OKLAHOMA
AGRICULTURAL AND MECHANICAL COLLEGE
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The Sale of Cotton in the Seed

in Oklahoma

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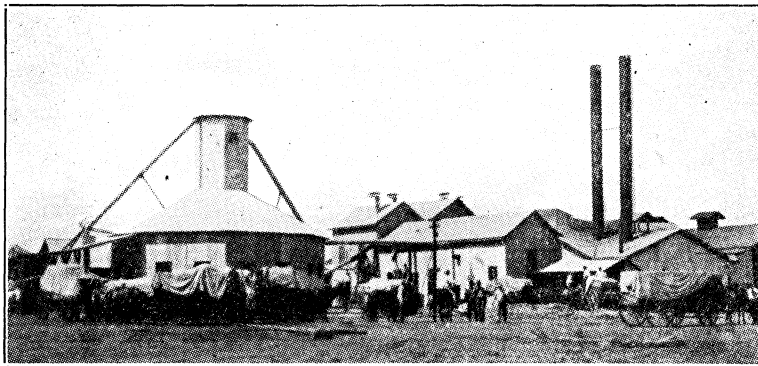
Cotton sold in the seed is generally stored in the cotton house where it is mixed with cotton of various grades and staple lengths. When this cotton is ginned, a bale is produced which is not uniform in quality. This practice is detrimental to the farmer in that prices are not based on quality, to ginners in not knowing exactly what they buy, and to the spinners in that it results in mixed bales for spinning.

CONTENTS

THE SALE OF COTTON IN THE SEED IN OKLAHOMA[1]

Most of the cotton produced in the United States is sold in the lint by farmers after the cotton has been ginned and baled. There are sections in the United States, however, where considerable quantities of cotton are sold in the seed. This practice of selling unginned cotton is particularly prevalent in eastern Oklahoma, northeastern Arkansas, southeastern Missouri, Virginia, western Tennessee, northern North Carolina, and northern Florida. The results of studies of the practice of selling cotton in the seed, published in 1916, indicated that farmers generally lost money by selling their cotton in the seed and that "this method of marking cotton as a general practice, cannot be condemned too strongly."[2]

An analysis of the prices paid to farmers in eastern Oklahoma for cotton in the seed and in the lint was made during the study presented in this bulletin. This analysis shows that a higher price was generally received for cotton sold in the seed than for cotton sold in the lint, which undoubtedly accounts for the fact that the practice of selling cotton in the seed in eastern Oklahoma has continued to increase during the past nine years.[3] The conclusion was reached, however, that the practice is detrimental to farmers in that prices are not based on quality, to the ginners in not knowing exactly what they buy, and to the spinners in that it results in mixed bales for spinning. This suggests that there are underlying influences at work which do not appear on the surface, and also suggests the need for a more detailed study of the practice as a basis for formulating plans for dealing with the problem.

Purpose of Study

The purposes of this study were: (1) To determine the extent and distribution of the practice of selling cotton in the seed in Oklahoma and to determine whether or not the practice is increasing or decreasing; (2) to measure the differences between the prices received by farmers in their local markets for cotton sold in the seed and in the lint bale; (3) to measure the differences between the prices received by farmers for both seed and lint cotton in their local markets and the prices paid for the same grades and staples of cotton in the central market; (4) to analyze the variation in grade, staple length, and turnout of individual loads of seed cotton sold at the same price; (5) to call attention to some of the factors responsible for,

[2]Creswell, Charles F., Disadvantages of Selling Cotton in the Seed, Department Bulletin No. 375, United States Department of Agriculture, Washington, D. C., 1916. Creswell, Charles F., Losses From Selling Cotton in the Seed, Farmers Bulletin No. 775, United States Department of Agriculture, Washington, D. C., 1916.

or associated with, the development of the practice; and (6) to point out the economic effects on farmers, middlemen, and spinners of the practice of selling cotton in the seed.

Area Studied and Plan of Procedure

A preliminary survey of the cotton-producing areas of Oklahoma showed that considerably more cotton was being sold in the seed in eastern Oklahoma than in the southwestern section of the State. It was known that the practice of selling cotton in the seed had been prevalent in the eastern one-third of the State for a number of years—in fact from the beginning of the production of cotton in that section. For this reason, the gins from which to secure data were selected at points in th eastern part of the State. The locations of the gins selected are shown on Figure I, page 6. Data were obtained from seven gins during the 1930-31 season and from eight gins in 1931-32. Each gin is designated by a number so as not to reveal the business of an individual gin. Table 1 shows the number and percent of bales of cotton which were bought in the seed and which were custom ginned at each of these cooperating gins.

The data relative to the amount of cotton sold in the seed throughout Oklahoma were obtained from the records of the Oklahoma State Corporation Commission. Gins have been declared a public utility in Oklahoma and are subject to certain rules and regulations set up by the Commission, and each gin must make an annual report of its business to the Commission.[4] Among other information, these annual reports submitted to the Corporation Commission give the amount of cotton that was purchased in the seed and the amount custom ginned.

TABLE 1.—Cotton Bought in the Seed and Custom Ginned at Cooperating Gins, Eastern Oklahoma, 1930-31 and 1931-32

Gin number	Number bales ginned	BOUGHT IN SEED		CUSTOM GINNED	
		Bales	Percent	Bales	Percent
Eight Gins, 1931-32					
Total	10.875	7940	73.0	2935	27.0
1	1668	1255	75.2	413	24.8
2	936	914	97.6	22	2.4
3	1688	1332	78 9	356	21.1
4	1366	1038	76.0	328	24.0
5	2752	2263	82.2	489	17.8
6	1124	398	35.4	726	64.6
7	896	364	40.6	532	59.4
8	445	376	84.5	69	15.5
Seven Gins, 1930-31					
Total	6344	3638	57.3	2706	42.7
4	880	599	68.1	281	31.9
5	1601	1135	70.9	466	29.1
6	1125	245	21 8	880	78.2
7	441	212	48.1	229	51.9
8	569	452	79.4	117	20.6
9	1433	783	54.6	650	45.4
10	295	212	71.9	83	28.1

SOURCE: Compiled from data secured directly from the gin books.

[4]Chapter 20, Article IV, Section 3712, Compiled Oklahoma Statutes, Annotated, 1921.

With the exception of these data which were secured from the Corporation Commission, practically all the data used in this study were collected directly from the cooperating ginners by the field men of the Grade and Staple Estimates Project, Division of Cotton Marketing, Bureau of Agricultural Economics, United States Department of Agriculture.[5] Field men were employed to make contact with ginners to insure correct sampling, and in Oklahoma one man was employed jointly by the College and the Federal Government. The field men collected most of the data for this study during the course of their regular visits to the gins. The samples were classified by the Grade and Staple Estimate Office of the Division of Cotton Marketing, Dallas, Texas. It was from this source that the actual classification of each bale of cotton used in this analysis was obtained. The classification of the cotton which was sold by the farmers both in the seed and in the lint was secured from this same source.

The field men secured the prices paid per pound for cotton purchased in the lint directly from the ginners' books. They also secured data on the weights of loads of seed cotton, prices paid per pound of seed cotton, method of calculating the weight of cottonseed, prices per ton of cottonseed, and the weight of bales. All of these data were used in calculating the lint equivalents of the seed cotton prices. In addition the field men secured other supplementary data on the movement of cotton to central markets, and the reasons for selling and buying in the seed as given by farmers and ginners.

GENERAL FACTS RELATIVE TO THE SALE OF COTTON
IN THE SEED IN OKLAHOMA
Volume and Distribution

Figure I shows the State divided into four groups of counties based on the average amounts of cotton sold in the seed during the nine-year period from 1923-24 to 1931-32. The data from which this chart was made are shown in Table 2, and were obtained from reports made by individual ginners to the Oklahoma State Corporation Commission.

The black area includes 15 counties in the northeastern part of the State in which from 75 to 100 percent of the cotton was sold in the seed, and for the purpose of this study is designated as "Area I." At the gins in this area from which data were obtained for the nine-year period, an average of 69,828 bales out of a total of 88,121 bales ginned, or 79.24 percent, was sold in the seed annually.

The cross-hatched area includes nine counties, along the southern and eastern edge of the black area, in which from 50 to 75 percent of the cotton was sold in the seed, and for the purpose of this study is designated as "Area II." At the gins in this area from which data were obtained for the nine-year period, an average of 49,333 bales out of a total of 75,640 bales of cotton ginned, or 65.22 percent, was sold in the seed annually.

The area marked with oblique lines includes 15 counties largely in the east central part of the State in which from 25 to 50 percent of the cotton was sold in the seed, and for the purpose of this study is designated "Area III." At the gins in this area from which data were obtained for the nine-year period, an average of 72,081 bales out of a total of 201,395 bales of cotton ginned, or 35.79 percent, was sold in the seed annually.

The dotted area includes 32 counties which occupy, in the main, the southwestern part of the State where the larger portion of the Oklahoma crop was produced and in which from zero to 25 percent of the cotton was sold in the seed. For the purpose of this study, these counties are designated

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[5]This work is carried on under provisions of the Act of March 3, 1927, 44 Statutes, 1372-1374, commonly known as the Mayfield-Jones Act.

as "Area IV." At the gins from which data for the nine-year period were obtained in this area, an average of 71,322 bales out of a total of 770,470 bales of cotton ginned, or only 9.26 percent, was sold in the seed annually. This small volume of sales in the seed in Area IV largely represents remnants and "tag ends" of the crop.

For the State as a whole, an average of 262,564 bales out of a total of 1,135,625 bales of cotton ginned, or 23.12 percent, was sold in the seed.

Figure I.—Sales of Cotton in the Seed, Oklahoma

Average 1923-24 to 1931-32
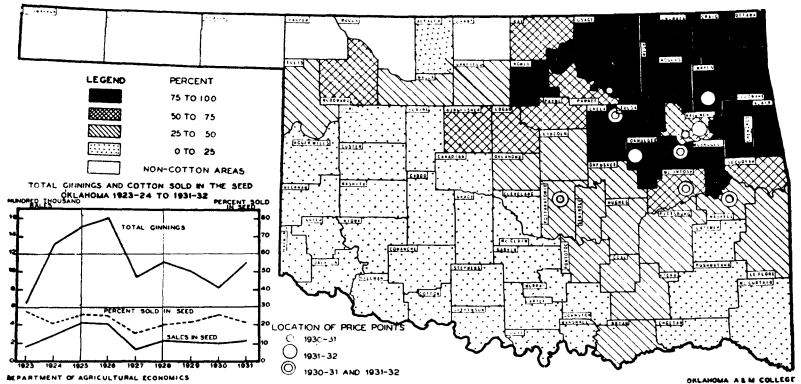
The practice of selling cotton in the seed in Oklahoma is confined largely to the eastern and northeastern part of the State. On an average during the nine-year period, 1923-24 to 1931-32, 23.12 percent of all the cotton produced in the State was sold in the seed. The small graph in the lower left-hand corner of the chart gives the data by years for the entire period and shows that, for the State as a whole, the extent of the practice has changed little during the nine years. The location of the gins from which records were secured is indicated by circles. (Based on data in Table 2.)

Figure II shows the distribution of cotton production in Oklahoma for the average of nine years, 1923-24 to 1931-32, with each dot representing 1000 bales. A comparison of Figure I and Figure II shows that counties of sparse production, located on the northern fringe of the cotton-producing sections of Oklahoma, sell large proportions of their cotton in the seed. The comparison also shows that there are a number of counties of fairly heavy production located in the northeastern and east central parts of the State, which are clearly not in areas of sparse production, where large proportions of the cotton was sold in the seed.

It should be noted that Figures I and II are based on data secured from individual gin reports on file with the Oklahoma State Corporation Commission. Table 3 shows a comparison of the total ginnings of the State by counties as reported by the United States Bureau of the Census and as compiled from the individual gin reports made to the State Commission. It will be noted that, for the State as a whole, the total ginnings as reported to the Oklahoma State Corporation Commission were nearly 93 percent of the amount reported by the Bureau of the Census. For individual counties, the range was from 81.43 percent in Muskogee county to more than 100 percent in Pawnee and Custer counties. A percentage greater than 100 is probably due to the fact that some of the gins operate after the Census Bureau records are closed on March 20. A percentage less than 100 very likely arises out of the fact that reports of cotton ginned are made monthly to the Bureau of the Census while the report of the Oklahoma State Cor-

poration Commission is made out and submitted at the close of the season. Such a practice might easily lead to discrepancies in the two sets of data. It is also possible that for any one of a number of reasons, some individual gin reports might have been missing from the files of the Corporation Commission without the knowledge of the enumerator. However, the two sets of data are sufficiently close together to indicate that the Commission data relative to ginnings and sales in the seed are adequate for the purpose of this study and accurately reflect the true situaiton for the State as a whole.

TABLE 2.—Cotton Sold in the Seed by Counties, Oklahoma
Average 1923-24 to 1931-32
(Running bales)

County	Cotton ginned, bales	COTTON SOLD IN SEED Bales	Percent	County	Cotton ginned, bales	COTTON SOLD IN SEED Bales	Percent
State	1,135,625	262,564	23.12	Okfus.	20,236	8,515	42.08
				Okla.	15,785	7,197	45.59
Area I	88,121	69,828	79.24	Pott.	23,222	7,222	31.10
Adair	1,141	974	85.36	Pitts.	17,041	6,611	38.79
Chero.	3,372	2,594	76.93	Ponto.	12,888	4,375	33.95
Craig	933	799	85.64	Semin.	10,230	2,668	26.08
Creek	19,932	15,060	75.56				
Delaware	40	38	95.00	**Area IV**	770,470	71,322	9.26
Mayes	4,948	4,279	86.48	Alfalfa	243	45	18.52
Musko.	28,509	22,385	78.52	Beckham	55,412	4,914	8.87
Noble	1,639	1,244	75.90	Blaine	12,163	2,935	24.13
Nowata	539	453	84.04	Caddo	74,882	6,179	8.25
Ottawa	10	9	90.00	Choctaw	11,472	1,009	16.64
Okmulgee	10,879	8,739	80.33	Canad.	6,597	1,254	19.06
Osage	4,471	3,447	77.10	Cleve.	12,423	2,241	18.04
Rogers	4,316	3,997	92.61	Coman.	23,114	1,321	5.72
Tulsa	7,250	5,691	78.50	Cotton	15,014	961	6.40
Wash.	140	119	85.00	Carter	10,117	1,835	18.14
				Custer	14,513	2,674	18.42
Area II	75,640	49,333	65.22	Dewey	10,453	1,681	16.08
Kay	42	27	64.29	Ellis	351	74	21.08
Kingf.	3,919	2,459	62.75	Garvin	31,603	7,291	23.07
Logan	16,566	10,164	61.35	Grady	47,713	4,255	8.92
McIntosh	17,291	12,257	70.89	Greer	37,939	1,549	4.08
Payne	10,234	7,212	70.47	Harmon	27,906	1,088	3.90
Pawnee	6,620	4,604	69.55	Jackson	69,087	2,580	3.73
Sequoyah	10,756	5,973	55.53	Jeff.	21,341	1,856	8.70
Wagoner	10,187	6,622	65.00	Johns.	7,618	1,683	22.09
Woodw.	24	14	58.33	Kiowa	57,183	3,993	6.98
				Latimer	1,713	367	21.42
Area III	201,395	72,081	35.79	Love	7,167	672	9.38
Atoka	4,017	1,023	25.47	Marshall	6,390	1,280	20.03
Bryan	19,444	5,592	28.76	McCurt.	19,920	789	3.96
Coal	4,670	1,553	33.25	McClain	21,388	2,802	13.10
Garfield	293	147	50.17	Murray	4,254	987	21.82
Haskell	10,714	3,708	34.61	Push.	4,976	706	14.19
Hughes	15,879	7,107	44.76	Rog. Mills	14,082	2,336	16.59
LeFlore	19,869	5,399	27.17	Steph.	25,054	2,039	8.14
Lincoln	26,791	10,847	40.49	Tillman	63,510	2,527	3.98
Major	316	118	37.34	Washita	54,598	4,499	8.24

SOURCE: Compiled from individual gin reports filed with the Oklahoma State Corporation Commission, Oklahoma City, Oklahoma.

TABLE 3.—Cotton Ginned by Counties, Oklahoma
Average 1923-24 to 1931-32
(Running bales)

County	Reported by United States Census[1]	REPORTED BY OKLAHOMA STATE CORPORATION COMMISSION		County	Reported by United States Census[1]	REPORTED BY OKLAHOMA STATE CORPORATION COMMISSION	
		Bales[2]	Percent[3]			Bales[2]	Percent[3]
State	1,225,311	1,135,622	92.68	Okfuskee	20,941	20.236	96.63
				Okla.	17,078	15,785	92.43
Area I[4]	96,351	83,679	86.85	Pott.	25,096	23,222	92.53
Adair	5	1,141[5]		Pittsburg	18,869	17,041	90.31
Cherokee	3,440	3,372	98.02	Pontotoc	14,184	12,888	90.86
Craig	5	933[5]	____	Semin.	10,708	10,230	95.54
Creek	20,504	19,932	97.21	**Area IV**[4]	793,880	739,297	93.08
Delaw.	5	40[5]	____	Alfalfa	5	243[5]	___
Mayes	5,611	4,948	88.18	Beckham	55,884	55,412	99.16
Musko.	35,009	28,509	81.43	Blaine	5	12,163[5]	
Noble	5	1,639[5]	___	Caddo	77,389	74,882	96.76
Nowata	5	539[5]		Choctaw	13,333	11,472	86.04
Okmulg.	13,766	10,879	79.03	Canad.	5	6,597[5]	___
Osage	4,698	4,471	95.17	Clevel.	12,607	12,423	98.54
Ottawa	5	10[5]		Coman.	23,879	23,114	96.80
Rogers	4,547	4,316	94.92	Cotton	16,906	15,014	88.81
Tulsa	8,776	7,250	82.61	Carter	10,788	10,117	93.78
Wash.	5	140[5]	____	Custer	14,453	14,513	100.42[6]
				Dewey	5	10,453[5]	___
Area II[4]	82,458	75,574	91.65	Ellis	5	351[5]	____
Kay	5	42[5]	____	Garvin	35,217	31,603	89.74
Kingf.	4,307	3,919	90.99	Grady	48,743	47,713	97.89
Logan	16,877	16,566	98.16	Greer	42,096	37,939	90.12
McIntosh	20,215	17,291	85.54	Harmon	28,022	27,906	99.59
Payne	10,380	10,234	98.59	Jackson	75,102	69,087	91.99
Pawnee	6,576	6,620	100.67	Jeff.	26,167	21,341	81.56
Sequoy.	11,411	10,756	94.26	Johnston	9,282	7,618	82.07
Wagoner	12,692	10,187	80.26	Kiowa	61,145	57,183	93.52
Woodw.	5	24[5]	____	Latimer	5	1,713[5]	
				Love	9,692	7,167	73.95
Aera III[4]	217,369	200,435	92.37	Marshall	8,134	6,390	78.56
Atoka	4,292	4,017	93.59	McCurt.	21,678	19,920	91.89
Bryan	21,327	19,444	91.17	McClain	23,466	21,388	91.14
Coal	5,487	4,670	85.11	Murray	5,453	4,524	82.96
Garfield	5	293[5]		Push.	5,644	4,976	88.16
Haskell	10,912	10,714	98.18	Rog. Mills	14,421	14,082	97.65
Hughes	17,376	15,879	91.38	Stephens	25,867	25,054	96.86
LeFlore	23,402	19,869	84.90	Tillman	71,014	63,510	89.43
Lincoln	27,697	26,791	.96.73	Washita	57,498	54,598	94.96
Major	5	316[5]	____	All others	35,253	36,321[7]	103.03[6]

[1]United States Department of Commerce, Bureau of the Census, *Cotton Production in the United States,* Government Printing Office, Washington, D. C.
[2]Compiled from individual gin reports filed with the Oklahoma State Corporation Commission, Oklahoma City, Oklahoma.
[3]This figure represents the percent that the Oklahoma State Corporation figure is of the United States Census Bureau figure.
[4]Based on data for those counties where both the United States Census Bureau and Oklahoma State Corporation Commission figures were available.
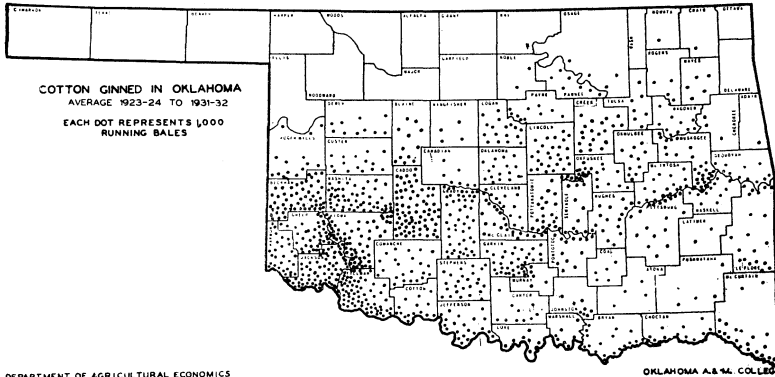[5]Included in "all other."
[6]A percentage greater than 100 may be due to the fact that some gins operate after the Census Bureau records have been closed on March 20 of each year. Reports must be filed with the Oklahoma State Corporation Commission May first.
[7]Not added to the state total since the figure for each county has already been included.

Figure II.—Distribution of Cotton Ginnings, Oklahoma

Average 1923-24 to 1931-32

COTTON GINNED IN OKLAHOMA
AVERAGE 1923-24 TO 1931-32

EACH DOT REPRESENTS 1,000
RUNNING BALES

DEPARTMENT OF AGRICULTURAL ECONOMICS   OKLAHOMA A.& M. COLLEGE

A comparison of Figures I and II shows that counties of sparse production, located on the northern fringe of the cotton-producing section, sell large proportions of their cotton in the seed. There are also a number of counties of fairly heavy production, located in the northeastern and east central part of the State, which sell large proportions of their cotton in the seed.

Trend of Sales of Cotton in the Seed

Data presented in Table 4 and Figure III indicate the extent to which the practice of selling cotton in the seed changed during the nine-year period 1923-24 to 1931-32. The practice increased by 5.33 percent in Area II and 7.63 percent in Area III during the nine years. It decreased 2.30 percent in Area I, 2.05 percent in Area IV, and for the State as a whole it decreased 2.58 percent during the nine-year period.

The range in the average annual amount of cotton sold in the seed for the entire State was from 16.46 percent in 1927-28 to 27.42 percent in 1923-24. In a large measure this fluctuation was due to the variation in the percentage of the cotton crop produced in Area IV where, on an average during the nine-year period, nearly 68 percent of the cotton crop of the State was produced. In 1927-28 when such a small proportion of the total State crop was sold in the seed, over 82 percent of the crop was produced in Area IV. This meant that the other areas, in which the practice of selling cotton in the seed was most prevalent, were very much less important in influencing the State average for that year. In 1925-26 when 25.56 percent of the total cotton crop was sold in the seed, only approximately 57 percent of the crop was produced in Area IV. In other words, the average amount of cotton sold in the seed for the State as a whole should be considered in the light of the amount of cotton that was produced in the various areas into which the State has been divided.

The range in the percentage of cotton sold in the seed in individual counties on an average for the nine-year period ranged from 95 percent in Delaware county in the extreme northeastern section of the State, where an average of only 40 bales of cotton was ginned, to less than four percent in Jackson county in the southwestern part of the State where an average of over 69,000 bales of cotton was ginned and only the remnants and "tag-ends" of the crop was sold in the seed. In several other high-producing counties in Area IV, for example Tillman, McCurtain, Harmon and Greer, only about four percent or less of the cotton was sold in the seed. In certain sections in the eastern part of the State where production was heavy,

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a relatively large proportion of the cotton was sold in the seed. In Musko-
gee county, for example, where an average of 28,509 bales was ginned an-
nually, 22,385 bales, or 78.52 percent, were sold in the seed. Other examples
are Creek county which produced an average of 19,932 bales annually and
Okmulgee county which produced an average of 10,879 bales annually, and
which sold 75.56 percent and 80.33 percent, respectively, in the seed. The

TABLE 4.—Percent of Cotton Sold in the Seed and Total Ginnings,
Oklahoma, 1923-24 to 1931-32

Year	State	Area I[1]	Area II[1]	Area III[1]	Area IV[1]
Percent of Cotton Sold in the Seed					
Average 9 years 1923-24 to 1931-32	23.12	79.24	65.22	35.79	9.26
Average annual change, 1923-24 to 1931-32[2]	−.2863	−.2555	+.5917	+.8480	−.2275
Total change in 9 years, 1923-24 to 1931-32[3]	−2.58	− 2.30	+ 5.33	+ 7.63	− 2.05
1923-24	27.42	81.19	69.09	40.03	13.32
1924-25	20.75	79.14	60.37	26.58	7.89
1925-26	26.56	80.54	59.33	31.78	9.77
1926-27	25.31	76.87	62.43	38.66	10.92
1927-28	16.48	81.70	76.44	42.97	6.81
1928-29	20.98	77.75	74.39	37.14	7.61
1929-30	22.42	90.07	73.21	47.24	9.21
1930-31	25.32	83.09	66.67	35.71	10.99
1931-32	22.35	69.41	63.31	38.86	8.72
Total Ginnings, Running Bales					
Average 9 years 1923-24 to 1931-32	1,135,625	88,121	75,640	201,395	770,470
1923-24	645,080	41,855	49,385	131,135	422,705
1924-25	1,371,679	99,400	99,564	285,453	887,262
1925-26	1,560,323	154,695	135,166	388,121	882,341
1926-27	1,611,482	137,327	108,190	308,503	1,057,462
1927-28	934,292	47,034	35,890	83,238	768,130
1928-29	1,153,744	81,487	67,847	175,608	828,802
1929-30	1,003,461	66,124	52,497	119,536	765,304
1930-31	827,354	70,695	59,105	140,109	557,345
1931-32	1,113,214	94,468	73,113	180,751	764,882

[1]These areas were determined by grouping counties where the proportion of cotton sold
in the seed during the period 1923-24 to 1931-32 was as follows: Area I, 75 to 100
percent; Area II, 50 to 74.9 percent; Area III, 25 to 49.9 percent; and Area IV, 0 to
24.9 percent.

[2]This represents the slope of the line as calculated by the method of least squares. The
formula is as follows: $M = \dfrac{\text{the sum of } xy}{\text{the sum of } x^2}$ where x represents the deviation in
time from the midpoint of the series and y represents the percent of cotton in the
seed.

[3]Average annual change in the percent of cotton sold in the seed multiplied by nine or
the number of years in the series.

SOURCE: Compiled from individual gin reports filed with the Oklahoma State Corpo-
ration Commission, Oklahoma City, Oklahoma.

practice of selling cotton in the seed in Oklahoma is thus not confined to areas of sparse production on the northern rim of the cotton belt, but is also prevalent and is increasing in areas of heavier production.

Size of Loads of Cotton Sold in the Seed

Among cotton men, one frequently hears the opinion expressed that the small size of the loads of seed cotton brought to the gins in eastern Oklahoma accounted for the fact that such a large proportion of the cotton was sold in the seed. To ascertain whether or not this was true, data were secured on size of loads of seed cotton sold in the seed at cooperating gins. These data are presented in Tables 5 and 6 and Figure IV[6].

Figure III.—Trends of Sales of Cotton in the Seed by Areas, Oklahoma, 1923-24 to 1931-32

(Percent of total production within each area that was sold in the seed)
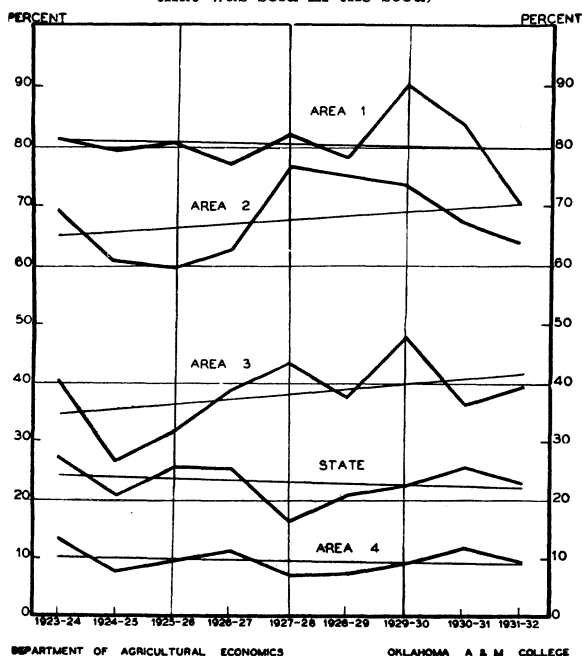
The heavy lines in the above figure represent the percentage of the cotton ginned within each area and for the State as a whole that was sold in the seed. The straight lines represent the general trend during the nine-year period as calculated by the method of least squares. The practice decreased in Area I by 2.30 percent on average annual ginnings of 88,121 bales, increased in Area II by 5.33 percent on average annual ginnings of 75,640 bales, increased in Area III by 7.63 percent on average annual ginnings of 201,-395 bales, decreased in Area IV by 2.05 percent on average annual ginnings of 770,470 bales, and for the State as a whole decreased by 2.58 percent on average annual ginnings of 1,135,625 bales. (Based on data in Table 4.)

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[6]Data relative to the size of loads delivered at the gins were secured directly from the ginners' books which contained records of the dates on which the cotton was brought to the gin, the net weight of the load of seed cotton, and whether the cotton was picked or snapped. These data were listed on tally sheets from which the frequency distributions were calculated.

Table 5 shows the frequency distribution of the size of loads of seed cotton that were sold in the seed at the cooperating gins during the two seasons covered by this study. While a considerable number of loads were **of less than bale size, there was a large number of loads sold in the seed that were bale size and larger.**

It was assumed that a bale of cotton could be ginned from a load of seed cotton that weighed from 1301 pounds up to 1800 pounds. On that basis, approximately 48 percent of the loads were below bale size in 1931-32 and 63 percent were below bale size in 1930-31. In 1931-32, 13.55 percent

TABLE 5.—Distribution of Loads of Cotton Sold in the Seed at Cooperating Gins, Eastern Oklahoma, 1930-31 and 1931-32

Size of loads (pounds)	EIGHT GINS, 1931-32			SIX GINS, 1930-31		
	Number of loads	Percent of total	Cumulative percent	Number of loads	Percent of total	Cumulative percent
Total	11,363	100.0	_____	5,165	100.0	_____
Loads Below Bale Size						
Under 500	1,538	13.55	13.55	1,460	28.27	28.27
501–600	387	3.41	16.96	265	5.13	33.40
601–700	455	4.00	20.96	243	4.71	38.11
701–800	430	3.78	24.74	237	4.59	42.70
801–900	476	4.19	28.93	225	4.36	47.06
901–1000	480	4.22	33.15	187	3.62	50.68
1001–1100	522	4.59	37.74	187	3.62	54.30
1101–1200	599	5.27	43.01	241	4.67	58.97
1201–1300	573	5.04	48.05	208	4.03	63.00
Total	5,460	48.05	_____	3,253	63.00	_____
Bale Size Loads						
1301–1400	607	5.34	53.39	206	3.99	66.99
1401–1500	837	7.37	60.76	246	4.76	71.75
1501–1600	1,103	9.71	70.47	312	6.04	77.79
1601–1700	960	8.45	78.92	265	5.09	82.88
1701–1800	650	5.72	84.64	228	4.41	87.29
Total	4,157	36.59	_____	1,257	24.29	_____
Loads Above Bale Size						
1801–1900	453	3.99	88.63	168	3.25	90.54
1901–2000	346	3.04	91.67	111	2.15	92.69
2001–2100	280	2.46	94.13	87	1.68	94.37
2101–2200	170	1.50	95.63	80	1.58	95.95
2201–2300	117	1.03	96.66	51	0.99	96.94
2301–2400	80	0.70	97.36	36	0.70	97.64
2401–2500	54	0.48	97.84	13	0.25	97.89
2501–2600	40	0.35	98.19	22	0.43	98.32
Over 2600	206	1.81	100.0	87	1.68	100.0
Total	1,746	15.36	_____	655	12.71	_____

SOURCE: Compiled from data secured directly from the gin books.

and in 1930-31, 28.27 percent of the loads of cotton sold in the seed at these gins weighed less than 500 pounds. Nearly 37 percent of the loads of seed cotton would have ginned bales of cotton in 1931-32, while a little more than 24 percent would have ginned bales of cotton in 1930-31. More than 15 percent of the loads were above bale size in 1931-32 and nearly 13 percent were of that size in 1930-31. It will be noted that a substantial number of the loads were of bale size each year, yet these loads were sold in the seed the same as smaller and larger loads that would not have ginned even bales. These data are shown graphically in Figure IV.

A study of Table 5 and Figure IV reveals the fact that in 1931-32 nearly 52 percent of the loads and in 1930-31, 37 percent of the loads of cotton sold in the seed were bale size or larger. This is significant since it indicates that the size of load is not an important factor accounting for the fact that such a large proportion of the cotton is sold in the seed. It indicates that, even in the eastern part of the State, it is possible to accumulate full bale-size loads to be taken to the gin. In other words, the practice of selling cotton in the seed is probably not due, to any great extent at least, to the fact that a considerable number of the loads are below bale size. For some reason or reasons the farmers in the eastern part of the State choose to take a large number of small loads to the gin. But the causes for the practice of selling in the seed go much deeper than the mere size of loads. Stated in other words, the comparatively large number of small loads is a practice associated with the sale of cotton in the seed rather than the practice of selling in the seed being a result of the small-sized loads.

The distribution of the size of loads of cotton sold in the seed by months is shown in Table 6. The percentage of the real small loads, those under 500 pounds in weight, increased as the season advanced. This was true in both seasons, but it was particularly pronounced during the 1930-31 season when most of the loads were extremely small in size after November. Conversely the bulk of the bale-size loads are brought to the gin in the early part of the season. The seasonal trend in the receipt of larger-than-bale loads at the gins was not as pronounced as in the case of the smaller loads, but even there the indications are that a greater number of large loads were brought in early in the season than late in the season.

TABLE 6.—Percentage Distribution of the Size of Loads of Cotton Sold in the Seed by Months, Cooperating Gins, Eastern Oklahoma, 1930-31 and 1931-32

(Total of each month=100 percent)

Month	1931-32				1930-31			
	BELOW BALE SIZE		Bale size	Above bale size	BELOW BALE SIZE		Bale size	Above bale size
	Less than 500 lbs.	500 lbs. to 1300 lbs.	1300 lbs. to 1800 lbs.	Above 1800 lbs	Less than 500 lbs.	500 lbs. to 1300 lbs.	1300 lbs. to 1800 lbs.	Above 1800 lbs.
September	10.2	30.1	45.6	14.1	19.9	30.4	31.1	18.6
October	11.6	37.0	39.7	11.7	19.4	36.5	28.4	15.7
November	13.7	32.2	35.3	18.8	43.3	38.4	14.8	3.5
December	16.0	38.4	28.7	16.9	62.4	30.1	5.3	2.2
January	27.5	32.9	23.3	16.3	100.0	0.0	0.0	0.0
February	21.9	37.5	28.1	12.5	[1]	[1]	[1]	[1]

SOURCE: Compiled from data secured directly from the gin books.
[1]None delivered in February.

Figure IV.—Distribution of Size of Loads of Cotton Sold in the Seed, Cooperating Gins, Eastern Oklahoma, 1930-31 and 1931-32

AVERAGE SIX POINTS, 1930-31

←——BELOW BALE-SIZED LOAD —63.00 PER CENT——→|←BALE-SIZED LOAD— 24.29 PERCENT→|←— ABOVE BALE-SIZED LOAD—12.71 PER CENT ——→|

AVERAGE EIGHT POINTS, 1931-32

|←——BELOW BALE-SIZED LOAD — 46.05 PER CENT——→|←BALE-SIZED LOAD — 38.59 PERCENT→|←—ABOVE BALE-SIZED LOAD —15.36 PER CENT ——→|

| 500 UNDER 600 | 501 600 | 601 700 | 701 800 | 801 900 | 901 1000 | 1001 1100 | 1101 1200 | 1201 1300 | 1301 1400 | 1401 1500 | 1501 1600 | 1601 1700 | 1701 1800 | 1801 1900 | 1901 2000 | 2001 2100 | 2101 2200 | 2201 2300 | 2301 2400 | 2401 2500 | 2501 2600 | OVER 2600 |

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It is significant that a large number of the loads of cotton sold in the seed were of bale size or above each year. This indicates that the size of load is not an important factor accounting for the fact that such a large proportion of the cotton is sold in the seed.

Qualities of Cotton in Areas of Seed Cotton Sales

Cotton is classified for commercial purposes into the general quality phases of grade, staple length, and character.[7]

Grade is a term denoting the composite of: (1) the color, luster, and brightness of the lint, (2) the nature and amount of foreign matter, and (3) the preparation, which is the smoothness or roughness of the cotton which results from the ginning process. Foreign matter and roughness increase in quantity from the higher to the lower grades and are constant in the corresponding grades of different colors.

The staple length of cotton is the measurement in inches and fractions of an inch of a typical portion of the fibers which, although every sample contains fibers of many different lengths, by custom is assigned to a sample or bale as a whole.

Grade and staple are determined by comparison with official United States Standards for various grades and staple lengths which normally occur in commercial quantities in the American cotton crop.

The character of cotton is a term used to describe those properties of cotton which are not included in the grade and staple, such as those characteristics usually designated by the terms body, uniformity, strength, and fineness of the fibers. Official United States Standards have not been established for character, and may, therefore, be described by reference to official standards for length of staple, by reference to actual samples or types, or by any other means desired. Variations in character are not considered in this study because of the absence of standards for character and because of the difference of opinion among classers as to what constitutes character. However, cotton buyers commonly recognize differences in character, and prices probably reflect character differences to some extent.[8]

The word quality when ordinarily used with reference to cotton is a very broad term including the grade, staple length, and character of the cotton. Since, however, there are no official standards for character and since there are no general market quotations for character, the term quality as used in this study should be taken to include only grade and staple length unless otherwise stated.

The grade, staple, and tenderability of Oklahoma cotton by areas of seed cotton sales for 1931-32 and 1930-31 are shown in Table 7. These data are shown in Figure V.[9] In both years, a larger proportion of the cotton produced in Areas I, II and III, the areas of high percentages of sales of cotton in the seed, was higher in both grade and staple than that produced in Area IV, where only a small quantity of cotton was sold in the seed. It will be noted, however, that the percentage of cotton which graded white mid-

[7]United States Department of Agriculture, *Handbook for Licensed Classers, United States Cotton Standarads Act,* Mimeographed Report, October, 1930. Palmer, Arthur W., *The Commercial Classification of American Cotton,* United States Department of Agriculture, **Circular 278, Page 2.**

[8]Maddox, James G., *Relation of Grade and Staple Length of Cotton to Prices Received by Farmers in Local Markets of Arkansas.* Bulletin 274, Arkansas Experiment Station, June, 1932, **page 6.**

[9]Data on grade, staple, and tenderability of cotton grown in Oklahoma and by areas of seed cotton sales were compiled by W. B. Lanham, in charge, Grade and Staple Estimates, Division of Cotton Marketing, Bureau of Agricultural Economics, United States Department of Agriculture, from classification of samples secured from representative gins throughout Oklahoma.

dling and better was lower in 1931-32 than it was in 1930-31 in the areas of high percentage of seed cotton sales. In a large measure, this can be explained by the fact that the weather was more unfavorable for the production of the higher grades of cotton, and that a higher percentage of the cotton was snapped in these areas in 1931-32 than in 1930-31. Because of the low prices in 1931-32, farmers attempted to reduce the expense of harvesting and, as a result, larger than usual quantities of cotton were snapped. Thus bad weather during the harvesting season, and the fact that a large amount of cotton was snapped, account for the generally lower grades in 1931-32 as compared with 1930-31.

In both years studied, the percentage of the longer staple cottons was generally greater in the areas of high percentage of seed cotton sales in eastern Oklahoma than in the areas of low percentage of sales of cotton in the seed in the western part of the State. This is clearly shown by the fact that, in both years, the percentage of cotton which was under 7/8 inch and 7/8 and 29/32 inch in length was much lower in Areas I, II and III than in Area IV, and that the percentage of cotton which was 15/16 and 31/32 inch and 1 and 1 1/32 inches in length, was much higher in Areas I, II and III

TABLE 7.—Grade, Staple, and Tenderability of Oklahoma Cotton by Areas of Seed Cotton Sales, 1930-31 and 1931-32

(Percent)

Quality	PERCENT OF ALL COTTON SAMPLED				
	State[1]	Area I[2]	Area II[2]	Area III[2]	Area IV[2]
1930-31 Season					
Total __	100.0	100.0	100.0	100.0	100.0
Grade:					
Extra White ____ ____	5	5	5	5	5
White, Middling and Better _____	56.6	78.5	73.6	74.6	49.0
White, Strict Low and Low Middling _____	31.6	17.4	21.3	20.5	36.7
White, Below Low Middl.	0.5	4	4	4	0.7
Spotted and Yellow Tinged _____	11.2	4.0	5.0	4.8	13.6
Light Yellow Stained, Yellow Stained, Gray, Blue Stained _____	4	0.1	5	5	5
No Grade _____	4	4	4	4	4
Staple Length (inches):					
Under 7/8	14.8	1.1	1.0	7.1	19.8
7/8 and 29/32	40.7	23.8	14.6	37.9	45.7
15/16 and 31/32	34.4	47.5	53.3	38.2	29.3
1 and 1 1/32	8.4	24.2	25.6	9.5	4.9
1 1/16 and 1 3/32 _____	1.4	3.2	4.8	5.3	0.4
1 1/8 and 1 5/32 _____	0.3	0.2	0.7	2.0	4
1 3/16 and 1 7/32_____	4	5	5	5	4
1 1/4 and over _____	5	5	5	5	
Tenderability:[3]					
Total Tenderable _____	81.7	97.8	97.2	92.1	76.1
Tendbl. 7/8 to 1 1/32 Inc.	80.0	94.4	91.7	84.8	75.7
Tenderable over 1 1/32__	1.7	3.4	5.5	7.3	0.4
Total Untenderable _____	18.3	2.2	2.8	7.9	23.9

TABLE 7.—(Continued)

Quality	PERCENT OF ALL COTTON SAMPLED				
	State[1]	Area I[2]	Area II[2]	Area III[2]	Area IV[2]
1931-32 Season					
Total	100.0	100.0	100.0	100.0	100.0
Grade:					
Extra White	[4]	[5]	[4]	[4]	[4]
White, Middling and Better	51.0	49.6	61.3	60.1	52.0
White, Strict Low and Low middling	25.8	27.7	26.6	21.3	25.8
Spotted and Yellow Tinged	15.1	12.9	6.0	11.2	14.5
Light Yellow Stained, Yellow Stained, Gray, Blue Stained	[4]	[4]	[5]	[5]	[4]
No Grade	0.1	0.2	[4]	0.1	[4]
Staple Length (inches):					
Under 7/8	11.0	1.7	1.1	2.6	13.1
7/8 and 29/32	45.0	30.6	23.2	42.3	47.0
15/16 and 31/32	33.7	46.0	45.0	44.6	30.6
1 and 1 1/32	9.0	20.7	24.9	10.1	7.6
1 1/16 and 1 3/32	1.1	1.0	5.2	0.4	1.5
1 1/8 and 1 5/32	0.1	[5]	0.6	[5]	0.2
1 3/16 and 1 7/32	[4]	[5]	[5]	[5]	[4]
1 1/4 and over	[5]	[5]	[5]	[5]	[5]
Tenderability:[3]					
Total Tenderable	78.2	86.0	90.3	88.2	76.9
Tenderable 7/8 to 1 1/32 Inc.	77.0	85.0	84.6	87.8	75.3
Tenderable over 1 1/32	1.2	1.0	5.8	0.4	1.6
Total Untenderable	21.8	14.0	9.7	11.8	23.1

[1]Preliminary Reports on Grade, Staple, and Tenderability of Cotton Ginned in Oklahoma, issued by the United States Department of Agriculture, Bureau of Agricultural Economics, April 15, 1931 and April 20, 1932.

[2]Compiled from individual gin reports made to the United States Department of Agriculture, Bureau of Agricultural Economics.

[3]Tenderability according to Sec. 5, of the Cotton Futures Act.

[4]Less than 0.1 percent.

[5]None.

NOTE: The "Areas" referred to in the column headings are the same as outlined in Figure I, page 6.

than in Area IV. The percentage of cotton which was 1 1/16 inches in length and longer was not great in amount either year, but in each year the percentage of these longer staple cottons was greatest in the areas where most of the cotton was sold in the seed.

The percentage of cotton that was tenderable under Section 5, Cotton Futures Contracts, was much higher in both years in Areas I, II and III the areas of high percentage of seed cotton sales, than in Area IV, the area of low percentage of seed cotton sales.

Figure V.—Grade, Staple Length, and Tenderability oi Oklahoma Cotton by Areas, 1930-31 and 1931-32
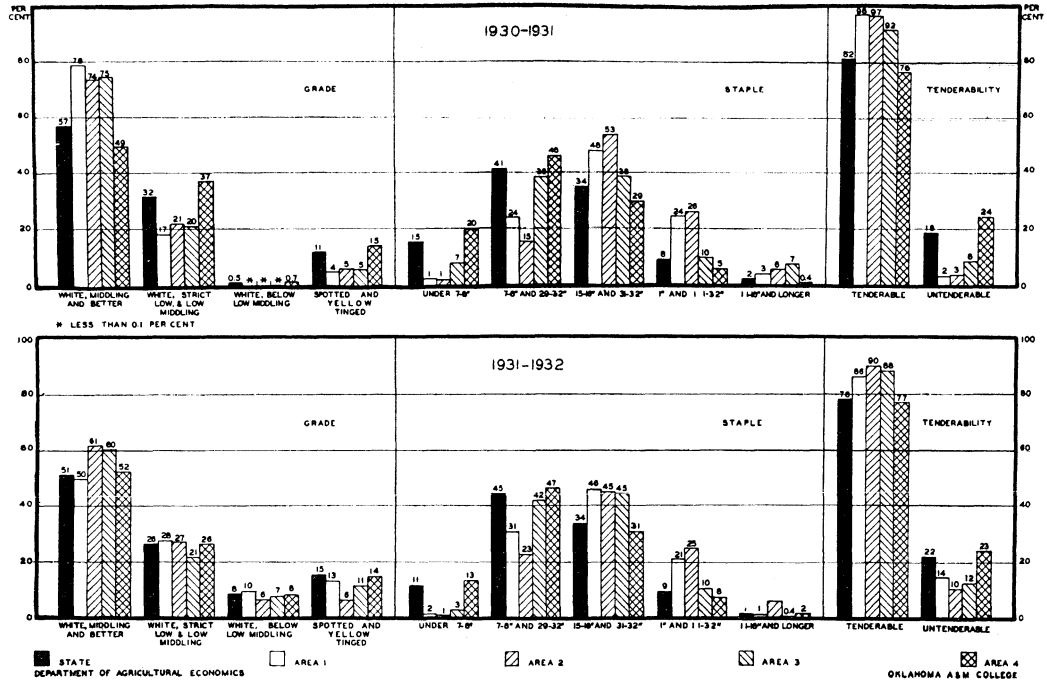
Generally, the grades of cotton were higher, the staple lengths longer, and a greater proportion of the cotton was tenderable in the areas where a large amount of cotton was sold in the seed.

Varieties of Cotton Grown in Areas of Seed Cotton Sales

The production of better grades and longer staple lengths of cotton in the areas of high percentage of sales of cotton in the seed in eastern Oklahoma during 1930-31 and 1931-32 is due in part to the fact that the farmers in these areas plant more of the varieties which are generally classed as improved cotton (such as Mebane, Acala, and Oklahoma Triumph 44) than is planted in the areas of low percentage of seed cotton sales in the western part of the State. The farmers in the areas of high percentage of sales of cotton in the seed, likewise, plant less of the varieties which are generally classed as unimproved cotton, such as Half and Half, than is planted in the areas of low percentages of sales of cotton in the seed.

The percentages of the cotton crop that was produced from the numerous varieties of cotton grown in Oklahoma and in the areas of seed cotton sales for 1929-30 and 1930-31 are shown in Table 8.[10] In both years approximately three-fourths of the cotton grown in the State was Half and Half, Mebane, Acala, and Oklahoma Triumph 44, which in this study were the important varieties. Varieties of lesser importance were Delfos, Kasch, Russell, Rowden, Cliett, Galloway, and Qualla. Varieties which were of minor importance were Sunshine, Bennett, Lankhart, Boykin, Rucker, Lone Star, Harper, Wacona, Ferguson 406, Blocker, Hart's Long Staple, and unknown varieties.

Four varieties of cotton accounted for 76.1 percent of all the cotton produced in Oklahoma in 1930-31. Half and Half accounted for 23.1 percent, Mebane, 22.6 percent, Acala, 20.0 percent, and Oklahoma Triumph 44, 10.4 percent. In 1929-30, 79.3 percent of the crop was produced from these same four varieties. Seven varieties of lesser importance, namely Delfos, Kasch, Russell, Bowden, Cliett, Galloway, and Qualla, accounted for 12.0 percent of the 1930-31 crop and 10.4 percent of the 1929-30 crop. The remaining 11.9 percent of the 1930-31 crop was produced from eight minor varieties and some varieties that were unknown, while the remaining 10.3 percent of the 1929-30 crop was produced from seven varieties of minor importance and some varieties that were unknown.

The data in Table 8 show that the bulk of the crop in Areas I, II and III, the areas where a large proportion of the cotton was sold in the seed, was produced from the three more important improved varieties. Half and Half was by far the most important single variety grown in Area IV where little cotton was sold in the seed. In both years in Area I, where from 75 to 100 percent of the cotton was sold in the seed, Half and Half or unimproved cotton accounted for only two percent of the entire crop, while approximately two-thirds of the crop was produced from the three improved varieties, Mebane, Acala, and Oklahoma Triumph 44. In Area II, where from 50 to 75 percent of the cotton was sold in the seed, 6.1 percent and 7.1 percent of the cotton crop in 1929 and 1930, respectively, was produced from the unimproved cotton, while 73.3 percent and 69.4 percent, respectively, of the two crops was produced from the three improved varieties. Virtually the same condition existed in Area III, where from 25 to 50 percent of the cotton was sold in the seed, although Half and Half was used somewhat more extensively than in the other two areas. In Area IV. where only a small per-

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[10]Variety data for 1929-30 and 1930-31 were used for the reason that complete data on varieties for all counties in the State were not available for 1931-32.

Data on varities grown in Oklahoma were collected by field men of the Dallas office of the Division of Cotton Marketing, United States Department of Agriculture. Every ginner in the State was interviewed and an estimate secured of the percentage of different varieties grown in their respective communities. These estimates were weighted by the bales ginned at each gin, then totaled by counties, areas of seed cotton sales, and for the State as a whole. Estimates of varieties from ginners were checked against estimates from county agents, cotton buyers, storekeepers, and farmers. The primary tabulations for varieties were prepared by R. T. Baggett, Assistant Agricultural Economist and other field men of the Division of Cotton Marketing, Dallas, Texas.

TABLE 8.—Varieties of Cotton Grown in Areas of Seed Cotton Sales,
Oklahoma, 1929-30 and 1930-31

(Percent of total crop)

Variety	State		Area I		Area II		Area III		Area IV	
	1930-31	1929-30	1930-31	1929-30	1930-31	1929-30	1930-31	1929-30	1930-31	1929-30
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Half and Half	23.1	31.4	2.1	2.0	7.1	6.1	10.3	12.2	31.4	40.0
Mebane	22.6	20.9	25.6	26.9	25.6	25.1	26.9	26.4	20.7	19.0
Acala	20.0	18.6	14.3	14.0	25.3	24.0	17.3	15.3	21.0	19.2
Okla. Tri. 44	10.4	8.4	25.0	24.0	18.5	24.2	18.2	18.9	5.2	3.6
Delfos	3.0	2.6	2.7	2.6	3.4	3.2	4.7	4.8	2.6	2.2
Kasch	2.3	2.5	1.7	1.9	0.4	0.3	1.2	1.3	2.9	2.9
Russell	1.8	1.9		0.1	0.3	0.4	0.5	0.4	2.6	2.4
Rowden	1.5	1.1	2.2	1.5	3.5	3.5	3.0	3.4	0.7	0.5
Galloway	1.2	0.8	0.1	0.1	1.7	0.8			1.6	1.0
Cliett	1.2	0.8	_ _	_ _ _					1.8	1.0
Qualla	1.0	0.7			0.1	0.1	1.0	1.0	1.2	0.7
Sunshine	0.7	0.4	0.1	0.1	0.4	0.3	0.6	0.5	0.8	0.4
Bennett	0.2	0.3							0.4	0.4
Lankhart	0.3	0.2	0.1	0.1	1.0	0.9	0.2	_ _ _	0.2	0.2
Boykin	0.1	0.1					0.1	0.1	0.1	0.2
Rucker	0.1	0.1					0.1		0.2	0.1
Lone Star	0.2	0.1	0.2	0.2	0.4	0.4	0.2	0.1	0.1	0.1
Harper	0.1								0.1	0.1
Delta Pine Land	0.1				0.1	0.1	0.6	0.2	0.1	
Wacona			0.3	0.3						
Ferguson 406							0.1			
Blocker							0.1			
Hart Long Staple									0.1	
Unknown	10.1	9.1	25.6	26.2	12.2	10.6	14.9	15.4	6.2	6.0

SOURCE: Compiled from data collected by field men of the Dallas office of the Division
of Cotton Markting, United States Department of Agriculture.

NOTE: The "Areas" referred to in the column headings are the same as outlined in
Figure I, page 6.

centage of the cotton was sold in the seed, 40.0 percent and 31.4 percent of
the crops of 1929 and 1930, respectively, was produced from Half and Half.

Half and Half cotton is generally known as an unimproved variety as
compared with Mebane, Acala, and Oklahoma Triumph 44. The improved
varieties are usually bred for production of larger bolls; for storm resist-
ance, so that the cotton will not fall to the ground when the winds and
rains occur; for resistance to boll rot; and for longer staple lengths. Half
and Half cotton has the reputation of not being bred for these qualities;
and, in addition, farmers usually call any cotton Half and Half that pro-
duces low grades[11] and short staple lengths or high percentages of lint
turnout at the gins. The higher percentages of improved varieties grown in
the areas of high percentage of seed cotton sales partly explain why these
areas have produced high quality cotton. Furthermore, these areas have
more rainfall, which, within limits, influences the production of longer

[11]The smaller bolled cottons, such as Half and Half, which produce the shorter lengths
of lint are usually not storm-resistant and therefore blow out on the ground easily,
becoming dirty, and lowering the grade.

staple lengths; and the farmers in these areas snap less cotton, which is a factor in the production of better grades.

In the areas where the farmers commonly sell a higher percentage of their cotton in the seed, it is generally thought that less seed are saved for planting purposes the following year than in the areas of lower percentages of sales of cotton in the seed. The farmers in eastern Oklahoma, where large proportions of the crop are sold in the seed, buy rather large quantities of their planting seed new each year, and practically all ginners in these areas sell planting seed as a sideline to the ginning business.

There is an apparent tendency to standardize on a single variety for each community; but in a number of communities where more than one gin was located it was found that one gin would sell one variety, such as Rowden, while a competing gin across the street would sell another variety such as Oklahoma Triumph 44. The larger extent to which ginners in eastern Oklahoma sell new and improved seed each year accounts, in part, for the high percentage of these improved varieties grown in these areas. The ginners know the farmers who are growing the better varieties of cotton, and they frequently claim that a higher price is paid for the better varieties of cotton. In reality, however, practically all of the cotton in a given community is purchased at one average price. Even if, in buying cotton in the seed, higher prices were paid for the improved varieties of cotton than for the unimproved varieties, there is no assurance that such prices would reflect the true commercial value of the cotton.

PRICE AND MARKET ANALYSIS

Lint Equivalent of Seed Cotton Prices

The main purpose of this study is to compare the prices received by farmers for cotton which was sold in the seed with prices received for cotton sold in the lint. In order to accomplish this purpose, it was necessary to make special provisions for securing the prices which farmers received for cotton sold in the seed. It was also necessary to take into consideration any differences in percentage of lint turnout as well as variations in grade and staple between the cotton which was sold in the seed and the cotton which was sold in the lint bale. It was, likewise, necessary to make allowance for any differences in the price level at the time the cotton was sold by the farmer in the one way or the other. In the price analysis which follows, complete allowance has been made for differences in quality between the two samples of cotton and for differences in price level at the time the cotton was sold by the farmer.

The method used assumes either that the price movements in the local and central markets are parallel or that the samples, as between bales sold in the lint and bales sold in the seed, are distributed uniformly throughout the period under consideration. It is recognized that prices in local markets do not always move exactly parallel, and it is recognized that the percentage distribution of the two series of data are not precisely uniform. (See Table 13, page 31. It is believed, however, that the differences were not great enough to influence materially the spread between the various price series or the conclusions drawn from them.

Farmers living in the areas where a high percentage of the cotton was sold in the seed hauled to the gin loads of seed cotton which varied in size from less than 500 pounds to more than 2600 pounds. (See Table 5, page 12.) A considerable number of these loads were sufficiently large to make a bale and yet the farmers sold the cotton to the ginner in the seed just as it had been picked. A great deal of the cotton which the ginner purchased in the seed was run into the cotton house, where it was mixed with other loads. Frequently, however, when the gins were not too crowded, this cot-

ton purchased in the seed was ginned directly from the farmer's wagon or truck. In such cases, a given load of seed cotton maintained its identity, and records relative to it could be traced through the books of the gin and the central classing office at Dallas. The ginners cooperated in keeping special records on such loads of seed cotton as were ginned directly from the farmer's wagon or truck. Special forms were furnished on which the ginner recorded the date of sale, the press bale number, the net weight of the seed cotton load, the price paid per pound for seed cotton, the weight of the gin bale, and the United States Department of Agriculture sample number. The press bale number was made to correspond with the United States Department of Agriculture sample number so that the government classification of each bale could be obtained from the government records.

Very few gins in eastern Oklahoma are equipped with seed scales, and none of the gins cooperating in this study was so equipped. It was necessary, therefore, to secure the weight of the seed and dirt and trash by another means. Before cotton is ginned, it contains a certain amount of sand, and after wind storms the sand content may be very large. There is, likewise, always some trash in unginned cotton, and the trash content may be very great in the case of cotton that has been snapped instead of picked.

It must be understood that, when cotton is sold in the seed by the grower, so much is paid per pound for the cotton just as it was picked in the field. The buyer pays for lint, seed, dirt, and trash all mixed together in varying proportions. In order to determine the difference between the price paid for cotton in the seed and in the lint, it is first necessary to reduce the two prices to a comparable basis. That has been accomplished in this study by converting the prices paid for seed cotton to lint equivalent prices.

The ginners in eastern Oklahoma have learned through experience that they cannot afford to pay for cottonseed when the weight has been calculated by deducting the weight of the lint bale from the weight of the load of seed cotton. This practice has been relatively common in a large portion of the older sections of the Cotton Belt where seed scales have not been in common use. The buyers know, from experience and a general knowledge of the kind of cotton produced in their community, the turnout of seed and lint in the areas from which they buy cotton. On a basis of this knowledge, certain practices have been adopted for determining the weight of seed in a load of seed cotton, and these methods have become quite universally the custom in their respective areas.

In general, the weight of the seed in a load of picked seed cotton is calculated by taking a fixed percentage of the unginned cotton. In the case of snapped cotton, the weight of the seed is calculated either as a fixed percentage of the unginned cotton or as a fixed ratio to the weight of the bale of lint cotton.

Method of Calculating Lint Equivalent Prices

The actual lint equivalent prices of cotton sold in the seed were obtained by multiplying the net weight of the load of seed cotton by the price paid per pound to obtain the gross sale value; deducting the value of the seed and adding the cost of ginning to obtain the net value of the load of seed cotton; and dividing this net value by the weight of the bale ginned from the load of seed cotton to obtain the lint equivalent price per pound.[12]

The methods used by the various ginners cooperating in this study to calculate the weight of the seed are shown in Table 9. These are the methods that were actually used by the various gin buyers in determining

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[12]A small error may possibly be involved in the calculation in that a portion of the ginning cost might logically be charged against the seed. If this had been done, the total value of a given load of seed cotton would have been reduced and the lint equivalent price would have been slightly lower.

what would be paid for cotton in the seed. These same methods of cal-

culating the weight of the cottonseed in a given load of seed cotton were used in calculating the lint equivalents of the seed cotton prices paid at the cooperating gins.

The current sale value of the seed was deducted from the gross value of the seed cotton because the value of the seed is not included in the price when cotton is purchased in the lint. The cost of ginning was added because the farmer selling his cotton in the lint is required to pay for the ginning which is supposedly included in the lint prices. The net amount secured in this manner was then divided by the weight of the lint bale ginned from the load of seed cotton. The prices arrived at in this manner are the actual prices per pound received by the farmers for cotton sold in the seed expressed in terms of the price of lint cotton in the bale.[13] These **lint equivalent prices are,** with the qualifications noted above (see page 21), comparable to prices received by the farmers for cotton sold directly in the lint; and the difference between these lint equivalent prices and prices received for cotton actually sold in the lint is a measure of the differences in prices received by farmers for the cotton which was sold by these two methods.

Method of Price Comparison

All of the cotton ginned at the cooperating gins was purchased by the **ginners. It was, therefore, a** comparatively easy matter to secure, from the ginner's books, the price paid per pound for all bales of cotton which were sold in the lint by farmers.[14] In addition to the price paid per pound for the lint cotton, the dates on which the cotton was ginned and purchased were recorded on forms provided especially for that purpose. The lint equivalents of the prices paid for cotton in the seed were recorded on the **same sheets together with the official classification of** the cotton which was sold in the seed and in the lint bale. Supplementary data relating to the practices followed at each gin, information relative to the central market to which the cotton was shipped, and data on handling charges, insurance, storage charges, and freight rates were also secured at each of the cooperating gins.

A direct comparison was made of the prices received by farmers for cotton sold in the seed, expressed as lint equivalents, and the prices actually received for cotton sold in the lint. It will be shown later that the cotton sold in the seed generally had a lower turnout of lint than the cotton which was sold in the lint. For that reason the spread between these two price

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[13]The following is an example of the way in which the lint equivalent price was calculated: A load of picked cotton which weighed 1680 pounds was sold at gin number 7 on October 24, 1931, at a price of $1.85 per hundredweight. The gross sales value of the load was 1680 pounds × $1.85 per cwt. or $31.08.

The weight of the seed was determined by taking 60 percent of the weight of the load; 60% × 1680 lbs.=1008 pounds of seed. The price of seed on this day was $8.00 per ton. The sales value of the seed was $8.00 per ton or $.40 per cwt.× 1008 lbs. or $4.04.

The price of ginning was 25 cents per hundredwight and $1.15 for bagging and ties. The cost of ginning was 1680 lbs.× $.25 per cwt. or $4.20+$1.15 for bagging and ties=$5.35.

The net value of the load of seed cotton was then the gross value of the load less the value of the seed plus the cost of ginning or $31.08—$4.04+$5.35 or $32.39.

The bale ginned from this load of seed cotton weighed 509 pounds. The lint equivalent price was then the net value $32.39÷509 lbs. or 6.36 cents per pound.

It is obvious that, with this method of calculation, the weight of the cottonseed in a load of seed cotton is estimated. The price analysis in this study is inaccurate to the extent that the estimate of the weight and value of the cottonseed are inaccurate. It is believed, however, that this method is suffciently accurate so that the general results of the study can be relied upon. Furthermore, the method here used is the one which was used by the gin buyers in determining the price that could be paid for cotton in the seed. It appears, therefore, that it is permissible to use the method here in making a comparison of the prices received by farmers when cotton was sold in the seed or in the lint.

[14]Round-lot purchases of cotton in the seed or in the lint were not included in this study.

TABLE 9.—Percentages Used in Calculating the Weight of Cotton Seed in Seed Cotton, Cooperating Gins, Eastern Oklahoma, 1930-31 and 1931-32

| Gin number | PERCENT OF SEED COTTON CALCULATED AS SEED | | | |
| | 1931-32 | | 1930-31 | |
	Picked	Snapped	Picked	Snapped
1	62	[1]	[3]	[3]
2	64	[2]	[3]	[3]
3	60	40	[3]	[3]
4	60 clean 58 dirty	[1]	60 clean 58 dirty	[1]
5	62 clean 60 dirty	[1]	62	[1]
6	60	45	60	45
7	60	40	60	40
8	64 Sept. Oct. 62 Nov. 60 Dec. Jan·	[1]	64 Sept. Oct. 62 Nov. 60 Dec. Jan	[2]
9	[3]	[3]	64 Sept. Oct. 62 Nov. 60 Dec. Jan.	[1]
10	[3]	[2]	60	40

SOURCE: Secured direct from the individual ginners cooperating in this study.
[1]Weight of the seed determined by the following formula: (weight of lint bale—20) × 2=weight of seed.
[2]No snapped cotton received.
[3]Gins not cooperating.

series should not be taken as a measure of the price advantage of selling cotton in the one way or the other, but as a measure of the price advantage of selling the lower turnout cotton in the seed rather than in the lint.

The spread between the local and central market prices was calculated by computing the difference between the price paid to farmers in the local market and the price paid at Houston, Texas, the market to which the largest proportion of Oklahoma cotton moved, on the same day and for the same quality of cotton. The prices paid per pound in Houston, on the same day for the same grade and staple length of cotton sold in the local markets, was obtained by adjusting the Houston spot price for middling, white, 7/8 inch cotton for each day by adding the premiums for grades above middling and staple lengths longer than 7/8 inch, and by subtracting the discounts for grades below middling and staple lengths shorter than 7/8 inch.[15]

The spread between the local market price and the Houston market price, expressed in cents per pound, represents what the ginners received to cover handling charges from the local points to Houston, such as freight, interest, exchange, insurance, handling cost, and profits if they resold and

[15]Because of the inability to obtain grade differences and staple premiums and discounts for all grades and staples in the Houston market, it was necessary to use the average quotations for several markets. For grade differences paid at Houston, averages of the quotations for the ten designated spot markets were used. For staple premiums paid in Houston for 15/16 inch and inch cotton, averages of the quotations for the six spot markets giving quotations for staple premiums were used. For premiums for staple lengths longer than 1 1/32 inches, averages of the quotations for Memphis and New Orleans were used. The discounts for 13/16 inch cotton used represent averages in New Orleans, Houston, and Galveston, partly calculated from actual sales and partly estimated. Staple premiums and discounts are for middling grade.

shipped the cotton to Houston by train on the same day it was purchased from the farmers. These spreads between the local and Houston market prices are used to measure the differences in prices between the local and central markets; to determine whether or not cotton was sold in the local markets either in the seed or in the lint on the basis of the Houston central market values for the same grade and staple lengths; and the variations in prices between the various local markets for the same grade and staple lengths. It must be recognized, however, that this spread does not necessarily represent the buyer's actual margin since he may have previously sold his cotton and might have been buying to fill a commitment; he may have held it for sale in the future; or the price actually received may have **varied from the actual Houston quotations, adjusted for grade and staple** differences, because the character of his particular cotton may have varied from the average. But the spread computed in this way undoubtedly does, on an average, fairly represent the actual situation.

Movement of Cotton to Central Markets

In selecting a central cotton market at which to secure daily quotations to compare with the prices paid farmers in their local markets, it is necessary to consider the markets to which the crop moves. A **study of Table 10 shows that, in both 1930-31 and 1931-32, over 70 percent** of the cotton from the points where the cooperating gins were located moved directly to various Gulf ports. It is also more than likely that much of the cotton which is shown as moving to Muskogee, Oklahoma, and Memphis, Tennessee, was only concentrated there and eventually was shipped to one of the Gulf ports.[16] In each of these two years, Houston was the most important point of destination of cotton shipped from the towns in which the cooperating gins were located. Nearly 58 percent of the cotton shipped from these points during 1930-31 moved directly to Houston. Only a little more than 32 percent moved directly to Houston during 1931-32, but an additional 32 percent moved directly to Galveston, where the market quotations and freight and other costs are practically the same as in the Houston market. During 1930-31 only about 10 percent of the cotton was billed directly to Galveston, so that only slightly more cotton from the Oklahoma points moved to these two markets in 1930-31 than in 1931-32. No appreciable amount of cotton was moved by truck from the cooperating gins in either of the two years under consideration.

It is clear that Houston was the most important central market so far as the cotton shipped from the cooperating gins was concerned. It was for that reason that the price of middling, white, 7/8 inch cotton at Houston has been used as the basic central market price in this study. This price, adjusted for grade differences and staple premiums and discounts, should represent fairly the market which was available to the great bulk of the cotton shipped from the cooperating gins. Figure VI shows the daily price of middling, white, 7/8 inch cotton at Houston from August to April, inclusive, for the two seasons covered by this study.

Handling Charges

The price comparisons which are presented do not allow for transportation costs from the local market to Houston or the central market. The price analysis would probably be confused by either adding handling charges to the local price or deducting them from the Houston price adjusted for grade and staple differences to show the real relationship between the two price series. Such costs must, however, be considered when measuring the

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[16]The establishment of car-lot rates on cotton from Oklahoma to southern and New England mill points at the beginning of the 1932-33 cotton season had the effect of diverting overland to these mill areas considerable quantities of cotton that had previously moved to Gulf ports.

TABLE 10.—Destination of Cotton Shipped from Oklahoma Points at Which Cooperating Gins were Located, 1930-31 and 1931-32

Gin number	Total number bales shipped	HOUSTON, TEXAS		ALL GULF PORTS[1]		MUSKOGEE, OKLAHOMA		MEMPHIS, TENNESSEE		ALL OTHER MARKETS	
		Bales	Percent	Bales	Percent	Bales	Percent	Bales	Percent	Bales	Percent
Five gins, 1930-31[2]											
Total	17,568	10,175	57.92	12,501	71.16	1,742	9.92	1,733	9.86	1,592	9.06
4	4,882	2,127	43.57	2,806	57.48	903	18.50	1,044	21.38	129	2.64
5	5,531	3,561	64.38	4,012	72.54	265	4.79	628	11.36	626[3]	11.31
6	5,409	4,437	82.04	5,112	94.51					297[4]	5.49
8	392	- - -		77	19.64	130	33.16	14	3.57	171[5]	43.63
9	1,354	50	3.69	494	36.49	444	32.79	47	3.47	369[6]	27.25
Eight gins, 1931-32											
Total	36,184	11,702	32.34	26,440	73.08	5,533	15.29	607	1.67	3,604	9.96
1	5,311	1,140	21.46	4,099	77.17	916	17.25	200	3.77	96	1.81
2	619	307	49.60	307	49.60	312	50.40				
3	3,437	1,385	40.29	1,713	49.84	786	22.87	50	1.45	888[7]	25.84
4	7,628	3,362	44.07	5,743	75.29	1,277	16.75	33	0.43	575[8]	7.53
5	8,862	2,511	28.34	6,877	77.60	1,610	18.17	185	2.09	190	2.14
6	6,475	2,195	33.90	6,300	97.30			65	1.00	110	1.70
7	3,484	686	19.69	1,285	36.88	460	13.20	24	0.69	1.715[9]	49.23
8	368	116	31.52	116	31.52	172	46.74	50	13.59	30	8.15

[1]Includes shipments to Houston, Galveston and Texas City, Texas, New Orleans, Westwego, and Lake Charles, Louisiana, and Liverpool, England.
[2]It was possible to secure these records for only five of the seven points where cooperating gins were located in 1930-31.
[3]Includes 262 bales shipped to Canada.
[4]Includes 169 bales shipped to Dallas, Texas.
[5]Includes 96 bales shipped to Canada and 75 bales shipped to Weleetka, Oklahoma.
[6]Includes 285 bales shipped to Canada.
[7]Includes 664 bales shipped to Weleetka, Oklahoma.
[8]Includes 500 bales shipped to Dallas, Texas.
[9]Includes 908 bales shipped to Fort Smith, Arkansas, and 518 shipped to points in South Carolina.

**Figure VI.—Daily Spot Price of Middling, White, 7/8 inch Cotton,
Houston, Texas, July to April, 1930-31 and 1931-32**
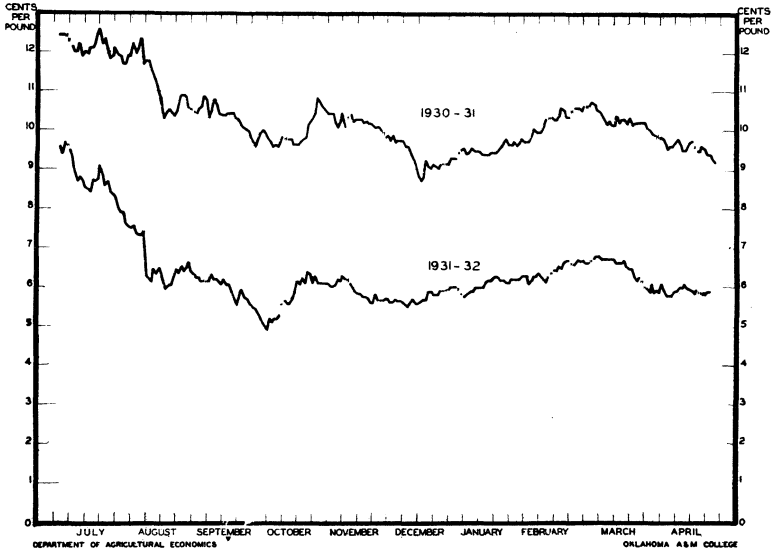
The price analyses are based on the daily spot price of middling, white, 7/8 inch
cotton at Houston, the point to which the great bulk of the cotton sold at the cooperating
gins moved. The seasonal trend in price was practically the same each year, the prin-
cipal differences between the two seasons being the differences in price level. The breaks
in the lines represent holidays when there were no market quotations.

spread between the prices in any two markets. The handling charges be-
tween the cooperating gins and Houston are presented in Table 11, the last
column of which shows the handling charges reduced to cents per pound of
lint cotton. The average handling charges in transporting cotton from the
seven cooperating gins to Houston in 1930-31 was 1.03 cents per pound, and
similar charges from the eight cooperating gins in 1931-32 was .92 cent per
pound prior to December 5, 1931, when the freight rates were changed, and
.72 cent per pound after that date. It should be noted that well over 90
percent of the total handling charges each year could be attributed to the
single item of freight. In thinking of the price spreads between various
markets, the common practice is to consider freight only, and if that were
done in this case the results, for all practical purposes at least, would be
essentially the same as when the other items of interest, exchange, insur-
ance, drayage, and yardage are included. However, these latter items are
actual cost and must be covered by the dealer's margin unless there are
sources of profit other than those resulting from the purchase and sale of
cotton· These items have been included here in order to come as close as
possible to the actual conditions met by the local buyer when he sells his
cotton in a central market.

Comparability of Price Data

In any study where two price series are compared, it is essential that
the data not only be adequate but also be comparable in every respect. The
price analysis in this study is based on data for nearly one-fourth of all the
bales ginned at cooperating gins as shown in Table 12. It will be noted

TABLE 11.—Handling Charges on Cotton from Points in Oklahoma to Houston, Texas, 1930-31 and 1931-32

Gin number	Freight rate per cwt.[1] (dollars)	CHARGES PER 500 POUND BALE (DOLLARS)							Charges per pound (cents)	ADJUSTMENTS TO HOUSTON SPOT QUOTATIONS[5]			Net charge per pound (cents)
		Freight	Inter-est[2]	Ex-change[3]	Insur-ance[4]	Dray-age	Yard-age and weigh-ing	Total		Deduct com-pression, stand'd density, interior[6]	Add charges, high density, interior[7]	Add concen-tration at Houston[8]	
1930-31													
Seven markets	1.019	5.095	.089	.063	.15	.10	.014	5.511	1.10	.18	.02	.09	1.03
4	1.02	5.10	.089	.063	.15	.00	.00	5.402	1.08	.18	.02	.09	1.01
5	1.02	5.10	.089	.063	.15	.00	.00	5.402	1.08	.18	.02	.09	1.01
6	1.02	5.10	.089	.063	.15	.15	.10	5.652	1.13	.18	.02	.09	1.06
7	1.015	5.075	.089	.063	.15	.10	.00	5.477	1.10	.18	.02	.09	1.03
8	1.02	5.10	.089	.063	.15	.15	.00	5.552	1.11	.18	.02	.09	1.04
9	1.02	5.10	.089	.063	.15	.15	.00	5.552	1.11	.18	.02	.09	1.04
10	1.02	5.10	.089	.063	.15	.15	.00	5.552	1.11	.18	.02	.09	1.04
1931-32													
Eight markets													
Prior to Dec. 5	.935	4.675	.044	.031	.075	.112	.012	4.949	.99	.18	.02	.09	.92
After Dec. 5	.738	3.690	.044	.031	.075	.112	.012	3.586	.79	.18	.02	.09	.72
1-Prior to Dec. 5	.95	4.75	.044	.031	.075	.10	.00	5.000	1.00	.18	.02	.09	.93
After Dec. 5	.75	3.75	.044	.031	.075	.10	.00	4.000	.80	.18	.02	.09	.73
2-Prior to Dec. 5	.95	4.75	.044	.031	.075	.15	.00	5.050	1.01	.18	.02	.09	.94
After Dec. 5	.75	3.75	.044	.031	.075	.15	.00	4.050	.80	.18	.02	.09	.73
3-Prior to Dec. 5	.95	4.75	.044	.031	.075	.15	.00	5.050	1.01	.18	.02	.09	.94
After Dec. 5	.75	3.75	.044	.031	.075	.15	.00	4.050	.80	.18	.02	.09	.73
4-Prior to Dec. 5	.89	4.45	.044	.031	.075	.00	.00	4.600	.90	.18	.02	.09	.83
After Dec. 5	.70	3.50	.044	.031	.075	.00	.00	3.650	.70	.18	.02	.09	.63
5-Prior to Dec. 5	.95	4.75	.044	.031	.075	.10	.00	5.000	1.00	.18	.02	.09	.93
After Dec. 5	.75	3.75	.044	.031	.075	.10	.00	4.000	.80	.18	.02	.09	.73

TABLE 11.—(Continued)

Gin number	Freight rate per cwt.[1] (dollars)	CHARGES PER 500 POUND BALE (DOLLARS)							Charges per pound (cents)	ADJUSTMENTS TO HOUSTON SPOT QUOTATIONS[5]			Net charge per pound (cents)
		Freight	Interest[2]	Exchange[3]	Insurance[4]	Drayage	Yardage and weighing	Total		Deduct compression, stand'd density, interior[6]	Add charges, high density, interior[7]	Add concentration at Houston[8]	
6-Prior to Dec. 5	.89	4.45	.044	.031	.075	.15	.10	4.850	.97	.18	.02	.09	.90
After Dec. 5	.70	3.50	.044	.031	.075	.15	.10	3.900	.78	.18	.02	.09	.71
7-Prior to Dec. 5	.95	4.75	.044	.031	.075	.10	.00	5.000	1.00	.18	.02	.09	.93
After Dec. 5	.75	3.75	.044	.031	.075	.10	.00	4.000	.80	.18	.02	.09	.73
8-Prior to Dec. 5	.95	4.75	.044	.031	.075	.15	.00	5.050	1.01	.18	.02	.09	.94
After Dec. 5	.75	3.75	.044	.031	.075	.15	.00	4.050	.80	.18	.02	.09	.73

[1]From The Oklahoma State Cotton Exchange, Oklahoma City, Oklahoma.
[2]Based on a valuation of $50.00 per bale in 1930-31 and $25.00 in 1931-32, holding four days on the cotton yard, four days for clearance after shipment, and interest at eight percent.
[3]Based on a valuation of $50.00 per bale in 1930-31 and $25.00 in 1931-32, and a rate of 1/8 of one percent.
[4]Based on a valuation of $50.00 per bale in 1930-31 and $25.00 in 1931-32, an insurance rate of $5.00 per $100.00 valuation for the season and six percent for the four days the cotton was held at the gin.
[5]Spot quotations at Houston are for ex-warehouse flat cotton.
[6]The freight rate in 1930-31 and in 1931-32 included standard density compressions. Therefore this compression is deducted from the freight rate paid to adjust the interior prices to the Houston quotations.
[7]Most of the cotton shipped from eastern Oklahoma in 1930-31 and 1931-32 was compressed to high density at interior compresses for which a charge of 2 points or 10 cents per bale was made.
[8]Charges F. O. B. warehouse 1930-31 and 1931-32 at Houston, Texas, were 9 points or 45 cents per bale which included all concentration charges.
NOTE: Cotton shipped standard density compression from the interior of Oklahoma in 1930-31 and 1931-32 carried a charge of 75 cents or 15 points per bale to put to high density compression at the ports which amount included all charges for concentration. The shippers could pay 10 cents per bale or 2 points additional charges, at interior compresses and obtain high density compression which eliminated the 15 points charges at Houston. On the other hand, the Houston compresses charged 45 cents per bale or 9 points for concentration of high density cotton.

from the table that the data secured is 24.13 percent and 21.29 percent of
the total cotton ginned at these gins in 1930-31 and 1931-32, respectively.
In each year the number of lint bales reached a larger proportion of the
total sample secured than was true in the case of cotton sold in the seed.
This should not be taken to indicate the relative proportion of the cotton
purchased in the seed and in the lint during these two years at the individual
gins which has been shown in Table 1, page 4. Rather it is indicative of
the difficulty incurred in securing test bales when the cotton is sold in the
seed. The reason for this is, of course, that a very large proportion of the
cotton that is sold in the seed is stored in the cotton house previous to
ginning. Data for the bales sold in the seed used in this study include only
those loads which were of the proper size to make a bale and were ginned
directly from the farmer's wagon at the time of sale, as previously ex-
plained. (See pages 21 and 22). Nevertheless, the data are believed to be
adequate in size for the purpose of comparing the prices paid for the cotton
when sold in the seed and in the lint, and drawing conclusions relative to
the results of the practice.

**TABLE 12.—The Proportion of Total Ginnings Sampled at Cooperating
Gins, Eastern Oklahoma, 1930-31 and 1931-32**

Gin number	Total ginnings (bales)	SAMPLE SECURED					
		BALES			PERCENT		
		Seed	Lint	Total	Seed	Lint	Total
Seven gins, 1930-31							
Total	6344	447	1084	1531	7.05	17.08	24.13
4	880	44	140	184	5.00	15.91	20.91
5	1601	180	292	472	11.24	18.24	29.48
6	1125	41	398	439	3.64	35.38	39.02
7	441	28	121	149	6.35	27.44	33.79
8	569	98	44	142	17.22	7.73	24.96
9	1433	30	34	64	2.09	2.37	4.47
10	295	26	55	81	8.81	18.64	27.46
Eight gins, 1931-32							
Total	10875	1038	1278	2316	9.54	11.75	21.29
1	1668	339	45	384	20.31	2.70	23.02
2	936	40	....	40	4.27		4.27
3	1688	22	149	171	1.30	8.83	10.13
4	1366	51	73	124	3.73	5.34	9.08
5	2752	239	277	516	8.68	10.07	18.75
6	1124	160	406	566	14.24	36.12	50.36
7	896	27	313	340	3.01	34.93	37.95
8	445	160	15	175	35.96	3.37	39.33

SOURCE: Compiled from data secured directly from the gin books.

The individual bale data used in this study are relatively uniform in
their distribution throughout each season and by price periods. Table 13
shows the weekly distribution of data secured at cooperating gins for the
two years. While there are some variations in the percentage distribution
of the seed bales and lint bales in the various weeks, there is a high degree
of uniformity in the distribution when the bales are grouped on a basis of
periods in which prices fluctuated within a rather narrow range. In order
to test this, the daily data were classified, as shown in Table 14, into three

groups, depending on the daily fluctuation in price. The three price-range classes for 1930-31 were from 10.50 to 10.95 cents per pound, 10.00 cents to 10.45 cents per pound, and 9.50 cents to 9.95 cents per pound. The three price-range classes for 1931-32 were from 6.00 to 6.40 per pound, 5.40 to 5.90

TABLE 13.—Weekly Distribution of Data Secured at Cooperating Gins, Eastern Oklahoma, 1930-31 and 1931-32

Week number	Date	SALES IN SEED		SALES IN LINT	
		Number of bales	Percent	Number of bales	Percent
Seven gins, 1930-31					
Total	Season	447	100.00	1084	100.00
8	Aug. 18-Aug. 24	1	.22	—	—
9	Aug. 25-Aug. 31	1	.22	2	.18
10	Sept. 1-Sept. 7	7	1.57	17	1.57
11	Sept. 8-Sept. 14	17	3.80	38	3.51
12	Sept. 15-Sept. 21	23	5.15	93	8.58
13	Sept. 22-Sept. 28	49	10.96	237	21.87
14	Sept. 29-Oct. 5	70	15.66	233	21.49
15	Oct. 6-Oct. 12	40	8.95	90	8.30
16	Oct. 13-Oct. 19	119	26.62	119	10.98
17	Oct. 20-Oct. 26	49	10.96	81	7.47
18	Oct. 27-Nov. 2	41	9.18	108	9.96
19	Nov. 3-Nov. 9	20	4.47	45	4.15
20	Nov. 10-Nov. 16	5	1.12	17	1.57
21	Nov. 17-Nov. 23	5	1.12	3	.28
22	Nov. 24-Nov. 30	—	—	1	.09
Eight gins, 1931-32					
Total	Season	1038	100.00	1278	100.00
10	Aug. 31-Sept. 6	—	—	2	.16
11	Sept. 7-Sept. 13	7	.67	8	.63
12	Sept. 14-Sept. 20	48	4.62	70	5.48
13	Sept. 21-Sept. 27	125	12.05	219	17.13
14	Sept. 28-Oct. 4	118	11.37	252	19.71
15	Oct. 5-Oct. 11	81	7.80	178	13.92
16	Oct. 12-Oct. 18	40	5.85	57	2.90
17	Oct. 19-Oct. 25	68	6.55	52	4.07
18	Oct. 26-Nov. 1	101	9.73	68	5.32
19	Nov. 2-Nov. 8	144	13.88	146	11.42
20	Nov. 9-Nov. 15	124	11.95	128	10.02
21	Nov. 16-Nov. 22	40	3.85	41	3.21
22	Nov. 23-Nov. 29	2	.19	11	.86
23	Nov. 30-Dec. 6	18	1.73	18	1.41
24	Dec. 7-Dec. 13	29	2.79	13	1.02
25	Dec. 14-Dec. 20	30	2.89	13	1.02
26	Dec. 21-Dec. 27	19	1.83	13	1.02
27	Dec. 28-Jan. 3	25	2.41	5	.39
28	Jan. 4-Jan. 10	11	1.06	—	—
29	Jan. 11-Jan. 17	4	.39	1	.08
30	Jan. 18-Jan. 24	4	.39	3	.23

SOURCE: Compiled from data secured directly from the gin books.

cents per cound, and 4.90 to 5.30 cents per pound. The data were classified into these various groups according to the price quoted in the Houston market on the day on which the cotton was sold in the local market. In both years, there was a rather uniform distribution of both the seed and lint bales between these various price-range classes.

TABLE 14.—Distribution of Samples of Cotton Sold in the Seed and in the Lint by Price Periods, Cooperating Gins, Eastern Oklahoma, 1930-31 and 1931-32

Price range (cents per pound)	SALES IN SEED		SALES IN LINT	
	Number bales[1]	Percent	Number bales[1]	Percent
Seven gins, 1930-31				
Total	450	100.00	1061	100.00
10.50-10.95	38	8.44	118	11.12
10.00-10.45	151	33.56	433	40.81
9.50- 9.95	261	58.00	510	48.07
Eight gins, 1931-32				
Total	1059	100.00	1250	100.00
6.00-6.40	484	45.70	430	34.40
5.40-5.90	415	39.19	497	39.76
4.90-5.30	160	15.11	323	25.84

SOURCE: Compiled from data secured directly from the gin books.
[1]Represents the number of sample bales of cotton which were sold by farmers in periods during which the price did not fluctuate more than that indicated by the figures in the first column showing the "price range" in cents per pound. The number of bales shown in this table do not agree with that shown in Table 12 for the reason that this table includes a few bales which for one reason or another could not be used in the actual price comparison.

Data on both seed and lint sales secured showed some uniformity so far as grade and staple lengths were concerned, as is shown in Table 15. It is noted, however, that cotton sold in the lint was generally somewhat higher in grade and shorter in staple than cotton sold in the seed. Since the shorter staple length cottons are generally the high percentage lint turn-out cottons, this indicates that farmers tend to sell their high-turn-out cotton in the lint.

A comparison of the prices received for the cotton sold in the seed and in the lint is justified by the fact that differences in value between the seed and lint bales, due to variations in quality or fluctuations in the price level from day to day, are accounted for by adjusting these differences to the Houston price base for the same qualities on the date of sale. Any differences in value between cotton sold in the seed and in the lint which might arise due to differences in grade and staple length of the cotton, or to differences in the price of cotton at the time of sale by the farmer, are eliminated by adjusting for the differences in the Houston prices of the lint and seed bales of cotton. A bale of cotton of a given quality which a farmer sold in the seed was worth exactly the same amount on the Houston market as a bale of the same quality which was sold in the lint on the same day. The differences in the Houston prices, therefore, indicate differences of quality or variations in price level in the local market at the time of sale by the farmer. These adjustments are shown in the last two columns of

Tables 16, 17, 18 and 19.[17]   As explained on page 21, this method assumes a parallel movement in the local and central market prices or a uniform distribution of the two series of sample data.

Comparison of the Prices Received in the Local Markets for Cotton Sold in the Seed and in the Lint

A higher price was paid farmers in the local markets for cotton sold in the seed than for cotton sold in the lint at all of the cooperating gins except at gins Nos. 8 and 10 in 1930-31 and gin No. 3 in 1931-32, as shown in the last column of Table 16.   The figures in the last column of this table represent the differences between the prices paid to farmers for cotton in the seed and in the lint after adjustments had been made for differences in grade and staple length of the cotton, as well as for variations in price level at the time the cotton was purchased.   These adjustments for quality and price level were obtained by first calculating the value of the cotton sold in the local market, on a basis of the quotations in the Houston market on the same day it actually was sold in the local market.   This reduced the cotton which was sold in the seed and in the lint to a common price base.   The differences existing between the values arrived at in this manner were due to variations in quality and price level.   The actual differences paid for cotton in the seed and in the lint, in the local markets, were adjusted for the differences due to quality and price level, in the Houston market, to show the differences due to selling the cotton in the seed or in the lint.

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[17]For example, on September 20, 1930, the ginner at point No. 5 purchased a bale of middling, white, inch cotton in the seed at 11.94 cents per pound, and a bale of middling, white, 15/16 inch cotton in the lint at 11.00 cents per pound.   The Houston base price on that day was 10.30 cents per pound for middling, white, 7/8 inch cotton and 87 points on was being paid for inch cotton and 37 points on for 15/16 inch cotton.   No adjustment was necessary for price level since both bales were sold on the same day, or for grade since both bales were middling grade; but the adjustment for the difference in staple length was made by subtracting the difference between the staple premiums of 50 points from the difference between the local prices of 94 points or a net of 44 points in favor of the seed bale.   In other words, after allowing for the difference in staple value of 50 points, the bale sold in the seed netted the former 44 points more than the bale which had been ginned.

The adjustment for a difference in price level due to a difference in the date of sale is illustrated by the following example: On September 22, 1930, a bale of strict middling white, 1 and 1/32 inch cotton was purchased in the seed at point No. 5 at a price of 11.54 cents per pound when the Houston quotation for middling, white, 7/8 inch cotton was 10.20 cents per pound.   On September 24, 1930, a bale of cotton of exactly the same quality was purchased in the lint at point No. 5 at a price of 10.50 cents per pound when the Houston base price was 10.05 cents per pound.   Since the two bales were of the same quality, no adjustment for that factor was necessary.   The adjustment for variation in price level was made by subtracting the difference between the base price at Houston on September 22 and 24 of 15 points from the difference of 74 points between the prices paid in the local markets or a net of 59 points in favor of the bale which had been sold in the seed.

An example of the adjustment for variations in both price level and quality is shown by a comparison of the prices received for two bales of cotton sold at point No. 5.   On September 25, a farmer sold a bale of strict middling, white, one inch cotton to his local ginner at 11.47 cents per pound.   The Houston base price on that day was 10.00 cents and 30 points on was being paid for grade and 89 points on for staple.   On September 27, another farmer sold a bale of middling, white, 15/16 inch cotton to the same ginner at 10.00 cents per pound.   The Houston base price had dropped to 9.75 cents; there was, of course, no premium for grade; and 37 points on was being paid for 15/16 inch staple.   The bale sold in the seed was disposed of at a time when the price level was 25 points higher than when the second bale was sold.   The bale sold in the seed was likewise 82 points better in quality than the other bale.   Thus, the price paid for the bale which was sold in the seed should have included 25 points more for price level and 82 points for quality, or a total of 107 points, when compared with the price received for the bale which was sold in the lint bale two days later.   When the 107 points are subtracted from the difference of 122 points between the prices paid in the local market, 15 points remain as the real difference between the price paid in the seed and in the lint for these two particular bales of cotton.

Table 16 shows that on an average for all gins for the entire season .54 cent more per pound was paid for cotton in the seed than for cotton in the lint during 1930-31 and .25 cent more during 1931-32. The range for individual gins was large, particularly in 1930-31. In that year gin No. 8 paid .07 cent, and gin No. 10 paid .20 cent per pound more for cotton purchased in the lint than for cotton purchased in the seed, while gins Nos. 7 and 9 paid 1.08 cents and 1.07 cents per pound, respectively, more for cotton purchased in the seed than for cotton purchased in the lint. In the cases of gins Nos. 8 and 10, which paid more for cotton in the lint than for cotton in the seed, there was only the one gin in each community, which meant that competition was not particularly keen in the purchase of seed cotton. These higher prices paid for lint cotton are therefore largely the result, not of higher price for lint cotton, but lower prices for seed cotton. This is indicated by the differences in the shipper's margin as between seed and lint cotton shown in Table 20. Also in 1930-31, gins Nos. 4 and 5 paid substantially larger amounts for cotton in the seed than for cotton they purchased in the lint, while gin No. 6 paid slightly more for cotton in the seed.

In 1931-32 the range in price differences between seed and lint prices was much narrower than in 1930-31. This was undoubtedly due to the fact that much lower prices were being paid for cotton, together with the fact that a rapid price decline during the early part of the season, necessitated purchasing on a narrower margin. Gin No. 3 paid .25 cent per pound more for cotton in the lint than for cotton in the seed. This condition was not due to the lack of competition, since there were two other gins in town, but rather to the fact that the ginner, by his own statement, was making an ef-

TABLE 15.—Grade and Staple Length of Cotton in Bales Sampled at Cooperating Gins, Eastern Oklahoma, 1930-31 and 1931-32

	SEVEN GINS 1930-31				EIGHT GINS 1931-32			
	SEED		LINT		SEED		LINT	
	Bales	Percent	Bales	Percent	Bales	Percent	Bales	Percent
Grade								
Total	447	100.00	1084	100.00	1038	100.00	1278	100.00
G. M.	5	1.12	10	.92	68	6.55	115	9.00
S. M.	121	27.07	340	31.37	337	32.46	623	48.75
M.	223	49.89	514	47.32	230	22.16	284	22.22
S. L. M.	87	19.46	197	18.17	155	14.93	145	11.35
L. M.	11	2.46	23	2.12	124	11.95	83	6.49
S. G. O.	---	---	---	---	113	10.89	26	2.03
G. O.	---	---	---	---	11	1.06	2	.16
Staple Length								
Total	447	100.00	1084	100.00	1038	100.00	1278	100.00
13/16	8	1.79	46	4.24	18	1.73	26	2.03
7/8	101	22.60	345	31.83	316	30.44	425	33.26
15/16	224	50.11	486	44.84	406	39.12	618	48.36
1 and 1 1/32	104	23.27	184	16.97	274	26.40	205	16.04
1 1/16 and 1 3/32	9	2.01	20	1.85	24	2.31	4	.31
1 1/8 and 1 5/32	1	.22	2	.18	---	---	---	---
1 3/16 and 1 7/32	---	---	1	.09	---	---	---	---

SOURCE: Compiled from the classification records of the office of the Grade and Staple Estimates, Division of Cotton Marketing, Bureau of Agricultural Economics, United States Department of Agriculture, Dallas, Texas.

TABLE 16.—Prices Received by Farmers for Cotton Sold in the Seed and in the Lint, and Value on a Basis of Houston, Texas, Quotations, at Cooperating Gins, Eastern Oklahoma, 1930-31 and 1931-32

(Cents per pound)

Gin number	NUMBER BALES		PRICE PAID IN LOCAL MARKET		Difference, seed price over lint price[1]	VALUE OF COTTON ON BASIS OF HOUSTON QUOTATIONS[2]		Adjustment for varia-tion in quality and date of sale[3]	Difference, seed price over lint price, after adjustment for varia-tion in grade and staple and date of sale[4]
	Seed	Lint	Seed	Lint		Seed	Lint		
Seven gins, 1930-31									
Total	447	1084	10.07	9.51	.56	10.32	10.30	.02	.54
4	44	140	9.98	9.49	.49	10.23	10.43	−.20	.69
5	180	292	10.92	10.06	.86	10.49	10.48	.01	.85
6	41	398	8.98	9.30	−.32	9.82	10.20	−.48	.16
7	28	121	9.89	8.92	.97	9.71	9.82	−.11	1.08
8	98	44	9.22	9.32	−.10	10.51	10.54	−.03	−.07
9	30	32	10.57	9.89	.68	9.95	10.34	−.39	1.07
10	26	55	8.89	9.33	−.44	10.37	10.61	−.24	−.20
Eight gins, 1931-32									
Total	1038	1278	5.52	5.29	.23	5.91	5.93	−.02	.25
1	339	45	5.49	5.23	.26	5.80	6.15	−.35	.61
2	40	----	5.82	----	----	6.52	----	----	----
3	22	149	4.99	5.33	−.34	6.13	5.94	.09	−.25
4	51	73	5.77	5.12	.65	6.19	5.87	.35	.30
5	239	277	5.80	5.60	.20	5.85	5.95	−.10	.30
6	160	406	5.38	5.10	.28	5.65	5.87	−.22	.48
7	27	313	5.63	5.31	.32	6.00	5.98	.02	.30
8	160	15	5.20	5.04	.16	6.16	6.11	.05	.11

SOURCE: Local market prices compiled from data secured directly from the gin books; Houston base price   (Continued on bottom next page)

fort to have the cotton ginned rather than sold in the seed. Consequently he paid the best price possible for custom ginned cotton. **Gin No. 2 purchased no cotton in the lint and thus no comparisons could be made. The** other six gins paid more for cotton purchased in the seed than for cotton purchased in the lint, the differences ranging from .11 cent to .61 cent per **pound.**

The variation from month to month in the difference between the price paid for cotton in the seed and in the lint was not at all uniform in either year. The greatest difference in favor of cotton purchased in the seed was in August, 1930-31, and in January, 1931-32, as shown in Table 17. It should be noted that a higher price was paid for cotton in the seed during each month for which records were secured. An analysis of the data by months for the individual gins reveals the same condition. With some gins, the difference in favor of cotton in the seed was greatest during the earlier part of the season, while for other gins the difference in favor of seed cotton was greatest during the latter part of the season. This indicates that the practice of paying more for cotton in the seed is quite common throughout each season.

The prices received for cotton sold in the seed were generally higher than the prices received for cotton of the same quality sold in the lint, as shown in Tables 18 and 19. A higher price was paid for cotton purchased in the lint in the case of only one quality in 1930-31 and in the case of ten qualities in 1931-32. The margins in favor of cotton purchased in the seed were generally lower in 1931-32 than in 1930-31, due in large measure undoubtedly to the extremely low prices prevailing in 1931-32, as shown in Figure VI, page 27, and to the fact that the almost continuous decline of prices from the early part of March to the middle of October, 1931, necessitated more careful buying. It is significant that, generally speaking, the larger margins in favor of cotton purchased in the seed occurred in the case of the lower qualities of cotton. This situation was true in both years, but it was most pronounced in 1931-32. This situation is indicative of what happens under a system of buying on "averages" or buying on a so-called "hog-around" basis. From the farmer's point of view this is the same as paying a premium for the lower quality cottons and penalizing the higher quality cottons. Under such a marketing system there is little or no incentive for the individual producer to take the pains to improve the quality of his product. As previously explained, the fact that the cotton produced in the areas of high percentage of sales of cotton in the seed in eastern Oklahoma is of higher quality than cotton produced in the areas of low percentage of sales of cotton in the seed (See Table 7, pages 16 and 17.) is due in part to the practice of farmers selling their supply of planting seed when they sell cotton in the seed and the ginners selling improved strains to the farmers at planting time, and in part to climatic conditions.

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and premiums and discounts for cotton grading above and below middling or with a staple length longer or shorter than 7/8 inch from the Bureau of Agricultural Economics, United States Department of Agriculture.

[1]Minus sign (—) indicates that the price paid for cotton in the lint was above the price paid for cotton in the seed.

[2]This represents the price at which cotton of identical grade and staple length to that represented in the sample data was sold on the Houston market on the same day on which the cotton was purchased by the ginner in the local market.

[3]This represents the difference in price between cotton sold in the seed and in the lint which was due to variations in quality or variation in dates on which the cotton was sold by the farmer in his local market. Minus sign (—) indicates that the value of the cotton purchased in the lint, on a basis of the Houston quotations, was greater than that for cotton purchased in the seed.

[4]The figures in this column represent the actual spread between the price paid to farmers for cotton purchased in the seed and in the lint after allowing for differences in grade and staple of the cotton as well as allowing for variations in prices at the time the cotton was sold in the local market. A minus sign (—) indicates that a higher price was paid for the cotton in the lint.

TABLE 17.—Prices Received by Farmers for Cotton Sold in the Seed and in the Lint, and Value on a Basis of Houston, Texas, Quotations, by Months at Cooperating Gins, Eastern Oklahoma, 1930-31 and 1931-32

(Cents per pound)

Month	NUMBER OF BALES		PRICE PAID IN LOCAL MARKET		Difference in seed price over lint price[1]	VALUE OF COTTON ON BASIS OF HOUSTON QUOTATIONS[2]		Adjustment for variation in quality and date of sale[3]	Difference, seed price over lint price, after adjustment for variation in grade and staple and date of sale[4]
	Seed	Lint	Seed	Lint		Seed	Lint		
Seven gins, 1930-31									
Season	447	1084	10.07	9.51	.56	10.32	10.30	.02	.54
August	3	2	11.32	10.00	1.32	11.02	11.27	—.25	1.57
September	109	436	10.71	9.88	.83	10.71	10.49	.22	.61
October	297	553	9.81	9.18	.63	10.11	10.13	—.02	.65
November	38	90	10.16	9.74	.42	10.73	10.44	.29	.13
December	--	3	----	9.50	----	----	10.03	----	----
Eight gins, 1931-32									
Season	1038	1278	5.52	5.29	.23	5.91	5.93	—.02	.25
September	233	396	6.02	5.45	.57	6.49	6.27	.22	.35
October	356	476	5.34	4.99	.35	5.99	5.76	.23	.12
November	310	333	5.44	5.58	—.14	5.72	5.88	—.16	.02
December	117	66	5.24	5.11	.13	5.07	5.46	—.39	.52
January	22	7	5.67	5.38	.29	5.44	6.34	—.90	1.19

SOURCE: Local market price compiled from data secured directly from the gin books of cooperating gins; Houston base price and premiums and discounts for cotton grading above and below middling or with a staple length longer or shorter than 7/8 inch from the Bureau of Agricultural Economics, United States Department of Agriculture.

[1]Minus sign (—) indicates that the price paid for cotton in the lint was above the price paid for cotton in the seed.

[2]This represents the price at which cotton of identical grade and staple to that represented in the sample data was sold on the Houston market on the same day on which the cotton was purchased by the ginner in the local market.

[3]This represents the difference in price between cotton sold in the seed and in the lint which was due to variations in quality or variation in dates on which the cotton was sold by the farmer in his local market. Minus sign (—) indicates that the value of the cotton purchased in the lint, on a basis of the Houston quotations, was greater than that for cotton purchased in the seed.

[4]The figures in this column represent the actual spread between the price paid to farmers for cotton purchased in the seed and in the lint after allowing for differences in grade and staple of the cotton as well as allowing for variations in prices at the time the cotton was sold in the local market. A minus sign (—) indicates that a higher price was paid for the cotton in the lint.

TABLE 18.—Prices Received by Farmers for Cotton of Different Grades and Staples Sold in the Seed and in the Lint, and value on a Basis of Houston, Texas, Quotations, Seven Gins, Eastern Oklahoma, 1930-31

(Cents per pound)

Grade and Staple	NUMBER OF BALES		PRICE PAID IN LOCAL MARKET		Difference in seed price over lint price[1]	VALUE OF COTTON ON BASIS OF HOUSTON QUOTATIONS[2]		Adjustment for variation in quality and date of sale[3]	Difference, seed price over lint price, after adjustment for variation in grade and staple and date of sale[4]
	Seed	Lint	Seed	Lint		Seed	Lint		
Total	446	1058	10.09	9.51	.56	10.34	10.33	.01	.55
G. M.									
White, 7/8	2	5	10.30	9.65	.65	10.54	10.76	−.22	.87
White, 15/16	1	4	11.03	10.12	.91	11.29	10.66	.63	.28
White, 1 and 1 1/32	2	1	10.22	10.50	−.28	11.38	11.09	.29	−.57
S. M.									
White, 7/8	18	114	9.97	9.73	.24	10.42	10.46	−.04	.28
White, 15/16	60	141	10.14	9.74	.40	10.78	10.75	.03	.37
White, 1 and 1 1/32	38	58	10.19	9.99	.20	11.23	11.20	.03	.17
White, 1 1/16 and 1 3/32	5	9	11.20	10.06	1.14	11.92	11.63	.29	.85
M.									
White, 13/16	5	21	10.32	9.17	1.15	8.98	9.00	−.02	1.17
White, 7/8	40	156	9.64	9.58	.06	10.08	10.13	−.05	.11
White, 15/16	112	226	10.02	9.43	.59	10.39	10.43	−.04	.63
White, 1 1/32	54	97	10.41	9.60	.81	10.78	10.82	−.04	.85
White, 1 1/16 and 1 3/32	4	7	11.33	9.71	1.62	11.51	11.10	.41	1.21
Spotted, 7/8	3	1	10.59	9.50	1.09	9.09	9.12	−.03	1.12

TABLE 18.—(Continued)

Grade and Staple	NUMBER OF BALES		PRICE PAID IN LOCAL MARKET		Difference in seed price over lint price[1]	VALUE OF COTTON ON BASIS OF HOUSTON QUOTATIONS[2]		Adjustment for variation in quality and date of sale[3]	Difference, seed price over lint price, after adjustment for variation in grade and staple and date of sale[4]
	Seed	Lint	Seed	Lint		Seed	Lint		
Spotted, 15/16	3	4	9.17	9.19	−.02	9.41	9.66	−.25	.23
Spotted, 1 and 1 1/32	1	1	9.68	9.50	.18	9.62	9.97	−.35	.53
S. L. M.									
White, 13/16	2	10	9.82	8.70	1.12	8.05	8.32	−.27	1.39
White, 7/8	34	59	9.49	8.86	.63	9.15	9.30	−.15	.78
White, 15/16	42	100	10.10	9.39	.71	9.60	9.79	−.19	.90
White, 1 and 1 1/32	9	24	9.88	9.34	.54	10.21	10.08	.13	.41
L. M.									
White, 13/16	1	4	12.04	8.31	3.73	8.97	7.36	1.61	2.12
White, 7/8	4	8	10.54	8.06	2.48	8.50	8.56	−.06	2.54
White, 15/16	6	8	10.59	8.75	1.84	8.74	8.95	−.21	2.05

SOURCE: Local market price compiled from data secured directly from the gin books of cooperating gins; Houston base price and premiums and discounts for cotton grading above and below middling or with a staple length longer or shorter than 7/8 inch from the Bureau of Agricultural Economics, United States Department of Agriculture.

[1]Minus sign (−) indicates that the price paid for cotton in the lint was above the price paid for cotton in the seed.

[2]This represents the price at which cotton of identical grade, staple and color to that represented in the sample data was sold on the Houston market on the same day on which the cotton was purchased by the ginner in the local market.

[3]This represents the difference in price between cotton sold in the seed and in the lint which was due to variations in quality or variation in dates on which the cotton was sold by the farmer in his local market. Minus sign (−) indicates that the value of the cotton purchased in the lint, on a basis of the Houston quotations, was greater than that for cotton purchased in the seed.

[4]The figures in this column represent the actual spread between the price paid to farmers for cotton purchased in the seed and in the lint after allowing for differences in grade, staple and color of the cotton as well as allowing for variations in prices at the time the cotton was sold in the local market. A minus sign (−) indicates that a higher price was paid for the cotton in the lint.

TABLE 19.—Prices Received by Farmers for Cotton of Different Grades and Staple Lengths Sold in the Seed and in the Lint, and Value on a Basis of Houston, Texas, Quotations, Eight Gins, Eastern Oklahoma, 1931-32

(Cents per pound)

Grade and Staple	NUMBER OF BALES		PRICE PAID IN LOCAL MARKET		Difference in seed price over lint price[1]	VALUE OF COTTON ON BASIS OF HOUSTON QUOTATIONS[2]		Adjustment for variation in quality and date of sale[3]	Difference, seed price over lint price, after adjustment for variation in grade and staple and date of sale[4]
	Seed	Lint	Seed	Lint		Seed	Lint		
Total	1027	1263	5.51	5.29	.22	5.91	5.94	−.03	.25
G. M.									
White, 7/8	5	20	5.18	5.32	−.14	5.88	6.06	−.18	.04
White, 15/16	27	49	5.49	5.27	.22	6.25	6.15	.10	.12
White, 1 and 1 1/32	31	38	5.64	5.53	.11	6.56	6.53	.03	.08
White, 1 1/16 and 1 3/32	2	1	5.90	5.00	.90	7.01	6.71	.30	.60
Spotted, 1 and 1 1/32	2	1	5.90	5.50	.40	6.68	6.35	.33	.07
S. M.									
White, 7/8	47	164	5.31	5.03	.28	5.63	5.67	−.04	.32
White, 15/16	119	312	5.48	5.22	.26	6.08	6.06	.02	.24
White, 1 and 1 1/32	134	106	5.73	5.27	.46	6.49	6.35	.14	.32
White, 1 1/16 and 1 3/32	13	2	6.14	5.50	.64	7.08	6.73	.35	.29
Spotted, 7/8	10	16	5.35	5.44	−.09	5.98	5.87	.11	−.20
Spotted, 15/16	9	17	5.87	5.51	.36	6.20	6.21	−.01	.37
Spotted, 1 and 1 1/32	5	1	5.67	5.00	.67	6.61	6.53	.08	.59

TABLE 19.—(Continued)

Grade and Staple	NUMBER OF BALES		PRICE PAID IN LOCAL MARKET		Difference in seed price over lint price[1]	VALUE OF COTTON ON BASIS OF HOUSTON QUOTATIONS[2]		Adjustment for varia-tion in quality and date of sale[3]	Difference, seed price over lint price, after adjustment for variation in grade and staple and date of sale[4]
	Seed	Lint	Seed	Lint		Seed	Lint		
M.									
White, 7/8	36	73	5.46	5.32	.14	5.88	5.78	.10	.04
White, 15/16	93	120	5.55	5.51	.04	6.28	6.12	.16	—.12
White, 1 and 1 1/32	53	36	5.73	5.64	.09	6.49	6.58	—.09	.00
White, 1 1 /16 and 1 3/32	7	1	5.78	5.25	.53	6.99	6.62	.37	.16
Spotted, 13/16	1	1	5.07	5.25	—.18	4.63	4.99	—.36	.18
Spotted, 7/8	16	26	5.47	5.44	.03	5.73	5.67	.06	—.03
Spotted, 15/16	17	20	5.34	5.54	—.20	5.97	5.98	—.01	—.19
Spotted, 1 and 1 1/32	6	3	5.73	5.90	—.17	6.16	6.26	—.10	—.07
S. L. M.									
White, 13/16	1	3	4.38	5.03	—.65	5.22	4.87	.35	—1.00
White, 7/8	35	51	5.29	5.50	—.21	5.69	5.68	.01	— .22
White, 15/16	74	63	5.60	5.61	—.01	5.95	5.94	.01	— .02
White, 1 and 1 1/32	26	16	6.02	5.47	.55	6.25	6.17	.08	.47
Spotted, 7/8	14	8	5.46	5.22	.24	5.34	5.21	.13	.11
Spotted, 15/16	3	4	4.88	5.28	.60	5.44	5.44	.00	.60

TABLE 19.—(Continued)

Grade and Staple	NUMBER OF BALES		PRICE PAID IN LOCAL MARKET		Difference in seed price over lint price[1]	VALUE OF COTTON ON BASIS OF HOUSTON QUOTATIONS[2]		Adjustment for varia-tion in quality and date of sale[3]	Difference, seed price over lint price, after adjustment for variation in grade and staple and date of sale[4]
	Seed	Lint	Seed	Lint		Seed	Lint		
L. M.									
White, 13/16	3	3	4.91	4.98	−.07	4.88	4.71	.17	−.24
White, 7/8	65	47	5.22	5.02	.20	5.12	5.24	−.12	.32
White, 15/16	42	28	5.28	5.31	−.03	5.42	5.44	−.02	−.01
White, 1 and 1 1/32	13	4	5.83	4.88	.95	5.77	5.71	.06	.89
Spotted, 7/8	1	1	6.46	4.75	1.71	4.50	4.89	−.39	2.10
S. G. O.									
White, 13/16	10	6	5.10	4.82	.28	4.41	4.25	.16	.12
White, 7/8	80	16	5.30	4.91	.39	4.87	4.84	.03	.36
White, 15/16	20	4	5.29	4.81	.48	5.08	5.01	.07	.41
G. O.									
White, 7/8	7	2	5.97	4.62	1.35	4.56	4.44	.12	1.23

SOURCE: Local market prices compiled from data secured directly from the gin books of cooperating gins; Houston base price and premiums and discounts for cotton grading above and below middling or with a staple length longer or shorter than 7/8 inch from the Bureau of Agricultural Economics, United States Department of Agriculture.

[1]Minus sign (—) indicates that the price paid for cotton in the lint was above the price paid for cotton in the seed.

[2]This represents the price at which cotton of identical grade, staple and color to that represented in the sample data was sold on the Houston market on the same day on which the cotton was purchased by the ginner in the local market.

[3]This represents the difference in price between cotton sold in the seed and in the lint which was due to variations in quality or variation in dates on which the cotton was sold by the farmer in his local market. Minus sign (—) indicates that the value of the cotton pur-chased in the lint, on a basis of the Houston quotations, was greater than that for cotton purchased in the seed.

[4]The figures in this column represent the actual spread between the price paid to farmers for cotton purchased in the seed and in the lint after allowing for differences in grade and staple of the cotton as well as allowing for variations in prices at the time the cotton was sold in the local market. A minus sign (—) indicates that a higher price was paid for the cotton in the lint.

Perhaps the chief advantage of the practice of selling in the seed from the farmer's point of view is that the cotton can be unloaded and sold quickly without the loss of time waiting in line to have his bale custom ginned and the seed and lint sold separately. Many farmers have now come to believe that they can get more for their cotton in the seed than in the lint. This is especially true of the lower quality cottons. Judging from the results secured in this study, one can safely say that the farmers have been correct in these beliefs.

The chief advantages to the ginners from the practice of purchasing in the seed is that it gives the gins, and incidentally the oil mills which own a large number of gins in eastern Oklahoma, control of the cottonseed and cotton. The ginners and oil mills, through the gins, have been interested in buying as much seed as possible, and one way of doing that is to buy the cottonseed and cotton together, just as the farmer brings them to the gin. It was pointed out by a number of ginners that when the cotton was custom ginned the farmers would frequently haul their seed home and hold it for a higher price or feed it. When the farmers hauled their seed home and later offered it for sale, they would shop among ginners and oil mills for the best price and thus bring about a competitive condition which is eliminated if the seed is not carried away from the gins at the time of ginning.

As is pointed out later (See page 50.), the ginner has been able to pay more for cotton in the seed, and a relatively high price for cotton in general, because of profits from certain phases of his business other than the buying and selling of cotton.

As a general rule, ginners in eastern Oklahoma say that they would prefer to buy cotton in the lint rather than in the seed. Yet, in spite of that fact, the practice continued to increase during the period 1923-24 to 1931-32. (See page 9.) The practice of selling cotton in the seed dates back a good many years.[18] It probably started in the early days when production was sparse and there were few gins in eastern Oklahoma. The practice continued until it became an established custom and is now closely allied with the general set-up of the cotton marketing machinery and influences the quality of cotton produced and the net returns received by the growers and ginners.

Comparison of Prices Paid to Farmers in the Local Market with Prices Quoted on the Houston Market

The spread between the prices paid to farmers in their local markets and the prices quoted on the Houston market was usually not sufficient to cover the costs of shipping cotton from the local market to Houston, as is shown in Tables 20, 21, and 22. The price paid for the cotton purchased in the seed during 1930-31 was within .25 of a cent per pound of the Houston price, the spread thus failing by .78 of a cent per pound to cover transportation and handling charges. The price paid for cotton in the lint that same year was within .79 of a cent per pound of the Houston price and the spread, therefore, fell .24 of a cent per pound short of meeting the handling charges. The same situation existed during the 1931-32 season. Freight rates were changed on December 5, 1931 and the 1931-32 data, therefore,

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[18]A farmer living near gin No. 3 told the authors he had been farming there for 34 years and during all that time had ginned only one bale of cotton. The manager of gin No. 8, who had been in the cotton business at that point for more than 25 years, said that the practice of selling in the seed was prevalent when he started in the business. The general opinion of farmers interviewed at the points where the cooperating gins were located was that they sold their "sorry" cotton in the seed and ginned their good cotton and sold it in the bale. Further questioning always developed the fact that by "good" cotton the farmers meant high percentage of lint turnout at the gin and not better grades and longer staples.

TABLE 20.—Prices Received by Farmers for Cotton Sold in the Seed and in the Lint at Cooperating Gins in Eastern Oklahoma, Prices Quoted at Houston, Texas, and Shippers' Margins, 1930-31 and 1931-32

(Cents per pound)

Gin number	SALES IN THE SEED						SALES IN THE LINT					
	Number bales	Houston price[1]	Local price[2]	Difference Houston over local	Handling charges[3]	Shippers' margins[4]	Number bales	Houston price[1]	Local price[2]	Difference Houston over local	Handling charges[3]	Shippers' margins[4]
Seven gins, 1930-31												
Total	447	10.32	10.07	.25	1.03	.78	1084	10.30	9.51	.79	1.03	— .24
4	44	10.23	9.98	.25	1.01	— .76	140	10.43	9.49	.94	1.01	— .07
5	180	10.49	10.92	— .43	1.01	−1.44	292	10.48	10.06	.42	1.01	— .59
6	41	9.82	8.98	.84	1.06	— .22	398	10.20	9.30	.90	1.06	— .16
7	28	9.71	9.89	— .18	1.03	−1.21	121	9.82	8.92	.90	1.03	— .13
8	98	10.51	9.22	1.29	1.04	.25	44	10.54	9.32	1.22	1.04	.18
9	30	9.95	10.57	— .62	1.04	−1.66	34	10.34	9.89	.45	1.04	— .59
10	26	10.57	8.89	1.48	1.04	.44	55	10.61	9.33	1.28	1.04	.24
Eight gins, prior to Dec., 1931												
Total	899	6.02	5.55	.47	.92	— .45	1205	5.96	5.30	.66	.92	— .26
1	260	6.04	5.50	.54	.93	— .39	41	6.13	5.20	.93	.93	0.00
2	40	6.52	5.82	— .30	.94	−1.24	----	------	----	----	----	----
3	22	6.13	4.99	1.14	.94	.20	127	5.96	5.34	.62	.94	— .32
4	51	6.20	5.77	.43	.83	— .40	70	5.89	5.13	.76	.83	— .07
5	182	6.03	6.00	.03	.93	— .90	261	5.99	5.65	.34	.93	— .59
6	160	5.65	5.38	.27	.90	— .63	395	5.89	5.11	.78	.90	— .12
7	27	6.00	5.63	.37	.93	— .56	301	6.01	5.31	.70	.93	— .23
8	157	6.18	5.21	.97	.94	.03	10	6.30	5.18	1.12	.94	.18

TABLE 20.—(Continued)

Gin Number	SALES IN THE SEED					SALES IN THE LINT				
	Number bales	Houston price[1]	Local price[2]	Difference Houston over local	Handling charges[3]	Shippers' margins[4]	Number bales	Houston price[1]	Local price[2]	Difference Houston over local	Handling charges[3]	Shippers' margins[4]
Eight gins, after Dec., 1931											
Total	139	5.13	5.30	— .17	.72	— .89	73	5.55	5.13	.42	.72	— .30
1	39	5.02	5.44	— .42	.73	—1.15	4	6.32	5.50	.82	.73	.09
2	----	----	----	----	----	----	----	----	----	----	----	----
3	----	----	----	----	----	----	22	5.85	5.32	.53	.73	— .20
4	----	----	----	----	----	----	3	5.51	4.83	.68	.63	.05
5	57	5.27	5.14	.13	.73	— .60	16	5.29	4.99	.30	.73	— .43
6	----	----	----	----	----	----	11	5.29	4.75	.54	.71	— .17
7	----	----	----	----	----	----	12	5.24	5.43	— .19	.73	— .92
8	3	5.16	4.70	.46	.73	— .27	5	5.72	4.74	.98	.73	.25

[1]This represents the value of the cotton sold in the local market on a basis of the current price paid at Houston for middling, white, 7/8 inch cotton adjusted for grade and staple differences.

[2]Price actually received by the farmer in the local market.

[3]See Table 11, pages 28 and 29, for details of items included in "handling charges."

[4]This is approximately what the shippers' margins would have been if the cotton had been shipped on the date of purchase. This figure does not necessarily represent the shippers' actual margin since the cotton may have been held over to some other date or delivered on a future sale.

Sale of Cotton in the Seed

TABLE 21.—Prices Received by Farmers for Cotton Sold in the Seed and in the Lint by Months at Cooperating Gins in Eastern Oklahoma, Prices Quoted at Houston, Texas, and Shippers' Margins, 1930-31 and 1931-32

(Cents per pound)

Month	SALES IN THE SEED						SALES IN THE LINT					
	Number bales	Houston price[1]	Local price[2]	Difference Houston over local	Handling charges[3]	Shippers' margins[4]	Number bales	Houston price[1]	Local price[2]	Difference Houston over local	Handling charges[3]	Shippers' margins[4]
Seven gins, 1930-31												
Total	447	10.32	10.07	.25	1.03	− .78	1084	10.30	9.51	.79	1.03	− .24
Aug.	2	11.02	11.32	− .30	1.03	−1.33	2	11.27	10.00	1.27	1.03	.24
Sept.	109	10.71	10.71	.00	1.03	−1.03	436	10.49	9.88	.61	1.03	− .42
Oct.	297	10.11	9.81	.30	1.03	− .73	553	10.13	9.18	.95	1.03	− .08
Nov.	38	10.71	10.16	.57	1.03	.46	90	10.44	9.74	.70	1.03	− .33
Dec.					1.03		3	10.03	9.50	.53	1.03	− .50
Eight gins, 1931-32												
Total prior to Dec.	899	6.02	5.55	.47	.92	− .45	1205	5.96	5.30	.66	.92	− .26
After Dec.	139	5.13	5.30	− .17	.72	− .89	73	5.55	5.13	.42	.72	− .30
Sept.	233	6.49	6.02	.47	.92	− .45	396	6.27	5.45	.82	.92	− .10
Oct.	356	5.99	5.34	.65	.92	− .27	476	5.76	4.99	.77	.92	− .15
Nov.	310	5.72	5.44	.28	.92	− .64	333	5.88	5.58	.30	.92	− .62
Dec.	117	5.07	5.24	− .17	.72	− .89	66	5.46	5.11	.35	.72	− .37
Jan.	22	5.44	5.67	− .23	.72	− .95	7	6.34	5.38	.96	.72	.24

[1]This represents the value of the cotton sold in the local market on a basis of the current price paid at Houston for middling, white, 7/8 inch cotton adjusted for grade and staple differences.

[2]Local market price paid to farmers.

[3]See Table 11, pages 28 and 29, for details of items included in "handling charges."

[4]This is approximately what the shippers' margins would have been if the cotton had been shipped on the date of purchase. This figure does not necessarily represent the shippers' actual margin since the cotton may have been held over to some later date or delivered on a future sale.

TABLE 22.—Prices Received by Farmers for Cotton of the Same Quality Sold in the Seed and in the Lint at Seven Gins in Eastern Oklahoma, Prices Quoted at Houston, Texas, and Shippers' Margins, 1930-31

(Cents per pound)

Quality	SALES IN THE SEED						SALES IN THE LINT					
	Number bales	Houston price[1]	Local price[2]	Difference Houston over local	Handling charges[3]	Shippers' margins[4]	Number bales	Houston price[1]	Local price[2]	Difference Houston over local	Handling charges[3]	Shippers' margins[4]
Total	446	10.34	10.09	.25	1.03	− .78	1058	10.33	9.51	.82	1.03	− .21
G. M.												
White 7/8	2	10.54	10.30	.24	1.03	− .79	5	10.76	9.65	1.11	1.03	.08
White 15/16	1	11.29	11.03	.26	1.03	− .77	4	10.66	10.12	.54	1.03	− .49
White 1 and 1 1−32	2	11.38	10.22	.16	1.03	− .87	1	11.09	10.50	.59	1.03	− .44
S. M.												
White 7/8	18	10.42	9.97	.45	1.03	− .58	114	10.46	9.73	.73	1.03	− .30
White 15/16	60	10.77	10.14	.63	1.03	− .40	141	10.75	9.74	1.01	1.03	− .02
White 1 and 1 1/32	38	11.23	10.19	1.04	1.03	.01	58	11.20	9.99	1.21	1.03	.18
White 1 1/16 and 1 3/32	5	11.92	11.20	.72	1.03	− .31	9	11.63	10.06	1.57	1.03	.54
M.												
White 13/16	5	8.98	10.32	−1.34	1.03	−2.37	21	9.00	9.17	− .17	1.03	−1.20
White 7/8	40	10.08	9.64	.44	1.03	− .59	156	10.13	9.58	.55	1.03	− .48
White 15/16	112	10.39	10.02	.37	1.03	− .66	226	10.43	9.43	1.00	1.03	− .03
White 1 and 1 1−32	54	10.78	10.41	.37	1.03	− .66	97	10.82	9.60	1.22	1.03	.19
White 1 1/16 and 1 3/32	4	11.51	11.33	.18	1.03	− .85	7	11.10	9.71	1.39	1.03	.36
Spotted 7/8	3	9.09	10.59	−1.50	1.03	−2.53	1	9.12	9.50	− .38	1.03	−1.41
Spotted 15/16	3	9.41	9.17	.24	1.03	− .79	4	9.66	9.19	.47	1.03	− .56
Spotted 1 and 1 1/32	1	9.62	9.68	− .06	1.03	−1.09	1	9.97	9.50	.47	1.03	− .56

TABLE 22.—(Continued)

| | SALES IN THE SEED | | | | | SALES IN THE LINT | | | | |
Quality	Number bales	Houston price[1]	Local price[2]	Difference Houston over local	Handling charges[3]	Shippers' margins[4]	Number bales	Houston price[1]	Local price[2]	Difference Houston over local	Handling charges[3]	Shippers' margins[4]
S. L. M.												
White 13/16	2	8.05	9.82	−1.77	1.03	−2.80	10	8.32	8.70	− .38	1.03	−1.41
White 7/8	34	9.15	9.49	− .34	1.03	−1.37	59	9.30	8.86	.44	1.03	− .59
White 15/16	42	9.60	10.10	− .50	1.03	−1.53	100	9.79	9.39	.40	1.03	− .63
White 1 and 1 1/32	9	10.21	9.88	.33	1.03	− .70	24	10.08	9.34	.74	1.03	− .29
L. M.												
White 13/16	1	8.97	12.04	−3.07	1.03	−4.10	4	7.36	8.31	− .95	1.03	−1.98
White 7/8	4	8.50	10.54	−2.04	1.03	−3.07	8	8.56	8.06	.50	1.03	− .53
White 15/16	6	8.74	10.59	−1.85	1.03	−2.88	8	8.95	8.75	.20	1.03	− .83

[1]This represents the value of the cotton sold in the local market on a basis of the current price paid at Houston for middling, white, 7/8 inch cotton adjusted for grade and staple differences.

[2]Local market price paid to farmers.

[3]See Table 11, pages 28 and 29, for details of items included in "handling charges."

[4]This is approximately what the shippers' margins would have been if the cotton had been shipped on the date of purchase. This figure does not necessarily represent the shippers' actual margin since the may have been held over to some other date or delivered on a future sale.

have been grouped on a basis of the two freight periods. (See Table 11, page 28, for details of handling charges including freight rates.) The prices in local markets during 1931-32 were so high compared to the Houston market prices that the difference failed by .45 cent and .89 cent per pound, respectively, in the periods before and after the freight change in December, of covering handling charges when the cotton was purchased in the seed. Due to the fact that the price paid for cotton in the lint was somewhat lower, the spread between the local and Houston market prices in the case of cotton purchased in the lint came within .26 cent and .30 cent per pound, respectively, of covering handling charges before and after the change in freight rates.

The exceptions to this general situation are few in number. It will be noted that in 1930-31 there were only two gins, Nos. 8 and 10, which paid a price for cotton both in the seed and in the lint, when compared with the Houston price, that was low enough so that there was a margin above the handling charges. It will be recalled that these two gins (See Table 16.) were the only ones which paid a higher price for cotton in the lint than they paid for cotton purchased in the seed. It should also be recalled that these gins were the only ones in their respective communities. In 1931-32, when gins Nos. 3 and 8 showed a plus shippers' margin on the cotton which was purchased in the seed, gin No. 8 showed a plus shippers' margin on the cotton which was purchased in the lint; and gins Nos. 1, 4, and 8 showed a plus shippers' margin on cotton which was purchased in the lint after the change in freight rates in December, 1931.

An analysis of the data by months shows that the prices paid at all gins for cotton both in the seed and in the lint was so high compared with the Houston price that the margin each month, with the exception of August, 1930, and January, 1932, was not sufficient to cover the freight and other handling charges between the local and Houston markets as shown in Table 21.

An analysis of the data for 1930-31 on the basis of specific qualities of cotton shows that, with few exceptions, the local price, when compared with the Houston price, was so high that the spread was not sufficient to cover handling charges to Houston, as shown in Table 22. Data for 1931-32 show practically this same relationship existing between the local and the Houston prices.

There are two outstanding facts shown in the data for both 1930-31 and 1931-32. One is that there are only a very small number of instances in which the spread between the local and Houston price was sufficient to cover the handling charges between the two markets. The second is that, generally speaking, the spread between the local and Houston price was much smaller in the case of the lower qualities of cotton than in the case of the better qualities. In a very large number of cases the local price is actually higher than the Houston price for cotton of the same grade and staple length. This latter fact is, of course, a natural result of "average" or "hog-around" buying. Such a practice generally results in paying more for the lower qualities than they are worth and less for the better qualities than they are worth on a basis of current central market quotations.

In all but an extremely small number of cases the price paid to farmers for their cotton in the local market was high when compared with the Houston central market prices for cotton of the same quality. It is recognized that the Houston quotations do not ordinarily reflect character differences, and for that reason the ginners in eastern Oklahoma may have received more for some of their cotton than is indicated by the Houston quotations used in this study. This arises out of the fact that cotton from eastern Oklahoma is generally known for its fine character. But, on an average, the farmers who sold cotton to the gins included in this study re-

ceived as much or more than their cotton was worth on a basis of current quotations on the Houston market. It is recognized that some individuals may have received much less than their cotton was worth on a basis of central market quotations at the time the cotton was sold to the ginner. For example, on November 6, 1931, a bale of middling, white, 1 and 1 1/32 inch cotton was sold at gin No. 8 at 4.06 cents per pound. The same quality of cotton was quoted at 6.74 cents per pound at Houston on the same day. This represented a spread of 2.68 cents between the two markets, or a margin of 1.74 cents above handling charges of .94 cents. This appears to be a case in which the farmer did not receive all that his cotton was actually worth. Yet on an average all of the farmers who sold to gin No. 8 received all that their cotton was worth on a basis of current market quotations. Such injustices as this in individual instances can obviously be eliminated by a marketing system which considers each bale on its merits rather than considering the average for the community. The individual farmer can be sure of getting what his cotton is worth only when he sells it on a basis of quality. This obviously cannot be done if the cotton is sold in the seed, since the quality cannot be accurately determined until after the cotton is ginned.

TABLE 23.—Ginning Charges in Eastern Oklahoma and Three Counties of Arkansas, 1928-29 to 1931-32
(Dollars per 500-pound bale)

State and county	1928-29	1929-30	1930-31	1931-32
Oklahoma, zone 2[1]				
Picked[2]	6.70	6.70	6.70	4.90
Bollies[3]	9.95	9.95	9.95	7.15
Arkansas[4]				
Independence				
County				
Picked[2]	5.75	5.77	5.10	3.91
Bollies[3]	10.25	10.25	7.17	4.67
Lawrence				
County				
Picked[2]	6.28	6.28	5.72	4.46
Clay County				
Picked[2]	6.25	6.25	6.02	4.38
Bollies[3]	10.15	9.97	9.77	7.60

[1]Charges for Oklahoma compiled by the Department of Agricultural Economics, Oklahoma Agricultural and Mechanical College, by using the rates as prescribed by the Oklahoma State Corporation Commission. Zone 2 includes all towns along the main line of the Santa Fe Railroad and east thereof.

[2]Assuming that 1500 pounds of seed cotton is required to produce a 500-pound bale of cotton. Includes charge for bagging and ties.

[3]Assuming that 2000 pounds of snapped or bollie cotton is required to produce a 500-pound bale of cotton. Includes charge for bagging and ties.

[4]Costs for Arkansas compiled by the Division of Cotton Marketing, Bureau of Agricultural Economics, United States Department of Agriculture, Memphis, Tennessee.

Relationship of Profits in the Ginning Business to
Prices Paid for Cotton

It is apparent that the ginners in eastern Oklahoma could not long continue to pay more for cotton than it is worth on the Houston market, handling charges considered, without going bankrupt unless there were sources from which such losses might be recouped. The ginners, because

of their peculiar competitive position, have access to profits other than those arising from the purchase and sale of cotton; and this enables them to pay a higher price for cotton than is justified by current central market quotations. The ginners in eastern Oklahoma are in a peculiar competitive position compared with other cotton buyers, first, because they are cotton buyers as well as cotton ginners, and second, because they buy a large proportion of their cotton in the seed rather than in the lint bale.

There appear to be at least five sources of profits to which the ginners, as such, have access and which are not available to the ordinary street buyers of cotton who depend for their profits solely on the purchase and sale of cotton.

First, the ginning business in Oklahoma in recent years has undoubtedly been profitable, if sufficient volume of business could be secured, because of the comparatively high ginning rates which have been in force. The available data indicate that with few exceptions the ginning rates in Oklahoma have been and now are higher than those being charged in most other cotton states. Table 23 shows the ginning rates for eastern Oklahoma and three counties in Arkansas for the period 1928-29 to 1931-32, inclusive, reduced to a 500-pound bale basis. It will be noted that the rate for ginning picked cotton in Oklahoma is considerably above the rates which were charged in these selected areas of Arkansas. Data from other states indicate a similar situation, as has been pointed out in a report of the Oklahoma State Corporation Commission.[19] As a consequence, ginners appear to have been willing to pay more for cotton in order to attract ginning business.

Second, the ginner likewise has an opportunity of making a profit from the handling of bagging and ties. Under the rates set by the State Corporaiton Commission each year, a margin of profit is allowed between the purchase and sale price of bagging and ties.[20] Table 24 shows the profits

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[19]After presenting data relative to ginning rates in twelve states for the 1931-32 season, Chairman Walker of the Corporation Commission of the State of Oklahoma summarizes the situation as follows:

"It is significant that the ginning rates in practically all the important cotton states are lower than those in Oklahoma.

"As compared with the rates ranging from around $2.00 per bale to $4.00 per bale, including bagging and ties in the cotton states, from Louisiana east, Oklahoma ginners get 25¢ per hundred weight in the seed, or approximately $3.75 per bale for ginning, estimating 1500 pounds of seed cotton to the bale, plus $1.00 to $1.15 for wrapping, or around $4.75 per bale for ginning and wrapping. The record does not show what factors, if any, contribute to the extra cost for Oklahoma, or whether other services are rendered in addition to those furnished the cotton farmers in these other states, and, so far as this record goes, there are no facts to explain this wide spread in ginning costs of Oklahoma over these other cotton states." Walker, Paul W., Chairman Corporation Commission of the State of Oklahoma, Cause number 11358, Order number 5977. In the Matter of Determining and Prescribing Rates, Charges, and the Promulgation of Rules and Regulations Affecting the Operation of Cotton Gins as a Public Business within the State of Oklahoma for the Season 1932-33. Dissenting opinion by Chairman Walker, Sept. 13, 1932, p. 7.

[20]"The evidence with respect to the charge for bagging and ties discloses that the price of these necessary articles in the ginning of cotton, has declined. The farmer should be given the benefit of that decline. The ginner should be allowed to realize a reasonable and fair profit for the supplying of the necessary wrapping for the cotton ginned. Throughout the past several years the Commission has generally attempted to allow 25 cents profit upon a pattern of bagging, including the cost of the ties. The majority of the commission thinks this is a fair allowance." Childers, C. C., and Hughes, E. R., Commissioners Oklahoma State Corporation Commission, Cause 11,358, Order number 5977. In the Matter of Determining and Prescribing Rates, Charges, and the Promulgation of Rules and Regulations Affecting the Operation of Cotton Gins as a Public Business within the State of Oklahoma for the season 1932-33. Findings of Fact, Opinion and Order, September 13, 1932, p. 9.

TABLE 24.—Profits from the Sale of Bagging and Ties at All
Gins in Oklahoma, 1929-30 to 1931-32
(Dollars)

| Section | Number of gins | PROFIT | |
		Total	Per gin
1929-30			
East	411	92,958.84	226.18
West	398	244,031.90	613.14
State	809	336,990.74	416.55
1930-31			
East	457	128,920.10	282.98
West	409	185,204.20	452.38
State	866	313,945.18	362.52
1931-32			
East	429	151,319.06	352.72
West	391	175,735.76	449.45
State	820	327,054.82	398.85

SOURCE: Cotton Division, Oklahoma State Corporation Commission, Oklahoma City.

from the sale of bagging and ties for all Oklahoma gins for the three
years 1929-30 to 1931-32. It will be noted that the average annual profit
per gin was not far from $400 per year. Table 25 gives the profits from the
sale of bagging and ties at the cooperating gins for the two years covered
by this study. It is significant that the profits from this source were
greater in 1931-32 than they were in 1930-31 in the case of all but three
gins. The same situation was true for the State as a whole. This repre-
sents a real source of profit for the ginner and helps to account for certain
price practices which are found in the eastern part of the State.

TABLE 25.—Profits from the Sale of Bagging and Ties at Cooperating
Gins, Eastern Oklahoma, 1930-31 and 1931-32
(Dollars)

Gin number	1930-31	1931-32	Gin number	1930-31	1931-32
Ten gins	248.40	350.26	5	400.25	688.50
			6	281.25	284.50
1	73.60	384.25	7	110.25	223.75
2	184.80	198.75	8	256.05	178.00
3	428.80	606.20	9	358.25	300.65
4	272.80	566.00	10	118.00	72.00

SOURCE: Cotton Division, Oklahoma State Corporation Commission, Okahoma City,
Oklahoma.

Third, the handling of cottonseed for oil mills   constitutes   another
source of profits for the ginner. The ginner usually buys the seed from the
farmers and in turn sells it to the oil mills at a more or less regular margin.
For example, the usual margin allowed ginners for cottonseed in car-lot
quantities over wagon prices was $3.00 per ton during 1930-31 and 1931-32.
This margin includes the ginners' payment for assembling seed for the oil
mill, and must cover handling charges, shrinkage, and profit. Data on
profits from handling cottonseed by gins in Oklahoma are not available
since the Corporation Commission does not require gins to report earnings
from this source.

Fourth, in the case of a gin which is owned and operated by a cottonseed

oil company, the profits which may accrue from the oil mill business may be used to offset any losses in the ginning operations or on the cotton account. In this connection it should be pointed out that specific cotton-producing areas frequently produce premium seed of higher than usual content in oil and protein. Data are not available to show that this influences the profits of oil mills in eastern Oklahoma and permits them to make added profits from this source in the areas where a large amount of cotton is sold in the seed.

Fifth, a large number of gins handle planting seed for their customers. Frequently, although not always, ginners expect to sell the planting seed at at prices which will leave them a margin of profit.

In addition to the above, there appear to be at least four sources of profit which are available only to ginners who buy a large proportion of their cotton in the seed.

First, it is common knowledge that the variation in the dirt and trash content of cotton in the seed is very great. Table 26 shows the variation in the dirt and trash content of individual loads of seed cotton where the seed was weighed back so that the exact weight of the dirt and trash could be secured. Table 27 shows the average percentage of dirt and trash in 11,383 bales of cotton purchased in the seed at 22 gins during the 1930-31 season in the north central part of the State where more than 50 percent of the cotton was sold in the seed. It will be noted that in each of these instances the range in dirt and trash content of the seed cotton was very great. In the case of the individual bale data, the range was from a little over 3 percent to about 15 percent. The range was even greater in the data covering the seasonal purchases of 22 gins, the variation there ranging from approximately 2 percent to 21 percent dirt and trash. When purchases are made on a basis of the average for the community, which average the ginner has determined by experience and which he places high enough to be on the safe side, a gain is obviously made on the cleaner cotton. It is apparent that the ginner cannot afford to pay the farmer for dirt and trash. It is equally apparent that the individual farmer cannot be sure of getting all that his particular cotton is worth so long as he sells it in the seed on a basis of the average crop of the entire community.

TABLE 26.—Variation in the Dirt and Trash Content of Individual Loads of Seed Cotton

Weight of seed cotton load (pounds)	Weight of seed (pounds)	Weight of lint bale (pounds)	DIRT AND TRASH	
			Amount (pounds)	Percent of total
1,630	1,025	505	100	6.13
1,500	955	490	55	3.67
1,685	1,044	480	161	9.55
1,755	1,025	485	245	13.96
1,730	1,130	485	115	6.65
1,675	1,085	535	55	3.28
1,670	1,045	480	145	8.68
1,550	961	450	139	8.97
1,550	930	385	235	15.16
1,490	895	440	155	10.40
1,600	960	485	155	9.69

SOURCE: The eleven loads of seed cotton represented by the data in this table were delivered to a gin in Payne county, Oklahoma.

Second, there are rather wide variations in the percent turnout of lint cotton from different loads of seed cotton. This is clearly seen from the data presented in Table 28. For example, the range in the lint turnout of the 29 loads of seed cotton delivered at gin No. 5 between November 4 and

11, 1931, was from 25.4 percent for bale No. 1 to 34.2 percent for bale No. 7. Exactly the same price per pound was paid for the seed cotton from which these two bales were ginned. The same price was likewise paid for the other 27 loads of seed cotton, since the practice is to pay the same price for all cotton delivered at the gin. Herein lies another source of profit for the ginner who is buying cotton in the seed.

TABLE 27.—Variation in the Percent of Dirt and Trash in 11,383 Bales of Cotton Purchased in the Seed at 22 Gins, Northeastern Oklahoma, 1930-31

Gin number	Percent dirt and trash	Gin number	Percent dirt and trash	Gin number	Percent dirt and trash
22 gins	12.91	22	2.10	30	9.61
16	8.61	23	17.20	31	19.21
17	12.34	24	15.71	32	15.62
18	21.01	25	19.88	33	8.52
19	10.68	26	17.92	34	9.83
20	12.87	27	11.13	35	13.49
21	13.79	28	16.04	36	10.77
		29	8.56	37	9.15

SOURCE: A line gin company operating in east central Oklahoma.

Third, the cost of operating a gin is undoubtedly less when a very large volume of the cotton is purchased in the seed. Under such circumstances the cotton can be stored in the cotton house until a sufficient volume accumulates to warrant operation of the gin at full capacity. In this manner labor and power costs are reduced.

Fourth, the ginners pointed out that when farmers custom ginned their cotton they usually wanted to charge the ginning, and that this resulted in large credit losses. Buying in the seed thus helps to eliminate credit losses.

One should not infer from the preceding discussion that all gins always secure handsome profits from the sources suggested in addition to the profits which may result from the usual ginning business and the purchase and sale of cotton, but these possible sources of extra profits for gins undoubtedly go a long way in explaining why the ginners were able in 1930-31 and 1931-32 to pay a price in the local market which approached the Houston price so closely. The above discussion indicates why the ginners may continue year after year to buy cotton in the seed and lint at a loss and yet remain in the business. It likewise explains why there are practically no street buyers of cotton in this territory. It also accounts in part for the fact that the cooperative associations have been at an obvious disadvantage in competing with these gin buyers in eastern Oklahoma who have access to profits other than those incident to the buying and selling of cotton.

VARIATIONS IN THE QUALITY AND TURNOUT OF SPECIFIC LOADS OF SEED COTTON ON THE SAME MARKETS

All of the preceding price analyses have been based on average of all of the data collected at the cooperating gins. The following analysis is based on data showing the quality, percent turnout, and the price received for specific loads of cotton sold in the seed. Table 28 shows the price, quality, weight, and percent turnout of specific loads of seed cotton which were delivered to the eight gins included in the study in 1931-32. Data for 1930-31 are not shown for the reason that the results were practically the

TABLE 28.—Individual Bales of Cotton Sold in the Seed at the Same Price, in the Same Markets, Eight Gins, Eastern Oklahoma, 1931

Bale number	Date of sale	Quality	Weight seed cotton loads (pounds)	Weight of lint bale (pounds)	Percent turn-out	Price paid for seed cotton (cents)	Lint equiva-lent of seed cotton price (cents)	Adjusted Houston price (cents)	Differ-ence Houston price over local
Gin 1									
1	9-22	S. M. White, 1 and 1 1/32	1670	560	33.5	1.90	5.79	6.59	.80
2	9-22	S. M. White, 1 and 1 1/32	1630	555	34.0	1.90	5.70	6.59	.89
3	9-23	S. M. White, 1 and 1 1/32	1700	580	34.1	1.90	5.68	6.84	1.16
4	9-23	S. M. White, 1 and 1 1/32	1560	480	30.7	1.90	6.32	6.84	.52
5	9-24	S. M. White, 1 and 1 1/32	1596	520	32.5	1.90	5.94	6.64	.70
6	9-24	S. M. White, 1 and 1 1/32	1510	470	31.1	1.90	6.26	6.64	.38
7	9-24	S. M. White, 1 and 1 1/32	1520	470	30.9	1.90	6.30	6.64	.34
8	9-24	S. M. White, 1 and 1 1/32	1520	465	30.5	1.90	6.36	6.64	.28
9	9-24	S. M. White, 1 and 1 1/32	1340	435	32.4	1.90	6.03	6.64	.61
10	9-24	S. M. White, 1 and 1 1/32	1850	560	29.7	1.90	6.39	6.64	.25
11	9-24	G. M. Spotted, 1 and 1 1/32	1510	475	31.4	1.90	6.19	6.50	.31
12	9-24	G. M. White, 1 and 1 1/32	1440	455	31.5	1.90	6.17	6.82	.65
13	9-24	S. M. White, 1 and 1 1/32	1700	570	33.5	1.90	5.78	6.64	.86
14	9-24	S. M. White, 1 and 1 1/32	1440	465	32.2	1.90	6.04	6.64	.60
15	9-24	G. M. White, 15/16	1650	555	33.6	1.90	5.77	6.47	.70
16	9-25	S. M. White, 1 and 1 1/32	1710	545	31.8	1.90	6.08	6.59	.51
17	9-25	G. M. White, 1 and 1 1/32	1550	505	32.5	1.90	5.97	6.77	.80
18	9-25	G. M. White, 1 and 1 1/32	1605	520	32.3	1.90	6.00	6.77	.77
19	9-25	G. M. White, 1 and 1 1/32	1330	440	33.0	1.90	5.92	6.77	.85
20	9-25	S. M. White, 1 and 1 1/32	1680	530	31.5	1.90	6.15	6.59	.44
21	9-25	S. M. White, 15/16	1630	520	31.9	1.90	6.09	6.24	.15
22	9-25	S. M. White, 15/16	1750	580	33.1	1.90	5.84	6.24	.40
23	9-25	S. M. White, 15/16	1450	475	32.7	1.90	5.95	6.24	.29
24	9-25	S. M. White, 1 and 1 1/32	1440	455	31.5	1.90	6.17	6.59	.42
Gin 2									
1	9-23	G. M. White, 15/16	1770	520	29.3	1.90	6.67	6.67	.00

TABLE 28.—(Continued)

Bale number	Date of sale	Quality	Weight seed cotton loads (pounds)	Weight of lint bale (pounds)	Percent turn-out	Price paid for seed cotton (cents)	Lint equiva-lent of seed cotton price (cents)	Adjusted Houston price (cents)	Differ-ence Houston price over local
2	9-23	G. M. White, 15/16	1580	500	31.6	1.90	6.22	6.67	.45
3	9-24	S. M. White, 1 and 1 1/32	1640	545	33.2	1.90	5.91	6.84	.93
4	9-24	S. M. White, 1 and 1 1/32	1480	470	31.7	1.90	6.21	6.64	.43
5	9-24	S. M. White, 1 and 1 1/32	1330	475	35.7	1.90	5.55	6.64	1.09
6	9-24	S. M. White, 1 1/16 and 1 3/32	1580	485	30.6	1.90	6.41	7.39	.98
7	9-24	S. M. White, 1 and 1 1/32	1650	500	30.3	1.90	6.48	6.64	.16
8	9-25	S. M. White, 1 1/16 and 1 3/32	1490	470	31.5	1.90	6.25	7.34	1.09
9	9-25	S. M. White, 1 1/16 and 1 3/32	1640	500	30.4	1.90	6.44	7.34	.90
10	9-25	M. White, 1 and 1 1/32	1700	550	32.3	1.90	6.06	6.33	.27
11	9-25	M. White, 1 and 1 1/32	1610	470	29.1	1.90	6.73	6.33	— .40
12	9-25	M. White, 1 1/16 and 1 3/32	1390	440	31.6	1.90	6.25	7.08	.83
13	9-25	M. White, 1 and 1 1/32	1680	550	32.7	1.90	5.99	6.33	.34
Gin 3									
1	9-16	G. M. White, 15/16	1240	420	33.8	2.00	6.12	6.82	.70
2	9-16	S. M. White, 1 and 1 1/32	1580	555	35.1	2.00	5.85	7.03	1.18
3	9-16	S. M. White, 15/16	1570	525	33.4	2.00	6.14	6.64	.50
4	9-18	S. M. White, 15/16	1550	560	36.1	2.00	5.69	6.49	.80
5	9-19	S. M. White, 1 and 1 1/32	1530	500	32.6	2.00	6.29	6.70	.41
Gin 4									
1	9-10	S. M. White, 1 and 1 1/32	1580	540	34.1	2.00	6.09	7.22	1.13
2	9-10	S. M. White, 1 and 1 1/32	1700	527	31.0	2.00	6.70	7.22	.52
3	9-12	M. White, 15/16	1520	505	33.2	2.00	6.28	6.48	.20
4	9-12	S. M. White, 1 and 1 1/32	1650	435	26.3	2.00	7.89	7.15	— .74
5	9-12	S. M. White, 1 and 1 1/32	1670	554	33.1	2.00	6.27	7.15	.88
6	9-14	S. M. White, 1 and 1 1/32	1540	500	32.4	2.00	6.42	7.10	.68
7	9-15	M. White, 1 and 1 1/32	1500	484	32.2	2.00	6.47	6.93	.46
8	9-15	S. M. White, 1 and 1 1/32	1820	620	34.0	2.00	6.09	7.20	1.11
9	9-15	S. M. White, 1 and 1 1/32	1700	567	33.3	2.00	6.23	7.20	.97

TABLE 28.—(Continued)

Bale number	Date of sale	Quality	Weight seed cotton loads (pounds)	Weight of lint bale (pounds)	Percent turn-out	Price paid for seed cotton (cents)	Lint equiva-lent of seed cotton price (cents)	Adjusted Houston price (cents)	Differ-ence Houston price over local
10	9-15	S. L. M. White, 1 and 1 1/32	1460	480	32.8	2.00	6.35	6.47	.12
11	9-16	M. White, 15/16	1400	461	32.9	2.00	6.35	6.37	.02
12	9-16	M. White, 15/16	1490	515	34.5	2.00	6.04	6.37	.33
13	9-16	M. White, 15/16	1300	437	33.6	2.00	6.24	6.37	.13
14	9-16	M. White, 15/16	1620	510	31.4	2.00	6.61	6.37	— .24
15	9-16	M. White, 1 and 1 1/32	1470	481	32.7	2.00	6.38	6.76	.38
16	9-17	M. White, 15/16	1580	518	32.7	2.00	6.35	6.35	.00
17	9-18	S. M. White, 15/16	1550	528	34.0	2.00	6.12	6.47	.35
18	9-18	S. M. White, 15/16	1570	520	33.1	2.00	6.29	6.47	.18
19	9-18	M. White, 1 and 1 1/32	1750	577	32.9	2.00	6.29	6.58	.29
20	9-18	S. M. White, 15/16	1430	462	32.3	2.00	6.47	6.47	.00
21	9-18	M. White, 15/16	1670	540	32.3	2.00	6.43	6.20	— .23
Gin 5									
1	11-4	S. L. M. Spotted, 1 and 1 1/32	2140	545	25.4	1.85	7.00	6.09	— .91
2	11-4	S. L. M. White, 1 and 1 1/32	1800	550	30.5	1.85	5.86	6.18	.32
3	11-5	S. L. M. White, 1 and 1 1/32	1680	465	27.6	1.85	6.49	6.23	— .26
4	11-5	S. L. M. White, 15/16	1728	510	29.5	1.85	6.08	5.92	— .16
5	11-5	S. L. M. White, 15/16	1712	505	29.4	1.85	6.08	5.92	— .16
6	11-5	S. L. M. White, 1 and 1 1/32	1630	465	28.5	1.85	6.31	6.23	— .08
7	11-5	M. White, 7/8	1060	363	34.2	1.85	5.36	6.05	.69
8	11-5	M. Spotted, 1 and 1 1/32	1760	485	27.5	1.85	6.51	6.12	— .39
9	11-5	S. L. M. White, 1 and 1 1/32	1770	500	28.2	1.85	6.35	6.23	— .12
10	11-6	S. M. Spotted, 1 and 1 1/32	1720	525	30.5	1.85	5.88	6.65	.77
11	11-7	S. L. M. White, 15/16	1930	515	26.6	1.85	6.70	6.02	— .68
12	11-7	S. L. M. White, 1 and 1 1/32	1380	390	28.2	1.85	6.41	6.33	.08
13	11-7	S. L. M. White, 15/16	1350	500	37.0	1.85	4.90	6.02	1.12
14	11-7	M. Spotted, 7/8	1660	505	30.4	1.85	5.91	5.78	— .13
15	11-7	S. L. M. White, 15/16	1320	400	30.3	1.85	5.99	6.02	— .03

Sale of Cotton in the Seed

TABLE 28.—(Continued)

Bale number	Date of sale	Quality	Weight seed cotton loads (pounds)	Weight of lint bale (pounds)	Percent turn-out	Price paid for seed cotton (cents)	Lint equiva-lent of seed cotton price (cents)	Adjusted Houston price (cents)	Differ-ence Houston price over local
16	11-7	M. White, 15/16	1550	475	30.6	1.85	5.88	6.38	.50
17	11-9	S. L. M. White, 7/8	1640	480	29.2	1.85	6.14	5.94	− .20
18	11-9	M. White, 15/16	1380	435	31.5	1.85	5.74	6.53	.79
19	11-9	S. L. M. White, 15/16	1750	525	30.0	1.85	5.98	6.17	.19
20	11-9	M. White, 15/16	2110	599	28.3	1.85	6.32	6.53	.21
21	11-10	S. M. Spotted, 7/8	1740	525	30.1	1.85	5.79	6.20	.41
22	11-10	S. L. M. White, 15/16	1490	460	30.8	1.85	5.85	6.07	.22
23	11-10	L. M. White, 7/8	1250	378	30.2	1.85	6.02	5.38	.64
24	11-10	L. M. White, 15/16	1630	475	29.1	1.85	7.02	5.61	−1.41
25	11-10	M. Spotted, 15/16	1390	435	31.2	1.85	5.79	6.05	.26
26	11-10	L. M. White, 7/8	1510	445	29.4	1.85	6.12	5.38	− .74
27	11-10	S. M. Spotted, 7/8	1900	600	31.5	1.85	5.66	6.46	.80
28	11-11	M. White, 15/16	1910	565	29.5	1.85	6.04	6.43	.39
29	11-11	S. M. Spotted, 15/16	1670	485	29.0	1.85	6.19	6.42	.23
Gin 6									
1	10-1	S. M. White, 7/8	1400	412	29.4	1.50	5.61	5.51	− .10
2	10-2	S. M. White, 7/8	1620	515	31.7	1.50	5.16	5.41	.25
3	10-2	S. M. White, 15/16	1770	530	29.9	1.50	5.46	5.68	.22
4	10-3	S. M. White, 15/16	1500	552	29.4	1.50	5.59	5.53	− .06
5	10-3	M. White, 7/8	1590	510	32.0	1.50	5.12	5.00	− .12
6	10-3	S. M. White, 7/8	1530	460	30.0	1.50	5.47	5.26	− .21
7	10-3	S. M. White, 7/8	1620	518	31.9	1.50	6.13	5.26	.13
8	10-3	M. White, 7/8	1520	470	30.9	1.50	5.32	5.00	− .32
9	10-3	S. M. White, 7/8	1600	425	26.5	1.50	6.18	5.26	− .92
10	10-3	S. M. White, 7/8	1320	430	32.5	1.50	5.09	5.26	.17
11	10-3	M. White, 7/8	1510	470	31.1	1.50	5.29	5.00	− .29
12	10-3	S. M. White, 7/8	1580	490	31.0	1.50	5.30	5.26	− .04
13	10-3	S. M. White, 15/16	1600	480	30.0	1.50	5.47	5.53	.06

TABLE 28.—(Continued)

Bale number	Date of sale	Quality	Weight seed cotton loads (pounds)	Weight of lint bale (pounds)	Percent turn-out	Price paid for seed cotton (cents)	Lint equiva-lent of seed cotton price (cents)	Adjusted Houston price (cents)	Differ-ence Houston price over local
Gin 7									
1	10-28	S. L. M. White, 15/16	1610	435	27.0	1.75	6.78	5.96	— .82
2	10-28	S. L. M. Spotted, 15/16	1505	420	27.9	1.75	6.58	5.45	—1.13
3	10-30	M. White, 15/16	1870	534	28.5	1.75	6.28	6.33	.05
4	10-31	S. L. M. White, 15/16	1280	436	34.0	1.75	5.34	5.96	.62
5	11-2	S. L. M. White, 15/16	1490	475	31.8	1.75	5.48	5.97	.49
6	11-10	M. White, 7/8	1680	535	31.8	1.75	5.46	6.20	.74
7	11-11	M. White, 15/16	1560	509	32.6	1.75	5.35	6.43	1.08
8	11-12	M. White, 15/16	1445	462	31.9	1.75	5.47	6.31	.84
9	11-13	M. White, 15/16	1310	540	41.2	1.75	4.26	6.21	1.95
10	11-14	M. White, 15/16	1570	537	34.2	1.75	5.10	6.11	1.01
11	11-14	M. White, 15/16	1400	415	29.6	1.75	5.91	6.11	.20
12	11-14	S. M. Spotted, 15/16	1610	400	24.8	1.75	7.01	6.11	— .90
13	11-14	S. L. M. White, 7/8	1415	442	31.2	1.75	5.61	5.55	— .06
Gin 8									
1	10-31	M. White, 15/16	1675	470	28.0	1.50	5.68	6.33	.65
2	10-31	M. White, 15/16	1825	503	27.5	1.50	5.77	6.33	.56
3	10-31	M. White, 15/16	1505	490	32.5	1.50	4.92	6.33	1.41
4	10-31	S. L. M. White, 15/16	1520	410	28.9	1.50	5.94	5.96	.02
5	10-31	M. White, 1 and 1 1/32	1580	485	30.6	1.50	5.21	6.64	1.43
6	10-31	S. M. White, 1 and 1 1/32	1670	505	30.2	1.50	5.28	6.90	1.62
7	10-31	S. M. White, 1 and 1 1/32	1450	480	33.1	1.50	4.85	6.90	2.05
8	10-31	M. White, 15/16	2015	550	27.2	1.50	5.80	6.33	.53
9	11-3	M. White, 7/8	1670	510	30.5	1.50	5.14	6.00	.86
10	11-4	M. White, 7/8	1580	420	26.5	1.50	5.92	6.00	.08
11	11-5	M. White, 15/16	1450	440	30.3	1.50	5.21	6.28	1.07
12	11-5	M. White, 15/16	1560	450	28.8	1.50	5.46	6.28	.82
13	11-5	M. White, 15/16	1820	515	28.2	1.50	4.75	6.28	1.53

SOURCE: Compiled from data secured directly from the gin books of the cooperating gins.

same as for 1931-32. These data indicate that the practice of selling cotton
in the seed is a price incentive to the production of cotton of low lint per-
cent turnout, which is generally of better quality than cotton of high lint
percent turnout. These data also show the injustices of the practice on
farmers who are paid one price for sales of cotton which vary in quality
and turnout, and the effect on spinners who buy mixed bales of cotton.

For the periods when exactly the same price was paid for the seed
cotton delivered at any one gin, the grade, staple length, and turnout of
the various loads of seed cotton varied considerably. Stated in another
way, the same price was being paid for cotton which varied considerably in
quality and percent turnout. For example, of the 24 loads of seed cotton
delivered to gin No. 1 between September 22 and September 25 at a price of
1.90 cents per pound, the turnout varied all the way from 29.7 percent to
34.1 percent and the lint equivalent prices received for the lint cotton
ranged from 5.68 to 6.39 cents per pound, a difference of over .71 cent per
pound or $3.55 per bale. This variation in price received by growers when
selling in the seed appears to have had no relationship whatever to varia-
tions in quality, as measured by grade and staple. It is apparent that under
such a system of cotton buying no individual farmer can be assured of se-
curing a price for his load of seed cotton which has any relationship what-
ever to its grade and staple value. It is a "hog-around" system of buying
which, generally speaking, fails to provide a price incentive for the produc-
tion of better grades and longer staples of cotton.

The system of selling in the seed does, however, provide a price incen-
tive for the production of low-turnout cottons, which generally happen to be
the cottons which produce the longer staple lengths. This, in addition to
the fact that farmers sell their supply of planting seed when they sell their
cotton in the seed and that ginners sell improved strains of planting seed
to farmers at planting time, together with the climatic conditions, explains
why those sections where large quantities of cotton are sold in the seed
plant more improved varieties and grow better qualities of cotton than other
sections of the State where most of the cotton is custom ginned.

An example of the price incentive causing farmers, when marketing
their cotton in the seed, to grow low turnout cottons, which generally have
longer staple lengths, is shown by a comparison of bales No. 2 and No. 10 at
gin No. 1 in Table 28. The calculated lint equivalent price received for bale
No. 2 with a turnout of 34 percent was 5.70 cents per pound and the lint
equivalent price received for bale No. 10, with a turnout of 29.7 percent, was
6.39 cents per pound. This was a difference of .69 cent per pound or at a
rate of $3.45 per 500-pound bale more which the farmer received for low-
turnout cotton. A similar relationship will be found between bale No. 3
with a turnout of 34.1 percent and bale No. 8 with a turnout of 30.5 percent
where the difference in value to the farmer according to the lint equivalent
price was at a rate of $3.40 per bale in favor of the low-turnout cotton.
Many similar examples may be found in the table. This is a valid economic
reason why the farmers in eastern Oklahoma state that they sell their so-
called "poor" or low-turnout cotton in the seed and custom gin their "good
cotton," by good cotton meaning high lint turnout and not better grades
and longer staples. This system of buying cotton, therefore, encourages the
farmers to sell their cotton in the seed in eastern Oklahoma where a high
percentage of the cotton is of better staple and low-turnout.[21]

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[21]Since the lint equivalent prices of cotton sold in the seed presented in this study are
higher for the low-turnout cotton and show that the farmers with low-turnout cot-
ton receive more for this cotton when sold in the seed than in the lint, the ques-
tion arises as to whether the method of calculating these lint equivalents does not
reflect an advantage in favor of the low-turnout cotton which does not actually
exist.

In order to test the validity of the lint equivalent prices, the actual prices paid
for cotton sold in the lint at gin No. 6, the only gin for which complete data were
available, were reduced to lint equivalent prices by the same method as was used

An analysis of the data from these individual loads of seed cotton reveals many unusual and unjust situations. Numerous instances can be found where a load of seed cotton contains five pounds or more of lint cotton than another load of seed cotton of exactly the same weight. This is true, for example, in the case of bales Nos. 3 and 13, and 7 and 8 at gin No. 1. This means that the two farmers, in each case, received exactly the same amount for their loads of seed cotton, but that the ginner received five pounds more of lint cotton in the one case than in the other.

Many instances can be found where the difference in this turnout of two loads of seed cotton of exactly the same weight is much greater than five pounds. For example, bales Nos. 2 and 9, delivered at gin No. 4 as loads of seed cotton weighing 1700 pounds, brought each of the two farmers $34.00, yet bale No. 9 contained 40 pounds more of lint cotton. Another example of the same kind is found in the case of bales Nos. 9 and 13 at gin No. 6. In this case, there was a difference of 55 pounds in the lint content of the two loads of seed cotton, each of which weighed 1600 pounds. Each farmer received $24.00 for his load of cotton, yet one bale at current prices was worth $4.18 more than the other bale.

The wide variation that is possible in the turnout of cotton, and the consequent variation in the value of the lint content, is illustrated by bales Nos. 1 and 2, which were delivered at gin No. 5 on the same day. The load of seed cotton from which bale No. 1 was ginned weighed 2140 pounds, and at 1.85 cents per pound of seed cotton brought the farmer $39.59. It contained 545 pounds of lint cotton, which at current prices could have been sold by the ginner for $33.19. Bale No. 2 was ginned from a load of seed cotton weighing 1800 pounds and brought the farmer $33.30, but this load of cotton contained 550 pounds of lint, which at current prices could have been sold by the ginner for $33.99. In other words, the farmer who delivered the load of seed cotton from which bale No. 1 was ginned received $6.29 more for his load of seed cotton than did the farmer who delivered the load of seed cotton from which bale No. 2 was ginned. But the lint cotton in the second load of seed cotton was worth 80 cents more than the cotton in the first load. Many instances of this nature can be found in the data presented in Table 28. In actual practice such cases are innumerable. It is clear that situations such as these result in gross injustices to individual farmers.

Where large quantities of cotton are sold in the seed, the usual practice is to store the cotton in the cotton house, from which it is later ginned. The ordinary cotton houses have a capacity of from 10 to 50 bales of seed cotton in common bins. The bales listed in Table 28 were test bales and were ginned directly from the farmers' wagons, but it is reasonable to assume that the qualities of the various bales of cotton which were stored in the cotton house and mixed were as variable. Therefore the bales of cotton ginned from the cotton house contained variable qualities all mixed in the same bale. This is also detrimental to spinners who desire to secure bales of cotton that are uniform in quality.

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in calculating the lint equivalents of the seed cotton prices used in this study. The results of this calculation showed that the lint equivalents of the actual lint price were .36 cent per pound less than the prices actually received by the farmers in selling this cotton in the lint. In other words, the farmers received that much more for the cotton which they sold in the lint than they would have received for the same cotton had they sold it in the seed.

It is obvious then that if the method of calculating lint equivalent prices had been applied to the actual lint prices paid for cotton sold in the lint, the spread between the prices paid for cotton sold in the seed and in the lint would have been much greater than that actually shown in Tables 16, 17, 18 and 19.

When the method of calculating was reversed and the actual lint prices were converted to seed cotton price equivalents, the same results were obtained. This indicate that it is to the advantage of the farmers to sell their low-turnout cotton in the seed and custom gin and sell their higher turnout cotton in the lint bale.

SUMMARY AND CONCLUSION

The practice of selling cotton in the seed in Oklahoma is most prevalent in the eastern and northeastern portions of the State where there are areas of relatively heavy production as well as fringe areas of sparse production. The practice is on the increase more in the areas of heavier production toward the east central part of the State than in the fringe areas. The farmers in these areas of high percentage of sales of cotton in the seed, haul to the gins a relatively large number of loads of seed cotton of sufficient size to gin bales of cotton. Nevertheless, these farmers generally elect to sell these loads in the seed rather than to gin them and sell the baled lint and seed separately, as is the normal practice in the greater portions of the Cotton Belt.

In the areas of high percentage of sales of cotton in the seed, the quality of cotton is higher both as to grade and to staple, and more improved varieties are grown, than in the other areas of the State.

Analysis of the prices paid to farmers for cotton in the seed and in the lint at cooperating gins in eastern Oklahoma, of prices paid in the local markets and the Houston central market, of the variations in quality and turnout of individual loads of cotton sold in the seed, and of sources of profits in the ginning business, reveals at least seven significant facts.

First, as a rule a higher price was paid for cotton in the seed than for cotton purchased in the lint bale. (See Tables 16, 17, 18 and 19.) The records showed that in 1930-31, .54 cent and in 1931-32, .25 cent per pound more was paid for cotton in the seed than in the lint. This situation was true at all but two gins and existed each month during the entire season. It was likewise true when a comparison was made between the prices paid for specific quantities of cotton purchased in the seed and in the lint.

Second, with very few exceptions the average price paid in the local market approached so closely the Houston price for the same quality of cotton that the margin was not sufficient to cover handling charges between the two markets. (See Tables 20, 21, and 22.) In 1930-31 the spread between the local price paid for cotton in the seed was .25 cent per pound in favor of the Houston price and failed by .78 cent per pound to cover the handling charges between Houston and the seven local markets included in the study. During the same season, the margin between the price paid for cotton in the lint in these seven local markets and in the Houston market was .79 cent and failed by .24 cent per pound to cover the handling charges. The figures for the 1931-32 season varied only slightly from those for 1930-31. This situation was true for all gins during all months and for practically all qualities of cotton.

Third, on a basis of the Houston price, it is apparent that as much or more was paid for cotton in the local market, whether purchased in the seed or in the lint, than it was worth on a basis of current central market quotations. This was true for all gins in the study and for practically all qualities of cotton. (See Tables 20, 21, and 22.)

Fourth, in general it may be said that even relatively more was being paid in the local markets for the lower qualities of cotton on a basis of current central market quotations than was being paid for the higher qualities of cotton. This was particularly true in the case of cotton purchased in the seed. (See Table 22.)

Fifth, ginners could not long afford to pay a price for cotton in the local market which when compared with the central market price did not allow the ginner sufficient margin to cover his handling charges between the local and central market unless there were other sources of profit from which to make up any such losses. It was pointed out in this connection that there are a number of possible sources of profit in the ginning and

allied seed and cotton business from which the ginner may recoup any losses sustained on his cotton account. (See pages 50 to 55.)

Sixth, individual loads of seed cotton vary a great deal in grade, staple and percent turnout, yet as a general rule the same price per pound is paid on a particular day for all seed cotton regardless of variations in quality or turnout. (See Table 28.) This practice results in a great many injustices to individual producers.

Seventh, the practice of selling cotton in the seed acts as a price incentive to the production of low turnout cottons which generally produce the better qualities.

It was found that in the areas of high percentage of seed cotton sales in eastern Oklahoma, better and more improved varieties of cotton are produced than where large proportions are custom ginned. It was likewise found that the farmers received more for cotton sold in the seed than in the lint and more for both the seed and lint sales than the cotton would have brought, on a basis of the Houston central market quotations. However, these facts should not be taken to indicate that selling cotton in the seed is a more desirable practice than selling it in the bale. The prices paid for cotton in the local markets studied were apparently high as compared with prices paid for cotton in the Houston central market, but after all the high prices were possible only because of profits from other sources in connection with the ginning, seed, and cotton business, and it is doubtful that the farmers made any real net gains.

It is recognized that the variations in prices received by growers on the basis of grade and staple lengths influence the grade and staple length of cotton produced. In eastern Oklahoma the improved varieties of cotton planted and the better qualities of cotton grown are in part the result of the price incentive to the production of low-turnout cotton, in part the result of the farmers selling their seed supply at the time they sell their cotton in the seed and the ginners selling improved strains of cotton at planting time, and in part the result of climatic conditions. Price also has its influence in a general way on the production of better cotton where large quantities of cotton are sold in the seed in that points with poor qualities do not have as high price level as points with better qualities, which causes the farmer to go to the better markets to obtain the higher average prices. This has the effect of forcing the ginner to promulgate the better varieties which will produce better quality cottons in order to keep from losing ginning business to a competing point.

The farmers as a whole in eastern Oklahoma appear to be following their own best self interest under the present marketing system in selling their cotton in the seed. The ginners are practically the only cotton buyers in the local markets of eastern Oklahoma, which means that the farmers have little or no choice as to where or to whom they shall sell their cotton. The only choice they have is that of selling it in the seed or in the lint to the local ginners. The fact that ginners paid higher prices for cotton in the seed than they did for cotton in the lint bale, and that the lint equivalent prices for cotton sold in the seed were higher for the low-turnout cottons, has undoubtedly influenced the farmers to continue to sell a large percentage of their cotton in the seed.

The buying and selling of cotton on the basis of its grade and staple value instead of buying it on averages in the seed or lint would be to the advantage of the ginners who are the primary buyers in that it would enable them to avoid buying blindly when they necessarily must sell on the basis of grade and staple value in the central markets and to shippers, thus greatly reducing their risks. Should the ginners bring the local prices on the basis of grade and staple value more nearly in line with the Houston central market quotations, transportation cost considered, it would result in a lower price level for cotton in the local markets which would decrease

the ginners' losses on cotton. This, through competition, would tend to bring about a lowering of other charges such as ginning charges and reduce the amount of the ginners' profits to offset lower prices for cotton. As far as the farmers as a class are concerned, it makes little difference in their net returns whether they receive a high relative price for cotton and pay high charges, or have the price lowered and the charges correspondingly lowered. Costs properly distributed would result in greater efficiencies to the farmers, ginners, and spinners.

The abolition of the practice of selling cotton in the seed would be to the advantage of the spinners who consume the cotton. It would eliminate mixing various grades and staple lengths in the cotton house and the ginning of mixed bales of cotton in which there is excessive waste in spinning. In a community where the cotton is comparatively uniform in grade and staple lengths, this is not a serious objection; but when many varieties of cotton are produced under varying soil and moisture conditions and are mixed in the cotton house, it inevitably results in bales that are not uniform in quality. This in turn results in losses to the spinner.

Originally the practice of selling cotton in the seed in eastern Oklahoma appears to have started in the early days because of sparse production and the lack of local gins. Gradually the practice became an accepted custom. In recent years the practice has continued and even increased because of the general belief by both farmers and ginners that it is to their advantage to sell and buy their cotton in this manner. Beliefs on the part of the farmers that they receive more in general for their cotton sold in the seed than in the lint are substantiated by the facts brought out in this study. The ginners think it is to their advantage to buy in the seed because by this method they have eliminated street buyer competition, because there is no necessity to charge the ginning and credit losses are therefore eliminated, because they can operate their gins cheaper, and because they get control of the cotton and the seed and through this practice probably earn greater net returns.