

THE MARKETING OF ALFALFA SEED THROUGH THE
APPROVAL OF ORIGIN PROGRAM IN OKLAHOMA

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CHAPTER I

INTRODUCTION

The name alfalfa comes from the Arabic language, meaning "best fodder."^{1/} The known records also indicate that it was probably the first forage plant cultivated. According to Mr. H. L. Westover,^{2/} alfalfa originated in southwestern Asia, though forms from which it might have sprung are found in China and Siberia. Historical accounts indicate that it was first cultivated in Persia. From there it was taken to the Mediterranean countries and finally to North America. The first recorded attempt to grow alfalfa in the United States was made in Georgia in 1736, but it was not until about 1850, when alfalfa was taken to California from Chile, that its rapid extension began in this country. From California it was soon taken to Utah, then introduced into Colorado, Kansas, and Nebraska.

In Oklahoma the chief demand for alfalfa hay is from the dairy and beef cattle feeders. Alfalfa hay, whether grown for home use or for marketing purposes, should meet the quality demands of the beef and dairy cattle feeders. The alfalfa hay producers who grow alfalfa hay solely for marketing purposes should become familiar with the local market demands and in this manner adjust their production to meet these market requirements.^{3/} The increase in livestock numbers in

^{1/} Tysdal, H. M., and Westover, H. L., "Alfalfa Improvement," Year-book of Agriculture, 1937, United States Department of Agriculture, pages 1122-1153.

^{2/} Westover, W. L., Growing Alfalfa, United States Department of Agriculture Farmers' Bulletin No. 1722, 1941, pages 1-3.

^{3/} Hosterman, W. H., High-Grade Alfalfa Hay, United States Department of Agriculture Farmers' Bulletin No. 1539, 1943, pages 1-5.

Oklahoma as well as the expanding markets for alfalfa seed has been responsible for the importance of the alfalfa seed industry in this State.

Importance of Alfalfa

Alfalfa acreage in the United States exceeds any other perennial crop grown with the exception of the combined acreage of timothy and timothy mixed with clover.^{4/} According to the United States census reports the acreage devoted to it practically doubled each ten years between 1899, when there were 2,094,011 acres, and 1919, when this crop occupied 8,624,811 acres. In 1929 the area in alfalfa amounted to 11,515,811 acres, which represents an increase of 33.5 percent over the 1919 acreage. The 1940 Agricultural Statistics lists 13,494,000 acres in the United States in 1939, an increase of about 17 percent over the number reported in 1929. As the acreage of alfalfa increased in the United States the acreages of alfalfa for seed purposes increased in those states suited for its production. In Oklahoma from 1925 to 1940 the harvested acreage practically doubled every five years (Table 1). Oklahoma ranked eleventh in the United States in the production of alfalfa seed in 1933, and at no time since has the State fallen below this figure. In 1938, 1939, and 1944, Oklahoma was the leading state in the Union. In 1940, Minnesota exceeded Oklahoma production of alfalfa seed by 11,000 bushels; 1942 Kansas exceeded Oklahoma by 31,000 bushels, Arizona 2,000 bushels; 1943 Kansas 23,000 bushels, and in 1945 Kansas again exceeded Oklahoma alfalfa seed production by 47,000 bushels (Table 2). These figures place Oklahoma in

^{4/} Westover, W. L., Op. cit. page 1.

Table 1. Alfalfa Seed: Acres, Production, Price, and Value, Oklahoma, 1924-1944

Year	Harvested Acres	Harvested Yield per Acre	Production 1,000 Bushels	National Rank Production	Price per Bushel	National Rank Price	Value 1,000 Dollars	Percent of United States Production
	1,000 Acres	Bushels	1,000 Bushels		Dollars		1,000 Dollars	
1924	7	2.50	17,500					
1925	6	2.30	13,800					
1926	15	1.90	28,500					
1927	12	2.30	27,600					
1928	13	2.00	26,000					
1929	18	2.20	39,600					
1930	20	3.10	62,000		8.40		520	
1931	25	2.50	62,500		8.00		500	
1932	22	1.61	35,400	3/	3.55	19	181	5.70
1933	23	1.75	40,300	3/ 11	5.00	20	265	3.75
1934	58	.50	29,200	3/ 10	6.40	20	634	2.65
1935	48	1.86	89,600	3/ 5	6.70	21	610	8.92
1936	28	1.70	47,500	3/ 8	9.80	21	608	5.35
1937	50	1.82	91,000	3/ 3	10.70	19	1,177	9.28
1938	76	1.82	138,000	3/ 1	8.20	21	1,123	13.35
1939	82	2.06	169,000	3/ 1	8.40	20	1,378	8.80
1940	87	1.80	157,000	2	7.00	22	1,099	10.50
1941	85	1.40	119,000	2	11.00	21	1,309	11.30
1942	76	1.75	133,000	3	11.70	22	1,556	13.75
1943	92	2.00	184,000	2	18.00		3,312	16.50
1944	105	1.60	168,000	1	18.40		2,091	14.10
1945			175,000	4/				15.30

SOURCE: Estimates obtained from the State Statistician's office, K.D. Blood, Bureau of Agricultural Economics, Oklahoma City, Oklahoma.

1/ National Rank on production (Bu.) and price (Bu.) alfalfa seed based on 21 leading seed production states up to 1940; from 1940 to 1945 based on 22 leading seed production states.

2/ Season average price.

3/ Agricultural Statistics, 1934 to 1944, inclusive, United States Department of Agriculture, Washington, D. C.

4/ Crops and Markets, Vol. 23, No. 1, United States Department of Agriculture, Washington, D. C.

second place in 1940, 1941, 1943, 1945, and third place in 1942. During the past fourteen years, the average seed production for Oklahoma has been 112,393 bushels per year which has been surpassed only by our neighboring state of Kansas, which has maintained an average of 139,536 bushels of alfalfa seed per year (Table 2).

Oklahoma has been fortunate that during this expansion in the production of alfalfa seed the price has been steadily increasing (Table 1). The production in alfalfa seed in Oklahoma reached its peak in 1943 when over 16 percent of the total seed produced in the United States was produced in Oklahoma a year in which the price for alfalfa seed was \$18.00 per bushel (Table 1). Oklahoma has maintained the production of over 10 percent of the total United States alfalfa seed production since 1940. The value of production of alfalfa seed in Oklahoma has likewise shown sharp increases since 1930 which was the first year these figures had been compiled (Table 1). In 1930 the seed was valued at \$520,000, in 1943 at \$3,312,000, an increase of over 600 percent in value.

Purpose and Scope of This Study

The object of this study is to show the history and development of the marketing of alfalfa seed through the various county Alfalfa Approval of Origin Associations in Oklahoma. To study the structure, functions, and problems of these respective county alfalfa seed marketing organizations, and to determine the efficiency of their operation are the major purposes of this thesis. It is hoped that such a study will improve our understanding of our present alfalfa seed marketing organization in Oklahoma and provide a more rational basis for

Table 2. Alfalfa Seed Production, Major Seed Production States, 1932 to 1945

Year	Ohio	Indiana	Michigan	Wisconsin	Minnesota	Iowa	North Dakota	South Dakota	Nebraska	Kansas	Oklahoma	Texas
Total Bushels Seed												
1932			18,000	15,000	54,400		14,400	32,300	41,600	62,000	35,400	5,000
1933	12,000	7,200	45,000	46,800	81,000	11,200	15,000	49,000	94,000	198,000	40,300	6,200
1934	26,000	13,000	30,000	48,000	52,000	21,000	11,300	19,700	92,400	120,000	29,200	6,000
1935	12,000	2,700	28,800	4,000	61,500	7,300	18,000	17,000	93,600	131,400	89,600	6,000
1936	82,500	21,000	87,000	27,700	103,500	39,100	7,800	11,200	90,000	56,000	47,000	6,400
1937	2,000	1,300	51,600	71,200	93,800	14,000	20,000	9,000	60,000	73,100	91,000	16,800
1938	8,000	2,000	48,000	12,000	57,000	24,000	9,000	4,000	92,000	118,000	138,000	18,000
1939	34,000	13,000	104,000	62,000	137,000	25,000	35,000	16,900	82,000	161,000	169,000	16,500
1940	14,000	17,800	61,000	18,900	168,000	18,000	42,000	28,000	78,000	154,000	157,000	23,000
1941	26,000	14,300	71,000	31,000	58,000	22,000	15,000	24,000	91,000	150,000	119,000	16,200
1942	6,800	1,700	28,000	7,200	22,000	8,300	6,400	16,000	94,000	156,000	133,000	32,000
1943	<u>1/</u> 1,400	1,100	16,000	3,500	50,000	7,700	19,200	22,000	121,000	199,000	184,000	11,200
1944	<u>1/</u> 42,000	21,000	100,000	32,000	42,000	6,000	27,000	22,000	64,000	155,000	168,000	30,000
1945	<u>1/</u> 5,000	1,800	13,600	14,400	43,000	3,600	17,500	43,000	121,000	220,000	175,000	68,000
Average												
1932-												
1945	20,900	<u>2/</u> 9,069	<u>2/</u> 50,143	27,407	73,086	15,938	<u>2/</u> 18,400	22,436	86,757	139,536	112,393	18,664

(Continued)

(Continued)

Table 2. Alfalfa Seed Production, Major Seed Production States, 1932 to 1945

Year	Montana	Idaho	Wyoming	Colorado	New Mexico	Arizona	Utah	Oregon	California	Washington	United States
<u>Total Bushels Seed</u>											
1932	30,000	42,500	28,000	25,000	10,200	56,000	18,000	10,500	37,500		535,800
1933	62,000	112,000	37,500	25,000	9,600	70,000	33,000	7,200	66,200		1,025,700
1934	21,600	98,800	13,500	12,000	5,900	85,400	59,400	10,500	45,000		820,700
1935	44,200	182,000	33,600	28,800	5,300	108,000	78,500	10,500	40,500		1,004,200
1936	10,000	42,000	42,500	22,500	8,000	80,000	52,800	8,400	42,000		887,800
1937	19,200	84,000	47,600	35,000	29,200	130,000	64,400	15,000	52,800		981,000
1938	42,000	64,000	49,000	28,000	24,000	107,000	105,000	25,000	60,000		1,034,000
1939	104,000	76,000	68,000	21,000	22,000	140,000	103,000	19,800	79,000		1,488,200
1940	185,000	80,000	70,000	46,000	16,200	103,000	92,000	24,000	88,000	6,000	1,489,900
1941	117,000	44,000	42,000	13,300	8,500	85,000	45,000	9,000	42,000	6,000	1,049,300
1942	90,000	36,000	33,000	26,000	18,900	135,000	40,000	9,000	60,000	7,600	966,900
1943 ^{1/}	97,000	51,000	38,000	64,000	10,000	99,000	61,000	7,000	49,000	4,600	1,114,900
1944 ^{1/}	84,000	52,000	25,000	48,000	27,000	77,000	42,000	8,500	66,000	4,000	1,142,500
1945 ^{1/}	88,000	38,000	29,000	42,000	37,000	73,000	33,000	12,600	60,000	7,500	1,146,000
Average											
1932-											
1945	71,000	71,593	39,764	31,186	16,571	96,314	59,679	12,643	56,286	5,950 ^{3/}	1,049,064

SOURCE: Agricultural Statistics, 1934 to 1944, inclusive, United States Department of Agriculture, Washington, D. C.

^{1/} Crops and Markets, United States Department of Agriculture, Vol. 20, No. 1 for 1942 and 1943; Vol. 23, No. 1, for 1944 and 1945, Washington, D. C.

^{2/} Averages for years 1933 to 1945, inclusive.

^{3/} Short time average, 1940 to 1945, inclusive.

market analysis of alfalfa seed and a better background for making recommendations for revisions in our present marketing associations.

Method and Procedure

Historical material relative to the marketing of alfalfa seed in Oklahoma is scarce, with the major portion of the available data coming from original documents and records. The detailed data in the study on the History and Development of the Oklahoma Alfalfa Approval of Origin Associations were obtained in the office of the State Association coming principally from the various reports submitted from the local County Associations. Additional material was necessary to ascertain the degree of similarity of the various local County Associations. This material was obtained by personal interviews with several officials of the organization. The material dealing with the channels of distribution of alfalfa seed of the Approved Grower was obtained from correspondence with the various Approved Processors of this seed.

CHAPTER II

EARLY HISTORY AND GROWTH OF ALFALFA APPROVAL OF ORIGIN ASSOCIATIONS

The Oklahoma Alfalfa Approval of Origin Program was developed in 1938 by the Oklahoma Crop Improvement Association with the assistance and cooperation of the Oklahoma Agricultural Experiment Station, the Oklahoma Agricultural Extension Service, leading alfalfa seed processors, and alfalfa seed growers. The program is carried on by the Crop Improvement Association in cooperation with county associations of alfalfa seed growers in the major seed producing counties of the State.

Motivation for Organization

A ruling issued by the Agricultural Adjustment Administration for the North Central States in 1938, Section XIII, established the following Soil Building Practices:

"The soil-building practices listed in the following schedule shall count toward the achievement of the soil-building goal to the extent indicated therein, when such practices are carried out in 1938 in accordance with specifications issued by the Director of the North Central Division or by the State committee with the approval of the Director of the North Central Division.

"In order to count toward the achievement of the soil-building goal, all seedings of red clover and any mixtures containing red clover must be made with adapted red clover seed, and all seedings of alfalfa and any mixtures containing alfalfa on such farm must be made with adapted alfalfa seed, the origin of which must be certified by the county committee in accordance with instructions issued by the Agricultural Adjustment Administration. Red clover and alfalfa seed grown in Canada and in the following States shall be regarded as adapted: Colorado, Connecticut, Delaware, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New York, North Dakota, Ohio, Pennsylvania, Rhode Island, South Dakota, Tennessee, Utah, Vermont, Virginia, West Virginia, Wisconsin, and Wyoming.

"Red clover and alfalfa seed grown in the following counties of the following States shall also be regarded as adapted: The

counties of Alfalfa, Beaver, Cimarron, Craig, Delaware, Ellis, Garfield, Grant, Harper, Kay, Major, Mayes, Noble, Nowata, Osage, Ottawa, Pawnee, Rogers, Texas, Tulsa, Washington, Woods, and Woodward in Oklahoma." 1/

We note from this ruling that Oklahoma alfalfa seed produced south of the two northern tiers of counties would not be approved in the North Central Region. Since a large percentage of the Oklahoma alfalfa seed crop is marketed in the area included in the North Central Region, the alfalfa seed growers of the State were thus threatened with the loss of their most important market as a result of this ruling.

Strong agitation among the alfalfa seed growers of southwestern Oklahoma and among numerous commercial seed houses arose for a revision of the Agricultural Adjustment Administration ruling. On May 11, a statewide conference of alfalfa seed growers was called by Mr. Joe C. Scott, President of the Oklahoma State Board of Agriculture, in the Municipal Auditorium, Oklahoma City. ^{2/} Mr. Joseph F. Cox, agronomist of the Planning Division of the Agricultural Adjustment Administration was present and discussed the proposed ruling. He stated that the reason for the ruling was the fact that a considerable quantity of Argentine alfalfa seed was known to have been introduced into Oklahoma during the past two or three years. This Argentine alfalfa seed would

1/ Tentative Bulletin, No. NCR 201, February 26, 1938, United States Department of Agriculture, Agricultural Adjustment Administration to the North Central Region of States, page 20, Section XIII.

2/ Osborn, L. W., Oklahoma Seed Courier, Secretary Oklahoma Crop Improvement Association, August, 1938, Volume XII, No. 3, page 6, Stillwater, Oklahoma.

be unadapted in states with a colder climate. Mr. Cox presented a compromise ruling which approved award payments in the North Central Region by the Agricultural Adjustment Administration of all Oklahoma grown alfalfa seed produced south of the northern two tiers of counties provided such seed was certified as to origin as hardy adapted Oklahoma alfalfa seed by the Oklahoma Crop Improvement Association.

A resolution was adopted by the conference of alfalfa seed growers accepting the proposal of the Agricultural Adjustment Administration as presented by Mr. Cox. This resolution was sent to the various authorities in Washington, D. C., and several months later an amendment and supplement to Section XIII of the Agricultural Adjustment ruling was approved by the Secretary of Agriculture, reading as follows:

"Red clover and alfalfa seed grown in counties in Oklahoma... other than those enumerated in this paragraph shall be regarded as adapted if certification is made by the State Crop Improvement Association of the state in which such seed was produced, that such seed was produced in such state and that such seed was produced from parent seed of Ohio red clover or Tennessee anthraenose-resistant red clover or parent seed of hardy adapted alfalfa and evidence in the form of the special certification tag attached to such seed is filed with the county committee where quantities of 100 pounds or more are purchased."

This amendment to the Agricultural Adjustment Administration ruling for the North Central Region made it necessary to verify the origin of alfalfa seed sowed. The Board of Directors of the Oklahoma Crop Improvement Association in Executive Session at Stillwater, Oklahoma on June 3, 1938, by unanimous vote adopted the suggestion of the Agricultural Adjustment Administration and upon request of the alfalfa growers at the Oklahoma City meeting of May 11, 1938, accepted the

invitation and request to verify the origin of alfalfa seed sowed to establish fields of alfalfa from which seed would be harvested for sale during the season of 1938.

It was to meet this situation and to aid the seed growers in maintaining their established markets that the Oklahoma Alfalfa Approval of Origin Program came into existence.

Procedure for Initial Organization

The Oklahoma Crop Improvement Association agreed to notify each county, or community, or individual interested immediately following the Board of Directors meeting of the Association of June 3, 1938 of their proposed action and furnish each with complete instruction concerning the formation and operation of county associations and the selection of committees to serve communities too small to be organized.

The plan of organization of the local county associations and the agreement between the State association and the local county association is explained in detail in the following chapter.

Growth of Organization

The Oklahoma Approval of Origin Alfalfa Seed Program has made a healthy and substantial growth during the eight years it has been organized (Table 3). Participation in the program increased from 16 county organizations in 1938 to 32 county organizations in the commercial seed producing area of western Oklahoma. The initial year of the organization there were only 627 growers participating, this figure grew to 3,304 in 1945. During the same period the acres approved by the local county associations showed a steady increase each year, increasing from 29 thousand acres to over 143 thousand in 1945. The

Table 3. Summary of Participation on the Part of Growers in Each of the Eight Years the Approval of Origin Program has been in Operation in Oklahoma

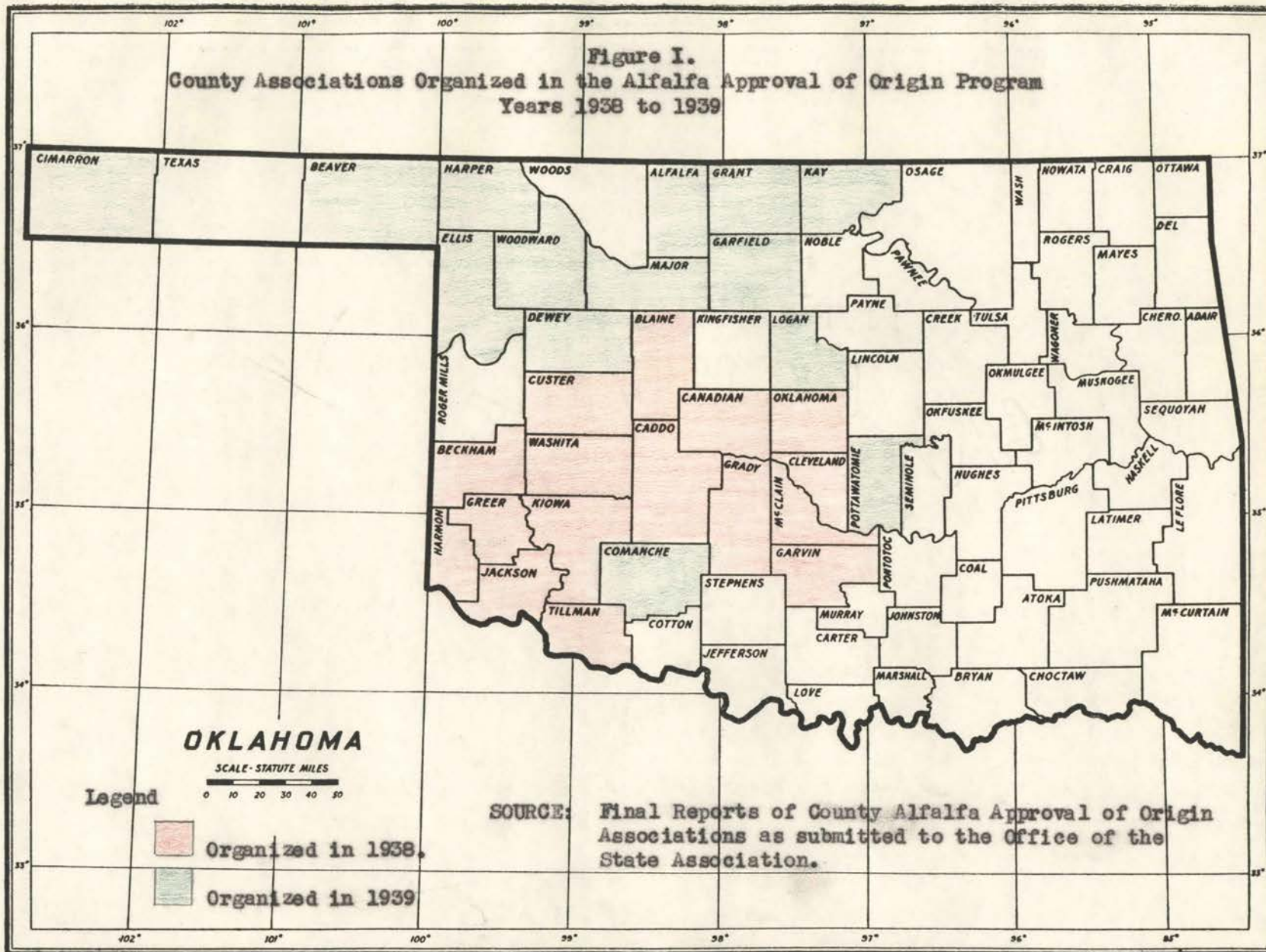
Year	: Number of County Organizations	: Number of Growers Participating	: Number of Acres Approved
	<u>Number</u>	<u>Number</u>	<u>Acres</u>
1938	16	627	29,556.3
1939	28	1,090	52,483.0
1940	28	1,165	60,262.7
1941	29	1,360	76,739.0
1942	27	1,253	68,020.5
1943	23	1,482	66,388.0
1944	32	2,296	96,078.0
1945	32	3,304	143,323.5

SOURCE: Final Reports of County Alfalfa Approval of Origin Associations as submitted to the office of the State Association.

largest expansion in county associations took place in the second year of the Alfalfa Approval of Origin Program (Figure 1). In 1938 the initial year of the organization 16 counties formed associations.

(The map on the following page shows the county associations and their location that were organized in 1938 and 1939. It also shows the 16 counties organized in 1938 all located in the southwestern portion of the State). The following year the increase in county associations formed was principally in the northern two tiers of counties in the northwestern portion of the State. This can be attributed to the Agricultural Adjustment Administration ruling in 1938 which included the seed from the northern two tiers of counties for Agricultural Adjustment Administration payments in the North Central States. The

Figure I.
 County Associations Organized in the Alfalfa Approval of Origin Program
 Years 1938 to 1939



following year the ruling was again modified and read as follows:

"In order to count toward the achievement goal all seedings of alfalfa and any mixtures containing alfalfa must be made with adapted alfalfa seed the origin of which must be certified. Alfalfa grown in Oklahoma will be regarded as adapted if certification is made by the State Crop Improvement Association that the seed was produced in the state and was produced from parent seed of hardy adapted alfalfa." 3/

As a result of the modification in the Agricultural Adjustment Administration ruling the northern two tiers of counties were compelled to organize county associations in order to sell their alfalfa seed in the North Central States.

The majority of the county associations now organized became members during the first two years. Thirty-five different counties have been members of the organization but at no time has the county association membership exceeded thirty two. Twenty-eight of this total were organized during the first two years. In 1945 there were thirty-two (Table 3) active county organizations which represent the majority of the counties eligible to participate in the Alfalfa Approval of Origin Program. The program is limited to Western Oklahoma because the Federal authorities would not recognize the Oklahoma Approval of Origin Alfalfa Seed Program unless operations were limited to this area. 4/ The basis for agronomist of the United States Department of Agriculture and

3/ Bulletin NRC, No. 401, 1939, United States Department of Agriculture, Agricultural Adjustment Administration, Washington, D. C., to the North Central Region of States.

4/ Material based upon a letter written by Hugo Graumann, Secretary, Oklahoma Approval of Origin Program. The letter was written on October 2, 1944 to Mr. J. A. Patterson, Agricultural Agent, Wellston, Oklahoma in answer to his request for acceptance in the Approval of Origin Program.

Table 4. Number of Approved Growers Participating
in the Alfalfa Approval of Origin Program
By Counties, 1938-1945

County	Number of Growers By Years, 1938-1945								Average Number
	1938	1939	1940	1941	1942	1943	1944	1945	
Alfalfa		146	146	138	206	227	310	354	218.1
Beaver		4	78	6	3	5	6	8	15.7
Beckham	7	13	13	13	16	22	39	59	22.8
Blaine	28	14	14	16	17	8	24	76	24.6
Caddo	29	17	17	11	4	10	18	33	17.4
Canadian	12	32	32	18	19	41	145	219	64.8
Cimarron		6	6	9	9	10	12	13	9.3
Cleveland	16								16.0
Comanche		13	13	14	12	8	8	16	12.0
Custer	18	6	6	14	13		21	41	17.0
Dewey		3	3	3	3	5		16	5.5
Ellis		9	9	9	9	16	13	21	12.3
Garfield		7	7				54	67	33.8
Garvin	2	39	39	13			22	17	22.0
Grady	116	51	51	30	18		87	143	70.9
Grant		47	47	62	39	57	177	304	104.7
Greer	11	19	19	28	35	56	64	91	40.4
Harmon	11	53	53	104	88	140	142	173	95.5
Harper		6	6	7	9	6	13	24	10.1
Jackson	31	55	55	115	146	188	196	291	134.6
Kay		36	36	31	18	16	47	98	40.3
Kiowa	33	53	53	65	83	109	108	142	80.7
Logan		21	21	18	14	14	70	61	31.3
Major		16	17	11	12	20	29	71	25.1
Oklahoma	20	8	8	20	18	16	39	44	21.6
Pottawatomie		8	8	7	7		11		8.2
Tillman	264	367	367	515	360	367	338	466	380.5
Washita	21	26	26	34	43	55	77	85	45.9
Woodward		15	15	43	49	86	100	140	64.0
McClain	8			3					5.5
Texas				3	3		10	11	6.7
Kingfisher							62	76	69.0
Noble							4	55	29.5
Roger Mills							10	17	13.5
Woods							40	72	56.0
Total	627	1,090	1,165	1,360	1,253	1,482	2,296	3,304	35.9

SOURCE: Final reports of County Alfalfa Approval of Origin Associations as submitted to the office of the state association.

important seed consuming states requesting that the program be limited to Western Oklahoma was the fact that from time to time Argentine alfalfa has been planted to some extent in the eastern half of the State. Argentine alfalfa, as shown by experimental tests, lacks winter hardiness and is not adapted to the Ohio River Valley region, the area where most of the approved origin seed is sold. Any additional expansion in the Alfalfa Approval of Origin Program will have to come from an increase in individual membership and larger alfalfa acreages.

Expansion in Individual Participation by Counties

The county associations, Tillman, Alfalfa, Jackson, Grant, Harmon, Kiowa, Grady, Canadian, and Woodward in 1939 had a combined membership of 819 growers which represented seventy-five percent of the total Approved Growers of the State (Table 4). These same counties showed an annual increase in individual participation and in 1945 had a total membership of 2,222 growers out of a total of 3,304 for the State. Tillman and Alfalfa have been the leading counties in membership since they organized their respective county associations. In 1939 the two county associations had 46.9 percent of the entire membership and in 1945 more than 24 percent. (Table 4). According to the 1939 Agricultural Statistics, Tillman County had 553 farms reporting the growing of alfalfa, 66.4 percent of these farms were Approved Growers of the Alfalfa Approval of Origin Program (Table 5). The number of farms reporting alfalfa in Tillman County decreased slightly in 1944, as well as the number of Approved Growers which decreased to 338, making 61.8 percent of the farms members of the association (Table 5). In all the counties with the exception of Tillman and Comanche having comparative figures for 1939 and 1944

Table 5. Oklahoma: Farms Reporting Alfalfa, Farms Approved Growers, Percentage Approved Growers are of Farms Reporting Alfalfa, 1939 and 1944 ^{1/}

County	Farms Reporting Alfalfa : 1939	Farms Approved Growers : 1939	Percentage Approved Growers are of Farms Reporting Alfalfa : 1939	Percentage Approved Growers are of Farms Reporting Alfalfa : 1944	Farms Reporting Alfalfa : 1944	Farms Approved Growers : 1944
	Number	Number	Percent	Percent	Number	Number
Tillman	553	367	66.4	61.8	547	338
Grant	565	47	8.3	21.9	808	177
Grady	624	51	8.2	16.1	541	87
Logan	253	21	8.3	15.7	445	70
Comanche	119	13	10.9	6.2	130	8
Garfield	437	7	1.6	7.3	738	54
Blaine	187	14	7.5	8.5	282	24
Custer	162	6	3.7	10.0	210	21
Ellis	23	9	39.1	36.1	36	13
Harper	39	6	15.4	19.1	68	13

^{1/} The ten counties listed in Table 3 were the only counties with Alfalfa Approval of Origin Association with 1944 preliminary census data available at the time of this study.

each case shows an increase in the percentage of alfalfa growers who became members of the association.

Alfalfa Acres Approved By Counties

Tillman and Alfalfa counties lead in the number of acres of alfalfa approved in the Alfalfa Approval of Origin Program. In 1940 the total acreage of Tillman County members was 54.4 percent of the total acreages of all the county associations in the State. (Table 6). Alfalfa County in the same year had 10.22 percent of the total acreage. The majority of the counties showed remarkable increases in

acreage since the beginning of the program. The most rapid increase was in Grant County where only 618.5 acres were approved in 1939 to an approved acreage of 12,588.5 in 1945 an increase of over twenty times its original acreage (Table 6). In 1945 over 70 percent of the approved acreage in the Alfalfa Approval of Origin Program was located in nine counties, Alfalfa, Grant, and Kay in the northern tier of counties, Canadian and Grady in the central, and Harmon, Tillman, Jackson, and Kiowa in the southwestern section of Oklahoma. The average acreage for each year's participation varies from 166.6 approved acres in Beaver County to 20,085 approved acres in Tillman County. The average approved alfalfa acres for Alfalfa County is 9,894.1, Grant County, 4,774.6, Canadian, 4,688.4, Harmon County, 4,605.8, Jackson, 4,231.9, Grady, 4,193.3, and Kiowa, 3,961.3 which comprise the county associations that include the major acreages in the Alfalfa Approval of Origin Program.

Summary

The threat to the major market outlet to Oklahoma alfalfa seed producers by the Agricultural Adjustment Administration ruling in 1938 was the motivating factor in the organization of the Alfalfa Approval of Origin Program in Oklahoma. The immediate organization of the various county associations met this challenge and they have shown rapid annual expansion in both membership participation and alfalfa acreages. The expansion in county associations practically reached its peak in the first two years of the operation of the program.

When the organization of marketing associations among individual alfalfa seed producers is considered in this chapter, the tendency is noted that the individual farmer is willing to relinquish

Table 6. Oklahoma Alfalfa Acres Approved by Counties in the Alfalfa Approval of Origin Program, 1938 to 1945

County	1938	1939	1940	1941	1942	1943
	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>	<u>Acres</u>
Alfalfa		3,698.7	6,157.4	7,729.0	11,293.0	10,868.0
Beckham	353.0	551.0	841.4	848.0	994.0	881.0
Blaine	940.0	884.7	585.5	650.0	910.0	587.0
Caddo	849.0	681.1	778.5	610.0	262.0	592.0
Canadian	1,156.0	4,316.5	3,016.5	2,307.0	2,512.5	3,373.0
Cimarron		384.0	498.0	557.0	532.0	594.0
Custer	563.0	349.0	315.0	837.0	742.0	
Ellis		197.2	169.8	139.0	201.0	467.0
Grady	5,771.1	4,980.5	3,373.5	2,128.0	1,563.0	
Grant		618.5	1,882.0	3,251.0	2,546.0	3,118.0
Greer	219.9	335.0	742.7	945.0	1,125.0	1,715.0
Harmon	1,203.0	2,779.5	2,963.9	5,228.0	5,014.0	6,125.0
Harper		436.7	357.4	559.0	645.0	364.0
Jackson	1,123.3	2,130.9	2,392.9	4,367.0	5,060.0	5,539.0
Kiowa	1,842.25	2,990.0	3,281.0	4,602.0	3,959.0	4,578.0
Logan		351.0	850.3	1,071.0	715.0	661.0
Major		462.7	537.5		702.0	1,139.0
Oklahoma	1,055.0	1,421.0	724.0	1,650.0	1,390.0	1,194.0
Pottawatomie		2,279.2	646.6	796.0	796.0	
Tillman	12,627.35	20,749.0	20,515.1	30,367.0	19,904.0	16,821.0
Washita	774.5	1,004.0	1,249.0	1,606.0	1,698.0	2,194.0
Woodward		653.2	558.3	1,542.0	2,019.0	3,607.0
Beaver			78.0	205.0	150.0	138.0
Comanche			755.2	800.0	769.0	335.0
Dewey			120.0	120.0	204.0	251.0
Garfield			362.0			
Garvin	119.4		4,983.3	1,538.0		
Kay			1,543.8	2,152.0	2,088.0	1,447.0
Texas				137.0	137.0	
Kingfisher						
Roger Mills						
Woods						
Noble						
Cleveland	730.5	250.0				
McClain	229.0					
Total	29,556.3	52,493.4	60,262.7	76,739.0	68,020.5	66,383.0

(Continued)

Table 6. Oklahoma Alfalfa Acres Approved by Counties in the Alfalfa Approval of Origin Program, 1938 to 1945

County	: 1944	: 1945	:Average Acres: :for Years of	:Percent-: :age of	:Percent-: :age of	:Percent-: :age 1945
			:Participation: : in Program	: Total : 1940	: Total : 1945	:Increase :Over 1939
	Acres	Acres	Acres	Percent	Percent	Percent
Alfalfa	13,564.0	15,318.5	9,804.1	10.22	10.69	414
Beckham	1,152.0	2,197.5	976.0	1.40	1.53	399
Blaine	890.0	2,799.5	1,018.3	.97	1.95	316
Caddo	682.0	1,549.0	750.4	1.29	1.08	227
Canadian	7,983.0	12,842.5	4,688.4	5.01	8.96	297
Cimarron	639.0	665.0	552.7	.83	.46	173
Custer	770.0	1,775.0	764.4	.52	1.24	509
Ellis	296.0	658.0	304.1	.28	.46	334
Grady	4,193.0	7,344.0	4,193.3	5.60	5.12	147
Grant	9,418.0	12,588.5	4,774.6	3.12	8.78	2,035
Greer	1,766.0	2,944.5	1,224.1	1.23	2.05	879
Harmon	5,679.0	7,855.0	4,605.8	4.92	5.48	283
Harper	808.0	1,440.0	658.6	.59	1.00	330
Jackson	5,615.0	7,827.0	4,231.9	3.97	5.46	367
Kiowa	4,283.0	6,155.0	3,961.3	5.44	4.29	206
Logan	2,174.0	2,197.5	1,143.0	1.38	1.53	626
Major	1,538.0	2,664.0	1,173.9	.89	1.86	576
Oklahoma	1,651.0	1,870.0	1,369.4	1.20	1.30	132
Pottawatomie	755.0		1,054.6	1.07		
Tillman	15,415.0	24,281.5	20,085.0	34.04	16.94	117
Washita	2,239.0	2,813.5	1,722.2	2.07	1.96	280
Woodward	3,820.0	5,369.0	2,509.8	.93	3.75	
Beaver	193.0	237.5	166.6	.13	.17	
Comanche	395.0	831.0	647.5	1.25	.58	
Dewey		771.0	293.2	.20	.54	
Garfield	2,140.0	2,561.0	1,687.6	.60	1.79	
Garvin	1,628.0	1,807.0	2,016.1	8.28	1.26	
Kay	2,392.0	5,430.0	2,508.8	2.56	3.79	
Texas	346.0	456.0	269.0		.32	
Kingfisher	1,978.0	3,004.5	2,491.2		2.10	
Roger Mills	321.0	881.0	601.0		.61	
Woods	1,229.0	2,380.0	1,805.0		1.66	
Noble	126.0	1,810.0	968.0		1.26	
Cleveland			480.2			
McClain			229.0			
Total	96,078.0	143,323.5	85,729.1	99.9	99.97	

SOURCE: Final Reports of County Alfalfa Approval of Origin Associations as submitted to the Office of the State Association.

some of his independence when the economic motive is a powerful one and a spirit of cooperation is the result. In the case of the alfalfa seed producers in western Oklahoma the economic motive for the organization of these county marketing associations was strong, in fact became almost a matter of life and death to the major alfalfa seed markets of these farmers. In 1938 a matter of several weeks separated the harvesting of their alfalfa seed and the organization of these county alfalfa seed marketing associations in order to quality their seed for marketing in the North Central States. The first year saw the organization of sixteen county marketing associations and with a change in the Agricultural Adjustment Administration ruling in 1939 ten counties in northern Oklahoma formed associations making a total of twenty-eight county associations in the western portion of Oklahoma members at the end of the second year of the alfalfa seed marketing program.

CHAPTER III

ORGANIZATION OF THE LOCAL COUNTY ALFALFA APPROVAL OF ORIGIN ASSOCIATIONS IN OKLAHOMA

In the preceding chapter it was shown that the Oklahoma Alfalfa Approval of Origin Seed Program on the state level was formally initiated on June 3, 1938. Since the alfalfa seed harvest begins in some sections of Oklahoma in July, it was necessary for the county associations to be organized as soon as possible in order to qualify their 1938 alfalfa seed crop for marketing in the North Central States.

In Tillman County, where interest was high, a request was sent to Mr. A. W. Jacob, Extension Marketing Specialist, Oklahoma Agricultural and Mechanical College, Stillwater, Oklahoma for a suggested form of Articles of Incorporation and Association By-Laws that would meet the requirements of the 1937 Non-Stock By-Laws of Oklahoma. This form was followed in Tillman and numerous other counties in incorporating and establishing by-laws for their respective associations. It is felt that a summary of this form will be typical of the majority so the remainder of this chapter is based upon this form as suggested by Mr. A. W. Jacob.

Incorporation of the Local County Association

The acceptance of the Oklahoma Crop Improvement Association to verify the origin of alfalfa seed sowed of the alfalfa growers in Oklahoma enabled the various interested counties in forming associations. Such associations could or could not be incorporated as a cooperative association under the laws of the State of Oklahoma. ^{1/} The

^{1/} Bramon, L. W., Extension Agronomist, Annual Narrative Report of Extension Agronomy Work, Exhibit 32, 1938, page 2, Oklahoma Agricultural and Mechanical College, Stillwater, Oklahoma.

desires of the members of the local county association determined which of the types of a cooperative association each county was to have. The Oklahoma Crop Improvement Association could designate an unincorporated association of growers to undertake the program if definite assurance was given of the financial stability of members of the local association.

Purposes of the Association

The purposes as listed in Article II of the suggested Articles of Incorporation are as follows:

- "a. To engage in any activity or service in connection with the receiving, assembling, handling, grading, standardizing, packing, processing, transporting, storing, financing, advertising, selling, marketing, and/or distribution of alfalfa seed grown or delivered by its members and in connection with the purchase or use by and/or for its members of supplies, machinery, and/or equipment used in the production of alfalfa seed.
- "b. To acquire and/or handle and market alfalfa seed of its members in any capacity and on any cooperative basis that may be agreed upon. To furnish business and/or educational services in connection with the production and marketing of alfalfa seed on a cooperative basis for its producers.
- "c. The foregoing shall be constructed both as objects and powers, and the enumeration thereof shall not be held to limit or restrict in any manner the general powers conferred on this association by the laws of the State of Oklahoma, all of which are hereby expressly claimed."

Length of Association

Article IV of the Articles of Incorporation designates the term for which the association shall exist to be twenty (20) years.

Financing the Association

The associations were incorporated as Non-Stock Associations but were financing the associations by admitting producer members into

the association upon payment of a membership fee of 1/ _____ and other small uniform miscellaneous charges. The association is operated on a cooperative basis for the mutual benefit of its members as producers.

The voting power of the members of the association are equal and each member has only one vote. The property rights and interests of each member is in proportion to his patronage.

By-Laws of the County Alfalfa Seed Growers
Marketing Association in Oklahoma

A suggested form of Non-Stock By-Laws was also prepared by Mr. A. W. Jacob, Extension Marketing Specialist, Oklahoma Agricultural and Mechanical College, in June 1938, and enclosed with the Articles of Incorporation that was sent to each interested county group. As it was in the case of the adoption by the county marketing association of the Articles of Incorporation in likewise manner the counties used the recommended form of By-Laws as suggested by Mr. A. W. Jacob.

Qualifications for Membership

Any producer of alfalfa seed living in the territory served by this association may become a member by paying the usual membership fee and agreeing to comply with its articles of incorporation, by-laws, marketing agreements, and being approved and accepted by the board of directors. At any time, if a member shall cease to be a producer of alfalfa seed, or shall remove from the territory tributary to the center served by this association or shall fail to comply with the

1/ A fee of one dollar is charged each cooperating alfalfa seed grower for State association membership. The local county membership fee may vary among the various county associations, however an annual county fee of two dollars was charged in the majority of counties.

requirements of these by-laws, the association may elect to cancel his membership. The association may tender to him the par or book value of his interests, whichever is less, together with any interest or refunds due and unpaid, less any indebtedness then due the association. Such member shall thereafter have no rights, privileges, or benefits in this association.

Every member upon uniting with this association agrees that in case he shall desire to dispose of his interest or equity in the association he shall give the association the first opportunity and privilege of purchasing them. If the association waives its right to purchase by failure to act within sixty (60) days, a member may then sell his interests to anyone eligible to membership and approved by the board of directors. The ownership of an interest or equity shall not entitle either a member or a non-member to vote at meetings of the association members.

Meetings of Members

The annual meetings of the association are held in the early spring of each year at the principal place of business of such association which is generally the county court house.

Notice of the regular meetings shall be given by the secretary of the association by mailing notices to each member not less than five days preceding the date of the proposed meetings.

The president shall cause a special meeting of the members to be called upon a written request of at least 10 percent of the members, or upon a majority vote of the directors. The notice of the time, place and purposes of such special meeting shall be issued within 10 days from and after the presentation of such petition and such special

meeting shall be held within thirty (30) days from and after the date of presenting such petition, notice thereof to be given as provided in notices of the regular meetings.

The president of the association shall preside at all meetings of the association and directors and shall cast the deciding vote in all cases of a tie.

Each member of the association shall have only one vote. such membership to be evidenced by a certificate of membership. The right to vote is vested in the membership in the association.

The members may vote by mail instead of person at any regular or special meeting of the members, provided that such member has received a copy of the exact text of the motion or resolution or amendment, and that a copy of the same be forwarded with and attached to the vote as mailed by absent members. All members voting by mail shall be counted as present in determining a quorum for the consideration of a specific question.

Directors and Officers

The board of directors of the association shall consist of five members who shall be members of the association and shall be elected by ballot by the members at the annual meeting.

Any vacancy in the board of directors shall be filled until the next annual meeting by the remainder of the board of directors who shall select a director to serve for the unexpired term.

The board of directors shall meet within ten days after the annual meeting of the members, and shall elect by ballot by and from their number a president and a vice-president and a secretary-treasurer (or a secretary and treasurer). Officers shall hold office for one year or until their successor shall have been elected and qualified.

Any director of the association may, for cause, at any annual or special meeting called for the purpose, at which a majority of the

members shall be present in person, be removed from office by vote of a majority of the members. A director shall be informed in writing of the charges preferred against him at least ten (10) days before such meeting, and at such meeting, shall have an opportunity to be heard in person, or by counsel and/or by witnesses thereto

Meeting of Directors

The board of directors shall hold regular quarterly meetings on the fifth day of the month of January, April, July, and October, at the principal place of business of the association at such hour as is determined by the board of directors. In case this day falls on Sunday or on a legal holiday, the meeting shall be held on the first business day following.

Special meetings of the board of directors may be called by the president or by any three of said board. Each member of the board of directors shall be duly notified of all such meetings. Special meetings may be held without notice, if all members of the board are present and willing to act.

No business, except that mentioned in call for special meetings of the board of directors shall receive final action at said meeting. Three directors shall constitute a quorum at all meetings of the board, and a majority vote of the members present shall decide all questions.

Duties and Powers of Directors

The board of directors shall manage the business and the affairs of the association, and make all necessary rules and regulations not inconsistent with law or with the by-laws of the association, for the management of the business and the guidance of the officers,

employees and agents of the association.

The board of directors may require the manager and all other officers, agents, and employees charged by the association with responsibility and with the custody of any funds or property to give bond for the faithful performance of their official duties. Such bond shall be furnished by a responsible bonding company or other surety suitable to the directors, and the cost thereof shall be paid by the association.

The board of directors shall examine all accounts at their regular meetings, and in addition have the books audited at least once a year by a disinterested competent accountant, such audit to take place during the thirty (30) days immediately preceding the annual meeting and a report in full of such audit shall be made to the members at their annual meeting.

The board of directors each year shall appoint a committee of not less than three of its members whose duty it shall be, with the assistance of the manager, to take an inventory of all property of the association within fifteen (15) days after the close of the fiscal year. The results of such inventory shall be put into a written report properly itemized and sworn to as accurate and true before a notary public by each member of the committee. The original of each inventory report shall be promptly submitted to the secretary to be a part of the permanent records of the association. The information contained in any inventory report shall be available to any auditors engaged in auditing the business of the association.

Duties and Powers of Officers

The president shall preside over all meetings of the association and of the directors. He shall sign as president, with the

secretary, all notes, deeds and conveyances of real estate, as well as all certificates of indebtedness of the association, and perform such other duties as pertain to his office.

In the absence or disability of the president, the vice-president, shall preside and perform the duties of the president.

The secretary shall keep a complete record of all meetings of the association and of the board of directors, and shall attest the same by his signature, in the permanent minutes and records of the association. He shall sign as secretary, with the president, all notes, deeds and other instruments, as well as all certificates of indebtedness of the association. Affix the corporate seal to all documents requiring attestation. He shall be responsible for the safe keeping of, and act as custodian of all papers, documents and records of the association, and such other instruments and property as belong to his office. He shall serve all notices required by law and the by-laws of the local county association. He shall perform such other duties as may be required of him from time to time by the association or the board of directors.

The treasurer shall be custodian of and shall safely keep account of all money of the association and of all other property which may come into his hands. He shall perform all of the functions necessary to a general audit of the goods and accounts of the association whenever required by the association or the board of directors. He shall keep all moneys of the association in such bank as the board of directors may from time to time direct. All payments and disbursements, whether by checks, bills of exchange or other instruments, of the moneys and funds of this association shall be made by the treasurer,

and he shall sign all thereof. Provided, however, the board of directors shall have the power and authority, and the board may from time to time in its discretion provide either that all payments and disbursements to be countersigned by such other officer or person as the board may direct; or that all payments and disbursements of the associations in its regular course of business be made by and over the signature of the manager. Provided, further that if payments and disbursements be made in the regular course of business of the association by the manager alone, and without the signature or action of the treasurer, such authority shall be shown by the regular motion or resolution of the board of directors, duly entered and shown in the minutes of the association. The treasurer shall perform such other duties as may be required of him from time to time by the association or the board of directors. The system of bookkeeping employed in this association shall at all time be such as to furnish necessary data and information required in arriving at a complete financial statement and audit.

Duties of Manager

The manager shall perform such duties and shall have such powers as the board of directors may require or may delegate to him. At least five (5) days preceding the regular meetings of the board of directors, the manager shall make a complete report of the business done by the association for the current operation period and furnish the board with any other special reports from time to time as they may request. Each member of the board of directors shall be furnished with a copy of the current operation statement and finances of the association at each regular meeting of the board of directors.

Interests or Equities

In order to provide funds with which to purchase equipment, land, and other facilities needed by the association, each member may be required to contribute funds. As an evidence of the equity of the members or others in the association certificates of indebtedness shall be issued.

In the event of the death, retirement, withdrawal, or expansion of any member, the board of directors may cancel his membership and may purchase his certificate of indebtedness but shall not be required to purchase the certificate unless in their judgment it is for the best interest of the association and the purchase of these certificates will not temporarily or permanently embarrass the association's finances.

Relationship Between the Local County and State Association

Annual Agreement

An annual agreement between the state association and the county association shall be signed by the president and secretary of the county association and sent to the secretary of the state association.

Requirements for Good Standing of Local Association

The county association will be recognized to be in good standing with the state association before the local association can proceed. To be in good standing the local association must submit a copy of the plan of organization as adopted by the county association to the secretary of the state association and shall be approved by the directors of the state association. A record showing the names and

addresses of directors, officers, and members of the county association shall be sent to the state association by the local secretary. The county association shall pay a membership of one dollar (\$1.00) to the state association, and shall sign the association agreement.^{2/} This agreement shall serve as a basis for the operation of the Alfalfa Approval of Origin Program. It is subject to such later changes as may be agreed upon by the Board of Directors of the Oklahoma Crop Improvement Association, cooperating with the Agricultural Experiment Station and the Extension Division of the Oklahoma Agricultural and Mechanical College.^{3/}

Each year the procedure for the following year in the conduct of the Alfalfa Approval of Origin Program is prepared by the Secretary of the State Association and sent to each county association. The following summary of the local associations is based upon the procedure for the various years.

Cancellation of Membership

The Oklahoma Crop Improvement Association retains the privilege of cancelling the member of any county association whenever there is evidence of carelessness or mismanagement by the officers of a county association in conducting the program. Whenever cancellation or suspension becomes necessary, it shall be understood that all Oklahoma Approved Origin tags which have been supplied to the county

^{2/} Agreement form between the Oklahoma Crop Improvement Association and the local County Association, 1946 Agreement, page 1.

^{3/} The Alfalfa Approval of Origin Program, Procedure for 1946, Mimeograph leaflet, page 4, published by the Office of State Association.

association shall be returned to the state association without recourse or without credit allowed for payments made. Likewise, all seals which have been supplied to the county association shall be returned for which credit will be allowed.

Willful violation of any rules and regulations governing a member's participation in the production and marketing of Approved Origin alfalfa seed, of the individual member, shall constitute ample evidence for the state association to cancel the grower's current and or lifetime membership.

County Seed Committee

The county alfalfa seed growers' association which is composed of alfalfa growers who are participating in the alfalfa Approval of Origin Program is reorganized annually. The board of directors consisting of five members is selected at the annual meeting. The directors then select a county alfalfa seed committee consisting of three members. The members of the seed committee shall be experienced alfalfa seed growers who have lived in the county for a period of time sufficient for them to be familiar with local conditions and may be selected from the board of directors. Changes in appointments of members of the county alfalfa seed committee may be made without showing cause by the state association, or upon the written request of the directors of the county association. The county association, cooperating with the county alfalfa seed committee, is responsible to appoint local committeemen consisting of experienced alfalfa seed growers who are familiar with the local conditions of the different communities in the county. The local committeemen are used to check the accuracy of statements made in the "Application for Approval of Origin."

The county seed committee examines each application for approval of origin form. These applications if passed are signed and submitted to the state association for final consideration.

Procedure for New Grower of Alfalfa Seed

The new grower who wishes to become a member of the Alfalfa Seed Marketing Association is required to file an application with the office of the county association prior to the deadline date. On the application form is a map which represents a section of land. The boundaries of the farm are sketched with a blue pencil, and the location of fields of alfalfa to be inspected for approval are shown in solid green color. The grower then traces and establishes as far back as possible the history and origin of the seed used in planting his alfalfa field. This application must be approved by the County Alfalfa Approval of Origin Committee before it is sent to the Oklahoma Crop Improvement Association for final approval.

The authorized representatives of the State Association sign the local "Application for Approval of Origin" and a "Certificate of Approval of Origin" is prepared by the Secretary of the State Association and mailed to the Secretary of the County Association. The County Alfalfa Approval of Origin Association will in turn issue the "Certificate of Approval" to the alfalfa grower. When the grower receives his "Certificate of Approval of Origin" he is then referred to as an "Approved Grower."

Procedure for Old Growers

Old growers (those whose applications were approved for the 1944 program and a renewal which was approved in the 1945 program) who wish to participate in the 1946 program must complete a renewal form

and file it with their 1944 application and approved 1945 renewal in the office of the county association prior to the deadline date. The remainder of the procedure of the new grower and old grower are the same in the county association and state association offices.

Classification of Grower

An attempt has been made by the state association to trace the history of origin of Oklahoma Common adapted alfalfas to hardy strains originating from the north. The state association has adopted a plan of classification of alfalfa seed growers in accordance with records of history and origin submitted in applications for approval of origin. Below is the plan of classification used by the office of the state association.

- A- Refers to an alfalfa seed grower who can trace back the history and origin of his alfalfa seed with a clear proved record for a period of 30 or more years.
- AA- Refers to an alfalfa seed grower who introduced alfalfa seed from an approved source 30 or more years ago, and who has grown the same stock of seed since that time without new introductions from other sources.
- B- Refers to an alfalfa seed grower who can trace back the history and origin of his alfalfa seed with a clear proved record for a period of 20 to 29 years.
- BB- Refers to an alfalfa seed grower who introduced alfalfa seed from an approved source 20 to 29 years ago, and who has grown the same stock of seed since that time without new introductions from other sources.
- C- Refers to an alfalfa seed grower who can trace back the history and origin of his alfalfa seed with a clear proved record for a period of 10 to 19 years.
- CC- Refers to an alfalfa seed grower who introduced alfalfa seed from an approved source 10 to 19 years ago, and who has grown the same stock of seed since that time without introductions from other sources.
- D- Refers to an alfalfa seed grower who can trace back the the history and origin of his alfalfa seed with a clear proved record for a period of less than 10 years.

DD- Refers to an alfalfa seed grower who introduced alfalfa seed from an approved source less than 10 years ago, and who has grown the same stock of seed since that time without new introductions from other sources.

Field Inspection of Alfalfa

The county alfalfa seed growers' association appoints an inspector who is subject to the approval of the county alfalfa seed committee and the Oklahoma Crop Improvement Association.^{4/} The salary and traveling expenses of the inspector is paid by the local county association. The payment of the inspector and his expenses are made through the assessment of cooperating growers of a tax which can be no greater than one-fourth of a cent per pound on threshed seed.

The official inspection of the alfalfa field must be made while the alfalfa is still standing in the field. If the field is mowed or the combine has harvested a portion of the field, the inspector must reject the field.

The individual grower should make a thorough inspection of his own field to make sure the alfalfa field to be harvested as Oklahoma Approved Origin alfalfa seed is free of the seeding parts of Johnson Grass, Dodder, and Field Bindweed. In case the grower finds these weeds to be present, he should remove all seeding parts and if possible the entire plants. The individual grower then calls the person in his county that has been designated as the official alfalfa inspector, to make the final inspection. If the official inspector finds the fields to be free of Johnson Grass, Dodder, and Field

^{4/} Brannon, L. W., Extension Agronomist, Annual Narrative Report of Extension Agronomy Work, Exhibit 32, 1938, page 2, Oklahoma Agricultural and Mechanical College, Stillwater, Oklahoma.

Bindweed, the inspector turns in a written signed report that the field is clean and seed harvested from this field will be eligible for Approved Origin tags.

In case the official inspector finds the field to be contaminated with objectionable weeds mentioned above, he rejects the field, sends into the county agent's office a written signed report showing the field in question was rejected and the reason. The inspector will give the grower a chance to clean the field and a second inspection must be made by the same inspector. If on the second inspection the field shows to be free of the weeds in question, the official inspector sends in a report to the county agent's office showing the field in question has been approved.

The Approved Grower's Responsibility at Harvest Time

The approved grower is responsible to see that all harvest equipment is free of Johnson Grass, Dodder, and Field Bindweed before seed harvest starts on his approved field. The first two or three bushels of seed threshed should be kept separate and sold as unapproved seed.

Upon completion of threshing the threshorman and the grower sign a statement known as the "Threshman's and Grower's Statement," which lists the number of pounds of seed threshed and the number of acres. This statement is delivered to the County Agent's office by the approved grower.

The approved grower must also send a one pound representative sample of the lot of seed as it is offered for sale. The seed generally leaves the farm for sale in one of three qualities, that of thresher run, rough clean seed, or quality clean seed.

The grower then goes to the county agent's office and is entitled to receive the same number of Oklahoma Approved Origin tags and OCIA seals as he has bags of seed to be sold. A representative of the county association then instructs the approved grower upon the proper method of placing approved tags and seals on bags. The approved grower agrees to return to the secretary of the county association all excess tags and seals that might have been issued to him.

Local Farmer's Responsibility in Properly Placing Tags and Seals on the Bags

The tags and seals must be properly affixed by the approved grower to bags of Approved Origin seed before it leaves the farm unless the seed is country cleaned (not processed) in which case the tags and seals shall be affixed by the grower after the seed is re-cleaned. Failure on the part of the grower to do this shall be evidence to deny him participation in future years. Alfalfa seed sold and delivered to the purchaser before tagging and sealing is completed, must be sold as unapproved seed, since tags and seals cannot be supplied to the buyer to be attached at a later date.

Any grower who turns over to another individual, partnership, or company, tags and seals not properly attached to bags of Approved Origin alfalfa seed of his own production, or who places tags and seals issued to him on seed not produced by him, shall be guilty of violating his agreement as an approved grower and may be denied the privilege of further participation in the Oklahoma Approval of Origin alfalfa seed program.

Summary

The Oklahoma Alfalfa Approval of Origin Program was organized on a county basis in sixteen counties during the first year

of its operation. In most cases in these counties the county agent served as secretary of the county association, and assisted the farmers in filling out their applications. The applications must prove by historical records and affidavits that their field originated from hardy adapted alfalfa seed before their fields would be eligible for acceptance in the program.

Each county association, through its elected officers and alfalfa seed committee, have the responsibility of examining all applications together with historical records, inspecting the fields of alfalfa for which approval of origin is requested, and the making of recommendations to the state alfalfa seed committee of the Crop Improvement Association for approval or disapproval of the various applications. The state alfalfa seed committee in approving or disapproving the grower's application base their decision upon the statement of the grower and the inspection reports and recommendations of the county committee.

CHAPTER IV

ORGANIZATION OF APPROVED PROCESSORS IN THE OKLAHOMA ALFALFA APPROVAL OF ORIGIN PROGRAM

The alfalfa seed of the Approved Grower upon the completion of tagging and sealing of the seed on the grower's farm is ready to enter the market channels. The office of the state association set up a system of approving well established processing alfalfa seed houses in the areas where the normal flow of Oklahoma alfalfa seed was the greatest. In this manner the local Approved Grower was assured that proper facilities and reliable seed houses would be available for the marketing of his alfalfa seed. The state association set up certain requirements that would have to be met by the processors of alfalfa seed before they would be eligible to handle the seed officially and be designated as "Approved Processors of Oklahoma Alfalfa Approval of Origin Seed." The minimum requirements to be eligible before an application would be considered by the Board of Directors of the Oklahoma State Association are listed as follows:

Minimum Requirements to be Eligible for Making Application As An Approved Processor of Oklahoma Approved Origin Alfalfa Seed

"Cleaners to be used must be so constructed that each machine can be equipped with not less than 3 and preferably 4 appropriate screens for a single seed cleaning or processing operation and must, in addition, have traveling brushes beneath the screens and be equipped with a variable blast and/or a vacuum pickup.

"The applicant must have, in addition, at least one piece of special equipment such as a gravity mill, dodder mill, or similar machines especially designed for removing noxious and other weed seed to meet the minimum requirements.

"All cleaners, bins, floors, augers, and other equipment where alfalfa seed is handled must be so constructed and arranged that they can be easily cleaned prior to blending and cleaning alfalfa seed.

"The applicant must be able to clean alfalfa seed to a purity of 99.25 percent or better, and reduce total weed seed content to .25 percent or less, and no machine shall be operated above its normal capacity.

"The applicant's honesty and integrity must be unquestionable.

"The applicant must be participating in the United States Seed Verification Service before he can be considered eligible." 1/

Agreement Between the Oklahoma State Alfalfa Approval
of Origin Association and the Processor
of Alfalfa Approval of Origin Seed

The processor upon meeting the requirements is eligible to make application to the Oklahoma State Association. His application is referred to the Board of Directors and if it is looked upon with favor a representative of the Oklahoma State Association is delegated to make an inspection of the processing plant in question. After completion of a satisfactory inspection and with the approval of the Board of Directors of the Oklahoma State Association a standard agreement form of operation is signed by the Secretary of the Oklahoma State Association and the designated representative of the processing plant. Immediately following is a copy of the agreement form for 1946:

"The state association agrees to conduct an Approval of Origin program of Oklahoma alfalfa seed and agrees to use every possible means to improve the quality of seed marketed in accordance with this program. County organizations will be perfected in major alfalfa seed producing counties and applications for approval of origin by individual producers will be examined by county alfalfa committees and by the state alfalfa committee of the state association. The state association agrees to conduct a program designated to eliminate from approved seed (insofar as possible) the seeds of Johnson Grass, dodder, and field bindweed. The state association further agrees to make a full and complete report to the processor which will show the counties participating in the program, growers' names, addresses, and acreages approved.

1/ Minimum requirements for an approved Processor of Oklahoma Approved Origin Alfalfa Seed as established by the Board of Directors of the Oklahoma State Association, July 30, 1945.

"The processor agrees not to purchase lots of alfalfa seed as Approved Origin when he has knowledge the lot contains the seeds of Dodder, Johnson Grass or Field Bindweed; and in no case will it be permissible for the processor to tag the seed as approved origin that contains the seeds of Dodder, Johnson Grass or Field Bindweed.

"The state association agrees to supply approved origin growers with Oklahoma approved Origin alfalfa seed tags which shall show the county or origin and the name of the cooperating county organization. Such tags shall be referred to as 'Grower's tags.' Seals known as OCIA seals will also be supplied approved growers.

"The processor agrees to maintain a complete and separate system of records which shall show all details involved in the purchase of Oklahoma Approved Origin alfalfa seed. Furthermore, the processor agrees that such records shall be available for inspection at any time by an agent or inspector of the state association, or by an officially designated agent or inspector of the state or federal departments of agriculture. Such records shall show the number of pounds or bushels purchased, the person or persons from whom purchased, the locality where purchased, the actual tag numbers stamped on Oklahoma Approved Origin tags which are sealed to the bags included in each transaction.

"The processor agrees to designate one person who shall meet the approval of the state association, and he shall have full responsibility of keeping all records, the preparation of reports the breaking of Oklahoma Crop Improvement Association seals (called OCIA seals), the cleanup of processing equipment preceding the cleaning and grading of seed, rebagging, resealing, and any other details in connection with the handling of Oklahoma Approved Origin alfalfa seed in the processing plant.

"The processor agrees to maintain the true identity of all Oklahoma Approved Origin alfalfa seed which has been obtained by him from Oklahoma Approved Origin growers. In order to expedite the movement of Oklahoma Approved Origin alfalfa seed to markets, it is agreed that the processor may bulk the separate grower lots of Oklahoma Approved Origin seed produced by approved origin growers from the different counties. However, by agreement with the state association, a processor may maintain the true identity of Oklahoma Approved Origin alfalfa seed produced in one county, using Oklahoma Approved Origin tags which show the county of origin.

"The processor agrees to prepare two reports which shall be mailed to the state association. One report shall consist of a record of Oklahoma Approved Origin alfalfa received at the processing plant during the preceding week and shall show the name of the grower, county where grown, receiving number, pounds received and the actual tag numbers. This report shall be mailed on Monday of each week after the first lot of approved alfalfa has been

received. The other report shall be a record of processing operations and shall show the receiving numbers of each lot bulked for processing, the weight of seed before and after cleaning, the size of bags used for processed seed, the total number of such bags, the number of Oklahoma Approved Origin tags and seals used and tag numbers used for tagging each lot of seed, and the final stock number. This report shall be made only when lots of approved seed have been processed.

"The processor hereby agrees that when a shipment of Oklahoma Approved Origin alfalfa seed arrives at the processing plant, one-half of the grower's tag shall be torn off along perforation, which remnant shall become an important part of the processor's record. It will be necessary to save only the half of the tag on the opposite end from the eyelet. These half tags shall be preserved and mailed to the state association with the weekly report of Oklahoma Approved Origin alfalfa seed received.

"The processor agrees that the one-half portion of the grower's tag bearing the eyelet shall remain attached to the bags of Oklahoma Approved Origin alfalfa seed until replaced by new tags, and that at no time shall the identity of any lot or shipment of Oklahoma Approved Origin seed be erased or hidden when in storage in the processing plant.

"The state association agrees to supply the processor with a seal and a different style of tag which shall not reveal county identity. The tags shall be referred to as 'Processor's Tags.' The state association agrees to sell processor's tags and seals to the processor on a low cost basis, sufficient to cover handling charges.

"It is agreed that the processor shall have the privilege of keeping on hand a surplus quantity of processor's tags and seals as determined by a prior agreement. The processor will be expected to account for all such tags and seals used.

"The processor agrees to use the processor's tag only for tagging Approved Origin seed of Oklahoma common alfalfa in accordance with regulations prescribed herein and further agrees not to represent seed carrying this tag as Crimm or any other variety other than Oklahoma Common Approved Origin alfalfa.

"The processor agrees that the processing plant or plants operated by him shall be accessible at all times to authorized agents or inspectors of the state association. Provided that in the case of any agreement between the state association and any state or federal department or bureaus of agriculture, that an agent or inspector representing said state or federal department of agriculture shall have free access to the plant or plants for the purpose of making such inspections as are considered necessary by the state association.

"The processor agrees to pay to the state association five cents (5¢) for each one hundred pounds (100 lbs.) of Oklahoma Approved Origin alfalfa received at the processing plant. The processor agrees to deposit with the state association fifty dollars (\$50.00) and purchases of Approved Origin alfalfa shall be charged against this deposit. In the event that the charges for seed purchased during the season do not equal the initial deposit any credit balance remaining will be returned to the processor when the state association has been advised that no further purchases of Oklahoma Approved Origin alfalfa seed will be made.

"When this agreement has been signed and attested by both parties and the deposit made with the state association, the processor shall be recognized as an approved processor under the terms of this agreement.

"This agreement may be suspended or terminated by either party upon written notice to the other for non-compliance with terms of this agreement."

The integrity of the processing firm requesting permission to become approved by the Board of Directors of the State Association of the Alfalfa Approval of Origin Program is in the final analysis the major factor in the final determination as to the Board of Directors' decision. The distinguishing between varieties or strains of alfalfa seed by appearance is difficult and the reliability of the Approved Processor should be above reproach in order to assure the grower that he is obtaining the seed of the alfalfa desired. The establishment of a distinct new alfalfa seed variety (Oklahoma Approval of Origin Seed) on the major seed markets in the United States is an outstanding accomplishment of these alfalfa seed marketing associations in Oklahoma. The policy of the State Association in maintaining such high standards in the selection of the Approved Processors has established this new Oklahoma product in markets of the United States where previously Oklahoma alfalfa seed was discriminated against.

Identity of the Alfalfa Seed

The approved alfalfa seed of the "Approved Grower" maintains the identity of the individual grower until such time as the seed goes through the cleaning and blending of the Approved Processor. The identity of the trade name, "Oklahoma Approved Origin Alfalfa Seed" is retained through all channels of trade. The Approved Processor is permitted to process and blend various lots of Approved Origin seed and again retag and seal such processed seed with the official Approved Origin tag.

CHAPTER V

OKLAHOMA ALFALFA SEED MARKETING

The rapid growth of the alfalfa seed industry in Oklahoma in recent years has intensified the marketing problems that have existed for years in this State. We not only need to safeguard our present markets but have to find constantly expanding markets for this additional alfalfa seed. Immediately several pertinent questions arise. In what areas of the United States can Oklahoma expect to find a satisfactory market? Can prejudices against Oklahoma seed be overcome? Is Oklahoma seed adapted to other sections of the United States in which we hope to not only maintain our present markets but to expand them?

Prejudices Against Oklahoma Alfalfa Seed

Prejudices against Oklahoma seed have arisen in different sections of the United States. These prejudices if not combated and proved wrong may threaten the growth of the alfalfa seed industry in Oklahoma. ^{1/} Mr. L. E. Brannon in his article on the Oklahoma Alfalfa Seed problem says, "Oklahoma cannot overcome the fact of its geographic location-southwest. The mere mention of southwestern seed brings to mind the seed grown in Arizona and Southern California, which is considered to be non-hardy in the north." The geographic location of Oklahoma cannot be changed so our success in selling seed in the North Central States depends upon the merits of the Oklahoma grown alfalfa seed itself.

^{1/} Oklahoma Seed Courier, L. E., Brannon, Secretary, State Association, Oklahoma Approval of Origin Alfalfa Seed Program, Volume XIII, January 1939, No. 1, pp. 5. Published by-monthly by the directors of the Oklahoma Crop Improvement Association in cooperation with crop specialists of the Oklahoma Agricultural and Mechanical College, Stillwater, Oklahoma.

The question arises as to the adaptation of our present
Oklahoma Common alfalfa seed. According to Mr. L. H. Brannon,^{2/}

"No question arises as to the adaptation of our seed throughout a wide area in the east central states. We know that we can go southeastward without the question of winter hardiness arising. However, the important question is that of northern adaptation. Eventually our range of best adaptation will be determined by tests with Oklahoma seed which are being conducted in other states.

"As matters stand at this time, prejudices against Oklahoma seed may be found not only in northern states but also in several eastern and southern states. Last year (1938) a Tennessee dealer perpetrated a violation for which he was found guilty. This act consisting of erasing "Oklahoma" and substituting "Kansas" on U. S. Verification tags. This action, when discovered, resulted in an unfavorable reaction toward Oklahoma seed. This is due to the fact that little effort has been made by Oklahoma growers to advertise and prove to the world the quality and value of a good Oklahoma product. Likewise, there is a lack of research information available concerning the adaptation of Oklahoma seed in other sections, all of which means that Oklahoma seedsmen and our alfalfa seed growers must work together to develop a safe program for the future."

The need for research information concerning the adaptation of Oklahoma alfalfa seed in other sections has been partially answered by recent publications from several of the states where Oklahoma depends on her commercial seed markets. The Agricultural Experiment Station at Manhattan, Kansas has been experimenting with alfalfa varieties for several years. In their alfalfa test plots the basis for the article in the Journal of American Society of Agronomy (Table 7) the author in summarizing and interpreting the data makes the following statement: "The experiments do not show any consistent or marked differences between the various strains from Idaho, Kansas, Utah, and Oklahoma."

^{2/} Op. cit., page 5.

Table 7. Comparing Plants Killed, Plants Killed and Severely Injured, and Estimated Injury as a Measure of Resistance to Low Temperature of Alfalfa Varieties, 1930-1931

Variety	: Dead : Plants	: Plants Dead and : Severely Injured	: Estimated : Injury
	<u>Percent</u>	<u>Percent</u>	<u>Percent</u>
Nebraska Common	63.3	86.9	78.8
Colorado Common	63.6	80.4	74.0
Dakota Common	68.3	87.6	81.5
Utah Common	70.3	92.7	88.1
Kansas Common	74.9	92.2	88.1
Idaho Common	76.9	92.9	86.3
Oklahoma Common	76.8	94.1	85.9

SOURCE: Timmons and Salmon, Journal of American Society of Agronomy, Vol. 24, pages 642-654, based on experimental data at the Kansas State Agricultural Experiment Station, Manhattan, Kansas, on experiments conducted in 1930-1931.

From the Hays Agricultural Experiment Station, Hays, Kansas, the following significant observation is taken from a letter in the file of the Oklahoma State Association, dated November 28, 1937 from the Division of Forage Crops and Diseases, Bureau of Plant Industry, United States Department of Agriculture:

"Regional alfalfa variety tests and other studies with alfalfa have been conducted at Hays, Kansas.....These trials indicated to me that Kansas and Oklahoma Common alfalfas were essentially one and the same thing. They exhibited no significant differences in growth, yield, or winter hardiness. Both survived the winters at Hays without noticeable loss of stands."

It is interesting to note that the Hays, Kansas Experiment Station is almost 200 miles north of the Oklahoma-Kansas State line.

The following data are taken from Ohio Experiment Station Special Circular No. 53:

Table 8. Comparative Yields of Alfalfa Varieties, 1930-1935, Northwestern Experiment Farm, Holgate, Henry County

Variety	Yield of Hay Per Acre, 12½ percent Moisture					Yield Grimm Equals 100 Percent
	: Range A : Sown : 1929 : 3-year : Ave.	: Range B : Sown : 1930 : 4-year : Ave.	: Range C : Sown : 1931 : 4-year : Ave.	: Range D : Sown : 1932 : 3-year : Ave.	: Grand : Average:	
Oklahoma Common	2.87	2.54	2.19	2.94	2.64	96
Kansas Common	2.67	2.55	2.20	3.00	2.61	95
Idaho Common	2.89				2.89	94

The Iowa Agricultural Experiment Station, in an article reviewing the alfalfa investigations at that Station, and published in the Farm Science Reporter, January, 1941, makes the following statement with reference to the strains of common alfalfa from certain states, including Oklahoma:

"Of the regional common strains, there seems to be no significant difference in seed from Montana, Nebraska, Oklahoma, and the Dakotas."

In view of the large amount of experimental data which have been obtained from several additional states, ^{1/} it would seem that any

3/ Research Data on Alfalfa Varieties

- (a) Better Methods of Growing Alfalfa, Missouri Agricultural Experiment Station Bulletin No. 326.
- (b) Farm Science Reporter, "Alfalfa Research In Iowa," prepared by the Iowa Agricultural Experiment Station, January, 1941.
- (c) Alfalfa Research in West Virginia, West Virginia Agricultural Experiment Station Bulletin No. 250.
- (d) Massachusetts Experiment Station Report, Bulletin No. 315, March, 1935; and a later report dated October 14, 1940.

discrimination against Oklahoma Common alfalfa seed as compared with other Common alfalfa seed in the Central States is entirely unjustified. The ever increasing demand for alfalfa seed produced in Oklahoma by the states in the Central Area would indicate that the buyers of this seed are satisfied with its hardiness.

Marketing Channels for Alfalfa Approved Origin Seed

In the preceding chapter the requirements were given and the procedure listed for processors of alfalfa seed to become approved as processors of Oklahoma Approved of Origin Alfalfa seed. In 1939, ten processors were approved, six in Oklahoma, and four in Missouri. The number of these processors has increased to 18 in 1945, including eight in Oklahoma, four in Missouri, three in Kansas, one in Nebraska, one in Indiana, and one with a temporary permit in Salt Lake City, Utah. The respective county associations recommended that the Approved Alfalfa seed will get a representative blend of many farmers' lots and thus the chance of getting real adapted Oklahoma seed will be greater. The approved processors during the year 1940 handled over 62.7 percent of all alfalfa approved origin seed tagged and marketed.^{4/} The alfalfa seed reached the approved processors through local buyers who are purchasing agents for these approved processors. These agents are compelled to compete with private buyers who are not connected with the Alfalfa Approval of Origin Program. The common procedure in some communities is for the alfalfa seed buyers to visit the individual

^{1/} Figures taken from final reports of county alfalfa Approval of Origin Associations as submitted to the office of the State Association and Annual Narrative Report of Extension Agronomy work, 1945, Oklahoma Report, page 42.

farmer's farm at harvest time and bid for the alfalfa seed. This buyer may or may not be a representative of one of the Approval Processors of the Alfalfa Approval of Origin Program. The individual Approved Grower is not bound by membership to the association to sell his alfalfa seed to any particular buyer.

The question of disposition of the approved alfalfa seed upon completion of processing was partially answered when the Secretary of the State Association sent a request to each of the 17 permanently approved processors in the fall of 1945 for figures designating the states and amounts of seed sold in each. It had been the contention of the leaders in the organization of the Oklahoma Alfalfa Approval of Origin Program that the bulk of the alfalfa seed in Oklahoma was marketed in the Central Region of States and that any ruling or discrimination against Oklahoma seed in this area would be fatal to the Oklahoma alfalfa seed industry. Complete figures on the disposition of alfalfa seed for the year 1945 were sent in by five of the approved processors. The summary of these figures indicate that over 80 percent of all Oklahoma Approved Alfalfa seed handled by them was sold in states north of Oklahoma. The State of Indiana led all other states in the purchase of this seed, in purchasing 28.45 percent of all seed sold by these five approved processors. Ohio was second with a percentage of 15.83 (Table 9). The States of Tennessee, Kentucky, and Virginia purchased 28.05 percent of the total Alfalfa Approval of Origin seed as reported sold by these five Approved Processors. These figures indicate that the market channels for Oklahoma alfalfa seed lie in the Central Region of States, and that if the Oklahoma alfalfa seed producer is to prosper, this market outlet will have to be maintained.

Table 9. Market Channels of Oklahoma Approval of Origin Seed,
Showing the Percentage of Total Seed Shipped to Each State
By Five Approved Processors For the Year 1945

State	Percent of Total Seed Shipped	State	Percent of Total Seed Shipped
Indiana	28.45	Wisconsin	2.49
Ohio	15.83	Illinois	2.07
Tennessee	11.89	Maryland	.96
Kentucky	8.14	Mississippi	.88
Virginia	8.02	Oklahoma	.35
Kansas	4.69	Georgia	.28
Minnesota	3.46	South Dakota	.17
North Carolina	3.30	Iowa	.87
Missouri	3.23	Washington	1.73
Pennsylvania	2.93	Alabama	.26

Prices of Oklahoma Alfalfa Seed

The marketing season for Oklahoma Alfalfa seed begins in early July and continues until late September. The seed harvested in the early part of the season has the advantage of reaching the consuming area in time for fall plantings. During the years of a small seed carryover this Oklahoma alfalfa seed is in great demand, because the seed produced in states to the north will not be marketed in time for these fall plantings. The major portion of the alfalfa seed plantings in the Central States are made in the spring of the year compelling the Oklahoma alfalfa seed to compete with the alfalfa seed of all the major surplus producing states.

The Oklahoma alfalfa seed producer has had an increasing price for his seed during the period in which the alfalfa acreages have been increasing. In 1932 the alfalfa seed price per bushel was only \$3.55 but has been steadily rising since (Table 10). The Oklahoma

farm price reached its first peak in 1937 when the alfalfa seed producers received an average of \$10.90 per bushel. For several years after 1937 the price declined reaching another low of \$7.00 per bushel in 1940. Since 1941 the prices paid to the Oklahoma farmer for alfalfa seed have been increasing annually, reaching a figure of \$18.40 per bushel in 1944 (Table 10).

When the Oklahoma farm price for alfalfa seed is compared with the price for the seed producing states, the Oklahoma alfalfa seed price is below that of those states. For the years from 1932 to 1945 Oklahoma has exceeded the prices of only six states (Table 10). In 1935, Oklahoma exceeded the alfalfa seed price of Arizona and Utah, 1937 Texas and Arizona, 1939 Arizona, and in 1941 the State of New Mexico. The average price from 1932 to 1945 places Oklahoma as the low state with an average price of \$9.55 per bushel. The discrimination against alfalfa seed produced in the southwestern portion of the United States seems to be verified by these figures. The low Oklahoma farm price seems to be unjustified in that research data, as pointed out in the first portion of this chapter, places Oklahoma alfalfa seed on a level with that of the Kansas Common alfalfa seed. States such as Arizona, New Mexico, and Texas which produced seed that is less hardy than that of the Oklahoma Alfalfa Approval of Origin Seed have been commanding a higher local price over the period of years from 1932 than the Oklahoma seed (Table 10). This might be explained by the fact that Oklahoma has maintained a much higher production of alfalfa seed over this same period of years and has had to depend on marketing its surplus seed in other states to a much greater extent than has Texas, Arizona, and New Mexico. This explanation will

Table 10. Alfalfa Seed Prices, Major Seed Production States, 1932-1944

Year	Ohio	Indiana	Michigan	Wisconsin	Minnesota	Iowa	North Dakota	South Dakota	Nebraska	Kansas	Oklahoma	Texas
(Dollars Per Bushel)												
1932			7.10	9.00	7.40		7.60	6.60	5.10	4.60	3.55	3.55
1933	7.00	8.50	6.70	8.60	7.00	9.00	7.90	7.00	6.20	5.00	5.00	6.10
1934	12.10	14.10	12.60	13.60	12.50	14.80	12.40	12.60	10.10	8.10	6.40	7.80
1935	9.00	9.70	9.90	10.40	8.40	10.90	9.00	9.80	7.50	7.60	6.70	7.20
1936	12.60	13.00	13.20	14.60	12.10	14.50	12.40	12.70	11.20	11.20	9.80	10.30
1937	16.00	17.80	16.30	18.10	15.50	17.70	15.30	16.10	15.10	13.60	10.90	10.20
1938	11.30	11.30	12.90	14.20	11.30	13.20	11.80	12.50	11.00	11.20	8.20	9.00
1939	11.20	10.10	10.80	12.60	11.40	12.50	11.30	12.60	11.50	10.80	8.40	8.70
1940	9.70	8.80	9.60	10.50	9.10	10.90	9.10	9.90	10.30	9.30	7.00	7.60
1941	13.30	13.30	14.40	15.70	13.00	13.20	12.30	12.70	11.90	11.10	10.10	10.20
1942	16.40	17.00	19.40	19.40	17.70	18.20	16.60	18.00	15.60	14.90	11.70	12.50
1943	21.50	22.20	22.10	20.80	20.60	22.80	21.40	21.00	20.90	19.70	18.00	18.00
1944	21.30	21.60	21.20	20.80	21.00	21.40	21.10	21.10	21.10	19.60	18.40	19.30
Average												
1932-												
1944	13.45	13.95	13.59	14.48	12.85	14.93	12.94	13.28	12.12	11.28	9.65	10.03

(Continued)

(Continued)

Table 10. Alfalfa Seed Prices, Major Seed Production States, 1932-1944

Year	Montana	Idaho	Wyoming	Colorado	New Mexico	Arizona	Utah	Oregon	California	Washington	United States
(Dollars Per Bushel)											
1932	6.70	6.10	6.00	5.50	4.30	3.75	5.50	7.40	4.70		5.60
1933	6.70	6.00	6.40	5.90	6.00	4.30	5.20	7.40	5.20		6.02
1934	12.10	11.00	11.50	9.80	6.90	7.60	10.30	12.40	8.00		10.27
1935	10.00	8.60	8.50	8.30	8.40	6.60	6.40	9.20	7.20		7.89
1936	13.40	13.10	11.90	10.60	10.40	9.90	11.30	12.80	10.90		11.89
1937	15.80	16.70	14.30	14.50	11.40	10.00	14.50	15.60	12.20		14.03
1938	11.90	12.40	11.60	10.50	8.80	8.70	10.50	11.80	9.60		10.56
1939	11.10	12.00	11.00	11.40	8.70	8.20	10.50	11.80	9.50		10.48
1940	9.10	9.60	8.60	9.20	7.80	7.20	8.60	9.10	7.70	9.30	8.76
1941	13.00	15.10	12.30	11.90	8.90	10.70	12.60	13.80	11.90	14.20	12.40
1942	19.50	20.40	17.00	16.60	13.10	13.80	20.10	19.30	14.10	19.40	15.58
1943	21.30	22.20	21.10	19.90	18.00	19.30	21.20	21.60	19.30	21.60	20.00
1944 ^{1/}	21.70	23.90	21.20	20.20	19.60	19.90	22.60	23.40	19.50	22.20	20.50
Average 1932- 1944	13.25	13.62	12.42	11.87	10.18	9.99	12.25	13.51	10.75	17.34 ^{2/}	11.84

SOURCE: Agricultural Statistics, 1934 to 1944, inclusive, United States Department of Agriculture, Washington, D. C.

^{1/} Preliminary.

^{2/} Short time average.

not hold true when considering the relationship between the spread in the average price for Kansas alfalfa seed as against the Oklahoma seed. Kansas has received since 1932 an average of \$1.73 per bushel over the Oklahoma seed price and during this same period has exceeded Oklahoma in the production of alfalfa seed.

The major marketing of Oklahoma alfalfa seed for planting in the Central Area of States takes place in the early spring. The average retail price paid by the purchaser of this seed for the months of February, March, and April from 1938 to 1946 inclusive were tabulated for those states in which the majority of the Oklahoma Approval of Origin Alfalfa seed was marketed (Table 11). In Indiana where the marketing of Approved Alfalfa seed from Oklahoma is heavy, the average retail price for February, March, and April in 1938 was \$38.25 per hundred pounds. The Oklahoma alfalfa seed producers' farm price for alfalfa seed sold at harvest time in 1937 was only \$18.45 per hundred pounds (Table 12). This represents a margin of \$19.80 per hundred pounds between the producer and consumer and a markup of over one hundred percent. The average margin between the harvest price paid to the Oklahoma alfalfa seed producer and the retail prices paid by the consumer in the State of Indiana has averaged \$19.00 per hundred pounds since 1939. In 1943 the spread was at its greatest when the margin was \$36.85 per hundred pounds. The spread was again narrowed when in September of 1943 the Office of War Information released a directive of the Office of Price Administration placing six kinds of processed and unprocessed legume and grass seeds under price control.^{5/}

^{5/} Legumes and Grass Seeds Press Release, MPR 471, September 23, 1943, Office of War Information, Office of Price Administration, Washington, D. C.

Table 11. Average Alfalfa Seed Price for Months of February, March, and April,
In Seven Central States for Years 1938 to 1946, Inclusive (Common Seed)

State	: 1938	: 1939	: 1940	: 1941	: 1942	: 1943	: 1944	: 1945	: 1946	: Average Price	: Average Price
	: <u>1/</u>	: <u>1/</u>	: <u>2/</u>	: <u>2/</u>	: Feb.-	: Feb.-	: <u>3/</u>	: <u>3/</u>	: <u>4/</u>	: for 9-Year	: for 8-Year
					: March <u>1/</u>	: March <u>4/</u>				: Period	: Period
					: April <u>3/</u>	: April <u>3/</u>				: 1938-1946	: 1938-1945
(Dollars Per 100 Pounds)											
Kentucky	34.83	25.30 ^{5/}	23.67	20.38	35.17	42.43	46.75	47.43	46.93	35.87	34.49
Ohio	35.73	26.95 ^{5/}	24.22	20.63	34.50	43.73	46.93	47.87	48.43	36.55	35.07
Indiana	38.25	28.87 ^{5/}	26.15	22.80	37.07	45.93	49.03	49.36	49.27	38.52	37.13
Illinois	38.35	28.60 ^{5/}	26.22	22.40	37.15	46.10	48.55	48.50	48.67	38.23	36.98
Iowa	37.07	27.55 ^{5/}	26.03	22.28	36.38	46.30	49.22	49.10	49.30	38.14	36.74
Missouri	34.22	25.00 ^{5/}	23.48	20.08	33.40	41.98	45.97	45.97	47.00	35.23	33.76
Oklahoma	25.12	19.97 ^{5/}	18.30	14.88	29.28	30.85	38.17	38.67	40.13	28.37	26.90
Kansas	31.70	22.80 ^{5/}	22.30	18.43	30.07	36.48	41.15	40.97	42.87	31.86	30.49
Average For All States	36.72	28.25 ^{5/}	25.78	21.87	36.00	45.05	47.65	47.70	48.13	37.43	36.13

1/ United States Department of Agriculture, Bureau of Agricultural Economics, Washington, D. C.

2/ Agricultural Marketing Service, United States Department of Agriculture, Washington, D. C.

3/ Crop Reporting Board, Bureau of Agricultural Economics, U. S. D. A., Washington, D. C.

4/ Agricultural Prices, Bureau of Agricultural Economics, U. S. D. A., Washington, D. C.

5/ Retail price for months, March-April.

This directive designated the maximum prices paid for thresher-run, rough cleaned and quality cleaned seed. The spread has never exceeded \$18.58 per hundred pounds since the directive that placed alfalfa seed under these price controls. The average price that the Oklahoma alfalfa seed producer has received for his seed for the years from 1938 to 1945 during the harvest months has been \$20.90 per hundred pounds (Table 12). The consumer in the State of Indiana during the planting season has been paying an average price during the same period of \$37.18 per hundred pounds (Table 11). The figures indicate that the average marketing cost of the Oklahoma alfalfa seed producer from 1938 to 1945 was \$16.28 per hundred pounds of seed or an amount equal to 77.8 percent in excess of the original farm price at harvest time and the retail price of the alfalfa seed at planting time in Kentucky, Ohio, Illinois, Iowa, and Missouri show similar relationships to that of Indiana (Table 11).

Price Received for Oklahoma Alfalfa
Approval of Origin Seed

The members of the cooperative marketing associations realized little or no financial benefit for their efforts during the first five years that the Oklahoma Approval of Origin alfalfa seed program was in operation. It was during this period that the value of Oklahoma Approved Origin alfalfa seed was being recognized in the areas of the United States where common alfalfas are adapted.^{6/} The cooperative growers realized special benefits in 1943, 1944, and 1945

^{6/} Chaffin, Wesley, Ellithorp, Roy W., and Graumann, Hugo, Annual Narrative Report of Extension Agronomy Work, Year 1945, Oklahoma Agricultural and Mechanical College, Stillwater, Oklahoma, pages 43-45.

Table 12. Oklahoma Farm Price Received by Farms for Common Alfalfa Seed,
By Months for Years 1933 to June 1946, Showing Average Price Per Year
For Months July, August, September, and October

Year	January	February	March	April	May	June	November	December	July-Aug- : Sept.-Oct.	Total	Average Price: : July-Aug.- : Sept.-Oct.	Per : 100 : Pounds
(Dollars)												
1933	4.00	4.50	4.20	4.80	4.70	5.00	4.70	4.70	20.30	5.08	8.47	
1934	4.60	5.00	5.40	5.10	5.10	5.40	6.70	6.80	24.50	6.08	10.13	
1935	7.20	7.20	6.80	7.10	6.60	6.00	6.80	6.00	20.10 ^{1/}	6.70	11.17	
1936	6.60	5.60	6.30	6.50	6.50	6.10	9.70	9.70	34.40	8.60	14.33	
1937	10.70	11.00	11.50	11.80	11.00	11.00	11.00	10.00	44.30	11.07	18.45	
1938	10.00	11.00	13.00	11.90	11.60	12.00	8.90	2/	34.50	8.63	14.58	
1939	9.40	9.40	9.40	10.90	10.40	2/	8.70	8.70	34.10	8.52	14.20	
1940	8.60	8.60	9.00	9.50	8.80	8.40	7.00	7.10	28.50	7.12	11.87	
1941	7.40	7.40	7.40	7.40	7.50	8.20	11.90	11.10	37.20	9.30	15.50	
1942	11.50	12.10	12.30	12.50	12.10	10.60	13.20	13.20	45.80	11.45	19.08	
1943	13.00	13.00	13.60	15.00	15.00	15.00	17.60	18.20	73.50	13.37	30.61	
1944	18.90	18.90	18.60	18.60	17.70	17.70	18.20	18.20	73.90	18.47	30.78	
1945	18.20	18.00	18.60	18.20	18.40	18.00	19.00	19.10	56.50 ^{3/}	18.77	30.78	
1946	18.90	19.10	19.10	19.50								

SOURCE: United States Department of Agriculture, Bureau of Agricultural Economics, Division of Crops and Livestock Estimates, Washington, D. C.

- ^{1/} August price omitted in average.
^{2/} Figures not available.
^{3/} October price omitted in average.

in the form of price support and ceiling price differentials. According to Mr. Hugo Graumann,^{7/} the participating Oklahoma Approved Origin alfalfa seed growers netted benefits of more than \$250,000 than would have been realized without an alfalfa seed program.

The benefits that the association members received were the result of a struggle made necessary by the constant attempt to place Oklahoma seed in the category with the southern seed producers. The struggle among the members of the Alfalfa Approval of Origin Associations to eliminate this discrimination against their alfalfa seed reached its peak in the spring of 1943. On February 15, 1943, the Department of Agriculture announced its price supporting loan rates for alfalfa seed grown in Kansas, Colorado, Nevada, Utah, and Missouri. This announcement did not include Oklahoma grown seed. In order to consider the possible effect of the loan on the price and movement of Oklahoma alfalfa seed, a meeting of alfalfa seed growers and processors was held at Oklahoma City on Friday, April 23. The meeting was attended by representative alfalfa growers from the leading seed producing counties, and alfalfa seed processors. The group passed a resolution requesting that Oklahoma Approved Origin alfalfa seed be made eligible for the loan of 23 cents per pound, on the same basis as common alfalfa seed grown in Kansas, Colorado, and the other states in the central region. The recommendations of the group at the Oklahoma City meeting were approved by the federal authorities and the Oklahoma Approved Origin seed was put on the same basis with Kansas seed.^{8/}

^{7/} Graumann, Op. cit. page 45.

^{8/} Material taken from letters in the file's of the Office of the State Association, Oklahoma A. and M. College, Stillwater, Oklahoma.

discrimination against Oklahoma alfalfa seed was again attempted when in early September the Office of the State Association received word that the Office of Price Administration was considering the establishment of ceiling prices for alfalfa seed as follows: \$35.00 per 100 pounds for seed from the North Central Region; \$32.00 for seed from the Central Region; and \$28.00 for all seed from the southern region which includes Oklahoma. Another meeting among the alfalfa seed growers in Oklahoma was called to discuss the possibilities of getting the ceiling price of Oklahoma Approved Origin seed raised. Following the meeting requests were made to the Office of Price Administration to raise the ceiling price on Oklahoma Approved Origin seed to \$32.00 per 100 pounds and unapproved seed to \$30.00 per 100 pounds. The ceiling price request for approved seed was granted by the Office of Price Administration ^{9/} but no action was taken for readjustment in price of the unapproved seed; consequently, ceiling prices of \$32.00 and \$28.00 per 100 pounds for approved and unapproved seed, respectively, in Oklahoma were put into effect on October 6, 1943. The ceiling price for Oklahoma Approved Origin alfalfa seed remained on the same basis throughout 1944, 1945, and the first half of 1946, at which time the Office of Price Administration became inactive.

Weakness of the Present Marketing System

The major weakness in the present system of marketing Alfalfa Approval of Origin seed is in the lack of direct control of seed marketing operations. The only control in marketing established by the State Association is that of the maintenance of quality and identity of

^{9/} Office of Price Administration, MPR 471, October 6, 1943, Part 1439.

Approval of Origin seed marketed through the Approved Processor. The constant discrimination in the prices of Oklahoma produced alfalfa seed upon the major markets of the United States might be altered through an extended cooperative effort of the Oklahoma Alfalfa Approval of Origin Associations. By extending the present alfalfa marketing associations functions to include the assembling, processing, and distribution of Oklahoma Approval of Origin Alfalfa seed the spread between the terminal market price and the Oklahoma farm price for alfalfa seed might be narrowed.

Accomplishments of the Oklahoma Approval of Origin Associations in Oklahoma

The Oklahoma Approval of Origin Associations in Oklahoma have collectively met each challenge of discriminating regulations against Oklahoma alfalfa seed. The initial crisis in relation to the alfalfa seed markets which was the 1938 Agricultural Adjustment Administration ruling, was the primary factor in the organization of the various county alfalfa seed marketing associations. The next crisis which the association met was in obtaining the same support price for the Approval of Origin alfalfa seed as that of seed produced in the central region of states. The final occasion for the Approved Growers of Oklahoma to protect the alfalfa seed industry was on April 23, 1943 when the ceiling price for Oklahoma Approved Origin alfalfa seed was placed on the same basis as Kansas alfalfa seed, as a result of the protest of the alfalfa seed producers.

CHAPTER VI

ALTERNATIVE METHODS OF MARKETING OKLAHOMA APPROVAL OF ORIGIN ALFALFA SEED

The various attempts of discrimination against alfalfa seed produced in Oklahoma were enumerated in Chapter V, as well as the discussion of the successful measures initiated by the Oklahoma Approval of Origin Alfalfa Marketing Associations to combat these discrimination attempts. In this chapter several alternative methods of marketing the Oklahoma Approval of Origin Alfalfa seed will be outlined. The present method of marketing this Approved Alfalfa Seed is through the privately owned processing plants as has been discussed in a previous chapter. The two methods suggested in this chapter will be in the forms of cooperative marketing associations whose major objective will be to narrow the spread between the terminal market price and the returns to the alfalfa seed producers in Oklahoma.

Cooperative Alfalfa Seed Marketing Associations In Several Other States

A recent study was made by the research staff of the Farm Credit Administration on Cooperative Seed Marketing Associations.^{1/} One phase of their study dealt with specific information on nine specialized alfalfa and clover seed marketing cooperatives for the years 1942, 1943, and 1944. These specialized seed marketing associations were located in Harrisville, Michigan; Cook, Minnesota; Tiffany, Colorado; Fargo, North Dakota; Williams, Minnesota; Glasgow, Montana; Oasis, Utah; Carlo, Montana; and Worland, Wyoming.

^{1/} Hall, Thomas E., Cooperative Seed Marketing, Miscellaneous Report No. 87, August 1945, Farm Credit Administration, United States Department of Agriculture, Washington, D. C., Cooperative Research and Service Division.

These nine cooperative marketing associations have shown steady progress during each of the three years of the study (Table 13). The average volume of business for the nine associations has increased substantially during each of these years. The major portion of the

Table 13. Analysis of Average Dollar Volume of Nine Specialized Alfalfa and Clover Seed Marketing Cooperatives, for Their Fiscal Years Ending from March 30 to June 30, For 1942, 1943, and 1944 ^{1/}

Item	Year Ending		
	1942	1943	1944
Value of seed marketed	123,994	126,404	133,733
Side-line services	64,083	107,434	156,235
Total volume	188,077	233,838	289,968
Percent seed marketed is of total volume	65.9	54.1	46.1
Percent side-line is of total volume	34.1	45.9	53.9

^{1/} Table taken from Cooperative Seed Marketing, Hall, Thomas E., page 11. Nine Associations referred to in table: Alcom Seed Growers Association, Harrisville, Michigan; Arrowhead Seed Growers Cooperative, Cook, Minnesota; Basin Seed Growers Association, Inc., Tiffany, Colorado; North Dakota Grimm Alfalfa Association, Fargo, North Dakota; Northern Farmers Cooperative Exchange, Williams, Minnesota; Northern Montana Seed Growers Association, Glasgow, Montana; Oasis Seed Plant, Oasis, Utah; Western Montana Cooperative Seed Growers' Association, Carlo, Montana; and the Wyoming Pure Seed Growers, Inc., Worland, Wyoming.

increase in the volume of business has been from the side-line or other commodity services. These side-line and commodity services are important in safeguarding the economic stability of the Cooperative Seed Marketing Association. In most alfalfa seed producing areas the most important conditions influencing seed production, and indirectly, seed marketing, are weather, soil, insects, and plant disease. When these natural conditions in an area are unfavorable year after year

they may reduce yields to the point where seed production is unprofitable for that period.^{2/} During those years when the production of alfalfa seed is small the side-line and other commodity services will keep the cooperative associations solvent. The study made of these nine specialized alfalfa and clover seed marketing cooperatives showed that during the years 1942, 1943, and 1944, the value of seed marketed increased during each of those years which indicated favorable conditions for alfalfa seed production. These same associations could possibly weather several years of undesirable alfalfa seed production because the side-line business represented 53.9 percent of the total volume of business in 1944.

The average balance sheet of these nine specialized alfalfa and clover seed marketing cooperatives indicated a healthy financial condition (Table 14).

Table 14. Average Condensed Balance Sheet of Nine Specialized Alfalfa and Clover Seed Marketing Cooperatives for Fiscal Year Ending March 30 to June 30, 1944 ^{1/}

Assets	:	Liabilities and Net Worth	
	<u>Dollars</u>	<u>Dollars</u>	
Current assets:		Liabilities:	
Cash	4,882.59	Current liabilities	12,561.19
Inventories	14,365.06	Deferred liabilities	<u>2,358.81</u>
Other current assets	<u>7,154.10</u>	Total liabilities	14,920.00
Total	26,401.75		
Other assets:	7,111.25	Net Worth:	
Fixed assets (cost)	29,330.71	Capital stock	16,199.36
Depreciation:		Other membership capital	22,286.15
Reserve	7,204.31	Surplus and reserves	<u>2,233.89</u>
Fixed assets (net)	<u>22,126.40</u>	Total net worth	40,719.40
Total assets	55,639.40	Total liabilities and net worth	<u><u>55,639.40</u></u>

^{1/} Hall, Thomas E., Op. cit., page 15.

^{2/} Hall, Thomas E., Op. cit., pages 5 and 6.

In explaining the balance sheet in Table 14, Mr. Thomas E.
3/
Hall says:

"Operating savings left with the association as allocated members' equity, in addition to their capital stock, surplus, and reserves, have built up net worth and decreased total liabilities to the extent that members are furnishing 73.2 percent of total capital used.

"In only three associations are the members providing less than three-fourths of total capital used. These three have expanded their facilities and operations rapidly in recent years. Although their financial position is not now quite as strong as the others, in each case it would be considered sound.

"The average of \$14,365.06 for inventories and \$7,154.10 for other current assets (consisting mostly of accounts receivable) is considerably higher than a median figure would be, as the two associations handle a large volume of other commodities. In fact, four of the next highest inventory and other current asset figures ranged from \$5,300 to \$6,900 for inventories and from \$1,600 to \$5,200 for other current assets. As might be expected, the capital requirements for inventories and other current assets are relatively low for those associations that use the pool method of marketing and do not handle a large volume of additional commodity services.

"The average other assets of \$7,111.25 are almost entirely investments in Government bonds or stock in other corporations. In fact, about two-thirds is Government bonds owned by three associations. One association in the group owned \$27,000 of government bonds, another \$15,500. The balance of the total amount used in calculating the average of other assets was stocks in other corporations."

The success of the nine specialized seed marketing cooperative associations in those states in which the production of alfalfa seed is of less importance than it is in the State of Oklahoma would lead one to believe that cooperative marketing of alfalfa seed in Oklahoma would be profitable. The volume of alfalfa seed produced in Oklahoma under the Alfalfa Approval of Origin Associations would be great enough to justify the facilities, equipment, and personnel necessary for the effective marketing of the alfalfa seed produced in Oklahoma.

3/ Hall, Thomas E., Op. cit., page 16.

Plan One

Federated Associations for Cooperative Marketing of Alfalfa Approval of Origin Seed in Oklahoma

The present plan of organization of the various county Alfalfa Approval of Origin Associations in Oklahoma would not require much change in order to form a Federated type of Cooperative Central Marketing Association. In 1945 there were thirty-two local associations and according to their present plan of organization the major power and control lie within each local. The present plan of supervision by the office of the State Association in the alfalfa field inspections prior to the harvesting of such seed would be continued. The separation of the inspection service from the actual marketing of the alfalfa seed is desirable in maintaining the reliability of the inspection service, in the eyes of the consumers of this seed.

The alfalfa seed producers of western Oklahoma might use the facilities of the local Cooperative grain elevator. In each county having an alfalfa seed marketing association can be found at least one cooperative grain elevator. The local elevator could handle the alfalfa could be made on the basis of rough cleaned seed. A close check could be made at this time on each farmer's lot of seed for noxious weed seeds. At the close of the current season's business, a final settlement would be made to the grower on the basis of the average sale price of the grade that corresponds to his grade as determined by test at the time of delivery. From this average sale price is deducted fixed service charges for processing, insurance, storage, and selling. The grower then receives the average sale price of his grade, less association service charges and cash advances.

In order to visualize the actual operations of a local cooperative grain elevator were used the author selected a community in which he was familiar. The summary submitted by the secretary of the Alfalfa County Alfalfa Approval of Origin Association to the State Association for the year 1945 was used as the basis in approximating the volume of business that might be handled by the Farmers Cooperative Elevator in Burlington, Oklahoma.

The 1945 summary for the Alfalfa County Approval of Origin Association listed eighty-six members with an Approved acreage of 4,436 within the area served by the local Farmers Cooperative Elevator in Burlington, Oklahoma. The volume of seed production for marketing purposes would be hard to estimate due to the relative unstable climatic, biological and economic conditions from year to year. Assuming that the same conditions were to exist for the next ten years the maximum amount of alfalfa seed that might be produced by these eighty-six Approved Growers on this 4,436 Approved acres would likely never exceed an annual production of over 8,339.6 bushels. This maximum figure was calculated by assuming that the entire acreage would be harvested for alfalfa seed and that an average production of 1.88 bushels per acre would be produced.^{4/}

The processing of the seed by the local cooperative elevator would hardly be practical because the volume of seed produced by farmers at the local level would be too small to justify processing equipment and facilities. A regional assembling point might be established in Enid, Oklahoma with the Union Equity Co-Operative Exchange

^{4/} Ten-year average of alfalfa seed production in Oklahoma, 1935-1944, inclusive.

which at present performs the same function for the various affiliated cooperative grain elevators in Oklahoma. By doing the processing in Oklahoma a closer check would be maintained and as a result the quality of the Alfalfa Approval of Origin seed would be improved. Cooperative processing would provide an opportunity to lower seed costs which would be reflected to local cooperatives and on to farmers in patronage refunds.

The volume of alfalfa seed handled by the Union Equity Cooperative Exchange would place the bargaining strength of the Alfalfa Approval of Origin Associations in Oklahoma, in a more advantageous position. In 1945 Oklahoma produced over 15 percent of the total alfalfa seed produced in the United States (Table 13), and assuming that a large portion of this seed is marketed through these cooperative marketing organizations the influence of the Alfalfa Approval of Origin Association in Oklahoma will be felt in a more favorable price to the alfalfa seed producer.

The processed alfalfa seed of the Approved Grower in Oklahoma would then bear the label "Processed Oklahoma Approval of Origin Alfalfa Seed." The major markets for this seed being in the Ohio valley region would necessitate the establishing of marketing agreements with regional seed cooperatives in this area in order to complete the marketing service from producer to consumer. Such an arrangement has been made by several major regional cooperative marketing associations, namely, Indiana Farm Bureau Cooperative, Indianapolis, Indiana; Farmers Cooperative Exchange, Raleigh, North Carolina; Farm Bureau Cooperative Association, Columbus, Ohio; Pennsylvania Farm Bureau Cooperative Association, Harrisburg, Pennsylvania; Ohio Farmers Grain

and Supply Association, Fostoria, Ohio; Wisconsin Cooperative Farm Supply Company, Madison, Wisconsin; Southern States Cooperative, Richmond, Virginia; and Cooperative G. L. F. Mills of Buffalo, New York.^{5/} This cooperation between cooperatives will achieve more efficient and economical handling of alfalfa seed and thus the margin between the terminal market price and the returns to the alfalfa seed producers of Oklahoma should be narrowed as a result.

Alfalfa Approval of Origin Market Pools

The plan of marketing Alfalfa Approval of Origin seed in the form of market pools might be known as the centralized organized type. Under this arrangement the central pool would have control of the alfalfa seed from the time it was turned over to the local pool. The farmer belonging to this pool would be required by a marketing agreement to deliver all his alfalfa seed produced for a specified period, possibly five years.

The thirty-two County Alfalfa Approval of Origin Associations could be organized under one centralized pool from an administrative standpoint but be subdivided into two distinct district pools. The one representing the northern group of counties in western Oklahoma and the other the southern group of counties in western Oklahoma. Each district would have an assembling point in which the proper facilities for processing would be established. The individual selling the seed to the central pool would be given a cash advance of 50 to 60 percent of the current local market price. The pool would take title to the alfalfa seed and the processing would begin. The seed would be

^{5/} Hall, Thomas E., Op. cit., page 26.

cleaned, refined, blended, and sacked by grade in preparation for final disposition. The seed would be sold direct to various seed houses, individual farmers, and farm organizations. A large portion of the alfalfa seed could be marketed through cooperative purchasing and marketing associations of the Farm Bureau. In Indiana where a large portion of our alfalfa seed has been marketed during the past, 70 Farm Bureau Cooperative Associations were active during the five-year period, 1939-1943.^{6/} The Indiana Farm Bureau Cooperative Associations maintain a central office in Indianapolis for the purpose of providing the county associations with farm supplies and essential centralized services. The individual Farm Bureau Associations could submit to the central office an order for the amount of alfalfa seed needed. The total amount of alfalfa seed needed by the 70 Farm Bureau Cooperatives in Indiana could be ordered directly from the district processing plant in Oklahoma. Other Farm Bureau Cooperatives, and Cooperative organizations could be handled in like manner. Upon the completion of the operation for the fiscal year the district pool would make final settlement to the Approved Grower. The basis for payment would be made in the same manner as that proposed in Plan One.

^{6/} Searce, Jane L., Effects of the War on County Farm Bureau Cooperative Associations in Indiana, Miscellaneous Report No. 88, October 1945, Cooperative Research and Service Division, Farm Credit Administration, United States Department of Agriculture, Washington, D. C., page 1.

CHAPTER VII. SUMMARY AND CONCLUSIONS

This study has attempted to show the history and development of the marketing of alfalfa seed through the various County Alfalfa Approval of Origin Associations in Oklahoma. The main purpose was to study the structure, functions, and problems of these respective county alfalfa seed marketing organizations in the hope that weaknesses of the present system might be revealed.

The Oklahoma Alfalfa Approval of Origin Program was developed in 1938 by the Oklahoma Crop Improvement Association with the assistance and cooperation of the Oklahoma Agricultural Experiment Station, the Extension Service, leading alfalfa seed processors, and alfalfa seed growers. A ruling issued by the Agricultural Adjustment Administration for the North Central Region in 1938 was the motivating factor in the organization of the various county alfalfa marketing associations in western Oklahoma. The ruling provided that in order to count toward the achievement of the soil-building goal all seedings of alfalfa and any mixtures containing alfalfa seed would not be regarded as adapted for planting in that region unless it were produced from hardy adapted alfalfa and certification to that effect made by the State Crop Improvement Association. The two northern tiers of counties were exempted from the provisions of this ruling in 1938 but in 1939 the ruling was revised to apply to the entire State. Since a large percentage of the Oklahoma alfalfa seed crop is marketed in the area included in the North Central Region, the loss of this market during the Agricultural Adjustment Administration's soil-building payments would have seriously affected the alfalfa seed industry in Oklahoma.

The history and origin of the alfalfa seed is examined and approved by a county committee of alfalfa seed growers and by an alfalfa seed committee of the Crop Improvement Association. The county committee carefully examines the statements made by the individual growers, inspects the fields of alfalfa for which approval of origin is requested, and makes recommendations to the State committees. Action of the State committee in approving or disapproving applications is based upon the statement of the grower and the inspection reports and recommendations of the county committee. Upon final approval by the committee of the State Association the grower is then referred to as an "Approved Grower" of the Alfalfa Approval of Origin Seed Marketing Association. The alfalfa seed of the "Approved Grower" upon the completion of tagging and sealing of the seed on the grower's farm is ready to enter the market channels. The alfalfa seed producer is encouraged to sell his alfalfa seed to a representative of a processing house which has been approved by the office of the State Association. These processors are permitted to reclean, blend, and mix the Alfalfa Approval of Origin Seed and reseal and tag with the "Approved Processor's" tag. The individual producer's identity of the alfalfa seed is lost during this process but the trade name, "Oklahoma Approval of Origin Alfalfa of Origin Alfalfa Seed" is retained through all channels of trade. The alfalfa seed sold through other channels than the Approved Processor eventually loses its identity as "Oklahoma Approval of Origin Alfalfa Seed" because the seed cannot be resealed after leaving the producer's farm. Control over the Approved Alfalfa seed of the association is lost during this early phase in the marketing process.

The organization has shown a healthy growth since its

organization in 1938. During the initial year, sixteen county, non-stock, alfalfa seed marketing associations were organized. The number of county associations has increased to thirty two in 1945. The number of alfalfa seed growers increased from 627 in 1938 to 3,304 in 1945, and the acreage of alfalfa approved by the participating growers increased from 29,556.3 acres in 1938 to 143,323.5 acres in 1945. In 1945 over 70 percent of the approved acreage in the Alfalfa Approval of Origin Program was located in three sections of western Oklahoma; a northern section composed of Alfalfa, Grant, and Kay counties; a central section composed of Canadian and Grady counties, and a southern section composed of Harmon, Tillman, Jackson, and Kiowa counties.

Prejudices against Oklahoma alfalfa seed have been in existence for years in different sections of the United States. The alfalfa seed produced in Oklahoma, whose geographic location places it in with the southwestern states, commands a price which seldom exceeds that of Arizona and Texas whose alfalfa seed is considered to be non-hardy in the north. Through experimental data in some of the Central States the Oklahoma common alfalfa seed has compared favorably with other common alfalfa seeds produced in the Central States.

The average price of alfalfa seed produced in Oklahoma from 1938 to 1945 places Oklahoma as the low state with an average price of \$9.55 per bushel. This price relationship seems to be unjustified when the quality of Oklahoma produced alfalfa seed has been shown by research data to be on a level with that of the seed produced in our neighboring State of Kansas.

The major portion of the alfalfa seed produced in Oklahoma eventually is marketed in the central states of Indiana, Ohio, Tennessee,

Kentucky, and Illinois. The margin between the harvest price paid to the Oklahoma alfalfa seed producer and the retail prices paid by the consumer in the State of Indiana has averaged \$16.28 per hundred pounds from 1938 to 1945. The other states enumerated above show similar relationships to that of Indiana.

The major weakness in the present system of marketing Alfalfa Approval of Origin seed is in the lack of direct control of seed marketing operations. The only control in marketing established by the State Association is that of maintenance of quality and identity of Approval of Origin seed marketed through the Approved Processors. By extending the present alfalfa marketing association's functions to include the assembling, processing, and distribution of Oklahoma Approval of Origin Alfalfa seed the spread between the terminal market price and the Oklahoma farm price for alfalfa seed might be narrowed.

Alternative methods of marketing Oklahoma Approval of Origin Alfalfa seed were proposed with the objective in mind of having more control by the association in the marketing process of the seed. These continued cooperative efforts of the association would in turn result in narrowing the spread between the terminal market price and the returns of the alfalfa seed producers of Oklahoma. Two alternative methods were proposed; one in the form of a federated type of cooperative central marketing association, and the other in the form of market pools which might be known as the centralized organization type. With the present facilities of the alfalfa seed associations in mind the federated type of cooperative marketing association would appear to be the most satisfactory. The local association would not have to relinquish any of their present authority and would carry on with their

present plan of organization. Their additional task would be the establishment of marketing agreements with the local farmers' cooperative grain elevator which is affiliated with the Union Equity in Enid, Oklahoma.

The centralized pool would be difficult to organize in that new facilities would have to be built for each of the two districts processing houses. The assembling of the Approval of Origin seed at these two points would be an additional problem.

The present organization has made great progress since its organization in that the alfalfa seed producers of Oklahoma have collectively met each challenge of discriminating regulations against their seed. The major weakness would appear to lie in the lack of direct control of the seed marketing operations.

BIBLIOGRAPHY

Books

1. Bakken, Henry H., and Schaars, Marvin A., The Economics of Co-operative Marketing, 1937, McGraw-Hill Book Company, Inc.,
2. Clark, Fred E., and Weld, L. D. H., Marketing Agricultural Products in the United States, 1931, The Macmillan Company, New York City, New York, 1941.
3. Tysdal, H. M., and Westover, H. L., "Alfalfa Improvement," Yearbook of Agriculture, 1937, United States Department of Agriculture, United States Government Printing Office, 1937, Washington, D. C.

Publications and Periodicals

4. Annual Narrative Report of Extension Agronomy Work, 1938, 1940, 1941, 1942, 1943, 1944, and 1945, Extension Agronomist, Co-operative Extension Work in Agriculture and Home Economics, State of Oklahoma, Oklahoma Agricultural and Mechanical College, Stillwater, Oklahoma. (Alfalfa Section: 1938, pp. 66-75, 112, and 120; 1940, pp. 67, Exhibits p. 82; 1941, pp. 25-31, Exhibits p. 68; 1942, pp. 13-20; 1943, pp. 15-23; 1944, pp. 15-21; and 1945, pp. 37-43.)
5. Brannon, L. H., Oklahoma Seed Courier, Secretary, Oklahoma Crop Improvement Association, Volume XIII, No. 1, January, 1939, Stillwater, Oklahoma. Published bi-monthly by the Directors of the Oklahoma Crop Improvement Association in cooperation with Crop Specialists of the Oklahoma Agricultural and Mechanical College.
6. Hall, Thomas E., Cooperative Purchasing of Seed in Relation to Crop Production, October, 1944, Miscellaneous Report No. 74, Cooperative Research and Service Division, Farm Credit Administration, United States Department of Agriculture, Washington, D. C. pp. 36.
7. Hall, Thomas E., Cooperative Seed Marketing, August, 1945, Miscellaneous Report No. 87, Cooperative Research and Service Division, Farm Credit Administration, United States Department of Agriculture, Washington, D. C. pp. 31.
8. Hedges, Harold, Cooperative Grain Marketing in the United States, January, 1941, Circular No. C-122, Farm Credit Administration, United States Department of Agriculture, Washington, D. C. pp. 12.

9. History and By-Laws of the Union Equity Co-Operative Exchange, 1926-1941, 1208 Broadway Tower, Enid, Oklahoma, pp. 48.
10. Hosterman, W. H., High-Grade Alfalfa Hay, June, 1943, Farmers' Bulletin No. 1539, United States Department of Agriculture, Washington, D. C. pp. 30.
11. Hyre, French M., Farmers Co-Ops in Indiana, 1940, Louisville Bank for Cooperatives, Louisville, Kentucky, pp. 20.
12. Office of Price Administration, MPR 471, Legumes and Grass Seeds Press Release, September 23, 1943, and October 6, 1943, Part 1439, Office of War Information, Washington, D. C.
13. Osborn, L. W., Oklahoma Seed Courier, Secretary, Oklahoma Crop Improvement Association, Volume XII, No. 3, August, 1938, Stillwater, Oklahoma.
14. Puhr, M. C., Farmers Co-Ops in Oklahoma, 1939, Wichita Bank for Cooperatives, Wichita, Kansas, pp. 16.
15. Sanders, S. D., Organizing A Farmers' Cooperative, 1945, Circular No. C-108, Farm Credit Administration, United States Department of Agriculture, Washington, D. C. pp. 44.
16. Scearce, Jane L., Effect of the War on County Farm Bureau Cooperative Associations in Indiana, October, 1945, Miscellaneous Report No. 88, Cooperative Research and Service Division, Farm Credit Administration, United States Department of Agriculture, Washington, D. C. pp. 31.
17. Stokdyk, E. A., Economic Objectives of Farmers' Cooperatives, October, 1945, Miscellaneous Report No. 90, Farm Credit Administration, United States Department of Agriculture, Washington, D. C. pp. 21.
18. Tentative Bulletin No. HCR 201, February 26, 1938, United States Department of Agriculture, Agricultural Adjustment Administration to the North Central Region of States, Section XIII, p. 20.
19. The Alfalfa Approval of Origin Program, Procedure for 1938, 1939, 1940, 1941, 1942, 1943, 1944, 1945, and 1946, Mimeograph Leaflet, Published by the Office of State Association, Alfalfa Approval of Origin Program in Oklahoma, Oklahoma Agricultural and Mechanical College, Stillwater, Oklahoma.
20. Timmons and Salmon, Journal of American Society of Agronomy, Vol. 24, pp. 624-654.
21. United States Department of Agriculture, Agricultural Statistics, 1934 to 1944, inclusive, Washington, D. C.

22. United States Department of Agriculture, Bulletin NRC, No. 401, 1939, Agricultural Adjustment Administration, to the North Central Region of States, Washington, D. C.
23. United States Department of Agriculture, Crops and Markets, Vol. 20, No. 1; Vol. 23, No. 1, Washington, D. C.
24. Westover, H. L., Alfalfa Varieties in the United States, September, 1934, Farmers' Bulletin No. 1731, United States Department of Agriculture, Washington, D. C. pp. 13.
25. Westover, H. L., Growing Alfalfa, November, 1941, Farmers' Bulletin No. 1722, United States Department of Agriculture, Washington, D. C. pp. 29.
26. Westover, H. L., The Uses of Alfalfa, June, 1940, Farmers Bulletin No. 1639, United States Department of Agriculture, Washington, D. C. pp. 35.

Unpublished Materials

27. Letters and records in the file of the State Association of the Alfalfa Approval of Origin Program in Oklahoma, Oklahoma Agricultural and Mechanical College, Stillwater, Oklahoma.

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