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Factors Affecting Cotton Prices in Ginner Markets in Tennessee

University of Tennessee Agricultural Experiment Station

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Factors Affecting Cotton Prices In Ginner Markets In Tennessee

B. D. Raskopf

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FACTORS AFFECTING COTTON PRICES IN GINNER MARKETS IN TENNESSEE

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INTRODUCTION

Importance and Objectives of the Study

Cotton and its products provide a large share of the income received by farmers in Tennessee. During the period, 1951-55, the farm income from cotton lint and cottonseed averaged 120 million dollars annually, and comprised 25 percent of the total cash receipts from the sale of all farm products.¹ Since cotton and cottonseed are of major importance in the economy of the state, a sound program is needed to improve cotton marketing facilities and to increase the efficiency of the cotton marketing system.

The objectives of this study were to examine: (1) the effectiveness of ginner local markets in reflecting to farmers the central market prices prevailing for cotton; (2) cotton premiums and discounts paid by ginner for cotton; and (3) the important factors affecting cotton prices in ginner markets in Tennessee.²

This study is a contributing project to the Southern Regional Research Project, SM-1 Revised, Regional Marketing of Cotton, Cottonseed and Cottonseed Products. Cooperating agencies in this project include the states of Alabama, Arizona, Arkansas, Georgia, Louisiana, Mississippi, Missouri, New Mexico, Oklahoma, South Carolina, Tennessee, Texas; and the Agricultural Marketing Service, United States Department of Agriculture.

¹ Cash Receipts from Farming, 1951 to 1955, Federal-State Cooperative Crop Reporting Service, Nashville, Tennessee.

² An annual average of about two-thirds of the cotton produced in the state is sold by farmers directly to ginner.

Method of Procedure and Scope of Study

Cotton price and grade and staple statistics were obtained from five ginner located in the adjoining counties of Crockett, Dyer and Gibson in West Tennessee.³ Data were available from a 20 percent sample of 36,595 bales ginned during the 3-year period, 1951 to 1953. The five ginner reported ginning 39,283 bales of cotton during the three years but 2,688 bales were placed in the Government loan program by growers, sold to other cotton merchants, or represented cotton purchased in the seed by the ginner.

Data on each bale of cotton included the ginning charge, date ginned, date sold to ginner, price per pound paid by the ginner, grade and staple length of each bale of cotton, and the value of the cotton according to its quality based on the Memphis market price. All the cotton was classed by the Cotton Division, Agricultural Marketing Service, Memphis, Tennessee.⁴

In addition to the above information, data were obtained from the records of each ginner annually on ginning charges, dockage for dirt and trash in the seed cotton, price paid for cottonseed, and grade of cottonseed sold. Some data were also available from producers on the gain or loss in weight of cotton going into the Government loan program.

Most of the gin patrons were members of cotton improvement associations and had their cotton classed under the Smith-Doxey program. However, because the cotton generally was sold to the ginner at the time of ginning, the grade and staple of the cotton generally was not known to the producer until several days after the sale. Each producer usually had the choice of selling the cotton to the ginner, having the cotton transported to a compress or warehouse and selling to cotton merchants including cooperatives, or placing the cotton under Government loan.

³ The gins selected for study were considered to represent many conditions typical in the cotton-producing area of the state, especially in West Tennessee which produces 90 percent of the state cotton crop. These include similar types of gins, volume of ginnings, gin patrons, varieties, quality of cotton grown and method of marketing (Appendix I).

⁴ The grade and staple of the cotton purchased by the five ginner is shown in Appendix II.

COTTON PRICES IN GINNER MARKETS

The primary enterprise of the ginner is ginning and not the purchase of cotton. Most ginner have had little or no training in the classing of cotton and generally do not purchase cotton from farmers on the basis of grade and staple length. The ginner price at the five gins studied was known as "hog-round," and represented only one price paid for cotton, regardless of individual bale variations in grade and staple length.⁵ This "hog-round" price usually changed several times during the season, depending on such factors as the prevailing central market price level, competition among ginner, and changes in the average quality of cotton. Among the five gins studied this price changed from 10 to 23 times in 1951, from 12 to 26 times in 1952, and from 13 to 42 times in 1953.

Because of competition among ginner in an effort to increase volume of ginnings, the ginner price, as an average, might actually exceed the Memphis market price for cotton of the same grade and staple. When this situation occurs, the ginner may be faced with several alternatives in ginning operations in order to avoid possible losses. These include: (1) higher ginning charge, or including cotton-buying loss in ginning operations; (2) higher dockage for trash than is normally present in the seed cotton; (3) sale of cotton direct to mills or merchants at prices higher than the Memphis market; and (4) profit on the purchase and sale of cottonseed. The above factors are discussed later in this report.

Cotton Prices Paid Farmers by Ginner

During the crop years, 1951-53, the five ginner studied in West Tennessee purchased 36,595 bales of lint cotton from farmers. The ginner prices, as an average, were 69 points per pound or \$3.43 per bale, above the Memphis market prices for cotton of the same grade and staple (Table 1).

Cotton Premiums and Discounts Paid by Ginner

The price paid for cotton by five ginner averaged 69 points above the Memphis market price for cotton of the same grade and staple for the three crop years studied. However, there were wide differences in prices paid for cotton among ginner, and by weeks at the same gin throughout the season.

Cotton price differentials paid at the same gin, below the Memphis market, for cotton averaging the same grade and staple ranged as high as 468 points in 1951, 650 points in 1952, and 160 points in 1953 (Table 2). In each of the three years the greatest differentials occurred at the beginning and toward the end of the ginning season.

⁵ During the three-year period, 1951-53, it was observed that the method of "hog-round" buying of cotton was generally practiced by most ginner in the state who purchased lint cotton.

TABLE 1.—*Cotton Prices Paid Farmers by Ginner and Memphis Market Prices for Cotton of the Same Average Grade and Staple, Five Ginner Markets, Tennessee, Crop Years, 1951 to 1953*

| Gin | Crop year | No. of 500 lb. bales | Prices paid farmers by ginner | Memphis market value of cotton | Price differential paid by ginner | |
|-----------|-----------|----------------------|-------------------------------|--------------------------------|-----------------------------------|----------------|
| | | | ¢ per lb. | ¢ per lb. | \$ per bale | points per lb. |
| 1 | 1951 | 2,500 | 36.99 | 36.50 | 2.46 | 49 |
| | 1952 | 2,720 | 37.54 | 36.48 | 5.30 | 106 |
| | 1953 | 2,739 | 34.04 | 33.16 | 4.38 | 88 |
| | 1951-53 | 7,959 | 36.16 | 35.35 | 4.09 | 81 |
| 2 | 1951 | 2,540 | 37.89 | 36.69 | 6.04 | 120 |
| | 1952 | 3,365 | 37.94 | 37.07 | 4.33 | 87 |
| | 1953 | 3,660 | 33.79 | 33.14 | 3.24 | 65 |
| | 1951-53 | 9,565 | 36.34 | 35.47 | 4.37 | 87 |
| 3 | 1951 | 1,970 | 37.06 | 36.50 | 2.80 | 56 |
| | 1952 | 2,565 | 38.06 | 37.55 | 2.55 | 51 |
| | 1953 | 2,735 | 34.45 | 33.71 | 3.70 | 74 |
| | 1951-53 | 7,270 | 36.43 | 35.82 | 3.05 | 61 |
| 4 | 1951 | 1,480 | 37.41 | 37.04 | 1.85 | 37 |
| | 1952 | 1,855 | 37.68 | 36.23 | 7.26 | 145 |
| | 1953 | 1,524 | 34.69 | 34.17 | 2.64 | 52 |
| | 1951-53 | 4,859 | 36.66 | 35.83 | 4.16 | 83 |
| 5 | 1951 | 2,070 | 36.67 | 37.00 | -1.61 | -33 |
| | 1952 | 2,690 | 38.05 | 37.55 | 2.50 | 50 |
| | 1953 | 2,182 | 34.01 | 33.50 | 2.51 | 51 |
| | 1951-53 | 6,942 | 36.37 | 36.11 | 1.28 | 26 |
| Five Gins | 1951 | 10,560 | 37.22 | 36.72 | 2.50 | 50 |
| | 1952 | 13,195 | 37.87 | 37.02 | 4.23 | 85 |
| | 1953 | 12,840 | 34.13 | 33.45 | 3.38 | 68 |
| | 1951-53 | 36,595 | 36.37 | 35.68 | 3.43 | 69 |

The weekly differentials among gins, for cotton averaging the same grade and staple, ranged from 35 to 668 points in 1951, from 65 to 1,115 points in 1952, and from 50 to 420 points in 1953.

These wide price differences for cotton of the same grade and staple, at the same gin and among gins, point out the inequity both to farmers and ginner in marketing cotton on a "hog-round" or one-price system.

Seasonal Relation of Ginner Prices to Memphis Cotton Prices

In general, the ginner markets reflected the average price level of cotton in the central market (Figure 1). A high degree of correlation existed between ginner average prices paid farmers

and the Memphis market prices for cotton of the same average quality throughout most of the season.⁶

The average price level for cotton of the same average grade and staple length showed considerable seasonal variation during each of the three years. In the 1951 crop year the prices tended to rise until the peak of the ginning season and then decline erratically. As an average, the ginner price was under the Memphis price from November to the end of the season. In the 1952 crop

TABLE 2.—*Cotton Price Differentials Paid by Ginner, Above or Below the Memphis Market, for Cotton of the Same Grade and Staple, by Specified Weeks, Five Ginner Markets, Tennessee, Crop Years, 1951 to 1953*

| Week Ending | Gin 1 | Gin 2 | Gin 3 | Gin 4 | Gin 5 |
|---|-------|-------|-------|-------|-------|
| (Points per pound on or off the Memphis Market) | | | | | |
| 1951 Sept. 1 | 60 | -40 | 100 | 35 | 60 |
| 29 | 5 | 183 | 61 | 30 | 54 |
| Oct. 13 | 104 | 126 | 98 | 91 | 88 |
| 27 | 165 | 71 | 130 | 87 | 82 |
| Nov. 10 | -458 | 174 | -124 | -319 | -187 |
| 24 | 65 | 295 | 123 | -63 | * |
| Dec. 1 | -2 | 568 | 66 | 105 | * |
| 15 | 7 | * | 16 | -52 | -277 |
| 22 | -20 | 15 | * | * | 10 |
| Jan. 5 | 20 | 200 | -192 | -80 | -468 |
| 12 | -26 | -65 | -200 | * | * |
| Crop Year | 49 | 120 | 56 | 37 | -33 |
| 1952 Aug. 30 | -20 | -66 | -1 | -20 | * |
| Sept. 6 | 84 | -21 | 55 | 110 | -25 |
| 27 | 31 | 48 | 122 | 199 | 22 |
| Oct. 11 | 107 | 44 | 75 | 52 | 10 |
| 25 | 79 | 101 | -2 | 133 | 52 |
| Nov. 1 | 129 | 198 | 13 | 418 | 194 |
| 15 | 373 | 286 | 198 | 230 | 155 |
| 29 | 140 | 93 | -262 | 164 | -69 |
| Dec. 6 | * | -174 | * | * | -110 |
| 13 | -429 | * | -650 | * | -390 |
| 27 | 525 | * | -590 | 295 | -415 |
| Crop Year | 106 | 87 | 51 | 145 | 50 |
| 1953 Aug. 29 | 112 | -143 | 17 | -25 | * |
| Sept. 12 | 62 | 23 | 55 | 92 | 82 |
| 26 | 66 | 47 | 75 | 37 | 112 |
| Oct. 17 | -2 | 1 | 50 | 17 | 21 |
| 31 | 61 | -28 | -1 | * | 102 |
| Nov. 14 | 243 | 183 | 129 | * | 106 |
| 28 | 260 | 301 | -92 | * | -119 |
| Dec. 5 | 227 | 249 | -20 | * | 200 |
| 12 | -160 | 188 | * | * | * |
| Jan. 2 | 25 | * | -25 | * | * |
| Crop Year | 88 | 65 | 74 | 52 | 51 |

*No picked cotton purchased.

⁶The simple coefficient of correlation between the ginner price and Memphis price was: $r = .74$ in 1951; $r = .94$ in 1952; and $r = .95$ in 1953.

and the Memphis market prices for cotton of the same average quality throughout most of the season.⁶

The average price level for cotton of the same average grade and staple length showed considerable seasonal variation during each of the three years. In the 1951 crop year the prices tended to rise until the peak of the ginning season and then decline erratically. As an average, the ginner price was under the Memphis price from November to the end of the season. In the 1952 crop

TABLE 2.—*Cotton Price Differentials Paid by Ginners, Above or Below the Memphis Market, for Cotton of the Same Grade and Staple, by Specified Weeks, Five Ginner Markets, Tennessee, Crop Years, 1951 to 1953*

| Week Ending | Gin 1 | Gin 2 | Gin 3 | Gin 4 | Gin 5 |
|--------------|---|-------|-------|-------|-------|
| | (Points per pound on or off the Memphis Market) | | | | |
| 1951 Sept. 1 | 60 | -40 | 100 | 35 | 60 |
| 29 | 5 | 183 | 61 | 30 | 54 |
| Oct. 13 | 104 | 126 | 98 | 91 | 88 |
| 27 | 165 | 71 | 130 | 87 | 82 |
| Nov. 10 | -458 | 174 | -124 | -319 | -187 |
| 24 | 65 | 295 | 123 | -63 | * |
| Dec. 1 | -2 | 568 | 66 | 105 | * |
| 15 | 7 | * | 16 | -52 | -277 |
| 22 | -20 | 15 | * | * | 10 |
| Jan. 5 | 20 | 200 | -192 | -80 | -468 |
| 12 | -26 | -65 | -200 | * | * |
| Crop Year | 49 | 120 | 56 | 37 | -33 |
| 1952 Aug. 30 | -20 | -66 | -1 | -20 | * |
| Sept. 6 | 84 | -21 | 55 | 110 | -25 |
| 27 | 31 | 48 | 122 | 199 | 22 |
| Oct. 11 | 107 | 44 | 75 | 52 | 10 |
| 25 | 79 | 101 | -2 | 133 | 52 |
| Nov. 1 | 129 | 198 | 13 | 418 | 194 |
| 15 | 373 | 286 | 198 | 230 | 155 |
| 29 | 140 | 93 | -262 | 164 | -69 |
| Dec. 6 | * | -174 | * | * | -110 |
| 13 | -429 | * | -650 | * | -390 |
| 27 | 525 | * | -590 | 295 | -415 |
| Crop Year | 106 | 87 | 51 | 145 | 50 |
| 1953 Aug. 29 | 112 | -143 | 17 | -25 | * |
| Sept. 12 | 62 | 23 | 55 | 92 | 82 |
| 26 | 66 | 47 | 75 | 37 | 112 |
| Oct. 17 | -2 | 1 | 50 | 17 | 21 |
| 31 | 61 | -28 | -1 | * | 102 |
| Nov. 14 | 243 | 183 | 129 | * | 106 |
| 28 | 260 | 301 | -92 | * | -119 |
| Dec. 5 | 227 | 249 | -20 | * | 200 |
| 12 | -160 | 188 | * | * | * |
| Jan. 2 | 25 | * | -25 | * | * |
| Crop Year | 88 | 65 | 74 | 52 | 51 |

*No picked cotton purchased.

⁶ The simple coefficient of correlation between the ginner price and Memphis price was: $r = .74$ in 1951; $r = .94$ in 1952; and $r = .95$ in 1953.

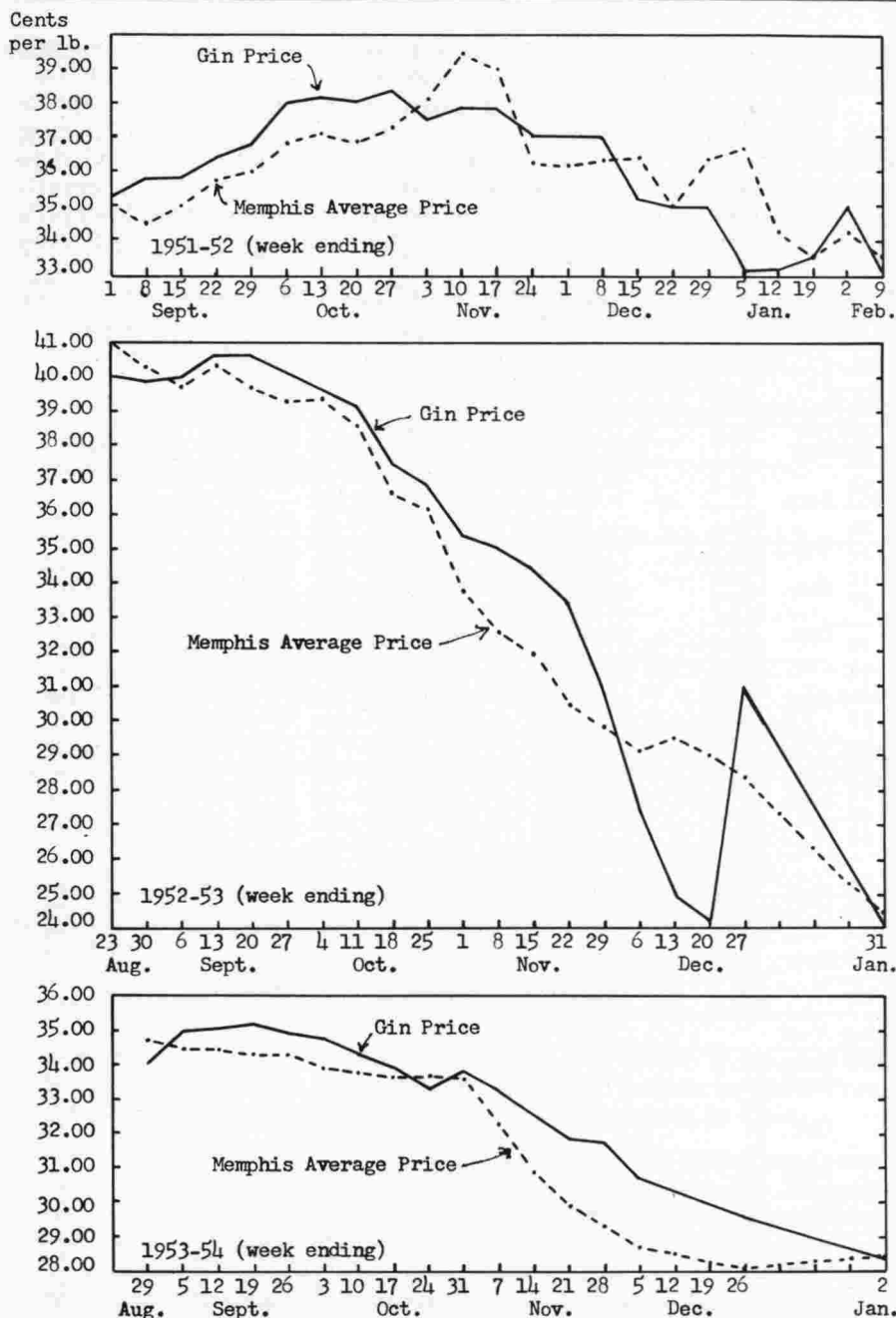


Figure 1.—Cotton prices paid farmers by ginners, compared with Memphis market price for cotton of the same quality, weekly average, five ginner markets in Tennessee for crop years, 1951 to 1953.

year the prices tended to decline from the second week of September until the end of the season. At the beginning of the season and during the first three weeks of December, the ginner price was under the Memphis price. In the 1953 crop year the prices tended to decline from the third week of September until the end of the season. At the beginning of the season, and during the latter part of October, the ginner price was under the Memphis price.

During all three seasons only one price was paid by any one ginner for cotton at any given time, regardless of its quality. Farmers who produced cotton of lower than the average grade and staple benefited by the one-price system, while farmers who produced cotton of better than average quality were not rewarded for their extra efforts.

FACTORS AFFECTING COTTON PRICES IN GINNER MARKETS

Ginning Charges

As shown in Table 2, there were wide price differentials among gins for cotton of the same grade and staple purchased from farmers. An important factor which appeared to be associated with these price differentials was the difference among gins in ginning charges. At one gin, the ginning charge was based on a set price per hundredweight of baled cotton. The other gins used a set price per hundredweight of seed cotton and separate charges for bagging and ties. Among the five gins there was a difference in average ginning charge per 500-pound bale of \$3.30 in 1951, and \$3.11 in 1952 and 1953 (Table 3).

These data indicate that at some gins it was possible for the ginner to pay higher than the Memphis average price for cotton and wholly or partly compensate for possible losses by charging a high rate for ginning. This could only have been true, however, where the ginner made a profit on ginning operations.

TABLE 3.—*Ginning Charge Per 500 Lb. Bale, Five Gidders in Tennessee, Crop Years, 1951 to 1953*

| Crop Year | Item | Gin 1 | Gin 2 | Gin 3 | Gin 4 | Gin 5 |
|-----------|-------------------------|----------|-------|-------|-------|-------|
| 1951 | Bales ginned per gin* | 2,600 | 3,400 | 2,000 | 1,500 | 2,200 |
| | Ginning charge per bale | \$ 13.30 | 10.00 | 13.05 | 12.80 | 12.80 |
| 1952 | Bales ginned per gin* | 2,700 | 3,600 | 2,600 | 2,000 | 2,800 |
| | Ginning charge per bale | \$ 13.11 | 10.00 | 12.72 | 12.61 | 12.61 |
| 1953 | Bales ginned per gin* | 2,900 | 3,800 | 2,800 | 2,300 | 2,400 |
| | Ginning charge per bale | \$ 13.11 | 10.00 | 12.72 | 12.61 | 12.61 |

*The numbers of bales ginned were rounded off to the nearest 100 to avoid disclosure of gins participating in the study.

Gain or Loss in Weight of Cotton Between Date of Purchase and Sale

After cotton is ginned the bales tend to lose or gain in weight because of loss or absorption of moisture. The extent of the change in weight depends upon such factors as the condition of seed cotton when ginned, extent and use of driers, climatic conditions, protection of cotton from inclement weather and the length of time of storage.

Where the ginner purchases cotton at the time of ginning, any subsequent loss in weight of cotton between the date of purchase and date of resale by the ginner represents a loss to the ginner. On the other hand, a gain in weight of cotton is to the advantage of the ginner.

The only data available on the gain or loss in weight of cotton were secured from patrons of the five gins who placed cotton in the Government loan.⁷ Gin weights and compress or warehouse weights were secured on 711 bales. Between the date of ginning and the date placed in the loan, 89 percent gained in weight, eight percent lost, and three percent remained the same.

These data do not indicate that gin weights are inaccurate or that ginner have benefited by gains in weight of cotton. In general, most ginner follow the practice of selling cotton soon after it is purchased and transporting the cotton, within a few days, to the warehouse.⁸ On the other hand, cotton to be pledged by farmers in the Government loan is often stored at the gin or on the farm for an indefinite period and subjected to various climatic conditions before being placed in the loan.

Ginner Dockage for Dirt and Trash in Seed Cotton

An important factor relating to the price that ginner may pay for lint cotton is the extent of ginner dockage for dirt and trash in seed cotton ginned. If the dockage is lower than the actual amount of foreign matter present in the seed cotton the ginner sustains a loss; if it exceeds the amount of foreign matter in the cotton the ginner profits. Profits made on excessive dockage of seed cotton may be used by the ginner to compensate or offset possible losses incurred in the purchase of lint cotton.

Among the five gins included in the study, the ginner dockage for dirt and trash varied from five to 10 percent of the gross weight of the seed cotton. The value of the seed cotton dockage per bale among gins differed \$2.18 in 1951, \$2.17 in 1952, and \$1.70 in 1953 (Table 6).

⁷ Studies on the gain and loss of weight of bales of cotton in storage are presently being conducted by the Agricultural Engineering Research Branch, Agricultural Research Service, U.S.D.A., Leland, Mississippi.

⁸ Hall, Carl R., and Raskopf, B. D., Cotton Marketing Practices of Growers, Ginner and Buyers in Tennessee, Tennessee Agricultural Experiment Station Monograph No. 262, 1950.

TABLE 6.—*Ginner Dockage for Estimated Dirt and Trash in Seed Cotton, Per 500 Lb. Bale of Picked Cotton, Five Gins in Tennessee, Crop Years, 1951 to 1953*

| Crop year | Seed cotton dockage for dirt and trash* | | Gin | Gin | Gin | Gin | Gin |
|-----------|---|------|------|------|------|------|------|
| | | | 1 | 2 | 3 | 4 | 5 |
| 1951 | Seed cotton dockage: | % | 8 | 5 | 8 | 10 | 9 |
| | | Lbs. | 108 | 68 | 108 | 135 | 122 |
| | Value of cottonseed: | \$ | 3.52 | 2.22 | 3.52 | 4.40 | 3.98 |
| 1952 | Seed cotton dockage: | % | 8 | 5 | 8 | 10 | 9 |
| | | Lbs. | 105 | 66 | 105 | 132 | 119 |
| | Value of cottonseed: | \$ | 3.46 | 2.17 | 3.46 | 4.34 | 3.92 |
| 1953 | Seed cotton dockage: | % | 8 | 5 | 8 | 10 | 9 |
| | | Lbs. | 106 | 66 | 106 | 133 | 119 |
| | Value of cottonseed: | \$ | 2.69 | 1.68 | 2.69 | 3.38 | 3.02 |

*The price paid farmers per ton for cottonseed at the five gins averaged \$65.20 in 1951, \$65.80 in 1952, and \$50.80 in 1953.

None of the five gins included in the survey was equipped with seed scales, so the actual amount of dirt and trash present in seed cotton could not be determined. The results of this study indicate the need for research at gins equipped with seed scales to determine the extent and variation of dirt and foreign matter in seed cotton under different conditions of harvesting and ginning.

Cottonseed Grades and Prices Paid for Cottonseed by Ginners

Important factors relating to cotton prices in ginner markets are the quality of cottonseed produced by farmers and the prices ginners pay the farmers for cottonseed. At some gins it is possible for the ginner to pay higher than the Memphis price for cotton of the same quality and offset possible losses by profits made on cottonseed transactions.

The difference among three gins located in three different counties, in prices paid farmers per ton for cottonseed averaged \$4.40 in 1951, \$4.55 in 1952, and \$3.85 in 1953 (Table 7). In some cases, part of the variation in cottonseed prices could be accounted for by differences in grade. For example, the grade of cottonseed at Gin Number 2, was higher than for two other gins generally throughout the three seasons, and this gin paid the highest price per ton for cottonseed. On the other hand, the grade of cottonseed at Gin Number 3 was higher than that at Gin Number 1, but the Number 1 Gin paid the farmers a higher price per ton for seed.

Part of the difference in prices paid for cottonseed, regardless of the grade of seed sold, apparently resulted from the competition among ginners from one area to another. Among gins in Tennessee the difference in prices paid farmers per ton for cottonseed varied from \$3.00 to \$10.00 per ton weekly throughout most of the three seasons.⁹

⁹ Cottonseed Review, South Central Area, Weekly Releases of the Cotton Division, Agricultural Marketing Service, United States Department of Agriculture, 1951 to 1953.

TABLE 7.—*Cottonseed Grades and Prices Paid for Cottonseed by Ginners, Three Gins in Tennessee, Crop Years, 1951 to 1953*

| Crop Year | Week Ending | Gin | Gin | Gin | Gin | Gin | Gin | |
|-----------|-------------|----------------------------|-------|-------|-----------------------------|---------|---------|-------|
| | | 1 | 2 | 3 | 1 | 2 | 3 | |
| | | (U.S. Grade of Cottonseed) | | | (Price Per Ton Paid Farmer) | | | |
| 1951 | Sept. 11 | 99.0 | 105.0 | 104.0 | \$61.00 | \$65.00 | \$60.00 | |
| | | 97.5 | 100.0 | 98.5 | 66.00 | 73.00 | 65.00 | |
| | Oct. 16 | 98.5 | 101.5 | 99.0 | 66.00 | 67.50 | 65.00 | |
| | | 101.0 | 102.5 | 101.5 | 64.50 | 65.00 | 64.00 | |
| | Nov. 13 | 98.0 | 99.5 | 98.5 | 67.50 | 70.00 | 65.00 | |
| | | 97.5 | 101.0 | 98.0 | 66.00 | 70.00 | 65.00 | |
| | Dec. 11 | 83.0 | 90.0 | 88.5 | 66.00 | 67.50 | 65.00 | |
| | | 85.0 | 89.5 | 87.0 | 66.00 | 67.50 | 65.00 | |
| | Season* | | 95.4 | 99.2 | 96.3 | 65.00 | 68.60 | 64.20 |
| | 1952 | Sept. 16 | 97.5 | 104.0 | 103.5 | 65.00 | 70.00 | 65.00 |
| | | | 102.0 | 106.0 | 103.5 | 67.50 | 75.00 | 65.00 |
| | | Oct. 14 | 106.5 | 108.9 | 109.0 | 67.50 | 70.00 | 65.00 |
| 106.0 | | | 108.5 | 107.5 | 67.50 | 70.00 | 65.00 | |
| Nov. 11 | | 102.0 | 106.0 | 105.5 | 67.50 | 70.00 | 65.00 | |
| | | 98.0 | 101.5 | 100.5 | 65.50 | 70.00 | 65.00 | |
| Dec. 16 | | 94.0 | 98.5 | 98.0 | 67.50 | 70.00 | 65.00 | |
| | | 90.5 | 95.5 | 96.0 | 67.50 | 70.00 | 65.00 | |
| Season* | | 101.0 | 105.5 | 104.5 | 66.60 | 70.00 | 65.45 | |
| 1953 | | Sept. 15 | 103.5 | 106.0 | 105.5 | 49.50 | 55.00 | 49.00 |
| | | | 104.5 | 107.0 | 106.9 | 50.00 | 52.50 | 49.00 |
| | | Oct. 13 | 104.0 | 107.5 | 107.0 | 52.50 | 55.00 | 51.00 |
| | 106.0 | | 110.5 | 109.0 | 52.50 | 55.00 | 50.00 | |
| | Nov. 9 | 104.5 | 109.0 | 108.5 | 52.50 | 53.00 | 49.00 | |
| | | 103.5 | 108.0 | 107.0 | 52.50 | 53.00 | 49.00 | |
| | Dec. 15 | 99.0 | 104.0 | 102.5 | 52.00 | 55.00 | 50.00 | |
| | | 98.5 | 103.0 | 102.0 | 52.00 | 52.50 | 50.00 | |
| | Season* | | 103.5 | 106.8 | 106.4 | 51.40 | 53.40 | 49.55 |

*Includes cottonseed purchased during January and February of the following year.

Gin Margins for Handling Cottonseed

No data were secured at the five gins included in the study on gross gin margins in cottonseed transactions. This is an important factor, however, in ginning operations since all gins are multiple enterprises; that is, they buy cottonseed from farmers in addition to ginning seed cotton and buying cotton in the lint. Where gins charge low prices for ginning services or pay higher than central market prices for lint cotton they may take rather large margins for handling cottonseed. On the other hand, where gins charge high prices for ginning services and pay lower than central market prices for lint cotton they may have little or no margin for handling cottonseed.

The gross gin margins per ton of cottonseed in Tennessee varied from \$3.53 in 1929 to \$27.96 in 1948 (Table 8). This margin represented the difference between prices received by farmers

and prices paid ginners by oil mills. Such ginner costs as storing, insurance, labor and transportation must be subtracted from the gross gin margin per ton.

These data indicate that in some years the ginners, as an average, may have made little or no profit on cottonseed transactions. On the other hand, the gross gin margins in some years were wide enough to permit the ginners to quote special inducements in connection with the purchase of lint cotton or ginning charges.

TABLE 8.—Average Cottonseed Prices Per Ton Paid and Received By Ginners, by Specified Years, Tennessee, 1927-29 and 1944-50

| Crop Year | Average price per ton of cottonseed delivered to oil mills | Average price per ton paid for cottonseed by ginners (4) | Gross gin margin |
|-----------|--|--|------------------|
| 1927 | \$ 46.47(1) | \$36.26 | \$10.21 |
| 1928 | 45.25(1) | 36.73 | 8.52 |
| 1929 | 34.58(1) | 31.05 | 3.53 |
| 1944 | 58.43(2) | 51.70 | 6.73 |
| 1945 | 56.02(2) | 49.40 | 6.62 |
| 1946 | 96.67(3) | 74.30 | 22.37 |
| 1947 | 107.83(3) | 88.30 | 19.53 |
| 1948 | 92.76(3) | 64.80 | 27.96 |
| 1949 | 51.14(3) | 42.60 | 8.54 |
| 1950 | 100.28(3) | 80.60 | 19.68 |

- Source: 1. Facts About a Great Exclusively Southern Industry, National Cottonseed Products Association, Memphis, Tennessee, 1930.
2. Cottonseed Marketing Survey, Tennessee Agricultural Experiment Station (Unpublished), 1944 and 1945.
3. Distribution of Marketing and Processing Costs of Cottonseed Oil Mills, 1946-51, Fats and Oils Branch, Production and Marketing Administration, U.S.D.A.
4. Cotton and Cottonseed, Statistical Bulletin No. 164, Agricultural Marketing Service, U.S.D.A., June 1955.

Central Market Cotton Prices and Government Loan Program

In some years the Commodity Credit Corporation loan program has materially affected the proportion of cotton purchased by ginners and cotton merchants directly from farmers. The proportion of Tennessee-produced cotton placed in the Government loan program ranged from less than one percent in 1935, 1939 and 1950, to 87 percent in 1934 (Table 9). In general, when the Memphis Spot market price for cotton averaged more than 140 points above the loan rate, very little cotton entered the loan in Tennessee.

TABLE 9.—*Selected Factors Affecting the Proportion of Cotton Purchased by Ginners in Tennessee, 1933 to 1955*

| Crop Year | Cotton production (1) | Volume of Cotton | | | Cotton Prices | |
|-----------|-----------------------|----------------------|--|--------------------------|--------------------------|---------------------------------|
| | | Bought by ginner (2) | Bought by cotton merchants directly from farmers (2) | Placed in Gov't loan (3) | Memphis Spot M-15/16 (4) | Gov't loan rate M-15/16 *** (3) |
| | (000 bales) | (percent of cotton) | | | (cents per pound) | |
| 1933 | 444 | * | * | 15 | 10.85 | 10.00 |
| 1934 | 405 | * | * | 87 | 12.56 | 12.00 |
| 1935 | 317 | * | * | ** | 11.83 | 10.00 |
| 1936 | 433 | * | * | No loan | 13.00 | No loan |
| 1937 | 661 | * | * | 44 | 9.02 | 9.00 |
| 1938 | 490 | 33 | 2 | 65 | 8.89 | 8.60 |
| 1939 | 449 | 51 | 48 | ** | 10.00 | 8.60 |
| 1940 | 509 | 73 | 24 | 3 | 10.86 | 9.06 |
| 1941 | 598 | 53 | 43 | 5 | 18.31 | 14.17 |
| 1942 | 625 | 63 | 26 | 11 | 20.06 | 16.22 |
| 1943 | 491 | 30 | 41 | 29 | 20.46 | 19.26 |
| 1944 | 562 | 56 | 33 | 11 | 21.79 | 20.55 |
| 1945 | 466 | 63 | 36 | 1 | 25.90 | 21.09 |
| 1946 | 519 | 57 | 42 | 1 | 34.90 | 24.38 |
| 1947 | 519 | 72 | 27 | 1 | 34.47 | 27.93 |
| 1948 | 669 | 53 | 16 | 31 | 32.11 | 30.71 |
| 1949 | 633 | 79 | 14 | 7 | 31.76 | 29.40 |
| 1950 | 409 | 79 | 20 | ** | 42.45 | 29.43 |
| 1951 | 534 | 92 | 6 | 2 | 39.28 | 31.73 |
| 1952 | 638 | 78 | 17 | 5 | 34.19 | 32.02 |
| 1953 | 702 | 63 | 11 | 26 | 33.39 | 32.79 |
| 1954 | 548 | 81 | 16 | 3 | 33.91 | 33.34 |
| 1955 | 610 | 61 | 20 | 19 | 33.87 | 33.63 |

*Data not available.

**Less than one percent.

***U.S. rates as a whole 1933-38; rates for Memphis 1939-55.

- Source: 1. Cotton Reports and Value of Crops Produced in Tennessee, 1933-55, Federal-State Cooperative Crop Reporting Service, Nashville, Tennessee.
2. Purchases of Cotton by Ginners, Annual Releases, Cotton Division, Agricultural Marketing Service, U.S.D.A., Washington, D.C.
3. Cotton Reports from Commodity Credit Corporation Programs, 1933-1955, Cotton Division, Commodity Stabilization Service, U.S.D.A., Washington, D.C.
4. Cotton Price Quotations, Cotton Division, Agricultural Marketing Service, U.S.D.A., Memphis, Tennessee.

Quality of Cotton Produced in Tennessee

The quality of cotton produced by farmers in the state is an important factor affecting cotton prices in local markets. The price of cotton in the central markets is based on White Middling in Grade and 15/16 inch in staple length. Premiums or discounts are paid for cotton according to its quality above or below this basis.

Grade and staple statistics on cotton produced in Tennessee over the past 28 years reveal considerable changes in the production of grades and staple length.

From 1928 to 1955 the percent of cotton grading White Middling and better ranged from 29.8 in 1943, to 84.2 in 1930. When converted to an index on the basis of White Middling equals 100,

TABLE 10.—Percentage Distribution of Qualities of Cotton Produced in Tennessee, and Farm and Market Price of Cotton, 1928 to 1955

| Crop Year | Grades | | | | Staple Length (inches) | | | | Cotton Prices | |
|-----------|-------------|---------------|------------------------------|---------------|------------------------|--------------|--------------------|----------------|-----------------------------|----------------------------|
| | White | | Other Spotted Tinged Stained | Grade Index * | 1-1/16 and Long-er | 1 and 1-1/32 | 31/32 and Short-er | Av. in 32d In. | Farm Price All Cotton (Av.) | Memphis Spot White M-15/16 |
| | M and Above | SLM LM SGO GO | | | | | | | | |
| (%) | (%) | (%) | (Av.) | (%) | (%) | (%) | (Av.) | (¢ per lb.) | (¢ per lb.) | |
| 1928 | 68.8 | 16.7 | 14.5 | 98.5 | 2.9 | 9.9 | 87.2 | 29.2 | 17.90 | 18.46 |
| 1929 | 72.3 | 13.2 | 14.5 | 98.5 | 2.4 | 14.8 | 82.8 | 29.6 | 16.74 | 15.89 |
| 1930 | 84.2 | 9.8 | 6.0 | 100.7 | 3.2 | 3.0 | 93.8 | 29.6 | 9.04 | 9.63 |
| 1931 | 77.6 | 18.8 | 3.6 | 99.1 | 2.5 | 16.2 | 81.3 | 29.9 | 5.33 | 5.79 |
| 1932 | 67.5 | 16.8 | 15.7 | 97.9 | 6.2 | 28.8 | 65.0 | 30.7 | 6.14 | 7.18 |
| 1933 | 70.0 | 13.2 | 16.8 | 99.2 | 3.9 | 23.1 | 73.0 | 30.4 | 10.20 | 10.85 |
| 1934 | 75.0 | 13.0 | 12.0 | 100.1 | 3.5 | 19.4 | 77.1 | 29.9 | 12.05 | 12.56 |
| 1935 | 52.6 | 13.1 | 34.3 | 94.7 | 5.1 | 15.0 | 79.9 | 29.5 | 10.91 | 11.83 |
| 1936 | 59.0 | 22.4 | 18.6 | 98.3 | 10.0 | 23.2 | 66.8 | 30.2 | 12.00 | 13.00 |
| 1937 | 33.9 | 32.8 | 33.3 | 92.2 | 2.1 | 24.8 | 73.1 | 30.1 | 8.09 | 9.02 |
| 1938 | 38.3 | 31.6 | 30.1 | 96.9 | 22.0 | 37.4 | 40.6 | 31.8 | 9.02 | 8.89 |
| 1939 | 49.1 | 28.5 | 22.4 | 97.4 | 11.8 | 37.6 | 50.6 | 31.3 | 8.99 | 10.00 |
| 1940 | 54.4 | 32.4 | 13.2 | 93.5 | 30.7 | 35.3 | 34.0 | 32.1 | 9.37 | 10.86 |
| 1941 | 60.9 | 36.9 | 2.2 | 97.2 | 13.2 | 56.5 | 30.3 | 31.8 | 16.77 | 18.31 |
| 1942 | 55.3 | 31.2 | 13.5 | 96.2 | 34.7 | 43.5 | 21.8 | 32.6 | 18.92 | 20.06 |
| 1943 | 29.8 | 62.8 | 7.4 | 94.5 | 14.4 | 53.3 | 32.3 | 31.9 | 19.42 | 20.46 |
| 1944 | 52.1 | 46.6 | 1.3 | 95.6 | 34.4 | 51.9 | 13.7 | 32.8 | 20.64 | 21.79 |
| 1945 | 29.5 | 61.1 | 9.4 | 88.6 | 29.8 | 42.5 | 27.7 | 32.2 | 22.21 | 25.90 |
| 1946 | 46.7 | 51.4 | 1.9 | 94.0 | 41.3 | 44.6 | 14.1 | 32.9 | 32.33 | 34.90 |
| 1947 | 70.4 | 20.9 | 8.7 | 96.7 | 32.7 | 54.2 | 13.1 | 32.7 | 32.53 | 34.47 |
| 1948 | 52.5 | 24.9 | 22.6 | 94.7 | 33.0 | 45.4 | 21.6 | 32.5 | 30.01 | 32.11 |
| 1949 | 33.6 | 54.7 | 11.7 | 94.8 | 54.6 | 37.4 | 8.0 | 33.3 | 29.10 | 31.76 |
| 1950 | 41.5 | 40.0 | 18.5 | 93.6 | 54.9 | 35.7 | 9.4 | 33.2 | 40.18 | 42.45 |
| 1951 | 57.2 | 29.6 | 13.2 | 94.4 | 58.3 | 35.2 | 6.5 | 33.3 | 38.31 | 39.28 |
| 1952 | 62.8 | 29.0 | 8.2 | 96.8 | 51.4 | 42.5 | 6.1 | 33.3 | 36.12 | 34.19 |
| 1953 | 73.6 | 25.3 | 1.1 | 97.8 | 42.8 | 50.5 | 6.7 | 33.1 | 33.37 | 33.39 |
| 1954 | 50.2 | 45.3 | 4.5 | 96.0 | 25.9 | 60.1 | 14.0 | 32.7 | 34.70 | 33.91 |
| 1955 | 44.7 | 43.8 | 11.5 | 93.6 | 56.9 | 38.3 | 4.8 | 33.5 | 34.20 | 33.87 |

**

*Converted to an index on the basis of White Middling equals 100.

**Data for 1955 are based on the period August to March.

Source: 1. Annual Cotton Quality and Price Reports, Cotton Division, Agricultural Marketing Service, U.S.D.A., Memphis, Tennessee.

2. Cotton Reports and Value of Crops Produced in Tennessee, 1928-1955, Federal-State Cooperative Crop Reporting Service, Nashville, Tennessee.

the grade index has averaged slightly below 100 every year except 1930 and 1934. On the other hand, there has been a marked improvement in staple length of cotton produced since 1928 (Table 10). Between 1928 and 1937, less than 36 percent of the cotton classed one inch or longer in staple length during any one crop year. Since 1945 from 78 to 95 percent of the cotton averaged one inch or longer, and the average for all cotton produced was about 1 and 1/32 inches.

In 22 of the past 28 years the farm price of all cotton produced in Tennessee has averaged below the Memphis market price of White Middling 15/16 inch cotton.¹⁰ This has been true principally for four reasons: (1) the grade of Tennessee cotton has averaged slightly below White Middling; (2) only since 1937 has the staple length of Tennessee cotton averaged much above 15/16 inch; (3) depending upon the distance to market it costs from \$1.00 to \$5.00 per bale handling charge to move the cotton from the farm or gin to the central market; and (4) a large proportion of the cotton has been purchased directly from the farmers on the basis of one price, regardless of the grade and staple length of the cotton.

Premiums and Discounts for Selected Qualities of Cotton

When cotton is sold according to its grade and staple length, there are well defined premiums and discounts above or below the basis of White Middling 15/16 inch. During the period, 1946 to 1955, the premiums for White Strict Middling 15/16 inch, over White Middling 15/16 inch cotton, averaged 43 points. Premiums for staple longer than 15/16 inch averaged 76 points for cotton of one inch, 149 points for cotton 1 and 1/16 inches and 331 points for cotton 1 1/8 inches (Table 11).

On the other hand, discounts have been severe for cotton grading under the White Middling 15/16 inch basis. Grade discounts averaged 176 points for Strict Low Middling, 484 points for Low Middling, 755 points for Strict Good Ordinary and 947 points for Good Ordinary. Discounts for staple length averaged 173 points for 7/8 inch cotton, and 260 points for 13/16 inch cotton. It is of significance that the spread in premiums and discounts for certain grades and staple length has tended to increase in recent years.

The wide range in premiums and discounts for cotton of various grades and staples point out the inequity of marketing cotton on a "hog-round" basis or selling at one price regardless of individual bale differences in quality.

¹⁰ The farm price of all cotton produced in the state, as an average for all grades and staples, is reported annually by the Federal-State Cooperative Crop Reporting Service.

TABLE 11.—*Cotton Farm and Market Prices and Premiums and Discounts for Selected Qualities Above or Below White Middling 15/16 Inch Cotton, Average, 10 Spot Cotton Markets, Crop Years, 1928 to 1955*

| Crop Year | Markets | | Premiums for cotton* | | | | | Discounts for cotton* | | | | |
|-----------|-------------------|-----------|----------------------|------|--------|-------|-------|-----------------------|-------|-------|-------|-------|
| | 10 Mar-kets | Mem-phris | SM | M | M | M | M | M | SLM | LM | SGO | GO |
| | White | M-15/16 | 15/16 | 1 | 1-1/16 | 1-1/8 | 13/16 | 7/8 | 15/16 | 15/16 | 15/16 | 15/16 |
| | (cents per pound) | | | | | | | | | | | |
| 1928 | 19.00 | 18.64 | .28 | .63 | 1.44 | 2.04 | 1.00 | .33 | .73 | 1.53 | 2.36 | 3.22 |
| 1929 | 16.24 | 15.89 | .41 | .73 | 1.37 | 1.87 | 1.53 | .45 | .74 | 1.70 | 2.78 | 3.76 |
| 1930 | 10.02 | 9.63 | .31 | .50 | 1.13 | 1.51 | 1.36 | .41 | .59 | 1.38 | 2.26 | 3.05 |
| 1931 | 6.09 | 5.79 | .24 | .30 | .76 | 1.34 | .58 | .20 | .29 | .64 | 1.01 | 1.38 |
| 1932 | 7.29 | 7.18 | .25 | .25 | .61 | .94 | .36 | .14 | .27 | .55 | .89 | 1.23 |
| 1933 | 11.00 | 10.85 | .30 | .34 | .88 | 1.33 | .40 | .19 | .35 | .75 | 1.23 | 1.65 |
| 1934 | 12.68 | 12.56 | .32 | .44 | .83 | 1.08 | .71 | .32 | .38 | .81 | 1.31 | 1.77 |
| 1935 | 11.88 | 11.83 | .37 | .40 | .85 | 1.32 | .78 | .33 | .47 | 1.01 | 1.57 | 2.06 |
| 1936 | 13.25 | 13.00 | .35 | .52 | 1.33 | 2.66 | 1.44 | .55 | .59 | 1.34 | 2.01 | 2.57 |
| 1937 | 9.09 | 9.02 | .36 | .37 | .73 | 2.03 | 1.46 | .43 | .62 | 1.62 | 2.53 | 3.17 |
| 1938 | 9.00 | 8.89 | .34 | .24 | .56 | 1.70 | 1.23 | .30 | .61 | 1.51 | 2.28 | 2.89 |
| 1939 | 10.09 | 10.00 | .29 | .17 | .37 | 1.50 | .87 | .19 | .54 | 1.20 | 1.82 | 2.40 |
| 1940 | 11.00 | 10.86 | .32 | .20 | .46 | 1.67 | .81 | .21 | .52 | 1.24 | 1.85 | 2.34 |
| 1941 | 18.31 | 18.31 | .34 | .22 | .76 | 2.96 | .96 | .37 | .86 | 2.31 | 3.60 | 4.39 |
| 1942 | 20.14 | 20.06 | .33 | .27 | 1.14 | 3.97 | 1.56 | .92 | 1.45 | 3.82 | 5.28 | 6.23 |
| 1943 | 20.65 | 20.46 | .28 | .29 | 1.17 | 4.52 | 1.85 | 1.09 | 1.28 | 3.67 | 4.94 | 5.97 |
| 1944 | 21.86 | 21.79 | .27 | .28 | 1.18 | 4.57 | 2.64 | 1.26 | 1.29 | 3.72 | 5.21 | 6.22 |
| 1945 | 25.96 | 25.90 | .35 | .28 | 1.00 | 2.56 | 3.13 | 1.57 | 1.47 | 4.89 | 7.55 | 8.77 |
| 1946 | 34.82 | 34.90 | .40 | .25 | .63 | 1.24 | 2.98 | 1.49 | 1.26 | 5.06 | 9.38 | 11.18 |
| 1947 | 34.58 | 34.47 | .36 | .86 | 1.73 | 3.93 | 3.41 | 2.20 | 1.15 | 5.21 | 9.93 | 12.14 |
| 1948 | 32.15 | 32.11 | .37 | .56 | 1.12 | 2.94 | 3.23 | 2.11 | 1.80 | 6.13 | 9.97 | 12.22 |
| 1949 | 31.83 | 31.76 | .67 | .82 | 1.39 | 3.21 | 2.21 | 1.53 | 2.81 | 5.56 | 8.04 | 10.01 |
| 1950 | 42.58 | 42.45 | .64 | .65 | 1.20 | 3.15 | 1.79 | 1.23 | 2.31 | 3.64 | 5.04 | 6.30 |
| 1951 | 39.42 | 39.28 | .58 | .52 | 1.07 | 2.79 | 1.41 | 1.06 | 1.91 | 5.05 | 7.22 | 9.33 |
| 1952 | 34.52 | 34.19 | .36 | .80 | 1.48 | 3.74 | 2.80 | 1.99 | 1.35 | 4.81 | 7.20 | 9.49 |
| 1953 | 33.55 | 33.39 | .30 | .81 | 1.53 | 3.54 | 2.28 | 1.58 | 1.45 | 4.71 | 6.85 | 8.66 |
| 1954 | 33.88 | 33.91 | .31 | 1.14 | 2.29 | 4.49 | 2.69 | 1.89 | 1.49 | 3.91 | 5.65 | 7.46 |
| 1955 | 33.96 | 33.87 | .35 | 1.16 | 2.45 | 4.09 | 3.19 | 2.24 | 2.05 | 4.36 | 6.20 | 7.89 |

**

*Premiums and discounts are based on the average of 10 markets.

**1955 data are based on averages for August 1955 to March 1956.

Source: 1. Agricultural Statistics, U.S.D.A., 1936 to 1954.

2. Spot Cotton Quotations, Cotton Division, Agricultural Marketing Service, U.S.D.A., Memphis, Tennessee.

Smith-Doxey Program

The Smith-Doxey Act of 1937 directed the United States Secretary of Agriculture to make available cotton classification and market news services to any group of producers organized to promote the improvement of cotton and who complied with such regulations as he prescribed.¹¹

In Tennessee there has been a gradual increase in the participation by cotton farmers in the Smith-Doxey program, particularly

¹¹ The farmer must furnish a cut sample of cotton taken from both sides of the bale.

the larger producers. In recent years over half of the cotton farmers have been members of cotton improvement associations, and over two-thirds of the cotton planted has been in the Smith-Doxey program. The participation in this service has been an important factor in furnishing Tennessee farmers with unbiased market news and cotton quality information. During the past 10 years of the program (1946-55) an annual average of about 20 percent of the cotton ginned in Tennessee has been classed under the Smith-Doxey Act, and the proportion reached 45 percent in 1955 (Table 12).¹²

TABLE 12.—*Participation by Cotton Producers in Smith-Doxey and Government Loan Program, by Crop Years, Tennessee, 1938 to 1955*

| Crop Year | Number of cotton farmers in Tennessee | | | Number of acres of cotton planted in Tennessee | | | Volume of Ginned Cotton | | |
|-----------|---------------------------------------|----------------------------|-----|--|-----------------|-----------------|---------------------------------------|--|---|
| | Total (1) | In Smith-Doxey Program (2) | | Total (3) | Smith-Doxey (2) | | Classed under Smith-Doxey program (2) | Purchased mainly on basis of quality *** (4) | Purchased by ginner mainly at one price (5) |
| | | (%) | (%) | | Total | Adopted variety | | | |
| | (000) | (000) | (%) | (000) | (000) | (000) | (%) | (%) | (%) |
| 1938 | 78 | * | ** | 742 | 9 | 9 | ** | 67 | 33 |
| 1939 | 77 | * | ** | 733 | 5 | 4 | ** | 49 | 51 |
| 1940 | 74 | * | ** | 729 | 9 | 9 | ** | 27 | 73 |
| 1941 | 72 | 8 | 11 | 690 | 137 | 130 | 3 | 47 | 53 |
| 1942 | 70 | 10 | 14 | 725 | 178 | 173 | 7 | 37 | 63 |
| 1943 | 68 | 11 | 16 | 723 | 243 | 239 | 16 | 70 | 30 |
| 1944 | 66 | 21 | 32 | 665 | 332 | 328 | 25 | 44 | 56 |
| 1945 | 66 | 24 | 36 | 605 | 383 | 352 | 28 | 37 | 63 |
| 1946 | 67 | 27 | 40 | 635 | 397 | 345 | 12 | 43 | 57 |
| 1947 | 67 | 26 | 39 | 734 | 381 | 339 | 12 | 28 | 72 |
| 1948 | 67 | 28 | 42 | 823 | 448 | 395 | 35 | 47 | 53 |
| 1949 | 67 | 33 | 49 | 911 | 579 | 473 | 28 | 21 | 79 |
| 1950 | 64 | 28 | 44 | 644 | 474 | 385 | 8 | 21 | 79 |
| 1951 | 61 | 29 | 47 | 805 | 554 | 431 | 25 | 8 | 92 |
| 1952 | 59 | 30 | 50 | 866 | 578 | 439 | 17 | 22 | 78 |
| 1953 | 57 | 29 | 51 | 958 | 677 | 489 | 40 | 37 | 63 |
| 1954 | 55 | 30 | 55 | 657 | 607 | 475 | 28 | 19 | 81 |
| 1955 | 55 | 30 | 55 | 580 | 567 | 413 | 45 | 39 | 61 |

*Less than 1,000 members.

**Less than one percent.

***Includes cotton purchased by merchants directly from farmers and cotton placed in the Government loan.

- Source: 1. *Census of Agriculture, 1940 to 1955*, U.S. Bureau of the Census.
 2. *Annual Smith-Doxey Participation Summaries, 1938-1955*, Cotton Division, Agricultural Marketing Service, Memphis, Tennessee.
 3. *Cotton Reports, 1938-55*, Federal-State Cooperative Crop Reporting Service, Nashville, Tennessee.
 4. *Cotton Reports from Commodity Credit Corporation Programs, 1933-1955*, Cotton Division, Commodity Stabilization Service, U.S.D.A., Washington, D.C.
 5. *Purchases of Cotton by Ginners, Annual Releases*, Cotton Division, Agricultural Marketing Service, U.S.D.A., Washington, D.C.

¹² The proportion of cotton ginnings classed under the Smith-Doxey program for other southern states is shown in Appendix III.

Although the Smith-Doxey program has gradually expanded, the cotton farmers of the state have not taken full advantage of the service. In the crop years 1949, 1951, 1953 and 1954, a higher percentage of the cotton was classed under the program than was purchased on a quality basis. While all members in the Smith-Doxey program are not selling their cotton on a quality basis they are better informed than non-members as to the grade and staple length of the cotton they produce. A study made in 1948 showed that 56 percent of the members of cotton improvement associations took advantage of the Government cotton classing service; however, only nine percent of the non-members had impartial information as to the quality of their cotton.¹³

SUMMARY

During the 3-year period, 1951-53, five ginner markets in West Tennessee reflected the average price level of cotton in the Memphis market; that is, the weighted average price paid for cotton by the ginner rose or declined as the central market price for cotton of the same average grade and staple rose or declined. During the 3-year period the ginner price paid for picked cotton, as an average, was \$3.43 per 500-pound bale above the Memphis market price for cotton of the same grade and staple. However, weekly differences in price paid per pound among gins for cotton of the same grade and staple ranged from 35 to 668 points in 1951, 65 to 1,115 points in 1952, and 50 to 420 points in 1953. During all three seasons only one price was paid by any one of the five ginner markets for cotton at any given time, regardless of its quality.

Important factors related to cotton prices in ginner markets were: (1) average ginning charge per 500-pound bale which differed \$3.30 among gins in 1951 and \$3.11 in 1952 and 1953; (2) ginner dockage for dirt and trash in seed cotton which varied from five to 10 percent of the gross weight of the seed cotton; (3) prices paid farmers per ton for cottonseed which differed among gins by \$4.40 in 1951, \$4.55 in 1952, and \$3.85 in 1953; (4) volume of cotton going into the Government loan which varied from two percent in 1951 to 26 percent in 1953; and (5) variation in quality of cotton produced in the state.

In developing a better cotton marketing program in Tennessee the farmers and ginner markets have available the Smith-Doxey Classification and Market News Service. During the 10-year period, 1946-55, an annual average of 27 per cent of all cotton ginned in the state was classed under this program. In 1955 about 55 percent of all cotton farmers in the state participated in the program and 45 percent of all cotton ginned was classed by the Smith-Doxey Service.

¹³ Hall, Carl R., and Raskopf, B. D., *Cotton Marketing Practices of Growers, Ginners and Buyers in Tennessee*, Tennessee Agricultural Experiment Station Monograph No. 262, 1950.

APPENDIX I

Characteristics of Five Gins Studied, Compared with 52 Gins in Three Counties and All Gins in Tennessee, 1951 to 1953

| Item | 5 gins studied | 52 gins in 3 counties* | All gins in Tennessee |
|--|----------------|------------------------|-----------------------|
| Bales of cotton ginned per gin (av.): 1951 | 2297 | 2285 | 1479 |
| 1952 | 2731 | 2615 | 1815 |
| 1953 | 2828 | 2886 | 1993 |
| Patrons per gin (av.): 1951-53 | 195 | 190 | 170 |
| Cotton varieties ginned (%): | | | |
| Deltapine | 59 | 60 | 58 |
| Empire | 20 | 20 | 19 |
| Fox | 11 | 10 | 10 |
| Stoneville | 7 | 7 | 6 |
| All other | 3 | 3 | 7 |
| Average cotton quality ginned | | | |
| Cotton White Middling and above (%): | | | |
| 1951 | 52.2 | 55.0* | 57.2 |
| 1952 | 63.2 | 61.8* | 62.8 |
| 1953 | 81.6 | 72.0* | 73.6 |
| Grade index: | | | |
| (Basis White Middling equals 100) | | | |
| 1951 | 94.4 | 93.9* | 96.1 |
| 1952 | 96.8 | 96.5* | 98.8 |
| 1953 | 97.8 | 97.5* | 98.3 |
| Staple length in 32nd in. (av.): | | | |
| 1951 | 33.3 | 33.4* | 33.4 |
| 1952 | 33.3 | 33.4* | 33.3 |
| 1953 | 33.1 | 33.1* | 33.2 |
| Cotton ginnings bought by ginner (%): | | | |
| 1951 | 91 | No data | 92 |
| 1952 | 96 | No data | 78 |
| 1953 | 90 | No data | 63 |

*The three counties where the five gins were located included Crockett, Dyer and Gibson. Data on average cotton quality are for 21 counties of West Tennessee.

Source: 1. Census of Agriculture, 1950 and 1955.

2. Annual Cotton Quality Reports, Cotton Division, Agricultural Marketing Service, U.S.D.A., Memphis, Tennessee.
3. Purchases of Cotton by Ginners, Annual Releases, Cotton Division, Agricultural Marketing Service, U.S.D.A., Washington, D.C.
4. Cotton Production in the United States, 1951 to 1953, Bureau of the Census, U.S. Department of Commerce.
5. Cotton Varieties Planted 1950-1954, Cotton Division, Agricultural Marketing Service, U.S.D.A., Memphis, Tennessee.

APPENDIX II

Percentage Distribution of Qualities of Picked Cotton Purchased at Five Gins in Tennessee, 1951 to 1953

| Crop Year | Gin No. | Grades | | | | Staple Length (inches) | | | |
|-----------|---------|-------------|---------------|---------------------------------------|--------------|------------------------|--------------|-------|-----------------|
| | | White | | Other Spotted Tinged Gray Below Grade | Grade index* | 1-1/16 and longer | 1 and 1-1/32 | 31/32 | Av. in 32nd in. |
| | | M and above | SLM LM SGO GO | | | | | | |
| 1951 | 1 | 37.6 | 44.0 | 18.4 | 62.1 | 61.6 | 32.0 | 6.4 | 33.4 |
| | 2 | 59.9 | 35.4 | 4.7 | 98.8 | 66.1 | 27.9 | 6.0 | 33.5 |
| | 3 | 48.7 | 39.1 | 12.2 | 80.4 | 35.0 | 48.3 | 16.7 | 32.8 |
| | 4 | 62.8 | 24.3 | 12.9 | 103.6 | 60.1 | 37.9 | 2.0 | 33.5 |
| | 5 | 50.8 | 35.7 | 13.5 | 83.8 | 64.3 | 33.8 | 1.9 | 33.6 |
| 1952 | 1 | 57.7 | 27.6 | 14.7 | 88.9 | 40.1 | 52.9 | 7.0 | 33.0 |
| | 2 | 52.7 | 41.6 | 5.7 | 81.3 | 61.2 | 35.6 | 3.2 | 33.6 |
| | 3 | 76.6 | 18.8 | 4.6 | 118.1 | 50.5 | 43.3 | 6.2 | 33.2 |
| | 4 | 65.5 | 26.1 | 8.4 | 100.9 | 43.4 | 49.1 | 7.5 | 33.1 |
| | 5 | 67.9 | 20.1 | 12.0 | 104.6 | 79.9 | 18.6 | 1.5 | 33.8 |
| 1953 | 1 | 71.3 | 28.7 | ** | 94.8 | 45.4 | 50.2 | 4.4 | 33.2 |
| | 2 | 65.4 | 34.6 | ** | 86.9 | 43.7 | 49.2 | 7.1 | 33.2 |
| | 3 | 90.8 | 8.8 | 0.4 | 120.6 | 25.9 | 69.1 | 5.0 | 32.9 |
| | 4 | 98.4 | 1.6 | ** | 130.7 | 60.4 | 39.3 | 0.3 | 33.6 |
| | 5 | 83.9 | 15.3 | 0.8 | 111.4 | 35.5 | 57.2 | 7.3 | 33.0 |

*Converted to an index on the basis of White Middling equals 100.

**Less than 0.1 percent.

Source: Computed from cotton quality data obtained from the Cotton Division, Agricultural Marketing Service, U.S.D.A., Crosstown Station, Memphis, Tennessee.

APPENDIX III

*Proportion of Cotton Classed Under the Smith-Doxey Program,
9 States, 1942-55*

| Crop Year | Ala. | Ark. | Ga. | La. | Miss. | N. C. | Mo. | S. C. | Tenn. |
|-----------|---|------|------|------|-------|-------|------|-------|-------|
| | (Percent of ginnings classed under Smith-Doxey program) | | | | | | | | |
| 1942 | 22.2 | 12.9 | 18.0 | 7.2 | 4.6 | 9.8 | 32.8 | 7.2 | 7.3 |
| 1943 | 25.8 | 17.7 | 17.0 | 6.8 | 5.0 | 16.7 | 52.0 | 6.5 | 16.4 |
| 1944 | 19.0 | 20.6 | 22.8 | 10.9 | 13.2 | 20.7 | 55.5 | 8.2 | 25.0 |
| 1945 | 21.7 | 35.2 | 15.6 | 16.9 | 23.9 | 9.5 | 74.6 | 4.7 | 27.6 |
| 1946 | 16.8 | 30.0 | 10.6 | 12.1 | 14.8 | 6.6 | 58.8 | 3.0 | 12.2 |
| 1947 | 19.5 | 34.2 | 13.3 | 12.1 | 16.9 | 7.2 | 60.9 | 4.0 | 12.0 |
| 1948 | 38.0 | 64.5 | 30.5 | 47.3 | 54.8 | 29.9 | 91.8 | 21.5 | 34.5 |
| 1949 | 45.7 | 74.8 | 35.7 | 47.9 | 72.6 | 33.4 | 90.1 | 19.7 | 28.3 |
| 1950 | 26.2 | 52.7 | 14.1 | 24.6 | 49.9 | 18.3 | 67.9 | 5.5 | 8.3 |
| 1951 | 46.8 | 69.6 | 50.1 | 48.4 | 72.4 | 39.7 | 79.4 | 21.2 | 25.3 |
| 1952 | 38.7 | 61.2 | 40.1 | 43.3 | 57.1 | 33.4 | 68.3 | 15.7 | 17.2 |
| 1953 | 65.0 | 38.3 | 71.6 | 70.9 | 86.1 | 43.6 | 96.0 | 37.0 | 40.2 |
| 1954 | 50.9 | 82.0 | 57.0 | 58.5 | 73.8 | 35.3 | 84.1 | 18.9 | 27.8 |
| 1955 | 66.5 | 92.5 | 71.2 | 71.6 | 86.9 | 48.9 | 97.3 | 35.3 | 44.5 |

Source: Annual Smith-Doxey Participation Summaries, 1942-55, Cotton Division, Agricultural Marketing Service, Memphis, Tennessee and Atlanta, Georgia.