COTTON MARKETING PRAGTICES IN OKLAHOMA AS RELATED TO COTTON IMPROVEMENI

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## CONTHNAS

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## INIRODUCTION

Cotton quality improvement has been the objective of many agencies during the past I ive years, and the one-variety communities have been a result of their combined efforts. The number increased from 16 in 1938-39, two of which made application for the free classification under the Smith-Doxey Act, to 106 in 1939-40 that met the requirement for the free classification. In 1940-41, 139 made application for classification of which 187 made use of this service. Very little is known relative to marketing practices, marketing facilities, and to what extent cotton quality has been improved in these communities.

The purpose of this study is to determine: (a) The cotton marketing practices in Oklahoma in 1940; the effect of these practices on the farmer income from cotton; (b) Whether one-variety communities have improved the quality of cotton and if so to what extent the farmers have received a greater return for quality production; (c) The extent to which the government loan program has boen responsible for the increasing number of ono-variety commities and their use of the classing service.

The data pertaining to marketing practices are for the crop year 1940-41. Schedules were taken from the gins cooperating with the Orsanizad Cotton Communities. Additional schedules were taken in eastern Oklahoma because of the sparseness of ono-variety communities in this section of the State. The material relating to one-variety cotton cormunities is for 1938 to 1940. Supplementary information was secured from the Iaxtension Service, Corporation Comission, Agricultural Maxketing Service, and Bureau of Census.

## CHAPTERR I

## THE DEVILOPMGENT OF COTMON CLASSIFICATION AND

ONS-VARISIT COMONITY COTTON PRODUCTION

The present system of cotton classification and one-variety community production is a result of a need for such organization and method. The historical developments of the cotton industry will be considered only insofar as they have reflected the changing need for classification of cotton and one-variety conmanity cotton production. The evolution of our present system of classification is bound up with the whole history of the cotton trade in the United States and Great Britain.

Comerce in cotton dates beyond the period of authentic history. According to Ellison

India is undoubtedly the birthplace of cotton manufacture. It is known from the sacred books of the country that the industry must have been in a high state of perfection, three thousand years ago: but how long before that period is not known. . . I/

The first recorded import of cotton into Kngland took place in 1298. It was for the manufacture of candle wicks. The early trade in cotton and cotton goods was not a specialized business but represented a part of the business of merchants who traded in a great meny commoditios.

The nature of cotton products produced during this period and the method of trading would indicate that there was little use for classification of cotton therefore little attention was given to it.

1) Quoted by Alonzo B. Cox, Irvolution of Cotton Maricoting, Bureau of Agricultural Bconomics, United States Department of Agriculture, Special Report, p. 2.

The first record of cotton exported from the United States was in 1748, but the amount of cotton exported for the next 50 years was insignificant. As late as 1784, only fourteen bags were shipped to Iiverpool, England and eight of these were seized on the grounds that It was doubted if so great amount of cotton could be produced in the United States, Brazil started exporting to Bngland in 1781 and until after the invention of the saw gin in 1792, exports to England were about equal to exports from the United States.

After manufacturing of cotton was adapted to the machine process greater care was required in the purchase of the raw product. At this time there was no standardization of cotton as to weight, size, or type of package, or the quality. Wach sale, whether bag, packet, or bales, had to be thoroughly inspected to determine the value. The first marketing method devoloped in trading was sale by auction on the basis of samples, while the actual packages of cotton were stored in warehouse.

During the period 1800 to 1860 with the expansion of production and manufacturing, this method of sale became cumbersome. One of the first changes was the adoption of sale by description of quality indicated the origin of the cotton such as "West Indian" or "American." By 1825 American cotton was furthor differentiated by such terms as "New Orloans Upland" or "Sea Island." Sea Island is used by the trade today. Toward the later decade of the thirties sucin terms as "choice,"

[^0]"ordinary," and "fair" began to appear in a description of various American cotton. Later such descriptive torms as "middling upland" or "midaling Orleans" were added, even before any attempt was made in Anerica to adopt standards. The Liverpool Association assembled such terms and adopted stendards flor American cotton in 1843. These Iiverpool standerds were used throughout the world except in America. Ten yoars later the New York cotton brokers formed a brokers association and adopted similar terms, for the association members.

Svidently slowness of effort to establish standards was associatod with the method of sale and the status of the planters. The lexger part of the American crop was produced by southern planters vho had an opportunity to know the byyer intimately and sold in large lots. These plantations were large enough to require the service of at least one gin which was located on the plantation. The system of production tended to standardize the size of the package and quality for a given area as these plantations furnished the seed and ginned the cotton for the small producers. Consequently, it was needless to classify individual bales and only general classification was made. The planters were closely associated with the trade and wore informed as to the quality in demand.

The first plenary attempt to establish a set of uniform cotton standards for the United States came after the Civil Wax in 1874 when

[^1]representatives of the Amorican cotton exchanges met for this purpose. This effort like preceding efforts, however, failed in that it did not ?/ adopt a uniform set of standards for classification of cotton.

Methods of marketing cotton from the farms in the United States after the Civil War vere creatly influenced by the poverty of the cotton grower. The planters lost their investment in slaves, their plantations were run down and covered with mortgages, and their machinary and teams were gone, Consequently, the system of growing cotton on large plantations and selling direct or through factors was largely broken up. There was an incentive, however, for increased cotton production for the price of cotton was high. Buyers from New England bid high for forward delivery, which tempted former factors who acted as financiers to make large advances to planters. The poor showing made by the negroes as hired hands and the rapid decline in the price of cotton involved the growers in debts which put them at the mercy of their creditors. The creditors to protect thomselves resorted to the policy of stipulating the crop to be planted and the time and mothod of sale. This systom forced the maximum acreage into production and pushed the erop on the market at the time of harvest. Buring this period when the factors determined the production policy of the grower, the neod for standards was not pressing. As the production expanded vestward and eaci negro settled on his "forty acres," the noed for an adequate method of classification became apparent. With the development of a roundabout method of production the old system of classifi-
7) Todd, Op. cit., p. 39. 8/ Cox, Op. cit., p. 18.
cation became obsolete. The breaking up of plantations brought about mixing of seed as the custom gin mixed the different verieties of seed within the same cormunity. Also with the increase of production in new heterogenoous areas of rainfall, soil type, harvesting periods, and method of harvesting, a need for classification became apparent to the cotton trade.

The development of futures markets for cotton in the fiftios increased the need for cotton standards but brought agitation against
 their use. The first record of prices quoted for cotton sold "in transit" was in New York in 1856. The sale of cotton "to. arrive" or for forward delivery was the second step toward futures markets. The strong demand for cotton during the Civil War and the difficulty of running the northern blockade brought about the sale of cotton "to arrive." A considerable amount of speculation was involved in this method of sale during the war. The price of cotton in the Liverpool market rose from approximately 16 cents for "midaling Orleans" in January, 1861 to approximately 64 in September, 1862. It seems that the friends of the growers, who were fully alive to the unsatisfactory results of the existing marketing conditions, were under the impression that the whole trouble resulted from "gambling" in cotion futures on the big exchanges. Because grading of cotton was associated with futures markets the question of grades became confused with the agitation against futures markats. In 1907 the International Conference of Cotton Growers,

$$
\begin{aligned}
& \text { 9/ Tode, Op. cit., p. } 40 \text {. } \\
& 10 / \mathrm{Cox}, \text { op. oit., p. } 16 .
\end{aligned}
$$

Spinners, and Manufacturers in a meoting at Atlanta, Georgia passed a resolution "that standard types should be adopted either by the United States Government or by an association of delegates from the cotton exchanges, cotton grovers, and cotton spinners, and that the classification should be on the basis of color alone and not upon staple." As a result of this request the United States Government in 1909 took action on standards and set up a standard of nine crades. These were permissive grades, however, since there was no power to 11) make their use compulsory.

As a result of the agitation against futures markets an investigation was ordered by Congress in 1907 into the methods of dealing in the future exchanges and marketing conditions in local markets. The recomnendations of the Comittee, appointed to investigate, were embodied in the Cotton Rutures Act of 1914. As part of this Act the first official cotton standards of the United States for white cotton were established December 15, 1914. This Act which applied to all contracts made in the Uníted States whether for sale to a purchaser in the United States or abroad was declared unconstitutional. It was reenacted in 1916 with a provision exempting orders transmitted on foreign exchanges. In 1923 a new act was passed which made the use of the compulsory standards for all contracts.

Since 1912 to the present the United States Department of Agriculture has been conducting investigations into prices paid for cotton In small local markets as finally determined in the central markots.

11 Todd, On. cit., pp. 39-40.

One of the first of these studies was conducted in Oklehoma for the crop year 1912 and 1913. It was found that there was no relationship $12 /$ between the quality and price in any local maxket in Oklahoma. Along the northern edge of the Cotton Belt the cotton was bought mostly by merchants with whom the farmers had accounts. The morchants bought the cotton with the viev of collecting debts or establishing new trede with the famers. Seemingly no attention was given the grade and staple of the cotton when purchased in this manner. The larger firms dealing exclusively in cotton were unable to compete in purchasing cotton from farmers. Thoy usually hed a resident buyer in these towns who purchased the cotton from the merchant. In towns in Oklahoma where the quantity of cotton sold ran into thousands of bales the greatest proportion was bought either by ginners or mon who dealt exclusively in cotton. Thase ginners paid very nearly the same price for all cotton purchased the same day whether buying in the seed or in the bale. In the street markets, even where there was a large number of buyers, widely different prices were paid the same day for bales of identical quality. The marketing conditions of regions of sparse production wereeven worse. The individual erower was seldom ablo to dispose of his seed to a good advantage and his bale if oustom ginned would probably be sold on an equally restricted market. Part of the farmers had to leave their cotton with the ginners or at the railroad station until enough cotton had accumplated to attract some itinerant buyer who would pretty nearly fix his own price.

[^2]From these inquiries it became clear that while both buyers and sellers in the local market geve inadequate considoration to the question of grade, it vas to some extent considered in the price offered, but on the question of staples the conditions were even worse. The farmers proaucing better quality were penalized by not receiving the proper premiums. There was evidence that on the average "long staple points" received higher average prices. Bvidently this tendency had some influence on the early attempts to establish one-variety comunities in the hope of increasing the price for the whole community.

Another factor leading toward one-variety communities was the argument advanced by the Sureau of Plant Industry. Cook, in charge of cotton breeding investigation for the Bureau of Plant Industry, propared an article in 1911 which showod the futility of an individual farmer's attempting to improve his cotton arop. His arguments for commuity cotton production were much the same as those used at present. Since he had no specific data relative to the advantage of one-variety cotton communitios he cited the advantage gained by corn improvemont groups in the southern states by one-variety commity production. The gain supposedly to be had by conmunity production was in short, higher market prices for cotton, prevention of cross-pollination in fields, 13/ and prevention of seed mixing at custom gins.

A fev years after this article was published the first one-variety cotton community was established in the Salt Lake River Valley of Arizona where the Prina variety of cotton of Bgrptian origin was grown

[^3]exclusively. This first community apparentiy vas the most successful one-variety conmunity for several years.

The development of these one-variety communities occurred mostly in the western part of the Cotton Belt. The Durango cotton was another variety that was used in the early development of one-variety communities. The first planting, about 6,000 acres, was mado in the Imperial Valley of southern Califormia in 1913. Although this one-variety community organization was continued for several years, no provisions were provided to produce seed stock. Good results were obtained with this variety in Texas, around Waco and Clarksville but growers did not organize a one-variety community.

The Upland Variety of Acala, acclimatized from Moxico, was evidently the first improved variety to be tried extensively in Oklahoma. Averages of 25 reports of field production of different varieties in Oklahoma in 1920 showed that Acala was a week earlier than other leading varieties, out-yielded ther to an extent of more than 200 pounds of seed cotton per acre, had a higher lint turn-out and a superior staple that commanded a better price in the market. Because of these advantages, efforts were made in Oklahom to utilize Acala cotton and eliminate the planting of other varieties. A general plan of cumaunity standardization was adopted in which entire counties or larger areas were encouraged to restrict themselves to one superior variety. Ividently these plans were relatively unsuccessful since in 1938, seven-

14/ 0. F. Cook, One-Variety Communities, United States Department of Agriculture, Bureau of Plant Industry, Bulletin No. 111, 1922. p. 37.

15/ Cook, Op. cit., pp. 37-44.
teen years later, only sixteen commities were organized in Oklahoma.

The work of these commanities in securing any notable increase in price from quality improvement was evidently hampered by a lack of adequate information pertaining to staple lengths. There was a great degree of variation in the description of staple lengths by various exchanges. A set of permissive staple standards vere established by the Department of Agriculture in 1918. The grower as well as the buyer was taking a chance by not knowing the staple length of his cotton produced. Some of the more progressive buyers took the precaution of inspecting the fleld to determine the quality before the cotton vas ginned. In 1918-19, the Department of Agriculture made a study with one of its purposes to compare the prices received by farmers who did and did not know the quality of their cotton. The comparisons were made on identical crades of cotton in the some day and same market. This inquiry showed clearly that farmers gained substantially by knowing 17/ the quality of the ir cotton.

Not until 1928 was there any adequate or complete record of the quality of cotton produced and consuned. This was the result of an act passed by Congress, March 3, 1927, "Authorizing the Secretary of Agriculture to collect and publish statistics of the grade and staple lengths of cotton." The principal purpose of this work is to provide the quantities of each erade and staple length available in the crop and carry-over, thereby enabling the markets to use more intelligently the

16/ United States Department of Agriculture Xearbook, 1928, p. 239. 17/ Toad, Op. cit., p. 46 .
census reports on supply, and thus gauge more correctly the value of cotton of each grade and staple length; and to provide information concerning the quality of cotton produced each year in the various areas of production. This work was done by selecting representative areas of production and quoting the statistics for the state or district on the beais of these selected gin points.

The first year the plan was in operation the gins selected to take samples were paid 10 cents per sample for sampling the cotton ginned. The rate paid for samples was gradually reduced until in 1932 the Department of Agriculture paid the ginner only five cents a bale and furnishod the gins with a classification shoet without identifying the bales. There was no provision whereby the farmer could receive the classification on his cotton from the Department of Agriculture except by paying 40 cents per bale plus shipping charges on the samples. In 1935, the grade and staple section of the Division of Cotton Marketing for the first time returned the classifications of each individual bale to the farmer without charge. Since this was a complimentary service in addition to the grade and staple estimating service, the classification would not be available to communities making special effort to improve their cotton as this would bias the sample for the crop as a whole. In commities where no speeial effort was made to improve the cotton, 50 percent of the samples received were accompanied with requests 18/ to return the slassification to farmers.

In 1937, Congress passed the "Smith-Doxey Act" as an amendment to the "Cotton Quality Statistics Act" of 1927 to make it possible for

18/ C. B. Barre, mpfeets of Returning Classifications to Zaxmers," Gurant Faxm Bcomomies, Juno 1936, 7ol. 9, No. 3, p. 74.

Organizod Cotton Oommatiss to secure free olassifiotion and mamet nows service. Until this act was pagsed the farions ned for inform mation conceming the guality of his cotton was given very littlo attontion. Consequently eamly atterme to eatablish one-veriaty commundies mot with litho success axcept in aroas where they becamo proninont enoush to attract outside buycrs. since the passing on tho Smith-Doxey nct the numen of organizec Commaties in Oriahome increased from 16 in 1957 to 139 in 1920.

CHAPTER II
COTMON MARKETING PRACTICSS IN OKCAHOMG IN 1940

Procedure for Study of Markoting Practices
The study was based on the three districts as used by the Agricultural Marloeting Service in reporting cotton quality statistics in 1940. The factors considered in setting up these districts were cotton acreage and production, concentration of production, rainfall, length of growing season, ginning periods, and types of farming. Bach of these districts has about the same acreage and production and each district has at least one area of heavy production. The growing seasons and giming seasons are relatively uniform within each area. The districts do not follow the type-of-farming areas except in a general vay. The districts were sub-divided into three sub-districts on the basis of marketing practices. Careful consideration was given type-of-faming $1 /$ areas of Oklahoma in establishing the sub-districts. The number of gins operating in each sub-district by type of gin ownership was securod. from the records of the Oklahome State Corporation Comission. The gins wore classified according to ownorship-corporate, cooperative, independent, and partnership.

The term corporate as used in this paper means, in effect, "Ine gin, " although the term "line gin" denotes a method of operation rather than a type of ownership. Still a fev single gin plants are owned by

1/ Peter Nelson, "Geographical Variability in Types of Farming in Oklahoma," Current Farm Economics, Vol. 9, No. 1, February 1936, p. 4. (Tigure Appendix and Table I)
corporations and practically all of tho lino gins are owned by corporations.

The cooperative gins are those listed by tho Corporation Conmisdioner's report as omed by famers. Indopendent ginc are thoce for which a single owner is listed, and who oms lass than three gins. Partnership gins are those cmed by two or nore individuals, or gins ouned by corporations and inaividuals. Corporate gins are threa or nore gins operatinc under one management.

The gimning and maketing practices were studied in each of the nine sub-aistricts. The infomation given in each of the tables describing the practices in the sub-districts was tabulated from 207 sohedules taken by the hgricultural Narketing Service field men durine the 1940-4 1 ssason.

Descrintion of Districts and Varketing Practices in the Districts.
District I is located in the western part of the Stete. (Fiture I). The aistrict is characterized by rolativoly lergs fams with a high percentage of the fam lend in crope and a hich porcentage of the crop land in cotton. (Table 1), The district produced 269,066 bales or 33.4 percent of the cotton produced in Oklehom in 1940.

In this district 95.4 percent of tho cotton was custon ginned, which if ft only 1.6 percent that was sold in the seed. The farmers soll 24.2 percent of the cotton produced and 74.5 percent was put in the governaent loan. of the cotton sola, 91.6 percont was purchased by the gins and E. 4 percent tha purchased by other types of buyers. The district had larger farms, a larger percentage of farm land in cottons nore cotton that went into the loan, nad a lower percentage of its cotton sold in the soed than eithor of the other districts.

## 

| Farm Organization |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Average Size of Farm (Acres) | 171 | 171 | 205 | - | 87 | 439 | 115 | 180 | - | 107 | 136 | 84 | 112 | - | - |
| Percent of Farm Land in Crops | 65.6 | 63.9 | 56.2 | - | 67.5 | 19.2 | 49.4 | 62.0 | - | 66.9 | 41.6 | 54.3 | 35.8 | - | -- |
| Percent of Farm Land in Cotton | 44.1 | 37.8 | 14.4 | - | 24.9 | 0.3 | 12.0 | 8.8 | - | 37.0 | 7.8 | 20.0 | 5.8 | - | - |
| Production, Met od of Ginning, and |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Disposition of Cotton by Farmer |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Production 1940 (Bales) | 119,846 | 125,129 | 24,991 | 269,966 |  |  | 58,564 | 20,709 | 332,939 |  |  | 45,559 | 42,937 | 204,439 | 807,344 |
| Percent of Cotton Custom Ginned | 99.1 | 97.8 | 97.6 | 98.4 | 42.4 | 10.1 | 81.7 | 79.5 | 45.6 | 95.2 | 81.8 | 94.3 | 74.4 | 93.2 | 75.5 |
| Porcent of Cotton Sold in Seed | 0.9 | 2.2 | 2.4 | 1.6 | 57.6 | 89.9 | 18.2 | 20.5 | 54.4 | 4.8 | 18.2 | 5.7 | 25.5 | 6.8 | 24.5 |
| Percent of Ginning Sold by Farmers | 22.5 | 25.4 | 26.2 | 24.2 | 81.2 | 100.0 | 88.2 | 36.6 | 84.1 | 31.8 | 33.2 | 51.5 | 93.7 | 46.4 | 54.6 |
| Percent of Ginning that went into |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Loan | 77.0 | 72.8 | 69.1 | 74.3 | 18.0 | 0.0 | 8.0 | 59.2 | 18.2 | 67.1 | 66.6 | 48.4 | 5.8 | 52.5 | 43.6 |
| Percent of Sales Purchased by Gins | 87.4 | 93.4 | 100.0 | 31.6 | 100.0 | 100.0 | 97.1 | 100.0 | 98.2 | 85.9 | 100.0 | 55.6 | 97.8 | 85.5 | 94.5 |
| Percent of Sales Handled by Other Buyers | 12.6 | 6.6 | 0.0 | 8.4 | 0.0 | 0.0 | 2.9 | 0.0 | 1.7 | 14.1 | 0.0 | 44.4 | 2.2 | 14.4 | 5.4 |
| Type of Gin Owmership |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Percent Owned by Corporations | 46.5 | 57.3 | 56.8 | 52.7 | 53.3 | -- | 71.0 | 63.3 | 58.8 | 52.3 | - | 37.0 | 37.0 | 45.3 | 52.9 |
| Percent Ownod by Cooperatives | 33.3 | 31.6 | 13.6 | 29.5 | 0.6 | - | 1.6 | 10.0 | 1.8 | 11.3 | - | 2.2 | 2.2 | 7.5 | 13.5 |
| Percent Owned by Independents | 8.8 | 3.4 | 13.6 | 7.3 | 28.3 | - | 27.4 | 16.7 | 26.8 | 24.8 | - | 34.9 | 37.0 | 29.8 | 20.4 |
| Percent Owned by Partnerships | 11.4 | 7.7 | 15.9 | 10.5 | 17.2 | - | 0.0 | 10.0 | 12.5 | 11.0 | - | 26.1 | 23.9 | 17.4 | 13.1 |
| Gins' Sales of Cotton |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Percent Sold Through Own gency | 52.7 | 43.2 | 46.7 | 47.3 | 52.8 | - | 59.5 | 54.2 | 54.1 | 49.6 | - | 51.0 | 22.8 | 36.8 | 49.7 |
| Percent Sold Through Brokers | 14.0 | 10.6 | 23.2 | 14.0 | 18.8 | - | 17.0 | 2.4 | 18.0 | 10.5 | - | 4.7 | 32.0 | 20.0 | 17.8 |
| Percent Sold To Oklahoma Cotton Growers Association | 5.3 | 4.5 | 0.0 | 4.3 | 0.0 | - | 0.0 | 0.0 | 0.0 | 1.3 | - | 1.6 | 0.0 | 0.7 | 0.7 |
| Percent Sold to f. o. b. and Independent buyers | 23.5 | 22. 8 | 12.3 | 21.8 | 4.0 | - | 5.0 | 4.7 | 4.2 | 1.3 | - | 15.8 | 14.9 | 10.20 | 7.9 |
| Percent Sold to Cotton Merchants | 4.4 | 6.8 | 11.4 | 6.4 | 1.6 | - | 0.0 | 28.8 | 2.1 | 24.2 | - | 14.5 | 30.2 | 25.6 | 7.3 |
| Percent Sold to Mills | 0.0 | 9.9 | 0.0 | 4.9 | 22.5 | $\cdots$ | 18.4 | 0.0 | 21.1 | 0.0 | - | 9.7 | 0.0 | 1.5 | 15.0 |

 in 1940 for ginning and marketing practices. Average size of farm, percentage of farm land in crops are as used as represontative in type-or-fazming sudy. Areas shown correspond roughly to sub-districts; averages for sub-district was used when sub-district and type-of-farming areas did not correspond. Production, method of
 areas are show. If two areas are shown for one sub-district the method of ginning and disposition of cotton by farmers fertain to the areas.
1/ For location of sub-districts see Figure I.

Corporate gins were the predominant type of gin ownership in the district, as 53 percent of the operating $\mathbb{E}$ ins were operated by corporations, 30 percent by cooperatives, 7 percent by independents, and 10 percent by partnerships. A largor percentage of the gins was owned by cooperatives in this district than either other district, and although the corporations owned over half of the gins the cooperatives ginned approximately half of the cotton. (Table 2).

The marketing methods usod in Caddo County in 1940 differed from those in the remainder of District I. This county was used in the "Onem Variety Cotton Mrport Demonstration Program." This program paid a subsidy to the producers in the county who marketed their cotton under this plan. Prior to December 10, 1940, 4,500 bales went into the program, according to Honry W. Spielman, Associate Marketing Specialist in Charge of the Program.

In Caddo County the farmers sold 40 percent of the cotton ginned and the other 60 percent went into the government loan. Of the cotton sold, 63.7 percent was bought by the gins, and 33.6 percent by cotton merchants who were acting as export agents for the One-Variety ixpport Demonstration Program. Therefore, because of this program the amount purchased by merchants was not representative of actual conditions.

District II is located in the northeastern and north central part of the State. The average farm size in the district varied for representative counties from 87 acres in Area 9 to 459 acres in Area 4, and the percentage of farm land in cotton decreased with an increase in average farm size. Ordinarily the farms with large acreages have a small percentege of crop land in cotton which reduced the number of

FIGURE I. DISTRICTS IN OKLAHOHA USED FCR COTTON QUALITY STATISTICS REPORTS WITI SUB-DISTRICTS AYYROXIVATING TYPE-OF-FARMING AREAS


Sub-District Description Relative to Type of Farming

## District I:

Sub-District 1-A approximates type-or-farming area 6 described as "Cotton, cash grain, genoral farming, livestock."

Sub-District 1-B corresponds to type-of-faming area 11 described as "Cotton rredominate."

Sub-District I-C approximates type-of-farming area 12 described as "Cotton, some grain, some dairy, poultry."

## District II:

Sub-District 2 -A approximates type-of-farming area 3 described as "Cash grain, general farming, some dairy, poultry with some cotton in area 3a."

Sub-District $2-B$ is southern portion of area 7 with Seminole County in area 8 and is described as "Cotton, general farming, poultry, self-sufficing."

Sub-District 2-C does not correspond to any type-of-farming area; it has mixed farming with some cotton and is largely self-sufficing. District III:

Sub-District 3-A, type-of-farming areas 13 and 15 are located in this sub-district and are described as "Cotton, livestock, self-sufficing."

Sub-District 3-B approximates type-of-farming area 16 described as "Cotton, general farming."

Sub-District $3-C$ is mostly in type-of-farming area 14 described as "Cotton, self-sufficing, livestock."

See Type-of-Farming Map, Appendix. Page 97.
acres in cotton per farm in this district. The district produced 332,939 bales or $\$ 1.2$ percent of the cotton produced in Oklahona in 1940. (Table 1).

In this district, 45.6 percent of the cotton was custom ginned and 54.4 percent was sold in the sead. The farmers sold 84.1 percent of the cotton produced; 18.2 percent vas put into the government loan. Of the cotton sold, 98.2 percent was purchased by the gins, and 1.7 percent was purchased by other buyers. The district had mostly small self-sufficing farms, the highest percentage of cotton sold in the seed, the highest percentage of cotton bought by gins, and the lowest percentage of cotton that went into the loan of the three districts shown.

A larger percentage of gins was operated by corporations and a smaller percentage operated by cooperatives than in the other districts, The corporations owned 59 porcent, the cooperatives 2 percent, independents 27 percent, and partnerships 12 percent of operating gins. More cotton was sold directly to mills in this district than in the other districts.

District III is located in the southeastern part of the State. (Figure I). The average aize of farms in 1930 for the counties representing the sub-districts ranged from 84 to 136 acres and the percentage of fam land in cotton from 7 to 37 percent. The average number of acres in cotton per farm was more than that in District I and less

[^4]than in District II. Cotton is the predominant crop in most of this district but the average size of farms is smaller than in District I. The district produced 204,439 bales or 25.3 percent of the Oklahoma erop in 1940.

In the district, 93.2 percent of the cotton was custom ginned and 6.8 percent was sold in the seed. The farmers sold 46.4 percent of the cotton produced and 52.5 percent was put into the govermnent loan. The gins purchased 85.5 percent of the cotton sold and other types of buyers purchased 14.4 percent. The district was intermediate to Districts I and II with respect to farm organization and marketing practices.

McCurtain County differed from the district as a whole in marketing practices, for although only 4.9 percent of the cotton in MeCurtain County was bought in the seed this represented total purchased by the gins. In 1940 the Oklahoma Cotton Growers Association handled approximately 95 percent of the cotton that went into the loan and 10 percent of the cotton sold in the county. Street buyers purchased the bulk of the cotton that was sold.

Type of Gin Ownership. Soxman classified gins by type of gin ownership in nearly the same manner as was used in this study. On the basis of his classification of all the gins operating by type of gin ownership for the four-year period, 1929 to 1932, was as follows: corporate 51.8 percent; cooperatives, 11.6 percent; individual or independent 16.5 percent; partnership 16.6 percent; and "others" 3.5 percent. The distribution as determined by this survey was corporate 52.9 percent; cooperatives 13.5 percent; individual or independent 20.4 percent; and partnerships 13.2 percent. (Table 2).

[^5]Table 2. Number of Gins Operating, Percent Owned, Total GInnings, Average Bales Ginned Per Gin by Type of Gin Ownership, for Districts I, II, and III, Season 1940-41


District I Production 1940-41 Season: 260,966

| Corporate | 145 | 58 | 44,390 | 765 | 43.4 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Gooperative | 81 | 49 | 64,503 | 1,136 | 41.7 |
| Independent | 20 | 4 | 2,824 | 706 | 5.5 |
| Partnership | 29 | 11 | 9,026 | 820 | 9.5 |
| Total. | 275 | 122 | 120,743 | 990 | 100.0 |
|  | District |  | Production | 1940-41 Season: | 332,939 |
| Corporate | 160 | 21 | 23,372 | 1,113 | 46.6 |
| Cooperative | 5 | 3 | 4,945 | 1,648 | 2.2 |
| Independent | 73 | 5 | 7,066 | 1,413 | 34.0 |
| Partnership | 34 | 11 | 21,292 | 1,936 | 17.2 |
| Total | 272 | 40 | 56,673 | 1,417 | 100.0 |
|  | District | III | Production 1 | 1940-41 Season: | 204,439 |


| Corporate | 91 | 23 | 22,842 | 993 | 35.9 |  |  |
| :--- | :---: | ---: | ---: | ---: | ---: | :---: | :---: |
| Cooperative | 15 | 2 | 3,800 | 1,900 | 11.3 |  |  |
| Independent | 60 | 11 | 14,604 | 1,328 | 31.7 |  |  |
| Partnership | 35 | 9 | 13,653 | 1,517 | 21.1 |  |  |
| Total | 201 | 45 | 54,899 | 1,220 | 100.0 |  |  |
|  | State Total |  |  |  |  |  |  |
|  | Production $1940-41$ | Season: | 807,344 |  |  |  |  |


| Corporate | 396 | 102 | 345,709 | 873 | 42.8 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Cooperative | 101 | 54 | 143,002 | 1,416 | 17.7 |
| Independent | 153 | 20 | 193,124 | 1,262 | 23.9 |
| Partnership | 98 | 31 | 125,509 | 1,281 | 15.5 |
| State Total | 748 | 207 | 807,344 | 1,079 | 100.0 |

SOURCE: Oklahoma Corporation Commission, Cotton Gin Season of 1939 and 1940, Agricultural Adjustment Administration, Production By Counties, and 217 Schedules taken for this study.

1/ Total ginning, average bales ginned per gin, percent sold in seed and percent custom ginned is based on the 207 schedules. State totals for this items weighted by Agricultural Adjustment Administration production records and adjusted to sample gins by districts.

2/ Percent of ginning is besed on sample gins.

Sorman's classification of corporate gins would include "line gins" owned by a corporation and corporations who owned less than three gins. A comparison of the percentage of gins operated by corporations in the two stuades would indicate that there are only a few gins operated by corporations as a single gin unit and only a fow individuale operating more than three gins. The cooperatives in this study include all gins owned by farmers; this might include some gins that are not true cooperatives as defined in the 1919 Cooperative Corporation Law. The partnership gins in this paper include partnerships between corporations and individuals and between individuals. While the "other" as classified by Soxnan included partnerships between corporations and individuals and gins in the hands of receivers. The independent gins in this paper would include gins in the hands of receivers provided they were controlled by an individual.

When corporate owned gins and partnership gins for the four-year period, 1929 to 1932, are compared with 1940-41 and allowance is made for the difference in classification, there seems to be a trend away from partnership of individuals and corporations to out-right control by the corporations. This is probably a result of corporations taking over gin plants during the short erop years between 1932-1939 that were formerly operated by corporations in partnership with individuals. These corporations contend that partnership relations are satisfactory only as long as the gins show a profit, but when the gins show a loss as most of thom have during the period from 1932-1939 the individual partner becomes dissatisfied. In this case, the corporation usually takes over the plant and hires the partner for a manager, or refinances
the partner and takes a mortgage on the gin. In either case, the corporation handles the seed bought by the ginner from the farmers which has been an important source of revenue to the gins in years of short 4/ crops.

The average bales ginned per plant for the four-year average 19291932 was 1,030 for corporate gins, 2,034 for cooperatives, 1.016 for independent eins, 1,116 for partnerships, and 1,260 for "other." In a comparison of volume ginned by type of ownership in 1940 it was found that in each district and in the State as a whole the volume ginned by cooperatives was about twice as much as that ginnod by the corporate gins. The volume ginned per gin by both corporate and cooperative was more for 1929 to 1932 than it was in 1940. This was because the average State production for the four-year period was over a million bales as compared to 807,344 bales in 1940.

The type of gin ownership, as such, seems to have little effect on the method of sale used by the farmers except for the cooperative gins. The farmers that ginned with cooperatives did sell a largor percentage of cotton to buyers other than gins than the farmers that ginned with other types of gins. The cooperative gin managers in some instances acted as the farmers agents in selling cotton as the gins did not purchase cotton.

In Jackson County the practice of cooperative gin managers acting as the farmers ${ }^{*}$ agents was used extensively. of the 12 gins operating
4) K. C. Davis, Factors Affecting the Market for Cottonseed in Local Markots of Southwestern oklahome, unpublished 血ster's thesis, Oklahoma Agricultural and liechanical College, 1941, p. 95.
$5 /$ Soxman, Op. cit., p. 93.
in Jackson County in 1940, seven gins did not purchase any cotton except as "remnants," 11 of the 12 operating gins purchased less than 20 bales of custom gimed cotton. This left only one cooperative gin in the County that bought any appreciable amount of cotton, However, 36 percent of the cotton sold by farmers was sold by the gin managers who acted as the farmer's agent. To use the gin managers' term, thay "peddle" the cotton and return the farmer the amount received less handling charges.

Although the type of gin ownership had little effect on the farmers ${ }^{\text {F }}$ method of sale, it wes largely responsible for the method of sale used by the gins. The corporate gins sold 100 percent of their sales through their own sales agencies in three sub-districts; 85 to 95 percent in four sub-districts; 65 percent in ene sub-district; and 41.6 percent in the other sub-district. (Appendix Tables 1 to 9). The corporate gins, in most cases, pooled all of the cotton purchased by individual gin units and sold the cotton through the corporate sales agency.

The corporate gin managers purchased the cotton from the farmer and notified the company that they had purchased the cotton at a specific price and later forvarded the samples to the sales agency. The cotton was then concentrated in various compresses and resampled. These compress samples were sent to the corporate sales agency where cotton elassers classified the cotton and placed the bales in even running lots (for crade and staple). The cotton mas then offered for sale, ef ther on the companies own tables or through brokers in large spot markets.

The cooperative gins usually sold some cotton to the 0klahoms Cotton Growers Association but most of it was sold through brokers or to
independent and f. O. b. buyers. The gin manager ueually bought cotton for the Bin and sold as he saw fit.

The independent gins sold principally through brokers and to independent and f. 0 . b, buyers. In four of the nine sub-districts, 100 percent of the cotton purchased was sold through brokers or to f. o. b. and independent buyers. In the other five sub-districts, 50 to 85 percont was sold through brokers or to buyers and direct to mills. (Appendix Tables 1 to 9). A few bales were sold through the Oklahoma Cotton Growers Association. Direct mill sales were mede from the eastern section of the State.

The partnership gins sold some cotton to each type of buyor. (Appendix Tables $I$ to 9). If the partnerships were between corporations and individuals, the cotton was usually sold through the corporate sales agency. If the partnership was between individuals, the cotton was usually sold to the other types of buyers. If the gin was located in the northeastern section, cotton was usually sold direct to mills.

In District I, or western Oklahome, there were only two cases in which sales were made directiy to mills, while in the sub-district 2-C every type of gin ownership sold some cotton direct to mills. The Commander Mills at Sand Springs, Oklahoma, furnishes a market for some of this eastern cotton, but most of it was bought by out-of-state mills,

6/ The Oklahoma Cotton Grovers Association mide an advance to the gins
for the cotton then acted as a broker for these gins.
The independent buyer purchases cotton strictly on his own account, takes all risk, receives all profit, and sells cotton to the firm offering the best pride.
F. o. b. buyers usually have an account with or work for morchants or mill.s. They purchase the cotton from the gin, then drav on their firm for the price of the cotton. The broker solls cotton for a comission and does not tako poseession of the cotton.
as the Commander M111s consumed only 25 to 35 thousand bales a year. A.cording to the data in Appendix Tables 1 to 9, 84,456 bales were sold directly to mills by gins in this state while part of the cotton consumod by the Comander Mills was purchased from sellers other than gins.

Warketing Practices as Related to Parm Organization. There are certain marketing practices that are soomingly affected by the farm organizations of farms within different type-of-farming areas. The variation would depend on the importance of cotton to the farm organization as the relative amount of farmers ${ }^{*}$ incoms from cotton with respect to total farm income per farm would influence the method of sale of cotton. The percentage of farm land in cotton gives an indication of the importance of cotton to the farm organization and the amount of returns received from cotton relative to other sources of farm income. It has been attempted here to discover the effects that the percentage of farm land in cotton has on the method of marketing cotton.

Percentage of Farm Iand in Cotton as Related to Sale of Seed Cotton, Gin Purchases, Cotton that Went into the Loan and Bype of Gin Ownership. In District I with every decrease in percentage of custom ginned cotton there was a decrease in the percentage of farm land in cotton. In District II, with the exception of area 9 , increases in cotton sold in the seed were accompanied by a decrease in farm land in cotton. In District III every increase in percentage of cotton sold in the seed was accompanfed by a decrease in the percentage of farm land in cotton. This would indicate that the sale of cotton in the seed is influenced by the percentage of farm land in cotton. However, the northeastern section of the State (District II) had a relatively higher percentage of cotton sold
in the seed than would be expected in considering relative changes in percentages of farm land in cotton. In general percentage of cotton sold In seed decreased with an increase in percentage of farm land in cotion.

There is also a relationship between the farm organization and percentage of cotton sales purchased by the gins. This would seem logical because as the percentage of farm land in cotton decreased ordinarily the volume available for sale would decrease. Consequently, there would be less reason for buyers other than gins to locate in these areas than there would be in areas of concentrated production.

In District I each decrease in percentage of farm land in cotton was accompanied by an increase in the percentage of cotton sales that were bought by the gins. This would noan a decrease in sales bought by other bujers. (Table 1). In three of the areas of District II, characterized by sumall number of acres of cotton per farm, all of the cotton was purchased by the Gins, and in the other area, 97.1 percent was purchased by the gins. In District III, type-of-farming area 15, 37 percent of the farm land was in cotton, and in type-of-farning area 16 , 20 percent of the farm land was in cotton. The gins purchased 85.9 percent and 55.6 percent of the cotton sold by farmers in the respective areas. (Table 1). In type-of-faming areas 14 and $15,6.8$ percent and 7.6 percent of the farm land was in cotton and only a fraction of 1 percent of the cotton sold by the producers was purchased by buyers, other than gins. Even in these two areas the percentage purchased by buyers other than gins varied with the percentage of the famm land in cotton. There is a definite relationship between the percentage of farmer's cotton purchased by the gins and the farm land in cotton. With the
exception of licCurtain County where no cotton was purchased by the gins excopt as "remants," increases in percontages of farm land in cotton vere accompanied by decreases in percentage of sales purchased by gins.

As the amount of seed cotton sold veried inversely with inerease in acres of cotton produced per farm in different sub-districts, the amount of cotton that went into the loan would necessarily vary directly to a certain extent with acres in cotton per fam because cotton had to be custom ginned to be eligible for the loan. In District I with every decrease in percentage of cotton that went into the loan there was a decrease in the percentage of farm land in cotton. (Table 1). In theee out of four areas in Districts II and III the cotton that went into the loan decreased as the percentage of farm land in cotton decreased. In considering the State as a whole the percentage of cotton that went Into the loan decreased as the percentage of farm land in cotton decreased, except that the northeastern section of the State had relatively less cotton that went into the loan regardless of percentage of farm land in cotton.

There is a relationship between the number of cooperative gins operating in each sub-district and the place of cotton in the farm organization. District I was the only district in the State in which there was a great number of cooperative gins. Within this district the number of gins operated by cooperatives decreased when the percentage of farm land in cotton dscreased. In type-of-farming area 13, located in District III, 37 percent of the farm land was in cotton and 11.9 percent of the gins were owmed by cooperatives. (Table 1). The only other area with an average farm size of over 100 acres in farm
land or more than 10 percent of the farm land in cotton was sub-district 2-A in which 10 percent of the gins were owned by cooperatives. The other sub-districts had either smell sized fams or a low pexcentage of the faxm in cotton with none of these that had more than 2.2 percent of the gins owned by cooperatives. It would seom then that there was a tendency for farmers to own and operato cooporative gins in areas where cotton is an important part of the fam organization.

There seem to be no other relationships between the other types of gin ownership and the types-of-farming areas. If this is true, there would be no relationship between the gins' sales of cotton and types-of-farming areas except insofar as the type of faxming influenced the ownership of gins by farmer cooperatives, as the type of gin ownorship does determine largely the method of gin sales.

The variations in percentage of farm land in cotton between subdistricts were associated with sale of cotton in the seed, amount of cotton purchased by gins, the amount of cotton put into the government loan, and the type of gin ownership in the various sub-districts. In goneral an increase in percentage of farm land in cotton was accompanied by a decrease in sale of seed cotton, and increases in the amount of cotton purchased by gins, amount of cotton put into the government loan, and number of cooperative gins within the sub-districts.

The Loan Program and Marketing Practices. The amount of cotton that went into the government loan as shown in this study is more than is shown by the Comodity Credit Corporation's releases. The percentage shown in Table 1 includes cotton held by the Oklahoma Cotton Growers

Association under their "warranty agreoment, $n^{\frac{7}{f}}$ and cotton vich agencies had made loan on to farmers but which had not reported to the Conmodity Credit Corporation.

The total number of bales that went into the loan was 352,052 bales for the State as shown by this study. On May 24, 1941, the Department of Agriculture announced that the cotton loans completed by the Comnodity Creait Corporation or lending agencies amounted to 210,008 bales, of which 84,831 had been repossessed. 8 / This was about 140,000 bales less than was shown by this study. Approximately onethird of the 140,000 bales was held by the Oklahoma Cotton Growers Association on the "warranty agreement" and the rest was in the hands of lending agencies and had not been reported to the Comnodity Credit Corporation. The Commodity Credit Corporation requested lending agoncies to sond them an "advice of loan" on each individual bale, but as there is no incentive for the lending agencies to report these, they are in most ceses negligent in reporting these loans until the Conmodity Credit Corporation calls for the actual loan notes.

7 The warranty agreement allowed the Oklehoma Cotton Growers Association to make loans to farmers equal to the rate established by the Commodity Credit Corporation. If the market price went down the Association could turn these notes to the Comodity Credit Corporation at any time prior to June 1, 1941.

8/ Commodity Credit Corporation's Roport on 1940-41 Cotton Ioans, United States Department of Agriculture Press Release, Mlay 24, 1941.

9/ "Advice of Loan" is a small slip of paper attąched to the bottom of the loan note which shows the number of bales for which the note is made, the quality of cotton, and the loan price.

The farmers in western 0klahoma becane accustomed to taking a government loan on cotton in years when there was no locational difforentiation in the loan price. Before locational differentials were established in the Loan Program the loan price was higher than the $10 /$
market price in the interior cotton producing areas. The cotton in western Oklahoma was put into the loan while cotton in eastern Oklahoma continued to be sold in the seed. The farmers in the western part of the State gained temporarily a price advantage when no differential existed and continued to use this method of marketing after becoming accustomed to the rractice.

As cotton was put into the loan in Western Oklahoma buyors were forced to restrict their purchases to eastern Oklahoma during loan years. This tended to decrease the number of buyers in western Oklahoma as compared to eastern Oklahoma, which in turn would have an adverse effect on the farmers marlket for cotton in western Oklahoma in years when there was no loan available. Because the price has not advanced sufficiently and because of the fact that succeoding loan prices have not boen incroased enough to equal the accumulated carrying charges on cotton in the loan, relatively small amounts of loan cotton had been repossessed prior to the 1939 crop.

A larger proportion of the 1939 crop was repossessed because the loan rate was not as high as for past loans and the market advenced as compared to past years. Consequently as western Oklahoma put larger

[^6]Table 3. Amount of Loan and Free Cotton in Storage In wbstabe41 Oklahoma and Bastarn Oklahoma, August 1, 1939 and August 1, 1940


August 1, 1939

| Western Oklahoma | 261,943 | 59,028 | 159,893 | 40,490 | 2,532 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Eastern Oklahoma | 54,294 | 17,860 | 22,172 | 5,526 | 8,736 |

August 1, 1940

| Western Oklahoma | 148,805 | 75,084 | 64,029 | 3,678 | 6,014 |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Fastern Oklahoma | 30,851 | 18,330 | 11,652 | 847 | 22 |

SOURCE: Compiled from the individual carryover reports for Compress and Warehouse as reported to the Agricultural llarketing Service, August 1, 1939 and 1940. Western OkIahome is compress located west of Highway 77, and Bastern Oklahoma any compress east of Highway 77.
amounts of cotton into the loan, the amount in storage in western 0klahoma is far in excess of that in eastern Oklahoma. (Table 3). The amount of "free cotton" therefore, was less in western Oklahoma than in eastern Oklahoma August 1, 1939 while the reverse situation was true of August 1, 1940. This would indicate that buyers purchased less cotton in western Oklahoma than in eastern Oklahoma even when the loan was inoffective, as it was in 1939.

The presence of cooperative gins in District I has been a factor causing a large amount of cotton to go into the loan in the District as they gin approximately one-half of the cotton produced there.
(Table 2). The volume ginned is an important deterningint, of". the profit-

ableness of the gin business from operations if the gin has not been forced through competition to purchase cotton at above the mariket price. Consequently the managers of the cooperativas have encouraged the patrons of the gin to "take the loan."

The corporations operating gins in western Oklahoma preferred, or at least did not object to going into the loan while corporations in the eastern part of the State did not like to see cotton go into the loan as the cotton must be custom ginned. This difference cannot be attributed to the difference in type of organizations as the corporations in both sections of the State usually have their own cotton sales department as well as cottonseed ofl mills. The difference in attitude toward the loan program appears to be a difference in local marketing practices. When the corporate gins in eastern Oklahoma buy cotton in the seed they are assured seed for milling which is desirable for them, as seed provides an additional source of income for the cor11. porations. Therefore, as the loan program operates contrary to local marketing in this section of the State there has been a comparatively small anount of participation in the program.

In the past corporations in western Olclahom have competed for gin volume with other types of gins by raising the price of cotton at above market price. This would offset the incentive for farmers to gin with cooperative gins in the expectation of receiving patronage dividends. It has been establishod in previous studies that gins have paid a higher price for cotton than the market warranted based on

[^7]central market rices. However, it is not known to what extent increased volumo, obtained by paying high cotton prices, reduced ginning expenses to offset losses in cotton purchased. Very likely this practice did not balance losses in cotton purchased, and consequently the corporate gins in vestern Oklahoma encouraged farmers to "take the loan."

The corporations were appointed lenaing agencies for the Commodity Credit Coxporation and wrote the loan papers for fermers. They were able to give farmers the money for their cotton in a short time which was desirable from a competitive point of view. The corporate gin could secure an adequate volume of ginning for profitable operation without talcing the usual loss in cotton. The corporate sales agency usually supervised the making of loans to farmers and was in position to buy the farmers" "equity" in the cotton when and if the market advanced above the loan price including carrying charges. Hence, it was possible in this manner to make a profit in both cotton purchased and ginning operation. For obvious reasons the corporations are in a favorable position to compete with other types of gins in seed prices if this becones necessary in order to secure an adequate volume of business.

In District $I, 74.5$ percent of the production was put into the governnent loan in 1940. According to the Agricultural Marketing Service estimates of quality of cotton produced in $1940,12.4$ percent of the cotton produced in District I was too low in grade to be accepted in the
12) Trimble R. Hedges, Quality Price Relationships at Local Markets in Oklahoma, (Unpublished manuscript), p. 42.
loan. This left only 14.2 percent of the production in District $I$, Qligible for the loan, thet was sold. In District II, 14.3 percent of the cotton wes put into the loan while 91.3 percent was oligible, and in District III, 41.7 percent of the cotton was put into the Ioan whilo 95. I percent was eligible for the loan uith rogard to cuality.

The principal factors that eaused this wide percentage variation by district of cotton that went into the loan were: variations in the amount of custon ginned cotton, the attitude of buyers, toward the loan program, types of famine, quality of cotton produced, and the relation of local rarket price to loan price.

Prinary Cotton Buyors in Cklahong. During the four years, 19291932, the gins purchased 63.5 percent of all the cotton ginned in Oriahowa. In this ana period the Oklahoma Cotton Grovers association handed 16.7 percent which left approximetely 19.8 porcent purchesed 13 by other types of buyers. By 1935, 69.6 porcent of the cotton ginned. in Oklohont was purchased by gins, and the Oklahona Cotton Growers Associetion handled approximatoly 23 percent, which left only 7.4 per14/ cent for other types of buyers.

On the basis or semple deta used in this study, 94.5 percent of the cotton sold in Oklahoma duting the 1940 al season was sold to gins. The porcent sold thst was purchased by gins varied by sub-districts
 2-A and 2-A. (Table 1). This incroase in porcentage purchased by the

10/ Roy A. Ballinger and R. C. Boxman, Sone zonomic problems of Cotton Gins, Oxlehona Axperiment Station Bulletin 231, Uctober 1936, p. 65.

14/ Hedges, 0p. cit., pp. 55-54.
chas tas an effect of the loan progun as in some areas onjy the cottort Gaty mas too low in grace and staplo for the loan was sola. Congecrontty the snall volume left would not litely attract outside buyers. The Elns then are the prineipel prinary buyers of cotton in oklahomend theim jmponence as buyons has inorecsea during recont yeurs.

The Oklmoma Got on Grovers Ascociation thich was already ectabIfshed and honaling loan cotton ras able to purchase some cotton. Duning the 1980-s1 season this organization handed 5,000 balos which were deliverac airectly to the govemment loen, 38,279 bales that wore taken on a warrenty loan, and 29,600 bales in rogular association poole In adaition to this, the Ascociation purchased pamers equitios in $15 /$
57,500 bales of the $1940-41$ Ioan cotton and handled thom throwh the Association's megaler pools. Inclubing all mothods of houding, the Association hanaled aproginately 100,979 balos on 15 porcant of the cotton produced in orlahona in 1940, which was a deerease from the 23 percent handled in 1935. It should be remembered that a substemtial pax of the 13 percant handed in 1940 mes due to thetr wamenty dgreement which gave the Astociation the right to doliver the cotton to the loan at eng time prior to Tuno 1, 19el. They fere also in a fovoreble position to purchase loan eguities whoh incroczed the volupe tenaled.

Sale of Cothon in the Bead. Acoowang to the sample data, B4.5 pereont of the cotton protuced in Olslehone wes sola in the seed in 1920. (Table t). In Distaint I only 1.6 percent of the cotton was sold in the soed as compared to 6.3 percemt in Distriet III and 54.4 poreent in District IE TMis may bo partially expleinod by the gman
size of faras in almost the entire castern and sast contred setions 16
of tine state. Other factors raich seom to have a bearing on the percentece of cotton sold in the seed are custon and percentage of the farm lend in cotton.

Originally, the practice of solling cotton in the seed in eastom Oklehon appears to have been started in the carly days because or sparge production and lack of local gins. Gradually tho practice beceman acceptod custor. In recent yoarb the practice has continued and oven increased because of the general belief by both farmers and girners that it is to their advantage to soll and buy their ootton in 17/ this mannex.

Muctuation in the percontage of cotton sold in the seed from year to gear likely resulta from weather conditions in the various aistricts of tha State as thay influence the number or remants in the oroy and conditions under thich the erope are harvested. 18/ Tho volume of cotton sold in the sead tor the State would vary with the relarive amonnt or cotton produced in the respective districts. It seans that the crop reduction program has caved nore less-than-bala-loads, which would cause a larger percentege of the cotion to sell in the seed while loan progran adds a now incentive to custon gimed cotton. Foitanty more low-than-bele logde since the crop reduction progran has move than off. set the sffect of the loan as the ralative aravant of cotton sold in the
 homa, " Curpont Tarm Bconomics, Vol. 12, Ho. 1, February 1959, p. 25.

17/ Jippert S. Dilis, A. W. Dickson, C. O. Hewhorter, The Bele of Cottot in the Soed in Onchoma, Ollohoma Reperimont Station Bulletin Fo. 219, 1.64.

18/ Kitl and Nelton, On. git. D. 26.

Table 1. Pereontage of Cotion Sold in the Soed in Orlahona, 1932-35 through 1936-37 as Compered to Serple Data 1940-41

| Year | : | $\begin{aligned} & \text { Cotton } \\ & \text { Ginned } \\ & \text { (Ralos) } \end{aligned}$ | : | $\begin{aligned} & \text { Pereant } \\ & \text { Sold } \\ & \text { in Soed } \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 1932-33 |  | 954.715 |  | 20.7 |
| 1953-34 |  | 1,069;097 |  | 18.1 |
| 1034-35 |  | 288,280 |  | 25.6 |
| 1955-36 |  | 533,574 |  | 17.6 |
| 1936-57 |  | 880,405 |  | 28.4 |
| 1940-41 1 |  | 807,344 |  | 24.5 |

Sodrd: Warjorto Fill and Peter Wolson, "Cotton Sola in Seed in Oklahoma," Gurrent Eamm Bonomics, February 1969, Wol. 12, No. 1, p. 22, table 6. Takon fron indvidual gin roports filed with The State Corporetion Comisstom, Onlehoma City.

I/ beles produced mon mble i.
seed was moze in 1940 thon rould be axpected whom the other frotors arrecting tho sale of coton in the seed ave considered. (table 4).

Sumery. District I had the lemgest avorase sized fanm, and tho hichent percontage of: farm land in ootton, of cotton that vent into the loan, of cotton ouston ginned, and gins operated by cooperatives of the three distriots shom. Distriet II was cheracterized by suall salfsufficine fams end sxay acreages in cotton por farm. Tho distriet had the lowest percentage: of cotton euston gimed, of cotton that wont into the loan, and of gine operated by cooperatives of the thras districts. District III was imtermediats to Districts I and II with regard to both maxieting practices and farming conditions.

In addition to the variation in marketing prectices in the diffexent diatriets it pres found that slenlar marketing practices oxisted in
similar type-of-faming areas. Conversely diferent markoting practicos were used in aiferent typo-of-faming aroas. Acreage in cotton par farm soons to be the predominant iactor affecting marketing practices botween type-of-parming areas.

The type of gin omership had little offect on the farmer maricetins practices but did largely detemine the mothod of gin sales.

The prineipal factors that eaused the wide variation in amount of cotton that ment into the loan were the anomt of cotton custom ginned, buyers' attitude townerd the loan progran, acres in cotton per farm, and the wolation of local narket price to loan price. In Districts $I_{\text {, }}$ II, and III, 74.5, 14.3, and 43.7 percent of the cotton produced was put into the loan in tho rospective districts.

The gins rere the prineipal priary buyere of cotton in Oklehoma and their importence as bwers has increased in recent years. Tho two more prevalent rethods of sale used by the famers vere the sale of bele cotton and seed cotion to gins.

##  

Two prevalent marteting practices affocting tho farmexs' income fron cotton soles are the selling of lint cotton alyectly to the eins and solling cotton in the seed before it is ginned. wis chaptor will attempt to show how and wh thass two marketing practices afrect the famerst returns frot the salo of cotton.

Voluae of Cotton Gtined as Related to Seen Cotton Prices in District II. In individual countios in District II with few arceptions the price for seed cotton increased or decreased directly with the voluae ginned. (Table 5). The instances in which the average price did not increase or decrease in relation to volume ginnod vere either in pariods bofore the peak of the ginuing season or for the period fecembar 1 to Decenber 15. The docreass in volume ghned which occurred during the period Novembor 15 to Wovenber 30 was caused by heavy rains. This caused the tolume to decrease during the period and the grades of cotton to be cousiderebly lower during the following poriod which vas reflocted in the price paid farmors for sood cottor. Tho highest priess paid famers occurred in the periods berore the neriods of lergest volune gimed in six counties. In four or these counties the period on largest volume ginned was fron octobsr 16 to Octobor 31, while the poriod for the largest volune ginned for the total of all counties was October 1 to October 15. Table 5). The gins in these four counties would have hed to koop their price about in line with their competitors in othor courties or olse famers mould have hauled their cotton to other owntios.

Table 5. Totel Ginning, Beles and Percentage of Cotton Sold in Sood, Average Price of Soed Cotton and Bales Ginned for Specified Counties in District II, herace pice and Brles Ginned for Counties Ginning nore Counties Giuning Less men 300 Ba es and Avance 10 Spot maket Quotaions
for Middling $7 / 8$ Inch Co iton for 15 -Day Periods During the 1340 Season

 release on girnings and Agric ltural Arketing Service Releases on prices
1/ Ginning price to January 16, 1941, Bureau of Census reports.
2/ Average is weighted by volume ginned for period.
3/ "Group B" Counties: Pittsburg, Osage, Mayes, Payne, Lincoln, Sequoyah, Haskell, and Hughes oach had less than 8,900 bales sold in the seed in 1940 .
4/ "Group A" Counties: Creek, Wagoner, Okfuskee, Oknulgee, Muskogee, and cintosh each had more than 8,900 bales sold in the seed in 1040 .
Seed cotton price dota were insufficient for the other countios in Disirict IT

If it can be assumed that gins can pay more for seed cotton with an increase in volume of ginning, gins with a small volume would want to increase ginnings in order to be in the market. This would be another incentive for the gins to pay higher prices for seed cotton for periods preceding the peak of the season. Some of the gins would tend to put the price of cotton high before the crop started moving to market In order to encourage farmers to market at their gins. If one gin increased the price of seed cotton the rest of the gins would be forced to raise the prices in order to compete for a share of the ginning. It is evident that in District II during 1940 the price for seed cotton varied directly with volume ginned except when gins varied prices to attract customers or when there was a marked change in cotton quality.

For both "Group A" and "Group B" counties, the volume of ginnings and average price paid farmers for seed cotton increased or decreased at the same time except in the period December 1 to 15 which had a larger volume and lower price than the preceding period. The farmers in Group A counties received a higher price for seed cotton than farmers in Group B counties.

Relation of Seed Cotton Prices to Average 10 Spot Market $P_{\text {rice. }}$ It is evident that the price variation for seed cotton in District II was not caused by variation in the price for cotton in the 10 spot markets. In fact, with one exception for the season 1940 the price paid farmers for seed cotton in District II varied inversely with the average 10 spott market price for white midding $35 / 16$ inch staple cotton. (Table 6). It would be possible for the price of seed cotton in local markets to be based on the 10 spot market price for midaling $15 / 16$ inch staple

Table 6. Relation of Seed Cotton Prices to Average 10 Spot Market Prices and Loan Price with Adjustment for Quality of Cotton Produced in District II, 1940 Season

| Date | :Price of <br> : Seed <br> : Cotton <br> : Per <br> : Pound | : Average 10 Spot: : Market Price : For Middling : a White 15/16 Inch: :Stanle Per Pound: | Average Lo Value of Lint 9.40 Bas1s 17 | : Average 10 Spot : Market Price for : Cotton Produced <br> : In District II <br> - In |
| :---: | :---: | :---: | :---: | :---: |
| Sept. 1-15 | 3.01 | 9.51 | 9.11 | 9.22 |
| Sept. 16-30 | 3.22 | 9.45 | 9.08 | 9.13 |
| Oct. 1-15 | 3.30 | 9.40 | 9.19 | 9.19 |
| Oct. 16-31 | 3.16 | 9.35 | 9.26 | 9.21 |
| Nov. 1-15 | 3.04 | 9.54 | 9.11 | 9.25 |
| Nov. 16-30 | 3.01 | 9.77 | 8.80 | 9.17 |
| Dec. 1-15 | 2.91 | 3/ | $3 /$ | 3/ |
| Dec. 16-31 | 2.79 | 3/ | 3/ | 3/ |

SOURGE: Compiled from seed cotton prices from 23 gin reports on seed cotton prices, Agricultural Marketing Service releases on cotton prices and cotton quality.

1) The loan price for middling white $15 / 16$ inch staple in Muskogee, 0 klahoma was 9.40 cents per pound adjustments were made for quality by applying loan premiums and discounts for quality to cotton produced in District II as reported by the Agricultural Marketing Service. Discounts show by the Agricultural Marketing Service for Little Rock, Arkansas were used for grades too low to be accepted by the loan program.

2 Same as Footnote 1 , except that premiums and discounts for quality were adjusted for 10 spot market average for middling white $15 / 16$ inch cotton.

3/ Cotton quality was not available by periods.
and still have this. inverse relationship provided the quality of cotton varied accordingly. However, according to the Agricultural Mariceting Service, the quality did not vary enough to account for the difference in price relationship. When adjustment was made for the quality produced in District II the price paid for seed cotton did not vary with the loan price or the 10 spot market price except when there was a marked change in quality. As the price paid for seed cotton varied with the volume ginned and not with the average 10 spot market for lint cotton, it is likely that price paid for seed cotton depended largely on the volume ginned per gin.

## Causes for Direct Variation in Seed Cotton Prices with Volume

 Ginned. The tendency for seed cotton price to vary with the volume ginned may be explained by the nature of the cost of gin operations. As the volume ginned increases the cost per bale for ginning decreases. About the only cost that varies directly with the volune of ginning is the cost of bale covering and possibly power cost if electricity is used.Soxman in his study of the effect of volume ginned on expense per bale found that with a volume of one to 500 bales per gin the cost per bale was $\$ 6.93$ but decreased to $\$ 2.78$ per bale when the volume exceeded 4,500. The expense per bale for ginning also docreased with an increase in volume ginned per dey. The expense per bale for the class interval of 1,001 to 1,500 bales per season was grouped according to the volume ginned per day. The expense per bale for days when four to

1/ Soxman, On. cit., p. 128.
eight bales were ginned was $\$ 4.39$; and consistently decreased in every four bale interval to $\$ 3.67$ per bale for days when 20 to 24 bales were ginned. Thus when expenses are decreased by a larger volune the gins can increase prices for seed cotton. Consequently the gin that secures a relatively larger volume can outbid its competitor whose volume of ginning is comparatively small.

Seed Cotton Price Related to Number of Bales Sold in the Seed per County. Thus far in this discussion an attempt has been made to show how and why seed cotton prices in District II during the 1940 season varied with volune ginned. An attempt is made here to show that the seed cotton prices within $D_{i s t r i c t ~ I I ~ v a r y ~ m o r e ~ n e a r l y ~ w i t h ~ t h e ~ v o l u m e ~}^{\text {n }}$ of seed cotton purchased per county than with the volume of cotton ginned per county.

The criterion used for dividing the district was the number of bales sold in the seed regardless of the production for the county. The Group A counties would be counties with a relatively high production per county and a high percentage of the cotton sold in the seed. The Group B counties would include counties with a high production and a low percentage of tho cotton sold in the seed and counties with a low production and a high percentage of cotton sold in the seed. (Table 7).

The gins in Croup A counties ginned a greater number of beles per gin, paid higher prices for seed cotton, and purchased more than twice as much seed cotton as did Group B counties. This does not mean that

[^8]Table 7. Production, Average Production per County, Nunber of Gins, Bales Ginned par Gin; Bales Sold in Seed, Price of Seed Cotton for Peak Ginning Period, Comparing Group A and Group B Counties in District II 1940 Season
$\left.\begin{array}{lccc}\hline & \text { : Counties }\end{array}: \begin{array}{c}\text { Group B } \\ \text { Counties }\end{array}\right]$

SOURCE: Compiled from Agricultural Adjustment Administration Records on Production by Counties, Oklahoma Corporation Commission Gin Ownership for 1939-40, and Table 15.
gins will voluntarily increase the prices to producers when expenses are reduced by a large volume of ginning. It is likely that gins were forced to pay higher prices through competition.

The gins were sparse in counties where there was a low production. per county with a high percentage of cotton sold in the seed. The gins in counties of low production could lover seed cotton price without losing many customers, as the transportation cost to other gins would prohibit movement of seed cotton for long distances. Another reason for low price in areas of sparse population is that with small volune per gin and high cost per bale the gins would be forced to pay less for seed cotton in order to offset the higher operating cost.

It is evident that gins located in counties with low production have sufficient reason for offering low prices for seed cotton. Whe
farmers in these areas must take the price offered or make long hauls to secure better prices. The gins in Group B countios with high production could pay a higher price but with the practice of custom ginning already establishod they apparently prefor to compete for volume of ginning by varying cottonseed prices and have a supplementary income from seed cotton purchases. The price of seed cotton then is low in areas where a small volume of cotton is sold in the seed, although the reason for low seed cotton prices is different in different areas,

If this is true, the farmers returns from cotton are affected by location and marketing practices, as tho prices paid for seed cotton and cottonseed vary with the volume of seed cotton purchased pa gin. Although the ginning rate as set by the Corporation Commission supposedly allocates the ginning cost, this cost actually paid by the farmer varios with volume ginned in different areas. In eastern $\mathrm{O}_{\mathrm{kl}}$ ahoma these rates are offset when the price of seed cotton varies with the volume ginned. In western Oklahoma the gin margin in cottonseed (price ginners receive for cottonseed at mills minus the price ginners pay famers) varies with the volum ginned.

## Returns by Selling Cotton in the Seed as Compared to Custom

 Ginning. The variations in seed cotton prices with volume sold in the seed per county should reflect veriations in comparative returns by selling in the seed and custom ginning cotton before it wes sold. An attermt was made to discover the relative advantages of selling cotton in the seed as compared to custom ginning in District II for 15 day periods under conditions vifich existed during the crop year 1940-41.[^9]Data Used. The lint turn-outs used were determined by obtaining from gins the pounds of seed cotton, pounds of seed, and pounds of lint for 100 bales at 23 gins in District II. These were taken for ginnings throughout the season in order to obtain a representative sample. For example, if a gin ginned 1,300 bales, the lint "turnout" was obtained for every thirteenth bale. This lint "turn-out" would not be entirely representative because the lint "turn-out" for cotton sold in the seed was not available in most cases. In checking the sample data with several gins it was found thet the lint "turnout" per 100 pounds of seed cotton averaged about two pounds less for the cotton sold in the seed than for custom ginned cotton for the same period. That this relationship is typical is substantiated by 4/ other studies.

None of the 23 gins used had seed scales and 21 of these calculated the seed weight at 60 percent of the weight of the load of cotton. The cottonseed price used was that quoted by the Agricultural Marketing Service, Oklahoma City, Oklahoma.

The price of lint cotton, except for December 1 to 31, was based on the value of cotton in the government loan. The discounts on cotton too low in quality for the government loan were those quoted by the Agricultural Marketing Service for Little Rock, Arkansas. The loan was 9.40 cents per pound for middling 15/16 inch cotton in luskogee, which is a warehousing center as well as central market for cotton in District II.

4/ L. D. Howell, Cotton Sold in the Seed in the United States, United States Department of Agricul.ture, Technical Bulletin No. 662, November 1938, p. 22.

The charge for bagging and ties was the rate set by the Oklahoma Corporation Commission. The average cost of puting cotton into the loan was calculated for 30 gins which included writing loan papers, transportation to press, shipping samples, and classification \& cotton. The volume ginned was compiled from reports by the United States Census Bureau on volume of ginning to specific dates. The quality of cotton produced was determined from the Agricultural Marketing Service reports on Cotton Quality Statistics. The price of seed cotton was taken from Table 5. The calculations for Choska cotton group were based on conditions existing in that particular locality.

According to estimates based on the above method, the farmers as a whole in District II would have had a gain of $\$ 40,853$ by consistently solling in the soed from Septomber 1 to December 1 . Those farmers could have further increased their income from cotton by 1777,732 in using the seles method that offered the greatest net retum per bele for the specific periods. (Table 8). The farmors, however, did not use the alternative that offered the greatest net returns. For the periods September 15 to 30 and October 1 to 15 the farmers who produced an average quality cotton would have received a net gain of $\$ 0.70$ to $\$ 1.28$ per bale for the respective period by selling in the seed. With these exceptions it would have been more profitable to custom gin until. December 1.

FactorsAffecting Comparative Roturns for Solling in Seed or Custom Ginning. As the variation in seed cotton price is the only factor affecting the comparative returns from selling seed cotton or custom ginning the other factors that did affect these returns should be shown.

By l5-Day Feriods of District II During the 1940-41 Season

| Date | $\begin{aligned} & \text { : Average } \\ & \text { : Lint } \\ & \text { : Turn-Out } \\ & \text { : } \end{aligned}$ | $\begin{aligned} & \hline \text { : Avarage : } \\ & \text { : Pounds : } \\ & \text { :Necessary: } \\ & \text { t: to Make a: } \\ & \text { :478 Pound: } \\ & \text { B Tale } \end{aligned}$ | Seed Weight Per Bale (Pounds) | $\begin{aligned} & \text { : Average : } \\ & \text { :Loan Value: } \\ & \text { : of Lint } \\ & \text { : } 9.40 \text { Basis: } \\ & \text { (Cents Per: } \\ & \text { ( Pound) } \end{aligned}$ | $\begin{aligned} & \text { Price } \\ & \text { of } \\ & \text { Seed } \\ & \text { Per } \\ & \text { Ton } \end{aligned}$ | : Value: <br> : of <br> : Lint <br> : 478 <br> : Pound <br> : Bale | $\begin{aligned} & \text { Value } \\ & \text { of } \\ & \text { Seed } \\ & \text { Per } \\ & \text { Bale } \end{aligned}$ | $\begin{aligned} & \text { : Total Bale: } \\ & : \text { Value of } \\ & : \text { Custom } \\ & : \text { Ginned } \\ & \text { Cotton } \\ & \text { : (Dollars) } \end{aligned}$ | : Price : : of $:$ : Seed : :Cotton : : Per : :Pound : | Total Bale Value of Cotton Sold <br> in Seed | : Total Per: Bale $:$ Expense $:$ Custom $:$ Ginned : | : Net Value : : of Custom : Ginned : Cotton : (vollars) | Average Gain <br> or Loss By <br> Custom <br> Ginning <br> (Dollars <br> per Bgle) | Total : Ginning District: II $\quad$ (Bales) | Total <br> Gain or Loss By Custom Ginning (Dollars) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| September 1-15 | 33.56 | 1,424 | 854 | 9.11 | 19.00 | 43.55 | 8.11 | 51.66 | 3.01 | 42.86 | 5.99 | 45.67 | +2.81 | 5,650 | +15,876 |
| Septeraber 16-30 | 33.26 | 1,437 | 862 | 9.08 | 19.00 | 43.40 | 8.19 | 51.59 | 3.22 | 46.27 | 6.02 | 45.57 | -0.70 | 48,713 | -34,009 |
| October 1-15 | 32.78 | 1,458 | 875 | 9.19 | 20.50 | 45.83 | 8.97 | 52.90 | 3.30 | 43.11 | 6.07 | 46.83 | -1.28 | 74,703 | -95,620 |
| October 16-31 | 32.52 | 1,470 | 882 | 9.26 | 20.50 | 4.26 | 9.04 | 53,30 | 3.16 | 46,45 | 6.10 | 47.20 | +0.75 | 61,792 | +46,344 |
| November 1-15 | 30.88 | 1,548 | 929 | 9.11 | 22.00 | 4.05 | 10.22 | 53.77 | 3.04 | 47.06 | 6.30 | 47.47 | -0.41 | 53,379 | +21,885 |
| Novenber 16-30 | 31.53 | 1,515 | 908 | 8.80 | 22.00 | 4.0 | 10.00 | 52.06 | 3.01 | 45.60 | 6.22 | 45.34 | +0.24 | 19,839 | + 4,761 |
| December 1-15 | 29.54 | 1,618 | 371 | 8.50 | 23.20 | 40.63 | 11.26 | 51.89 | 2.91 | 47.08 | 6.47 | 45.42 | Total Los | s by |  |
| Decenber lô-31 | 31.65 | 1,510 | 906 | 8.50 | 23.20 | 40.63 | 10.50 | 51.13 | 2.73 | 42.13 | 6.21 | 44.02 | Custora Gi | nning | 40,853 |

Table Ba. Average Price Received Per Bale for Cotton Sold in Seed in District II, Group A Counties, Group B Counties, Choska Bottom Community; Net Value of Cotton Based on Loan Value for listrict II, and a Choska Bottom Community, Average Gain or Loss By Taking Loan or Selling in Seed for District II, Group A Counties, Group B Counties, and Choska Bottom Community by Periods for 1940-41 Season

 Credit Corporation and Cotton Quality Statistics as reported by the gricultural Marketing Sorvice.

* Cotton Quality not available for periods.

The inportant fectors that caused it to be proftable to sell in the seed for one 15 -day period and custon gin for anothor ars indicatod in Table 0 . The average lint turn-out was decreacing as the season advanced. The nice of cottonseod was tnereasing throughout the season and the pounds of cottonseed per bale of lint cotton were increasing (as colculated by the fimer). The cost of ginning mas ineroasing as the lint tum-out decreased. The seod cotton mice followed the volwno of giming more than it did the value of lint cotton based on quality, consequently the price orfered for sead cotton aid not accurabay refloct tho demand ror cotton or seed. Assuming stable seed and cotton prices, the decreacing lint turnout should canse a decrease in the market price for secd cotton. It seans, howavar, that lint turn-out Was given very little consideration in astablishing soed cotton prices to famers.

For this soasom the sead weight, as calculated by the gins, and seed prices rere increasing, which would partially of iset the decroasime lint turnout. The value of soed increased from ${ }^{\text {per }} .11$ por bele in the first part of September to $\$ 21.26$ per bale in the astly part of December an increase of ${ }^{2} 2.15$ per bale, while the decroase from lower lint turnout for the samo period would have amountod to $\% 6.00$ per bale.

The quality of cotton in District II renained ebout the same fron the beginning of the soason until the last 15 days in Movember when thero twas a marked decline in quality. (Table 6). This does not mean, hovever, that the quality was uniform until the last of Noverber. The grades for cotton lowered as the seasom advanced wilo the staple length was longer as the soason adranced. (Table 9).

Table 9. Ruality of Cotion Pioduced by 15 Day Pexiods for District II In 1940

|  | Tota1:1 $\vdots$ $\vdots$ | $\begin{aligned} & \text { Grade } \\ & \text { Middin } \\ & \text { and } \\ & \text { Above } \\ & \text { nite } \end{aligned}$ | $\begin{gathered} \text { Sin Perce } \\ \text { e: Strict } \\ \text { : Madin } \\ \text { :and Rolot } \\ : \text { White } \end{gathered}$ | $\begin{aligned} & \text { : M11 } \\ & \text { :Golored } \\ & \text { : Grados } \\ & \text { : } \\ & \hline \end{aligned}$ | Stapla $:$ Total: $: \quad:$ $: \quad$ | $\begin{array}{r} \text { Lonet } \\ \text { So/52 } \\ \text { Inch } \\ \text { Shorto } \\ \text { : Shor } \end{array}$ | $\begin{aligned} & 1 \text { in } \\ & : 15 / 16 \\ & : \text { and } \\ & : 31 / 38 \\ & : \text { Inch } \end{aligned}$ | $\begin{aligned} & \text { cent } \\ & \text { ines } \\ & \text { and } \\ & \text { iong } \\ & \text { er } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Prior Sopteraber | 100.1 | 54.1 | 44.8 | 1.1 | 100.0 | 14.5 | 69.9 | $15 . \%$ |
| septamber | 100.1 | 50.0 | 44.3 | 5.8 | 100.0 | 31.7 | 54.9 | 13.4 |
| October 1-17 | 100.0 | 49.4 | 44.8 | 5.8 | 100.0 | 8.5 | 51.3 | 40.2 |
| Octobor $18-31$ | 100.0 | 49.8 | 44.5 | 5.7 | 100.1 | 6.9 | 50.1 | 43.1 |
| $\begin{aligned} & \text { November } \\ & 1-13 \end{aligned}$ | 99.9 | 41.23 | 55.1 | 5.7 | 100.0 | 10.2 | 58.8 | 31.1 |
| $\begin{aligned} & \text { Ioveriber } \\ & 14-30 \end{aligned}$ | 100.1 | 16.1 | 76.4 | 7.6 | 100.1 | 5.0 | 55.8 | 39.5 |
| Decomber I/ |  |  |  |  |  |  |  |  |

Sourca: Compiled from periodic release on ginnings, Bureau of Consus and the Cotton Cuality Statistios, Agricultural Marketing Service.

I/ Statistics not apailable by periods.

The principal factors which cased it to be profitable to sell cotton in the sood in one poriod an custor gin cotton in another for 1940 were variktions in lint tum-out, seca turn-out, quality of cottonseed, cotton priees, and seed prices.

Tarigtions in Retams fron Cotton Salos hithin Disteict II. The district was duidod into "Growp $A^{n}$ counties which an In moxe than 0,900 balos in the sced and "Group $B^{*}$ comtion which sola less than Q,900 bales in tho seed. In Group 3 connties there was one $15-\mathrm{day}$ period in which it mould have bean moritabla to soll cotton in the
sobd. During the period preceding the park of the ginaing season the ce ixmers would heve gained 80.40 por balo by selling in the seed. (Table a). In Group is countios the famers vould have gained 0.99 par bsle for the period September 16 60 30 , and SE. 16 per bale for the period Ootober 1 to 15 by sellioe in tho sood. A11 of tho geins mede by selline in the bead were durine or dinectly preceding tive pock giming period. For the remander of the season it mould heve bean mone profitable to ouctor gin cotton and put it into the loan. For the entire season the famers in Group B counties wuld havo geined more by custon eimine than farmers in Group a coumbies.

The Choska Bottom Group as show in Table sa was ocganed ad a cotton improverment association located in wagonew oonty. The sead cotton $\boldsymbol{p}$ ice and lint turn-out was hither; the transportation cost to worehouse and cost for making out loan papers for cotton was higher than for District If as a wole, The price for seed cotton was high evidently because tho conounty prodnced better than average octon. Hyon with the relativaly high price for sead cotton the famar moll have gained an appreciable anowt by custon giming provided he took the loan. The gain in fevor of custon grning and putting cotton into the loan in Choska Boton thas fron an average of 4.80 por baie for the period October 1 to 15 to an aperace of $\$ 5.34$ per bale ror the period Novembor 1 to 15 . The total income per bale for famers in Choska Bottom over the average famer in District II would have been substantially inereased ovor the above figures as seod cotton prices wore higher in Choska Eottom than they wero in the district as a whole.

The farmers in Choska Botton have thereased the lowi of sead cotton prices to above that of the average for District II by ingrovIne the quality of the cotton, while sove fawars in the group hove increased their income furthon by custon ciming and putting their cotton into the lom in 1940. However, there were specitic daye mithin the $15-\mathrm{day}$ perions that rould heve been more profitante to sell coton in the seed becanse of price pluctuations in sead ootton.

Determinents of Proftableness on Selling Cotton in the Seed. It
is impossible then to detarmine whether or not it is profitable to sell cotton in the seed without knowing the oristing conditions. For a short period of time the profitableness or unproftableness of selling sotton in the seed depends upon the valus of the farmers tire spent in each thod of sele, tha lint turn-out, quality of lint, seed secured from the seed cotton, and the relationship of price paid for the aifferent quallties of seed cotton, seed, and lint. Oter a long poriod of time
 to which those price relationships are in accondanee with the ultinate dgnand for the diferent gualities or seed cotton, lint, and cottonseed. It is obvious thon that the practice of selline cotton in the seed, as such, is not mprofitable to pamers. Hovevor, the selling of seed cotton "hoe round" as it is done in eastern Ochehome will be propitable to farmers producing less than average quality cotton for a short poriod or time. It will be unproritable to famars producins better than average quality of cottom at all times, provided the seed cotton prices are based on nexkot domand.

Stnce the farmers have no incentive to produee high cuality, the Quallty of cotton would probably be lowered. If the domand were foz
high quality cotton the "hog round" price mould likely be lovered as the quality lowered. In this manner the producer of low quality coton even when aelling "hog round" would tend to decrease his income fron cotton over a period of tinc.

Effects of Gins Buyinc Bols Cotton on Farmers' Returns frot Aale of Cotton. Another practiee affecting the farrers' returns from cotton that has recoived considerable coment is that of buyine bale cotton by the gins. Barly studies show thet there wexe enomous gains in handing Oklahome cotton and that the price paid famers was not basea on the quality of cotton. Theso stulios indicate that gins were less inclined to buy on quality than some of the other types of buyers. It is logical to believe thet it is dirficult for gin buyers to buy on quality as the gins generally cleim that it is imposaible to buy strictly on quelity and suill heep their gin custoners. Mis, hovever, is not sufficient evidence to contend that the practice of gins buying cotton, as such, is objectionable at the present time.

It seoms that gins which are necessary in processing tha cotton should bo ablo to purchase cotton as efficiently as other buyers. They can and in some instances to pay more for cotton than the market malue and thereby recesto less than the alloted ginning rates as established by the Oklahona Corponation Comission.

A study mado in price relationchips in gin marets for 1935-36 and 1956-57 indicates sone tendeneies in sin buyors pricing policios. It has been found that the sproad betwoen the local and central market

5/ J. W. Fiddeton, Cotton Kaketing in Oklahom, Unpublishoc Mester"s thesis, Oklahom Agricultural and Fechanical Colloge, May 1925, 7. 60.
prices for cotion of white niading $7 / 8$ inch staple was insurfietont to cover handing cost for the cotton from tho local to the contral martat. The average spread ror the $1935-56$ season was 42 points; in the 1936-57 soason it was 81 points for the same days. The minimun onount hecessexy to cover handing charges irom the locei to central market durine these two seasons was approxinately 111 points. The ramers producins midaling $7 / 8$ inch cotton received more per bele by selling it to eins thanthey would have received by selling to other types of buyers.
fino local narket promiuns and discounts for grade were in the same direction as those in central werkets but thoy wore smallor than those in entral narisets. The total underpayment failed to ecual the ovargymont for grade which caused the gin to sustain a loss as far as grades were concemed. Theee conditions were true for both years. The stody indicates the same tendencies with rogara to staple lencth, oxcept that thore was no consistont similariby betwoen gualiby-price relationchip for staple at local markets and those at central markets for either season. The price ror cotton shorter than $7 / 8$ basis was too hieh relative to loneer basis staple, while longer cotion mas too lout.

It seems that the practice of gin buying cotton is objectionable bacause the Pamers do not receive prices on the basis of grenium and diecounts por different grades and staple langho as ostabliched in the central merfets. Phis mactice, hovever, woula not necessarily be

6/ Hedges, Op. cit., Pp. 10, 20, 42, and 45.
inherent with gin buyers. As the spread betwoon loeal and contral manst price was insurifieient to cover handiry chargo to central markets and cins sufferod a lose in total rayment for grade, the farmors as whole did receive more by selline to cin buyers than they would have hod they sold to other types of buyors.

Surnary. It was found that in District II in 1940 the price paid famers for sead cotton teried directly with the wolma finnod except Fino ginc voried pricos to attract customers or when there was a marad change in cotton quality. This was made possible beause gin operation cost por bele aecreased as the volune ginned inoreased. Consecuently the sin that socures a relatively lase volume to gin ean outbid its comptitor wose voluns is relatively small.

The return to femmers for seod cotton is affected by the volume ginned an tho marketing prectices existing in the locelity in which ther gin. Famers locatad in areas wera a lazge volwne of coton was sold in the seod received more por bale for cottor than farmers in areas where a small volum of cotton was sola in the seed. fyerage sced cotton prices were higher in areas mere the guality of cotton producad was bettom then avarage. For District II in 1940 the fomma received nore per bale by selling in the sced for the 15-day pexiod preceding the poak and the peat of the ginning season than they would have had tiney custom ginnod and took the movernment loan. Tor the remainder of the season, mill Decenber 1, they would have receivad more by custon ginning provided they took the government loan. There were specific commitiec in hich it moula have bean more profitable for all the 1E-day periods to oustom ein. Howover, thene mere specifie
days within the 15 -day period when the retwn would have been nore by selling in tie seod.

As the elns gaid higher prices for bale cotton than other type of primary bwers could have puid, the only objection to cin buers is that they do not pay pronium and discounts for grade and staple lengths that are guoted in the central markots. The objection to ginst buyine seed cotton is thet cotton was not purchasod on the besis of quelity, consequently farmers producing hich cuality cotton wore penalized which would preclude any attempt to improve cotton quality in areas where seed eotton purchases were prevelent.

The purposa of this chapter is to axplain classirication and market ners sorvice made available to organized cotton comuatios by the Smith-Doxey act and to detemino wether or not it has accomplishoe the purpose for which it was intended.

If the number of orconized one-variety cronps can wed as a messure of results, the snith-Doxey bet has accomplished the purpose for mbich it was interded. The organiza groups increased in muber from 10 in 1938 to 140 in 1940. Who such interest has bean shom by farmers in cotton inproverant oy commity production aines tho idea Wes conteralatod by Cook in 1911. Stuates made regarang one-varioty comanty probuction berore the free classifiestion and maxket news sorvice was made avaleblo indicated that the comanitios wore produciat better cotton, but that thene ons-vaxiety or cotton inprovonat comma itios received lass than half the Iremium the quality warmanted based on central maricet cuotations* Consequently, as the farmer did not roogive payment on the besis of quality of cotton produced there was little inemtive for famers to ongange to improve cotton.

Requirengets Necessary to Recoive classing Bervice and purposa of Service. Therg is a distinction between "organized groups" oligible for froe alassipication and "one-variety commitios" as described by

If Roy A. Ballinger and Glyde 0 . Howhorter, "Rasults hohleved by OnoToxiety Commaities in Oflehoma," Curnent Tam Geonomics, Wol. 7, W. 4. Aaguat 1934, y. 71.
the Bureau on Plant Ingustry. In the "one-variety commaties" the whole of one area grows oniy one varioty. Tha producers must provent cross-pollination between cotton, and the flelds are inspectod and passed upon by the state Gan Tmprovanont Agsociation. Aill of these comunities are oligiolo por elasmification service prowided thoy meke the proper application for the semvice.

There are in adidtion to these comunities, howover, other prom ducers figible fon the elsestication service. Two or more producers can agree to plant eny of the many varletics and by forming a bone fide organiration can receive the classification on all tho cotton they moduce. The fgrioultunal ramoting service (the ageney designated to furnich the classification and maxlest nems service) had made no attompt to salect variety and will approve axy wariety for classification provided the emop rakes proper application.

To qualify for this service the cotton erowers mat form an organtzation having as one of its purposes tho improvenent of the cotton Eroun by its monbans. The members mint adopt a variety and make arrangem fents with the gin to efn cotton for the mombers in such a rannex as to provent mixing of the varietios jntomed for planting purposes and to tako reasonable procautions with ginning to prevent or minimize miving of the lint with other varioties. This group mast make appication for the classinication service to the herentural Wexkoting Service or告tonsion Sexvice. $\rightarrow$

In order to secure the classification the croup's represeatative is hold rasponsible for having the cottom sampled and mailed in to the classing office in onder to socure the classification. The govern-
nent pays the transportation expenses on the cotton sampes and the Bamples become the property of the eovemment. The samples are elassed by govempant cotton olessing apocialista, and the oricial classifleations for the infiviad baleo ano ralled diroctly to the producers the day the cotton is classed. The group reprasentetives rox ach gronp receive a classification shect on all the cotton sent in by the growp.

The price intomation furnished by the mavet news sexvios consiets of the avorage spot rariwe quotations, proniam and discounts, and the future priees on that day the mice information is mailed to the growp reprosentatyos delly ank to ary famer who mates a request for the service.

The Smith-Dorey fot was passod as a result of studes beseratng conditione in local markets which thowed that local eotbon mardet prices in may casee did not accurately renlect afferenoe in fanues
 entural Pantoting Service balieved thet by fumishing classification and prices for aiferent qualities of otbon that the fames mola be able to dotormine the most prositable variety for thoir comamities.

It was anticipeted that irmars would bencert diroctly and indirectiy by the use of the free classing servies. The reruan would recoivo a diroct beneft by strengthening his bargining position in the local markot and he wold socure tndirect benerits by acting conloctivaly
2) I. D. Fotell and Iconard L. Watson, Cotton Piees In Relation to Cotton Glassification Borvice and to Quality Improvemont, United Gatos Departmont or criculture, Techimal Euletin 69 , movember, 1939. 1.1.
in assembling cotton in even-ruming lots and fron comparisong in recults obtained from different varieties. The farmors mould ovor a yoriod of yoars accumulate valuable information to assist then in planing ruture cotton improvemont prograns.

Briorly, two or more producers may organize for cotton ingrovemont and obtain the classification and market news service. The purpose of the service is to fuminh the rarmor a measure of his results and to strengthen his position in the marlet.

## Effects of Organized Groups on Oclahona Cotton Quality

Staplo Lengthe of Cotton Producod in Oklahom in 1940 Compared
with Previous Years. The quality of Oklahoma cotton was ratarlally increased in 1940, but because of the loan progran and the favorable weather condition it is not possible to meacure the oxact exteat to which organized groups have been responsible for the increase in quality produced.

Since 1028 the percentage of cotton $7 / 8$ inch staple has nevor been leas than 5. 8 poreent of the total erop in Oklahoma until 1940. (Thble 10). The average since $192 e$ has bon about 15 percent of tho total orop thile for 1940 only 2.0 percent mes lese than $7 / 8$ inch staplo. There was a similar decrease in tho poroontage of $7 / 0$ and $29 / 32$ inch staple lengthe. For the period 1928 to 1929 the percentago of cotton producod with staple longth $7 / 8$ and $29 / 32$ ineh has ranged fron 31.5 to 64.2 percent of the total crop. This thas decreased wo 14.8 percent in 1040.

The proportion of staple length longer then $15 / 16$ was inereased in 1940. Approximately 25 poreant of the cotton produced in Onlahom

Table 10. Staple Lengths of Anericas Upland Cotton
Produced in Oklahona and the Jnited States 1920-1932 Average and Seasons 1983-1940

| Year | A11 :Under: $7 / 8: 15 / 16: \frac{2}{1-1 / 16: 1-1 / 6}$$:$ Lengths: $7 / 3:$ and $:$ and $:$ and $:$ and $:$ and5 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (Pereent) |  |  |  |  |  |  |  |
| Oklahoma |  |  |  |  |  |  |  |
| 1028-1932 Average | 100 | 15.4 | 48.1 | 51.2 | 6.6 | 2.4 | . 6 |
| 1933 | 100 | 5.8 | 31.5 | 47.9 | 12.0 | 2.2 | .7 |
| 1934 | 100 | 19.1 | 64.2 | 15.3 | 1.3 | . 2 | \% |
| 1935 | 100 | 19.2 | 49.8 | 24.4 | 5.6 | . 9 | .1 |
| 1956 | 100 | 29.6 | 52.7 | 23.3 | 3.2 | .7 | \% |
| 1937 | 100 | 21.7 | 49.6 | 23.3 | 4.5 | . 8 | . 1 |
| 1938 | 100 | 13.5 | 59.3 | 57.0 | 9.1 | . 4 | $\%$ |
| 1939 | 100 | 11.7 | 60.8 | 23.2 | 4.0 | . 2 | * |
| 1240 | 100 | 2.0 | 14.8 | 45.0 | 32.8 | 5.2 | . 2 |
| (Pereant) |  |  |  |  |  |  |  |
| Onited States |  |  |  |  |  |  |  |
| 1900-1952 Average | 100 | 12.1 | 89.2 | 24.5 | 13.0 | 6.5 | 4.7 |
| 1235 | 100 | 4.3 | 35.6 | 51.6 | 15.8 | 6.5 | 6.2 |
| 1934 | 100 | 8.3 | 36.0 | 21.8 | 15.0 | 9.8 | 8.7 |
| 1855 | 100 | 12.7 | 31.2 | 25.3 | 16.2 | 8.5 | 6.4 |
| 1936 | 100 | 3.5 | 25.9 | 21.8 | 22.7 | 12.0 | 7.5 |
| 1987 | 100 | 10.1 | 28.9 | 27.6 | 19.4 | 9.0 | 5.5 |
| 1330 | 100 | 4. 4 | 17.8 | 23.3 | 25.6 | 17.5 | 8.8 |
| 1983 | 100 | 5.7 | 21.8 | 24.3 | 28.8 | 15.2 | 4.7 |
| 1940 | 100 | 2.9 | 13.1 | 24.4 | 33.9 | 20.3 | 5.3 |

SOtRGE: Fron Gurrent Fart Economics, Vo1. 13, 170. 3, Jwe 1940. p. 63, and Preliminary reparts on Grade, Staple, and tenderability of Cotton Ginned in Oklahoma and the United states issued by United States Depertnent of Agriculture, Agricultural Uarketing Service, lashington, D. C.

* Less than 0.05 of one percent.
mas $25 / 16$ and $31 / 32$ inch staple for the elaven year period prior to 1940. In $1940,45.0$ percent of the crop was $15 / 16$ and $31 / 32$ inch stanle.

The 1 and $1-1 / 32$ inch staple cotton increased from 4.0 porcent of the totel erop in 1939 to 52.8 percent in 1940 , while the inerease in parentage of $1-1 / 15$ inch staple was even more marked. (Tabla 10). In Oklahon the production of cotton definitely shifted from the shorter to the longer staple lengths.

Whon the staple lengths in Otlahona were compared with the average production by staple leneth in the United States it was found that the change from shorter to longer ataple lengti in Okjehom was more pronounced than for the United States as a whole. The Orlahora production or staple lengths 1 inch and longer increased fron average of about 7 perceat of the total production for the eleven years preceding 1940 to 38.2 percent of the total production in 1940. (Tebla 10). The United States production of these staple lengthe was approxinately 36 percent for the oloven year period and 59.6 percent for 1940 . For the first time since boginning on an adequate recorded estimato of cotton guality, Olelehon compared favorably with the United States as a 解ole.

Guality of Cotton Produced by Organized Grouns Compared to the State as ehole. That iavorable neather conditione are not molly rasponsible for the increase in staple longth produced in Orlahone is shown when the quality of cotton produced by orenized croups is compared with the quality of all cotton produced.

For the 1959 erop year in Districts I and III the organized groups had a sumilem percentage of cotton clasiditad in ovaw staple elasci-

Table 11. Percentage of Cotton Froduced by Steole uengthe
For Orgenized croups and Districts, 1959 and 1940


SOURCR Compiled from individum reports on cotton Quality Statistics and organzed groups gina as rem leased by the Agrioutural itheetine Seryice. The 1940 crop estimete is as reported by Agricultural Marketing service.

1 Leas than 0,05 or one percent.
fication $25 / 32$ and shortar then was shom for gredo and stonle aistricts in thich they wore located. The onganized groung had a laxger percentsge or cotton in avery stapla classification 15/16 and longer than the districts in mhich they vere located. (Table 11). With fer exceptions the same situation was true with regard to District II and the State total.

For the 1940 erop gear in District I the organad groups had a siniler percontage in overy staple classinication of $31 / 38$ and whorter than was show for the grade and staple district in which they wore located. The organized groups had a larger percentage for every stapla classification 1 inch and loncer. (Table 10). The same relationship existed in Districts II, III $_{\text {a }}$ ad for the State total except that in both districts ena in the State less than 1 percent more cotton was elassified as less than $7 / 8$ inch staplo for the organized group then was ghown in the districts and State as a whole.

It is interssting to note that District $I$, fhich was formerly hnown as a short strple area, had 40.7 percents of its production classed as 1 and $1-1 / 32$ inch staple in 1940, the highost parcentage shown in any distriot. This district has by Par the largest numbe of organized grouns and in 1940 it compared favorebly with the other districts. For that year in. Districts I, II, and III the average staple lengths maro 30.4, 30.4, and 30.6 thirty seconds of tan anch for the recpective districts.

For both years the cotton produced by the oreanized groupe was of longer staple length than the average cotton produeed in ollahona. Although the 1940 orop was natorially improved by favorable growing watiter
it is evident that the organiad groups mare in no swall may responsible for the imporenent of cotton.

Orghoma Production Comared to Thited States Consumption by Stanle lomeths. That these orgenized commitieg are growing cotton Cemanded by the narket is ghoth by a comparison of the staple lengths produced in oklahons with that consumad in the Jnited Statos. As the consumpion durine the present war will necessarily bo largely domestio, Oklehona will not be at a disadvantage in the domotice markets if the sake quality continues to be proavood. Oklehona cotton vould heve bean at disedvantage prior to 1957 whan there mere fow one-variety comman itios. The loan progran, favoreble meather, and Suth-Doxey service are primarizy reaponsible for the balance of Onahona production with Unitod states concumption.

In 1937, 21.7 peroent of the cotton modueed in oklahoma was shonter than $7 / 6$ inch staple while only I percent of the cotton consumed in the United Etates was or that staple leastin. The Onlahoma production of $7 / 8$ and $29 / 32$ inch cotton wat 49.6 percent of the totel cotton wile the consurpetion of theso staple Iengths in the United States amombed to percent of the total. The Okianora production or cotton with staple length of 1 inch and longer was 5.4 percent of total production as compared to the United Statos consumption or 65.0 percent of that staple length. (Table 12). The situetion changed materially by 1940 when 30.2 pereont of Oklahoma production was 1 inch or longer instaple longth and 61.8 porcent wes of staple lengens chorter than 1 inch.

Table 12. The Percentage of Cotton Produced in Oklahoma by Staple Lencths in 1937 and 7940 , Produced in Organized Corumities in Oklahoma in 1940 and Consumed in the United States in 1938


SOURCE: J. W. Wright and Fred Taylor, Mill Requiroments in Relation to Cotton Quality Improvement, Agricultural Marketing Service, United States Department of Agriculture, p. 6. Cotton Quality Statistics, and Individual Reports on Organized Groups.

Although the State as a whole comes closer to producing staple length desired by the domestic market in 1940 than was produced in 1937 the organized commuities are still more nearly in accordance with the domestic consumption. In the organized commities 50.8 percent of the cotton produced was of staple length of 1 inch or longer as compared to 65.0 percent consumed. As 11 percent of the cotton consumed was of staple longth $1-1 / 8$ inch and longer, the Oklahoma production in organized comunities is in approximate accordance with domestic consumption. This 11 percent constituting the longer staple length in domestic consumption is largely Amorican, Beyptian, and Sea Island cottons which are not adapted to Oklahoma growing conditions.

The organized erouns have improved the guality of cotton in Oklehord and as a result of this imgovement the guality produced is nore nearly the merket demand as indicated by consumpion in the Unitod States.

Some rators Affecting the Dese of the Olassification and Varkot Nows Service

The ube of the claseltication and martet nevs servica is semingly affectod Dy mavetins practices and type of faming oxisting tithin the different districts. The Pollowing discuscion will sttenpt to chow hov and why these factors have affected the use of the service.

Lacation of Groun lembers. The organized groups that nade application for the free classification and matet neas sarvice there located acoorane to type of faming and the provailing marketing practices within each aistrict. In Distriet I coton ite the most important exop, a large percentage of the gins is cooperative, and famers custom gin the cotton. This diatrict had by far tho largest number of pacmers who ware nembers of oxganized groups in both 1939 and 1940. (Table 13). District II is charactorized by mall fams and the general practice is to sell cotton in the soed. In 1939 this atatrict had the snallest number of farker mombors in organized grows. District III is between District I and District II with rospect to selo of cotton in the seed and acres of cotton per fam. In 1959 District III had more organized groups then Diatrict II but less than Distriet I. (Table 13).

In 1940 the numbers of nombers of organized groups in District II and III wore aproximately equel. The increase in both districts, however, was mostiy in the contral part of the State. It is evident
that the service was ased move ombensively in areas whero ferms were lare and cotton hold an important place in the farm ongenization than it we vhere nereage in cotton was mall and a large percentage of the cotton ras sold in the seea.

The Smith-Doxey Service Doos Afeet Ongenized Combunties. The results obtained by organized groups that reasivad the cotbon classification and maricot news service are hard to measure because of the govemment loan program which made loans to famers on the basis of quality of their cotton. The combined offect of theso prograns hes caused more farmers to organizo into groups and produce better guality cotton. As the loan progran dia cifect the cotton marketing in 1940 to such an extent that the results of a quality-price stuay for onganimed groups would have been biased, this phase of the study was discarded.

The neec row famars to recave payment on the basis of quality is of primaxy importanco for continued success of such organizations, and that thog did so in 1900 doos not mean that thoy will continue to recoive payment on the basiz of quality. Prectices of reflecting proper premiuns and discounts in famers manots will snoourage guality inprovenent or an absence of buvine on quality will aiscourace cuellty production. hit increase in grade and staple promiums and discounts mill encourage the planting of improved varisties ard fend to etirmiato more cere in harvesting and ginane of cotton as mas show during low years. If thore are no promums or discouns the famers will tend to plant cotton with a hich lint tum-out and use the harvesting mothod invoiving the lowest cost.

A study of the enfect of clagatication on price paid farmers in


Table 15, Coton Production, Number of Sembers of Orgonized Comunties, Beles
Gligible for Classification, Number of Bles Classified, Percent Ryigible
Tales is of Production, Percent coles Glessified is of Bales Rligible
For Clessification, By bistricts for 1939 and 1940

|  | ( Distriet I f District II:District MIT: |  |  | State |
| :---: | :---: | :---: | :---: | :---: |
| 2959 Crop Year |  |  |  |  |
| Cotton Production | 217,483 | 100,75\% | 1217,353 | 509,591 |
| Number of Menbers of Oxgmened Comanities | 8,205 | . 719 | 1,038 | 9,962 |
| Wumber of Bales Eligible for Classification | 77, 104 | 4,279 | 6,041 | 87,565 |
|  | 40,434 | 2,954 | 1,454 | 44, 348 |
| Peroent Eligible Dales Is of Production | 36.6 | 2.4 | 5.2 | 17.8 |
| Percext Bales Classified ls of tigible | 52. 2 | 89.0 | 24.1 | 81.2 |
| 1940 Crop Yerr |  |  |  |  |
| Cotton Production | 269,966 | 322,939 | 204,439 | 901,344 |
| 棫uber of Meabere of Organized Commuties | 8,915 | 1,044 | 5,656 | 15,615 |
| Tuaber of Bales Eligible for Classification | 126,636 | 9,658 | 51,983 | 103,276 |
| Nuaber of Relen Cinssifíed | 33,960 | 4,356 | 31,541 | 124,365 |
| Percent Eligible Hales Is of Production | 46.9 | 29.0 | 25.4 | 23.3 |
| Pexcent Seles Classified Is of Digible | 70.2 | 45.1 | 60.7 | 66.3 |

[^10]locel marists ane more in accord with those quoted in the central markete mhen tie farmor rocelves the classification then mhon the cottot Wes cold without men sarvice. In 1939, 107 growpe wexe organized and tunctioned with vaxiod dogrees of suceass. The loan program wos amounm cod tao late to influanco the suceass of the groups. Sthatwond indicate thet the cotton elabsinication and maret nove service mas responstiole pon darge number of sucoessmuly organized commantios without the sowsmment loan prognan.

## 2elative Inportance of Bmith-Doxey Eervico in 1039 Compared to

1940. It woula be helprul to establish to mhat extent tho loan progran arrected the uge of that elastilotion and mantet nems gswice. The relative importanee of tho Smith-Doxey Servtco and the extsnt to fhich tho Saryice was vwed in 1959 as compared to 1940 will give somb indication of the effect on the loan.

In 1939, 211, B41 balos mere produced in District I, 77,444 beles on 56.6 percent of tha moduction, were moduced by monbors of ongaizod groups ant were aligible for free clobsification and ratrot news serwice. Over 60 parcent of this cotton eligible for elacsification mat classiniod and rotumed to the famers. (Table 23). These fargers Ald not orgenize to secure a loan clasw ac the loan was not erfective in 1939. A laxgor number of famers made applicetion for and used tho classification cerviee im District I than in other districts. This Was partly because more comexelalized cotton fame wexo looated in

[^11]this dictrict, consequently more intorest is tobon in marmating cotton. As the pamen mero interested in the service the gins also aided in mating the program ofrective.

In District II only 719 farmers wore nembers of organizad groups. The total prouction for the district was 130,75 bales mith only 4,270 bales or 2.4 percent of the crop oligible for elassification. the gins in general in this area wera aganst such organizations for comanity production, As the gins buy most of the cotton in the seed in this aistict, a large mumer of then ship in high quality planting sead and sell t to the farmore at the sume priee as gin-mus seed. In offect thon these are one-vaniety cotton commaties with the benest ter derived by tho gins in place of the famer. Those gins teke a loss when thoy soll the hich quality plantins sood for gin-run seod prices, but very 11kely they itore than gein back this loss by purehasine high quality seed cotton. This practice vas probably partially rosponsibla for the length of staple in this district which wos as Jong as in other districts of the state. The eroups then were organised in this district sent in 69.0 percent of the cotton eligible for classitieation which was \& hither percentage then was shom for the othor two aistwicts. This would indicate that if famers wero organized in this district they woud cooperate as woll as other districts.

District III produced 117,355 bales and 5.1 perceat of it was aligible for classification. Only 24.1 percent of the bales eligible for class in this aistrict was sent in for classitication. (Gable 13). mis apparently was the result of stroet buyers in mecurtain County not respacting the govament classification.

Tor the State as adole in 1939, 17.2 percent of the procuction was oligible for classification and over 51 percent of the cotton olicible for elassification wres elasstied.

In 1940 the number of organized moups, total members of croups, and bales elictible for classification increased materially for all districts in the State over the previous year. The cotton classod azpresbed as a parcentage oligible for class nas also increased fron 51.2 porcont in 1939 to 66.3 percent in 1940. (Table 15). The incroase in Districts II and III, howevar, wes mostiy in the westorn part of the districts where a lencer percentage of cotton was custom ginned. Figro was a rolatively larger incroas in these two districte than there wes in District I. This increase was partly a result of the advantage of putting cotton into the loan on Smith-Dozey class, and partiy a result of the auccess of the groups in 1939.

The free classitication seved the farsar who pat cotton into the loan 25 cents per bele for classirication and transportation cost for samples to govermgent clessing office which was an added incentive fox group organization. Another advantage organized groups hed over regular loen cotton was that their cotton could be samplea on the gin yard and classification returned berore the cotton was put on the compress for loan storage. Phis would save the famer the cost of transportation to compress or warehouse, provided his cotton was too low in quality to be eligibla for goverment loan. If all the cotton prociuced by organized groups went into the loan the aving to these farmers for classirication alone would have amontod to $318,729.75$ in 1940.

Prmers solling coton in the seed camot receive rach benerit Aron classirication, conseguenty fon organzed roups were locatea irn areas mhere cotton was sold in the sese. Wone of the fermers mo sold in the sod asked for elassification. Yet a fow famers, who ordinamily sold segd cothon, custom gimed and asked for elassificetion service. the saje on soca cotton has boen the prodoninent ractor in locating ongaized groups in Oklehora. Athowg tha loan program has eviderily increasel tho use of the classinioation sorvios, it is not prinaily responsible for the inereasing of organized eroups as they inorocsed from 16 in 1935 to 107 in 1959 vhen no logn wat in errect. Attitudes of Gins and Farmors toward the 0 lassing Sorvice, 1939-40 Soason. Total gimangs of cotton in Ohlahom were 509,591 bales during the 1939-40 season. According to tho Oklahora Crop Improvensnt issoeiation, 90,000 balos ters produced by one-variety groups of which 87,566 bales mot the Onlahoma Cotton Impovenont Association' requironents to seaure the froe classification and reminet news soryice as pro-
 wice classed 4, 84s bales of the 87,566 thet vere olighble for classiAication. (Table 15).

As 1939 was the first year the Brith-Doxey classing service was used to any great extent, the field reprosentatives for the Agricultural Wriketine Service mado a surveg on the attitudas of the Rarmers and cotton buvers toward the classirication and the rethods that were used to secure and to uss the free classirication and market neve service. The elassification of the attitudes of the bugers and famors is az arbitray classification and is intenced to show tho general relation-


SOURCE: Preliminary Marketing Survey of One-Variety Comunities in Oklahoma 1939-40. Schedules taken by Agricultural Marketing Service field men, September and October 1939. The schedules were taken from gins and the field men talked with gin managers (who were in most cases buyers) and the farmers there doing business at the time of the visit.
1/ One or more buyer buys on class or indicated that they would like to buy on class.
2/ Buyers did not use classification or farmers indicated that buyers bought "hog round."
ship betreen the attitudes and the use of the Smith-Doxoy Service. The buyers' attitwases toward the progran wased fron "Just anothor case of goverument prying into private business;" to "It's the first sensible attompt that has beer made to holp the fermers help themselves." The Eamers' thtitudas ranged hron "I had rather you did not litter up my wail box with that propaganda;" to "It's brinetne the cotton farmere from the daxk agea to an onlightened stace of develomant." it mas possibla, however, to gromp theso attitudes as oxpressed by the gins and fomers into a classification.

Of the 107 groupts, 63 had ove or nore buyers who were favorcbie to the service, Ls on tha groupe had buyers who were indifferent or unfarorable to tre serice. (Table 14). The famors athitudes in 61 of the groups were dectedly favorable, while the femers in 46 of tho groups were indifferent. This shous that more than 60 percent of the percons conoarned mith the service vore fetorgbie to it. Ot the 63 groups that roporced buyers favorable, At of these raported the famors as favorable to the progran, and 19 reported the famers indiffexent. In tha 44 groups that reported urarovable attitule or buvora, 27 reported thet the famers ware also whevorable while 37 croups reported farmers favorable to the program when the buyers wore waiavorible. As a relatively langer nubex of famore were interestad where buyers were interosted, it is litely that the attitua taken by eftrer the bayer or the farmox is inhluoned by the attibude takon by the obher party. Wownter, there were sone groups where the pamers vanted the sexvice eren if the buyers objected to it.

This indicated thet for an organizetion to uss the free classification and market news sexvice to the best sarantage, it is desixable to have the buyars as wall as the Pamers interested in the prom grem. Ong of the bonefitc derived fron the use or this service nac that it enabled the producer to sell the cotton on quality basis. If the buyers tore opposed to the progran and would not buy on tho elasiafication, there was a tendency ror the famers to hasitate to cooperate with this program. If the buyors were undoworale tho princivel benerits the pamers could derivo from the une of the sesvice wore indirect such es checkice plentins to loam the guality of thoir ootton. Bowever, for the tamers to know the chality of their cotton mould be bignficial to them rogaxdess or whether the buyers would buy on government class. Seventeen of the groups there the buyors tere unfavorable sent in samples and indicated that they liked the sorvice even though it could be usod by their particular mombers only indirectly.

A relationshiy also axisted betweon the buvers' attitude and use of the ramet quotetions as fumished by the Agricultural farketing Service. Tho nuotetions consisted of oontral marbet price together With premiums and discounts for different frades end steples. The fapmer, by comporing tho classification for his bale anth these meniuns and aiscounts, was eble to detemine the value of his bale. Of the 63 Groups wherc one or more buyers werc miferorable to the progran 43 had the guotations avallable for use by the fatmers, while in 20 of these groups tho guotations wore not awaileble. Where the buvore were urravorable 10 of the grome hed the cuotetions aveilable and 26 aid not have. The quotations were used oy 61 groups while the remaining 46
 and Percentage of Eligible Cotton Sampled, Season 1959-40

|  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Groups | 31 | 38 | 6 | 7 | 11 | 8 | 8 | 5 | 107 |
| Wumber of Boles Migible for Classification | 28,774 | 25,059 | 3,310 | 4,308 | 12,659 | 6,566 | 5,406 | 1,463 | 27,56\% |
| Wumber of Beles That Received Classification | 21,311 | 14,329 | 659 | 389 | 84.1 | 2,919 | 2,913 | 386 | 44.848 |
| Fercent of Eligible Cotton Sampled | 76.1 | 57.8 | 19.2 | 9.9 | 6.6 | 44.4 | 53.8 | 59.3 | 51.5 |

SOURCE: Estimated number of samples eligible are estinates of production as made by group representaivea early in 1939-40 season. Wumber of sawles sent in as reported by the Agriculturel inarketing Service at end of season.
groups aeported that the quotutions mere not used. there mas a tondency for the souns to use both the elessims servioe and tho guobationt in they uned either.

Muber of Samples Gubitted for Classifiention in Relation to Buyer ftitude torard Progren. In 31 groups where one or more buyers purchased cotton on soverment clacsification, 28,774 bales nere eligible for classiolcation; 76 percent of the cotton eligiole was elassipied. (Tble 15). In the 52 groupt, in which one or fore of the buyers indicated that theg mould like to bw on the elassinication, 57.2 pereent of the cotton thich wes elisiblo for classification was sampled and subnitted for clacsification. In the six groups in whteh buyers clanma to have paia mora for cotton than it mas worth, ony 10.6 percent of the elicinie cotton wos sumitted for elassificetion.

In the croups where the buyers either reported thet it was too moh trouble to smple or aid not buy on the classificetion, less than 10 percent of the eligible cotton inas classified. The other groups sither reported "buycrs do not buy on elassirication, "buyers rather have their om classification, ${ }^{\text {" }}$ or "bugers pay the some price regardiess of clastification, Theso commities, hovever, amplod end submittod Pon classification over 50 peroent of the cotom elighle. A large percentage of these grouns whero buyers nere unfavorable had cooperative gins that and not buy cotton. The cooperative gine sanpled the cotton for the farmers in onder to give the famer a elassification on his cotton beforo be contacted a buyer. In other grous where buyers mone unfavorale the famem rocuested tho elassirication mogardless of the gin or buyer's attitude totard the classification.

These famers fat that their bargeindug poation woula be strengthaned when they kave the quality of their product pegardises of the buyent attituos.

Ag tho gins are the principel buyers of cotton in Oklahom it seons necoasary to interost then in cotton ingrovenome and the alassim fication somics tif the best rosults ape to be obtaned. Fvicenty the byyers can inhaence the farrers to use, or not to use, the serWice, as the anount of cooperation betreon tho farmers and the Agetoultural Narketing Service in 1939 depended largoly on the buyors" attitude and uss of the servite. The fambrs did, in some instarees, use the olasstication service when buvere ware against the citssiHeation, but it was soldon possiblo for these famers to recaito the raximun benstits without the busers cooperation.

Sumary. Prior to the passins of the Smith-Doxey hot, litthe interest was shorn in crow organization $\operatorname{cor}$ Cottor Improvenente. This het mas pasced in $18 \mathrm{~m}_{\mathrm{t}}$ whas a result two or more producers my oreanize zor cotton improvament and recsive free cotton classiricetion and mandet news service. The purpone of tho Aot is to fromish the famer a mencure of the tesulta of his eftorts to improve cotbon ard to strongthon his bargaining position.

The combinod result of the frea classiriention and loan procran has beer a shift in cotton production fron shorter stapla lengh (15/15 inch and shortar) to longer staple length (I inch and longer). As a rosult of this shift the Onhano production by staple lengh approminatos the Gnited States cousumbion by staple lengths.

The famers have, shace the pacaing of the Smith-Doxey fot, been able to roceive returas from cotton more neary on the bubis of
quelity bhan troy atd prion to tho Buith-Rorey heo. The locn prosman, homover, was pexthaly rosponcible for paynont to pempens on a guality basia in 1940.

 Eluenced the results obtained by bine use of tha elassing semviee.

## CLAPTER V. STMMRE AN CORCLUSIORS

The objectives of this ceudy were to discovex the cotton marketing practices in Orlahora in 1940, the causes for and results of these practices in order to shon their effect on cotton improvener. An atteapt was made to deternine principaly the results and factors affecting the results of cotton improvement work since the Snith-Doxey Act was passed in 1937.

The two most prowelent methods of sele used by farmers in oklahora were the ale of bale cotton and the sele of seed cotton to gins. Over one-third or the coton produced in orlahons in 1940 took some form of goverment loan. Consequeaty, it was not sold ot the tine it was ginned. More then one-half of the cotton produced in District II (Northeastern Oklahone) wes sold in the seed. In the southern and Westera sections of the State the cotton whe cuoton gimed and a large percentage the put into the goverment loan.

Similar marketing proctices were foun in like type-of-fomang areas: conversely different marketing prectices were used in diferent thperof-foraing aras. heros in cotton per farm geened to be the precominnt factor affecting tariation in werbeting prectices between tree-of-farming arces.

The type of gin cmership hed little effect on the farmer's nerketing prectices but it did largely detemine the method of gia sales.

In Districts I, II, and III, $74.5,14.3$, and 41.7 percent of the cotton produced in the respective districts mes put into the loan. The principal factors that caused this variation in anourt of cotton that ment into the loan were: the amount of cotton oustom gimed, the gins'
abtibude toward lio loan progran, acres in cottoa per fam, and the relation of lock narket wice to loan price.

सH wet fown that in piatrict IT in 1040 the ysice farmers received For seed cotton waried dinecty with tho volume ginned per gin in combliee whare a large percontege of ginning mat purchasol as sect cotton. However, exceptions were found when gins veried prices avident1y to attract customers or when there wan a marked chame in quallty. mats mes posible become the giming cost per bale decreased as the Wolume gimad increased.

The fiman's returne from seed cobton are affected by bas loantion
 trans fron selling sese cotban comprred to returns then cotton waston gimed and put into the loen writed grom one 15-day period to another. Turins the peat of the ginning acnaon axd the 15-atay pexiod preceding the peot tha farmare on the average would haw received grater retums by selling in the seed. Fof the othe 25 -day poricde it woold have been Horv proftable to custor gin and put coton into the gevamment loan
 to fermens would hawe been groter had the farners custom gimed for all poriods provided they put their cotton fnto the loan.

It found that gins can and do pay a higher pilee for bele coton than othas byed of buyers can affori to pay but they do not buy stactiy on guality basis. The gine comprise the principal buyer lit the loct cotton arrketa in oklahona. It is 3ikely then that nowe educatson the the use of the moe classificstion and market nows service will eause coton to be purchased on quality bask wher coton is eustori gluned.

The one-vartety comunities that sade application for the free classificetion and market news service were mostly in District I where cotton is the nost important crop, a large percentage of the ging was operated by cooperatives and the farnors custom ginned their cotton. These farmere have, since the Smith-Dazey Act was passed, received returns nore nearly on the basis of quality then they did before the Act was passed. Consequently, the improvement in cotton has been more marked in this district than it has been in the other districts of the state.

The combined rewult of the one-vriety commuities, free classification service, and loan program has been a shift to production of bettar quality cotton. The cotton produced ghifted from ghorter staple lengths (15-16 inch and shorted) to longer staple lengths (1 inch and longer). As a result of this shift the Oblahom production by staple length approximates the United States consumption by staple lengtis.

It is evident that the free classification and market nens service has been responsible, to a great extent, for the cuccess of organized one-variety commoities in oklahome, and that these commonities have been largely responsible for the inprovenent of cotton quality. Yet, at the present time, attempts to orgenize groups for cotton iaprovenent in northeastern 0kahom have met with little success because a large percentage of the cotton is sold in the seed.

## APPIGNIX

Table 1
Sub-District 1-A. Total Number of Gins Operating, Number of Schedules Taken, Bales Ginned by Gins from Which Schedules Were Taken, Percentage of Total Ginning Sold in Seed, Custom Ginned, Gustom Gimed Bought by Gin, and That Went Into Loan, Farmers Sales of Cotton and Ginners Sales of Cotton By Type of Gin Ownership (1940-41 Season)

| $\begin{aligned} & \text { Types } \\ & \text { of } \\ & \text { Ownership } \end{aligned}$ | NumberGins:Operating | : Number 01 :Schedules : Taken | ginumersPercent:PercentsPercentsPercent |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \text { of : } \\ & \text { sGinned: } \end{aligned}$ | Sold <br> in <br> Seed | Custom: Custom: That |  |  |
|  |  |  |  |  | Gimne | Ginn | Went |
|  |  |  |  |  |  | Bough | Into |
|  | : |  | : |  |  | By Gin | Loan |
| Corporate | 25 | 6 | 4,554 | 1.9 | 98.1 | 20.3 | 72.4 |
| Cooperative | 6 | 2 | 2,085 | 1.9 | 98.1 | 21.6 | 75.9 |
| Independent | 6 | 1 | 625 | 3.2 | 96.8 | 44.8 | 51.2 |
| Partnership | 7 | 2 | 799 | 5.6 | 94.4 | 33.3 | 46.9 |
| Total | 41 | 11 | 8,063 | 2.4 | 97.6 | 23.8 | 69.1 |

Farmers Sales of Cotton

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \[
\begin{aligned}
\& \text { Types } \\
\& \text { of } \\
\& \text { Ownership }
\end{aligned}
\] \& \[
\begin{aligned}
\& \text { : Total } \\
\& \text { : Bales } \\
\& \text { : Sold } \\
\& \text { : By } \\
\& \text { :Farmers }
\end{aligned}
\]
\[
8
\] \& \begin{tabular}{l}
:Percent: \\
: of \\
: Total : \\
:Ginning: \\
:Sold By: \\
tFarmers:
\end{tabular} \& \[
\begin{aligned}
\& \text { Percer } \\
\& \text { Sold } \\
\& \text { to } \\
\& \text { Gins }
\end{aligned}
\] \& t:
\(\vdots\)
\(\vdots\)
\(\vdots\)
i

a \& | Percent Sold |
| :--- |
| Through Cotton Growers ssociatio | \& \[

$$
\begin{gathered}
: P \\
\vdots \\
\vdots \\
\vdots \\
\vdots \\
\hline
\end{gathered}
$$
\] \& Percent: Ginner: Sold : For Farmer:

$\qquad$ \& Percen to Local Buyers \& | Total |
| :--- |
| :Percent |
| : Other |
| : Than |
| :Ginner |
| : | <br>

\hline Corporate \& 1,011 \& 22.2 \& 100 \& \& 0.0 \& \& 0.0 \& 0.0 \& 0.0 <br>
\hline Cooperative \& 490 \& 23.5 \& 100 \& \& 0.0 \& \& 0.0 \& 0.0 \& 0.0 <br>
\hline Independent \& 300 \& 48.0 \& 100 \& \& 0.0 \& \& 0.0 \& 0.0 \& 0.0 <br>
\hline Partnership \& 311 \& 38.9 \& 100 \& \& 0.0 \& \& 0.0 \& 0.0 \& 0.0 <br>
\hline Total \& 2,112 \& 26.2 \& 100 \& \& 0.0 \& \& 0.0 \& 0.0 \& 0.0 <br>
\hline
\end{tabular}

Ginners Sales of Cotton

| Types of Ownership | : Total:P : Bales:? :Bought: : : | Percent: Through: Own: Agency: | Percent to Cotton Growers sociatio | :Percen :Through <br> :Broker <br> : <br> : | : Percen : to f.o. s: and In :depende <br> : Buyers | :Percent <br> to <br> : Mer- <br> chants $\qquad$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Corporate | 1,011 | 97.5 | 0.0 | 2.4 | 0.0 | 0.0 | 0.0 |
| Gooperative | 490 | 0.0 | 0.0 | 41.8 | 37.7 | 18.4 | 0.0 |
| Independent | 300 | 0.0 | 0.0 | 75.0 | 25.0 | 0.0 | 0.0 |
| Partnership | 311 | 0.0 | 0.0 | 51.8 | 0.0 | 48.2 | 0.0 |
| Total | 2,112 | 46.7 | 0.0 | 29.2 | 12.3 | 11.4 | 0.0 |

Pebie 2
Sub-District 3-b. Sotsl waber of Gins Operating, Fuaber of
 reben, Percentage of Total Giming Sold in Soen, Custom Ginedg
 Salea of Cotto and Gimers Salea of Cotton By Rype of Gin Omerbhin (1980-41 Season)

| $\begin{gathered} \text { Types } \\ \text { of } \\ \text { Omership } \end{gathered}$ | :Tumber\% of: Gins: Operating | Thaber\% ofschedules:Saken | : hubump Preentipercentiperent:Percent |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \text { on } \\ & \text { males: } \\ & \text { :anned: } \end{aligned}$ | $\begin{aligned} & \text { Sola } \\ & \text { i/3 } \\ & \text { Sead } \end{aligned}$ | Custon: Custom: That |  |  |
|  |  |  |  |  | Gimm | Gimm | Ment |
|  |  |  |  |  |  | Bough | Into |
|  | $\because \quad$ : |  | : |  |  | 3 Ca | $\underline{L}$ |
| Corporate | 5 | 24 | 15,629 | 1.8 | 99.7 | 27.9 | 63.즐 |
| Cooperative | 30 | 24 | 31,750 | 0.6 | 99.4 | 12.7 | 38.1 |
| Independent | 10 | 2 | 1,255 | 0.2 | 99.3 | 3.7 | 00.9 |
| Partnership | 13 | 7 | 5,927 | 1.7 | 98.3 | 30.0 | 37.6 |
| Total | 11.4 | 57 | 55,131 | 0.0 | 99.1 | 18.7 | 77.0 |

Farmers Silos of Cottom


Gimens Seles of Cotton


Table 3
Sub-District 1-C. Total Number of Gins Operating, Number of Schedules Taken, Bales Ginned by Gins from Which Schedules Were Taken, Percentage of Total Ginning Sold in Seed, Custom Ginned, Gustom Ginned Bought by Gin, and That Went Into Loan, Farmers

Sales of Cotton and Ginners Sales of Cotton
By Type of Gin Ownership (1940-41 Season)

|  | \% Number : | INumber | zivumber: | ree | ereen | Perc | Percent |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Types | : of | of | : of : | Sold | Custom | : Cust | That |
| of | Gins : | :Schedules | Bales: | in | Ginned | Ginn | Went |
| Ownership | :Operating: | : Taken | :Ginned: | Seed |  | : Boug | Into |
|  | . | 2 | $\geq$ : |  |  | : By Gí | oan 1 |
| Corporate | 67 | 28 | 24,207 | 2.4 | 97.6 | 23.1 | 73.1 |
| Cooperative | 37 | 23 | 30,668 | 2.0 | 98.0 | 19.4 | 73.3 |
| Independent | 4 | 1 | 344 | 3.5 | 96.5 | 43.6 | 52.9 |
| Partnership | 9 | 2 | 2,300 | 1.7 | 98.3 | 30.4 | 67.0 |
| Total | 117 | 54 | 57,519 | 2.2 | 97.8 | 21.6 | 72.8 |

Farmers Sales of Cotton


Ginners Sales of Cotton


1/ Includes export program in Caddo County.

Table 4
Sub-District 2-A. Total Number of Gins Operating, Number of Schedules Taken, Bales Ginned by Gins from Which Schedules Were Taken, Percentage of Total Ginning Sold in Seed, Custom Ginned, Custom Ginned Bought by Gin, and That Went Into Loan, Farmers Sales of Cotton and Ginners Sales of Cotton By Type of Gin Ownership (1940-41 Season)

| $\begin{aligned} & \text { Types } \\ & \text { of } \\ & \text { Ownership } \end{aligned}$ | : Nuraber :of Gins:Operating: | Number of :Schedules <br> Taken | : Wumber:Percent:Percent:Percent:Percent |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | : of : <br> : Beles: :Ginned: | Sold <br> in <br> Seed | Custon Ginned | Custom: That |  |
|  |  |  |  |  |  | Ginned | Went |
|  |  |  |  |  |  | Bough | Into |
|  | - |  | : |  |  | By Gin | Losn |
| Corporate | 19 | 3 | 2,034 | 35.0 | 65.0 | 7.7 | 48.2 |
| Cooperative | 3 | 2 | 1,943 | 11.3 | 88.7 | 27.8 | 60.5 |
| Independent | 5 | 0 | - | - |  | - |  |
| Partnership | 3 | 1 | 676 | 3.4 | 96.6 | 7.5 | 88.8 |
| Total | 30 | 6 | 4,653 | 20.5 | 79.5 | 16.1 | 59.2 |

Farmers Sales of Cotton


Ginners Sales of Gotton

| $\begin{aligned} & \text { Types } \\ & \text { of } \\ & \text { Ownership } \end{aligned}$ | : Total: <br> : Bales: <br> : Bought: <br> : $\quad$ : | Percent: Through: Own Agency: | Percent to Cotton Growers ssociatio | :Perce sThrou :Broke <br> : | : Perce : to f .0 and : depend <br> : Buyer | :Percen <br> : to : Mer:chants $\qquad$ <br> : | $\begin{aligned} & \text { 6: Per- } \\ & \text { : cent } \\ & \text { : to } \\ & \text { sMills } \\ & \text { : } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Corporate | 868 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Cooperative | 760 | 0.0 | 0.0 | 5.5 | 7.9 | 64.5 | 0.0 |
| Partnership | 74 | 73.0 | 0.0 | 0.0 | 27.0 | 0.0 | 0.0 |
| Total. | 1,702 | 54.2 | 0.0 | 2.4 | 4.7 | 28.8 | 0.0 |

Table 5
Sub-District 2-B, Total Number of Gins Operating, Number of Schedules Taken, Bales Ginned by Gins from Which Schedules Were Taken, Percentage of Total Giming Sald in Seed, Custom Ginned, Guston Ginned Bought by Gin, and That Fent Into Loan, Farmers Seles of Gotton and Ginnera Sales of Cotton By Type of Gin Omnorship (1940-12 Season)

| $\begin{aligned} & \text { Types } \\ & \text { of } \\ & \text { Ownership } \end{aligned}$ | : Number :\% of:Operating: | : Ilumber ; of :Schedules <br> : Taken | 2liunbersPercent:Percent:PercentaPercent |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \text { of } \\ & \text { of Bales: } \\ & \text { :Ginnod } \end{aligned}$ | $\begin{aligned} & \text { Sold } \\ & \text { in } \\ & \text { Seed } \\ & \hline \end{aligned}$ | Custom <br> Gimed: | Custon: That <br> Gimned: Vient <br> Bought: Into <br> By Ging: Loan |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  | , |  |  |  |  |  |  |
| Corporate | 44 | 4 | 4,198 | 14.6 | 85.4 | 70.0 | 8.7 |
| Cooperative | 1 | 0 | - | - |  | - |  |
| Independent | 17 | 2 | 2,766 | 25.7 | 76.3 | 63.5 | 6.9 |
| Partnership | 0 | O | , | - | - | - | - |
| Total | 62 | 6 | 6,962 | 18.2 | 81.7 | 67.4 | 8.0 |

Famers Soles of Cotton


Ginners Sales of Cotton

| Types of Ownership | : Total: : Bales: s Bought: : in | Percent: Through: 0 mm : Agency: | Percent to Cotton Grovers gsociatio | :Percent :Through sBroker: : | : Perce <br> to 1.0 <br> : and I <br> tdepend <br> - Buyer | Perc to Mer chan | Perscent <br> : to <br>  <br> $\stackrel{-}{ }$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Corporate | 3,551 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0. |
| Independent | 2,413 | 0.0 | 0.0 | 42.0 | 12.4 | 0.0 | 45.6 |
| Total | 5,964 | 59.5 | 0.0 | 17.0 | 5.0 | 0.0 | 18.4 |

Table 6
Bub-District 2-C. Dotal Muber of Gins Operating, Muaber of Schedvies Maken, Beles Ginned by Gins from Whoh Schedules Were Taken, Percsmage of Total Giming Gold in Seed, Custom Ginaed,


Sales of Cotton and Giners Beles or Cotton
By Type of Gin Omership (1940-41 Season)

|  | \% Wuber : | * Number | : Number | reen | Percent: | : Percent | ercent |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Types | - of | - of | : or : | Sold | : Custon: | - Oustrat | That |
| OX | Gins | :Schedule | Eles: | in | - Ginned: | - Ginned: | Ment |
| Onnexghy | :Operating: | - Taken | -Ginned: | Seed | : | - Bought: | Into |
|  | 5 | : | : $\quad$ : |  | : | :Ex Gins: | Loan |
| Corporate | 97 | 14 | 17,342 | 76.0 | 82.0 | 12.3 | 5.9 |
| cooperative | 1 | 1 | 3,000 | 31.9 | 68.1 | 18.4 | 35. 3 |
| Independent | 51 | 3 | 4,300 | 57.1 | 42.9 | 61.9 | 10.5 |
| Partnership | 31 | 10 | 20,616 | 59.0 | A1.0 | 28.7 | 21.1 |
| Total | 180 | 23 | 45,053 | 63.5 | 36.5 | 22.1 | 10.7 |

Farners Seles of Cottos


Ginuers seles of Cotton


Table 7
Sub-0istrict 0 -A. Potal Humber of Gins Operating, Mumber of Sokedules Token, Bales Gimed by Gins from Dhich Schedules fere Taken, Percentage of Total Ginning Sold in Seed, Gustoa Gimed, Curton Gimed Bought by Giz, and That wont Iato Zonn, Earaers Seles of Cotton and Gimers Sales of Cotton
By Type of Gin Omership (1940-41 Geason)


## Raviens Sales of Cotton

| sypes of Omaership | $\begin{aligned} & \text { Botal } \\ & 5 \text { Bles } \\ & : B 01 \mathrm{a} \\ & \text { By } \\ & \text { Hamers } \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Percent: } \\ & \text { : of } \\ & \text { Sotal : } \\ & \text { Sining: } \\ & \text { SSold ny: } \\ & \text { Shempers: } \end{aligned}$ | $\begin{gathered} \text { Percent: } \\ \text { Sold } \\ \text { to } \\ \text { Gins : } \end{gathered}$ | Foreent Sold <br> 5ysoing Optem Groners <br>  | $\begin{aligned} & \text { :Percent } \\ & \text { : Ginner } \\ & \text { : Sold } \\ & \text { : For } \\ & \text { :Famer } \\ & \hline \end{aligned}$ |  | simotal :Percent <br> : Other <br> - Than <br> :Ginner <br> $:$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Corporade | 4,548 | 30.8 | \% 3 | 6.3 | 0.0 | 0.0 | 6.3 |
| cooperative | 880 | 23.2 | 60. 2 | 39.8 | 0.0 | 0.0 | 39.8 |
| Independent | 1,169 | 27.3 | 200.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Parthership | 1,613 | 21.1 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Fotel | 3,205 | 86.9 | 92. ${ }^{\text {a }}$ | 7.7 | 0.0 | 0.0 | 7.7 |

Gimar Sales of Cotton


Table 8
Sub-District $3-3$. Totol Number of Gins Operating, Number of Schedules Iaken, Beles Girned by Gins froa Which Schedules Vere Taken, Percentage of Total Giming sold in Seed, Custon Gimed, Ouston Gimed Bought by Gin, ard rhat Went Into Loan, Fermers Sales of Cotton and Cimers Sales of Cotton Sy Type of Gin Omerchip (2040-41 Season)

| : Muabex : Humber :lumber:Percent:PercentiPercentirercent |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
| of | Gins | : Schedules | : Reles: | in | - Gimned: | cimine | Text |
| Onnership soperatings Taken :Gimned: Seed : © Dought Into |  |  |  |  |  |  |  |
|  | 。 | $\pm$ | $\bigcirc$ |  |  | Gin | Loan |
| Corporate | 17 | 5 | 4,500 | 9.5 | 90.5 | 46.2 | 34.5 |
| Cooperetive | 1 | 0 | - | -- | - | - | - |
| Independent | 16 | 6 | 8,288 | 4.5 | 95.5 | 24.1 | 40.4 |
| Fartnership | 12 | 8 | 5,315 | 4.8 | 95.8 | 0.0 | 78.3 |
| Dotal | $\pm 6$ | 14 | 18,308 | 5.7 | 94.3 | 22.9 | 48.4 |

Paraers Sales of Cotron

|  | Total | Porcent: | Percen |  | Percent | Pereent: | Percent | 6: 2 otal |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Types | - Balee | - of : | Sold | * | Sold | : Gimer: | to | -Pereent |
| Ot | - Sold | - Total | to | * | Through | - Sold : | : Local | : Other |
| Ownership | * By | :Ginning | ains | : | Cotton | - For : | : Bxyers | - Than |
|  | :Tamacrs | :Sold By: |  | : | Grovers |  |  | :Ginner |
|  |  | - Fqumers: |  | - | soctat | $2{ }^{2}$ |  |  |
| Corporate | 3,133 | 65.2 | 35.5 |  | 2.6 | 12.9 | 0.0 | 14.5 |
| Indepordont | A,874 | 30.5 | 43.1 |  | 14.5 | 37.4 | 0.0 | 51.9 |
| Stratanis | 1,410 | 26.7 | 15.7 |  | 0.0 | 84.3 | 0.0 | 84.5 |
| Total | 9,425 | 52.5 | 50.0 |  | 8.0 | 36.8 | 0.0 | 44.4 |

Ginners Sales of Cottor


Table 9
Sub-District 3-C. Total Number of Gins Operating, Number of Schedules Taken, Bales Ginned by Gins from Which Schedules Were Taken, Percentage of Total Ginning Sold in Seed, Gustom Ginned, Gustom Ginned Bought by Gin, and That Went Into Loan, Farmers Sales of Cotton and Ginners Sales of Cotton By Type of Gin Ownership (1940-41 Season)

| Types of Ownership | Number: ofGins:Operating | Number: ofSchedules:Taken | :Number:Percent:Percent:Percent:Percent |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | : of : | Sold | : Custom: | Custom: | That |
|  |  |  | Bales: | in | Ginned: | Ginned: | Went |
|  |  |  | :Gimned: | Seed |  | Bought: | Into |
|  | : |  | : |  |  | \% Gins: | Loan |
| Corporate | 17 | 4 | 3,290 | 39.9 | 60.1 | 54.1 | 5.3 |
| Cooperative | 1 | 0 | - | - | - | - | - |
| Independent | 17 | 2 | 2,142 | 5.6 | 94.4 | 88.3 | 0.0 |
| Partnership | 11 | 1 | 703 | 20.1 | 79.9 | 54.1 | 25.6 |
| Total | 46 | 7 | 6,135 | 25.6 | 74.4 | 66.0 | 5.8 |

Farmers Sales of Cotton

| Types of Ownership | $\begin{aligned} & \text { : Total } \\ & : \text { Beles } \\ & : \text { Sold } \\ & \text { : By } \\ & \text { : Farmers } \\ & : \end{aligned}$ | $\begin{aligned} & \text { :Percent: } \\ & \text { : of } \\ & \text { : Total : } \\ & \text { :Ginning: } \\ & \text { s:Sold By: } \\ & \text { : Frarmers: } \end{aligned}$ | $\begin{gathered} \text { Percent: } \\ \text { Sold : } \\ \text { to : } \\ \text { Gins : } \end{gathered}$ | Percent Sold <br> Through Cotton Growers ssociatio | : Percent <br> : Ginner: <br> : Sold <br> : For <br> :Parmer <br> n: | Percent to : Local :Buyers : $\qquad$ | Tatal <br> : Percent <br> : Other <br> : Than <br> :Ginner <br> : |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Corporate | 3,091 | 94.0 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Independent | 2,136 | 99.7 | 94.1 | 5.9 | 0.0 | 0.0 | 5.9 |
| Partnership | 521 | 74.1 | 100.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 5,748 | 93.7 | 97.8 | 2.2 | 0.0 | 0.0 | 2.2 |

Ginners Seles of Cotton


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PRELIMINARY TYPE OF FARMING MAP OF OKLAHOMA
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## AREA DESCRIPTIONS

I. CASH GRAIN AND LIVESTOCK.

IA. LARGELY RANGE LIVESTOCK
2. SOMEWHAT BROKEN TOPOGRAPHY, SOME SMALL GRAINS, FEED GROPS, LIVESTOCK
2A. CASH WHEAT PRIMARILY
2B. CASH WHEAT PRIMARILY
2C. SANDY AREA GENERAL FARMING
3. CASH GRAIN, GENERAL FARMING; SOME DAIRY AND POULTRY

3 A. WOODED AREA OF SANDY SOIL, GENERAL FARMING, SOME COTTON PRODUCED ON THIS STRIP
4. RANGE LIVESTOCK
5. GENERAL FARMING, LIVESTOCK, DAIRY,POULTRY, SELF-SUFFICING
6. COTTON, CASH GRAIN, GENERAL FARMING, LIVESTOCK

6A. ROUGH SANDY AREA, SCARCELY ANY FARMING, SOME RANGE LIVESTOCK

6B. WOODED AREA, GENERAL FARMING AND COTTON
7. GENERAL FARMING, COTTON, LIVESTOCK, DAIRY, AND POULTRY
8. COTTON, GENERAL FARMING, SELF-SUFFICING, DAIRY (AN AREA OF GENERALLY POOR SOIL,EXGEPT ON SMALL BOTTOMS)
9. COTTON, SOME DAIRY, POTATOES, SELF-SUFFICING
10. SOME FRUIT, GENERAL FARMING, DAIRY AND POULTRY, SELF SUFFICING (ROUGH WOODED LAND)
11. COTTON PREDOMINANTLY
12. GOTTON, SOME GRAIN, SOME DAIRY AND POULTRY 12 A. RANGE LIVESTOCK
12 B. SANDY, WOODED SECTION, GOTTON, GENERAL FARMING
13. COTTON, LIVESTOCK, BROOMCORN
14. COTTON, SELF - SUFFICING, LIVESTOCK (ROUGH MOUNTAIN AND WOODED AREA)
15. RANGE LIVESTOCK, SELF - SUFFICING

15 A. COTTON
16. GOTTON, GENERAL FARMING
N. NATIONAL FORESTS

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