooperative ventures

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[36]Fite, Farm to Factory, p. 7.

[37]Ibid.; Edwards, American Agriculture, p. 244; Parker, The First 125 Years, p. 11; Prairie Farmer, XCIII (February 12, 1921), p. 274.

[38]Elsworth, The Story of Farmers' Cooperatives, p. 5.

[39]Ohio Farmer, CI (1902), p. 32.

sold nearly two million dollars of goods, from which profits of over $250,000 were divided among the members.[40]

In addition, farmers organized marketing cooperatives such as grain elevators, warehouses, and creameries. Iowa Grangers in the seventies were much concerned with farmer-owned facilities for handling grain. From 1871-1878, Iowa farmers established four associations for operating elevators.[41] During this period the Kentucky grangers sponsored warehouses for receiving and handling tobacco.[42] In 1878 the Illinois State Grange encouraged a holding campaign for thirty-six days until hog prices came up to an acceptable standard but it resulted in more talk than accomplishment.[43] Grangers established cooperative banks and insurance companies. Banks in New York and Kansas were organized to prevent discrimination against farmers, to secure lower rates of interest, and to prevent speculators from using the banks as tools in manipulating markets.[44] The Granger's Bank of California went into operation on August 1, 1874 and within a year had two million dollars on deposit and a paid-up capital of about half a million dollars.[45] Fire insurance companies sprang up, with assessments being apportioned according to losses. Grangers established life insurance companies in

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[40]Buck, The Granger Movement, p. 266.

[41]Prairie Farmer, XCIII (February 12, 1921), p. 275.

[42]Elsworth, The Story of Farmers' Cooperatives, p. 7.

[43]Prairie Farmer, XCIII (February 21, 1921), p. 275.

[44]Parker, The First 125 Years, p. 11.

[45]Elsworth, The Story of Farmers' Cooperatives, p. 7; Buck, The Granger Movement, p. 271.

Kansas, Wisconsin, South Carolina, Maine, and New Hampshire.[46] Many of these Grange cooperatives did not organize entirely according to Rochdale principles, but farmers still gained valuable experience from cooperative effort from these enterprises.[47] In seven years from 1871 to 1879, a total of 21,911 local Grange cooperatives sprang into existence, conducting millions of dollars of business. In 1874, Grangers established a record of 11,927 while in 1875 they originated 2,311. In 1879, only 28 Grange cooperatives were established.[48]

By the close of the '70's a majority of the Grange cooperative ventures had failed and disappeared.[49] Although the many granges modeled their cooperatives after corporate enterprises, these ventures succumbed because the farmers failed to practice business techniques and methods. Business conducted upon the cooperative plan was subject to the same economic and business laws as private enterprises, but the farmers were slow to realize this. A strange delusion seemed to prevail among farmers that some mysterious magic or subtle charm would guide the cooperative ventures to success without their having to practice the very latest and best business methods. They failed to realize that cooperative business necessitated the same elements of experience, ability and integrity that had been so essential for success in other

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[46]Prairie Farmer, XCIII (February 12, 1921), p. 275.

[47]Fite, Farm to Factory, p. 8.

[48]Elsworth, The Story of Farmers' Cooperatives, p. 7.

[49]Country Gentleman, LXXXV (May 15, 1920), p. 17; Parker, The First 125 Years, p. 12; Edwards, "The First 300 Years," pp. 260-261; Kansas Farmer, XLI (February 5, 1903), p. 141.

kinds of business.[50]

Farmers made their first mistake by rushing pell-mell into all types of cooperative enterprises, without considering the necessity for adequate capital or careful advance planning. Many farmers rushed into these ventures without really visualizing objectives that could be realistically achieved. Having no idea about the nature and aims of business establishments, many dreamed of a political party emerging; others viewed the cooperative as a means of smashing the railroad; almost all hoped to find in cooperation a panacea for poverty. With so many purposes and no unified interest, the real object of the associations became obscured, defeating the aims necessary for the conduct of a business enterprise.[51]

The most crucial business blunder involved the proper selection of competent and efficient managers. In cooperative ventures ranging from stores, insurance companies, banks, and marketing associations, farmers ignorantly overlooked expertise, experience, and business abilities as prerequisites for cooperative managers.[52] In a consumer marketing cooperatives, expert management was more essential than commercial enterprises of equal size. The manager in a cooperative not only had to conduct business effectively but also to recognize the close,

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[50]Wallaces' Farmer, XXXV (August 5, 1910), p. 1043; Progressive Farmer, XXI (May 3, 1906), p. 9; New England Farmer, LXXXV (August 11, 1906), p. 2.

[51]Thomas N. Carver, "Cooperation: The Moral Basis of Cooperation" taken from John Phelan, Readings in Rural Sociology (New York: The MacMillan Co., 1924), p. 127.

[52]Holmes, Farmers' Cooperatives, p. 8.

personal interest of every member and maintain harmonious contacts with each individual.[53]

Farmers were also unwilling to pay what a good manager was worth, and they failed to insist upon business competence and experience as qualifications. While they were willing to pay a good farm wage for a prospective manager to move into town and conduct the business, they would not pay the salary which a man of business ability demanded for conducting a business of like magnitude. To the farmers, a thousand dollars a year represented a very large sum for the management of grange stores.[54] Because of their unwillingness to pay a respectable salary for competent leadership, many cooperatives settled for men who were impractical, incompetent and often lacking in integrity, tact, and judgment. As a result, these managers were unable to compete against trained middlemen who had grown up in the business and devoted their individual attention to it.[55] In many cases the farmers chose their managers because they were fiery orators, good Masons, or loyal grangers and enthusiastic instead of selecting men whose ability and experience peculiarly fitted them for that line of work.[56] The editor of the Progressive Farmer warned the farmers that:

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[53]Norton and Scranton, The Marketing of Farm Products, p. 147.

[54]Rural Northwest, XIV (December 1, 1905), p. 81; Oregon Agriculturist and Rural Northwest, XII (June 15, 1902), p. 293.

[55]Prairie Farmer, XCIII (February 12, 1921), p. 275; Wallaces' Farmer, XXXV (August 5, 1910), p. 2.

[56]Progressive Farmer, XXI (May 3, 1906), p. 9; New England Farmer, LXXXV (August 11, 1906), p. 2.

> . . . it didn't matter whether or not the manager split his shirt and electrified his audiences in behalf of his association, but it was a life and death matter as to whether or not he had the experience and the cool business ability required to make the yearly balance come out on the right side of the ledger.[57]

In many cases the directors of the various farm cooperatives contributed to this downfall. They did not take the vital interest in the affairs of the coop that was taken by railroad or bank directors in their respective companies, since in the one case the investment was small and in the other case, large. Failing to look upon their organization as a business venture, many directors did not lay out policies in a farsighted, businesslike manner. Directors quarreled over matters which true businessmen would have thought trivial.[58] Because the farmers only spent two or three days a year attending cooperative meetings and transacting its business, they did not demand the proper discipline of their directors. In some cases they followed their leaders blindly. As a result, some directors became dictators rather than co-workers with the rank and file. Consequently, too much faith in their leaders destroyed many cooperatives.[59]

In the Rochdale plan which served as a business guide for cooperatives, the original planners emphasized the importance of cash as opposed to credit. However, the cooperatives in the 1870's and 1880's soon disregarded this sound business policy and extended credit to farmers who were unwilling or unable to pay for their commodities.

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[57] Ibid.

[58] Norton and Scranton, The Marketing of Farm Products, p. 144; Progressive Farmer, XXI (May 3, 1906), p. 2.

[59] Texas Farmer, XXV (April 22, 1905), p. 4.

Many cooperative managers departed from the cash system because of pressure exerted by customers and competitors. It proved quite difficult to refuse credit to a customer who had been a neighbor for years. Private concerns also lured the farmer away from cooperative stores by extending liberal credit terms or by underselling. The cooperative stores extended credit in order to compete successfully.[60] In some cases, farmers could not pay their obligations to cooperatives and when they had cash for commodity purchases, they were ashamed to go into the store and trade because of the debts hanging over them. Thus, farmers' cooperatives found themselves in a bind because if they adhered to the cash system, farmer members withdrew because of the denial of credit; and where credit was given, losses were sustained on bad accounts. Either way, the stores lost.[61]

The success of any company whether private, or corporate, depended upon the unwavering support of its stockholders; but the cooperative ventures relied upon the temper of its members. Probably this lack of support resulted from a lack of appreciation of the importance of membership loyalty rather than an intentional act.[62] When cooperative creameries were established it proved to be very difficult to hold the patrons if an outsider offered more money per pound than the cooperative creamery could give. Private stores sometimes offered lower prices to

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[60]Ralph Smith, "The Cooperative Movement in Texas," p. 40.

[61]William C. Smith, The Business of Farming (Cincinnati: Stewart and Kidd Co., 1914), pp. 40, 45.

[62]Hibbard, Marketing, p. 303; Norton and Scranton, Marketing of Farm Products, p. 149.

buyers while non-coop marketing concerns gave higher prices to sellers in order to weaken and destroy the coops through desertion of their association.[63] These patrons, because of business incompetency, were not broadminded enough to see beyond their present advantage. It is ironic that many Grange stores lost by succeeding, because in compelling local merchants to lower prices, they lost their hold on patrons who could see little reason for buying at cooperative businesses.[64]

The cooperative, in the main, ignored accounting, bookkeeping and auditing which were so essential in operating any successful business. An inadequate accounting system meant that books were not properly kept, thus failing to show the condition of the business, the amount patrons owed, and other similar facts. Because of unsatisfactory and crude record keeping, injustice to both creditors and members resulted, causing many to disassociate themselves from cooperative organizations.[65] Many cooperatives failed to realize the importance of periodic audits, which would have checked the conduct of the business and provided valuable hints regarding the reasons for past success or failure. Regular checking would have improved the caliber of management which was lacking in so many cooperatives.[66]

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[63]Wallaces' Farmer, XXXV (August 5, 1910), p. 1043; Yearbook of Agriculture, 1910, p. 397.

[64]Hibbard, Marketing, p. 206.

[65]J. F. Booth, "A Half Century of Cooperative Marketing in the U. S. and Canada," The Annals of the American Academy, CXLII (March, 1929), p. 409; Norton and Scranton, Marketing of Farm Products, p. 147.

[66]Ibid.

Finally, many cooperative ventures failed to take advantage of general corporation laws which protected members from heavy losses. By failing to incorporate, the rights of individuals were not protected. Articles of incorporation would have stated completely the exact powers of the association and the bylaws, in all probability, would have provided a workable plan for carrying on its business.[67]

Although many of the Grange cooperatives failed, they "contributed positive, if somewhat limited, results to the infant agricultural cooperative movement in the United States."[68] The many successful cooperatives demonstrated that if farmers worked together they could save patrons money in buying and selling. They also pointed out to many farmers that by utilizing self-help they could, even if in a limited way, successfully deal with businessmen.[69]

The failures of the Grange did not completely squelch the farmers' desire to improve their economic position by gaining control of buying and selling their products. In the 1880's the Northwestern Alliance and the Southern Alliance, like the Grange in the previous decade, paved the way for united economic action.[70] In much the same manner, farmers established a number of cooperative stores, insurance companies, banks and factories in order to alleviate the gross exactions

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[67]Gee, The Social Economics of Agriculture, p. 291.

[68]Fite, Farm to Factory, p. 8. [69]Ibid.

[70]Morgan, History of the Wheel, pp. 105-106; Anonymous, Harper's Weekly, "The Farmer's Alliance in the Southeast," XXXIV (December, 1890, p. 70; Solon J. Buck, The Agrarian Crusade (New Haven: Yale University Press, 1920), p. 112; Smith, "The Farmer's Alliance in Texas," p. 348; Edwards, American Agriculture, p. 245; Fite, Farm to Factory, p. 9.

of middlemen and manipulators of agricultural markets. A number of grain elevators sprang up in Minnesota and the Dakotas, while cooperative creameries functioned in the dairy states. The Alliance also experimented with the purchasing agency system.[71]

In 1887 farmers established the Dakota Farmers' Alliance Company which attempted to save money by purchasing supplies in wholesale lots. The company bought coal, binder twine, and other goods; and in turn sold to cunsumers through local cooperative and Alliance agents.[72] The southern phase of the Alliance cooperative movement proved to be more ambitious than the rest of the country. Local Alliances established cooperative stores, elevators and gins. In 1886, the Texas State Alliance established business agencies to make purchases directly from wholesalers and manufacturers.[73] Under C. W. Macune, a Texas agrarian leader, a Farmers' Alliance Exchange was organized to sell farm produce and buy farm supplies. The Exchange succeeded in marketing cotton and grain to advantage and in purchasing farm implements at a substantial discount which was passed on to the farmers. Because the great mass of farmers in Texas could not pay cash, local alliances were asked to execute joint notes which they hoped would be accepted as collateral at face value by the banks. The scheme failed when banks refused money on the notes and the exchange was forced into bankruptcy.[74]

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[71]Fite, Farm to Factory, p. 9. [72]Ibid.

[73]Edwards, American Agriculture, p. 245.

[74]Ralph A. Smith, "'Macuneism,' or the Farmers of Texas in Business," Journal of Southern History, XIII (May, 1947), p. 228; Robert Lee Hunt, A History of Farmers' Movements in the Southwest (College Station: Texas A and M Press, 1935), p. 32-33.

In Alabama the Alliance became very active in organizing Alabama farmers in business ventures. Seeking to eliminate the middleman, the Alliance established fertilizer companies, bagging plants, and warehouses. Farmers established the Alabama State Exchange as a cooperative marketing and purchasing agency. The Exchange limited membership only to farmers. The Alliance became the first "trust buster" in Alabama by boycotting the jute monopoly and making its own bagging out of cotton. Threatening to establish their own factories, the Alabama Alliance members forced the Jute Trust to lower its prices to a fair level.[75] The slogan of the Alliance was no more mortgages, no more credit system, or crop liens.[76]

By 1890, the Farmers Alliances in both the North and the South began to shift their emphasis toward political action. As a result, interest in cooperative enterprises declined and many of the cooperatives failed for much the same reasons as had those of the Grange. Once more farmers did not seem to realize the importance of utilizing businesslike techniques in the operations of their cooperatives. Despite the failures of the Alliance cooperative movement, farmers gained further experience in cooperative economic activities.[77]

The decade of the nineties marked a turning point for cooperation, and the following two decades a period of rapid fruition. Between 1890

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[75]Clark, Populism in Alabama, pp. 73-77; Sheldon Hackney, Populism to Progressivism in Alabama (Princeton: Princeton University Press, 1969), p. 8.

[76]Clark, Populism in Alabama, p. 74.

[77]Edwards, American Agriculture, p. 245; Fite, Farm to Factory, p. 9.

and 1895, more cooperative associations sprang up and survived than in all previous years.[78] However, their uniqueness and significance did not stem from the number established, but the beginning of a new philosophy emphasizing business techniques and procedures. The cooperative movement from 1869 to 1889, although based upon a solid business foundation which was patterned after the Rochdale system, had not emulated the business practices necessary for successful operation. Prior to 1890, successful business cooperatives were exceptional with many failing because of the lack of business experience, inefficiency and purpose.[79] Some cooperatives failed after 1890 because of improper business techniques, but in general a greater businesslike feeling permeated agricultural society. Writing for the Yale Review in 1909, John Lee Coulter described the difference between the two cooperative movements. Believing that the earlier cooperative movement emphasized the political and social sides too heavily, he characterized "system and business being substituted for the older cooperative movement which was too largely the tail to a kite."[80]

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[78]R. H. Elsworth, The Story of Farmers' Cooperatives, p. 10; R. H. Elsworth, Agriculture Cooperative Associations, U. S. Department of Agriculture Technical Bulletin No. 40 (Washington, 1928), pp. 2, 6-8; Theodore Saloutos and John Hicks, Agricultural Discontent in the Middle West, p. 56.

[79]E. K. Eyerly, "Cooperative Movements Among Farmers." Annals of the American Academy of Political and Social Science, XL (March, 1912, p. 59; J. F. Booth, "A Half Century of Cooperative Marketing in the U. S. and Canada," p. 409.

[80]John Lee Coulter, "Organization Among the Farmers of the U. S." The Yale Review, XVIII (May, 1909), p. 292.

Around the turn of the century cooperation emphasized the marketing of agricultural commodities rather than manufacturing and consumer operations. The numerous successes stemmed from the sagacity and business sense of the directors and the strong, aggressive, and experienced leadership of well-paid managers. Under expert leadership many of these marketing cooperatives compared favorably with the efficiency of business corporations. They further imitated the modern corporations by reducing costs and waste, centralizing sales, and emphasizing research. Successful marketing cooperatives after 1890 involved such farm commodities as milk, grain, fruit, livestock, cotton, tobacco and vegetables.[81]

By 1900 there were about 2,000 farmers' marketing cooperatives; approximately four-fifths of this number was cooperative creameries or cheese factories located primarily in Minnesota, Wisconsin, Iowa and Illinois.[82] Unlike cooperative elevator companies and fruit exchanges, the creameries developed during a period of little active opposition. Instead, the dairy farmers organized because they felt the necessity for a more efficient system of manufacturing and marketing butter and competition and opposition from private concerns began only after the proven success of the cooperative ventures. During the late 1880's to 1890's cooperative creameries developed rapidly in the Plains States

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[81]Booth, "A Half Century of Cooperative Marketing," p. 409; R. H. Elsworth and Grace Wanstall, Farmer's Marketing and Purchasing Cooperatives, 1863-1939, U. S. Department of Agriculture Miscellaneous Report No. 40 (Washington, 1941), p. 1.

[82]R. H. Elsworth, "A Quarter Century of Cooperative Development," Cooperative Marketing Journal, I (December, 1927), pp. 30-31; Martin A. Abrahamsen and Claude L. Scroggs, Agricultural Cooperation (Minneapolis: University of Minnesota Press, 1957), p. 21.

where grain prices were low and crops not always certain. In Kansas alone, farmers established 500 cooperative creameries during this period.[83] Usually dairy farmers operated their creameries by one of two methods. Under the whole milk system farmers brought the fresh milk each morning and took the skim milk back with them to the farm. In this arrangement all the machinery for separating was at the factory and the only expense to the farmer was the cost of delivery.[84] To save the expense of hauling milk to the creamery, farmers sold hand-separated cream. The milk was skimmed with a hand separator, then picked up by creamery wagons three times a week in summer and twice in winter. When it reached the factory workers mixed, ripened and churned it.[85]

Patterned after the Rochdale plan, these cooperative creameries sold stock and gave dividends in porportion to the milk delivered. Good business practices were essential. The De Smet Creamery of Kingsbury County South Dakota and the Minerva Valley Creamery located at Clemons, Iowa, organized in 1890, both attributed their success to sound business policies.[86] In 1900 Minnesota officials collected material which showed that only 12 per cent of the 600 cooperative creameries in that state had failed since 1890, and most of these failures occurred in the earlier years of the decade when some of the farmers had not

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[83]Filley, Cooperation in Agriculture, p. 296; Orange Judd Farmer, XLV (September 4, 1909), p. 193.

[84]Dakota Farmer, XXIII (February 15, 1903), p. 26; Filley, Cooperation in Agriculture, p. 297.

[85]Dakota Farmer, XXII (February 15, 1902), p. 4.

[86]Orange Judd Farmer, IX (September 3, 1910), p. 219; Dakota Farmer, XXII (February 15, 1902), p. 26.

learned the necessity of following strict business principles. Where ordinary sagacity and business sense were applied, failures were few.[87]

Grain farmers in Illinois, Iowa, and other grain raising states suffered because they found themselves at the mercy of private elevators which seemed to make profits much larger than was indicated by apparent margins.[88] During the 1880's, farmers formed many cooperative elevator companies, but few survived, since the founders were ignorant of the principles of cooperation which the Rochdale pioneers had emphasized. In 1889 the farmers of Rockwell, Iowa conceived of a cooperative elevator which made it possible for them to prosper in spite of unfair competition. This cooperative proved to be a breakthrough for the grain elevator movement and provided a successful pattern for others to follow. The farmers in Rockwell felt that the two "regular" dealers were not paying a fair price for grain. Being careful to organize their company according to the Rochdale system, they were particularly attentive to selecting directors and managers who had a high standing in the community and possessed outstanding business ability.[89] To prevent any outsider from buying up a controlling interest in the stock, no member was allowed to own more than ten or twenty shares. In declaring dividends, only a small amount was issued and the balance of the profits was

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[87]W. S. Harwood, "Cooperation in the West," Atlantic Monthly, LXXXV (April, 1900), p. 541.

[88]H. E. Erdman, The Farmer's Elevator Movement in Ohio, Ohio Agricultural Experiment Station Bulletin No. 331 (Wooster, Ohio, 1918), p. 139; Filley, Cooperation in Agriculture, p. 49.

[89]Dakota Farmer, XXIII (July 15, 1903), p. 3; Florida Agriculturist, XXX (May 20, 1903), p. 318.

divided according to the amount of business each member gave to the organization.[90]

The most outstanding business feature of the Rockwell organization involved a "penalty" or "protection" clause which protected the new elevator company from being beaten by organized monopolies. The penalty clause provided that members were to pay a commission of one half cent per bushel for every bushel of grain sold either to their own company or to those of their competitors. The half cent a bushel which the farmers paid when they sold the grain to their own company represented approximately the cost of handling the grain. So that they might not be deprived of this income even though some sold to a competitor, who would bid high, the cooperative provided that its members should pay into its treasury one half cent for every bushel of grain which they sold to a competing elevator. This eliminated the temptation for the farmers' cooperative to bid a high price and subsequently take a loss. The cooperatives, in effect, could not be ruined by the high prices paid by a competitor, even though these high prices would prevent the farmers' company from securing any grain. The income of the company would still continue to be as great as before, while its expenses would be slightly reduced.[91]

Using the penalty clause as an effective weapon against the outbidding of the line elevators, the five hundred Rockwell farmers won

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[90]Ibid.; H. A. Wood, "A Farmer's Trust," World's Work, VI (July, 1903), p. 3651.

[91]Filley, Cooperation in Agriculture, p. 50; Wisconsin Farmer, XXIII (May 12, 1904), p. 258.

a lengthy, fierce battle. Because of their extraordinary determination and their willingness to impose upon themselves a sufficient tax, they led the way for other such organizations throughout the grain raising states. By 1904, 500 farmers' companies in the central states utilized the Rockwell system in their quest for survival. By 1907, about 1,000 such cooperative ventures were scattered throughout the United States.[92] Of the 1400 cooperative grain elevators established between 1875-1900, only fourteen discontinued operations.[93] It would seem that the great majority survived because of the adoption of sound business techniques, especially after the turn of the century.

In addition to milk and grain, farmers established many cooperatives dealing with livestock. Cooperative livestock shipping on a businesslike basis originated in 1904 in Iowa. From 1904 to 1908 a few associations scattered through Iowa, Wisconsin and southern Minnesota were organized for this purpose. Livestock cooperation came about because local buyers, who operated as middlemen between the producer and buyer, discouraged competition and in the process made a handsome profit.[94] The livestock shipping associations simply functioned as an assembling organization to ship members' and sometimes non-members' stock directly to terminal markets to be handled by commission firms. The manager, usually a member of the association, notified members on

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[92]Eyerly, "Co-operative Movement Among Farmers," p. 59; Wisconsin Farmer, XXIII (May 12, 1904), p. 258.

[93]Elsworth and Wanstall, Farmer's Marketing and Purchasing Cooperatives, 1863-1939, p. 24.

[94]Elsworth, The Story of Farmers' Cooperatives, p. 12.

what day stock was to be shipped, supervised weighing, loading, billing, received returns from sales, and made distribution of proceeds to shippers. The livestock associations followed a simple business procedure. Since the overhead cost was low and little capital was required, the associations organized as a non-stock, non-profit association. The association charged a small membership fee to secure money for scales and incidental expenses.[95]

While many farmers were forming cooperative creameries, grain elevators, and livestock shipping associations, others began cooperatives which would encourage the control of production and sales. In the early twentieth century the Farmer's Union and the Society of Equity, both founded in 1902, exerted a considerable influence upon acreage reduction and price fixing.

At Raines County, Texas, Newt Gresham founded the first local of the Farmer's Educational and Cooperative Union of America.[96] Basically appealing to poor dirt farmers, the Union grew very rapidly during its first four years, spreading into seventeen states. The Preamble of the Union's constitution stated the basic purpose for existence: "to secure and maintain profitable and uniform prices for grain, cotton, livestock and other produces of the farm."[97] The movement sought to get

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[95]Coulter, "Organization Among the Farmers of the U. S.," p. 294; Filley, Cooperation in Agriculture, pp. 303-304.

[96]Charles S. Barrett, The Mission, History and Times of the Farmer's Union (Nashville, Tenn.: Marshall and Bruce Co., 1909), p. 103.

[97]Ibid., p. 105.

a larger share of the price paid by the consumer for farm products for the farmer who produced the products.[98]

During the first years of existence, the Farmer's Union focused its greatest attention on the marketing of cotton. It undertook a plan to fix a minimum price below which the farmer was advised not to sell. For the crop of 1906 the Union set a minimum price of eleven cents, and during the fall months the price rose from 9.25 cents to 10.75 cents, after which it continued to rise until it reached 13 cents in August of the following summer.[99] The Union claimed credit for this success, having persuaded the farmers of the South to withhold their cotton until later in the season rather than selling it at harvest time which was customary. In subsequent years the Union failed in its plan to withhold cotton for higher prices. Although unable to control completely the situation during the early 1900's, the Union had, at least temporarily, performed an important service in steadying the market. By persuading the farmers to hold more cotton off the market during October, November, and December, the Union prevented the extreme decline in prices which occurred at that time of year.[100]

In addition to its withholding plan for cotton, the Union encouraged the farmers to limit their cotton acreage and to diversify production. To withhold cotton from the market after it was grown might accomplish the desired result temporarily, but the Union impressed

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[98]Texas Farmer, XXV (November 12, 1904), p. 8.

[99]Progressive Farmer, XXII (December, 1907), p. 8.

[100]Ibid.

upon farmers that larger cotton crops were sometimes worth less to the producers than were the smaller ones. In 1905 the Union, along with the Cotton Grower's Protective Association, advised a reduction of 25 percent in production. This effort brought some results as the acreage fell from thirty million to twenty-six million, around half as much as had been proposed; and the price was 25 percent above that of the preceeding year.[101] This success proved to be short-lived because in the next year the farmers ignored the advice of diversification and smaller crops. The reason, of course, was obvious: it was advantageous for an individual to have a large quantity of cotton to sell when his neighbors had less than usual. In the spring of 1908 the Union sent out a circular calling upon all members of the organization to plow up at least 10 percent of the growing crop. Some was plowed up, but there is little evidence that any appreciable amount of the acreage was destroyed.[102]

It became obvious that if farmers were to hold cotton for a specified minimum price, something had to be done to improve cotton storage facilities since holding cotton in farmyards without shelter caused deterioration and huge losses. To avoid the losses suffered by inadequate shelter, the Union sponsored a warehousing building program, where cotton would be protected from weather, theft and fire. In addition, the stored cotton furnished collateral upon which the grower could borrow money. Consequently, the warehouse program assisted the

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[101] Progressive Farmer and Cotton Plant, XX (July 25, 1906), p. 4.

[102] Hibbard, Marketing Agricultural Products, p. 242.

farmers in protecting and financing their crops. By February of 1909 there were 1,500 farmers' warehouses in operation.[103]

J. A. Everitt, the organizer of the Society of Equity, displayed concern that farmers lacked a voice in purchasing goods and selling products. Everitt felt that farming was also a business, and if other businesses could limit output, raise prices, and regulate wages, the farmer should do likewise. His solution for the age-old problems of the farmer involved putting business methods and organization into all aspects of farming from production to the marketing of commodities. According to Everitt, previous farmers' organizations had attempted to pull business down to the agrarian level, but the Society determined to construct a trust which would match the best of industry. The leaders of the Society urged the farmers to act like captains of industry instead of assuming the role of a humble, exploited worker. The movement spread somewhat slowly at first, but by 1906 there were state organizations in Indiana, Illinois, Kentucky, Nebraska, Kansas, Oklahoma, Arkansas, and New York.[104]

The Society of Equity included ideas not embodied by previous farmer's organizations. In regard to organization, the Constitution of 1907 provided for local, county, state, section, department, and district unions which, in turn, sent delegates who would serve as a

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[103]O. W. Hermann and Chastina Gardner, Early Developments in Cooperative Cotton Marketing, Farm Credit Administration Circular No. C-101 (Washington, 1936), p. 14.

[104]Up-To-Date Farming, IV (December 15, 1901), pp. 2-4; V (January 15, 1902), pp. 8, 9; V (February 15, 1902), p. 8, 12; Also, a good summary is found in Everitt's address at the annual meeting in St. Louis, IX (November 1, 1906), pp. 4-6, 18.

National Union. The section unions' responsibility was to report supply and demand and direct market operations. State, county, and local unions then performed the functions recommended by the section unions. The department unions, independent of the section unions, were organized to carry on marketing operations for a particular crop. The district unions were to be organized as a subsidiary of the department unions in such cases where the crop varied as to type, such as tobacco.[105]

The first major effort to implement these ideas involved an attempt to increase the price of wheat. Wheat farmers complained that seventy cents a bushel for wheat was so low that it did not provide slight profit after paying the expenses of production. In 1902 the Society campaigned for "dollar wheat" by advising farmers to withhold their crop from the market until the amount sold would bring the desired price.[106] This necessitated the building of granaries on the farm, cooperative warehouses, and elevators at railroad stations in order to store grain and be in a position to sell at a more advantageous price. The farmers in Minnesota and the Dakotas responded to the dollar wheat campaign by keeping their wheat out of the markets during the autumn months of 1903 and 1904. By February, 1904, wheat reached one dollar a bushel, partially due to the agitation by the Society. However, a more important factor in rising prices was probably the poor crop of 1904. Nevertheless, the Society took full credit for the upsurge

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[105] Up-To-Date Farming, VIII (May 1, 1905), pp. 4-5.

[106] Up-To-Date Farming, VI (June 1, 1903), pp. 3-4.

in prices.[107]

By 1904 the Society broadened the scope of its price fixing into other commodities such as beans, oats, and cotton. Attempts to raise the price of tobacco in Kentucky brought national attention to the Society. In the "Black Patch" of Kentucky, some 40,000 tobacco farmers created an association which demanded that tobacco prices be raised from six cents to eleven cents. Not all farmers were willing to join; consequently, "night riders," visiting these laggard farmers, coerced most of them into joining. Eventually the American Tobacco Company and other buyers were compelled to pay the price demanded by the farmers. Although numerous farm magazines severely criticized night rider tactics, the Society claimed a large part of the credit for the higher prices.[108]

Perhaps even more spectacular was the Burley Tobacco Grower's campaign in the hill country east of the Blue Grass region. The Society's plan was to force the American Tobacco Company to pay what growers felt was a fair price by reducing production, pooling the crop, and advancing money to farmers on pooled tobacco. From 1906 through 1908 the tobacco crops were pooled in hopes of getting 15 cents a pound. Night rider methods were used to maintain control. Finally in 1908, the American Tobacco Company complied by paying as much as seventeen

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[107]Dakota Farmer, XXIV (October 15, 1904), p. 2.

[108]Up-To-Date Farming, VII (May 15, 1904), p. 6; Martha McCulloch Williams, "The Tobacco War in Kentucky," American Review of Reviews, XXXVII (February 1908), pp. 168-170; Saloutos, Farmers Movements in the South, pp. 175-177.

to twenty cents to the farmers. In 1909 no crop was pooled, production advanced and subsequently the price dropped to half that of the year before. As a result the American Tobacco Company held a more complete monopoly than ever before.[109]

After its reorganization in 1907, the Society emphasized the building of cooperative elevators and warehouses and establishing exchanges for handling produce and supplies. It also sought legislation favorable to farmers. Through the efforts of the Equity, growers enhanced their bargaining power and became more informed about marketing. The Equity, in addition, served as a training ground for many leaders who later established successful cooperative marketing and purchasing associations.[110]

Even though the farmers grew more sophisticated in business procedures during this time, their cooperation was inferior to that of business. A cooperative effort that came closer to the emulation of business practices, which had seemed to put industry at an advantage over farmers, involved the fruit growers in California.

In California it became evident to the farm leaders that the farmer's bargaining power could never be adequately enlarged by small, isolated associations. Consequently, a federation of local associations emerged which emphasized the cooperation of cooperatives. In 1893 the fruit growers in Southern California were desperately discouraged.

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[109]Hibbard, Marketing Agricultural Products, p. 230; Robert H. Bahmer, "The American Society of Equity," Agricultural History, XIV (January, 1940), pp. 50-52; Saloutos, Farmers Movements in the South, pp. 178-179.

[110]Fite, Farm to Factory, pp. 9-10.

Since a few large packing concerns dominated the citrus industry, the growers received only enough to pay freight charges. In April of 1893, T. H. B. Chamblin of Riverside visited every citrus section of Southern California, convincing growers that a combination was necessary to change and improve marketing conditions.[111] However, it was two years before cooperatives came together and formed the Southern California Fruit Exchange.[112] Under this federated plan the local associations appointed representatives, proportioned usually to the carloads of oranges controlled by each association. These district exchanges received orders for fruit and apportioned them to the local associations, attended to shipments and collections, and distributed the receipts to the associations.[113] By 1902 over eighty associations formed into about fifteen District Exchanges, each employing a competent secretary.[114] The central body, the Southern California Fruit Exchange, was governed by a board consisting of one representative from each district exchange. The central organization appointed a general manager, organized and supervised eastern agencies, made sales, prorated orders to the district

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[111]California Cultivator, XXXIV (February 24, 1910), p. 227; XVIII (April 18, 1902), p. 243.

[112]Wilson Gee, The Social Economics of Agriculture, p. 286; California Cultivator, XXX (February 13, 1908), p. 163; H. E. Erdman, "The Development and Significance of California Cooperatives, 1900-1915," Agricultural History, XXXII (July, 1958), p. 181.

[113]Erich Kraemer and H. E. Erdman, History of Cooperation in the Marketing of California Fresh Deciduous Fruits, Agriculture Experiment Station of Berkeley, California, Bulletin No. 557 (Berkeley, 1933), p. 41; California Cultivator, XVIII (April 18, 1902), p. 243; XXVII (October 18, 1901), p. 243.

[114]California Cultivator, XVIII (April 18, 1902), p. 243.

exchanges, provided a telegraphic bureau for information, and fixed the policies of the entire administration.[115]

A slight change in organization and name occurred in 1905 because farmers desired a stronger corporate body, and the shipping of fruit from central and northern California points necessitated a more widespread organization. Covering all areas of California, the organization in southern California expanded into the California Fruit Growers Exchange.[116] By 1905 this organization supervised the sale and distribution of oranges from the time they left the tree until they were in the hands of eastern consumers. In many instances the history of a box of oranges was as carefully and completely compiled as the biography of an important individual. In its journey across the continent the oranges remained constantly under the eyes of inspectors who controlled the destination of each car. The exchange kept its inspectors at all diversion points along the main transcontinental lines; these men reported daily the percentage of decay and general condition of each car, the hour of departure and any other pertinent information.[117] Beginning at 8 o'clock, telegrams requesting fruit orders were sent to the central office in Los Angeles which in turn transmitted the news to interested exchanges. A complete statement of the day's business was first sent to the Los Angeles morning newspaper then to local

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[115] Ibid.

[116] California Cultivator, XXXIV (February 24, 1910), p. 227; Gee, The Social Economics of Agriculture, p. 288.

[117] California Cultivator, XXXIV (February 24, 1910), p. 227.

associations, thereby keeping everyone in close contact with his part of the business. The central exchange handled the fruit to the best possible advantage and kept every market evenly supplied.[118]

Working in harmony, the local associations attended to the packing, the district exchanges supervised the shipping, and the central body arranged the sales. Through this businesslike procedure the growers paid only the exact cost of handling their fruit. The total cost of packing, shipping, and marketing in 1908 averaged 35 cents per box, while 75 cents was considered a low figure previous to the perfecting of this organization. Also, before organizing this farmers exchange, the charges of commission men for selling and handling the fruit alone were higher than the entire organizational charges.[119] After the total cost was computed at the first of each year, the net profit went to the manager of the orchard. Thus, the fruit grower planned, dominated, and controlled absolutely the organization for the common good with the profit shared according to the amount shipped.[120]

Farm journals in all parts of the country conceded that the California fruit growers had established the most successful cooperative organization in the United States. It seems quite obvious that the success was related to the strength of their federated organization and the employment of competent and businesslike leaders. By the turn of

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[118] Ibid.

[119] Erdman, "The Development and Significance of California Cooperatives, 1900-1915," p. 180; California Cultivator, XXX (February 13, 1908), p. 163.

[120] Ibid.

the century the marketing system demanded broader commercial functions which could only be provided by an organization that incorporated local cooperative units. Local associations such as cooperative creameries, elevators, livestock shipping, cheese factories, milk-retailing companies, and fruit packing houses served a very important function. By careful planning and efficient management, these associations greatly improved local marketing conditions, but obviously they did not apply in larger terminal markets and nationwide services, such as those of storing, distributing, and selling.[121]

Realizing that the farmer's bargaining power could never be adequately enlarged by small, isolated associations, fruit growers formed a federated organization which resembled business corporations in practice and technique. By effectively controlling 70 percent of the fruit in California, they enhanced their bargaining power. Such an organization employing capable and intelligent managers, obtained information on general business conditions, consumer demand and the intricacies of transportation and finance. Through technical skill, proper equipment, credit facilities, commercial contact, live-wire advertising, the establishment of selling, collection and other facilities, the Exchange successfully competed in the new commercial markets.[122]

However, one question remains unanswered. Why were the California fruit growers able to create such a strong, inclusive organization capable

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[121]Holmes, Farmer's Cooperatives, p. 207; Gee, The Social Economics of Agriculture, p. 287.

[122]John Hanna, Law of Cooperative Marketing Associations (New York: The Ronald Press Co., 1931), pp. 7-9; California Cultivator, XXXII (February 25, 1909), p. 222; Charles Dahlinger, The New Agrarians (New York: The Knickerbocker Press, 1913), p. 135; E. G. Nourse, "The Revolution in Farming," p. 101.

of achieving businesslike success while other farmers in the country continued to operate through local cooperatives or in some cases loosely organized and weaker federated systems? In all probability, many progressive farmers realized the advantages of large scale cooperation and desired to establish such an organization, but the nature of their product as well as the area involved made this very difficult. In California, because of the nature of their product and the comparatively small and concentrated fruit area involved, the Exchange was able to control the process from production through marketing fruit. It was much easier for an organization of this type to control fruit cooperatives in a 100,000 square mile area rather than to regulate cooperative grain elevators scattered throughout Iowa, Minnesota, Kansas and the Dakotas. Because of sheer distance, a larger organization found it difficult to control local cooperatives involving grain, livestock or milk.[123]

Fruit growers in California also seemed more willing to accept the guidance of a federated organization because of the nature of their product. Perishables such as oranges and lemons lent themselves to greater control. Farmers in a concentrated area realized that the crop had to be quickly marketed after harvesting. Consequently, fruit growers, unlike wheat farmers, cotton growers, and livestock raisers, were not in a position to hold their crops and bargain for the best possible price. Many fruit growers realized that only a strong business organization like the Exchange could locate possible markets and quickly and

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[123]California Cultivator, XXXII (February 25, 1909), p. 222; Dahlinger, The New Agrarians, p. 135.

efficiently market the fruit. Since all of the fruit ripened at the same time and basically the same quality, grade and uniformity characterized the product, fruit growers more readily accepted the supervision of the Exchange. Thus, successful marketing in the early twentieth century depended upon a number of complex and inter-related factors such as the product involved, the location and the overall ability to control the local associations.[124]

Although marketing organization predominated during the early twentieth century, consumer cooperatives continued to operate and increase in importance. According to Bureau of Labor statistics, 96 consumer cooperatives operated in 23 states in 1900. After the disastrous downfall of a majority of cooperative stores during the Grange period, farmers began to organize cooperatives and operate them along truly business lines.[125] Although overshadowed by marketing cooperatives, these consumer ventures provided considerable savings for their members. In 1906 the farmers of Minnesota and Wisconsin incorporated the Right Relationship League which organized and supervised cooperative stores. One hundred stores in Minnesota and Wisconsin, emphasizing expert management and utilizing proven business methods, avoided the pitfalls that brought ruin to previous consumer ventures.[126]

Other cooperatives such as insurance, telephone, wool, tobacco and vegetable could be cited, but the detailed examples given seem

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[124]Edward F. Adams, "Cooperation Among Farmers," p. 370; California Cultivator, XIX (October 3, 1902), p. 211.

[125]Florence Parker, First 125 Years, p. 32.

[126]Eyerly, "Cooperative Movements Among Farmers," p. 63.

sufficient to prove the success of the new cooperative movement after 1890, and the application of business techniques to problems of marketing and purchasing faced by farmers.

It is true that in some cases after 1890, cooperatives still failed to apply business techniques, and along with other problems discontinued operations. However, in the majority of cases, the farmers had learned the lessons taught by the failures of cooperatives in the Grange period. For example, between 1900 and 1910 only 113 out of 3,665 marketing and purchasing associations disbanded, which might indicate that the farmers were following better business practices more closely.[127] Farmers eventually learned that the establishment of successful cooperatives demanded good management; anything less was likely to result in frustration and painful failure.[128]

Economic organization patterned in theory after big business alleviated part of the social strain during the latter part of the nineteenth century. Farmers realized that order could not be achieved without some type of unity or cooperation. Big business, in many cases, avoided cut-throat competition and instability through organization. By emphasizing economic organization and utilizing efficiency and system in their operations, progressive farmers realized that order was possible, even in the midst of a structured society. Along with organization came the need for modern, up-to-date machinery, communications and transportation in order to compete successfully with the rest of society.

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[127]Elsworth and Wanstall, Farmer's Marketing and Purchasing Cooperatives, 1863-1939," pp. 26,28.

[128]Filley, Cooperation in Agriculture, pp. 421-422; Sir Horace Plunkett, The Rural Life Problem of the United States (New York: The MacMillan Company, 1913), pp. 119-143.

CHAPTER V

IMPROVED MACHINERY, COMMUNICATIONS, AND TRANSPORTATION: A REVOLUTION IN FARM TECHNIQUES

Andrew Carnegie and his associates attributed their phenomenal business success in the steel industry to the utilization of improved machinery. An outdated or inefficient machine was quickly junked or sold to a competitor.[1] The Florida Agriculturist noted in 1905 that successful businessmen such as Rockefeller or Carnegie did not hesitate to invest in laborsaving machinery when they realized that a 10 percent saving could be made.[2] In the post-Civil War era businessmen utilized American ingenuity by introducing mass production techniques into their factories. Utilizing the principle of interchangeable parts, American manufacturers produced more cheaply than Europeans. By employing technological inventions such industrial leaders not only greatly increased production but also amassed personal fortunes that were the envy and admiration of the less fortunate.[3]

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[1]Thomas Cochran and William Miller, The Age of Enterprise (New York: Harper and Row, 1961), pp. 138-139; this view was also held by farm spokesmen. Wallaces' Farmer, XXVI (August 23, 1901), p. 981; Dakota Farmer, XXX (November 1, 1910), p. 7.

[2]Burton J. Hendrick, The Age of Enterprise (New Haven: Yale University Press, 1919), pp. 74-75; Florida Agriculturist, XXXII (March 8, 1905), p. 146; Progressive Farmer, XX (April 18, 1905), p. 11.

[3]Edward C. Kirkland, Industry Comes of Age (New York: Holt, Rinehart and Winston, 1967), pp. 163-180; Sigmund Diamond, "The Impact of Industrialization on American Society," in Main Problems in American History, edited by Quint, Cantor and Albertson (Homewood, Illinois: The Dorsey Press, 1972), p. 29.

Because of cheap, rapid transportation, industrialists combined factors of production far more readily than ever before, Improved railroad transportation and motor vehicles destroyed distribution barriers permitting producers to sell to consumers throughout the nation. Rapid nationwide communications accelerated also the tempo of economic life. By the turn of the century the telephone replaced the telegraph, speeding up the complex administrative process necessary for large-scale industrial management.[4]

Substantial economic and technological progress by businessmen compelled farmers to adopt new techniques in order to keep pace with the times.[5] Without question, with the utilization of improved farm machinery, rural free delivery of mail, telephones, and automobiles, farmers greatly increased their efficiency.

Prior to 1850, farmers used hand tools primarily. From 1850 to 1890, horsedrawn machines characterized a period of transition. Beginning about 1890, and continuing through the early part of the twentieth century, agrarian technological advances practically superseded hand methods, especially in the West.[6] After 1890 many progressive farmers decreased their operating expenses by introducing or improving laborsaving techniques.

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[4]Hays, The Response to Industrialism, pp. 6-7; Kirkland, The Age of Enterprise, pp. 165-166.

[5]Reynold M. Wik, Steam Power on the American Farm (Philadelphia: University of Pennsylvania Press, 1953), p. 82.

[6]Prairie Farmer, LXXXIII (November 15, 1911), p. 7; L. W. Ellis, "The Era of Farm Machinery," 1910, p. 4. Records of the Bureau of Agricultural Economics, National Archives, R. G. 83.

During this period manufacturers improved old farm machines and invented new ones. In the earlier days all the farmers sowed grain by hand; one man scattered while another followed and covered the seed. The seed drill replaced this cumbersome task. Previously farmers cultivated and weeded their corn by hand, but with mechanical planters, cultivators made this unnecessary. The manure spreader replaced the arduous task of loading farmyard waste on wagons and distributing it by hand. Haying, the most laborious operation on the farm, was greatly simplified. The mowing machine replaced the hand scythe; the hay tedder tossed and turned the hay, allowing it to dry uniformly and quickly; farmers raked hay into windrows and loaded it directly on the wagons with loaders. The hayfork deposited the hay into the mow with comparatively little labor, a task that had required three or four men. The self-binder did the work that previously required four men. In the dairy regions, the cream separator lessened labor on the farm. In the fields, the subsoiler gave new life to the land, and the gangplow, with three or four horses or mules attached, turned the land perfectly and with greater rapidity than two or three of the old common plows or "jointers" so commonly used. In addition, other machines such as the potato planter and diggers, feed choppers, ditchdigging machines, and innumerable other implements considerably lightened the farmer's workload.[7]

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[7]Kansas Farmer, XXXVIII (November 8, 1900), p. 840; L. W. Ellis, "Farm Machinery in New England," May and June, 1908, p. 1. Records of the Bureau of Agricultural Economics, National Archives, R. G. 83; Wisconsin Farmer, XXXIX (November 17, 1910), p. 1035; Florida Agriculturist, XXXII (July 26, 1905), pp. 466-467; Ernest L. Bogart, Economic History of American Agriculture (Chicago: Longmans, Green & Co., 1923), pp. 118-119.

In 1876 manufacturers introduced the earliest self-propelled steam engine to the farmers. At first agrarians regarded these steam traction engines with skepticism. A Kansas farmer, who introduced the first traction engine in his community in 1878, wrote that when he demonstrated the machine "most everybody said it would not do; the first hill I came to I would have to be helped up and the first one I went down I would blow up."[8] In the middle 1880's the farmers in the great wheat growing regions of the West and Northwest utilized these giant machines for threshing purposes. The steam traction engine was seldom found on farms of less than 320 acres and usually those between 700 and 800 acres. Although northeastern states such as New Jersey and Connecticut utilized laborsaving machinery geared for intensive farming and the growing of truck products, they made only limited use of the steam traction engine. Southern states, largely utilizing manual labor and animal power, hesitated to experiment with the engine except in the sugar cane industry.[9]

By the early 1890's the Holt Manufacturing Company of Stockton, California, and the Best Company of San Leandra were building large steam traction engines. With these 110 horsepower engines, a crew of 8 men could harvest from 75 to 125 acres a day. In 1894, the Holt

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[8] C & G Cooper Company Catalogue (Mt. Vernon, Ohio, 1883), p. 86, cited in Wik, Steam Power, p. 80.

[9] W. B. Thornton, "The Revolution by Farm Machinery," World's Week, VI (August, 1903), p. 3779; Progressive Farmer, XXII (August 8, 1907), p. 2; Cornell Countryman, IX (January, 1912), p. 99.

Company had over 900 of these engines pulling combines on the Pacific Coast.[10]

In the 1880's farmers in the Midwest began using steam engines for plowing. Huge steam plowing outfits, consisting of 25 to 45 horsepower engines with 10-16 bottoms, cook cars, water tanks, and coal wagons aroused excitement in the grain growing sections.[11] When the first plowing outfits were introduced in a community, "people traveled for miles on foot or in horsedrawn vehicles to see the performance. Many of these people walked behind the plows for long distances to see the breakers slash through the virgin sod and roll it over in even furrows. The slow, methodical surge of the behemoths in the fields were equally impressive when they lumbered along, shattering the air with mushrooming, rhythmical blasts of black smoke. These iron beasts of the prairies voraciously consumed over 70 barrels of water and 3000 pounds of coal per day as they completed their daily course of 15 or 20 miles."[12] Edwin Haselharst of Millory, South Dakota recalls that on a still morning in June, 1909 he counted the smoke columns of ten plowing outfits breaking up the prairie sod in his community.[13] Not only did farmers utilize steam for harvesting and plowing, but they also used their engines to move buildings, dig wells, bale hay, fill silos, saw lumber, shell corn and dig drainage canals.[14] In 1890, manufacturers

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[10]Peter T. Rondlinger, The Book of Wheat (New York, 1908), p. 92, cited in Wik, Steam Power, p. 87.

[11]Wik, Steam Power, p. 148.

[12]Ibid., p. 152.

[13]Ibid., p. 148.

[14]Ibid., p. 153.

produced 1500 farm steam engines; 2,700 in 1900 and in 1907 at the peak of production, 5,000 machines.[15]

By 1903 the gasoline motor, sometimes called the first child of the twentieth century, began to emerge on the agricultural scene to challenge the steam power monopoly. The gradual transition from steam power to gas illustrated another cycle of progressive farming as the farmers continued to look for ways to do their work more easily, effectively, and economically. In 1906 the Hart Parr Engine Manufacturing Company in Charles City, Iowa distinguished the gasoline engine from the steam traction engine by calling it a tractor.[16] Although the gasoline internal combustion engine was to be more important for the future, it still exerted some influence on farming in the early twentieth century. Farmers were quick to see the weaknesses of steam traction engines which were ponderous in size, clumsy to operate, and too heavy to handle on rough terrain. In addition, a 15 ton steam traction engine was helpless on wet soil.[17]

By 1907, only 600 gasoline tractors had been produced, but their popularity was growing. W. C. Allen, the editor of the Dakota Farmer, observed in 1909 that "while steam engines have good service, the gasoline and kerosene engines seemed more popular."[18] By 1910 fifty or more factories had manufactured approximately 7,000 internal combustion

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[15]Ibid., p. 101.

[16]Ibid., p. 200.

[17]Ibid.

[18]W. C. Allen, "The Traction Engine on the Farm," Dakota Farmer, (January 15, 1909), p. 5, cited in Wik, Steam Power, p. 204.

machines for the farmer. In a stunning demonstration illustrating the importance of the tractor for the future, the Minnesota State Fair, in 1910, featured a 30 horsepower Pioneer tractor weighing two tons, pulling a ten bottom John Deere plow eight inches deep in stubble, while carrying twenty-four men.[19]

The upsurge of agrarian machinery can be attributed in part to the scarcity of labor and the encouragement offered by protective patent laws. Credit also must be given to the examples of business and industrial leaders. Just as the farmers emulated businessmen in general organizations and specific economic endeavors, contemporary sources reveal that farmers also copied industrial improvements in technology. In 1901 an editorial in Wallaces' Farmer entitled "Machinery on Farm" stated that "the farmer, as in everything else, will have to do what the up-to-date manufacturer does--get the best machinery and the best man to run it."[20] Professor J. S. Newman, writing for the Progressive Farmer in 1904, believed "The tendency of the age in all enterprises was towards the use of the most advanced and economical implements and machinery. Consequently, the farming industry, of necessity, had to fall into line and keep up with the procession."[21] The Kansas Farmer in 1910 emphasized that "the use of up-to-date machinery by the country's large manufacturer is the example which businessmen of this enlightened

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[19]Dakota Farmer, XXX (December 15, 1910), p. 56; A. P. Yerkes, "The Farm Tractor," 1914, p. 89. Records of the Bureau of Agricultural Economics, National Archives, R. G. 83.

[20]Wallaces' Farmer, XXVI (September 20, 1901), p. 1106.

[21]Progressive Farmer, XIX (July 5, 1904), p. 4.

age are setting for the farmer."[22] Many contemporary writers spoke of "the new American farmer who entered the new century with a fresh optimism toward his occupation and accepting the designation of a manufacturer of the soil rather than a miner."[23] The farmer's new conception of himself can be attributed in some measure to the introduction of modern machinery upon the farm.

The effects of improved machinery upon the farm exerted much the same results as the technological achievements of industrial plants. Farm managers generally gauged the efficiency of a farm by measuring the net profit from that business. As with any other business, farmers could increase net profit by lowering the operating expenses or by increasing the production and net income. Laborsaving devices brought about greater efficiency in at least nine important farm crops. In 1908, the Southern Cultivator stated that through the use of improved machinery, an acre of wheat required only three hours of labor as opposed to sixty-one hours by hand methods.[24] The Dakota Farmer noted in 1910 that "a farmer driving an International tractor could plow, harrow and roll a ten acre field in one day at a cost of from fifty to seventy-five cents per acre. At the same time, ten men and twenty horses could accomplish the same results in one day, but the cost averaged one dollar

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[22]Kansas Farmer, LXVIII (March 12, 1910), p. 1106.

[23]Field and Forum, VIII (April, 1900), p. 1; Herbert N. Casson, "The New American Farmer," The American Review of Reviews, XXXVII (May, 1908), pp. 598-602; George Ethelbert, "Machinery in Agriculture," World's Work, XIX (December, 1900), p. 137.

[24]Southern Cultivator, LXVII (October 1, 1908), p. 4.

per acre.[25] Taking the United States as a whole, H. W. Quaintance, writing for the Publications of the American Economic Association, noted in 1904 that the efficiency of an average farm worker increased 86 percent from 1810 to 1900.[26] This would imply that progressive farmers' use of improved machinery cut labor costs by reducing the number of hours needed to produce a certain crop.[27]

In addition to efficiency, mechanization made possible and encouraged larger farms. In the states where farm machinery was most used from 1880 to 1900, the average farm size increased. Illinois, Iowa, Kansas, Nebraska, Minnesota, North Dakota and South Dakota proved to be the leading cereal, hay and forage stages, thus necessitating the use of much farm machinery.[28] In these states, the average farm acreage increased from 64.4 acres in 1880 to 102.5 acres in 1900, for a gain of 59.2 percent.[29] The average acreage in crops per person cultivating them in the same states and during the same period increased from 40.6

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[25]Dakota Farmer, XXX (February 1, 1910), p. 4.

[26]Hadley W. Quaintance, "Machinery and Production," Publications of the American Economic Association, Third Series, V (1904), pp. 815-817.

[27]Kansas Farmer, XXXVIII (November 8, 1900), p. 840; Dakota Farmer, XXX (February 1, 1910), p. 4; California Cultivator, XXIII (August 26, 1904), p. 197; A. P. Yerkes, "The Farm Tractors Influence on Crop Production," May, 1918, p. 7. Records of the Bureau of Agricultural Economics, National Archives, R. G. 83; L. W. Ellis, "The Era of Farm Machinery," p. 27.

[28]U. S. Bureau of the Census, Twelfth Census Report (1900), "Agriculture," II, p. 62.

[29]H. W. Quaintance, "The Influence of Machinery on the Economic and Social Conditions of the Agricultural People," Cyclopedia of American Agriculture, IV (London: The MacMillan Company, 1912), p. 109.

acres to 62.4 acres, a gain of 53.7 percent.[30] On the other hand, in the cotton producing southern states the average farm acreage from 1880 to 1900 decreased 19.1 percent.[31] The South lagged behind because it had an abundance of cheap labor and no mechanical cottonpicker. With a large labor supply there was no incentive to mechanize cotton production. The only machine which played any considerable part in the production of the distinctively southern crops was the cotton gin and the influence of this machine was in full operation long before 1880.[32]

The larger farms and increased mechanization called for a corresponding increase in the amount of capital, making it more difficult for an agricultural laborer to achieve proprietary status. Because of their initiative in introducing improved machinery, progressive farmers had unconsciously created a great gulf between proprietor and farm laborers very similar to the system produced in industrial factories.[33] The Twelfth Census noted that in the seven leading cereal-producing states which used complex and expensive machinery, the farm proprietor class increased 28 percent from 1880 to 1900 while the farm laborer class rose by 74 percent.[34] As will be shown later, antagonism developed

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[30]Quaintance, "Machinery and Production," pp. 851-53.

[31]Quaintance, "The Influence of Machinery on the Economic and Social Conditions of the Agricultural People," p. 109.

[32]Quaintance, "Machinery and Production," pp. 848-849.

[33]Quaintance, "The Influence of Machinery on the Economic and Social Conditions of the Agricultural People," p. 111.

[34]U. S. Bureau of the Census, Twelfth Census Report (1900), "Occupations," pp. lxxiii-lxxviii.

between these two groups. Ironically, the emulation of big business through the introduction of laborsaving machinery created a similar pattern of social status.

Improved machinery lightened the severity and brutality of farm work. A farmer in Kansas wrote: "There is no more laborious kind of farm work than the spreading of manure; so much so that in farming on a large scale it is difficult to procure labor for that purpose. This can now be dispensed with. A machine called the manure spreader does all this work. . . . It does everything in the manuring line except to use foul language."[35] Wallaces' Farmer in 1901 noted that it was necessary for farm workers to utilize their brains along with their brawn because the improvements in machinery necessitated farmers improving their mechanical ability, at least to a limited extent. Wallace continued by enthusiastically concluding that "the use of machine power stimulated mental growth and activity, because those who worked most with machines were among those properly classed as the most intelligent."[36]

Finally, the introduction of farm machinery decreased the agricultural labor force. According to the report of the Department of Labor in 1900, an absolute displacement of labor occurred most prominently in the production of those crops necessitating large farm machinery.[37] In the production of wheat in 1829-1830, 26 million work

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[35]Scientific American Supplement, L, p. 20528.

[36]Wallaces' Farmer, XXVI (August 23, 1901), p. 98.

[37]U. S. Bureau of the Census, Twelfth Census of the United States (1900), "Agriculture," I, p. 698; Quaintance, "Machinery and Production," pp. 32-33.

days were needed, while in 1895-1896, only 7 million days were expended; a difference of 19 million work days or a 72.6 percent displacement.[38] In the production of hay the percent of displacement amounted to 36.4 percent. A noticeable labor displacement occurred in the production of barley with a difference of 251,000 work days or a 28.5 percent decrease.[39]

Along with farm mechanization, the development and improvement of rural free delivery of mail was important to developing techniques and increased efficiency on the farm. On October 1, 1896, at Hall Town, Evillan and Charles Town, West Virginia, the U. S. Postal Department conducted a revolutionary experiment which aided farmers in better keeping up to date through the receipt of frequent and regular mail deliveries. For the first time farmers received rural free delivery of mail.[40] For years prior to 1896, farm leaders and journal editors complained that the infrequency of rural mail delivery hindered the farmer from learning the latest practices in production and distribution. Farmers felt that the government discriminated against them since the postal department delivered mail directly to urban homes but left rural correspondence at a post office perhaps several miles away from the recipient. In 1899 Wallaces' Farmer quoted an Iowa farmer who gave an exaggerated estimate that he had driven 12,000 miles since 1884 going

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[38]Ibid. [39]Ibid.

[40]Wayne E. Fuller, R. F. D., The Changing Face of Rural America (Bloomington: Indiana University Press, 1964), p. 37.

to and from his post office in order to get his mail.[41] Aside from the physical inconvenience, farmers were always days and weeks behind regarding daily markets, prices, and weather reports.[42]

John M. Stahl, Secretary of the Farmer's National Congress in 1902, was one of the first to advocate free delivery of mail. Beginning in January of 1885 until 1895, Stahl delivered more than 300 addresses at Chautauqua Assemblies, before Chamber of Commerces and National Granges. In a majority of cases spectators ridiculed him. Paying $4,000 out of his own pocket for travel expenses, Stahl spoke and wrote articles on R. F. D., which were eventually picked up by more than 12,000 periodicals, local newspapers, and large metropolitan dailies.[43] Influenced by Stahl, Henry Wallace, editor of Wallaces' Farmer, hammered away week after week about the advantages of R. F. D.[44] Undoubtedly the furor raised by progressive farmers and journal editors encouraged Postmaster General John Wanamaker in 1890 to institute the village delivery, a forerunner to R. F. D. Carriers on foot extended the city delivery system by taking mail to towns whose population was less than 10,000.[45] On May 3, 1892, Wanamaker sent a letter to the Senate

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[41]Farm Journal, XVI (January, 1892), p. 11; Wallaces' Farmer, XXIV (December 8, 1899), p. 1.

[42]Ibid.

[43]New England Farmer, LXXXV (June 9, 1906), p. 3.

[44]Wallaces' Farmer, XXIV (April 21, 1899), p. 359; XXIV (November 17, 1899), p. 935; XXIV (December 1, 1899), p. 989; XXIV (December 8, 1899), p. 1003; XXV (April 13, 1900), p. 418.

[45]Charles H. Greathouse, "Free Delivery of Rural Mails," Yearbook of the United States Department of Agriculture (Washington, 1902), 1901, p. 516; Fuller, R. F. D., p. 20-21.

describing his experiments of village delivery for the previous two years. Unfortunately, because of a change in administration early in 1893, Congress ignored Wanamaker's recommendation for further village delivery.[46] Instead of smothering interest, Congress inadvertently stimulated a movement for free delivery of mail on a much broader basis. The new agitation emphasized a plan to give country delivery to farmers who lived from two to twelve miles from any post office.[47] After 1892 the State Granges pressured representatives in Congress from agricultural communities, and eventually Congress approved small appropriations even though Congressional representatives and executive officers of the post office department knew these appropriations were inadequate. The agrarian regions needed $20,000,000 a year to establish and maintain R. F. D.[48] It was not until President Cleveland appointed William L. Wilson Postmaster General in 1895 that anything concrete was done. Due to the growing pressure upon Congress and an increase in appropriations of $40,000, Wilson was able to establish the first experimental routes in 1896. He authorized the selection of 44 routes located in widely differing localities, scattered through 29 states.[49] Attempting to make the experiment as widespread as possible under diverse conditions, officials established fifteen routes in October of 1896, fiften in November, eight in December, three in January of 1897, and one each in February and

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[46]New England Farmer, LXXXV (June 9, 1906), p. 3.

[47]Greathouse, "Free Delivery," p. 516.

[48]Ibid.; New England Farmer, LXXXV, p. 3; Fuller, R. F. D., p. 34.

[49]Greathouse, "Free Delivery," p. 517.

April following.[50]

In 1897 when Perry S. Heath became Assistant Postmaster General, he extended the R. F. D. throughout the country. Heath took charge of the administrative division to which the experiment belonged and decided to pursue the matter exhaustively. Noting the favorable reports from the farmers in general and increasing appropriations from Congress, he addressed the Postmaster General in 1898:

> An examination of the reports on file led to the conclusion that great possibilities of social, industrial, and educational development lay behind the projected extension of postal facilities, the service could be extended far and wide, with great benefit to the people and without any serious tax upon the revenues of the Government.[51]

With the increased interest of farmers, legislators, and government officials, the free delivery of mail grew rapidly. By 1905 rural mail carriers delivered mail to 20,000,000 farmers, and by 1909 the service embraced more than 40,000 routes covering more than a million miles.[52] The rural free delivery of mail exerted a tremendous influence upon farming as a vocation. By breaking down isolation and bringing the city into contact with the country, farmers became more aware of the active business world and its effect upon them. Rural free delivery kept the farmer in daily touch with markets and prices in addition to advancing general business knowledge through the increased circulation

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[50]Ibid.

[51]Ibid., pp. 518-519; Fuller, R. F. D., p. 40.

[52]Progressive Farmer, XXIV (October 7, 1909), p. 10; New England Farmer, LXXXV (June 9, 1906), p. 3.

of journals and periodicals.[53] Jason Woodman of Paw Paw, Michigan, stated that "the daily delivery at my farm of letters, market reports and daily papers are as essential to me as such things are to any businessman. In my own case it saves hundreds of miles driving and days of time each year."[54] Many farm journals such as The Progressive Farmer and Wallaces' Farmer, increased their circulation in these years because of R. F. D., and editorials calling for the farmer's need to imitate business spurred many farmers to join the progressive movement of "better farming, better business and better living." John M. True, secretary of the State Board of Agriculture in Madison, Wisconsin, wrote in 1900:

> I am of the opinion that the most sanguine expectations of the friends of rural free delivery are to be more than realized. I am informed that upon lines established in my vicinity four months since the amount of mail handled has already largely increased, showing a prompt disposition on the part of farmers to avail themselves of increased facilities for general reading, which means more intelligent ideas of business, periodicals, and social questions. It measurably removes the feeling of isolation that has been one of the great drawbacks of rural life.[55]

Advertisements by industrialists emphasizing improved machinery and business techniques increased as more farmers received newspapers and journals. The Kansas Farmer in January of 1902, noted that mail order catalogues, popularly referred to as "wish books," arrived in more homes, stimulating a desire for laborsaving devices and luxury items.[56]

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[53]Dakota Farmer, XXII (December 15, 1902), p. 4; Wallaces' Farmer, XXIV (November 17, 1899), p. 235; Greathouse, "Free Delivery," p. 523.

[54]Farm Journal, XVI (January, 1892), p. 11.

[55]Greathouse, "Free Delivery," p. 525.

[56]Kansas Farmer, XL (January 23, 1902), p. 83.

The free delivery of mail proved to be important because it called for the creation and improvement of roads in order to facilitate easier delivery. S. C. McDowell, a farmer from Fox Lake, Wisconsin, emphasized that "rural free delivery will encourage the people to make better roads. It has already had an influence on the price of land, which has increased $5 per acre already."[57] The creation of better roads was one more link between country and city.

The importance and significance of R. F. D. to the farmer can be summarized by a speech made by Postmaster General Charles Emory Smith in 1900:

> But the R. F. D. movement exercises a wider and deeper influence. It becomes a factor in the social and economic tendencies of American life. The disposition to leave the farm for the town is a familiar effect of our past conditions. But this tendency is checked, and may be materially changed by an advance which conveys many of the advantages of the town to the farm. Rural free delivery brings the farm within the daily range of the intellectual and commercial activities of the world, and the isolation and monotony which have been the bane of agricultural life are sensibly mitigated.[58]

The rural telephone also proved to be very important in reducing the farmer's isolation and stimulating business dealings. In many ways telephones outstripped R. F. D. in the number of farmers reached and the ways in which they were benefited. The rural free delivery carrier's route rarely exceeded twenty-four miles in length and served an average of about seventy farms. Rural telephones operated as far as forty miles with as many as thirty or forty receivers on the line.[59]

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[57]Wallaces' Farmer, XXIV (November 17, 1899), p. 935.

[58]Greathouse, "Free Delivery," p. 528.

[59]New England Farmer, LXXXVIII (February 13, 1909), p. 8.

Viewed strictly from a business standpoint, the telephone proved to be a valuable asset. In the large cities, businessmen of all kinds had come to utilize the telephone extensively in the conduct of business. It had proven very beneficial. The Southern Cultivator estimated in 1909 that "had this valuable communication system been disrupted in New York City, business would have been completely paralyzed and the wheels of commerce would have come almost to a standstill."[60] The importance and necessity of the telephone spread from the large cities to the smaller ones, and finally into the rural districts. Farmers, like the industrialists, found the telephone a vital tool.[61] As a timesaving mechanism, the telephone paid the cost several times over. Whereas farmers had often hauled loads of produce many miles to market over bad roads only to find the prices so unsatisfactory that they had to return, this would no longer be necessary.[62] Farmers with telephones could find out in a few moments what the prevailing prices were in different markets and knew which would pay most for their produce. In some cases, farmers sold their produce to local merchants before leaving their farm, thus saving time and labor. Many progressive farmers at the turn of the century realized the necessity of keeping in close touch with trade conditions. At least theoretically it was possible, with the aid of the

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[60]Southern Cultivator, LXVII (January 15, 1909), p. 37.

[61]Wisconsin Farmer, XXV (February 15, 1906), p. 112.

[62]Farm Journal, XXV (February, 1901), p. 47; Florida Agriculturist, XXXIII (April 4, 1906), p. 215.

telephone, to buy supplies when the market was low and sell crops when they were high.[63] In many areas every morning at 9 o'clock the telephone company gave three long rings over each rural line entering its exchange, and those who desired could hear the operator read the weather bureau report. Sometimes the companies also gave the prevailing market quotations.[64] Telephones held perhaps a more important place on the farm than in the city. Although it was not used as frequently in the country, the distance involved made it a tremendous asset.[65]

The ultimate success and popularity of the telephone can be gauged by statistics of the period. In 1903 there were 267,000 rural customers in America;[66] by 1908 the Kansas Farmer estimated that this had grown to nearly one million.[67] Some farmers, as in Idaho, utilized the long stretches of barbed wire fences for telephone service and found them quite satisfactory as conductors of electricity.[68] In still other places as in Bowers, Indiana, each farmer purchased his own instrument and contributed his proportion of expense of poles, wire, and switchboard in money or labor.[69] In Grand Rapids, Wisconsin, each farmer

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[63]Southern Cultivator, LXVII (January 15, 1909), p. 37; Kansas Farmer, XLVI (January 23, 1908), p. 92; Wallaces' Farmer, XXV (October 12, 1900), p. 998.

[64]Dakota Farmer, XXIX (April, 1909), p. 1; New England Farmer, LXXXVIII (February 13, 1909), p. 8.

[65]Southern Cultivator, LXVII (January 15, 1909), p. 37.

[66]Ibid.

[67]Kansas Farmer, XLVI (January 23, 1908), p. 92.

[68]Kansas Farmer, XL (April 17, 1902), p. 439.

[69]California Cultivator, XXVIII (January 31, 1902), p. 65.

desiring to own a telephone bought a minimum of one share of stock for fifty dollars to cover the cost of the exchange. The rental charge was to be $2.25 a month for business houses and one dollar for residences. These charges brought in a dividend of 1½ percent a month, which officials deducted from the rent, making the cost of business places $1.50 a month and residences twenty-five cents.[70]

In summing up the contributions of the rural telephone, the Wisconsin Farmer stated:

> Probably none of the marvelous innovations which have revolutionized farm life in the past ten or fifteen years has effected a more radical change than the general introduction of the rural telephone. The transformation has been so complete in communities having first-class, well-managed lines that those not similarly favored can hardly imagine how thoroughly conditions have been altered; and even those who enjoy these benefits do not always realize how different things were but a few years ago. Americans are an enterprising people, quick to adapt themselves to new manners and methods; and old fashions quickly disappear and new ones speedily become old.[71]

In addition to improved machinery and greater communication facilities, farmers after the turn of the century, experimented with the automobile. In 1909 the Dakota Farmer editorialized that after the farmer "purchased the automobile, he broke the last thread that separated him from the rest of mankind and virtually made himself a much to be envied suburbanite."[72] While this may be an exaggeration, the remark emphasizes the impact that automobiles exerted on farmers and their business methods.

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[70]Ibid.

[71]Wisconsin Farmer, XXV (February 15, 1906), p. 112.

[72]Dakota Farmer, XXIX (May 15, 1909), p. 3.

At the turn of the century, businessmen of the city were quick to realize the advantage of the motor driven vehicle as an active factor in their business relations. City merchants not only viewed the auto as a means of reliable transportation, but also as a tremendous efficiency factor in saving valuable time. Not only did businessmen view the auto as an important asset in conducting business, but also as a means of pleasure.[73] The farmers, usually pessimistic and hesitant by nature, were not eager to accept the automobile as a laborsaving device for the country. This dislike for innovation and fear of the unconventional "prompted some of their ancestors to wreck the spinning jenny, to insist that iron plows poisoned the soil, to ridicule the early railroads, to object to the first farm steam engines, to decry the advent of bicycles, and now to resent the appearance of automobiles on country roads."[74] As one progressive farmer lamented, "Its the same old bigotry, the same old prejudice against the new. . . . Mankind is instinctively hostile to change."[75] In fact, according to the Dakota Farmer, at the turn of the century, farmers looked upon the auto as a mechanical freak, a toy manufactured only for the use and pleasure of millionaires. Farmers viewed the owners of these "Red Devils" as "undesirable city dudes devoid of virtue, swarming over the land like a plague of locusts."[76]

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[73]Dakota Farmer, XXIII (February 15, 1908), p. 13; Kansas Farmer, XLVIII (August 27, 1910), p. 5.

[74]Quoted by Reynold M. Wik, Henry Ford and Grass-Roots America (Ann Arbor: The University of Michigan Press, 1972), p. 15.

[75]Ford Times, IV, 1911, p. 97 cited in Wik, Henry Ford, p. 15.

[76]Wik, Henry Ford, p. 15.

The Minneapolis Journal in 1899 reported that "the auto craze had hit the fashionable people like children with new toys."[77] They viewed the motor vehicle as a nuisance and pest which frightened horses, killed livestock and endangered the lives of children.[78] Those who lived farther from town were usually the ones who developed a deep-seated prejudice because the more infrequently they saw one, the greater was their fear of the consequences of meeting the dreaded menace.[79] The Philadelphia Public Ledger, in 1906, protested "the invasion of rural regions by city mobs that turned the highways into a reign of terror. These criminals were no more fit to be at large than so many mad dogs."[80] The Breeder's Gazette, in 1904, insisted that "speeding cars roared by with screaming horns, driven by a reckless, blood-thirsty, villainous lot of purse-pounded crazy trespassers upon the legitimate avenues of trade. A fear spread, paralyzing men, women and beasts."[81] Rural people severely criticized automobile owners because these machines drove horses into a frenzy. An Indiana farmer in describing an encounter with an auto noted "that his horses bolted and ran away, one had as good a chance of stopping the team by grabbing the bridles as one would have trying to stop a locomotive by grabbing the fireman's whiskers."[82]

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[77]Minneapolis Journal, (October 6, 1899), cited in Wik, Henry Ford, p. 15.

[78]Dakota Farmer, XXX (April 1, 1910), p. 14; (May 1, 1910), p. 10.

[79]Dakota Farmer, XXX (May 1, 1910), p. 10.

[80]The Macon Daily Telegraph, July 10, 1906, quoting the Philadelphia Public Ledger, cited in Wik, Henry Ford, p. 15.

[81]Breeder's Gazette, August 24, 1904, p. 290, cited in Wik, Henry Ford, p. 15.

[82]Wik, Henry Ford, p. 17.

Some farmers urged that cars be barred on country roads. Farmers near Sacramento, California, in 1909, "dug ditches across several roads to block traffic and actually trapped thirteen cars."[83] The wildest flight of imagination could not conceive of the auto supplanting, even to the slightest degree, the faithful and dependable horse.[84] In 1901, a writer for the Kansas Farmer sarcastically introduced his readers to the auto by advising the farmer to keep his horses in order to pull the machine out of mudholes.[85] It was not supposed for a moment that the advent of the motor car would ever result in a practical machine, or come into universal use.

Because of improvements made in the auto and the widespread use of advertisements, many farmers gradually began to appreciate its qualities. Farmers found that motor car dealers sold at a price that many progressive farmers could afford and cheaply operate. In 1906 the Dakota Farmer advertised autos for the price of one good team or from $350 to $400.[86] In 1910, the Maxwell Brisco Motor Company of Tarrytown, New Jersey, advertised the Maxwell for $600. In addition, the company informed farmers that:

> This big car can be run 5,000 miles a year at an average total cost of $3.98 a week. Here is our big 4 cylinder 30 H.P., 5 passenger family touring car. Think of taking 5 people for a hundred mile trip at a total cost of less than one cent a mile per passenger.

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[83]San Francisco Call, August 6, 1909, cited in Wik, Henry Ford, p. 17.

[84]Dakota Farmer, XXX (April 1, 1910), p. 14.

[85]Kansas Farmer, XXXIX (June 6, 1901), p. 536.

[86]Dakota Farmer, XXVI (September 15, 1906), p. 16.

> Nothing can impress you with the size, style and appearance of this car as a picture of it, so we have prepared a beautiful folder in colors, which we want every farmer to have.[87]

Auto enthusiasts pointed out that horses were expensive to own. Farm experts estimated that it took five acres of grain and grass to feed a horse for a year.[88] The economical aspects of the auto appealed to a Texan who wrote Henry Ford in 1909. He explained that "the thing that stuck in his gizzard was that on the farm the greatest part of the produce went to feed horses." He concluded, "Let us use that ground for something we can eat ourselves."[89] By 1910, many progressive farmers who possessed large acreages realized that the auto was the only solution for the problem of traveling many miles in the shortest time.[90] The acceptance of the auto by farmers can be substantiated by the number they were purchasing by the early years of the twentieth century. By 1910, 100,000 farmers had purchased automobiles out of a total of 273,000 which were in use throughout the United States. This meant that approximately 1½ percent of the farmers owned autos.[91] Comparing this with the city dwellers, one person in every 190 in New York owned an auto, while one farmer in every 34 in Iowa owned one.[92] By 1910, five thousand vehicles had been sold to the farmers of Kansas.[93] Of the

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[87]Dakota Farmer, XXX (May 1, 1910), p. 6.

[88]Wik, Henry Ford, p. 19.

[89]Cited in Wik, Henry Ford, p. 19.

[90]Dakota Farmer, XXX (April 1, 1910), p. 14.

[91]Orange Judd Farmer, XLIX (August 20, 1910), p. 158.

[92]Ibid.

[93]Kansas Farmer, XLVIII (January 29, 1910), p. 4.

72,000 made to sell in 1909, 27,000 were designed especially for farm use.[94] These figures indicate that the auto was becoming the farmer's implement as well as the millionaire's toy. Farmers were not imbued with any speed mania or desire for display of wealth; they simply realized the auto's value in helping to improve business techniques.[95]

Actually, the auto was better suited to the farm and the farmer than for the businessman. Largely because of his experience in operating farm machinery, the farmer handled the auto better than the man in town. Many farm journals noted that when city auto drivers experienced trouble on country roads, farmers usually repaired them. The Motor Age in 1910 claimed farmers possessed more skill in repairing autos than 80 percent of city drivers.[96] Because of his ability to repair plows, wagons, binders, threshing outfits and gasoline engines, it was possible for the farmers to keep their autos in better trim and to get more out of them in the long run. The farmer paid less for maintenance because he was able to anticipate difficulties, thus reducing the repair bill.[97]

By 1910, many progressive farmers realized that the auto offered the same practicality and efficiency to the farm as it had to business activities in the city. More than anything else, progressive farmers appreciated the auto because it saved time, which was valuable to him. A farmer writing to the Dakota Farmer in 1910 stated:

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[94]Orange Judd Farmer, LXIX (August 29, 1910), p. 158.

[95]Ibid.

[96]Wik, Henry Ford, p. 21.

[97]Orange Judd Farmer, LXVII (October 30, 1909), p. 456.

> I have a large amount of machinery on my farm which compels me to make a good many trips to town and I find the auto a time saver and a money maker for me when there is a breakdown of some of the farm implements. Formerly, in cases of that kind I have always had a farm team ready and though tired and worn out I would have to make the drive for repairs. I always dreaded those long drives, though I always kept two good driving teams. Look at the time saved in such cases. I can have my machinery running in less than one fourth the time it would take to hitch up and go for repairs with a team, and above all I haven't made a trip with my car but what it has been a pleasure.[98]

Saving of time on the farm was especially crucial during harvest, when farmers needed to round up hands quickly or replace broken machine parts.[99] The ability to recruit a larger working force on the farm made possible better cultivation and enabled the farming of larger areas and hence, larger productions. The auto also made a most convenient delivery wagon for hauling butter, eggs, cream, poultry or produce to customers in town and bringing supplies back.[100]

Many bankers in Wisconsin believed that the auto was a prime factor in keeping the farmers in touch with town and city markets and enabled them to take advantage of the rise in prices when they had grain or produce for sale.[101] All agreed that it brought the city men and farmers, the banker and his clients, into closer and quicker communication; and that relations were becoming more extended and harmonious as a result.

As with the R. F. D., the auto brought an increased demand for more extensive and better highways. In the opinion of the Orange Judd

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[98]Dakota Farmer, XXX (May 1, 1910), p. 4.

[99]Orange Judd Farmer, LXIX (August 29, 1910), p. 158.

[100]Dakota Farmer, XXX (May 1, 1910), p. 8.

[101]Wisconsin Farmer, XXIX (October 27, 1910), p. 971.

Farmer, "the movements for better roads in the country made appreciable headway since the farmers became devotees of the gas wagons. What fifty years of resolutions and oratory failed to accomplish regarding improved rural roads, the increasing use of the auto promoted in half a decade."[102] In 1910, Kansans were building a road 250 miles long from east to west, extending into Colorado.[103] This road, which seemed extensive at that time, became a reality because many auto owners in that section exerted considerable pressure. The Orange Judd Farmer in 1910 believed the increased usage of autos and building of better roads promoted a closer agrarian community of interest by making it possible for more progressive farmers to attend farmers' organizational meetings and educational classes designed to improve farming techniques. Because of these opportunities to associate with other progressive farmers, many broadened their outlook regarding business methods and eventually applied these techniques to their own situation.[104]

The sad cry of the farmers from 1880 to 1910 was that their best young men were going to the cities and that they refused to stay on the farm because of a lack of pleasure and opportunity. The holding of young progressive farmers was crucial, because these were the young men who would be openminded enough to experiment with scientific farming and emulate practices and techniques perfected by businessmen.[105]

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[102]Orange Judd Farmer, LXIX (August 29, 1910), p. 180.

[103]Ibid., p. 162.

[104]George Ethelbert Walsch, "Farming with Automobiles," American Review of Reviews, LXIII (January, 1911), p. 66; Orange Judd Farmer, LXIX, p. 158.

[105]Ibid.

The Orange Judd Farmer noted that in some cases the introduction of the auto on the farms created a different atmosphere and elevated farm life to a higher plane by making it more attractive.[106] Farm journals noted that autos would add excitement to farming, relieve monotony and keep the boys on the farm. The American Agriculturist, in 1909, believed "all young people on the farm would work harder knowing there was some pleasure at the end of the day."[107] The editor of Gas Review in 1908 wrote: "Let boys tinker with machinery. Don't tell them to feed horses, harness the grays, and plow the north forty."[108] The cover of the June 15 issue of The Progressive Farmer in 1912 portrayed a farm family cruising over beautiful country roads. The caption asked, "Would any boy or girl wish to leave a farm like this?"[109] Although the automobile did not reverse the extensive migration from country to city, the Kansas Farmer in 1910 believed it succeeded in keeping many young progressive farmers on the farm and in some cases encouraged a few to move back from the city.[110] In some parts of the U. S., increased migration from country to city occurred when sections were isolated because of bad roads. The U. S. Office of Public Roads estimated that in twenty-five counties

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[106]Orange Judd Farmer, LXIX (August 29, 1910), p. 158.

[107]Ibid.; Wik, Henry Ford, p. 24.

[108]Gas Review, September, 1908, p. 20, cited in Wik, Henry Ford, p. 24.

[109]Progressive Farmer, June 15, 1912, p. 685, cited in Wik, Henry Ford, p. 24.

[110]Kansas Farmer, LXVIII (August 27, 1910), p. 5.

showing an increase of population from 1890 to 1900, averaging 30,000 to the county, 40 percent of the roads were improved and maintained in first class condition; while in twenty-five counties in the same states showing a loss of rural population in the same period, only one percent of the roads were adequately improved.[111]

The Orange Judd Farmer on August 29, 1910 summarized the impact of the automobile on farm life by emphasizing that "the farm auto is here to stay. Its practicability has been fully demonstrated, its influence on the social side of farm life is unquestioned--it is no longer a luxury, pure and simple. It has become a decided necessity on the modern farm."[112]

The rapid and growing tendency among many far sighted and businesslike farmers to systematize their farm operations to effect the greatest saving in time, labor and expense, was ably demonstrated at the turn of the century by the introduction of improved farm machinery, R. F. D., telephones and automobiles.[113] By 1910, these farmer's aids were no longer experiments but proven successes which welded a firmer link between the businessman of the country and the businessman of the city. These technological, transportational and communication improvements did more to ameliorate and benefit the farmer's industrial and social condition than anything else up to that time in agrarian history.[114]

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[111]California Cultivator, XXXV (July 28, 1910), p. 75.

[112]Orange Judd Farmer, LXIX (August 29, 1910), p. 180.

[113]Dakota Farmer, XXIX (October 1, 1909), p. 14.

[114]Ibid.; Kansas Farmer, LXVIII (August 27, 1910), p. 5.

Improved machinery, communications and transportation alleviated much of the social strain by providing efficiency in every phase of farm life. As farmers utilized improved technology to a greater extent they more closely identified with the group in society which had been the object of their harsh language. In addition to technology, farmers sought a measure of order by emulating business efficiency in connection with labor. Naturally, work on the farm differed greatly from toil in the factories, but many of the principles leading to stability and order proved to be identical.

CHAPTER VI

CHANGING ATTITUDES TOWARD LABOR

The last decades of the 19th century and early years of the 20th century saw the triumph of the Industrial Revolution in America. At the same time, there was what amounted to a commercial transformation in agriculture. Commercialism in farming began before the Civil War, but its pace greatly accelerated thereafter. For one thing, the post-Civil War period witnessed an increase in the size of the average farming unit. According to the twelfth census, the average size of farms in the United States had increased from 136 acres in 1890 to 147 acres in 1900; by 1910 this had grown to 148 acres. From 1900-1910 the value of all farm products doubled, increasing to $9 billion dollars. The value of farm property expanded at a rapid rate, increasing from $8 billion in 1860 to nearly $41 billion a half century later. The average value of land and buildings per farm increased from $3,251 in 1860 to $5,471 in 1910. Also between 1880 and 1900, the number of farm owners increased 28 percent, but the farm labor class increased 74 percent. The increase in the number of those dependent on wages was 46.2 percent greater than the independent class.[1]

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[1]American Statistical Association, XII (March, 1911), p. 478; Frank T. Carlton, "Growth and Management of American Agriculture," Annals of the American Academy of Political and Social Sciences, XXII (November, 1903), p. 84; Gilbert C. Fite, American Agriculture and Farm Policy Since 1900, American Historical Publication Number 59 (New York: The Macmillan Company, 1964), pp. 3-5; Fite and Reese, Economic History, p. 414.

Just as significant, this period saw the rapid decline of the self-sufficient farm. Before the Civil War, most farmers had been self-sufficient, producing on their own farms almost everything that they and their families needed, including clothing and even simple tools. They produced primarily in order to meet their own needs, and their small surplus for cash sale was distributed only to a local market. Before the war, the only hints of the agricultural patterns of the future lay in the plantation production of cotton, tobacco and rice in the South and, to a lesser extent, in the beginnings of specialized, large-scale wheat production in the Old Northwest. Here was production of a specialized crop for sale in a distant market. But even in the Old South, the majority of farmers had practiced small-scale, self-sufficient, diversified agriculture.[2]

This picture began to change rapidly after the Civil War. The typical American farmer became part of the expanding capitalist system. He began to specialize in large-scale production of a single crop for a distant market: the big cities of the East, England and Europe. He became a specialized producer of foodstuffs and raw materials. Consequently, farmers found that markets became increasingly important for their general prosperity. As self-sufficiency disappeared, the farmers were thrown into an exchange economy where they depended upon economic

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[2]Florida Agriculturist, XXXII (August 23, 1905), p. 535; Wallaces' Farmer, XXX (June 9, 1905), p. 754; James B. Ross, "Agrarian Revolution in the Middle West," North American Review, CXC (September, 1909), p. 381; John Lee Coulter, "The Influence of Immigration on Agricultural Development," Annals of the American Academy of Political and Social Sciences, XXXIII (March, 1909), p. 373; Fite and Reece, Economic History, p. 415.

forces and developments outside agriculture. As long as farmers consumed what they raised, prices meant very little, but when they began to produce specifically for distant markets and purchased commodities at the store, prices became very significant. Of course, these changes in farming called for a large amount of capital as a prerequisite for farm proprietorship.[3] Iowa, in the eighties, witnessed what one historian of the populist movement termed an "agricultural transformation with farming becoming more and more a matter of capital, business, and scientific methods."[4] Therefore, since farmers needed to make a profit on growing investments, they increasingly needed to become more businesslike and emphasize efficiency in different aspects of their farm operations.

This was especially apparent in relation to farm labor. A strong tendency toward stratification appeared with a widening gap occurring between farm employers and employees. There had always been a gap or distinction between farm owners and workers in American agriculture, but the personal relationship in most cases seemed to be warm and cordial.[5] Prior to 1890, especially in the North and West, the hired hand was treated as a member of the family, eating his meals and sleeping in the

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[3]Fite and Reese, Economic History, p. 415.

[4]Herman C. Nixon, "The Populist Movement in Iowa," Iowa Journal of History and Politics, XXIV (March, 1926), p. 5.

[5]H. W. Quaintance, "The Influence of Machinery on Economic and Social Conditions of Agricultural People," p. 109; Johnstone, "Old Ideals Versus New Ideas," p. 147; H. W. Quaintance, "The Influence of Farm Machinery on Production and Labor," p. 90; H. U. Faulkner, "Farm Machinery and the Industrial Revolution," Current History, XXXIII (March, 1931), p. 874.

home of his employer. The farm proprietor identified with his farm workers because, in many instances, he had started at the foot of the agriculture ladder and rose to farm ownership. The farm proprietor realized that in a few years, the laborer would purchase land and assume the same position that he had acquired. A subscriber of the Kansas Farmer complained in 1870 that "good farm labor is very scarce, from the fact that as soon as young men get a little ahead, in this country of cheap lands, they make arrangements to secure a farm of their own, marry the girl of their choice and settle down to a staid and quiet life."[6] Consequently, there was no feeling of superiority on the part of the owner because class structure was mobile and fluid. In a sense both were socially and economically equal because what one was, the other had been or would be. Furthermore, the freehold farmer tended to identify with the underdog element in agricultural society until the collapse of the agrarian revolt in the election of 1896. Prior to that election, Populists appealed to the principle of universality, striving to assist all farmers whether they were owners or hired hands.[7]

By 1910, in many cases, this congenial and friendly relationship was gradually disappearing. Joseph B. Ross, writing for the North American Review in 1909, characterized the farm worker in his day:

> From a present examination of rural conditions, it would appear that agricultural life in the Middle West is rapidly nearing a stage of development which has many resemblances to the factory life of the manufacturing towns. In the latter there is a large body comprising the entire manual toiling-class who are held together

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[6]Kansas Farmer, VII (March, 1870), p. 138.

[7]Hofstadter, The Age of Reform, p. 123.

> by an economic bond. They live contiguously to one another, they are all dependent for their livelihoods upon precarious contracts of employment, they have no vital interest in the enterprises in which they are engaged beyond the wage which they receive, and upon their discharge from their present employment they expect to migrate to some distant place where they may again obtain wage-earning positions of the same kind they now have. They do not migrate so far as do the wage-earners of the manufacturing towns, but the removal is quite as real. In every other regard their experiences suggest kindred phenomena to those which have developed to such menacing proportions in the manufactures of the country.[8]

H. W. Quaintance, writing for the Cyclopedia of American Agriculture emphasized the new relationship: "The farm laborers of today, like the workmen in the factories, are being more and more separated from the proprietors whom they serve. These classes understand each other less and tend more and more to become as lords and proletariat."[9] Farm organizations after the turn of the century, with the exception of the Farmer's Union, seemed to show no sympathy for, and often displayed hostility to, the interests of those farmers who were dispossessed, bypassed or displaced by the processes of prosperity. An examination of these farm organizations shows that they were dominated by farmers in better economic circumstances and that poorer farmers were a negligible part of the group.[10]

Farmers increasingly looked upon wage-earners in their fields as factors in the cost of production, and production costs increased in importance as farming became more commercialized. From an efficiency

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[8]Joseph B. Ross, "The Agrarian Revolution in the Middle West," North American Review, CXC (September, 1909), p. 390.

[9]H. W. Quaintance, "The Influence of Machinery on Economic and Social Conditions," p. 112.

[10]Hofstadter, The Age of Reform, p. 123; Johnstone, "Old Ideals Versus New Ideas," p. 147.

point of view, many farmers came to look upon the laborer not as a temporary member of their household but as important items in the cost and, consequently, in the profits of their business enterprises.[11]

In the 1880's, farmers in Maine were told:

> Provided we are able to make our labor pay its way and pay a profit on the enterprise, the more labor we employ on the farm the greater the profits. No manufacturer ever built up a fortune on the employment of one laborer, or on the employment of his own hands alone. It is the employment of many laborers and in the accumulated profits of those many laborers that he builds up his income. It is precisely so in farming.[12]

Beginning in the 1880's, farm journals and agricultural-reform groups began to identify the progressive farmer as a businessman who possessed interests radically different from those who worked on the farm for wages. Almost invariably, farm leaders, intellectuals and educators inadvertently created an emerging stratification of rural society by emphasizing that employer-employee relationships be formal and contractual. They suggested that efficiency could best be achieved on the farm by emphasizing impersonalization. Of course, this would widen the gap between the two groups and in the process create a social difference.[13] The older feeling of equality had been dependent upon an informal relationship between proprietor and hired hand, but this was gradually changing. Although farmers still spoke of the old-fashioned term, "help," the word "labor" began to slowly creep into their vocabulary. The word "help" suggested warmness and personal relationships, while

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[11]Lawanda F. Cox, "The American Agricultural Wage Earner," Agricultural History, XXII (April, 1948), p. 92.

[12]Maine Board of Agriculture, Annual Report, 1887, p. 79.

[13]Johnstone, "Old Ideals Versus New Ideas," p. 166.

"labor" brought to mind coldness and aloofness.[14] It is significant that at the turn of the century the United States Industrial Commission recognized farm labor as a group with interests distinct from those of farmers in general.[15] In 1890, a farmer in Maine expressed his concern for the changing attitude by protesting that a "good employer was not a man who looks upon a laborer as a mere machine. . . . He does not show by his habitual bearing that he is conferring a favor by tolerating the presence of the workmen in his fields."[16] M. F. Greeley, a stock raiser in Gary, South Dakota, described the growing impersonalization of employment on bonanza farms in 1900: "These farms employ men in squads and this method eliminates all the individuality and independence of these men. It un-Americanizes them, and when you have done that to a man in this country you might as well have a wooden man, and you generally do have."[17]

Naturally, this situation gradually produced considerable antagonism between the two groups. This hostility can especially be noticed in letters written by employers and employees to farm journals complaining of harsh slave-driving owners or lazy, shiftless workers. J. P. Jensen, a hired man from Hawarden, Iowa, writing to the Dakota Farmer in 1902, complained:

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[14]Massachusetts Board of Agriculture, Annual Report, 1891, p. 415.

[15]U. S. Industrial Commission, Report, X, (Washington, 1901), p. 7.

[16]Maine Board of Agriculture, Report, 1883-84, p. 105.

[17]U. S. Industrial Commission, Report, X, p. 934.

> I have seen farmers who work their men from 4:30 till 9:30 giving them time enough out of that to eat their meals and that is about all and if their man did not come home in time to do his chores Sunday evening he had to pay for his supper. I paid $3.80 for Sunday suppers in five months. I never saw a farmer yet who gave his hired man two hours nooning or considered his days work done at 6 p.m. We have a right to be called gentlemen when we are gentlemen and if the farmer in general would treat their hired men as they themselves want to be treated they would find more good hired men than they do, I think.[18]

Writing in 1904, a hired man from Kingman County, Kansas expressed his feelings toward his employer:

> The more you do for most farmers the more they expect you to do. They are perfectly willing for you to do two men's work if you will. They never object if you do the work of a day and a half in one day. In a great many places the farmhand is looked upon by the majority of the people as a necessary tool or animal. As soon as the farmer gets all the work out of him he wants or has, he turns him out and tells him, "Go and look out for yourself, I've got my work all done for this year." I've seen people turn up their noses and say, "Thats only Jone's hire hand, he's nobody." Treat him like a human being. Don't work the last speck of energy out of him and then grumble because he did not do more.[19]

Other hired men complained of inadequate meals and shelter, and being treated worse than animals. In their opinion, the proprietors were overly gruff and overbearing in manner, showing no respect or social equality.[20] Workers expressed fears that owners placed all farm laborers in the same category regardless of their experience or knowledge of farm methods. A Scuffman of Spink County, South Dakota wrote in 1909, "I came to Dakota a few days ago from Illinois well recommended

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[18]Dakota Farmer, XXII (November 15, 1902), p. 12.

[19]Kansas Farmer, XXXII (May 5, 1904), p. 491.

[20]Farm, Stock and Home, II (November 1, 1895), p. 396; Kansas Farmer, XXXVIII (March 4, 1910), p. 8; Farm Journal, XXVIII (November, 1904), p. 367; Wallaces' Farmer, XXXIII (December 11, 1908), p. 5.

to a farmer, but he would not give me any more wages than he would the first hobo that came his way. It is the same thing in some other places I have been. I am an all around farm hand, nearly thirty years of age and can give good references."[21] Married farm laborers felt that owners discriminated against them because of their status. Proprietors, in many cases, refused to hire a man who had a family because of the additional expenses involved.[22] Charles A. Piles, a farm laborer from Kansas summarized the grievances of the worker against his employer:

> The employer seems to try to force the employed into a relation incompatible with American spirit and ideas. He says to himself, "I pay good wages, give good food and quarters and expect a reasonable amount of work in return and since the relation is not a personal one there is no degradation involved." This is logical but does not conform to the working man's ideas. The American considers that personal services are degrading when he is asked to give them merely because someone else has more money than he has and can afford to pay for them. It seems at once to establish a class distinction which he resents and to which he will not submit. Although wages increased, still the struggle between employer and employed has become more bitter.[23]

The widening social gap between employer and employee partially stemmed from the impersonal attitude of the farmowners, but complete blame cannot be placed upon them. The demands for productivity by owners resulted in many cases from what they considered the habits and attitudes of lazy, money-hungry farm workers.

Ada C. Draper, a farmowner from Minnehaha County, South Dakota, wroter in 1906:

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[21] Dakota Farmer, XXIX (March 15, 1909), p. 13.

[22] Farm Journal, XXXII (July, 1908), p. 283; New England Farmer LXXXV (April 14, 1906), p. 4; Wisconsin Farmer, XXVII (January 30, 1908), p. 90.

[23] Kansas Farmer, XXXXII (May 12, 1904), p. 507.

> If you can get the average farm hand up before 5:30 or 6:00 he is a treasure. Some of them do not know anything about farming in general or the way the work should be done. We have had men hire to us to do farm work, asking the highest wages, who could not drive a team from the barn to the house and turn them around properly.[24]

In an article entitled, "How to keep the old man on the farm" written by the "old woman" from Edmunds County, South Dakota, to the Dakota Farmer in 1905, the following description was given of the hired man:

> On holidays the hired men leave. On Sundays it is about the same as far as the hired man goes. He does not see a chore to do; he does not know he has a duty. I know of hired men who even lie in bed till breakfast on Sunday, who take in every dance, who slide away upon a day that looks like rain, while the "old man" stays at home and hustles for dear life to do the chores, to tend to the garden, to harrow the trees and to do the thousands of things there are to do. If the "old man" stays on the farm the "hired man" must have a conscience. He must be willing to work, he must be willing to be a "man" and not merely an eating machine.[25]

Other farmowners described farm help as being inefficient, disinterested, reckless, careless, abusive to animals, indulgent in profanity in the presence of children, unambitious and thinking that the world owed them a living.[26] Consequently, from the proprietor's standpoint, the unsatisfactory habits of the farm wage-earner required an insistence upon efficiency. A trend of antagonism and even hostility between farmowner and laborer illustrated the growth of commercialization and adoption of businesslike attitudes in agriculture.

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[24]Dakota Farmer, XXVI (November 15, 1906), p. 6.

[25]Dakota Farmer, XXV (September 15, 1905), p. 13.

[26]Dakota Farmer, XXVI (October 15, 1906), p. 3; Kansas Farmer, XLIV (November 15, 1906), p. 1209; XXXVII (June 22, 1899), p. 2; Farm Journal, XXXII (June, 1908), p. 254; Southern Planter, XLVIII (February, 1887), p. 74.

Other illustrations of the growing gap shows further evidence that progressive farmers were increasingly appreciative of businesslike attitudes and techniques. In 1890, the Director of the Census announced that the frontier no longer existed. This statement implied the end of cheap land, which had previously given encouragement to the poor man striving to achieve proprietory status.[27] Even before 1890, acquisition of good public land became increasingly difficult. Although the Homestead Act of 1862 theoretically provided cheap public land, in reality, much of the public domain was never accessible to the homesteader.[28] Fraudulent practices, huge land grants to railroads and states, continuance of cash sales, issuance of large quantities of land script, and persistent activities of land speculators consumed great tracts of the best arable public lands west of the Mississippi before 1880. Poor homesteaders had the option of paying a high price for land held for speculation while working for other farmers, or seeking homesteads upon inferior lands. Consequently, having to purchase from railroads or land speculators appeared to severely handicap those seeking to acquire farm ownership.[29] The scarcity of land by 1890 brought farm workers face to face with the stark reality that the once accessible ladder from hired hand to proprietor was becoming less attainable.

Before the disappearance of the frontier in 1890, farm workers comforted themselves with the thoughts that they soon would climb the

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[27]Johnstone, "Old Ideals Versus New Ideas," p. 147.

[28]Paul W. Gates, "The Homestead Law in an Incongruous Land System," American Historical Review, XLI (1936), pp. 652-681.

[29]Ibid.

ladder to farm ownership. In some cases the scarcity of good public land resulted in a freezing of farm help into an inferior status. Farm workers became increasingly aware that they were farm laborers permanently, not merely climbers on the first of a series of rungs of a ladder that would eventually lead to farm ownership. The stratification of the laboring class tended to increase the impersonalization and in many cases stifled ambition. Consequently, farmowners increasingly viewed the laborer as merely a cog in the production of their goods.[30]

The impersonalization factor between proprietor and laborer was also related to a changing makeup and quality of farm workers. The increased flow of immigration in the middle of the nineteenth century provided an incident for the first expression of altering attitudes toward hired help.

Many agricultural immigrants arrived from southern and southeastern Europe. Northern Italians proved to be very capable and efficient farm workers and owners, settling in the truck and berry regions of southern New Jersey, New York and New England. Italian laborers also succeeded in western Wisconsin, where dairying, cattle raising, and cereal crops were the chief agricultural industries. In addition, many Sicilians established colonies in the hills of Arkansas where they became excellent farmers and responsible citizens.[31] The Polish people

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[30]La Wanda F. Cox, "Tenancy in the United States, 1865-1900: A Consideration of the Validity of the Agricultural Ladder Hypothesis," Agricultural History, XVIII (July, 1944), p. 104; Johnstone, "Old Ideas Versus New Ideas," p. 151; Florida Agriculturist, XXXIII (July 18, 190¢), p. 454.

[31]John Lee Coulter, "The Influence of Immigration on Agricultural Development," Annals of the American Academy of Political and Social Sciences, XXXIII (March, 1909), pp. 154-155; Alexander E. Cance, "Immigrant Rural Communities," Annals, LX (March, 1912), pp. 72-73.

resided in Texas, Illinois and Wisconsin, but they especially exerted a considerable influence upon the Connecticut Valley where they raised onions and tobacco. Other southern European and Asian immigrants such as the Hebrews, Portugese, Greeks, Belgians, Japanese and Chinese alleviated much of the farm labor problem by applying their experience to American agriculture.[32]

Many of the more indigent newcomers went to work as hired hands and servants, and in many cases much of the hostility toward the strange ways of foreigners was directed toward the occupational ranks they filled.[33] With more immigrants coming to the United States each year, the farmer visualized cheap labor as a means of increasing efficiency. As early as 1870, a Massachusetts farmer stated: "What is needed to improve the farming interest is more and cheaper help. Let the Asiatic come. Ireland has almost run out, and these now here are getting too much Americanized to be very efficient help."[34] In 1900, a farmer in Massachusetts explained that he preferred foreign laborers because they worked for lower wages and were "satisfied to be regarded as servants."[35] In the vineyards and orchards of California, the farmers depended upon an abundance of cheap labor that appeared when needed and departed after the harvest. By 1880, a large proportion of California labor was filled by Chinese who worked in gangs through a "boss Chinaman" or

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[32]Cance, "Immigrant Rural Communities," pp. 75-77.

[33]Up-To-Date Farming, X (September 8, 1907), p. 5.

[34]Massachusetts Bureau of Statistics of Labor, Compendium of the Census of Massachusetts; 1875, pp. 232-233.

[35]United States Industrial Commission, Report, XI (Washington, 1901), p. 89.

contractor. In the northeast, farmers simply ordered their laborers through agents who shipped newly arrived immigrants from the cities to the farms. By the 1890's, padrones were rounding up Italian families in Philadelphia for harvest work in New Jersey.[36]

In some cases, immigrant workers from southern Europe adapted very well, but others encountered difficulties because of inexperience and lack of familiarity with American farming practices. Many native farmowners mistakenly characterized these difficulties as being a lack of character and intelligence on the part of the farm laborer. Some went so far as to stereotype all southern European immigrants as illiterates and criminals. Writers for such farm journals as the Progressive Farmer, Dakota Farmer and Wallaces' Farmer regarded the "new immigrants" to be far inferior to those who had immigrated from Denmark, Norway, Sweden, Germany, Scotland and England. In 1887, at a Connecticut farmer's convention, a speaker offered this advice about the southern European immigrant: "If you hire this class of men there is one thing you must not do. Don't go into the fields with them to work."[37] A farmer writing to the Farm Journal in 1908 complained that the great handicap in employing the newer immigrant lay in the fact that they did not speak or understand the English language and were addressed mainly by signs.[38] In an address to the Farmer's National Congress in 1905, Robert Wood of Cambridge, Massachusetts, characterized the immigrant

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[36]U. S. Industrial Commission, Report, XV (Washington, 1901), pp. 518-522.

[37]Connecticut Board of Agriculture, Annual Report, 1887, pp. 310-311.

[38]Farm Journal, XXXII (July, 1908), p. 283.

from Southern Europe: "It is evident that much of our present immigration is as unfit on the farm as in the city; that it is of low vitality, poor physique, very ignorant, often diseased, mentally deficient and of criminal tendencies; by reason of its much lower standard of living entering into unhealthy competition with American labor."[39] Since some of the newer immigrants knew relatively little of farming or farm methods, and sometimes were incapable of grasping even the ideas, they were used in large numbers in sugar beet fields, vegetable gardens and fruit growing areas where the work was hard yet simple and easily learned.[40] Because American agriculture called for a particular kind of experience, many southern European immigrants proved to be unqualified, and in the process, inadvertently contributed to the widening gap between proprietor and worker.

Another type of farm worker developed as farms got larger and more commercialized, namely migrant workers. The transit or migrant encouraged an even more impersonal relationship between owner and worker. By the turn of the century, migrant workers were generally recognized as a "peculiar product of the great wheat raising districts, moving in crowds from south to north as the grain ripens, and returning again to the cities for such casual employment as may be had in winter, or to hibernate, beg, or go as vagrants to workhouses."[41] Many transients

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[39]Farmer's National Congress, official proceedings of the Twenty-Fifth Annual Convention, 1905 (Richmond, 1906), p. 107.

[40]Wallaces' Farmer, XXXV (March 25, 1910), p. 3; John Lee Coulter, "The Influence of Immigration on Agricultural Development," p. 373; California Cultivator, XXXV (December 22, 1910), p. 627.

[41]U. S. Industrial Commission, Report, XI, p. 81.

followed the wheat harvest north from Oklahoma. Blacks from Virginia and Maryland moved northward into Pennsylvania, New Jersey and Rhode Island. Italian workers from the central and northern states arrived to cut sugar cane in Louisiana. Seasonal workers streamed into the fruit orchards of California and Florida, barely ekeing out a living.[42] In most cases, the migrant workers suffered from low wages, inadequate housing, community hostility and lack of educational facilities for their families. J. R. Dodge, a worker for the Department of Agriculture for the United States Industrial Commission, described the migratory workers and revealed their low social status and the community prejudice against them:

> The annual inundation of grain fields in harvest time, hop yards in picking season, fruit picking in districts of extensive market orchards and similar harvest seasons requiring large numbers of hands for a short time, has a demoralizing effect on farm labor. . . . Such employments demand little skill; the requirements of each are simple and easily satisfied. They constitute a low order of farm labor, if worthy to be classed with it at all, and are excrescences upon its fair face.[43]

Many progressive farmers referred to migrants, transients and seasonal workers as being "bums," "tramps," "rovers," "hobos," and "riffraff." A Kansas farmer stated that "they will work awhile at one place until the new wears off, then they pick up their grip and move on, usually at a time when they are most wanted, leaving the farmer to fight it out alone."[44] In many cases the transient did not fit these contemptible

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[42]U. S. Industrial Commission, Report, X, p. 320; XV, p. 503; XI, pp. 90-91; X, pp. 846, 850.

[43]U. S. Industrial Commission, Report, XI, pp. 79-80.

[44]Kansas Farmer, XLIII (March 16, 1905), p. 7.

descriptions, a stereotype developed which characterized the migrant worker as one who roved from farm to farm, having little or no ambition, saving only enough to blow on whiskey and a good time.[45]

In many instances the impersonal relations between employer and worker, and the increasing growth of a business employer concept on the farm, originated because a large number of sons were migrating to the cities. It seemed that the bright lights of the city had so much more to offer than the drudgery and loneliness of farm life, despite the trends toward mechanization. Since it became increasingly difficult to attain ownership of a farm, many looked to a job in industry as the answer to economic success and personal achievement. The long hours in the heat, and the general discomfort of farm labor did not add to the joys of the farm. As the farmboy got glimpses of city life through newspapers and conversations he imagined that labor in the city was far better than work on the farm.[46] As a result of increased migration to the cities at the turn of the century, part of the native farm laborers were replaced by a labor force which had no personal dealings with owners, but were simply regarded as factors in production. As migrant workers replaced local labor, farmowners took less interest in the personal life and background of their workers, but thought only in terms of efficiency measured in terms of production. Many farm employers

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[45]Kansas Farmer, LXIV (October 24, 1906), p. 1120; Dakota Farmer, XXIII (November 1, 1903), p. 12; Wallaces' Farmer, XXXI (August 10, 1906), p. 957.

[46]California Cultivator, XXII (February 26, 1904), p. 208; XXVII (July 26, 1906), p. 75; XXIII (September 9, 1904), p. 250; Wisconsin Farmer, XXVII (January 30, 1908), p. 90.

abandoned the practices of providing meals and private rooms in their own homes, and allowing the laborer to mingle with the family.[47] In 1886, when a farmer in San Mateo, California, was asked whether he objected to hired men eating at his family table, he replied: "A farm hand will come along looking for a day's or a month's work; you do not know who he is, and you do not want to bring him into your family."[48]

As farming became more commercialized and businesslike, and as employer-employee relationships increasingly widened, it was inevitable that similarities would occur between farming and industrialization. In their dealings with farm labor, some proprietors began advocating a written contract rather than a verbal one. Because of the change in quality of farm help, progressive farmers felt a written contract would increase the efficiency of their operations by legally binding workers to a specified task. In some cases under a verbal contract, the employee's remembrance of their terms proved to be far different from that of the owner.[49] By 1900, a few New York farmers had instituted a system of timecards and wages by the day.[50] Although farm laborers never organized like workers in the urban centers, there was evidence in isolated instances of large groups of farm workers bargaining for

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[47]Kansas Farmer, XXXVII (June 22, 1899), p. 2; Farm Journal, XXXII (June, 1908), p. 254; Wisconsin Farmer, XIII (April 20, 1894), p. 243; Wallaces' Farmer, XXXIII (September 11, 1908), p. 4.

[48]California Bureau of Labor Statistics, Biennial Report, 1885-1886, p. 46.

[49]Johnstone, "Old Ideals Versus New Ideas," p. 150; Southern Cultivator, XLVIII (March, 1890), p. 117.

[50]U. S. Industrial Commission, Report, XI, p. 89.

wages and even threatening to strike. In California during the 1890's, Japanese workers were imported, and worked in gangs supervised by a Japanese boss. In some cases the "boss" or spokesman acted as an effective agent for collective bargaining. By 1900, the oriental workers in California were using such tactics as walkouts and threatened strikes to force higher pay from growers during harvest time.[51] In 1903, a writer for the Farm Journal complained of a combination of farm hands in the West who were controlling not only the supply of workers but also the wages.[52] Beginning in 1902, the American Federaion of Labor began placing organizers among farm laborers in some parts of the country. Agents sent by Samuel Gompers, President of the American Federation of Labor, traveled among farm workers advocating higher wages, shorter hours and better working conditions could be secured by banding themselves together in unions; that timely strikes during harvesting or other busy seasons would insure practically all that they demanded and would guarantee permanent employment at higher wages for short hours.[53] In Iowa by 1904, a union of farm hands was asking for an eight-hour day, thirty dollars per month, board and washing and other minor concessions.[54] Up-To-Date Farming, the official newspaper for the Society of Equity, encouraged and justified farm laborers in their attempts at organization.

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[51]Cox, The American Wage Earner, p. 102.

[52]Farm Journal, XXVII (September, 1903), p. 310.

[53]Wisconsin Farmer, XXV (March 29, 1906), p. 205; Stuart Jamieson, Labor Unionism in American Agriculture, U. S. Bureau of Labor Satistics, Bulletin 836 (Washington, D. C., 1945), p. 48.

[54]National Stockman and Farmer, XII (March, 1904), p. 200.

In 1905, J. W. Everitt, president of the Society of Equity wrote:

> The question of farm labor is becoming each year more and more a serious problem, and word comes from the East that farm laborers are discussing the question of organization as a measure of self-protection if not of self-defense. They cannot be blamed if they take such action. Other earners have long since done so, and have succeeded both in increasing their pay and shortening their hours.[55]

Farmers were also imitating business in some cases by turning to paid managers who supervised the farm labor force. This was especially true on the large grain farms in the West. Like the factories, the primary duty of farm managers was to simply generate profits for the non-resident owner.[56] In 1905, the United States Agricultural Yearbook noted the advent of a new class "of landlords who have become such as a consequence of seeking investment and finding it preferably in farm lands."[57] J. G. Thompson, Professor of Agriculture at the University of Illinois believed that the increased tendency towards the operation of farms by hired managers indicated a growth of capitalism in agriculture and a movement away from tenancy which seemed less efficient. He attributed the increase in hired managers to the fact that agricultural colleges were turning out increasing numbers of young men trained in scientific agriculture.[58] In 1898, William Allen White, writing for the Kansas Farmer described an average bonanza wheat farm as being 7,000 acres with crews of workmen living and working at one

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[55]Up-To-Date Farming, VIII (August 1, 1905), p. 5.

[56]H. W. Quaintance, "The Influence of Machinery on the Economic and Social Conditions," p. 112; Joseph B. Ross, "Agrarian Changes in the Middle West," Political Science Quarterly, XXV (December, 1910), p. 628.

[57]U. S. Agriculture Yearbook, 1905 (Washington, 1906), p. 531.

[58]J. G. Thompson, "Changes in Agricultural Conditions shown by the Census of 1910," American Statistical Association Report, XII (March, 1911), p. 470; Wallaces' Farmer, XXX (September 29, 1905), p. 1129.

end of the farm never seeing the crews in other corners from one season to the next. Hired managers supervised the three divisions of the farm through superintendents who were responsible for their particular division. These bonanza farms were scattered throughout the Dakotas and California.[59] By 1910, farm managers comprised a little over one percent of all farmers, or approximately 68,000 in number.[60] In Minnesota alone in 1910, some 1,209 farms were supervised by managers, which testified to the influence of agricultural colleges and the adoption of business practices.[61]

A changing attitude toward urban labor further strengthened an employer consciousness on the farm and a closer identification with businessmen. Prior to 1880, farmowners often identified themselves with urban workers because a significant portion were still independent craftsmen who owned their tools and sold products directly to the consumer. Much of the time they came closer to being small businessmen rather than wage workers in the modern sense. As monopolies increased in power in the 1870's and 1880's, farmers concentrated their suspicion upon the wealthy and aristocratic, while in the process sympathizing with the hapless workers.[62] In the 1880's, farmers' organizations met

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[59]Kansas Farmer, XXXVI (January 6, 1898), p. 2.

[60]Fred R. Yoder, Agriculture Economics (New York: Thomas Y. Crowell Company, 1929), p. 138.

[61]Edward Van Dyke Robinson, "Changes in Minnesota Agriculture Indicated by the Preliminary Results of the Thirteenth Census," American Statistical Association Report, XII (March, 1911), p. 482.

[62]Hofstadter, The Age of Reform, p. 123; Saloutos and Hicks, Agricultural Discontent, p. 258; Johnstone, "Old Ideals Versus New Ideas," p. 160.

with urban labor unions for the purpose of discussing their mutual problems. On July 28, 1886, at the town of Litchfield in Jackson County, Arkansas, a large representation from seven states met with the Arkansas Wheel for the purpose of creating a national body. The Knights of Labor sent a letter in support of the Wheel, promising aid in securing needed legislation and repealing obnoxious laws.[63] In 1889, at a national meeting of the Farmer's Alliance in St. Louis, the farmers and the Knights of Labor attempted a coalition by advocating such radical measures as a subtreasury system, the abolition of national banks and the unlimited coinage of silver.[64]

As long as urban workers resembled independent craftsmen, their situation was regarded sympathetically through symbols familiar to the farmer. By the time modern trade unions began to develop, progressive farmers increasingly conceived of themselves as employers of labor and as commercial proprietors, differing in position and status from common wage workers. Although progressive farmowners showed little empathy for monopolies, they did not look kindly upon the various militant unions which were developing.[65] Usually the craft unions demanded higher wages and shorter working hours. The agitation for shorter hours, in many cases, offended the rural mind, which out of its own experience had acquired a deep respect for long hours of hard work and for humble

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[63]W. Scott Morgan, History of the Wheel, p. 123.

[64]Saloutos and Hicks, Agricultural Discontent, pp. 114-115.

[65]Johnstone, "Old Ideals Versus New Ideas," p. 160.

rewards.[66] Business propagandists and conservative leaders encouraged progressive farmers to view wage gains as a factor contributing to the high cost of the products they purchased. In many cases, farmers looked upon the idleness of the unemployed and the tactics of industrial unions as examples of urban corruption.[67]

What offended the developing employer conscience of many progressive farmers was the violence and strike tactics associated with the more militant labor unions. A writer for the Kansas Farmer in 1897 expressed his attitude toward strikes in general: "Wanton destruction of property which experience shows always accompanies strikes. The strike is first an attack aimed at the employer by depriving him of the use of his property on account of a disagreement about wages."[68] In the coal miner's strike of 1897, in which 375,000 workers struck for higher wages, many progressive farmers criticized labor because violence, suffering of the weak and destruction of property seemed like utter folly in forcing a raise in wages.[69] Progressive farmers thought of themselves as a well intentioned people, always to be found on the side of law and order and against violence or revolutions.[70] In the butcher's strike of 1904 in Chicago, a writer for the Orange Judd Farmer complained

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[66]Edward F. Adams, The Modern Farmer (N. J. Stone Company: San Francisco, 1899), p. 389.

[67]Johnstone, "Old Ideals Versus New Ideas," p. 146; Hofstadter, The Age of Reform, p. 123.

[68]Kansas Farmer, XXXV (July 15, 1897), p. 8.

[69]Kansas Farmer, XXXV (July 8, 1897), p. 8.

[70]Farm Journal, XXV (November, 1901), p. 342.

of the beating of non-union men and other acts of lawlessness:

> So rabid have the mobs been that in some cases they have roughly handled their own men, mistaking them for "strike breakers." Two farmers at the yards to sell their stock, were seriously injured by rioters one day last week. If farmers will imagine the situation which would result from such conduct on their farms, they will see how far from commendable the course of the strikes is. If there was a union of agricultural laborers and that organization, claiming to have a monopoly of the skills and ability to sow, plant, cultivate and harvest, and refusing the wages and terms offered by the farmers, would "persuade," threaten, stone and beat others who were willing to work on the farmer's terms the case would be practically a parallel to that of the strike now in progress.[71]

Wallaces' Farmer in an editorial on the urban labor question in 1903 questioned the motives of the new labor organizations which in its opinion had been formed through the efforts of professional agitators who were in the business for what they could make out of it. Acting differently from the older unions which had learned to look on the mutual interests of both sides, the newer unions interfered more and more with the management of the factory in that they determined who would work, what would be the product of a day's work and denying to non-union workers the right of labor.[72] The Texas Farmer in 1903 characterized strikes as an evil because they interfered with the liberty, convenience, commerce, profit and comfort of the public; and whatever interfered with public convenience, comfort or profit, the public had a right to control.[73] With the threat of a coal strike in 1906, many progressive farmers awakened to the fact that labor

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[71]Orange Judd Farmer, XXIII (August 25, 1904), p. 4.

[72]Wallaces' Farmer, XXXII (August 7, 1903), p. 1037.

[73]Texas Farmer, XXIV (May 30, 1893), p. 8.

organizations were becoming just as obnoxious as the railroad, oil and rubber trusts. They believed that labor trusts were just as selfish, unjust, cruel, and defiant of law and human rights as the trusts of capital.[74] L. H. Bailey, a farmer and member of the Country Life Commission of 1909 characterized the urban workingman in the following manner: "The city working man owes responsibility to his employer and to society; and so long as the present organization of society continues he cannot be an effective member of society unless he has the interest of his employer constantly in mind."[75]

By 1910, the progressive farmers had assimilated the ideals of opportunity and business success to the extent that they found it impossible to join forces with wage labor. In summarizing the change of attitude toward urban labor, J. W. Jaffrey, writing for the California Cultivator in 1902, stated that:

> . . . the only parallel between the farmer and the wage earner is that both believe that they are suffering from the oppression of accumulated wealth. There all similarity ceases. The farmer sells the product of his labor; the wage earner sells his labor direct. The farmer is an employer of labor, to a great extent, and where he hires all his work done is in exactly the category of the manufacturer who hires his labor. Both the farmer and the manufacturer expect to speculate upon the product of their business when their products are brought from the raw to the finished state by the wage earner.[76]

By 1910, many progressive farmers assumed the role of a businessman to the extent that they had acquired an employer consciousness.

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[74]Orange Judd Farmer, XL (February 24, 1906), p. 304.

[75]L. H. Bailey, The Country Life Movement in the United States, (New York, 1911), pp. 139-140.

[76]California Cultivator, XVIII (January 24, 1912), p. 50.

Taking advantage of technological and scientific advances in agriculture, the progressive farmer developed a business-employer stance by utilizing labor in a way that would complement and adapt better to the new commercialism. Farmowners used labor impersonally to strengthen efficiency on the farm. This resulted in a widening and impersonal gulf separating farmowners from hired help. Also, with the rise of a more aggressive labor force in the urban centers, progressive farmers identified with the city employers by deploring riots, strikes and violence, which would ultimately cripple the efficiency procedures of industry. It is interesting to note that owners, wishing to physically improve their farm, took the initiative by partially adjusting their attitude, but in many cases the shift in feeling resulted from the quality and disposition of farm and urban labor. Although by 1910 progressive farmers could not be classified as businessmen in the industrial sense, they certainly qualified as small rural businessmen, who like their urban counterparts were trying to regain their power and prestige.

Thus far, this study has attempted to show how progressive farmers hoped to achieve order through emulation of big business practices. Certainly, organization, improved technology and more efficient labor policies brought greater stability to the agrarian community. But how were farmers made aware of efficiency techniques already practiced by the business society? Certainly, farmers did not suddenly wake up one morning and decide that greater order could be achieved by looking to big business. The years 1880-1910 marked a period of history in which farmers accepted the teachings of various agencies, concerning scientific farming, efficiency techniques and up-to-date procedures.

CHAPTER VII

EDUCATION OF THE FARMER

By the turn of the century not only did progressive farmers employ better business methods, but they also began to accept the teachings of knowledgeable and experienced agricultural professionals. Professionalization was evident in such occupations as law and medicine where the respective associations demanded that prospective lawyers and doctors pass examinations and maintain high standards in serving the public. In a limited sense, agriculture displayed similar leanings toward professionalism. Institutions such as the U. S. Department of Agriculture, experiment stations and agricultural colleges produced trained and educated professionals who broke down many agrarian traditions and customs and disseminated improved farm practices and new scientific techniques.[1] Scientific agriculture, in effect, meant farming in the light of all accurate information obtainable from experience, observation, persons, or books. It made no difference where the information came from or if the chemist and physicist never saw a plow. If properly applied, scientific farming reduced cost and consequently increased farm efficiency. The teaching of science applied to agriculture included such topics as soil composition, action of water in the soil,

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[1]Gove Hambridge, "Farmers in a Changing World," USDA Yearbook, 1940 (Washington: Government Printing Office, 1939), pp. 17-18; Edwards, "The First 300 Years," pp. 246-256; Johnstone, "Old Ideals Versus New Ideas," pp. 153-158.

and plant physiology; and offered advice on innumerable subjects, "from alfalfa and applesauce to zygophyllum and zymotic diseases."[2]

Although agriculture reformers had advocated scientific methods since colonial days, farmers were rather slow in accepting and responding to these techniques. Progressive Virginia planters in the South like Washington and Jefferson advocated crop rotation, the use of fertilizers, new crops and improved livestock. Agricultural societies began to spring up in the South devoted principally to the dissemination of general scientific information and the encouragement of experimentation with new implements, new plants, and new methods of cultivation.[3] John Taylor of Caroline County, Virginia, convinced of the need for better farming practices, wrote a number of essays between 1810 and 1811 advocating better farming practices.[4] In 1819, John S. Skinner began publishing the American Farmer at Baltimore while N. B. Cloud published the American Cotton Planter at Montgomery, Alabama. These journals, along with the county and state agricultural societies urged farmers to rotate their crops, plow deeper and use manure and commercial fertilizer.[5]

In the 1830's, Edmund Ruffin of Virginia disseminated knowledge of scientific agriculture, and much of the abandoned land was regenerated by the use of marl.[6] Despite these efforts, southerners neglected

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[2]Carver, "Principles of Rural Economics," p. 114; Johnstone, "Old Ideals Versus New Ideas," p. 152; Edward F. Adams, The Modern Farmer, p. 30.

[3]Fite and Reese, Economic History, p. 181; Edwards, "The First 300 Years," p. 191.

[4]Fite and Reese, Economic History, p. 181.

[5]Ibid.; Johnstone, "Old Ideals Versus New Ideas," p. 115.

[6]Fite and Reese, Economic History, p. 181.

scientific agriculture because of the availability of virgin land. After the invention of the cotton gin in 1793, farmers found it more profitable to take up virgin land in the newer South than to reclaim farms in Virginia and the Carolinas. Southerners mined the soil for all it was worth, with the emphasis not upon how much could be raised per acre, but on the amount which each worker or hand could produce.[7] The Tennessee Agriculturist noted in 1844 that "perhaps the greatest mistake in the farming of America, is the practice of attempting to cultivate more land than can be well tilled."[8] In 1843, a writer in the Southern Cultivator disgustedly exclaimed that had farmers preserved their soils earlier, "our old red hill Georgia would present quite a different aspect, but Alas! Alas! it is not so."[9]

Farmers in the North prior to the Civil War also hesitated to accept scientific methods despite the presence of agricultural societies, journals, and reformers. In New England, Elkanah Watson inaugurated the agricultural fair and the first agricultural school in the United States opened in 1822.[10] Societies such as the Philadelphia Society for the Promotion of Agriculture established in 1785, and the New York Society for Agriculture, Arts and Manufacturing in 1791, advocated better farming practices. Agricultural journals in the early 1800's such as The New England Farmer in Boston and the Plough Boy in Albany,

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[7]Edwards, "The First 300 Years," p. 209.

[8]Quoted by Fite and Reese, Economic History, p. 181.

[9]Ibid.

[10]Johnstone, "Old Ideals Versus New Ideas," p. 115.

exerted a great influence.[11] One of the most famous agricultural leaders was Jesse Buel. In 1834, Buel established the Cultivator in Albany, New York. Selecting the motto "to improve the soil and mind," Buel used this journal as an ideal medium for the dissemination of the principles of scientific farm practice.[12] Enlisting more than 200 correspondents from all parts of the country, Buel discussed almost every conceivable subject relating to agriculture and farm life: soil chemistry, animal husbandry, horticulture, and household economy.[13] In 1839, just before his death, Buel expressed the purpose of all his previous writings: "In detailing the operations of the farm, I have endeavored to explain the principles on which these operations are founded. Indeed, so far as my ability would permit, I have endeavored to unite science and art, as I think they ought to be united, in all the business of farming of which I have treated."[14]

The reluctance of farmers in both the North and South to accept improved farming techniques prior to the Civil War stemmed partially from the fact that the state and federal governments assumed little responsibility for agricultural improvements. The editor of the Southern Cultivator, in referring to sessions of several legislatures, noted in 1844 that so far as he knew "not a single thing had been done

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[11]Ibid.; Fite and Reese, Economic History, p. 165.

[12]Harry J. Carman (Ed.), Jesse Buel (New York: Columbia University Press, 1947), p. xxxii. See also Fite and Reese, Economic History, p. 165.

[13]Carman, Jesse Buel, p. xxxii.

[14]Ibid., pp. xxxiii-xxxiv.

for agriculture by any one of them."[15] Congress in 1839 appropriated a measly $1000 to gather agricultural statistics and to distribute free seeds for experimental purposes.[16]

From the Civil War to the latter part of the 19th century, reformers continued to encourage scientific techniques, but very few farmers took them seriously. In most cases farmers ignored or ridiculed "book larning" and "theorists" who advocated scientific methods. The usual comment, "them fellers can't larn me nothing" indicated a prejudice based on ignorance and misunderstanding.[17] One book published in 1860 mirrored the farmer's hostility to scientific agriculture: "Scientific agriculture stands today with phrenology and biology and magnetism. No farmer ever yet received any benefit from any analysis of the soil and it is doubtful if any one ever will."[18] In 1901, Dr. L. O. Howard, Chief Entomologist of the United States Department of Agriculture related his early experiences in attempting to carry the good news of science to farmers:

> The farmers listened to me with, I will not say incredulity, but certainly with indifference. They looked upon any man who talked about the application of science to agriculture as a

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[15]Quoted by Fite and Reese, Economic History, p. 182.

[16]Fite and Reese, Economic History, p. 165.

[17]Wallaces' Farmer, XXVI (January 11, 1901), p. 26; Texas Farmer, XXII (November 30, 1901), p. 1; A. L. Denaree, "The Farm Journals, Their Editors, and Their Public," Agricultural History, XV (October, 1941), p. 187.

[18]Quoted in Samuel Eliot Morison and Henry Steele Commager, The Growth of the American Republic (New York: Oxford University Press, 1950), p. 195.

> theoretical fellow who had not the practical experience which was necessary, before practical ideas could be gained.[19]

Between 1890 and 1910 much of this suspicion and reluctance of scientific farming was gradually disappearing as agriculture became more professionalized. Due largely to government aid, and such educational forces as the Department of Agriculture, experiment stations, and agricultural colleges, many progressive farmers were convinced of the benefits accruing from improved farm practices and scientific techniques. In addition, businessmen and bankers contributed to the growing professionalism by sending out specially trained experts to preach the gospel of better farm techniques.

The establishment and growth of the Department of Agriculture, representing a vast amount of government aid, probably contributed more to agricultural improvement than any other factor. In July, 1862, Congress formally established the Department of Agriculture, "to acquire and diffuse among the people of the United States useful information on subjects concerned with agriculture in the most general and comprehensive sense of that word, and to procure, propagate and distribute among the people new and valuable seeds and plants."[20] In 1889 Congress raised this department to executive status with a Secretary of cabinet rank. Under the first three secretaries, Norman J. Colman, Jeremiah Rusk, and Julius Sterling Morton, the department witnessed little growth.[21]

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[19]U. S. Industrial Commission, Report, X, 1900, p. 762.

[20]John C. Medd, "Agricultural Education in the United States," The Nineteenth Century, LX (August, 1906), p. 300.

[21]Gladys L. Baker, Wayne D. Rasmussen, Vivian Wiser, and Jane M. Porter, Century of Service (Washington: USDA, 1963), pp. 30-33.

Secretary Morton, a conservative Cleveland Democrat, cut departmental expenditures, dismissing many clerks and ordering reductions in the salaries of others.[22] The department's role in teaching efficiency and scientific methods to farmers actually began on March 6, 1897, when James Wilson became the fourth Secretary of Agriculture. During the sixteen years that Wilson served as Secretary, the Department expanded and widened the scope of its activities, in addition to the strengthening of the relationship between itself and land-grant colleges.[23]

The new secretary along with other leaders of the Department of Agriculture, Willet Hayes, Gifford Pinchot, Daniel Salmon, Beverly Galloway, and Milton Whitney, not only favored scientific methods; but they represented a growing emphasis upon the trained professional.[24] "Tama Jim" Wilson, as he was popularly known, came to the Department with considerable experience in legislative and agricultural affairs. He had been a professor of agriculture and director of the experiment station at Iowa Agricultural College. In addition he served three terms in both the Iowa State Legislature and the United States House of Representatives.[25] In 1874, while a member of Congress, Wilson introduced

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[22]Ibid.

[23]Texas Farmer, XXV (August 6, 1904), p. 1; Baker, Century of Service, p. 39; See also Donald Jerome Tweton, "The Attitudes and Policies of the Theodore Roosevelt Administration Toward American Agriculture," Unpublished Dissertation (Norman, Oklahoma, 1964), pp. 159-175; A good biography of Wilson is Early V. Wilcox, Tama Jim, (Boston: Stratford Company, 1930).

[24]Tweton, "The Attitudes and Policies of the TR Administration," p. 212.

[25]Baker, Century of Service, p. 40.

the first bill to raise the Department to cabinet status. This legislative experience later aided him as Secretary, because the passage of helpful agricultural legislation sometimes depended upon the maintenance of favorable relations with members of Congress.[26] President Taft described Wilson as one "who knew politics and was a good politician. He was familiar with the ways of the Senate and the House of Representatives, and knew how to lay the business of his Department before legislative committees."[27]

Wilson quickly recognized that his predecessor had left him with a Department that was unorganized and lacking in centralization. Prior to Wilson's appointment, each aspect of agricultural investigation functioned as an autonomous division. Two bureaus, thirteen divisions, two offices, two sections, and a library made up the Department of Agriculture.[28] In 1901, with Congressional approval, Wilson reorganized the Department by creating the Bureau of Plant Industry, which consolidated the Divisions of Botany, Vegetable Physiology and Pathology, Pomology, and Agristology. He also promoted the Divisions of Chemistry, Soils, Forestry, Biological Survey, and Entomology to bureau status. This reorganized plan stimulated greater centralization and more efficient operations.[29] The reorganization of the Department called for a

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[26]Ibid.

[27]Quoted in Baker, Century of Service, p. 40.

[28]"Report of the Secretary of Agriculture," Annual Report of the Department of Agriculture, 1898 (Washington: U. S. Government Printing Office, 1898).

[29]Baker, Century of Service, p. 40; Wallaces' Farmer, XXXIV (December 24, 1909), p. 1658.

greater number of efficient and professional employees. In 1897, when Secretary Wilson took charge of the Department, only 2,433 persons were on the rolls; by 1906 this number mushroomed to 6,422.[30]

Wilson's most notable achievement involved the Department's increased involvement in scientific and educational activities. In 1902, Theodore Roosevelt described this important phase of the Department's work:

> In no department of governmental work in recent years has there been greater success than in that of scientific aid given to the farming population, thereby showing them how most efficiently to help themselves. There is no need of insisting upon its importance, for the welfare of the farmer is fundamentally necessary to the welfare of the republic as a whole.[31]

Wilson realized that if the Department desired to promote efficient farming through scientific investigations, money would be needed. Knowing what money could do for the farmer, Wilson boldly requested that Congress give the Department much larger appropriations. For example, between 1901 and 1909, Congress increased appropriations for soil studies from $25,000 to $200,000. From 1907 to 1909, appropriations for the Bureau of Plant Industry doubled. Congress also allotted almost a million dollars between 1904 and 1909 for scientific study to combat the boll weevil.[32] By 1904, with the aid of greater appropriations

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[30]Wallaces' Farmer, XXXI (December 21, 1906), p. 1522.

[31]"Second Annual Message," Works of Theodore Roosevelt, XV, 20 V. (New York: Scribners, 1926), p. 165.

[32]Quoted in Tweton, "The Attitudes and Policies of the TR Administration," pp. 176-177.

from Congress, 2,000 scientists worked for the Department.[33]

Because of the leadership of Wilson and increased appropriations, the Department conducted a number of specific investigations, which eventually saved farmers millions of dollars. In order to diversify southern agriculture, the Office of Foreign Seed and Plant Introduction, under the direction of David G. Fairchild, sent "plant explorers" to all parts of the world to find plants which could be profitably grown. Seaman Knapp returned from Japan with a short-kerneled variety of rice which was easily adapted to the soil of eastern Texas and Louisiana.[34] The Bureau of Animal Industry investigated animal diseases during Wilson's tenure and succeeded in controlling hog cholera and Texas fever. When the foot and mouth disease broke out in New England in the early 1900's, the Department stamped out the menace by detailing fifty men and spending $300,000 in three months.[35] In addition, the Bureau of Plant Industry successfully fought many plant diseases, such as pear blight, cotton wilt, and fungus diseases.[36] Wilson's scientific corps also controlled insect damage to various crops such as the San Jose scale, the Mexican boll weevil, and the Gypsy moth.

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[33]A. C. True, "Popular Education for the Farmer in the United States," Yearbook of the United States Department of Agriculture (Washington, 1898), p. 280.

[34]"Report of the Secretary of Agriculture," Annual Report of the Department of Agriculture, 1900 (Washington, 1900), p. xxxii.

[35]Texas Farmer, XXV (August 6, 1904), p. 1.

[36]Tweton, "The Attitude and Policies of the TR Administration," pp. 189-190.

Animal and plant breeding received attention from the Office of Animal Husbandry and Bureau of Plant Industry. For example, the scientists produced wilt resistant cotton, drouth resistant corn, a broadleafed tobacco plant for cigar wrapping, and cold resistant fruit trees.[37] Finally, the Bureau of Soils, under Milton Whitney, directed the work of soil survey and map making, adoption of soils to new crop varieties, and fertilizer investigation.[38]

Secretary Wilson realized that these scientific investigations necessitated a practical application in order to be worthwhile. In 1901 he declared that "as far as this department is concerned, we do scarcely any work that has not in view the immediate application of science to some feature of agriculture."[39] Therefore, the Department attempted to disseminate the latest scientific information to the American farmer. Wilson strongly believed that education was the key to successful farming. In 1901, Wilson wrote that the farmer

> . . . needs more than the experience of a lifetime which he might get from his father; he needs to know what has been discovered with regards to the sciences that relate to agriculture. The farmer of today should be a farmer who has knowledge of the most recent discoveries of scientific agriculture, and he should know how to apply them.[40]

The Department utilized three techniques in spreading the latest scientific information: Demonstration farms, institutes, and printed material.

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[37]Ibid., pp. 192-196.

[38]Baker, Century of Service, p. 51.

[39]Quoted by Tweton, "The Attitude and Policies of the TR Administration," p. 196.

[40]Ibid.

Under the supervision of the Bureau of Plant Industry, special agents worked with farmers in the establishment of demonstration farms. Seaman A. Knapp and W. J. Spillman illustrate the effectiveness of demonstration farms as a means of educating farmers. In 1904, Secretary Wilson dispatched Knapp to aid the cotton producing South, while Spillman worked primarily in the North and West.

In 1902, the cotton boll weevil appeared in Texas, and by the next year the insect threatened the very existence of cotton production in that region. The boll weevil had crossed the Mexican border in 1892 and by the summer of 1903, panic and mass hysteria spread over the cotton growing region of Texas.[41] The season proved to be disastrous for the cultivation of cotton with per acre yields dropping more than 50 percent. The farmers of Texas lost $15 million and experts predicted an ultimate damage of $250 million to the Cotton Belt unless some means could be found to check the scourge.[42]

Most of the farmers in the South produced their cotton crops upon a credit system by securing advances from merchants and bankers. With the advent of the boll weevil in 1903, merchants and bankers withheld or limited advance credit because cotton crops looked so doubtful. Families moved out by the hundreds and in some counties, occupants

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[41]Rodney Cline, The Life and Work of Seaman A. Knapp (Nashville: George Peabody College Press, 1936), p. 53; Rosa Pendleton Chiles, "Making Good Farmers Out of Poor Ones," American Review of Reviews, XLII (November, 1910), p. 563.

[42]Joseph A. Bailey, Seaman A. Knapp (New York: Columbia University Press, 1945), p. 160; Wallace Buttrick, "Seaman A. Knapp's Work as an Agricultural Statesman," American Review of Reviews, XLIII (June, 1911), p. 684.

abandoned half the farms and town stores.[43] Knapp toured the area and wrote: "I saw hundreds of farms lying out; I saw a wretched people facing starvation; I saw whole towns deserted; I saw hundreds of farmers walk up and draw government rations, which were given to them to keep them from want."[44] In January, 1904, the Agriculture Department sent Knapp to combat the ravages of the boll weevil. Calling for a meeting of the prominent men of Terrell, Texas to discuss the situation, Knapp stressed the need for careful selection of seed, better preparation of the soil, generous use of fertilizers and frequent cultivation of the growing crops.[45] Knapp later recalled that one bold farmer exclaimed:

> Do you mean to tell us that you have come empty-handed to Texas to relieve the distress of our people and restore confidence, and that you know of no way of destroying the boll weevil? And further, that you furnish no seed nor fertilizer, and do you intend to tell our people your remedy is to get out and hustle? If this be true, we are to receive one of the greatest of disappointments.[46]

Knapp proceeded to inaugurate the Farmer's Cooperative Demonstration work. Using a $25,000 appropriation, Knapp demonstrated on the farmer's own land the value of better methods, the value of good seed and the importance of practicing a few simple principles in growing

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[43]Bradford Knapp, "Some Results of the Farmer's Cooperative Demonstration Work," USDA Yearbook, 1911 (Washington, 1912), p. 285; S. A. Knapp, Demonstration Work in Cooperation with Southern Farmers, USDA Farmer's Bulletin No. 319, (Washington: Government Printing Office, 1908), p. 5.

[44]Quoted in Bailey, Seaman A. Knapp, p. 169.

[45]Rodney Cline, The Life and Works of S. A. Knapp, p. 54; Knapp, Demonstration Work, p. 8; Baker, Century of Service, p. 44; Edwin R. A. Selegman, "Extension Work," Encyclopedia of the Social Sciences (New York: The MacMillan Company, 1931), p. 31.

[46]Seaman A. Knapp, "An Agriculture Revolution," World's Work, XII (July, 1906), p. 7734.

a crop of cotton, despite the weevils.[47] Using a few farms for demonstrations, agents went into the fields and directed the farmers to raise a few acres of cotton, carefully following the guidelines instituted by Knapp. In order to overcome the refusal of advance credit which was needed to purchase food, officials also asked farmers to diversify by growing corn and other garden products. Following Knapp's instructions, farmers destroyed a large number of wintering weevils by ridding the fields of immature cotton bolls and field rubbish early in the fall. Farmers then broke the field one or two inches deeper than usual after the harvest, which destroyed many weevils and in turn prepared the soil for successful cropping the following season.[48] The result was immediate and reassuring; the demonstration farms produced cotton in spite of the weevil and at the same time they raised an abundance of corn and other vegetables.[49]

Encouraged by the glowing success in Texas, the program spread throughout the South as agents taught farmers, through demonstrations, the value of diversification and proper tillage methods.[50] By the close of 1904, more than 7,000 farmers had conducted their own

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[47]Beverly T. Galloway, "Seaman Asahel Knapp," Yearbook of the USDA (Washington, 1912), p. 153.

[48]Rodney Cline, The Life and Works of S. A. Knapp, p. 54; Knapp, Demonstration Work, p. 8; Baker, Century of Service, p. 44; Edwin R. A. Selegman, "Extension Work," p. 31.

[49]Cline, The Life and Work of Seaman Knapp, pp. 56-57; Southern Planter (March, 1908), p. 226; Edward Wiest, Agricultural Organization in the U. S. (Lexington: University of Kentucky Press, 1923), p. 233.

[50]Roy V. Scott, "American Railroads and Agriculture Extension," p. 76; Progressive Farmer, XXIII (December, 1910), p. 2.

demonstrations and by 1908 the number grew to 32,000.[51] In 1910, 600 agents operated in thirteen Southern states, carrying helpful knowledge in answer to specific problems which confronted the farmers.[52] In 1909, a convert to new farming habits from Alabama expressed the value of farm demonstration work at a public meeting:

> I was born in a cotton field and worked cotton on my farm for more than forty years. I thought no one could tell me anything about raising cotton. I had usually raised one-half a bale on my thin soil, and I thought that was all the cotton there was in it in one season. The demonstration agent came along and wanted me to try his plan on two acres. Not to be contrary, I agreed, but I did not believe what he told me. However, I tried my best to do as he said, and at the end of the year I had a bale and a half to the acre on the two acres worked his way. You could have knocked me down with a feather. This year I have a bale and a half to the acre on my whole farm. If you do not believe it, I invite you to go down and see. Yes sir, as a good cotton planter I am just one year old.[53]

In 1910, leading bankers and businessmen from Harrison County, Texas signed a statement declaring that demonstration work in the preceding twelve months alone had been worth $100,000 to that one county.[54] In 1907, Louisiana farmers bought corn, but through diversification in 1910 they supplied their own needs and still sold fifty million bushels

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[51]Bailey, Seaman A. Knapp, p. 176.

[52]Bradford Knapp, "Some Results of the Farmer's Cooperative Demonstration Work," p. 28; Wallaces' Farmer, XXXV (June 17, 1910), p. 895.

[53]Outlook, "The New Farming," XCIII (September 11, 1909), p. 54.

[54]Clarence H. Poe, "Agricultural Revolution a Necessity," The Annals of the American Academy of Political and Social Sciences, XXXV (January, 1910), p. 50; Chiles, "Making Good Farmers Out of Poor Ones," p. 564.

in the open market.[55] Dr. D. L. Houston, President of the State Agricultural College in Texas, summed up the general feeling of farmers toward demonstration farms and in particular, Seaman Knapp: "There are two universities in Texas: the University at Austin and Dr. Knapp."[56]

While Seaman A. Knapp fought the boll weevils in the South, W. J. Spillman concentrated his efforts in the North and West, through the work of farm management. Spillman, an agronomist in charge of grass and forage plant investigation within the Department of Agriculture, conducted studies in 1901-02 of farming conditions and practices in various sections of the country, especially among the most successful farmers. In order to supervise the various studies, the Office of Farm Management came into existence in 1905, with Spillman selected as its chief. After analyzing the business management, financial records, farm equipment, feeding systems, and general records of successful farms, Spillman proceeded to establish demonstration projects throughout the North and West.[57] While Knapp utilized farmers as instructors to other farmers in the South, Spillman used college-trained men, who worked in conjunction with agricultural colleges and experiment stations. In 1909, D. H. Doane, Chief of Farm Management in Missouri, explained

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[55]Bradford Knapp, "Some Results of the Farmer's Cooperative Demonstration Work," p. 288; Buttrick, "Seaman A. Knapp's Work as an Agricultural Statesman," p. 684.

[56]Buttrick, "Seaman A. Knapp's Work as an Agricultural Statesman," p. 684.

[57]Ramsey Spillman, "A Biography of William Jasper Spillman," typewritten Manuscript (USDA Library), quoted by Baker, Century of Service, p. 45.

his duties after traveling through the state:

> I carried on a Farm Management Investigation in Southwest Missouri. A great many inquiries are coming from this region in reference to the best methods for building up wornout farms and restoring wasted fertility. I established six to ten demonstration farms in answer to requests made by the farmers. Those that request assistance and show an active interest in better methods, receive from us a personal visit and a complete plan for the yearly operation of their farm. On each demonstration farm there is kept a complete set of records so it is possible to determine exactly the relative profits or losses attending each operation.[58]

In certain areas where single crop farming prevailed, Spillman introduced diversification demonstration farms. These farms, supervised by representatives of the Department of Agriculture, attempted to attract attention of local farmers to profits that might be received by changing production practices. On each demonstration farm, officials maintained at least one class of stock and three kinds of crops, preferably a legume, a cereal, and cultivated crops.[59] Eventually, Spillman consolidated his work with that started by Knapp in the South. In 1910, looking back over the previous decade, Spillman believed that the acreage increases and spiraling land values stemmed largely from the efforts of Farm Management Investigations and the examples set by demonstration farms.[60]

Secretary Wilson regarded the demonstration work of Knapp and Spillman as, "a system of adult education to place a practical object

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[58]D. H. Doane, "Farm Management Work in Missouri," 1909, p. 1. Records of the Bureau of Agricultural Economics, National Archives, R. G. 83.

[59]Wisconsin Farmer, XXVII (November 26, 1908), p. 881.

[60]W. J. Spillman, "The Fundamental Problems of American Farm Management," p. 3. National Archives, Records of the Bureau of Agricultural Economics, Record Group 83, p. 83.

lesson before the farm masses, illustrating the best and most profitable methods." Stressing the importance of this type of education Wilson wrote in 1903 that, "Each demonstration farm stirs the whole country and . . . farmers start at once to do their best."[61]

In addition to demonstration work, the Department also spread the results of scientific investigation through printed material. Secretary Wilson insisted that the scientific investigations of the Department be transferred to farm bulletins "in the language of the people with little use of technical words."[62] In 1900 the Department published 18 new bulletins and reprinted 90 for a combined circulation of almost three million copies; and by 1908 this rose to over four million copies.[63] In his annual report in 1910, Wilson noted that the Department had "published 1,982 bulletins, circulars, and reports with over twenty-five million copies for distribution to the farmers in every section of the country."[64] He sadly reported in 1910 that "demand for the bulletins was far in excess of the Department's ability to supply."[65] The Department also published a Yearbook each year which contained the Secretary's report and articles on scientific farming.[66]

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[61]Quoted by Tweton, "The Attitudes and Policies of the TR Administration," p. 198.

[62]Ibid., p. 202.

[63]"Report of the Editor, Division of Publications," Annual Reports of the Department of Agriculture, 1900, pp. 117-120.

[64]"Report of the Secretary," Annual Report of the Department of Agriculture, 1910, p. 133.

[65]Ibid., p. 134

[66]Ibid.

Finally, in disseminating results of scientific research the Department cooperated with agricultural colleges and experiment stations by supporting farmers' institutes and special demonstration exhibits. For example, the Department of Agriculture officially came into contact with institutes when Congress appropriated funds for the appointment of an institute specialist in the Office of Experiment Stations.[67] These techniques will be discussed more fully in conjunction with the work of agricultural colleges and experiment stations.

In 1912 in his annual report, Wilson summed up the contributions that the Department had made during his years in office:

> It came to learn and it stayed to teach. Its influence penetrates the remotest neighborhood. It performs a mission of welfare and happiness to farmers and to the whole nation. The millions of dollars that it costs are returned in tens of millions of wealth saved and wealth produced. During the 16 years it has progressed from the kindergarden through the primary, middle and upper grades of development until now it has a thousand tongues that speak with authority. Its teachings, its disconceries, and its improvements are permeating the national agricultural life. . . . A choice corps of scholarly experts in their special lines of endeavor has been growing in membership. . . . No great work can be begun nor sustained, by this department without such men.[68]

The notable achievements of the Department of Agriculture were made possible by the leadership of its Secretary, James Wilson. He, more than any other individual, was responsible for the tremendous strides made by progressive farmers in business emulation and application of scientific teachings. The editor of the Ohio Farmer in 1902 summarized the united praise and appreciation that progressive farmers felt for their secretary:

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[67]Baker, Century of Service, p. 55.

[68]"Report of the Secretary of Agriculture," Annual Reports of the Department of Agriculture, 1912, pp. 248-259.

> The farmers of this country want no change in the agricultural portfolio. Secretary Wilson's administration has been eminently satisfactory. Few men have the natural and acquired qualifications for this important position than he has. . . . He fully sustains the dignity of his position, and is a worthy and honored representative of the farming class at the Capitol. He is a man of the people. He has endeared himself to the farmers of the country by his attitude towards them . . . always approachable, kind, considerate, genial and friendly.[69]

In the same year that Congress created the Department of Agriculture, they also passed the most important piece of agricultural legislation in American history, the Morrill Land-Grant College Act. This act set aside public lands for the establishment of agricultural colleges.[70] As the establishment of land grant colleges developed, agricultural reformers found that the income from the land grant funds, even when supplemented by liberal contributions from the states and other sources, proved inadequate. Consequently, Congress passed a second bill in August of 1890 providing for the annual appropriation to each state and territory of $25,000 "for the more complete endowment and maintenance of colleges of agriculture and the mechanic arts."[71]

As conceived by the founders, agricultural education was to be practical in the sense of being vocational, and aggressively democratic in the sense of being a popular reaction against aristocratic theories of classic education for the few.[72] Although many agricultural colleges opened their doors before 1890, they failed to attract farm youth.

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[69]Ohio Farmer, January 23, 1902, Cited by Tweton, "The Attitudes and Policies of the TR Administration," p. 207.

[70]Farm Journal, XXXII (November, 1903), p. 380.

[71]Medd, "Agricultural Education in the U.S.," p. 301.

[72]Johnstone, "Old Ideals Versus New Ideas," p. 153.

More than likely, many suspected that the colleges had less to offer of a practical nature than had been anticipated. It must be remembered that reformers established agricultural colleges before there was a solid and extensive body of agricultural science that could be taught. The agricultural applications of various sciences had only begun to be worked out, and the best that these institutions could offer was instruction in basic sciences along the lines followed by academic colleges, with only an occasional reference to actual farm practices.[73]

Farmers frequently complained that there were few qualified teachers in the natural sciences and practically none in agriculture. Most of the available textbooks were of European origin, and their contents were not based on American experience.[74] In spite of these shortcomings the agricultural colleges made progress. By 1890, these institutions began developing a tangible and applicable body of scientific knowledge. Responding to the new needs of the farmer, created by increasing economic pressure, agricultural colleges hired trained and professional teachers, assembled proper equipment, and obtained suitable texts geared for practical farming.[75] Administrators realized that if agricultural colleges were going to succeed, they had to come into closer touch with the farming people. By the turn of the century most of these colleges were firmly established and receiving greater approval by farmers. For example, in 1903, a writer for the Progressive Farmer noted that:

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[73]Ibid.

[74]Edwards, "The First 300 Years," p. 254.

[75]Ibid.

> There has been a wonderful change taken place between the farmers and the agricultural colleges of the various states. Fifteen or twenty years ago the farmers, as a rule, had no use for the agricultural college. First, they did not feel the need of it. The land was rich, the crops were good, there was no complaint of worn-out lands on the one hand, and on the other they regarded the agricultural colleges as made up of a lot of theorists doing fancy farming and who had nothing to teach them. . . . During these years the colleges have very greatly increased their efficiency. They have demonstrated to the farmers that they can teach them how to cultivate their lands, that there is a science as well as an art in farming, how to select seed, furnish them with new and improved varieties and teach them lessons in stock feeding, in judging and in breeding that they never dreamed of before. When this was done the farmers began to prick up their ears and inquire, begin to read reports of the stations, listen to lecturers from the college, ask questions and finally, test these new theories until now all progressive farmers look to the agricultural colleges for help.[76]

Basically, there were three classes of colleges promoting agricultural instruction. First, colleges such as the Massachusetts Agricultural College offered courses in agriculture only. Usually officials required a definitely prescribed curriculum for three years, and in the last year the student chose among numerous specialties. Secondly, colleges such as Iowa State College of Agriculture and Mechanic Arts, offered courses in agriculture along with others in a variety of subjects, especially mechanic arts. And, thirdly, universities such as Cornell included agriculture merely as a department within the institution. The state supported the school of agriculture at Cornell with an annual appropriation of $50,000 which paid for buildings and equipment.[77]

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[76]Progressive Farmer, XXVIII (November 10, 1903), p. 2.

[77]Adams, The Modern Farmer, p. 39; Medd, "Agricultural Education in the United States," pp. 302-303.

The number of graduates who actually returned to their profession in order to spread the gospel of science and efficiency to others indicated the value of agricultural colleges at the turn of the century. From 1900 to 1904, three hundred boys enrolled in agricultural courses at North Carolina A and M College; and out of that number all but five either returned to farm work, taught agriculture, or engaged in experimental work.[78] In 1910, Cornell University sent out a tabulation showing that out of 899 graduates for that year, 71 percent entered some type of farm work, 20 percent engaged in agricultural educational activities, while only 9 percent actually deserted their profession.[79] Of the 206 who graduated from the Illinois College of Agriculture in 1909, 95 percent returned to agricultural work. In addition to these glowing facts, enrollment at agricultural colleges steadily increased. The registration at Cornell rose from about 100 in 1900 to over 1,000 in 1910.[80]

Not everyone interested in agricultural education could devote time and money for a prolonged stay at a college or university; consequently, officials developed short, specialized courses in agriculture to meet the demand for more elementary and practical education. The University of Wisconsin in 1897 offered short courses in agriculture that covered two terms of twelve weeks, beginning in January of each year. These studies included lectures on feeds and feeding, breeds of livestock, agricultural chemistry, agricultural physics and meteorology,

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[78] Progressive Farmer, XIX (November 15, 1904), p. 9.

[79] The Independent, "Educated Farmers," LXIX (September 1, 1910), p. 498.

[80] Ibid.

bookkeeping, horticulture, agriculture economics, and bacteriology.[81] The South Dakota Agricultural College in 1903 provided six weeks of lectures on livestock judging and diseases of animals and their treatment, with no requirements for admission. Most of the short courses offered greater emphasis upon practical demonstration work rather than long, tiring classroom lectures. The motto in many farming communities seemed to be: "Knowledge is power, get it whenever and wherever possible. It is offered free in these courses and should not be refused."[82]

Many agricultural college administrators realized that courses on campus benefited those who attended, but they needed a plan which would include farmers who could not or would not attend classes. If farmers would not come to the campus, agricultural colleges determined to take material to them. Consequently, extension courses came into existence emphasizing scientific, efficient farming methods. The object of correspondence reading courses were "to touch and awaken every farmer, particularly every poor farmer; to search out the man who has small opportunities."[83] The State College of Pennsylvania inaugurated the movement in 1892 by preparing a reading course for farmers. It included "a carefully prepared course of reading designed to cover the most important branches of agricultural science and practice, personal advice and assistance through correspondence and examinations upon the subjects read with certificates and diplomas for those attaining certain degrees."[84]

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[81]True, "Popular Education," p. 282

[82]Southern Planter, LXXI (November, 1910), p. 110.

[83]Medd, "Agricultural Education in the U.S.," p. 305.

[84]True, "Popular Education," p. 282.

The College of Agriculture at Cornell University offered reading courses for farmers. The gist of the New York plan was to:

> . . . give the farmer a short specially prepared lesson and then to quiz him upon it. The motive is to reach the many, not the few. The farmer who can and will read books can take care of himself, but the one who cannot or will not, needs help, whether he wants it or not. The idea is to get the rank and file to read books by first instructing them in simple, short and easily digested matter. When the farmer is once interested, it needs only good administrative machinery to keep him interested and lead him on.[85]

Probably the most effective and popular phase of college extension work centered around Farmer's Institutes. These meetings represented the first major step toward the popularization of agricultural education and the development of effective off-campus teaching. Farmers usually gathered at some convenient place near their homes to meet successful farmers, professors, and experiment station workers in order to discuss practical problems in agriculture and their solution.[86] Farmer's Institutes encouraged farmers to see their problems, to get them talking about improvements, and to convey information.[87] Institutes overcame much apathy and conservatism toward what the farmer called "book farming." They convincingly taught that scientific principles and facts, if properly presented in an understandable fashion, could be grasped and utilized by men possessing no more than an elementary education.[88]

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[85]A. C. True, "University Extension in Agriculture," The Forum, XXVIII (February, 1900), p. 706.

[86]Kansas Farmer, XXXIV (October 29, 1896), p. 9; W. J. Spillman, "Farming as an Occupation for City-Bred Men," Yearbook of the USDA, 1899 (Washington, 1900), p. 247.

[87]Adams, The Modern Farmer, p. 55.

[88]Roy V. Scott, "Railroads and Farmers: Educational Trains in Missouri, 1902-1914," Agricultural History, XXXVI (January, 1962), p. 3.

The institutes were carried on under various auspices and were supported in different ways. Some institutes operated under the auspices of the government through a state department of agriculture, independent state officers, county organizations, or rural societies. In other instances, colleges or experiment stations controlled the institutes.[89] Of the forty-seven states and provinces utilizing institutes in 1900, twenty-four functioned under the authority of government control while twenty-three were controlled by colleges and experiment stations.[90] Whatever the character of their general management, the responsibility of teaching farmers rested with the officers of the agricultural colleges and experiment stations.[91]

Usually institute meetings continued for half a day, as in Louisiana where the farmers assembled once a month at experiment stations. Although some lasted three or four days, the more successful were those which met for a short time, allowing for a greater number of meetings distributed among numerous localities. Agricultural officials usually conducted meetings in the winter when farmers enjoyed more free time; but in a few states, farmers requested lectures at other seasons of the year. On some occasions, professors spoke on scientific subjects, while at other times successful farmers from adjacent communities demonstrated

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[89]Kansas Farmer, LXI (October 8, 1903), p. 1040; John Hamilton, "The Farmer's Institute," Yearbook of the USDA, 1903 (Washington, 1904), p. 149.

[90]Hamilton, "The Farmer's Institute," p. 149.

[91]L. H. Bailey, Farmer's Institutes: History and Status in the United States and Canada, USDA Bulletin No. 79 (Washington, 1900), p. 31.

successful techniques.[92] No matter who spoke, the programs usually promoted the interchange of ideas and a full and free discussion on topics which affected particular areas.[93] In order to stimulate as much participation as possible, speakers answered questions supplied by members of the audience through the utilization of a "question box."[94] In 1902, 820,000 farmers attended institutes; and between 1908-1909, almost 1,200 lecturers spoke to 2.5 million persons throughout the United States.[95] By 1910 Kansas, leading all other states, organized 283 farmers institutes, with a membership of more than 10,000 farmers.[96] The popularity of institutes is seen by a statement made in 1903 by the Dakota Farmer: "Men trained in agriculture are in demand and demand cannot be filled, applications reaching from both near and remote sections. The demand for trained and competent institute speakers and supply does not begin to be equal to the demand."[97]

In evaluating the success of institutes upon progressive farming it would be misleading to assume that large attendance at meetings coincided with efficiency and science on the farm. The ability to

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[92]A. C. True, "Popular Education," p. 281; Wallaces' Farmer, XXV (May 11, 1900), p. 507.

[93]Progressive Farmer, LXVII (December 7, 1895), p. 2; True, "University Extension in Agriculture," p. 705.

[94]Dakota Farmer, XXIV (April 15, 1904), p. 21; Roy V. Scott, "American Railroads and Agricultural Extension, 1900-1914," Business History Review, XXXIX (Spring, 1965), p. 76.

[95]Scott, "Railroads and Farmers," p. 3.

[96]Kansas Farmer, XLVIII (September 24, 1910), p. 3.

[97]Dakota Farmer, XXIII (May 1, 1903), p. 12.

entertain or stimulate interest through question and answer periods did not insure greater efficiency or businesslike methods on the farm. Although the number of meetings or the large number present did not prove the ultimate success of institutes, it seems evident that they did a great deal to encourage the eventual application of scientific techniques by farmers. The Progressive Farmer, in 1895, noted that in communities with intelligent and prosperous farming there was a greater demand for institutes.[98] In 1905, M. F. Greeley, writing for the Dakota Farmer stated: "Statistics show that in other states where similar institutes were flourishing, the farmers were prosperous and loaning money, while in localities where the institutes were unknown, because they were not wanted, the farming community was slack and paying interest."[99] The Wisconsin Farmer, in evaluating a quarter century of institute work in 1910, suspected that the work "must have had much to do in placing Wisconsin in the front rank in many respects among the sisterhood of great agricultural states."[100]

In the 1870's, a new type of agency arose which would eventually provide the vital link between the Department of Agriculture and the colleges. Agricultural experiment stations provided much of the basic research for farm improvements and were active in disseminating the results of that research.[101] The first state experiment station

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[98]Progressive Farmer, LXVII (December 7, 1895), p. 2.

[99]Dakota Farmer, XXV (December 15, 1905), p. 6.

[100]Wisconsin Farmer, XXXIX (March 24, 1960), p. 355.

[101]Edwards, "The First 300 Years," p. 251.

originated at Wesleyan University in 1875 at Middletown, Connecticut.[102] After a number of state agricultural colleges established stations, beginning in 1880, college representatives met under the leadership of the Commissioner of Agriculture to coordinate the work of the individual stations for the benefit of the entire nation.[103] Beginning in 1885, experiment station officials advocated Congressional aid. Because of nationwide sentiment for government action, Congress in 1887 responded by passing the Hatch Bill, authorizing a national system of agricultural experimentation. The act appropriated funds for the establishment of experiment stations which would cooperate with land-grant colleges and conduct original research in agriculture science.[104] Section 3 of the bill provided that the Commissioner of Agriculture "was to stimulate uniformity of methods by furnishing forms for the tabulation of results of investigations, by pointing out general lines of inquiry, and by giving advice and assistance."[105] In order to carry out these provisions, the Department of Agriculture created an Office of Experiment Stations, which sent out agents to confer with station workers and farmer's clubs throughout the country.[106]

Each of the state experimental stations operated under the authority of a governing board appointed by the governor or sometimes elected

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[102] Ibid.

[103] Ibid.

[104] True, "Popular Education for the Farmer," p. 280; True, "University Extension in Agriculture," p. 702; Medd, "Agricultural Education in the U.S.," p. 304; Kansas Farmer, XXXI (July 5, 1893), p. 3; Wallaces' Farmer, XXIII (July 1, 1898), p. 4.

[105] Edwards, "The First 300 Years," p. 251.

[106] Baker, Century of Service, p. 55.

by the people. A director supervised the local station work and regularly reported to the governing board. The Association of American Colleges and Experiment Stations, comprised of one delegate appointed by each of the land-grant colleges and agricultural experiment stations in the United States, together with delegates representing the U. S. Department of Agriculture, the Office Experiment Stations, and the Bureau of Education, supervised the work of all the state experiment stations.[107] One stipulation for maintenance required the station to issue a certain number of free bulletins each year, describing the more important work accomplished and discussions of the results attained.[108] In 1897 the stations issued 407 bulletins which were mailed to 506,100 addresses.[109] A. C. True, Director of the Office of Experiment Stations commented in 1900 that:

> Nowhere else in the world is there any extension work which can at all compare with that which is carried on through the publications of the Department of Agriculture and the experiment stations. In variety of subjects treated, in the wideness and magnitude of its distribution of information and in the substantial backing of scientific investigation and general accuracy of statement, it exceeds by far any university extension scheme yet devised.[110]

Experiment stations attempted to achieve a fourfold purpose:

> First, to apply scientific methods and principles to the investigations of all questions affecting rural economy; second, to teach the teacher, furnishing him with a body of facts from which

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[107]A. C. True and V. A. Clark, The Agricultural Experiment Stations, USDA Bulletin No. 80, 1900, pp. 46-49; Kansas Farmer, XXXI (July 5, 1893), p. 3.

[108]Spillman, "Farming as an Occupation for City-Bred Men," p. 245.

[109]True, "Popular Education of the Farmer," p. 280.

[110]True, "University Extension in Agriculture," p. 702.

> coherent law can be deduced; third, to become bureaus of utility, distributing centers of information to the thousands applying to them for aid; and fourth, to act as a detective force, preventing and exposing fraud in the sale of fertilizers, concentrated cattle foods, the different products of the darily, seeds, and the thousand-and-one spraying mixtures offered in the markets to arrest the in-roads of disease or injurious insects.[111]

Perhaps a fifth object could be added. That was to teach farmers what to avoid. In many cases, an experiment succeeded on a small scale but totally failed under the ordinary conditions of farm operation. Consequently, if an experiment completely floundered under station conditions, farmers realized the utter folly of using the same method under ordinary circumstances.[112]

As the stations secured conclusive results from their investigations, they sought to pass on the information to as many farmers as possible. Although the distribution of bulletins succeeded in partially alleviating this problem, results still did not reach a majority of farmers. The organizers found that in order to reach a broader audience, work had to be carried on under actual farm conditions. This involved cooperation with farmers. Such arrangements were actually cooperative experiments.[113] Station workers found that when they conducted or supervised experiments and farmers saw the practicality of better methods, their neighbors would also try the new techniques.[114]

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[111]Henry H. Goodell, "The Mission of the Experiment Station," Farmer's National Congress Proceedings, 1899, p. 21; Wallaces' Farmer, XXV (May 4, 1900), p. 483.

[112]Adams, The Modern Farmer, p. 48.

[113]True, "University Extension in Agriculture," p. 703.

[114]Wiest, Agricultural Organization in the United States, p. 231.

Under the direction of agricultural experiment stations, thousands of simple cooperative experiments originated in different parts of the country. Usually experiment stations furnished the seeds and fertilizers, while farmers supplied the land and labor. Farmers, under the direction of station officials, planted various types of crops such as wheat, grasses, sugar beets, vegetables, and fruits; or they tested different kinds of fertilizers on divergent soils.[115] These cooperative experiments brought the advantages of agricultural colleges and experiment stations home to many farmers and convinced doubters that science could teach lessons of practical benefit to agriculture. Even though many farmers did not put into practice what they saw, they at least showed enough interest to talk about the results of the experiments. In addition, cooperative experiments enlisted intelligent and progressive farmers more firmly on the side of institutions attempting to extend agricultural education and research.[116]

By 1899, fifty-six experimental stations, scattered throughout the United States, preached the gospel of efficiency and scientific farming through bulletins and cooperative experiments.[117] The influence and effect of these stations were far reaching. One estimate credited the North Dakota station with adding an estimated ten million dollars a year for a decade to the wealth of that state by the better development of cereals.[118] For more than twenty years the California station worked

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[115] Ibid.

[116] True, "University Extension in Agriculture," p. 704.

[117] True and Clark, "The Agricultural Experiment Stations," p. 43.

[118] Bogart, Economic History of American Agriculture, p. 148.

upon a problem of national importance, the reclamation of arid lands. Analyzing hundreds of soil samples from barren land, the station proved that endless acres could be made to yield profitable crops.[119] The Louisiana Experiment Station, by developing new methods of sugar making, reduced previous losses and helped the sugar industry by improving the cultivation of sugar cane.[120] The Nebraska station promoted the growing of alfalfa and winter wheat instead of spring wheat, and as a result the state increased its production.[121] Similar breakthroughs by experiment stations increased the prosperity of the country and stimulated a greater appreciation for new methods in agriculture.

While the national government aided farmers through the Department of Agriculture, colleges and experiment stations, business leaders also added to agricultural professionalization by spreading information about improved farm practices and scientific techniques. If the number and diversity of programs undertaken are accepted as criteria, railroads constituted the most important business group involved in educating the farmer. The words "farmer" and "railroad" usually bring to mind a picture of conflict and enmity, stemming from the bitter struggles of the Granger and Alliance years. Consequently, many ignore the contributions that railroad leaders made to farming between 1880-1910. Railroad officials participated in every stage of agricultural education development.

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[119]W. S. Harwood, "The New Agriculture," Scribner's Magazine, XXXI (June, 1902), p. 646.

[120]U. S. Industrial Commission Report, X, 1901, p. clxxviii.

[121]Ibid.

In some cases, railroads simply aided and cooperated with agricultural colleges and experiment stations, while at other times the carriers formulated and carried out projects which became models for regular educational agencies.[122] Railroads made no pretense of philanthropy. Larger crops, through improvement in farming, meant increased traffic on the lines, resulting in greater railway earnings.[123]

By the turn of the century many major railway lines began distributing bulletins and periodicals to farmers along their lines. Companies such as the Southern Railroad secured reading material from agricultural colleges, experiment stations and the Department of Agriculture and scattered them throughout their territory. In addition, some lines developed and circulated their own material for the benefit of the farmer. In 1895, the Burlington began publishing a monthly farm magazine, the Corn Belt, which farmers received free. For seven years this periodical spread news of better agricultural ideas among the farmers along the line of the Burlington.[124] The Santa Fe published The Earth, in an effort to improve Kansas wheat. Officials furnished a six months' subscription free to interested farmers; after that, the farmers paid fifty cents yearly. In 1903, the Chicago and North Western employed academic men to prepare scholarly, but popularly written

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[122]Mildred Throne, "The Role of Railroads in Agricultural Development," Agricultural History, XXXI (October, 1947), p. 50.

[123]Farm Journal, XXXIV (May, 1910), p. 298; Wallaces' Farmer, XXX (February 10, 1905), p. 176; "Farmers New Education," The Independent, LXI (September 6, 1906), p. 594; Eugene P. Lyle, "A Corn Gospel Train," World's Week, XII (May, 1906), p. 7515.

[124]Throne, "The Role of Railroads in Agricultural Development," p. 50.

bulletins for them. In some cases the railway lines persuaded experiment stations to undertake studies and produce pamphlets on subjects needing treatment.[125]

Railroads aided agricultural colleges by giving free or reduced rates to officials of the institutions. James J. Hill, President of Great Northern Railroad in the late 1890's, helped colleges by granting free transportation to farmers who wanted to visit the school of Agriculture in North Dakota. The Mobile and Ohio and the Southern Railway, at the turn of the century, charged only half-fare to those who desired to attend graduation exercises at the Mississippi Agricultural and Mechanical College.[126] When agricultural colleges established farmers institutes, railroads provided lecturers with free transportation. In some cases, trains made nonscheduled stops to discharge or pick up speakers. Railroads usually provided the advertisement and arrangements for farmers' institutes. Occasionally, railroad officials spoke at institute meetings, actively cooperating with specialists sent by agricultural colleges.[127]

Probably the most popular and widely used educational technique employed by railroads consisted of educational or demonstration trains.

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[125] Ibid.

[126] Roy V. Scott, "American Railroads and Agricultural Extension," p. 77.

[127] Association of American Agricultural Colleges and Experiment Stations, Proceedings of the Third Annual Meeting, 1889 (Washington, 1890), p. 17; Roy V. Scott, "Pioneering in Agricultural Education: Oren C. Gregg and Farmer's Institute," Minnesota History, XXXVII (March, 1960), p. 21.

These trains originated in 1897 when a general freight agent for the Minneapolis and St. Louis Railroad, hoping to stimulate increased shipping in Iowa, suggested to Henry Wallace of Wallaces' Farmer that the carrier and the agricultural journal hold creamery promotion meetings. After Wallace agreed, representatives of the railroad and of the farm journal conducted a series of meetings in February of 1897. The railroad advertised the meeting, secured suitable lecture halls and provided transportation via the company's regular passenger service.[128] With the return of prosperity in Iowa shortly after 1897, farmers thought very little of the initial efforts made by the railroad in that state. But, in 1903 a cold wet summer and an early freeze reduced sharply the Iowa corn crop. In addition, farmers increasingly selected poor quality seed from their cribs for the next year's planting. Realizing that careful seed selection and other simple procedures could increase corn production by at least forty percent, Perry G. Holden, a professor at Iowa Agricultural College, convinced the Rock Island railroad that an educational train should be sent to illustrate good seed selection. Beginning in April of 1904, the educational train traveled four hundred miles through fifteen counties, visiting more than three thousand farmers.[129]

With the success of this excursion in Iowa, the movement spread rapidly to other states, becoming the most popular means of taking basic

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[128]Wallaces' Farmer, XXX (February 10, 1905), p. 176; Ibid., XXXV (December 23, 1910), p.1714.

[129]Ibid.

agricultural knowledge to large numbers of farmers.[130] From 1904 to 1911, educational trains not only provided information concerning seed corn improvement, but also data of many other agricultural topics. They introduced better livestock, sponsored irrigation projects, illustrated the proper care and cultivation of land and showed types of balanced rations needed for livestock. Journals in various parts of the country referred to this new educational facility by such names as "corn gospel trains," "prosperity trains," "dairy special trains," "pork production special trains," and "a glorious train on a glorious mission." In 1906, the Missouri Pacific sent an exhibit car with an agricultural agent, a practical farmer and horticulturist throughout Kansas.[131]

In that same year, a Maine Farming Special train, sponsored by the Bangar and Aroostock railroad attracted large gatherings at every stop in the Aroostock Valley. The train exhibited a crop spraying apparatus, improved breeds of chickens, and dairy equipment.[132] In the winter of 1908, a prosperity train attracted attention throughout Georgia. It consisted of three cars, one sixty foot baggage coach for exhibits and two passenger coaches, each seating sixty persons. Leaving Athens on February 10 and spending six weeks on the road, the train

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[130]"Bringing New Methods to Farmers," World's Work, IX (February, 1905), p. 588.

[131]Dakota Farmer, XXX (July 1, 1910), p. 14; Kansas Farmer, XLVII (May 29, 1909), p. 5; New England Farmer, LXXXV (April 28, 1906), p. 6; Progressive Farmer, XXI (May 24, 1906), p. 3; Wallaces' Farmer, XXX (February 10, 1905), p.176; Kansas Farmer, XLIV (October 4, 1906), p. 1011.

[132]New England Farmer, XXIX (May 12, 1906), p. 6.

made five regular stops each day explaining and demonstrating the fundamental facts of prosperous farming.[133]

A writer for the Dakota Farmer in 1910 described his experiences and feelings about the Northern Pacific's Better Farming School:

> At every city, town and village, as the long train of splendidly equipped cars sweep into view, these people crowd to welcome it, and from then till the whistle announces its going, listen, look and ask questions that keep those in charge of the various departments more than fully occupied. The first day out from Fargo, nearly three thousand people passed slowly through the long exhibition cars and as many listened to the short, practical, telling talks in the halls. Other days the attendance has been even greater. In our many years of institute work in many states, we have never met more earnest, intelligent and appreciative audiences. We believe that the Northern Pacific Railway, in making possible this travelling school of agriculture experimentation work, has builded better than it knew, and that the seed scattered so wide and in such receptive soil these telling object lessons brought so near to the very doors of the producers of the state, will, in the years to come, bring far greater returns than those in charge of the interprise dared to hope.[134]

This type of extension work proved quite spectacular, creating excitement and attracting farmers by the droves. In one month in 1910, lecturers from the University of Missouri contacted forty thousand people.[135] From December, 1908, through March, 1909, five different specials appeared in Mississippi; and in 1911, fourteen trains operated in Ohio alone.[136] By 1911, when the movement reached a peak, sixty-two trains covered 35,705 miles and carried 740 lecturers who spoke to

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[133]S. Mays Ball, "With a Prosperity Train in Georgia," World's Work, XVI (July, 1908), pp. 10445-10447.

[134]Dakota Farmer, XXX (July 1, 1910), p. 14.

[135]Scott, "American Railroads and Agricultural Extension," p. 83.

[136]Southern Planter, LXXII (June, 1911), p. 700.

approximately 930,000 persons.[137]

Although demonstration trains proved highly useful in dissolving rural prejudice and awakening interest in scientific agriculture, railroad officials also realized the importance of practical teaching by the creation of demon stration farms. In this way farmers would actually see the results of proper methods. Railroad development agents aided Seaman Knapp in his Farmer's Cooperative Demonstration Work throughout the South. Knowing that agents were familiar with conditions and people along their lines, Knapp in 1904 placed them in charge of territories served by their companies and sent them into the countryside to explain his farming methods and to enlist demonstrators.[138] In 1905 the Long Island Railroad acquired eighteen acres of scrub oak waste in Northern Long Island and showed farmers that grasses, fruits and garden truck would grow well.[139] In 1907, the Norfolk and Western Railroads bought three hundred acres of pine and oak forest near Ivor, Virginia and transformed the tract into a flourishing farm.[140]

James J. Hill and the Great Northern Railway probably contributed more to the concept of demonstration farms than any other railroad. In speeches throughout the country, Hill emphasized the establishment

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[137]Alfred C. True, A History of Agricultural Extension Work in the U. S., 1785-1923, USDA Miscellaneous Publication No. 15 (Washington, 1923), p. 28.

[138]Scott, "American Railroads and Agricultural Extension," p. 91.

[139]Ibid., p. 87.

[140]Southern Planter, LXVIII (June, 1907), pp. 561-62; LXXI (June, 1910), pp. 661-662.

of model farms. In an address to the Minnesota State Fair on September 3, 1906, the railroad president stated that:

> . . . the government should establish a small model farm on its own land in every rural congressional district, later perhaps in every country in the agricultural states. Let the Department of Agriculture show exactly what can be done on a small tract of land by proper cultivation, moderate fertilizing and due rotation of crops. The sight of the fields and their contrast with others, the knowledge of yields secured and profits possible, would be worth more than all the pamphlets poured out from the Government Printing Office in years. The Government ought not to hesitate before the comparatively small expense and labor involved in such a practical encouragement of what is the most important industry of our present and the stay and promise of our future.[141]

Hill even offered cash prizes amounting to $7,000 for the best tilled and best managed farms in the states of Minnesota, North and South Dakota. By attracting attention to these farms, Hill felt that greater efficiency in agriculture, through emulation, would result.[142] Beginning in 1906, the Great Northern Railroad, under the direction of Hill, established demonstration farms throughout the West. Six demonstration farms, with a five year rotation system, sprang up in North Dakota and Montana. Each demonstrating station included five, four acre plots. In each instance, Great Northern provided the seed and the owners kept the money from the crops. By following instructions furnished by representatives of the Great Northern, farmers worked the experimental plot with their own implements. The officials tabulated the statement of results at the end of the season and made them public. In addition,

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[141] The Progressive Farmer, XXIII (July 23, 1908), p. 2; Journal of Agriculture, XLVIII (September 20, 1906), p. 8; "The Education of the Farmer," The Outlook, LXXX (December 8, 1906), p. 849.

[142] Orange Judd Farmer, XL (February 3, 1906), p. 136.

the agent paid the farmer ten dollars for each acre worked.[143]

Although businessmen and bankers did not exert as much educational influence as railroads, they nevertheless contributed to the farmer's acceptance of science and efficiency. During the early years of the twentieth century merchants disturbed by the anti-business rhetoric of the agrarian movement and mindful of their own stake in farm prosperity, began consciously to woo the farmers and build a rapport between the two interests. This tendency apparently started on the local level, chiefly in connection with the demonstration work of Seaman A. Knapp.[144] From 1886 to 1898 Knapp worked on behalf of businessmen in developing better farmer techniques for the southwestern part of Louisiana. In 1886 the North American Land and Timber Company hired Knapp as Assistant Manager to find out what crops could be profitably grown in southwest Louisiana. In his efforts to persuade the natives that the land was good for farming, Knapp adopted the plan of demonstration. With the backing of businessmen, Knapp proved through experiment that southwest Louisiana and adjacent East Texas could profit by raising rice. Working for various companies until 1897, Knapp continued his work in improving and marketing rice.[145] In 1903 when Knapp

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[143]Dakota Farmer, XXVI (May 15, 1906), p. 4; Ibid., XXX (May 1, 1910), p. 14; Ibid., XXX (February 15, 1910), p. 39.

[144]S. A. Knapp, "The Farmer's Cooperative Demonstration Work," p. 153; Beverly T. Galloway, "Seaman A. Knapp," p. 152; Grant McConnell, The Decline of Agrarian Democracy (Berkeley and Los Angeles: University of California Press, 1959), p. 30.

[145]Cline, The Life and Work of S. A. Knapp, pp. 34-38; Galloway, "Seaman Knapp," p. 152.

took practical demonstration of scientific agriculture into the Texas fields to counteract the plague of boll weevils, he found his most important support from the businessmen of the towns. In fact, the money guaranty in Terrell, Texas came from this source. The success of farm demonstration work in Texas stemmed from the pressure that businessmen exerted upon farmers. In many cases, merchants and bankers persuaded farmers to accept demonstration work by refusing to grant credit except on condition that they cooperate with Knapp and his agents. Knapp took care to see that these strategically placed citizens were members of his committee.[146]

In some instances, businessmen contributed money gifts for the improvement and development of agricultural techniques. In 1905, Andrew Carnegie donated $100,000 to Luther Burbank of Santa Rosa, California for investigation and development of improved plants.[147]

Bankers cooperated with farmers after 1900 in an effort to encourage better farming practices. Country bankers became more appreciative of the fact that the increase of net profits on the farm increased the bank deposits. In the winter of 1909 many bankers in Iowa took an active interest in the seed corn question and operated corn testers free for the benefit of their farmer customers.[148] In Cedar Falls, Iowa, officers of the bank convinced that alfalfa could be grown in that

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[146]Bailey, Seaman Knapp, p. 178; Knapp, "The Farmer's Cooperative Demonstration Work," p. 153; Wiebe, Search for Order, p. 127; McConnell, The Decline of Agrarian Democracy, p. 30.

[147]Southern Cultivator, LXIII (March 15, 1905), p. 1.

[148]Wallaces' Farmer, XXXV (July 8, 1910), p. 3.

locality, agreed to furnish seed for experiments on different kinds of soil and gave farmers whatever information they had been able to gather on that subject.[149] In Oklahoma, after 1900, bankers encouraged the production of kafir corn which was able to withstand drouth and other adverse conditions. When a farmer came to the banker to borrow money, the note required that for each ten dollars of the amount loaned, at least one acre of kafir corn should be sown during the season. Because of this, the acreage of kafir corn jumped from 500,000 to 3,000,000, with a corresponding benefit to the farmer and indirectly to the bankers.[150] In Alabama, bankers employed Mrs. G. H. Mathis to teach better farming techniques. By working with bankers and farmers, she was able to secure the harmonious working of these divergent interests.[151] In 1909, the American Banker's Association set up a Committee on Agriculture Development and Education in order to establish rapport between farmers and bankers and to promote farm prosperity.[152]

While government agencies, business groups and successful farmers demonstrated improved farm techniques, agricultural journals played an extremely valuable role by reporting these results to their readers. The Progressive Farmer and Southern Cultivator in the South, the Dakota

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[149]Wallaces' Farmer, XLI (October 14, 1910), p. 2.

[150]Charles M. Hargen, "The Country Banker's Awakening," The Independent, LXXV (September 11, 1913), p. 711.

[151]James E. Boyle, Agricultural Economics (Chicago: J. B. Lippincott Company, 1921), pp. 158-159.

[152]Hofstadter, The Age of Reform, p. 125; McConnell, The Decline of Agrarian Democracy, p. 30.

and Kansas Farmer in the Midwest, the California Cultivator in the Far West, and The New England Farmer serving the northeast were examples of farm journals which preached scientific and efficient farming. These agricultural papers emphasized the problems of production and distribution, instead of dealing with politics or teaching political economy. They were not scientific journals, but as experiment stations and agricultural colleges discovered new principles, the agricultural press popularized the ideas and urged farmers to adopt them.[153] If any farmer discovered techniques which cheapened costs or improved the quality of farm products, agricultural editors used the columns of their papers to inform readers of the fact.[154] A prime example of the benefits farmers received from information in the agricultural papers involved the dissemination of the Babcock test discovered by Dr. Stephen M. Babcock of the Wisconsin Experiment Station. The test eventually saved farmers thousands of dollars by weeding out cows which produced milk of low butterfat content. Without the constant devotion of space to the Babcock test by farm editors, masses of farmers would have known nothing about it or simply ignored the merits of the machine.[155]

Another example occurred in the South where farmers in the post-Civil War period reacted very slowly to scientific methods. They proceeded

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[153]Wallaces' Farmer, XXXII (January 25, 1907), p. 99; Kansas Farmer, XXXIX (February 7,1901), p. 150.

[154]Kansas Farmer, XXXIX (February 7, 1901), p. 150; Wallaces' Farmer, XXIII (January 14, 1898), p. 38; Southern Planter, LVI (March, 1895), p. 129.

[155]Oregon Agriculturist and Rural Northwest, XXII (January 15, 1902), p. 131.

to scratch the land, erode the soil and destroy the very ingredients which enriched their crops. Papers in the South such as the Progressive Farmer and the Southern Cultivator emphasized deep plowing, subsoiling, diversification, rotation and a knowledge of soil composition as means of overcoming the wreck and ruin of bad practices.[156]

The advertising columns of agricultural papers contributed to agricultural progress. Through advertisement in farm journals, manufacturers introduced, in many cases, new and improved machinery to progressive farmers who were not aware of its existence. For example, the International Harvester Company in its "Harvester Talk to Farmers" used the Progressive Farmer to introduce the latest in mowers, rakes, corn harvesting machines and wagons.[157]

Farmers, in many cases, wrote letters to the agricultural press expressing their appreciation for the journal's services. Writing to the Florida Agriculturist in 1903, a farmer revealed that "a single article in one of my papers saved me over forty dollars in the purchase of fertilizers. An advertisement saved me twelve dollars in the purchase of a single implement. It pays to take time to read when the reading benefits one over fifty dollars in hard cash in a single year."[158] A farmer from Delmar, South Carolina testified in 1906:

> I did not take any interest in farming until I began reading the Southern Cultivator. Had never read any agricultural books or

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[156]Southern Cultivator, LXII (December 1, 1904), p. 1; Progressive Farmer, XX (February 8, 1906), p. 4.

[157]Progressive Farmer, XX (May 30, 1905), p. 15.

[158]Florida Agriculturist, XXX (December 23, 1903), p. 81.

> papers, and did not think they would be interesting; but after I began reading the Cultivator I got interested and from that time I have made a study of some of the principles of farming, and the more I read and study, the more I find there is for me to learn.[159]

Finally, Emil E. Hesnard of Pennington County, South Dakota in 1909 considered the reading of farm journals as a good business proposition:

> The reason I have taken the Dakota Farmer so long is simply a business proposition and that it is what I consider a good investment, in fact it pays for itself and more too. I consider the strongest feature the fact that it publishes the practical knowledge and actual experience of farmers of our own climate.[160]

It is clear that after 1890 many farmers improved their farming practices because of the information on better farming methods learned from agricultural papers. Several examples from this period seem to illustrate this. Oregon farmers assumed that agricultural journals would accelerate progress; therefore, they raised a bonus in the 1890's to secure the establishment of a paper in the Wilamette Valley.[161] In 1891, the Rocky Wall Alliance of Lexington, South Carolina passed a resolution requiring its members to take and read at least one good agricultural paper, which they felt was essential for progressive farming.[162] The Southern Planter in 1895 stated that: "It is a noticeable fact that where you find a farmer who takes several leading papers devoted to improved agriculture, that he is looked up to as a progressive

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[159]Southern Cultivator, LXIV (March 1, 1906), p. 60.

[160]Dakota Farmer, XXIX (July 15, 1909), p. 9.

[161]Oregon Agriculturist and Rural Northwest, XXII (January 15, 1902), p. 131.

[162]Farm Journal, XV (January, 1891), p. 2.

farmer in the community in which he lives."[163] L. A. Weld of Grant County, Oklahoma, writing to the Kansas Farmer in 1902 stated that "as a rule the most prosperous farmers are those who take a local paper, a state paper and at least one good farm paper."[164] J. H. Wilkinson, a school teacher from South Dakota noticed that where farmers took agricultural journals, their children read them and proved to be the brightest pupils in school. The slower students, according to Wilkinson, came from families who had no time to read and consequently took no papers.[165]

Figures from various farm journals indicate that the number of subscribers increased rapidly from 1890 to 1910. For example, the Southern Cultivator increased its subscribers from 6,700 on March 1, 1899 to 42,000 on November 15, 1904. The Progressive Farmer in one year, from 1904 to 1905, gained 2,000 subscribers.[166] The increase in subscription rates coincided with a growth in efficiency and business-like methods. Although many factors stimulated the transformation in farming, the growing number of readers during these years seem to illustrate that journals contributed their part to the "new agriculture."

Because of these educational forces, many progressive farmers accepted the teachings of scientific farming. In 1901 Dr. L. O. Howard, after describing the previous prejudice and hostility of farmers to

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[163]Southern Planter, LVI (March, 1895), p. 128.

[164]Kansas Farmer, XL (May 29, 1902), p. 581.

[165]Dakota Farmer, XXIV (September 15, 1904), p. 1.

[166]Southern Cultivator, LXII (December 1, 1904), p. 1; Progressive Farmer, XX (June 6, 1905), p. 9.

science, could optimistically say:

> The results which have been achieved, not only by my branch of the work but by other branches of the Department of Agriculture, have been so great that the farmers have changed their attitude entirely. One of us goes out and he finds that he is listened to with respect; and not only that, but he is kept on his feet to answer questions for an hour after he gets through with his talk. There is a very rapidly growing appreciation of the farmers in regard to the work of science applied to agriculture.[167]

Henry Wallace, editor of Wallaces' Farmer indicated in 1903 that more farmers were looking upon farming as a business of itself, a science as well as an art and that it needed to be learned in the same way as any other business.[168] In 1907, William W. Polk, writing for the Farm Journal made the observation that the sneer at book farming was slowly disappearing.[169] Writing in 1909, Cyrus H. McCormick, son of the famous inventor, optimistically described the acceptance of scientific methods:

> Instead of depending entirely upon one or two crops, as was the custom among large farmers years ago, not only does he now raise a greater diversity of crops, but, with more intelligence, he rotates his crops, thus materially increasing the yield. In addition to this, by study he has become better acquainted with his own soil and has learned how to enrich it and what crops to grow upon it to the best advantage.[170]

The contrast in farming before and after the advent of agricultural aid by government agencies and business efforts illustrates the importance of these educational efforts changing farm attitudes

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[167]U. S. Industrial Commission, Report, X, 1900, p. 762.

[168]Wallaces' Farmer, XXVIII (October 23, 1903), p. 1385.

[169]Farm Journal, XXXI (January, 1907), p. 22.

[170]Cyrus H. McCormick, "The Prosperity of the Farmer," The Independent, LXVI (January 14, 1909), p. 86.

and practices. Prior to the late 1880's, agriculture was largely traditional, conducted automatically according to customs transmitted down the years without change or question from father to son. There was very little rational and systematic effort to improve agricultural practices, and the overwhelming mass of farmers still employed methods that were very little changed from those in ancient Rome. Furthermore, the idea that agriculture might be improved simply did not exist in any effective way.[171] By the 1890's professionalized forces deliberately and directly altered and improved agriculture. These educational forces worked to overcome traditional inertias and to direct agriculture into new paths. A stout core of customary resistance remained, but the unrelenting agitation for progress resulted in an accelerated change that was unprecedented up to that time in all previous agricultural history.[172]

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[171]Johnstone, "Old Ideals Versus New Ideas," p. 116.

[172]Ibid.

CONCLUSION

Throughout American history, industrialization has always exerted a notable impact upon society. On the surface, industrialism benefited Americans by developing cheap, rapid transportation, encouraging improved communication facilities and providing jobs, security and rising standards of living for laborers. Beneath the surface, industrialization, unwittingly, produced a feeling of insecurity as men faced vast and rapidly changing economic forces that they could not control. For those who were accustomed to rural patterns of culture, the strange, new society created by industrialization left a feeling of uprootedness. Many who were thrust into the urban environment visualized the disintegration of old ways of life and the loss of familiar surroundings.[1]

In the early 1800's, before the large industrial monopolies appeared, the factory system brought social malaise to a nation which was still predominantly rural. In their painful attempts to cope with industrial change, the rural people were torn between the ideals of a Jeffersonian agrarian republic and the benefits which would come about with industrialization. Leo Marx, in a stimulating book called Machine in the Garden described the conflict between nature and industrialism through great literary writers. Melville, Hawthorne, Whitman and Poe were very concerned with their rapidly changing times.

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[1]Hays, Response to Industrialism, p. 4.

Bewilderment and unattachment, because of abrupt industrial change, concerned these writers, even though they did not allude to industrialization directly. Nathaniel Hawthorne used the imagery of technology and nature in Ethan Brand to illustrate the internal conflicts. In Moby Dick by Herman Melville, Ahab representing industrialization, attempted to overcome nature, the whale, but was destroyed in his attempt.[2]

Marvin Meyers in his book, Jacksonian Persuasion, also pursued the theme that people during the 1820's and 30's were wrestling with the problem of how to accept progress through industrialization and at the same time maintain a tradition of the past, the old yeomanry, agrarian republic. As America was moving swiftly in the direction of a new urban, industrial society, they were not inwardly prepared for this change. In effect the people wanted progress without change.[3]

With the rapid growth of industrialization after the Civil War the psychological problems of adjustment became more intense. Through the development of nationwide markets, improved technology and scientific advancements, farmers became irrevocably entwined in the complex industrial system. A deep feeling of insecurity pervaded the agrarian community, because they faced economic forces which they could not control. Many farmers "drew back in disgust before the crudeness of the new age and the graft, corruption, praise of material values and

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[2]Leo Marx, Machine in the Garden: Technology and the Pastoral Ideal in America (New York: Oxford University Press, 1964).

[3]Marvin Meyers, Jacksonian Persuasion (Stanford: Stanford University Press, 1957), pp. 1-23.

destruction of resources which accompanied it."[4] E. L. Godkin wrote in the Nation in 1866 about a "gaudy stream of bespangled, belaced and beruffled barbarians . . . who lacked the restraints of culture, experience, the pride, or even the inherited caution of class or rank."[5] To many farmers, the industrialists represented greedy, grasping materialists who directly opposed the sacred principles of rural society: individualism, simplicity and serenity. Forced into a new and unfamiliar industrial setting, farmers longed for the agrarian environment of the past.

The 1870's brought farmers face to face with the problems of being enmeshed by a giant industrial system. Being involved in a world-wide economic network, the impersonal price-and-market system, farmers experienced severe economic difficulties. Farmers complained of high railroad rates, low prices for their goods, soaring prices for manufactured products, high interest rates and exorbitant profits by middlemen.[6]

In a sense the farmer's search for order was achieved through two methods. In the first place, farmers had to face the realities of industrialization. At a time when farmers were accusing businessmen of conspiracy and collusion they were emulating the efficiency techniques of the business community. Not through their own initiative but because of the need for survival many progressive farmers changed from a Jack-of-all-trades into calculating, alert and informed businessmen.

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[4]Hays, Response to Industrialism, p. 24.

[5]Ibid., p. 25.

[6]Ibid., p. 27.

The agrarian segment realized that society, through the initiative of big business had quickly organized. Consequently, a number of farmers, sensing psychological and economic pressures stemming from these institutional forces, realized that if they were to survive in a structured community, they must adopt the efficiency practices of business. The period of agrarian history from 1880-1910 illustrates a group in society who were desperately searching for order by adopting techniques and procedures which they had previously criticized.

Through economic organization, farmers gained greater control of markets. By introducing improved mechanization to the farm they greatly increased efficiency. Through a wiser use of labor, patterned in many cases after the factory system, farmers were able to direct the operation of the farm in a more systematic manner. Progressive farmers took advantage of educational agencies such as the Department of Agriculture, land grant colleges, experiment stations, journal and private businesses who instructed them in scientific techniques and conservation of the soil.

In the second place, farmers achieved order by coming to terms mentally with industrialization. Instead of blaming themselves or accepting industrialism as a vehicle of progress, farmers centered their fire on the business leader as a symbol of change which they could conveniently attack. These targets of attack served as specific symbols of a network of economic forces that the farmer increasingly associated with fluid wealth, the money market, the banking and currency system and more precisely with the "capitalists" who financed business. In the eyes of the farmers, capitalists produced no wealth but

manipulated it to the disadvantage of the toiling workers who created goods by the sweat of their brow. Farmers imagined a conspiracy among Wall Street bankers who held the financial strings of the nation in their hands. Tyranny, conspiracy, despotism, greed and oppression were words often used to describe the sinister forces which created their difficulties. At the same time, farmers were reaffirming their own moral and physical purity.[7]

The fitful attempts to grapple with rapid change by desperately reaffirming the old familiar ways of life stemmed from the shock of industrialization. The language that farmers employed signified unconsciously the psychological insecurities, the economic dislocations and the social strain that they had experienced. The ideology as expressed through language served as a series of images to describe and interpret what they thought was happening. Ideology in this instance held a series of expectations or a map in their mind, orienting them and telling them how things worked. In was a series of cues for evaluation of what they saw. Interconnected explanations and interpretations already existed in their minds for nearly everything that they saw or felt.[8]

Gene Wise, the author of "Political 'Reality' in Recent American Scholarship," believed that sometimes an individual would distort

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[7]Ibid., p. 29.

[8]Kenneth M. Dolbeare, Patricia Dolbeare and Jane Hadley, American Ideologies (Chicago: Rand McNally, 1973), p. 4.

reality as a result of his background and aspirations. The individual thus refracts rather than reflects reality and the ideology presented is the product of this broadened total environment and the refraction of the individual perceiver. Thus, applying Wise's interpretation in connection with the language of the embittered farmers, the individual was not a mirror image of his "reality" but rather a spectrum through which "reality" was refracted and the end product was an anticipated ideological distortion.[9]

The language of the farmer expressed as an ideology, signified their confusion, economic dislocation and social strain. Psychologically, order and stability was achieved because their expressed language acted as a tension reliever, or a rationale for their difficulties.[10] For example, many ante-bellum Southerners relieved themselves of personal guilt in enslaving the Blacks by characterizing them as lazy, inherently inferior and cursed by Biblical scripture. Although many Southerners realized that these terms were incorrect, the language transferred the burden of blame from themselves to the shoulders of the enslaved Blacks.

By the turn of the century, changes in farming were accompanied by an unprecedented period of prosperity. Personal credit and responsibility of farmers achieved an all time high. They purchased their farm implements chiefly with cash, which sharply contrasted to previous

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[9]Gene Wise, "Political 'Reality' in Recent American Scholarship: Progressives Versus Symbolists," American Quarterly, XIX (Summer, 1967), 303-328.

[10]Geertz, "Ideology as a Cultural System," pp. 47-76.

years when they paid one-third cash and two-thirds notes. Agricultural bank accounts reflected the good times. For example, in Iowa, deposits in the State and Savings banks in 1909 amounted to $84 million as compared with $58 million five years earlier.[11] The steady progress of general agricultural prosperity can be gauged by contrasting farm conditions in 1900 and 1910. In 1900 the average value of all farm property per acre amounted to $24.37; in 1910, this increased to $46.64 for a growth of 91.4 percent. The average value of land per acre without buildings or equipment was valued at $15.57 in 1900 compared with $32.40 in 1910, or an increase of 108.1 percent.[12]

The total value of crops for which reports of acreage were secured amounted to $5,973,997,594 in 1909, but ten years previous, farmers sold their products for $2,768,339,569, or an 83.3 percent increase.[13] Breaking this figure down, the average value of farm crops per acre of farm land under cultivation greatly increased. It amounted to $16.30 in 1909 as compared with $9.77 in 1899, an increase of $6.53 per acre.[14]

Undoubtedly farm prosperity stemmed partially from factors

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[11]McCormick, "The Prosperity of the Farmer," p. 85; Annual Report of the Secretary of Agriculture, 1905 (Washington: Government Printing Office, 1905), p. xiv.

[12]J. L. Coulter, "Agricultural Development in the United States, 1900-1910," Quarterly Journal of Economics, XXVII (November, 1912), p. 324.

[13]C. W. Thompson, "The Movement of Wheat-Growing: A Study of a Leading State," Quarterly Journal of Economics, XVIII (November, 1903), p. 571; Dahlinger, The New Agrarians, p. 113.

[14]Ibid., p. 579.

beyond the farmer's initiative. Prosperity accelerated during these years partly from an expanded domestic market. Between 1890 and 1900 many urban areas such as Chicago, Cleveland, Kansas City and Los Angeles witnissed fantastic growth. Because of swollen populations, the American city demanded more products from the farm.[15] In addition, the census of 1910 pointed out that during the previous decade, land prices increased by 118.1 percent in the United States. In Iowa, farms which had sold for $20 an acre during the 1880's sold for $100 in 1908.[16] John D. Hicks, a scholar of American agriculture pointed out that "whether he realized it or not, the average . . . land holder had made money not so much from good farming as from unearned increment."[17] Rising prices for agricultural commodities accompanied this boom in land values. Crop and livestock produce in 1899 amounted to $4,717,000, but by the time America entered World War I this figure jumped to $19,331,000,000.[18] Furthermore, the prosperity of farmers after 1897 stemmed from the relationship between farm and non-farm prices. During these years, the prices farmers received for their produce increased more rapidly than non-farm prices. In 1890, farmers were at a disadvantage; by 1902 farm prices gained a favorable relationship to those

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[15]Statistical Abstract of the United States, 1911 (Washington: U. S. Government Printing Office, 1912), pp. 55-56.

[16]Saloutos and Hicks, Agricultural Discontent, p. 23.

[17]Ibid.

[18]Arthur F. Burns, Production Trends in the United States Since 1870 (New York: Bureau of Economic Research, 1934), p. 263.

of textile and home furnishings. After 1908 the "farm produce" column showed an advantage over the "all goods" column.[19]

Although factors such as good prices, urban growth and favorable price relationship between farm and non-farm goods contributed greatly to the "good times" of the early twentieth century, some credit must be given to progressive farmers who supplanted old, outdated farming practices with efficient, businesslike methods. By adjusting to three forces between 1880-1910, commercialization, urbanism, and technological advances, progressive farmers brought an almost complete reversal of many old customs and attitudes. Highly commercial farming replaced the old self-sufficient production. Farmers began to place greater emphasis on cash crops instead of products needed at home. Dependence on world economic conditions replaced a greater degree of independence on just the home market. In addition, more farmers were beginning to accept the desirability of commercial success in place of older pride of thrift and hard work as primary virtues. Instead of disdaining urban standards, farmers more readily accepted them. The real value of the farmer's ability to recognize and adapt to changes, inspired initiative for other needed innovations in the future. The progressive farmer realized that problems would always confront them, but knowing that these difficulties could be resolved, they looked to the future with a measure of optimism and confidence.

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[19]Statistical Abstract of the U. S., 1930 (Washington: U. S. Government Printing Office, 1930), p. 322.

BIBLIOGRAPHY

Articles

Adams, Edward F. "Cooperation Among Farmers," The Forum, XX (October, 1895), 364-376.

Allen, W. C. "The Traction Engine on the Farm," Dakota Farmer (January 15, 1909), 5.

American Monthly Review of Reviews. "Cooperative Stores in California," XXVIII (November, 1903), 613-614.

American Monthly Review of Reviews. "The Railroad as an Educator of the People," XXI, (February, 1900), 214-216.

Bahmer, Robert H. "The American Society of Equity," Agricultural History, XIV (January, 1940), 33-63.

Ball, S. Mays. "With a Prosperity Train in Georgia," World's Work, XVI (July, 1908), 10445-10453.

Barnes, James A. "The Farmer Faces Industrialization," Current History, XXVI (February, 1954), 81-86.

Barnhart, John D. "Rainfall and the Populist Party in Nebraska," American Political Science Review, XIX (August, 1925), 527-540.

Bemis, Edward W. "Discontent of the Farmer," Journal of Political Economy, I (March, 1893), 193-213.

Booth, J. F. "A Half Century of Cooperative Marketing in the United States and Canada," Annals of the Academy, CXLII (March, 1929), 409.

Branson, E. C. "Rural Life in the South," American Statistical Association, XIII (March, 1912), 71-73.

Brough, Charles Hillman. "The Industrial History of Arkansas," Publications of the Arkansas Historical Association, I (Fayetteville, 1906), 191-229.

Buttrick, Wallace. "Seaman A. Knapp's Work as an Agricultural Statesman," American Review of Reviews, XLIII (June, 1911), 683-685.

Cance, Alexander E. "Immigrant Rural Communities," Annals of the American Academy, XL (March, 1912), 69-77.

Carlton, Frank T. "Growth and Management of American Agriculture," Annals of the American Academy, XXII (November, 1903), 491-503.

Carver, T. N. "Large-Scale and Small-Scale Farming," American Statistical Association, XII (March, 1911), 488-489.

Casson, Herbert N. "The New American Farmer," The American Review of Reviews, XXXVII (May, 1908), 598-602.

Chandler, Alfred D. "The Beginning of Big Business in American Industry," Business Historical Review, XXXIII (Spring, 1959), 1-9.

Chiles, Rosa Pendleton. "Making Good Farmers Out of Poor Ones," American Review of Reviews, XLII (November, 1910), 563-572.

Clevenger, Homer. "The Teaching Techniques of the Farmer's Alliance: An Experiment in Adult Education," Journal of Southern History, XII (November, 1945), 504-518.

Cochran, Thomas C. "The Legend of the Robber Baron," The Pennsylvania Magazine of History and Biography, LXXXIV (July, 1952), 307-321.

Coman, Catharaine, "The Negro as a Peasant Farmer," American Statistical Association, XLIX (March, 1904), 45-47.

Coulter, John Lee. "The Influence of Immigration on Agricultural Development," Annals of the American Academy, XXXIII (March, 1909), 373-379.

_____. "Agricultural Development in the United States, 1900-1910," Quarterly Journal of Economics, XXVII (November, 1912), 324-331.

_____. "Changes in Land Values, Number of Farms, and Number of Tenants and Owners Since 1900," American Statistical Association, LXXV (March, 1911), 472-475.

_____. "The Rural South," American Statistical Association, XIII (March, 1912), 46-65.

_____. "Agricultural Laborers in the United States," Annals of the American Academy, XL (March, 1912), 40-43.

_____. "Organization Among the Farmers of the United States," The Yale Review, XVIII (November, 1909), 289-298.

Cox, LaWanda F. "The American Agricultural Wage Earner, 1865-1900," Agricultural History, XXII (April, 1948), 95-114.

_____. "Tenancy in the United States, 1865-1900," Agricultural History, XVIII (July, 1944), 97-105.

Davenport, Eugene. "Scientific Farming," The Annals of the American Academy of Political and Social Science, XL (March, 1912), 45-50.

Davis, C. Wood. "Why the Farmer is not Prosperous," The Forum, IX (April, 1890), 230-241.

Demaree, A. L. "The Farm Journals, Their Editors, and Their Public, 1830-1860," Agricultural History, XV (October, 1941), 182-183.

Drew, Frank M. "The Present Farmer's Movement," Political Science Quarterly, VI (June, 1891), 283-310.

DuBois, W. E. B. "The Rural South," American Statistical Association, XIII (March, 1912), 80-84.

Edwards, Everett E. "American Agriculture--The First 300 Years," Yearbook of the Department of Agriculture, 1940. Washington, D. C., 1941, 171-276.

Ellsworth, Clayton S. "Theodore Roosevelt's Country Life Commission," Agricultural History, XXXIV (October, 1960), 155-172.

Elsworth, R. H. "A Quarter Century of Cooperative Development," Cooperative Marketing Journal, I (December, 1927), 30-31.

Emerick, C. F. "An Analysis of Agricultural Discontent in the United States," Political Science Quarterly, II (December, 1896), 601-639.

_____. "An Analysis of Agricultural Discontent in the United States," Political Science Quarterly, X (December, 1896), 725-730.

Erdman, H. E. "The Development and Significance of California Cooperatives, 1900-1915," Agricultural History, XXXII (July, 1958), 179-184.

Ethelbert, George. "Machinery in Agriculture," World's Work, XIX (December, 1900), 137.

Eyerly, E. K. "Co-operative Movements Among Farmers," Annals of the American Academy, XL (March, 1912), 58-68.

Faulkner, H. U. "Farm Machinery and the Industrial Revolution," Current History, XXXIII (March, 1931), 874-875.

Farmer, Hallie. "The Economic Background of Frontier Populism," Mississippi Valley Historical Review, X (March, 1924), 469-489.

_____. "The Railroads and Frontier Populism," Mississippi Valley Historical Review, XIII (December, 1926), 387-397.

_____. "Economic Background of Southern Populism," South Atlantic Quarterly, XXIX (January, 1931), 77-91.

Fite, G. C. "Flight From the Farm," Nebraska History, XL (September, 1959), 159-176.

Galloway, Beverly T. "Seaman Asahel Knapp," Yearbook of the Department of Agriculture, 1911. Washington, D. C., 1912, 151-154.

Gates, Paul W. "The Homestead Law in an Incongruous Land System," American Historical Review, LXI (1936), 652-681.

Glasson, William H. "Rural Conditions in the South," American Statistical Association, XIII (March, 1912), 76-77.

Gleed, J. W. "Bundle of Western Letters," The Review of Reviews, X (July, 1894), 45-46.

_____. "Western Mortgages," Forum, IX (March, 1890), 93-105.

Goldenweiser, E. A. and W. J. Spillman. "Farm Tenantry in the United States," Yearbook of the Department of Agriculture, 1916. Washington, D. C., 1917, 321-343.

Goodell, Henry H. "The Mission of the Experiment Station," Farmer's National Congress Proceedings, 1899.

Greathouse, Charles H. "Free Delivery of Rural Mails," Yearbook of the Department of Agriculture, 1900. Washington, D. C., 1901, 513-528.

Greene, Thomas L. "Railroad Stockwatering," Political Science Quarterly, VI (September, 1891), 474-492.

Gregory, Clifford V. "Farming by Special Train," The Outlook, XCVII (April 22, 1911), 913-922.

Hambidge, Gove. "Farmers in a Changing World--A Summary," Yearbook of the Department of Agriculture, 1940. Washington, D. C., 1941, 1-100.

Hamilton, John. "The Farmers' Institutes," Yearbook of the Department of Agriculture, 1903. Washington, D. C., 1904, 149-157.

Hammond, H. B. "The Southern Farmer and Cotton," Political Science Quarterly, XI (September, 1897), 450-475.

Harger, Charles Moreau. "The Country Banker's Awakening," The Independent, LXXV (September, 1913), 611-615.

Harper's Weekly. "Farmer's Alliance in the Southeast," XXXIV (December, 1890), 970-971.

Harwood, W. S. "The New Agriculture," Scribner's Magazine, XXXI (June, 1902), 643-660.

_____. "Cooperation in the West," Atlantic Monthly, LXXXV (April, 1900), 539-546.

Henry, T. C. "A Story of a Fenceless Winter Wheat Field," Transactions of the Kansas State Historical Society, IX (1906), 504.

Hibbard, Benjamin H. "The Decline in Rural Population," American Statistical Association, XIII (March, 1912), 87-95.

Hirsch, Arthur H. "Efforts of the Grange in the Middle West to Control the Price of Farm Machinery," Mississippi Valley Historical Review, XV (March, 1929), 473-490.

Holmes, George K. "Causes Affecting Farm Values," Yearbook of the Department of Agriculture, 1905. Washington, D. C., 1906, 511-532.

_____. "The Supply of Farm Labor," Annals of the American Academy, XXXIII (March, 1909), 362-372.

_____. "Supply and Wages of Farm Labor," Yearbook of the Department of Agriculture, 1910. Washington, D. C., 1911, 189-200.

_____. "The Peons of the South," Annals of the American Academy, IV (February, 1894), 265-274.

Independent. "Farmers New Education," LXI (September 6, 1906), 594.

_____. "Will Farmers Help Themselves?," LXVI (March 18, 1909), 594-95.

_____. "The New Farming Generation," LXVIII (February 3, 1910), 276-77.

_____. "Educated Farmers," LXIX (September 1, 1910), 498.

Johnstone, Paul H. "Old Ideals Versus New Ideas in Farm Life," Yearbook of the Department of Agriculture, 1940. Washington, D. C., 1941, 111-170.

Judd, M. C. "Willet M. Hays: Exponent of the New Agriculture," American Review of Reviews, XXXIX (June, 1909), 692-695.

Kirkland, Edward C. "Divide and Ruin," Mississippi Valley Historical Review, XLIII (June, 1956), 3-17.

Knapp, Bradford. "Some Results of the Farmers' Cooperative Demonstration Work," Yearbook of the Department of Agriculture, 1911. Washington, D. C., 1912, 285-296.

Knapp, Seaman A. "An Agricultural Revolution," World's Work, XII (July, 1906), 7733-7738.

Lewelling, L. D. "Problems Before the Western Farmer," North American Review, XLX (January, 1895), 16-20.

Lyle, Eugene P. "A Corn Gospel Train," World's Work, XII (May, 1906), 7515-7520.

McCormick, Cyrus H. "The Prosperity of the Farmer," The Independent, LXVI (January 14, 1909), 85-87.

McPherson, Logan G. "The Farmer, the Manufacturer and the Railroad," North American Review, CLXXXVI (November, 1907), 405-411.

Mappin, W. F. "Farm Mortgages and the Small Farmer," Political Science Quarterly, IV (September, 1889), 433-451.

Medd, John C. "Agricultural Education in the United States," The Nineteenth Century (August, 1906), 299-306.

Miller, Raymond C. "The Economic Background of Populism in Kansas," Mississippi Valley Historical Review, XI (March, 1925), 469-489.

Nash, J. L. "Building a Farmers' Monopoly," World Today, XIII (July, 1907), 717-719.

Nixon, Herman Clarence. "The Cleavage Within the Farmer's Alliance Movement," Mississippi Valley Historical Review, XV (June, 1929), 22-23.

Nourse, E. G. "The Revolution in Farming," Yale Review, VIII (October, 1918), 90-105.

Outlook. "Organized Labor and the Farmers," LXXXIV (December 8, 1906), 853-854.

_____. "The New Farming," XCIII (September 11, 1909), 54.

_____. "The Education of the Farmer," LXXX (December 8, 1906), 849.

Painter, J. S. "Southwest Kansas," Transactions of the Kansas State Historical Society, IV (1890), 285.

Parker, Edward C. "Farming as a Business Enterprise," The American Monthly Review of Reviews, XXXIII (January, 1906), 62-67.

Peffer, William A. "The Farmer's Alliance," Cosmopolitan, X (April, 1891), 694-699.

Pierson, Charles W. "The Outcome of the Granger Movement," The Popular Science Monthly, XXXII (January, 1888), 368-373.

Poe, Clarence H. "Agricultural Revolution a Necessity," Annals of the American Academy, XXXV (January, 1910), 42-51.

Powell, G. Harold. "Cooperation in the Handling and Marketing of Fruit," Yearbook of the Department of Agriculture, 1910. Washington, D. C., 1911, 391-406.

Price, Homer C. "Farm Tenancy a Problem in American Agriculture," Popular Science Monthly, LXXII (January, 1908), 40-45.

Rightmore, W. F. "The Alliance Movement in Kansas--Origin of the People's Party," Transactions of the Kansas State Historical Society, IX (Topeka, 1905), 1-8.

Robinson, Edward Van Dyke. "Changes in Minnesota Agriculture Indicated by the Preliminary Results of the Thirteenth Census," American Statistical Association, XII (March, 1911), 481-487.

Ross, Joseph B. "The Agrarian Revolution in the Middle West," North American Review, CXC (September, 1909), 376-391.

_____. "Agrarian Changes in the Middle West," Political Science Quarterly, XXV (December, 1910), 629-637.

Saloutos, Theodore. "The Agricultural Problem and Nineteenth-Century Industrialism," Agricultural History, XXII (July, 1948), 162-183.

_____. "The Southern Cotton Association, 1905-1908," Journal of Southern History, XIII (November, 1947), 492-510.

Schlebecker, John T. "Dairy Journalism: Studies in Successful Farm Journalism," Agricultural History, XXXI (October, 1957), 24-25.

Scott, Roy V. "American Railroads and Agricultural Extension, 1900-1914: A Study in Railway Developmental Techniques," Business History Review, XXXIX (Spring, 1965), 74-98.

_____. "Railroads and Farmers: Educational Trains in Missouri, 1902-1914," Agricultural History, XXXVI (January, 1962), 3-10.

Selegman, Edwin R. A. "Extension Work," Encyclopedia of the Social Sciences (New York: The MacMillan Company, 1931), 31.

Shalhope, Robert E. "Toward a Republican Synthesis: The Emergence of an Understanding of Republicanism in American Historiography," William and Mary Quarterly, XXIX (January, 1972), 50-80.

Shannon, Fred A. "C. W. Macune and the Farmer's Alliance," Current History, XXVIII (June, 1955), 330-335.

Smith, Ralph. "The Farmer's Alliance in Texas, 1875-1900," Southwestern Historical Quarterly, XLVIII (January, 1945), 346-369.

_____. "'Macuneism,' or the Farmers of Texas in Business," Journal of Southern History, XIII (May, 1947), 220-244.

_____. "The Cooperative Movement in Texas, 1870-1900," Southwestern Historical Quarterly, XLIV (July, 1961), 83-100.

Spillman, W. J. "Factors of Efficiency in Farming," Yearbook of the Department of Agriculture, 1918. Washington, D. C., 1919, 93-108.

Stone, Alfred H. "Negro Labor and the Boll Weevil," Annals of the American Academy, XXXIII (March, 1909), 391-98.

Thompson, C. W. "The Movement of Wheat-Growing: A Study of a Leading State," Quarterly Journal of Economics, XVIII (November, 1903), 570-573.

Thompson, J. G. "Changes in Agricultural Conditions Shown by the Census of 1910," American Statistical Association, XII (March, 1911), 476-480.

Thornton, W. B. "The Revolution by Farm Machinery," World's Work, VI (August, 1903), 3776-3779.

Throne, Mildred. "Suggested Research on Railroad Aid to the Farmer, With Particular Reference to Iowa and Kansas," Agricultural History, XXXI (October, 1957), 50-56.

Tonz, Robert L. "Memberships of General Farmer's Organization, United States, 1874-1960," Agricultural History, XXXVIII (July, 1964), 147.

True, A. C. "A History of Agricultural Extension in Agriculture," Forum, XXVIII (February, 1900), 701-707.

_____. "University Extension in Agriculture," Forum, XXVIII (February, 1900), 701-707.

_____. "Popular Education for the Farmer in the United States," Yearbook of the Department of Agriculture, 1897. Washington, D. C., 1898, 279-290.

Tucker, William P. "Populism Up-To-Date: The Story of the Farmers' Union," Agricultural History, XXI (October, 1947), 198-202.

Vincent, C. "Cooperation Among Western Farmers," The Arena, XXXI (March, 1904), 286-292.

Walker, C. S. "The Farmer's Movement," Annals of the American Academy, IV (March, 1894), 790-798.

Walsh, George Ethelbert. "Farming With Automobiles," American Review of Reviews, XLIII (January, 1911), 62-67.

Washington, Booker T. "A Farmers' College on Wheels," World's Work, XIII (December, 1906), 8352-8354.

White, William Allen. "Kansas: Its Present and Its Future," Forum, XXIII (March, 1897), 75-83.

Whitney, Milton. "The Relation of Capital to Agriculture," American Review of Reviews, XLII (September, 1910), 335-337.

Williams, Martha. "The Tobacco War in Kentucky," American Review of Reviews, XXXVII (February, 1908), 168-170.

Wilson, James. "The Education of the American Farmer," Journal of the National Education Association, XLI (July, 1902), 93-100.

Wilson, J. R. "Western Railways and Farming," The Nation, XCI (November 10, 1910), 441.

Wise, Gene. "Political 'Reality' in Recent American Scholarship: Progressives Versus Symbolists," American Quarterly, XIX (Summer, 1967), 303-328.

Wood, H. A. "A Farmer's Trust," World's Work, VI (July, 1903), 3651.

World's Week. "Bringing New Methods to Farmers," (February, 1905), 588.

Books

Abrahamsen, Martin A. and Claude L. Scroggs. Agricultural Cooperation. Minneapolis: University of Minnesota Press, 1957.

Adams, Edward F. The Modern Farmer. N. J. Stone Company: San Francisco, 1899.

Apter, D. E. Ideology and Discontent. New York: Free Press, 1964.

Ashby, N. B. The Riddle of the Sphinx. Des Moines: Industrial Publishing Company, 1890.

Atkeson, Thomas Clark. Semi-Centennial History of the History of the Patrons of Husbandry. New York: Orange Judd Company, 1916.

Babbitt, Shirley Dare and Charles Wimberly Lowry. Essays on Agriculture. Toronto: Doubleday, Page and Company, 1921.

Bailey, Joseph A. Seaman A. Knapp. New York: Columbia University Press, 1945.

Bailey, L. H. The Country Life Movement in the United States. New York, 1911.

Baker, Gladys L., Wayne D. Rasmussen, Vivian Wiser and Jane M. Porter. Century of Service. Washington: United States Department of Agriculture, 1963.

Bakken, Henry H. and Marvin A. Schaars. The Economics of Cooperative Marketing. New York, 1937.

Barrett, Charles Simon. The Mission, History and Times of the Farmer's Union. Nashville: Marshall and Bruce Company, 1909.

Boss, Andrew. Farm Management. Chicago: Lyons and Carnahan, 1914.

Boyle, James E. Agricultural Economics. Chicago: J. B. Lippincott Company, 1921.

Buck, Solon J. The Agrarian Crusade. New Haven: Yale University Press, 1920.

_____. The Granger Movement. Cambridge: Harvard University Press, 1933.

Carman, Harry J. (Ed.) Jesse Buel. New York: Columbia University Press, 1947.

Carver, Thomas. Rural Sociology. New York: The MacMillan Company, 1924.

Cline, Rodney. The Life and Work of Seaman A. Knapp. Nashville: George Peabody Press, 1936.

Cochran, Thomas, and William Miller. The Age of Enterprise. New York: Harper and Row, 1961.

Dahlinger, Charles. The New Agrarians. New York: The Knickerbocker Press, 1913.

Dolbeare, Kenneth M., Patricia Dolbeare and Jane Hadley. American Ideologies. Chicago: Rand McNally, 1973.

Dunning, Nelson A. The Farmer's Alliance, History and Agricultural Digest. Washington: The Alliance Publishing Company, 1891.

Fite, Gilbert C. Farm to Factory: A History of the Consumer's Cooperative Association. Columbia: University of Missouri Press, 1965.

_____. The Farmer's Frontier, 1865-1900. New York: Holt, Rinehart and Winston, 1966.

_____ and Jim E. Reese. An Economic History of the United States. Boston: Houghton Mifflin Company, 1965.

Filley, H. Clyde. Cooperation in Agriculture. New York: John Wiley and Sons, Inc., 1929.

Foth, Joseph Henry. Trade Associations. New York: The Ronald Press Company, 1930.

Fuller, Wayne E. R. F. D., The Changing Faces of Rural America. Bloomington: Indiana University Press, 1964.

Gee, Wilson. The Social Economics of Agriculture. New York: The MacMillan Co., 1932.

Hackney, Sheldon. Populism to Progressivism in Alabama. Princeton: Princeton University Press, 1969.

Hammond, M. B. The Cotton Industry. New York: The MacMillan Co., 1897.

Hanna, John. Law of Cooperative Marketing Associations. New York: The Ronald Press, 1931.

Harris, Joel Chandler. Life of Henry W. Grady Including His Writings and Speeches. New York: Cassell Publishing Company, 1890.

Harvey, William H. Coin's Financial School. Chicago: Chicago Publishing Co., 1894.

Hays, Samuel P. The Response to Industrialism. Chicago: The University of Chicago Press, 1957.

Hendrick, Burton J. The Age of Enterprise. New Haven: Yale University Press, 1919.

Hibbard, Benjamin Horace. Marketing Agricultural Products. New York: D. Appleton and Company, 1922.

Hicks, John D. The Populist Revolt. Minneapolis: University of Minnesota Press, 1931.

Hofstadter, Richard. The Age of Reform. New York: Alfred A. Knoph, 1955.

Hunt, Robert Lee. A History of Farmers' Movements in the Southwest. College Station: Texas A and M Press, 1935.

Kelley, O. H. The History of the Patrons of Husbandry. Philadelphia: J. A. Wagenseller, 1875.

Knapp, Joseph G. Farmers in Business. Washington: American Institute of Cooperation, 1963.

Kirkland, Edward C. Industry Comes of Age. New York: Holt, Rinehart, and Winston, 1967.

Kolko, Gabriel. Railroad and Regulation, 1877-1915. Princeton: University Press, 1967.

_____. The Triumph of Conservatism. New York: Free Press of Glencoe, 1963.

Lamb, George P. and Sumner S. Kittelle. Trade Associations, Law and Practice. Boston: Little Brown and Co., 1956.

Lindstron, David E. American Farmers and Rural Organizations. Champaign, Illinois: The Garrad Press, 1948.

Lockridge, A. J. Official Proceedings of the Farmers National Congress. Greenville: Advance Argus Company, 1900.

Marx, Leo. The Machine in the Garden: Technology and the Pastoral Ideal in America. New York: Oxford University Press, 1964.

Meyers, Marvin. Jacksonian Persuasion. Stanford: Stanford University Press, 1957.

Morgan, W. Scott. History of the Wheel and Alliance and the Impending Revolution. Hardy: J. H. Rice and Sons, 1889.

Morison, Samuel Eliot and Henry Steele Commager. The Growth of the American Republic. New York: Oxford University Press, 1950.

McConnell, Grant. The Decline of Agrarian Democracy. Berkeley and Los Angeles: University of California Press, 1959.

McGovern, George. (Ed.) Agricultural Thought in the Twentieth Century. Indianapolis: The Bobbs-Merrill Company, Inc., 1967.

Naylor, Emmett Hay. Trade Associations, Their Organization and Management. New York: The Ronald Press Co., 1921.

Norton, L. J. and L. L. Scranton. The Marketing of Farm Products. Danville: Interstate Printing Co., 1934.

Otken, Charles H. The Ills of the South. New York: G. P. Putnam's Sons, 1894.

Parker, Florence. The First 125 Years. Superior: Cooperative Publishing Association, 1956.

Pelling, Henry. American Labor. Chicago: University of Chicago Press, 1960.

Perlman, Selig. A Theory of the Labor Movement. New York: The MacMillan Co., 1928.

Plunkett, Sir Horace. The Rural Life Problem of the United States. New York: The MacMillan Co., 1913.

Powell, G. Harold. Cooperation in Agriculture. New York: The MacMillan Co., 1914.

Quint, Howard H., Milton Cantor, and Dean Albertson. (Ed.) Main Problems in American History. Homewood, Illinois: The Dorsey Press, 1972.

Saloutos, Theodore. Farmer's Movement in the South. Berkeley and Los Angeles: University of California Press, 1960.

_____ and John D. Hicks. Agricultural Discontent in the Middle West. Lincoln: University of Nebraska Press, 1951.

Sims, Newell Leroy. Elements of Rural Sociology. New York: Thomas Y. Crowell Co., 1928.

Smith, William C. The Business of Farming. Cincinnati: Steward and Kidd Company, 1914.

Tindall, George Brown. (Ed.) A Populist Reader, Selections from the Works of American Populist Leaders. New York: Harper and Row, 1966.

Weaver, James Baird. A Call to Action: An Interpretation of the Great Uprising, Its Sources and Causes. Des Moines: Iowa Printing Co., 1892.

Wiebe, Robert H. Business and Reform. Cambridge: Harvard University Press, 1962.

_____. The Search for Order. New York: Hill and Wang, 1967.

Wiest, Edward. Agricultural Organizations in the United States. Lexington: University of Kentucky Press, 1923.

Wilcox, Early V. Tama Jim. Boston: Stratford Company, 1930.

Wik, Reynold M. Henry Ford and Grass-Roots America. Ann Arbor: The University of Michigan Press, 1972.

_____. Steam Power on the American Farm. Philadelphia: University of Pennsylvania Press, 1953.

Yoder, Fred R. Agriculture Economics. New York: Thomas Y. Crowell Company, 1929.

Farm Periodicals

Breeder's Gazette. 1904.

California Cultivator. 1896, 1902, 1904, 1906, 1908-1910.

Cornell Countryman. 1912.

Country Gentleman. 1920.

Dakota Farmer. 1902-1906, 1908-1910.

Farm Journal. 1890-1892, 1899, 1901, 1903-1904, 1907-1910.

Farm, Stock, and Home. 1895.

Field and Forum. 1908.

Florida Agriculturist. 1903, 1905-1906.

Journal of Agriculture. 1900, 1906, 1908.

Kansas Farmer. 1870, 1893, 1896-1906, 1908-1910, 1920.

National Stockman and Farmer. 1904.

New England Farmer. 1906-1909.

Orange Judd Farmer. 1902, 1904, 1906, 1908-1910.

Oregon Agriculturist and Rural Northwest. 1902, 1904.

Ohio Farmer. 1902.

Oklahoma Champion. 1896.

Progressive Farmer and Cotton Plant. 1906, 1887, 1895, 1903-1910.

Prairie Farmer. 1873-1874, 1892-1893, 1911, 1921.

Rural Northwest. 1903, 1905.

Southern Cultivator. 1890, 1902, 1904-06, 1908-1910.

Southern Planter. 1887-1888, 1893, 1895, 1900, 1905, 1909-1910.

Texas Farmer. 1893, 1900-1905, 1907.

Wallaces' Farmer. 1898-1910.

Wisconsin Farmer. 1894, 1896, 1900, 1904-1906, 1908, 1910.

Up-To-Date Farming. 1901-1909.

Newspapers

Macon Daily Telegraph. 1906.

Minneapolis Journal. 1899.

Philadelphia Public Ledger. 1906.

San Francisco Call. 1909.

Public Documents

American Statistical Association, XII. Washington, 1911.

Association of American Agricultural Colleges and Experiment Stations. Proceedings of the Third Annual Meeting, 1889. Washington, 1890.

Bailey, L. H. Farmer's Institutes: History and Status in the United States and Canada. USDA Bulletin 79. Washington, 1900.

California Bureau of Labor Statistics. Biennial Report, 1885-1886.

Connecticut Board of Agriculture. Annual Report, 1887.

Elsworth, R. H. Agriculture Cooperative Associations. USDA Bulletin 40, Washington, 1928.

_____. The Story of Farmer's Cooperatives. Farm Credit Administration Circular, Bulletin 23. Washington, 1928.

Erdman, H. E. The Farmer's Elevator Movement in Ohio. Ohio Agricultural Station Bulletin 331. Wooster, Ohio, 1918.

Farmer's National Congress. Official Proceedings of the Twenty-Fifth Annual Convention. 1905.

Fite, Gilbert C. American Agriculture and Farm Policy Since 1900. American Historical Publication Number 59. New York: The McMillan Company, 1964.

Herman, O. W. and Chastina Gardner. Early Developments in Cooperative Cotton Marketing. Farm Credit Administration Circular No. C-101. Washington, 1936.

Jamieson, Stuart. Labor Unionism in American Agriculture. U. S. Bureau of Labor Statistics, Bulletin 836. Washington, 1945.

Knapp, S. A. Demonstration Work in Cooperation with Southern Farmers. USDA Farmer's Bulletin 319. Washington, 1908.

Kraemer, Erich and H. E. Erdman. History of Cooperation in the Marketing of California Fresh Deciduous Fruits. Agriculture Experiment Station of Berkeley, California. Bulletin 557. Berkeley, 1933.

Maine Board of Agriculture, Annual Report, 1887.

Massachusetts Board of Agriculture. Annual Report, 1887.

Massachusetts Bureau of Statistics of Labor. Compendium of the Census of Massachusetts, 1875.

Publications of the American Economic Association, Third Series, VI. New York: The McMillan Company, 1904.

Statistical Abstract of the United States, 1911. Washington: U. S. Government Printing Office, 1912.

True, Alfred C. A History of Agricultural Extension Work in the United States, 1785-1923. USDA Miscellaneous Publication 15. Washington, 1923.

True, A. C. and V. A. Clark. The Agricultural Experiment Stations. USDA Bulletin 80. Washington, 1900.

U. S. Census. Eleventh Census: 1890. Agriculture.

_____. Twelfth Census: 1900. Agriculture and Occupations.

U. S. Congress, Senate. Report of the Commission on Country Life. Senate Document 705. 60th Congress, 2nd Session, 1909.

U. S. Department of Agriculture. Annual Reports of the Department of Agriculture, Washington, 1898, 1900, 1905, 1910.

_____. Miscellaneous Report. Number 40. 1941.

_____. Yearbook of the United States Department of Agriculture. Washington, 1905, 1910.

U. S. Industrial Commission. Reports. Washington, 1900. Vols. X, XI, XV.

Unpublished Manuscripts

In 1963, Dr. Vivian Wiser, working for the Bureau of Agricultural Economics compiled a series of records relative to farm management. This compilation, designated as Record Group 83, located at the National Archives in Washington, amount to 36 cubic feet and are unbound in manila folders. They were accumulated for the most part during the period before the 1919 reorganization of the Office. Although much of the material was apparently unpublished, some of it appears to have been

published by the Government Printing Office for the Department of Agriculture. Other items were published in occupational journals such as the Progressive Farmer. The items include weekly, monthly, and annual reports of staff members; plans for individual farms; special studies; speeches made before agricultural groups; and reports and publications received from foreign sources. They relate among other matters to weed eradication, dryland farming, fertilizers, farm equipment, farm structures, types of farming, genetics, land clearing, farm labor, rural credit, agricultural insurance, farm tenancy, land values, cost of producing crops and livestock, application of bookkeeping to farming, use of statistics in studies made by the Office, and farm organizations such as the county farm bureaus, the National Board of Farm Organizations, and the Federation of Jewish Farmers of America. These manuscripts proved very useful in substantiating the businesslike attitudes of the progressive farmer. The following unpublished manuscripts are records of the Bureau of Agriculture Economics, Record Group 83, National Archives, Washington, D. C.

Arnold, J. H. "The Farm Management Methods of Studying Agriculture Problems. 1917.

Doane, D. H. "Farm Management Work in Missouri." 1910.

Ellis, L. W. "Farm Machinery in New England." 1908.

_____. "The Era of Farm Machinery." 1910.

Spillman, W. J. "The Fundamental Problems of American Farm Management." 1913.

_____. "What is Farm Management." 1915.

_____. "Agriculture, Fifty Years Ago and Now." 1907.

_____. "Successful Farm Management." 1906.

Yerkes, A. P. "The Tractor's Influence on Crop Production." 1918.

_____. "The Farm Tractor." 1914.

Unpublished Dissertations

Tweton, Donald Jerome. "The Attitudes and Policies of the Theodore Roosevelt Administration Toward American Agriculture." Unpublished Ph.D. dissertation, University of Oklahoma, 1964.