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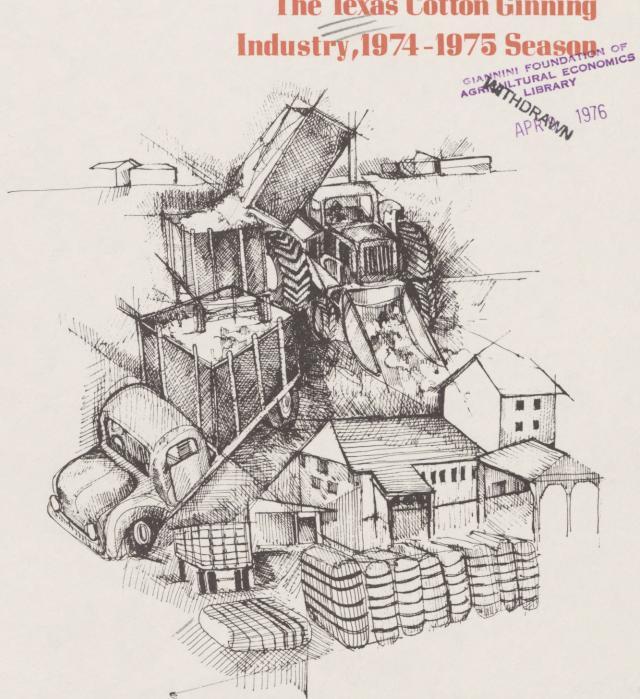
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Cotton-Girming

# **The Texas Cotton Ginning**



NATURAL FIBERS ECONOMIC RESEARCH (

The University of Texas at Austin

### THE TEXAS COTTON GINNING INDUSTRY 1974-75 SEASON

## NATURAL FIBERS ECONOMIC RESEARCH The University of Texas at Austin

#### A Part Of

The Natural Fibers & Food Protein Commission of Texas

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#### PREFACE

The Texas Cotton Ginning Cost Study for the 1974-75 season was conducted at the request of the cotton ginning associations in Texas. The schedule used in this study was reviewed by the Executive Secretaries of the Texas Cooperative Ginners' Association, the Texas Cotton Ginners' Association and the Texas Independent Ginners' Association. These men made recommendations which, where possible, were incorporated into the questionnaire. See pages 57 and 58 in the appendix for the questionnaire. The associations also informed their members of the study and requested that the members cooperate fully.

We wish to thank the ginners' associations for their suggestions and those members who completed the schedules and returned them to Natural Fibers Economic Research. Slightly over 30 percent of the 900 active gins during the season furnished the required information making this study possible. With decreased cotton production in the state and the annually decreasing number of active gins, due to a variety of reasons, current information relating to this industry is urgently needed.

This report makes reference to earlier studies by NFER which culminated in Research Reports No. 101, The Texas Cotton Ginning Industry, 1971-1972 Season; No. 94, The Texas Cotton Ginning Industry, 1968-69 Season; No. 83, The Texas Cotton Ginning Industry, 1965-66 Season; and No. 79, The Texas Cotton Ginning Industry, 1964-65 Season.

Information in the report will enable an individual gin operator to compare his ginning costs with the average for the crop reporting district in which he is located. The report will show where costs might be reduced in an effort to fight recessionary and inflationary forces.

Data were correlated and the report prepared by William F. Harris and other members of the staff. The manuscript and tables were typed by Mrs. Sarah E. Clagett. The publication was printed by the University of Texas Printing Division.

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#### TABLE OF CONTENTS

	Page
Preface	iii
Introduction	1 1 1
Active Gins	1
Number of Bales Ginned and Ginning Rates	3
Gin Equipment	7
Gin Customers and Gin Services Performed	12
Gin Employment	16
Gin Operating Costs Labor	16 16 17 18 20 21 23 23 26 27
Ginning Charges	31
Ginning Income	34
Value of Texas Active Cotton Gins	36
The Value of Cotton To Texas	37
Additional Information	38 38 40 40 42
Summary	44
Appendix	45

#### LIST OF TABLES

Number		Page
1.	Texas Cotton Yield, by Crop Reporting Districts	3
2.	Number of Active Texas Cotton Gins, by Crop Reporting Districts	4
3.	Average Number of Bales Ginned Per Hour Per Gin Plant, by Crop Reporting Districts, for 1974 Crop and Earlier Selected Crops	6
4.	Average Number Weeks in Ginning Season, by Crop Reporting Districts, 1974-75, 1973-74, and 1971-72 Seasons	6
5.	Average Number of Bales Processed, by Crop Reporting Districts 1974-75 and 1973-74 Seasons	8
6.	Break-Even Point for the 1974-75 and 1973-74 Seasons, by Crop Reporting Districts	8
7.	New Equipment Added by Texas Gins Prior to 1974 Crop, by Crop Reporting Districts	10
8.	Percentage of Moisture Control (Humidifier and/or Restoration) Systems, by Crop Reporting Districts, 1974-75, 1971-72, 1968-69 and 1964-65 Seasons	10
9.	Percentage of Texas Gins with Type of Press Indicated, Percentage with Modified Flat Bale Presses, Average Cost of Modifications, Percentage of Gins with Problems After Modifications, 1974-75 Season	11
10.	Estimated Customers and Trailers Per Gin, by Crop Reporting Districts	13
11.	Other Texas Gin Services, 1974-75 Season	14
12.	Average Transportation Charges (Gin to Storage Facilities) Charged by Gins, by Crop Reporting Districts, 1974-75, 1973-74, 1971-72 and 1968-69 Seasons	15
	Percentage of Gins Buying Cotton, Percentage of Total Ginnings Bought, and Average Number of Bales Bought, by Crop Reporting Districts, 1974-75 and 1971-72 Seasons	15
14.	Gin Employment Data, by Crop Reporting Districts	17
15.	Average Texas Gin Payroll Expenditures, by Crop Reporting Districts, 1974-75 Season	18
	Average Cost of Electricity Used by Texas Gins, by Crop Reporting Districts, 1974-75 Season	19
	Electric Energy Used by Gins in Processing Crop of 1974 and Cost of Said Energy	20
	Average Cost of Gas (Natural and LP) Used by Texas Gins, by Crop Reporting Districts, 1974-75 Season	21
	Cost and Amount of Natural Gas, Liquid Petroleum Gas, and Diesel and Other Fuels Used Per Bale in Gin Operation	22

#### LIST OF TABLES--Continued

Number		Page
20.	Use and Average Cost of Water by Texas Gins, by Crop Reporting Districts, 1974-75 Season	22
21.	Average Property Tax Paid Per Bale, by Crop Reporting Districts, 1974-75 Season	24
22.	Average Property Tax Paid Per Gin and Percentage of Gins Reporting Which Paid Indicated Tax (Shown in Parentheses), by Crop Reporting Districts, 1974-75 Season	25
23.	Interest on Long and Short Term Loans for Texas Gin Operation, 1974-75 Season	26
24.	Average Operating Costs in Dollars Per Bale, by Crop Reporting Districts, 1974-75 and 1971-72 Seasons	28
25.	Estimated Total Expenditures for Selected Operating Cost Items (All Active Gins), by Crop Reporting Districts, 1974-75 Season	29
26.	Average Expenditure Per Bale for Indicated Cost Items Based on Volume Ginned, 1974-75 and 1971-72 Seasons	30
27.	Average Estimated Total Expenditures Per Gin for Indicated Cost Items Based on Volume Ginned, 1974-75 and 1971-72 Seasons	32
28.	Texas Average Ginning Charges, by Crop Reporting District, 1974-75 and 1973-74 Seasons	33
29.	Estimated Total Ginning Income, by Crop Reporting Districts, 1974-75, 1973-74, 1971-72 and 1968-69 Seasons	35
30.	Average Percentage of Gin Income From Ginning Cotton and Percentage of Gins with Income Solely from Ginning Cotton, 1974-75 and 1971-72 Seasons	35
31.	Percentage of Gins Which Sell Gin Trash and Average Price Per Ton for Trash, by Crop Reporting Districts, 1974-75, 1971-72 and 1968-69 Seasons	36
32.	Value of Texas Gins, by Crop Reporting Districts, 1974-75 and 1973-74 Seasons	37
33.	Texas Cotton Values	39
34.	Light and Heavy Weight Bales Ginned During the 1974-75 Season	40
35.	Number of Bales Ginned, by Crop Reporting Districts (Running Bales Except as noted)	46
36.	Texas Cotton Acreage, Production, Yield, and Price	47
37.	Cotton Gins in Texas, by Counties, 1915 and as of January 1, 1975	48
38.	Average Number of Bales Per Gin. by Crop Reporting Districts .	

#### LIST OF TABLES--Continued

Number		Page
39.	Break-Even Points, by Crop Reporting Districts for the 1964-65, 1965-66 and 1968-69 Seasons	51
40.	Average Cost Per Gin of New Equipment, by Crop Reporting Districts, 1965-66, 1968-69 and 1971-72 Seasons	51
41.	Average Number of Employees Per Gin, by Crop Reporting Districts, for Selected Years	52
42.	Estimated Total Expenditures for Selected Operating Cost Items (All Active Gins), by Crop Reporting Districts, 1971-72 Season	53
43.	Average Ginning Charges Per Bale, Including Bagging and Ties, by Crop Reporting Districts, 1971-72, 1968-69 and 1965-66 Seasons	54
44.	Average Charges for Saw Ginning Upland Cotton, Average Charges for Selected Services Incident to Marketing, and Related Information, by States, Seasons 1968-69, 1971-72, 1973-74 and 1974-75	55
45.	Average Value of Gin Plants, by Crop Reporting Districts, 1965-66, 1968-69 and 1971-72 Seasons	56

#### INTRODUCTION

Ginning costs continued to escalate, along with almost all other associated costs during the 1974-75 season. The number of active gins during any given season is dependent to a large degree on the cotton production in the area. The largest number of active gins in Texas for any one season was in 1914-15, when there were 4,694. There were only 916 gins during the 1974-75 season which was 19.5 percent of the peak figure in 1914-15.

#### Production

Production of cotton in the state during the 1974-75 season amounted to 2,462,000 480-pound net-weight bales. This figure was 52.7 percent of the Texas production a year earlier. Production during the 1974-75 season was over one million bales below the amount produced in 1900. Production figures for the state, by crop reporting districts, for the 1974-75 and 1973-74 seasons, the crop of 1900 and other selected years are in Table 35 in the appendix of this report. There was an increase in production in Crop Reporting Districts 5, 6, 8, 9, 10-N, and 10-S during the 1974-75 season from a year earlier although there was a decrease of over 47 percent in state total production. Table 36 in the appendix also lists the number of bales produced (state total) for selected years, along with the number of active gins.

#### Yield

Yield per acre influences the amount of production in the state almost as much as acreage planted. Texas producers strive to increase their yield each year. Until 1949, when Texas cotton yield reached 261 pounds per acre, the yield per acre in Texas was less than 200 pounds annually. For the next eight years until the crop of 1957, the yield for Texas stayed in the two hundred pound range except for the crop years of 1951 and 1952 when it dropped below 200 pounds. In the crop year 1958, the Texas yield reached 300 pounds per acre. It has stayed in this range or increased to 400 pounds per acre after the crop year of 1965 (except when the weather or environmental conditions have forced it back into the 200 pound yield range).

See Table 36 in the appendix for early yield information. Current yield figures for the seasons 1974-75, 1973-74, 1971-72, 1968-69, and 1950-51 are in Table 1. The information in this table is by crop reporting districts, along with the state average.

#### ACTIVE GINS

The number of active gins has decreased almost annually since the state's high recorded for the crop year 1914. The total active gins during the 1974-75 season, as noted earlier, was 916. Figure 1 shows the location of these active gins. The Southern High Plains area had the greatest number of active gins with 272 gins. The High and Rolling Plains had 56.4 percent of the total active gins in the state during the season. The number of active gins, by crop reporting districts, for the 1974-75 and earlier seasons

#### OPERATING COTTON GINS IN TEXAS, BY COUNTIES, AS OF JANUARY 1, 1975

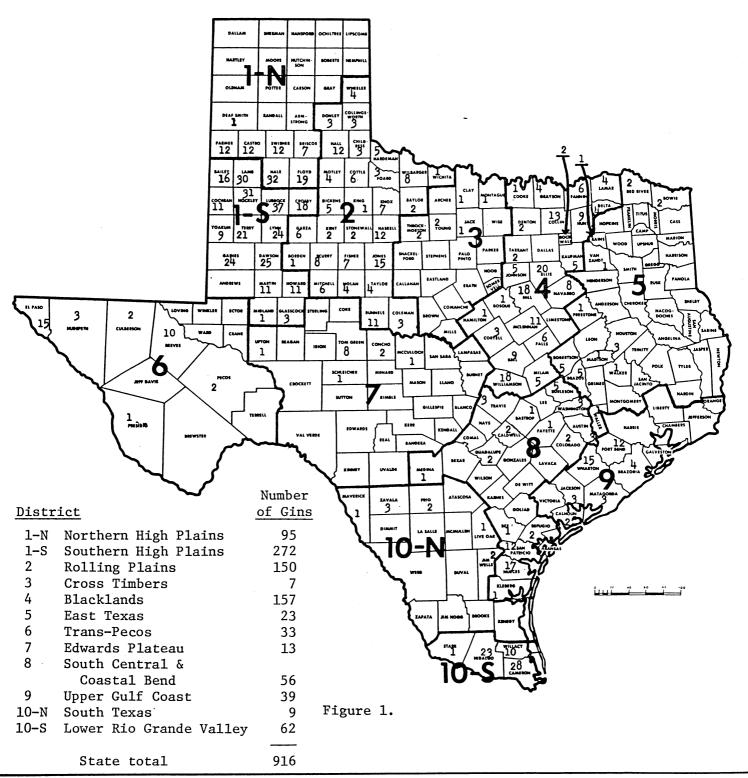


Table 1. TEXAS COTTON YIELD, BY CROP REPORTING DISTRICTS

		Yield in P	ounds Per Har	vested Acre	
District	1974-75	1973-74	1971-72	1968-69	1950-51
1-N	334	494	257	403	272
1-S	287	499	273	518	230
2	216	422	208	398	215
3	160	277	113	265	110
4	156	290	195	279	157
5	480	354	<b>308</b> ′	401	126
6	514	686	730	753	462
7	213	312	<b>295</b>	419	201
8	448	284	238	259	206
9	360	212	289	235	264
10-N	480	430	248	323	133
10-S	464	355	512	415	412
State*	269	431	263	410	211

<sup>\*</sup> Weighted average

Source: Texas Cotton Statistics, Texas Crop and Livestock Reporting Service.

is shown in Table 2. There were 4,093 active gins in the 1915-16 season. This table shows the movement of cotton production from that time to the present. This shift in production and location of active gins was from the eastern and central counties of the state to the counties making up the Lower Rio Grande Valley, and the High and Rolling Plains. District 1-S (Southern High Plains) with 272 active gins as of January 1, 1975, had just 24 active cotton gins during the 1915-16 season.

During the 1974-75 season the counties with the largest number of active gins were located in the High Plains. Hale, Hockley, Lamb and Lubbock counties had a total of 130 active gins, while in the 1915-16 season there were only 4 known active gins in these four counties. See Table 37 in the appendix for a comparison, by counties, of the number of active gins in 1915 and 1975.

During the 1915-16 season, active gins were located in 86 percent of the state's 254 counties, and by 1974-75 they were in only 51 percent of the counties.

#### NUMBER OF BALES GINNED AND GINNING RATES

The number of bales of cotton produced, by crop reporting district, divided by the number of active gins in the respective crop reporting districts gives a theoretical average number of bales ginned per gin, by crop reporting districts. This will not hold true in actuality since producers tend to take their cotton to the nearest cotton gin or to the gin which does a cheaper or better job of ginning.

Table 2. NUMBER OF ACTIVE TEXAS COTTON GINS, BY CROP REPORTING DISTRICT

District	1974-75	1973-74	1971-72	1968-69	1960-61	1950-51	1940-41	1930-31	1920-21	1915-16
1-N	95	106	107	112	109	77	47	53	14	4
1 <b>-</b> S	272	279	279	289	301	252	231	182	46	24
2	150	159	159	169	189	263	369	406	333	323
3	7	8	8	11	15	25	98	152	178	284
4	157	185	186	223	301	496	790	946	1,067	1,179
5	23	26	26	34	71	207	572	803	993	1,250
6	33	29	41	49	64	41	37	40	20	2
7	13	14	15	17	19	16	89	108	124	158
8	56	73	76	120	165	253	496	609	595	641
9	39	57	51	66	71	90	144	169	134	126
10-N	9	9	8	15	22	23	60	74	45	56
10 <b>-</b> S	62	67	67	76	105	108	79	104	29	8
State	916	1,012	1,023	1,181	1,432	1,851	3,012	3,646	3,578	4,093*

<sup>\*</sup> There were 38 gins in other counties not listed.

Source: Cotton Production in the U.S., USDA, Bureau of the Census; and gin lists furnished by the U.S. Department of Agriculture.

The average number of bales ginned in the state and by crop reporting districts during the 1915-16 season as derived by this method was found to be (theoretically) 749 bales per gin, as compared with 2,940 bales for the 1968-69 season, 4,945 bales for the 1973-74 season and 2,687 bales for the 1974-75 season. These figures for selected years, by crop reporting districts, are presented in Table 38 of the appendix.

The ginners were asked to report their average ginning rate per hour for the 1974-75 and 1973-74 seasons. During the 1945 crop year, the state average ginning rate was 3.8 bales per hour. Just 20 years later this rate for a statewide average had doubled to 7.6 bales per hour. This change has been the result of the addition of new, modern machinery designed for larger volume and faster rates to existing gins, and new gins being built. The average number of bales reported ginned per hour, by crop reporting districts and the statewide average for the crops of 1974 and earlier selected years, are reported in Table 3.

The producer wants his cotton ginned immediately so he can have the trailer back for additional harvesting. Thus with the producer harvesting faster with aid of mechanized harvesting equipment, the gin is often swamped with full trailers on the yard or when weather turns bad he is without cotton to keep the gin running.

Ideally the gin would like an adequate supply of seed cotton on hand at all times to keep his gin operating without a break and the producer wants to have adequate supply of empty trailers available for his harvested cotton. When there are breaks in the delivery of seed cotton to the gin, the ginner must still keep a crew available and machinery ready to go. This down time due to irregular receipt of seed cotton increases the cost of ginning to the ginner and customer-producer alike.

The number of weeks that a gin is kept open awaiting the receipt of seed cotton is an important factor in the cost of ginning and gin operation. The gins reported their average number of weeks involved in ginning cotton during the 1974-75 season. These data are in Table 4, with comparisons to the 1973-74 and 1971-72 seasons.

The ginning season of the 1971 crop averaged 12.3 weeks with a ginning rate of 5.8 bales per hour. During the 1973-74 season, the gins were operated 12.5 weeks and the ginning rate increased to 7.5 bales per hour. This indicates that the cotton moved more continuously to the gins, enabling the gins to work at a more constant rate during the 1973-74 season than during the 1971-72 season, even though the crop of 1973-74 was nearly twice as large as that of 1971-72. During the 1974-75 season the statewide ginning rate per hour was nearly the same as for the preceding year. However, the per-hour rate for the different crop reporting districts changed considerably from the earlier season as did the length of ginning season. The differences were due to changes in weather which prolonged the season and slowed down seed cotton delivery to the gin.

Gins also reported the number of bales that they ginned during the 1974-75 season and the prior season. On a statewide basis the average number of bales ginned amounted to 3,432 bales per active gin reporting for the 1974-75 season as compared with 5,744 bales per gin for the previous

Table 3. AVERAGE NUMBER OF BALES GINNED PER HOUR PER GIN PLANT, BY CROP REPORTING DISTRICTS, FOR 1974 CROP

AND EARLIER SELECTED CROPS

District	1974	1973	1971	1968	1965	1945
1-N	5.6	7.0	5.6	7.5	10.0	3.8
1-S	8.3	9.0	6.0	8.0	10.1	4.3
2	6.8	6.6	4.7	7.1	8.0	4.1
3	NA	NA	2.3	5.4	NA	3.3
4	5.6	5.2	4.7	5.3	5.0	3.9
5	6.7	7.3	5.6	6.8	4.9	3.6
6	4.9	5.0	6.1	6.0	5.9	3.5
7	6.0	6.1	3.8	6.0	6.3	3.5
8	5.6	3.9	6.2	5.9	6.3	3.7
9	7.3	6.8	6.3	6.7	6.2	3.8
10-N	NA	NA	6.0	6.3	6.9	4.1
10-S	10.2	8.6	11.1	9.2	9.5	4.4
State*	7.4	7.5	5.8	6.9	7.6	3.8

NA - Not available or insufficient data.

Source: Original data based on gins reporting, Research Report No. 101, The Texas Cotton Ginning Industry, 1971-1972 and earlier reports issued by NFER.

Table 4. AVERAGE NUMBER WEEKS IN GINNING SEASON, BY CROP REPORTING DISTRICTS, 1974-75, 1973-74, AND 1971-72 SEASONS

District	1974-75	1973-74	1971–72
1-N	8.1	9.7	10.9
1-S	9.9	13.9	12.3
2	12.8	14.3	11.4
3	NA	NA	5.3
4	11.4	15.4	16.4
5	7.8	9.5	15.7
6	15.4	19.0	17.6
7	6.5	9.0	12.6
8	7.0	9.3	8.8
9	7.6	8.5	10.5
10-N	NA	NA	8.3
10-S	6.4	8.7	7.6
State*	9.8	12.5	12.3

NA - Not available or insufficient data.

<sup>\*</sup> Weighted average.

<sup>\*</sup> Weighted average.

season. These data, by crop reporting districts, for the two seasons are presented in Table 5. Due to environmental conditions in Crop Reporting Districts 1-N, 1-S, 2, 4 and 7, the average ginnings per gin were less for the 1974-75 season than for a year earlier; whereas gins in Districts 5, 8, 9 and 10-S ginned more during the 1974-75 season than in the preceding season. Gins in District 6 (Trans-Pecos) ginned approximately the same average number of bales per gin for both seasons.

Also shown in Table 5 is the average number of bales of cotton ginned per employee for the two seasons, by crop reporting districts, and the average number of bales of cotton ginned per gin customer. There were 37 fewer bales ginned per employee in 1974-75 than during the 1973-74 season. On a statewide average the gin customers produced 28 fewer bales during the 1974-75 season than they produced during the preceding season.

The ginners were also asked to indicate the number of bales they had to gin to be able to cover their expenses, or "break even" for the two seasons. On a statewide basis, 470 more bales were required during the 1974-75 season than during the preceding season to cover increased costs. During the 1974-75 season the number of bales required to break even on a statewide basis, averaged 2,818 bales per gin. These statewide average data for the two seasons and by crop reporting districts are in Table 6.

This table also shows the break-even point as a percentage of the average number of bales ginned for the two seasons. According to crop reporting districts, it was determined that the gins in Districts 8, 9 and 10-S did not gin enough cotton to break even for the 1973-74 season. Actually some gins did process enough bales to reach or exceed the number of bales that had to be ginned to break even financially; but when the data for all gins reporting were averaged for these districts, they did not gin enough. During the 1974-75 season the average number of bales ginned, as reported by the gins in Districts 4 and 7, were not enough to reach their break-even point.

Also shown in Table 6 is the percentage of gins, by crop reporting districts, which, during the 1974-75 season, did not gin enough bales to reach their reported break-even figure. This amounted to over 31 percent of the gins reporting for the state.

Table 39 in the appendix lists the break-even point for the crop years of 1968, 1965 and 1964, by crop reporting districts. Also shown in Table 39 is the break-even point as a percentage of the average total number of bales ginned for the respective crop years.

#### GIN EQUIPMENT

For about the last five years the entire cotton harvest in Texas has been accomplished by machine. The cotton has been harvested with the use of mechanical pickers and strippers. Stripping accounted for about 78 percent of the cotton harvested during the 1974-75 season, with 21 percent picked by machine and 1 percent machine scrapped. Mechanical harvesting means the producer is bringing more trash to the gin with his seed cotton. This trash includes burrs, leaves, stalks, grass, sand, dirt, and other extraneous matter.

Table 5. AVERAGE NUMBER OF BALES PROCESSED, BY CROP REPORTING DISTRICTS, 1974-75 AND 1973-74 SEASONS

			Average Numb	er of Ba	les	
			Hand1	ed Per	Ginne	ed Per
	Ginned	Per Gin	Gin En	nployee	Gin Cu	ıstomer
District	1974	1973	1974	1973	1974	1973
1-N	2,996	4,770	171	242	51.3	79.6
1-S	4,156	9,595	119	195	71.6	142.7
2	2,797	5,687	152	228	37.8	68.6
3	NA	NA	NA	NA	NA	NA
4	1,327	2,646	79	124	25.8	42.3
5	3,132	2,771	150	135	162.0	118.0
6	3,511	3,516	180	142	79.6	72.9
7	3,663	5,054	156	230	44.7	61.0
8	2,353	1,263	132	168	72.4	40.5
9	1,705	1,087	97	74	24.1	14.8
10-N	NA	NA	NA	NA	NA	NA
10-S	4,636	2,759	138	86	90.4	53.8
State*	3,432	5,744	134	171	61.4	89.4

NA - Not available or insufficient data.

Table 6. BREAK-EVEN POINT FOR THE 1974-75 AND 1973-74 SEASONS BY CROP REPORTING DISTRICTS

	•						
			Break-ev	en Point	Percentage of Gins		
	Break-even		as Perce	ntage of	Which Did Not		
	Point :	in Bales	Bales	Ginned	Reach Break Even		
District	1974	1973	1974	1973	Point, 1974-75 Season		
1-N	2,420	2,273	80.7	47.6	23		
1-S	3,495	3,246	84.1	33.8	34		
2	2,490	2,310	89.0	40.6	40		
3	NA	NA	NA	NA	NA		
4	1,534	1,464	*	55.3	48		
5	2,560	2,300	82.0	83.0	29		
6	2,617	2,400	74.5	68.2	0		
7	4,000	3,800	*	75.2	34		
8	1,479	1,401	68.0	*	15		
9	1,265	1,208	74.2	*	30		
10-N	NA	NA	NA	NA	NA		
10-S	3,380	3,240	72.9	*	6		
State**	2,818	2,348	84.1	50.4	31.4		

NA - Not available or insufficient data.

<sup>\*</sup> Weighted average.

<sup>\*</sup> Average break-even figure reported exceeded average number of bales ginned.

<sup>\*\*</sup> Weighted average.

All of this foreign matter must be removed by the gin which in turn increases the wear and tear on gin plant equipment, resulting in greater need than ever before for annually replacing gin machinery. In addition, gin machinery manufacturers are constantly striving to improve their machines or develop new ones that will do a better and faster job of cleaning and ginning cotton.

The gins reporting indicated that, on a statewide average, over 40 percent added some type of new equipment. The average cost of this equipment amounted to \$18,806. These data for the various crop reporting districts in the state are located in Table 7. Of those gins which added new equipment, 35 percent indicated that the new equipment added helped by increasing their ginning rate. The same data, by crop reporting districts, for the 1971-72, 1968-69 and 1965-66 seasons are in Table 40 of the appendix.

Fourteen percent of the new equipment added was motors and fans. Twelve percent was air pollution control equipment such as cyclones, etc. Other items of equipment added in descending order of percentage involved are lint cleaners - 9 percent; feeders and suction - 8 percent; stands, new saws - 8 percent; presses - 7 percent; stick and leaf machines - 6 percent; humidifier systems - 5 percent; and dryers - 5 percent. Additional items added were precleaners, press pumps, dogs, trampers, seed-o-meters, seed houses and hoppers, rick loaders, fork lifts, module transports, static eliminators, etc.

The addition of new equipment to Texas gins during the year is estimated to have cost over \$7 million prior to the ginning of the 1974 crop. This information, according to crop reporting districts is given in Table 7. Not included in the cost of new equipment was the cost of new gins constructed just prior to the 1974-75 season. Statewide, the cost of new gins erected averaged about \$500,000 each.

Keeping an adequate moisture content in the cotton during ginning has become important, as low moisture tends to allow the length and quality of the cotton to be damaged. To avoid this, many gins have added moisture control or restoration systems to their plants to maintain lint quality. Table 8 indicates the percentage of reporting gins, by crop reporting districts and statewide, that have such a system. Also shown is the percentage of time that these gins have used such systems during the 1974-75 and earlier seasons.

In an effort to reduce costs of marketing cotton and to present a more uniform package a nationwide effort has been underway to have all gins with gin flat bale presses modify their press boxes. The bales from these modified presses would have dimensions which allow the compress to turn out universal density bales. These bales are acceptable to both U.S. and foreign mills without the added cost of repressing to high density.

Prior to the 1974-75 season, over 68 percent of those gins with gin flat bale presses reported that they had modified their press boxes accordingly. On a statewide basis their average cost of these modifications was \$781.26 per press. Table 9 indicates the average cost of modifying press boxes, by crop reporting districts.

Table 7. NEW EQUIPMENT ADDED BY TEXAS GINS PRIOR TO 1974 CROP, BY CROP REPORTING DISTRICTS

		Average Cost		Percent of Gins
		Per Gin for	Estimated Total	That Added New
	Percent of	Those Which	Cost of New	Equipment Which
	Gins Adding	Added New	Equipment Added	Increased Their
District	New Equipment	Equipment	Prior 1974 Crop	Ginning Rate
1-N	35	\$27,122	\$ 889,500	43
1-S	54	23,493	3,342,500	34
2	50	30,723	1,996,980	46
3	NA	NA	NA	NA
4	31	9,485	455,600	36
5	28	24,600	162,400	0
6	38	4,400	55,000	33
7	40	15,216	39,500	48
8	23	3,000	25,900	50
9	0	0	0	0
10-N	NA	NA	NA	NA
10 <b>-</b> S	27	5,900	60,200	25
State*	40.7	\$18,806	\$7,011,280	35.1

NA - Not available or insufficient data.

Table 8. PERCENTAGE OF MOISTURE CONTROL (HUMIDIFIER AND/OR RESTORATION) SYSTEMS, BY CROP REPORTING DISTRICTS, 1974-75, 1971-72, 1968-69, AND 1964-65 SEASONS

	Percent of Time the								
		Having	Units		Uni	Units are in Operation			
District	1974	1971	1968	1964	1974	1971	1968	1964	
1-N	56	57	64	43	86	96	78	52	
1-S	78	75	93	72	88	89	86	76	
2	18	15	30	9	100	71	100	45	
3	NA	NA	NA	NA	NA	NA	NA	NA	
4	11	15	10	9	100	86	100	86	
5	43	12	60	8	67	100	100	95	
6	50	63	100	36	50	100	100	82	
7	_	17	NA	NA	_	100	NA	NA	
8	23	39	15	17	67	75	100	95	
9	38	27	22	4	100	100	75	100	
10-N	NA	60	20	17	NA	100	100	100	
10-S	24	30	7	3	75	100	100	96	
State*	41	45	44	28	80	93	88	77	

NA - Not available or insufficient data.

<sup>\*</sup> State averages are weighted, totals not.

<sup>\*</sup> Weighted average.

Table 9. PERCENTAGE OF TEXAS GINS WITH TYPE OF PRESS INDICATED, PERCENTAGE WITH MODIFIED FLAT BALE PRESSES, AVERAGE COST OF MODIFICATIONS, PERCENTAGE OF GINS WITH PROBLEMS AFTER MODIFICATIONS, 1974-75 SEASON

				Percent That	Average	Percent With
	Type	es in	Percent	Modified Flat	Cost of	Problems After
District	MF*	Flat	Other**	Bale Presses	Modifications	Modifications
1-N	58	15	27	88	\$677	19
1-S	66	5	29	83	822	12
2	63	26	11	64	904	11
3	NA	NA	NA	NA /	NA	NA
4	63	29	8	65	830	27
5		100		/		
6	50	0	50	50	575	
7	40	20	40	50	1,088	
8	60	31	9	54	850	14
9	46	46	8	46	541	
10-N	NA	NA	NA	NA	NA	NA
10 <b>-</b> S	64	12	24	67	971	12
State***	61.9	16.7	21.4	68.5	\$781.26	13.6

<sup>\*</sup> MF - Flat gin press modified to turn out a bale that can be pressed to Universal Density by a compress so equipped.

Also shown in Table 9 is the percentage of gins that still had gin flat bale presses and other types of presses prior to the start of the season.

Of those gins which had modified their gin flat bale presses, some 13 percent, on a statewide basis, indicated that they were having some sort of problem with the press after modification. Table 9 also shows the percentage having problems, according to crop reporting districts.

Of those having problems, 28 percent indicated that their problem was with the tramper. Some 25 percent reported that the press box dogs (breaking, too short, etc.) were the problem. An equal percentage indicated that the bales being turned out were too small. The remainder stated that excessive pressure was giving them problems. Some reported that they had to add additional equipment to make the modified press box work and to turn out an acceptable bale that was of the right size and weight.

Recent information (after July 1975) indicates that many additional gin flat bale presses in the state have been modified. During the 1975-76

<sup>\*\*</sup> Other - Gin Standard Density press or gin Universal Density press. \*\*\* Weighted average.

NA - Not available or insufficient data.

season, it has been reported that all active gins had modified Universal or Standard density gin presses. A very few gins which were inactive during the season have presses still needing modification.

#### GIN CUSTOMERS AND GIN SERVICES PERFORMED

A gin without customers or patrons will not last long. Conversely, a cotton producer will not continue to produce cotton very long if he doesn't have a reliable cotton gin close by to process his seed cotton into baled lint and seed. There was an average of 56.4 customers per gin statewide during the 1974-75 season. This was down 11 percent from the 1973-74 season when the average was 63.7 patrons for those gins reporting. The number during the 1971-72 season was just about one more customer per gin than was reported during the 1973-74 season.

The estimated total number of gin customers in Texas for the 1974-75 season, according to the gins reporting, was 49,983, which is about 27,000 fewer than was reported for the 1971-72 season. The average number of customers per gin, by crop reporting districts, for the 1974-75 season is in Table 10. The change in the number of customers between the two periods can be explained by the shift in the 1974-75 season from cotton production to the production of feed grains, sunflowers and other field crops due to increased income from these other crops as compared to the income from cotton.

In many cases cotton gins furnish the producer cotton trailers in which to move the harvested seed cotton to the cotton gin. During the study conducted for the 1971-72 season, many of the ginners at that time reported that the upkeep of the trailers was getting to be an expensive item. Many gins indicated that they might discontinue this service or reduce the number of trailers available. Gins reported that this was still a problem during the 1974-75 season with increased costs (labor for repairs, tires, taxes, etc.) and might be curtailed even further in future years. In many of the large cotton producing areas of the state the new "rick" or module system of cotton harvesting has reduced the number of older type cotton trailers being used. The rick or module cotton transport takes the place of several of the older cotton trailers due to increased seed cotton carrying capacity.

During the 1971-72 season nearly 40 percent of the reporting gins indicated that they had cotton trailers available. The number of gins with trailers during the 1974-75 season amounted to 29.3 percent, which was down some 35 percent from the earlier period.

The average number of trailers that the gins reported having available during the 1974-75 season amounted to 69.1 per gin. This number is up some 15 percent from the number of trailers per gin reported during the 1971-72 season. Thus it appears that the number of gins with trailers has decreased while the number of trailers per gin has increased. These data for the 1974-75 season, by crop reporting districts, is located in Table 10.

The estimated total number of trailers owned by gins during the 1974-75 season is also in Table 10, by crop reporting districts. The estimated total number of trailers owned by the gins in the state is 22,684, which is down

Table 10. ESTIMATED CUSTOMERS AND TRAILERS PER GIN, BY CROP REPORTING DISTRICTS

					Trailers/	Total
				Percent of	Gin (Those	Trailers
			Total	Gins Which	Which Have	Owned by
	Custome	ers/Gin	Customers	Have Trailers	Trailers)	Gins
District	1974	1973	1974	1974	1974	1974
1-N	60.6	63.0	5,123	41.7	99.6	3,507
1-S	58.6	68.0	15,004	29.2	101.6	7,846
2	74.1	82.9	10,370	21.4	85.7	2,570
3	NA	NA	NA	, <b>NA</b>	NA	NA
4	51.5	62.5	7,646	/11.4	43.0	751
5	23.2	28.2	510	/ 30.0	31.5	2,006
6	44.1	48.3	1,459	24.0	36.0	300
7	82.0	82.8	1,076	20.0	NA	NA
8	30.6	31.8	1,714	0	NA	NA
9	70.6	73.3	2,753	50.0	NA	NA
10-N	NA	NA	NA	NA	NA	NA
10-S	51.2	51.3	3,628	100.0	73.7	5,544
State*	56.4	63.7	49,983	29.3	69.1	22,684

Source: Original data based on gins reporting.

nearly 5,000 from the figure reported during the 1971-72 season. This change is due to the number of gins reporting during the two seasons and change in number of trailers owned by the gins, etc.

Gins were requested to report if they sampled the bales at the gin for green card class by the USDA cotton classing offices as a service for their customers during the 1974-75 season. On a statewide average, some 22.7 percent of the gins did sample the bales for their customers during the season. This information, by crop reporting districts, is in Table 11.

Also in Table 11 is the percentage of the gins which sell planting seed as a service to their customers. Nearly 70 percent of the gins, on a statewide basis, reported that they sold planting seed as a service to their customers. The statewide average price of planting seed sold by the gins during the 1974-75 season was found to be \$20.73 per hundred weight.

Gins were also asked if they had and operated an automatic sampler during the 1974-75 season. It was found that some 7 percent of the Texas gins reporting did have automatic samplers which were used about 76 percent of the time during the season. This information is in Table 11, according to crop reporting districts. The majority of the automatic samplers were located in Crop Reporting Districts 1-N and 1-S.

<sup>\*</sup> Weighted average except total customers and trailers.

Table 11. OTHER TEXAS GIN SERVICES, 1974-75 SEASON

	Percent of				
	Bales Sampled	Percent of (	Gins That Sell	Automatic	Samplers
	For Green	_Planting Se	eed and Price	Percent With	Percent of
District	Card Class	Percent	Price cwt	Samplers	Time Used
1-N	19	96	\$20.29	12	67.0
1-S	22	74	22.32	17	90.9
2	11	67	20.60	4	
3		NA	NA		
4	23	. 83	21.81		
5	29	43	26.25		
6					
7	60	80	23.13		
8	38	23	21.83		
9	92	23	24.00	7	100.0
10-N	NA	NA	NA		
10-S	12	94	23.80		
State*	22.7	69.9	\$20.73	7.2	76.2

Source: Original data based on gins reporting.

One other service that a gin performs for the producer is the movement of the bales, after ginning, to the nearest compress or warehouse. This service is one for which the ginner may charge the producer. This cost is shown in Table 12, by crop reporting districts and for the state, covering the seasons of 1974-75, 1973-74, 1971-72 and 1968-69. The statewide average cost for this service during the 1974-75 season was found to be \$1.21 per bale, which was 18 cents per bale more than the 1973-74 season and 22 cents per bale more than the 1971-72 season.

Another service which some of the gins offer is the purchase of the customers' cotton. During the 1974-75 season approximately 32 percent of the active gins purchased cotton as compared with 38.4 percent during the 1971-72 season. Those gins which reported the purchase of cotton from their customers indicated that they purchased about 52 percent of the volume which they ginned during the 1974-75 season. This amounted to about 1,679 bales purchased per gin by those gins which offered this service. This and similar information for the 1971-72 season, by crop reporting districts, is in Table 13. Less cotton was purchased by the gins during the 1974-75 season than during the 1971-72 season, on a state average. It is estimated that gins purchased a total in Texas of almost one-half million bales of cotton from their customers during the 1974-75 season as compared with 700,000 bales during the 1971-72 season.

<sup>\*</sup> Weighted average.

Table 12. AVERAGE TRANSPORTATION CHARGES (GIN TO STORAGE FACILITIES) CHARGED BY GINS, BY CROP REPORTING DISTRICTS, 1974-75, 1973-74, 1971-72 AND 1968-69 SEASONS

		Average Char	ge Per Bale	
District	1974-75	1973-74	1971-72	1968-69
1-N	\$1.10	\$1.02	\$1.01	<b>\$0.96</b>
1-S	1.26	1.09	.97	.92
2	1.01	.87	.87	.87
3	NA	NA	1.02	.96
4	1.10	1.02	1.02	.92
5	1.04	•95	1.06	.73
6	1.18	1.12	.49	.75
7	1.30	NA	1.01	.32
8	1.27	1.11	1.10	1.12
9	2.54	1.80	1.41	1.67
10-N	NA	NA	1.46	1.63
10-S	1.29	1.11	1.07	.96
State*	\$1.21	\$1.03	\$0.99	\$0.97

Source: Original data based on gins reporting.

Table 13. PERCENTAGE OF GINS BUYING COTTON, PERCENTAGE OF TOTAL GINNINGS BOUGHT, AND AVERAGE NUMBER OF BALES BOUGHT, BY CROP REPORTING DISTRICTS, 1974-75 AND 1971-72 SEASONS

	Percent		Percent of	Ginning	_	Number of
	Bought	Lint	Volume	Bought	Bales Boug	ght Per Gin
District	1974	1971	1974	1971	1974	1971
1-N	62	68	80	80	717	1,580
1-S	35	36	69	66	2,880	1,741
2	32	44	66	90	1,870	2,420
3	NA	59	NA	100	NA	279
4	20	41	47	94	629	1,522
5	57	25	29	98	927	2,392
6	NA	NA	NA	NA	NA	NA
7	NA	NA	NA	NA	NA	NA
8	10	16	2.9	96	630	665
9	15	14	7	72	115	1,605
10-N	NA	60	NA	35	NA	145
10-S	56	60	83	95 ·	3,860	4,854
State*	32.0	38.4	51.7	77.8	1,679	1,801

NA - Not available or insufficient data.

<sup>\*</sup> Weighted average.

<sup>\*</sup> Weighted average.

#### GIN EMPLOYMENT

Texas cotton gins, during the 1974-75 season, employed an estimated 21,900 people. This figure was down some 12 percent from the previous season. Yet the figures were up from the estimated figure for the 1971-72 season. This increase in the employment from the 1971-72 season is because of the increased labor requirement for the gins operating during the most recent years. The number of active gins decreased and those gins going into the inactive group employed only 5 to 10 people per gin. The total estimated employment for the state was not actually as high as noted since a large portion of the total employment (an estimated 18,000) would be classified as migrant employees. Many employees working on the High Plains at the last of the season came from gins which had been ginning cotton earlier during the first of the season in the Lower Rio Grande Valley and other southern sections of the state. In addition, a gin might report employing 85 people during the season and yet the actual positions at the gin were only 30. As many as 5 different people may have been hired to fill the same position during the harvesting season.

The average number of employees per gin on a statewide basis amounted to 24.4 during the 1974-75 season. This figure was down about 18 percent from the 1973-74 season average when the state's production was much greater. The average number of employees for those gins reporting during the 1974-75 season and the previous season, by crop reporting districts, is in Table 14. The same data for earlier seasons is shown in Table 41 in the appendix.

Also shown in Table 14 is the number of local area people employed during the 1974-75 season, and this number as a percentage of total employees. On a state average, 65 percent were local area residents.

Table 14 also indicates the average number of full time and part-time employees, by crop reporting districts, during the 1974-75 season. The statewide average was 3.0 full time and 21.4 part-time employees for the season.

#### GIN OPERATING COSTS

The Texas cotton gins perform a service for their customers. The gin takes the raw agricultural product (seed cotton) from the field and converts it into two raw products. One product is baled lint (the cotton fiber), which is a raw product for the foreign or domestic textile mill. The other is cottonseed which is a source of various edible and nonedible by-products used by both man and beast. The cotton gin uses labor, energy, machinery, supplies and know-how to accomplish this processing, all of which must be paid for out of the amount charged the cotton producer whose cotton is processed into the separate products.

#### Labor

As machines are added to the ginning system and rate of ginning increases, either more labor must be used or the gin must be further automated. Even with an automated gin, the amount of labor per gin is much greater than

Table 14. GIN EMPLOYMENT DATA, BY CROP REPORTING DISTRICTS

			Gin Empl	oyees Who	Percent of	Number E	mployees
	Total Er	nployees	Were Local	l Residents	Gins With	All Repor	ting Gins
	Per I	Plant	1974-75	5 Season	No Full Time	Ful1	Part
District	1974	1973	Number	Percent	Employees	Time	Time
1-N	18.0	20.1	9.4	52.2	26.9	2.6	15.4
1-S	35.7	50.6	16.5	46.2	10.0	4.1	31.6
2	18.4	24.9	16.1	87.5	/ 14.8	2.6	15.8
3	NA	NA	NA	NA /	NA	NA	NA
4	16.7	21.4	10.4	62.3	23.5	2.3	14.4
5	20.5	20.8	17.7	86.3	33.0	1.5	19.0
6	19.5	24.7	19.5	100.0	14.2	-2.7	16.8
7	23.5	22.0	17.8	75.7	NA	2.2	21.3
8	16.5	12.5	13.3	80.6	46.0	2.8	13.7
9	17.6	14.7	15.6	88.6	46.1	.8	16.8
10-N	NA	NA	NA	NA	NA	NA	NA
10-S	34.1	32.0	27.0	79.2	18.8	2.8	31.3
State*	24.4	30.05	16.3	65.1	18.4	3.0	21.4

Source: Original data based on gins reporting.

in yesteryears. With each passing year the labor costs increase. Gins also report that each year it is harder to find qualified help and often nearly impossible just to find any kind of help.

The labor cost per bale during the 1974-75 season, on a statewide basis for those gins reporting, amounted to \$11.07 per bale. This is \$2.64 more per bale than the average for the state during the 1971-72 season. The 1974-75 season average state gin plant payroll amounted to over \$43,000 per gin. This information, according to the reporting gins, by crop reporting districts, is in Table 15.

The average payroll per employee during the 1974-75 season on a state-wide basis was \$1,226. The average payroll for the crop reporting districts and the season are also shown in Table 15.

#### Energy

The 1974-75 season was the first full season in which the effect of the shortage of energy (gas, oil, gasoline and liquid petroleum gas) became fully apparent, combined with their increased cost. The OPEC nations' oil embargo was put into effect during September 1973. Oil and gasoline were in short supply early in 1974, and the prices had started to escalate. Some shortage of natural gas had been experienced in the early part of the 1973 calendar year.

<sup>\*</sup> Weighted average.

Table 15. AVERAGE TEXAS GIN PAYROLL EXPENDITURES, BY CROP REPORTING DISTRICTS, 1974-75 SEASON

District	Per Bale	Per Employee	Per Gin
1-N	\$13.65	\$2,330	\$40,900
1-S	11.54	1,434	48,000
2	10.57	1,567	30,500
3	NA	NA	NA
4	16.47	1,287	22,000
5	8.00	1,294	25,000
6	8.97	1,736	31,500
7	8.40	1,300	30,600
8	6.82	901	16,100
9	7.57	743	13,100
10-N	NA	NA	NA
10-S	8.77	1,160	40,600
State*	\$11.07	\$1,226	\$43,059

NA - Not available or insufficient data.

Ginners were asked if they had experienced any energy problems (shortages, etc.) during the 1974-75 season. Gins in the Crop Reporting Districts of 1-N, 1-S, 2, 4 and 10 indicated their major problem was the shortage of natural gas on cold days in the ginning season. Next was the near shortage and high price of gasoline. Low electricity voltage, coupled with its increased costs was also reported as a lesser problem experienced by the Texas gins in these districts. The gins in the other crop reporting districts did not report any energy problems.

Since the 1974-75 season, the cost of gasoline, natural gas, and electricity has increased further, thus generating greater problems for the Texas cotton gins.

#### Electrical

The majority of the cotton gins in the state are powered by electricity. Some 87 percent of the gins were electrically powered, 3 percent diesel, 3 percent liquid petroleum gas (LPG) and 7 percent natural gas. The last known steam powered cotton gin was located in Fentress, Texas. It was called The Dauchy Gin Company in its later years and was reported to have ginned cotton the last time in 1969 or 1970. The source of energy was wood or coal.

The state average cost of electricity during the 1974-75 season was \$2.08 per bale of cotton ginned. This was an 11 percent increase above the 1971-72 season figure of \$1.86 per bale. The annual electric bill for the season averaged \$6,856 per gin, statewide. Table 16 shows the average price

<sup>\*</sup> State averages are weighted.

Table 16. AVERAGE COST OF ELECTRICITY USED BY TEXAS GINS, BY CROP REPORTING DISTRICTS, 1974-75 SEASON

			High and Low
District	Per Bale	Per Gin	Cost Per Bale
1-N	\$2.64	\$7,778	\$3.81 to \$1.14
1-S	2.25	8,592	5.80 to .49
2	1.74	5,816	4.00 to .28
3	NA	NA	NA
4	2.72	3,657	7.78 to .23
5	1.31	4,108	2.00 to .28
6	2.14	7,512	5.10 to 1.30
7	2.08	7,630	2.61 to 1.71
8	1.61	3,780	3.15 to .82
9	1.53	2,615	3.20 to .75
10-N	NA	NA	NA
10-S	1.63	7,564	3.91 to .93
State*	\$2.08	\$6,856	\$7.78 to \$ .23

NA - Not available or insufficient data.

per bale and per gin for electricity, by crop reporting districts, for the 1974-75 season. Also shown in the table are the districts' highest and lowest per bale cost for electricity.

Gins were asked to furnish the total cost of electrical power and the total kilowatt-hours (KWH) they used during the 1974-75 season. The reported total cost of electricity used and the reported ginning volume during the season were utilized to construct Table 16.

Many of the gins reported the cost of electrical energy used but did not report the total KWH used during the season. Data from the same source for total KWH used plus the cost of said electricity and volume ginned were used to develop the average KWH used per bale ginned, average KWH used per gin, cost per KWH and cost of the KWH used per bale. These data are in Table 17, by crop reporting districts and for the state. The costs per bale for electricity in Table 17 are slightly different from those in Table 16. The reason for the difference is because all of the gins that furnished data used in constructing Table 16 did not furnish the data necessary for Table 17.

The average cost per KWH for the gins in the state during the 1974-75 season, based on those gins reporting, was \$0.03567 or about  $3\frac{1}{2}$  cents per KWH. The statewide average cost of electricity per bale was \$2.1771 for those gins which also reported the KWH used.

The average KWH used to gin a bale of cotton during the season was 61.0 KWH per bale for those gins reporting this information. These gins, on an average, used a total of 206,495 kilowatt-hours to gin their patrons' cotton.

<sup>\*</sup> Weighted average.

Table 17. ELECTRIC ENERGY USED BY GINS IN PROCESSING CROP OF 1974 AND COST OF SAID ENERGY

	KWH Used	KWH Used	Average Cost	Cost of KWH
District	Per Bale	Per Gin	in Cents/KWH	Used Per Bale
1-N	83.45	321,619	.0347	2.8958
1-S	44.60	198,412	.0445	1.9847
2	94.30	232,236	.0195	1.8389
3	NA	ŇA	NA	NA
4	70.13	122,855	.0315	2.2091
5	46.05	208,213	.0366	1.6854
6	85.30	316,429	.0256	2.1820
7	NA	NA	NA	NA
8	44.31	57,321	.0335	1.4845
9	49.05	86,137	.0359	1.7609
10-N	NA	NA	NA	NA
10-S	47.60	219,731	.0365	1.7374
State*	61.00	206,495	.03569	2.1771

NA - Not available or insufficient data.

#### Natural and Liquid Petroleum Gas

Natural gas and liquid petroleum gas are mostly used to dry the seed cotton in preparation for more efficient removal of the foreign matter. The gins were asked to report the cost of these gases used during the season. The cost of these gases per bale and per gin, on an average basis, was developed for the state and crop reporting districts, where sufficient data were available to do so.

The state average cost of natural gas per bale amounted to 37 cents during the 1974-75 season. This was 6 cents more per bale than the cost during the 1971-72 season. The average expenditure for natural gas during the season for those gins reporting was \$1,163 per gin. These data, by crop reporting districts, are in Table 18.

The state average per bale cost of LPG used during the season amounted to 55 cents, while the per gin expenditure was \$1,466. These data, along with crop reporting district averages, are also in Table 18. Of those gins reporting the information, 33 percent indicated they used both natural gas and LPG at their gins. The other 67 percent used either natural gas or LPG during the 1974-75 season. Most of those which used both were in the Plains area of the state.

The gins were also requested to furnish the amount of cubic feet of natural gas used during the season, along with the number of gallons of LPG used. The cost and number of gallons of diesel and other fuel used was also requested from the ginners.

<sup>\*</sup> Weighted average.

Table 18. AVERAGE COST OF GAS (NATURAL AND LP) USED BY TEXAS GINS, BY CROP REPORTING DISTRICTS, 1974-75 SEASON

	Natural Gas	Liquid Petroleum	Natural Gas	Liquid Petroleum
District	Per Bale	Gas Per Bale	Per Gin	Gas Per Gin
1-N	\$0.33	\$0.10	\$ 987	\$ 353
1-S	.29	•44	1,083	1,667
2	.50	.40	1,548	808
3	NA	NA	NA	NA
4	.51	1.39	724	1,866
5	.50	.52	1,563	244
6	.37	.60	1,284	2,531
7	NA	NA	NA	NA
8	.51	1.04	427	2,438
9	.44	.97	926	1,459
10-N	NA	NA	NA	NA
10-S	.23	.44	1,227	2,205
State*	\$0.37	\$0 <b>.</b> 55	\$1,163	\$1,466

NA - Not available or insufficient data.

The gins used, on an average for the state, 1.63 thousand cubic feet of natural gas per bale during the 1974-75 season. The average cost for this gas was found to be \$0.3281 per thousand cubic feet. These data and the similar data for the crop reporting districts are in Table 19.

Table 19 also indicates, by crop reporting district, the average usage per bale of LPG and the cost per gallon. State average usage amounted to 2.88 gallons per bale at a per-gallon cost of \$0.2573.

The state average usage of diesel and other fuels amounted to a little over one-half gallon per bale at .58 of a gallon during the season. The cost of these fuels was \$0.3744 per gallon for a statewide average during the season.

The last column of Table 19 shows the total fuel and energy cost per bale for all gas, fuels and energy, including electricity, used in the ginning of the cotton during the 1974-75 season. The state average expenditure for energy amounted to \$3.0901 per bale of cotton ginned. These data, by crop reporting districts, are also found in Table 19.

#### Water

The use of water at a cotton gin is not a large cost item; in fact, it is one of the minor items. During the 1974-75 season, the average cost for water per bale was found to be a little over 5 cents for those which had such an expense. These data are in Table 20.

<sup>\*</sup> Weighted average.

Table 19. COST AND AMOUNT OF NATURAL GAS, LIQUID PETROLEUM GAS, AND DIESEL AND OTHER FUELS USED PER BALE IN GIN OPERATION

	Natura	ıl Gas	LP G	as	Diesel &	Other	Total Fuel
	M Cu. Ft./	Cents/	Gallons/	Cents/	Gallons/	Cents/	& Energy
District	Bale	M Cu. Ft.	Ba1e	Gallon	Ba1e	Gallon	Cost/Bale
1-N	.29	.7272	NA	NA	1.10	.3610	\$3.5413
1-S	1.60	.1805	2.4	.2600	.06	.4318	3.2978
2	3.30	.1328	2.5	.2377	1.00	.2393	3.0059
3	NA	NA	NA	NA	NA	NA	NA
4	3.20	.1254	5.6	.2587	1.10	.5144	4.3066
5	2.80	.0936	NA	NA	NA	NA	1.7685
6	.70	.5352	4.5	.2166	NA	NA	2.9448
7	NA	NA	.8	.2500	NA	NA	2.9571
8	NA	NA	4.3	.2756	1.86	.3250	2.5570
9	.30	.9947	4.3	.3078	NA	NA	2.1877
10-N	NA	NA	NA	NA	NA	NA	NA
10-S	.44	.5971	1.7	.2635	.19	.3000	2.2718
State*	1.63	.3281	2.88	.2573	.58	.3744	\$3.0901

NA - Not available or insufficient data.

Table 20. USE AND AVERAGE COST OF WATER BY TEXAS GINS, BY CROP REPORTING DISTRICTS, 1974-75 SEASON

	Percent of Gins			Percent of Gins
	Reporting the	Gins Reportin	g Water Cost	Reporting
District	Use of Wells	Per Bale	Per Gin	Water Cost
1-N	12	\$0.0531	\$206	30.8
1-S	2	.0560	277	32.3
2	11	.0337	97	25.9
3	NA	NA	NA	NA
4	3	.1020	160	60.0
5	NA	.0364	114	30.4
6	12	.0349	128	50.0
7	20	NA	NA	NA
8	NA	.0786	178	23.1
9	NA	.0380	65	38.5
10-N	NA	NA	NA	NA
10-S	6	.0342	182	56.3
State*	5.3	\$0.0512	\$180	36.7

NA - Not available or insufficient data.

<sup>\*</sup> Weighted average.

<sup>\*</sup> Weighted average.

Many gins indicated that they did not pay for water but pumped it from their own wells. Some 5.3 percent of the gins reporting obtained their water in this manner. Only 36.7 percent of the gins reporting indicated that they had a cost for water used. The average cost for water per gin for those which had such a cost was found to be \$180 per gin which was the same average cost for gins during the 1971-72 season. The data, by crop reporting districts, are located in Table 20.

None of the gins reporting from Districts 3, 8 and 9 indicated the use of wells as a source of water for their gin operations. Gins reporting from Districts 1-N and 2 indicated the greatest number of wells that were used as a source of water during the 1974-75 season.

#### Gin Taxes

Texas cotton gins around the state are located both inside and outside city limits; and, as a result, the taxes they pay vary somewhat and may include city, county, state, school and/or special taxes, depending on their individual location. The category of special taxes includes water district, hospital, etc.

The average city tax paid by gins which paid such a tax amounted to \$0.2602 per bale ginned during the 1974-75 season. The average county and state tax paid was \$0.1460 per bale, while those gins paying school taxes paid a statewide average of \$0.3737 per bale. The statewide average tax per bale for those gins which paid a special tax amounted to \$0.1701. The statewide average total tax paid by gins during the season amounted to \$0.7223 per bale. This was an increase in the average total tax paid per bale of about 21 cents above the 1971-72 season average. Since the various gins did not all pay the same kind of taxes, the sum of the individual average taxes shown in the table will not equal the total taxes paid. This information for the state and the crop reporting districts according to the taxes paid in the 1974-75 season based on the reporting gins, is in Table 21.

The average total taxes paid per gin for the season for the same divisions and kind of taxes is in Table 22. The figures in parentheses are the percentages of gins which reported paying the indicated tax.

On a statewide basis, 35.8 percent of reporting gins indicated that they paid an average of \$849.99 in city taxes, while 74.6 percent of the gins reporting indicated they paid county and state taxes averaging \$415.12 per gin for the season. Over 63 percent of the reporting gins indicated they paid an average of \$1,050.19 per gin in school taxes. Only 5.4 percent of the reporting gins indicated they paid any special taxes. Those gins paying special taxes paid an average of \$497.25 per gin. The gins indicated that 87.3 percent of them paid total taxes averaging \$2,169.54 per gin for the 1974-75 season.

#### Interest Rates

Cotton gins, like everything else, have from time to time the need for additional operating cash or cash to purchase new equipment or to make necessary repairs. This financial aid can be obtained from various sources. The

Table 21. AVERAGE PROPERTY TAX PAID PER BALE, BY CROP REPORTING DISTRICTS, 1974-75 SEASON

Total	Special	School	County	City County			
\$0.6793	\$0.1915	\$0.4110	\$0.1732	\$0.2535	1-N		
.7872	.1957	.3947	.1199	.2643	1 <b>-</b> S		
.6730	.3152	.3598	.1270	.2705	2		
NA	NA	NA	NA	NA	3		
.7885	NA	.4742	.2451	.3075	4		
.3028	NA	.1449	.0763	.1114	5		
.4955	NA	.1147	.1055	.2686	6		
.3576	NA	NA	.2836	NA	7		
.8131	NA	.3205	.1189	.1819	8		
1.0271	.1291	.4370	.1396	.4264	9		
NA	NA	NA y	NA	NA	10-N		
.6924	.1882	.3480	. 1638	.2183	10-S		
\$0.7223	\$0.1701	\$0.3737	\$0.1460	\$0.2602	State*		

Note: Some gins reporting the various taxes did not have and/or did not report city taxes or school taxes. Other gins reported only their total taxes. Thus data were developed for each category (city, county, and school) where data were available. Addition of city, county and school taxes will not add to amount shown in total column.

\* Weighted average.

Table 22. AVERAGE PROPERTY TAX PAID PER GIN AND PERCENTAGE OF GINS REPORTING WHICH PAID INDICATED TAX (SHOWN IN PARENTHESES), BY CROP REPORTING DISTRICTS, 1974-75 SEASON

District City		ity	County*		Schoo1		Special		Total		
1-N	\$1,508	(15)	\$	487	(81)	\$1,149	(77)	\$1,230	(12)	\$1,952	(88)
1 <b>-</b> S	1,175	(31)		511	(66)	1,588	(62)	480	(3)	3,287	(85)
2	787	(44)		352	(67)	813	(48)	818	(11)	1,914	(78)
3	NA		NA		NA		NA		NA		
4	393	(46)		306	(86)	602	(69)	0		1,004	(94)
5	383	(57)		239	(100)	454	(100)	0		948	(100)
6	644	(25)		394	(75)	486	(38)	NA		1,025	(88)
7	0			465	(40)	NA		0		1,659	(60)
8	230	(15)	•	234	(77)	66Ô	(62)	0		1,768	(100)
9	668	(38)		261	(85)	817	(85)	392	(15)	1,752	(100)
10-N	NA		NA		NA		NA .		NA		
10-S	1,075	(75)		747	(94)	1,615	(81)	1,120	(12)	3,161	(94)
State*	\$ 849.9	9 (35.8)	\$	415.1	.2 (74.6)	\$1,050.1	.9 (63.1)	\$ 497.25	(5.4)	\$2,169.5	64 (87.3)

Note: Some gins reporting the various taxes did not have and/or did not report city taxes or school taxes. Other gins reported only their total taxes. Thus data were developed for each category (city, county, and school) where data were available. Addition of city, county, and school taxes will not add to amount shown in total column.

\* Weighted average.

USDA indicated that in 1921, Texas cotton producers were charged 9.68 percent interest on the loans. With the increased costs being encountered in all phases of our economy, the Texas ginners were asked to report the interest rates that they encountered during the ginning period of 1974-75. The gins were also asked to report any problems in obtaining long or short term loans.

Based on those gins reporting, 3.4 percent of the Texas gins had problems in getting long term loans. The statewide average interest rate was 9.16 percent based on 46.1 percent of the gins reporting. The range of interest rates reported was from a low of 7.0 percent to a high of 17.0 percent.

These data for the 1974-75 season for the state and crop reporting districts are in Table 23.

#### Other Costs

The statewide average cost per bale during the 1974-75 season for fire-fighting equipment, including a night watchman, was 20 cents, which is up 9 cents a bale from the 1971-72 season cost. The per bale cost for insurance during the 1974-75 season was \$1.76, which is up 62 cents per bale compared with the cost for the earlier period.

Table 23. INTEREST ON LONG AND SHORT TERM LOANS FOR TEXAS GIN OPERATION, 1974-75 SEASON

			Average	Percent	
	Gins Reporti	ng Problems	Interest	Indicating	Low - High
	in Obtaining L	oans, Percent	Rate	Interest	Interest Rates
District	Short Term	Long Term	Percent	Rates	Percent
1-N	0	3.0	9.50	57	7.5 - 10.0
1-S	4.6	1.5	8.94	47	7.5 - 10.0
2	0	0	9.06	32	7.5 - 10.0
3	NA	NA	NA	NA	NA
4	3.4	0	9.48	56	7.0 - 17.0
5	14.0	0	9.83	43	9.2 - 10.0
6	0	0	10.00	12	NA
7	0	0	8.50	56	7.0 - 10.5
8	0	0	9.12	46	8.5 - 10.0
9	7.6	7.6	9.30	38	8.5 - 10.0
10-N	NA	NA	NA	NA	NA
10-S	0	0	9.42	69	8.5 - 10.0
State*	3.4	1.1	9.16	46.1	7.0 - 17.0

NA - Not available or insufficient data.

<sup>\*</sup> Weighted average except low-high interest rates

The costs per bale for the 1974-75 and 1971-72 seasons, by crop reporting districts, for electricity, water, maintenance (including replacement parts), fire-fighting equipment, insurance and taxes are given in Table 24.

Insurance is a broad field, for the gin pays insurance on the building and its contents, cotton, and workers. On a statewide basis, fire insurance reported by the gins amounted to 6.12 cents per average dollar of gin valuation during the season. The gins pay Workman's Compensation Insurance (WCI) at the rate of 12.73 percent plus .2 percent for Unemployment Compansation Insurance (UCI). Not to be forgotten is 5.85 percent of payroll paid for Social Security tax (FICA). Workman's Compensation Insurance is expected to increase to 14 percent in February 1976.

#### Estimated Total Expenditure

During the 1974-75 season, the 916 active cotton gins expended nearly \$4.7 million for electricity. This is just about the same as when there were over 100 more active gins processing about the same amount of cotton.

The expenditure for water was estimated at only \$49,000, which was \$100,000 less than was estimated as expended during the 1971-72 season.

The cost of maintenance, including replacement parts, was an estimated \$14.6 million, an increase of over \$8.5 million above the 1971-72 figure.

The estimated expenditure for insurance was up over \$1 million dollars from the earlier season figure to reach a new high of over \$4 million. The expenditure for taxes was also up nearly one-half million dollars to a new high of \$1.6 million. Of this total, 47 percent goes to schools, 29 percent to state and county, 22 percent to cities and the rest to special uses (water districts, hospitals, etc.).

During the 1974-75 season, \$1.3 million was estimated as being spent in Texas for natural gas and over \$1.0 million for LPG. The estimated expenditure for labor was \$25.8 million, up one-half million from the earlier season level. The data of estimated expenditure for the 1974-75 season, by items and crop reporting districts, is in Table 25. The same estimated expenditures for the 1971-72 season are in Table 42 in the appendix.

#### Costs According to the Volume Ginned

The average per-bale cost of payroll, taxes, insurance, etc., are affected by the volume of cotton ginned in the plant annually. Some of these items are fixed and the greater the volume ginned the smaller the per-bale cost becomes. Other costs are not fixed but are dependent on the volume ginned. These would be cost items such as electricity, payroll, fuels, etc.

Table 26 indicates the cost per bale for many of the cost items, according to volume ginned, for the state during the 1974-75 and 1971-72 seasons. The majority of the per-bale costs were greater during the 1974-75 season than was the case during the 1971-72 season. The gas and fuel costs

Table 24. AVERAGE OPERATING COSTS IN DOLLARS PER BALE, BY CROP REPORTING DISTRICTS, 1974-75 AND 1971-72 SEASONS

						enance uding	F	ire				
	Fleat	ricity	LI o	iter	_	cement	_	nting pment*	Tnou	<b>man a</b> a	Ψo	
District	1974	1971	1974	1971	1974	1971	1974	1971	1974	rance 1971	1974	1971
1-N	\$2.64	\$2.92	\$0.05	\$0.09	\$7.45	\$3.71	\$0.10	\$0.09	\$2.06	\$1.67	\$0.68	\$0.62
1 <b>-</b> S	2.25	2.00	.06	.07	7.61	4.19	.23	.12	1.82	1.20	.79	.53
2	1.74	1.81	.03	.07	7.39	2.97	.24	.14	1.93	.96	.67	.44
3	NA	2.57	NA	.09	NA	NA	NA	NA	NA	NA	NA	NA
4	2.21	1.69	.12	.06	5.60	2.01	.25	.08	2.52	1.20	• 7.9	.38
5	1.31	1.41	.04	NA .	4.18	1.59	.05	.04	.71	.65	.30	.27
6	2.14	1.33	.03	.04	4.64	3.65	.51	.10	1.60	.89	.50	.34
7	2.08	2.14	NA	.07	2.05	5.37	.10	.07	.64	1.71	.36	.26
8	1.66	1.93	.08	.06	3.60	2.88	.21	.10	.89	1.40	.81	.90
9	1.53	1.27	.04	.06	2.14	3.48	.06	.04	1.55	.88	1.03	.39
10-N	NA	2.17	NA	NA	NA	2.01	NA	.10	NA	1.99	NA	NA
10-S	1.63	1.03	.04	.04	4.19	1.56	.09	.09	1.42	.77	.69	.57
State**	\$2.08	\$1.86	\$0.05	\$0.06	\$6.26	\$3.30	\$0.20	\$0.11	\$1.76	\$1.14	\$0.72	\$0.50

<sup>\*</sup> Including night watchman.

<sup>\*\*</sup> Weighted average.

NA - Not available or insufficient data.

Table 25. ESTIMATED TOTAL EXPENDITURES FOR SELECTED OPERATING COST ITEMS (ALL ACTIVE GINS), BY CROP REPORTING DISTRICTS, 1974-75 SEASON

District	Electricity		Water	Maintenance Including Replacement Parts	Fire- Fighting Juipment*	Ins	urance		Taxes	Labo (Payro	
1-N	\$ 747,800	\$	3,800	\$2,112,000	\$ 27,500	\$ 5	84,900	\$	192,600	\$ 3,872	,000
1-S	2,023,900	•	19,600	6,832,000	208,000	1,6	38,900		707,100	10,364	,000
2	633,900		3,100	2,688,500	86,400	7	01,600		244,900	3,846	,000
3	NA		NA	NA	NA		NA		NA	NA	
4	465,700		14,500	1,181,000	53,400	5	31,100		166,200	3,472	,000
5	56,400		800	179,800	2,000		30,500		13,000	344	,000
6	175,000		1,500	379,900	41,200	1	30,500		40,500	734	,000
7	105,800		NA	104,200	5,100		32,700		18,200	427	,000
8	228,700		2,900	496,200	28,400	1	23,100		111,900	939	,000
9	117,000		1,100	163,000	5,000	1	18,000		78,400	1,054	,000
10-N	NA		NA	NA	NA		NA		NA	NA	
10 <b>-</b> S	141,500		1,900	363,100	8,000	1	L22,800		60,000	630	,000
State	\$4,695,700	\$	49,200	\$14,629,700	\$ 465,000	\$4,0	041,500	\$1	L,639,300	\$25,837	,000

<sup>\*</sup> Including night watchman

NA - Not available or insufficient data.

Note: State total may not add to sum of figures due to inclusion of data not shown.

Table 26. AVERAGE EXPENDITURE PER BALE FOR INDICATED COST ITEMS BASED ON VOLUME GINNED, 1974-75 AND 1971-72 SEASONS

					Nun	ber of B	ales Gin	ned				
		1,000		-2,000	2,001	3,000	3,001	-4,000	4,001	-5,000	5,001	& Over
Cost Item	1974	1971	1974	1971	1974	1971	1974	1971	1974	1971	1974	1971
Gas & Fuels	\$ 1.45	\$ 1.19	\$ 0.77	\$ 0.83	\$ 0.67	\$ 0.66	\$ 0.39	\$ 0.53	\$ 0.50	\$ 0.64	\$ 0.36	\$ 0.41
Electricity	2.80	2.68	2.49	2.20	2.33	1.82	2.11	1.78	1.43	1.51	2.22	1.38
Maintenance	2.72	2.82	3.00	2.55	2.63	1.70	2.64	1.70	1.87	1.58	1.74	1.53
Replacement	1.78	1.86	2.87	1.64	3.09	1.45	2.85	1.72	2.88	1.51	4.24	1.35
Insurance	3.82	2.18	2.96	1.50	2.83	.99	1.95	.95	1.65	.91	2.03	.76
Taxes	2.20	1.30	1.05	.68	.59	.48	.70	.35	.47	.37	.67	.43
Payrol1	14.79	10.03	13.87	10.16	10.84	8.62	9.11	8.35	8.15	8.48	11.24	7.67
Total*	\$29.56	\$22.06	\$27.01	\$19.56	\$22.98	\$15.72	\$19.75	\$15.38	\$16.95	\$15.00	\$22.50	\$13.53

<sup>\*</sup> Total of above items.

per bale were most often greater in the 1974-75 season than during the earlier season. This occurred in the gins with ginning volumes of 1,001 to 2,000 bales (6 cents per bale less), 3,001 to 4,000 bales (14 cents per bale less), 4,001 to 5,000 bales (14 cents per bale less) and 5,001 bales and over (5 cents per bale less). The cost of electricity was less during the 1974-75 season only for the 4,001 to 5,000 bale range gins, when the cost went down 8 cents per bale. In relation to the cost of maintenance, the gins with volumes of 1 to 1,000 bales had a 10 cent less cost per bale during the 1974-75 season than in the earlier season. Replacement costs also decreased 8 cents per bale for this lower volume group. The per-bale cost of insurance and taxes during 1974 did not drop below the 1971 costs for any group. The pay-roll or labor cost dropped 33 cents per bale for those gins which ginned in the 4,001 to 5,000 bale volume range during 1974 as compared with 1971.

The estimated average total expenditures for these items according to the volume ginned per gin in the crop years 1971 and 1974 are given in Table 27. Also shown is the average number of bales ginned in these volume categories.

### GINNING CHARGES

The ginning charge is the fee which the producer pays to have his cotton processed. Normally the gins charge a fee of so much per hundred-weight (CWT) plus an additional fee for the bagging and ties used to cover and secure the bale. During the 1974-75 season the state average cost for ginning was \$1.28 CWT, plus \$9.94 for bagging and ties. The charge was up 33 cents CWT from the 1973-74 average and up 76 cents CWT from the 1971-72 season average charge of 72 cents CWT. Bagging and ties had increased 34.5 percent from the 1973-74 season to the 1974-75 season. When compared with the charge during the 1971-72 season, the charge was found to have gone up nearly 43 percent.

These charges for the 1974-75 and 1973-74 season are given in Table 28 for the state and crop reporting districts. Also shown is the per-bale charge for insurance.

The average total ginning charge for the 1974-75 season was \$33.20 per bale, up 29.7 percent from that of the earlier season. These data, by crop reporting districts, are also shown in Table 28. Similar data for the season of 1971-72, 1968-69 and 1965-66 are shown in Table 43 in the appendix. The total average ginning charge for the 1974-75 season in Texas was up 43 percent over the 1971-72 season charge and up 75 percent from the 1965-66 charge of \$18.97 per bale. The cost of ginning the crop of 1919 in Ellis County was \$1.80 CWT of ginned lint (\$9 per 500 pound bale). Table 44 in the appendix lists the average U.S. ginning charges for the 1974-75, 1973-74, 1971-72 and 1968-69 seasons along with the average charge for bagging and ties in the U.S.

The harvesting methods used in the U.S. and Texas are also shown for the same seasons. The weight of seed cotton necessary to produce a 500-pound bale of cotton, according to the various methods of harvesting, are included in Table 44. Also shown are various U.S. and Texas charges for warehousing and related services.

Table 27. AVERAGE ESTIMATED TOTAL EXPENDITURES PER GIN FOR INDICATED COST ITEMS BASED ON VOLUME GINNED, 1974-75 AND 1971-72 SEASONS

	***				Number of B	ales Ginned		
Cost Item			1 - 1,000	1,001- 2,000	2,001- 3,000	3,001- 4,000	4,001- 5,000	5,001 & Over
Gas & fuels	- 19 - 19		\$ 822 798	\$ 1,133 1,305	\$ 1,672 1,618	\$ 1,331 1,858	\$ 2,257 2,872	\$ 2,660 3,220
Electricity	- 19 - 19		1,587 1,798	3,663 3,458	5,813 4,461	7,199 6,241	6,455 6,777	16,406 10,840
Maintenance	- 19 - 19		1,542 1,892	4,413 4,009	6,562 4,167	9,008 5,960	8,441 7,091	12,859 12,018
Replacement	- 19 - 19		1,009 1,248	4,221 2,578	7,710 3,554	9,724 6,030	13,000 6,777	31,334 10,604
Insurance	- 19 - 19		2,165 1,463	4,354 2,358	7,061 2,426	6,653 3,331	7,448 4,084	15,002 5,970
Taxes	- 19 - 19		1,247 872	1,544 1,069	1,472 1,176	2,388 1,227	2,122 1,660	4,951 3,378
Payrol1	- 19 - 19		8,385 6,730	20,403 15,972	27,046 21,128	31,083 29,275	36,789 38,058	83,064 60,248
Total*	- 19 - 19		\$16,757 \$14,801	\$39,731 \$30,749	\$57,336 \$38,530	\$67,386 \$53,922	\$76,512 \$67,319	\$166,276 \$106,278
Average Number Bales Ginned	- 19 - 19	974 971	567 671	1,471 1,572	2,495 2,451	3,412 3,505	4,514 4,487	7,390 7,855

<sup>\*</sup> Total of above items for respective years.

Table 28. TEXAS AVERAGE GINNING CHARGES, BY CROP REPORTING DISTRICT, 1974-75 AND 1973-74 SEASONS

		per CWT			******			
		Cotton		For Bag -		rance	Total	
	Cents		ging ar			/Bale	Per	
District	1974-75	1973-74	1974-75	1973-74	1974-75	1973-74	1974-75	1973-74
1-N	1.11	.89	\$10.01	\$7.98	1.08	.96	\$37.10	\$29.45
1-S	1.10	. 94	9.90	7.82	.83	.64	34.09	28.09
2	1.03	. 84	8.91	6.73	.43	.41	29.83	24.90
3	1.00	.90	8.00	7.00	.40	. 4.0	30.00	27.00
4	1.20	.94	8.05	6.82	.87	.66	30.63	25.98
5	1.51	1.27	6.50	6.00	2.00	1.00	27.54	22.71
6	1.56	1.39	5.88	5.04	1.26	1.15	28.99	23.33
7	1.00	.75	8.00	6.12	NA	NA	28.00	23.17
8	1.58	1.40	7.83	6.02	.38	.22	27.25	23.34
9	1.63	1.12	7.92	6.71	.63	.54	30.33	22.48
10-N	1.50	1.00	10.00	5.50	1.25	1.00	37.00	22.00
10-S	2.12	1.42	10.15	7.75	.63	. 47	34.48	28.40
State*	1.28	.95	\$ 9.94	\$7.39	.79	.62	\$33.20	\$25.60

NA - Not available or insufficient data.

<sup>\*</sup> Weighted average.

The amount of machine-picked cotton necessary to produce a 500-pound bale increased in Texas by 24 pounds from 1973-74 to 1974-75 season, while the amount of machine-stripped seed cotton necessary to produce a 500-pound bale increased 177 pounds above the 1973-74 level of 2,143 pounds.

The largest increase in ginning charges between the 1974-75 and the 1973-74 seasons, by crop reporting district averages, occurred in District 9 where the increase amounted to \$7.85 per bale. The smallest increase was in District 3 where the increase was only \$3.00 per bale.

The average Texas ginning charges per bale for ginning cotton, by crop years, are also given for earlier seasons in Table 36 of the appendix.

#### GINNING INCOME

The income which the active gins in Texas derived from ginning cotton during the 1974-75 season was estimated at \$82.3 million, a decrease of \$32.9 million from the income of the active gins just a year earlier. This reduction was due to a decrease of over 47 percent in the production of cotton in the state. Had the charges for ginning not increased during the 1974-75 season, the income from ginning would have been down an additional \$18.8 million.

The estimated ginning income for the state's active gins and according to crop reporting districts is shown in Table 29 for the season of 1974-75, 1973-74, 1971-72 and 1968-69.

The gins were asked what percentage of their total income was solely from the ginning of cotton. Based on those gins reporting, on a statewide average, 89 percent of the gins' annual income was derived from ginning cotton during the 1974-75 season as compared with 74 percent for the 1971-72 season. Statewide, 54 percent of the gins reporting indicated that all of their annual income came solely from ginning cotton during the 1974-75 season. These data for the state and crop reporting districts are in Table 30.

Disposal of gin trash is a major problem for the Texas gins. Gins in the state have not been able to burn trash since the 1966 season. Thus the trash must be collected in such a manner that it does not create a pollution problem. The Texas machine-picked cotton supplies the gin with 230 pounds of trash for every 500-pound gross-weight bale ginned. Machine-stripped cotton has about 980 pounds, while machine-scrapped seed cotton has about 800 pounds of trash for every 500-pound gross-weight bale ginned. During the season 21 percent was machine picked, 78 percent stripped and 1 percent scrapped. Consequently, most of the trash now goes back to the soil as mulch or is sold as livestock feed. On the average, a Texas gin had about 980 tons of trash to dispose of during the 1974-75 season, which if sold might have brought \$2,150 of financial return to the gin or about 2 percent of the annual average income currently from ginning.

On a state average, over 18 percent of the gins reporting indicated they sold their trash during the 1974-75 season. The average price received for the trash amounted to \$2.20 per ton. These data, by crop reporting districts and for other comparative seasons, are in Table 31.

Table 29. ESTIMATED TOTAL GINNING INCOME, BY CROP REPORTING DISTRICTS, 1974-75, 1973-74, 1971-72, AND 1968-69 SEASONS

District	1974-75	1973-74	1971-72	1968-69
1-N	\$ 41,702,000	\$ 71,992,000	\$ 29,250,300	\$ 30,721,100
2	11,010,000	20,999,000	9,692,200	12,754,500
3	255,000	484,000	191,800	320,600
4	6,560,000	10,052,000	6,883,200	7,813,800
5	1,226,000	805,000	/ 879,300	1,475,500
6	3,445,000	1,702,000	2,971,200	3,474,600
7	1,352,000	974,000	848,400	920,200
8	3,548,000	2,149,000	1,923,300	3,091,900
9	2,374,000	941,000	1,603,200	1,478,400
10	10,832,000	5,116,000	6,442,000	5,178,100
State	\$ 82,304,000	\$115,214,000	\$ 60,684,900	\$ 67,228,700

Table 30. AVERAGE PERCENTAGE OF GIN INCOME FROM GINNING COTTON AND PERCENTAGE OF GINS WITH INCOME SOLELY FROM GINNING COTTON, 1974-75 AND 1971-72 SEASONS

	Income From G	inning Cotton	Gins With Income Solely
District	1974	1971	From Ginning Cotton, 1974
1-N	97%	73%	58%
1-S	92	77	66
2	89	75	47
3	NA	NA	NA
4	86	79	36
5	99	76	83
6	99	NA	85
7	80	95	25
8	94	85	75
9	79	78	64
10-N	NA	93	NA
10-S	84	75	25
State*	89%	74% .	54%

NA - Not available or insufficient data.

<sup>\*</sup> Weighted average.

Table 31. PERCENTAGE OF GINS WHICH SELL GIN TRASH AND AVERAGE PRICE PER TON FOR TRASH, BY CROP REPORTING DISTRICTS, 1974-75, 1971-72, AND 1968-69 SEASONS

	S	ell Tras	h	 Ave	rage Pri	ce/Ton
District	1974	1971	1968	1974	1971	1968
1-N	20	19	25	\$2.50	\$3.01	\$1.60
1-S	40	25	34	2.03	1.78	1.68
2	25	17	33	2.32	1.56	1.77
3	NA		NA	NA	NA	NA
4	3	17	24	NA	1.24	1.46
5			20		NA	NA
6			NĄ			NA
7		17	100		NA	1.75
8		6	16		1.50	1.00
9		14	11		1.00	NA
10-N		30			1.00	
10-S						
State*	18.6	16.1	24.4	\$2.20	\$1.74	\$1.59

NA - Not available or insufficient data.

Source: Original data based on gins reporting.

If all of the trash for the 1974-75 season could have been sold for \$2.20 per ton, it would have brought \$2.0 million in revenue. But in many cases the \$2.20 per ton price could not be obtained and some gins reported that they even had to pay to have their trash hauled off. In these cases it was an added expense rather than a possible source of income. In some areas no one was interested in purchasing the trash except possibly the producer, who could use it as mulch. But in this case the price paid was not as high as the state average price of \$2.20. In addition, special trucks for spreading the trash on the land have to be available or owned by the gin to accomplish this type of disposal. Selling the gin trash at \$2.20 per ton represents 88 cents worth of income on every bale of cotton ginned.

#### VALUE OF TEXAS ACTIVE COTTON GINS

The ginners were asked to furnish the average book value of their gin plants at the beginning of the 1973-74 and 1974-75 seasons. Average value of Texas active gins, based on reporting gins, was \$184,871 in 1973-74 and \$204,295 in 1974-75. These data for the state and crop reporting districts covering the two seasons are in Table 32. Similar data for earlier seasons are in Table 45 in the appendix. The earlier studies for the crops of 1965, 1968 and 1971 indicated that the state average value of Texas active gins decreased with each study. Now the 1974-75 season figure has increased above the 1973-74 season. During the earlier studies, the cost or value of new equipment added to the gins was small, and the number and cost of new gins being built was low. During more recent seasons the cost of equipment added was higher and the type of equipment added was more expensive. The

<sup>\*</sup> Weighted average.

Table 32. VALUE OF TEXAS GINS, BY CROP REPORTING DISTRICTS, 1974-75 AND 1973-74 SEASONS

	Average B	ook Value	Total Esti	mated Value			
	of Acti	ve Gins	of Active Gins				
District	1974	1973	1974	1973			
1-N	\$236,964	\$202,108	\$ 22,512,000	\$ 20,009,000			
1 <b>-</b> S	360,169	337,130	97,966,000	92,711,000			
2	168,393	131,321	25,259,000	20,224,000			
3	NA	NA	350,000	350,000			
4	86,935	82,297	13,649,000	13,579,000			
5	43,085	33,930	991,000	747,000			
6	105,223	107,788	3,472,000	3,557,000			
7	87,499	80,689	1,137,000	1,130,000			
8	82,964	90,334	4,646,000	5,148,000			
9	73,741	75,841	2,876,000	3,640,000			
10-N	NA	NA	1,890,000	1,750,000			
10-S	199,775	191,300	12,386,000	11,861,000			
State	\$204,295	\$184,871	\$187,134,000	\$174,706,000			

NA - Not available or insufficient data.

Source: Original data based on gins reporting.

cost of new gins now being built is in the one-half million dollar range or more. The new gins being built are larger and are expected to gin in the tens of thousands of bales to make their construction feasible. Those gins that are going inactive are the small, older and less expensive gins with low ginning volumes.

The estimated total value of active Texas gins was \$187 million for the 1974-75 season. This information, by crop reporting districts and for the 1973-74 season, is given in Table 32.

#### THE VALUE OF COTTON TO TEXAS

The cotton which is produced in Texas is a basic economic factor in the financial well-being of the state. The greater the income from the production of cotton, the more money the producer has for the purchase of such items as new tractors, cars, supplies and personal items; and the greater the amount of income which will be generated in the other related segments of the industry. In 1908, a bale of cotton was worth \$42.50, while in the 1974-75 season, Texas average value of the 480 pound net weight bale was \$168.00.

Currently economists multiply the value of cotton lint and seed produced by 3.77 to obtain the economic or agribusiness effect that cotton production has on the Texas economy. The 1974-75 season value of lint and

<sup>\*</sup> Book value weighted average.

cottonseed was estimated at nearly \$536 million. When this is multiplied by the multiplier, the agribusiness effect due to cotton production in the state amounts to over \$2 billion.

The 2,486,500 running bales of cotton produced in Texas during the 1974-75 season was produced on over 5.2 million acres of land. The estimated value of this cotton acreage was over \$2.1 billion. Or, put another way, the cotton produced on each acre during the season generated over \$385 of agribusiness income toward the state's economic well-being.

The acreage planted to cotton in Texas for the season of 1974-75, 1971-72 and 1968-69, along with the value of production, value of land utilized and value of cotton lint and seed are in Table 33. Also included in the table are the number of bales ginned, ginning charge, number of active gins and other related data.

#### ADDITIONAL INFORMATION

## Light and Heavy Weight Bales

Light and heavy weight bales (under 300 pounds and over 550 pounds) produced by the U.S. ginners have come under fire from various sources during the last couple of seasons. The problem with these bales is that they create difficulties in handling, particularly in shipboard loading by longshoremen. As a result, penalties were assessed against these bales which reduced the revenue to the producer.

The gins were asked to furnish the reasons for these bales and the number of each (light or heavy) that the gins produced during the 1974-75 season. Heavy weight bales were produced more often than light bales, although the difference on a state average is not really large. Statewide, the gins produced 1.44 bales of heavy weight for every 100 bales ginned, while they produced 1.23 bales which were light weight. This information, by crop reporting districts, is in Table 34 based on reporting gins.

The replies from the gins on this question were as follows:

Reason for Light or Heavy Weight Bales	Percent
Too much or too little cotton in trailer delivered to gin by producer	33.3
Ginner forced to empty the trailer regardless	26.1
Due to ginner	23.2
Inexperienced labor	8.7
Quality of cotton delivered and variation	
in turn-out percentage	8.7

Basically, nearly 64 percent of the reasons for light and heavy weight bales are for reasons beyond the control of the gin. Gin customers need to be educated as to the reasons for the light and heavy weight bales so that they will not always blame the gin when they are penalized.

Light weight bales of 300 pounds and less are not deliverable on New York Futures Exchange contracts and are not eligible for cotton loan program. They must be over 325 pounds to be eligible for loan program.

Table 33. TEXAS COTTON VALUES

Item	1974-75	1971–72	1968-69	
Acreage planted* Upland	5,200,000	5,230,000	4,425,500	
Pima /	33,900	35,700	24,500	
Total	5,233,900	5,265,700	4,450,000	
Value per acre 1/	\$410.68	\$349.07	\$303.61	
Value of planted acrage	\$2,149,458,000	\$1,838,097,899	\$1,351,064,500	
Bales produced (480-1b. net wt.)*				
Upland	2,462,000	2,579,000	3,502,100 2	
Pima	24,500	35,300	$22,900 \overline{2}$	
Total	2,486,500	2,614,300	$3,525,000\overline{2}$	
Value of lint production*		, ,		
Up1and	\$413,688,000	\$339,204,000	\$339,639,000	
Pima	\$7,938,000	\$7,889,000	\$4,503,000	
Total	\$421,626,000	\$347,093,000	\$344,142,000	
Value of cottonseed production*	\$114,360,000	\$59,325,000	\$75,245,000	
Total value of production	\$535,986,000	\$406,418,000	\$419,387,000	
Agribusiness effect 3/	\$2,020,667,000	\$1,422,463,000	\$1,467,854,500	
Government payments (cotton)	-0-	\$276,556,768	\$247,948,197	
Total value to cotton producers 4/	\$535,986,000	\$682,974,768	\$667,335,197	
Bales ginned in Texas (running bales)**	2,481,894	2,550,551	3,472,565	
Texas ginning charges per bale***	\$33.20	\$23.21	\$19.36	
Income from ginning to state	\$82,398,900	\$60,684,900	\$67,228,858	
Number of active gins in state****	916	1,023	1,201	

<sup>1/</sup> Value of commercial cotton farm acreage, \$242.56 per acre, from 1964 U.S. Census of Agriculture (Texas), Vol. 1, Part 37. The 1968 and 1971 values are the 1964 value of \$242.56/acre increased according to Texas average value of land and buildings per acre index of "Farm Real Estate Market Developments," USDA, ERS, and taken from the Statistical Abstract of the United States. The 1974 value per acre is calculated from the 1969 value of \$245.12/acre from the 1969 U.S. Census of Agriculture (Texas).

<sup>2/ 500-</sup>pound gross-weight bales.

<sup>3/</sup> Total value of production times 3.5 used in calculating 1968 and 1971 agribusiness effect (reference: Texas A&M University MP-842 Effects of 1966 Cotton Adjustments in Texas. The 1974 figure was calculated by multiplying by 3.77 (reference: Economic Impact of Agricultural Production in Texas: 75-1, Texas A&M University).

<sup>4/</sup> Volume of production plus government payments.

<sup>\*</sup> Texas Cotton Statistics, USDA, SRS, Crop and Livestock Reporting Service.

<sup>\*\* &</sup>quot;Cotton Ginnings," Bureau of the Census, U.S. Department of Commerce (Upland and Pima).

<sup>\*\*\* &</sup>quot;Charges for Ginning Cotton, Costs of Selected Services Incident to Marketing, and Related Information," USDA, ERS & C&MS, Cotton Division.

<sup>\*\*\*\*</sup> Gin list, USDA, C&MS, Cotton Division.

Table 34. LIGHT AND HEAVY WEIGHT BALES GINNED DURING THE 1974-75 SEASON

	Bales Per Hundred	of All Bales Ginned
District	Light (Under 380 Lbs.)	Heavy (Over 550 Lbs.
1-N	1.9	1.3
1-S	1.2	1.8
2	1.1	.7
3	NA	NA
4	1.8	2.5
5	1.6	1.9
6	. 4	2.1
7	1.1	2.9
8	.2	.2
9	.7	1.3
10-N	NA	NA
10-S	1.4	.7
State*	1.23	1.44

NA - Not available or insufficient data.

Bales over 625 pounds are not eligible for cotton loan program while those over 700 pounds are not deliverable on New York Futures Exchange contracts. Light and heavy weight bales are just a problem all the way around and should be avoided if at all possible.

## Cotton Producers in the Ginning Business

The ginners were asked to indicate the percentage of gin owners who were also cotton producers during the 1974-75 season. Shown below are the results which are tabulated according to the type of gin ownership.

Туре	Owners Who Als	o Produce Cotton (In	Percent) Data
<u>Ownership</u>	100% (A11)	0% (None)	Average
Corporation	36	16	67
Cooperative	54	0	88
Partnerships	47	34	77
Sole Proprietor	22	61	32

## Regulations - Pollutions and Safety

The ginners were asked the following question: "What do you feel will be the economic effect on your gin operation in attempting to comply with air pollution and Occupational Safety and Health regulations?" The answers

<sup>\*</sup> Weighted average.

varied, to say the least. At the time of the survey there were no official OSHA rules in relation to cotton gin plants. Several gins reported their expenditures and estimated costs of complying with the anticipated OSHA gin regulations. These reported costs averaged about \$10,000 per gin plant.

Answer in Brief Form as to Effect of Regulations	Percent According to Those Reporting
None	6.5
Unknown	6.5
We comply	1.9
Minimal effect	1.3
Disasterous or bad	7.8
Very expensive or costly	18.8
So much expense for nothing or good accomplished	5.2
Would close gin due cost and low volume of production	27.9
Cost of ginning to producer will increase	7.8
Impossible to comply with old equipment and low	
production	4.6
Rules on air pollution too tight for rural areas	1.3
Trying to comply (piece meal as funds become	
availablewhat is to comply)	8.5
Government should leave us alone in a business which is	S
a pleasure	1.9

Given below are a few selected answers received as replies to the question on economic effect of the EPA and OSHA regulations.

"Why is there not a movement on to have a manufacturer build and shield all machinery from this date on, and this way in the next 10 years most every gin would be more able to comply."

"Complying with OSHA will be one of the greatest problems for us. The gin will run about \$13,000. I do not see how we can afford \$13,000 on the gin plant for items which hinder, rather than help, the ginning process. The main injuries experienced by us, at the gin, cannot be guarded against, e.g., suction, man falling in trailer or pressman lifting a bale of cotton improperly, with resultant bruises and strains. We have gone 14 years with no bad accidents. We have 150 to 160 points to be guarded."

"OSHA standards on machinery guarding will require several thousand dollars. The guards will be in the way when it comes to running the machinery. The machinery needs to be watched constantly. When repairs are required additional time will be needed to remove guards in order to work on the machine."

"We have never had any serious injuries. As long as a strict safety program and people watch out you won't have any. Most all injuries that we have had wouldn't have been prevented by machinery guards. Nearly all injuries are not even machinery related."

"It will be most impractical to comply with OSHA on these old gin plants. You can look at the Texas Employer's Inc. and see that all the guarding that OSHA requires is not necessary and is most impractical. As for air pollution, who knows?"

"We spent over \$100,000 on air pollution control but that is not near adequate. We are a big company and can stay but I think the cost of control will prohibit some gins from continuing in business."

"Bring about bankruptcy. The cost of complying with the idiotic proposals of OSHA and air pollution is prohibitive in our operation. We have a reasonably safe gin to operate. We do not work on or try to repair anything while the gin is running. We do not allow people to go into the gin where there might be a possibility of an accident. Dust is the major portion of our air pollution. We are trying to conquer this."

## Reduction in Ginning Costs?

With ever increasing costs for labor, energy, taxes, parts, equipment, supplies, etc., and with the all too often decreasing cotton production in certain areas, ginners are hard pressed to remain in business. A ginner, through comparison of his costs with the averages shown in this report, can determine which of his costs are above average and thus work on them for a possible reduction.

Labor costs can in some cases be offset by use of automation. Generally, the only possible means of reducing this cost item is by keeping the gin crew busy with increased ginning rates for longer time periods. This is only possible by increased volumes of cotton being brought to the gin and thus increasing the annual volume ginned. Greater gin volume can be accomplished by the producers increasing production, increasing the number of customers the gin has, or by working out an arrangement with other gins in the same area as to who will operate gins in alternate years, or by gin consolidation.

Reduction in costs due to taxes is unlikely, unless the gin is moved. This could, after a period of time, turn out to be a case of having jumped from the frying pan into the fire. Increased gin volume will reduce the per-bale cost for this item, but not the total cost due to taxes. Workmen's Compensation Insurance tax can be reduced in future years only through increased awareness by all gin employees and management that accidents must be reduced now--live and work "safety" at all times when the gin is operating.

Equipment and parts costs can be reduced only by greater maintenance or increased care of present gin equipment; purchase just what equipment is needed or those items which will assist in reducing the cost in some manner. Example: Cotton Incorporated's electronic record-keeping device which will allow management to reduce lost gin time and thus increase output to reach toward full ginning capacity. Obtaining energy-efficient equipment when possible, rather than just taking any equipment when replacements are needed, can help to reduce energy costs.

Energy cost reductions can be accomplished by using natural and liquid petroleum gases only when needed. When getting new equipment or replacing old, get the type which requires less energy or uses it more efficiently.

Example: TAES reports bolt, auger and air jet conveyor systems use less energy than pneumatic conveyor systems. Keep connected horsepower to the minimum required, particularly when installing new equipment or replacing old. Reduce warm-up time and idling time, both of which increase the total amount of kilowatt-hours used (more cost) and reduces rate of output by the gin. Keep rate of output (bales ginned per hour) as high as possible when cotton is available for ginning. When cotton is not present, shut the gin down; don't idle it until an adequate supply of seed cotton is on hand.

Increase return (income) from gin waste. Sell it for the highest possible price. This is generally when the waste is going to be used as feed for livestock. What could be the advantage and/or possible financial return or saving to the gin if the gin's trash were used as a source of fuel in place of natural or LP gas in producing heat for the gin dryers? Cotton Incorporated's new trash incinerator was recently tested in two gins of different annual ginning volumes (high and low). This incinerator generates heat needed for the gin dryer after about 45 minutes and materially reduces the amount and cost of gases previously used for this purpose.

High capacity gins require more energy and thus higher total cost than the lower capacity gins. Thus high capacity gins must gin cotton with more regard to the bales per hour ginned in an effort to maintain their high-capacity ginning, and thus keep costs from eating them up and putting an excessive burden on their customers.

Increased education of the producer as to the problems that the gin has, which in some cases are due to or because of the producer (trailer loading and need for gin to empty trailer completely), could assist in holding prices down. This could allow the cotton to move into trade channels without the possibility of recurring penalties (light and heavy weight bales) which may not be the fault of the gin.

## SUMMARY

Below are shown some of the cost data for the 1974-75 and 1971-72 seasons. These average data are based on those gins reporting in the state and for the season involved.

Description of Item	<u>1974-75</u>	1971-72
Average reported value of gin plant Average ginning charge per CWT of	\$204,295	\$122,238
seed cotton	\$1.28	\$0.716
Average for bagging and ties per bale	\$9.94	\$6.96
Average total ginning charge per bale	\$33.20	\$23.21
Average number of customers per gin	56.4	64.4
Average number of trailers per gin	29.3	60.0
Average number of employees per gin	24.4	17.5
Average cost of new equipment added		
per gin (for those adding such)	\$18,806	\$14,000
Average number of bales ginned to		-
break even costwise	2,818	NA
Average percentage of gins which did not	07 /4	***
gin enough cotton to reach break even	31.4%	NA
Average statewide cost per bale for the fo	llowing item	s:
Payroll (per bale)	\$11.07	\$8.43
Electricity	2.08	1.86
Natural gas	.37	.30
Liquid petroleum gas	<b>.</b> 55	.61
Diesel and other fuel	.217	
Water	.051	
All taxes	.722	
Insurance	1.76	1.14
Fire	.20	.11
Maintenance, including		
replacement parts	6.26	3.30

NA - Not available.

Stringent enforcement of the pollution and OSHA regulations, coupled with the continued economic conditions currently being experienced, could result in many Texas cotton gins going out of business in low cotton-producing areas of the state.

APPENDIX

Table 35. NUMBER OF BALES GINNED, BY CROP REPORTING DISTRICTS (RUNNING BALES EXCEPT AS NOTED)

District	1974-75*	1973-74*	1971-72*	1968-69	1960-61	1950-51	1940-41	1930-31	1920-21	1900**
1-N	283,600	434,300	218,600	202,428	469,633	114,649	56,092	45,593	15,067	
1-S	898,300	2,354,300	1,035,800	1,384,406	1,482,393	708,065	383,713	242,975	83,219	300
2	364,000	941,800	405,300	658,809	706,504	530,675	512,163	406,571	613,234	77,541
3	7,700	19,650	6,200	16,560	25,130	11,930	57,541	67,080	149,416	351,990
4	210,800	427,300	311,100	403,603	445,739	546,267	857,427	1,097,603	1,572,186	1,650,111
5	43,000	39,000	42,000	76,214	122,930	107,757	483,214	642,614	610,614	723,351
6	81,800	70,000	85,200	179,471	265,103	151,445	83,943	65,471	20,291	2,929
7	50,800	57,950	36,800	47,529	48,796	29,460	58,090	63,771	149,771	86,615
8	137,700	82,300	81,800	159,703	270,216	221,416	296,562	829,680	742,588	599,013
9	76,300	46,350	79,600	76,367	101,812	112,246	199,672	251,994	98,567	23,945
10-N	21,300	9,850	7,300	21,662	48,088	19,838	26,789	85,935	60,064	20,417
10-S	286,700	190,200	269,300	245,802	358,746	326,872	95,836	86,829	33,558	285
State	2,462,000	4,673,000	2,579,000	3,472,554	4,345,090	2,880,620	3,111,042	3,886,116	4,148,575	3,536,497

<sup>\* 480-</sup>pound net weight bales.

Source: Texas Cotton Review, 1971-72, 1973-74, and 1974-75, Natural Fibers Economic Research; Cotton Varieties Planted, 1967-1974, Consumer & Marketing Service, Cotton Division, USDA; Cotton Production in the U.S., USDC, Bureau of the Census; Cotton Production and Distribution in the U.S., USDC, Bureau of the Census.

<sup>\*\*</sup> Commercial bales = round bales + square bales.

Table 36. TEXAS COTTON ACREAGE, PRODUCTION, YIELD, AND PRICE

	Harvested	Production		Farm	Cost of	Number
$\mathtt{Crop}$	Acreage	500 Gross Wt.	Yield	Price/Lb.	Ginning/Bale	Of Active
Year	1,000 Acres	1,000 Bales	Lbs./Acre	Cents	Dollars	Gins
1899	6,950	2,609	180			
1904	8,658	3,145	174			
1909	9,900	2,523	122			
1914	11,931	4,592	183	7.22		4,694
1919	10,476	3,099	133	34.40		4,113
1924	17,049	4,949	139	22.98		3,652
1929	16,875	3,940	112	16.89	6.85	3,729
1930	16,138	4,037	120	9.61	5.93	3,651
1935	10,657	2,956	133	<b>/10.99</b>	6.24	3,348
1940	8,472	3,234	184	9.97	5.49	2,995
1941	7,717	2,652	165	16.22	6.89	2,861
1942	8,044	3,035	182	17.99	7.20	2,713
1943	7,780	2,823	174	19.04	7.24	2,529
1944	6,950	2,646	183	19.74	7.95	2,306
1945	5,800	1,794	149	21.49	7.83	2,016
1946	6,000	1,669	134	32.16	9.34	1,888
1947	8,352	3,437	198	31.02	10.65	1,967
1948	8,613	3,153	176	29.60	11.54	1,953
1949	11,100	6,040	261	28.07	12.02	1,988
1950	6,700	2,946	211	39.03	12.58	1,879
1951	11,850	4,074	165	36.44	14.18	1,903
1952	10,700	3,808	171	33.15	14.79	1,782
1953	8,900	4,317	233	30.55	14.34	1,678
1954	7,730	3,941	245	32.39	14.00	1,746
1955	6,900	4,039	281	30.30	14.02	1,715
1956	6,200	3,615	280	30.25	14.33	1,647
1957	5,905	3,632	295	26.73	15.45	1,631
1958	5,395	4,308	383	31.20	15.40	1,528
1959	6,350	4,416	334	29.48	15.94	1,478
1960	6,325	4,346	329	28.18	16.17	1,450
1961	6,560	4,789	350	31.29	17.94	1,384
1962	6,500	4,726	348	30.34	18.27	1,354
1963	5,850	4,417	362	30.18	18.11	1,319
1964	5,675	4,123	348	27.70	17.96	1,290
1965	5,565	4,668	402	26.10	18.84	1,264
1966	3,968	3,182	385	17.14	17.65	1,275
1967		2,767	376	18.54	19.48	1,203
1968	3,525	3,522*	410	19.39	19.36	1,182
	4,125	•	293	18.48	20.07	1,129
1969	4,675	2,859*	315	20.56	20.00	1,065
1970	4,896	3,209*			23.21*	1,003
1971	4,735	2,614*	263 408	26.57	23.21*	1,023
1972	5,035	4,277*	408 421	23.40		945
1973	5,231	4,673*	431 360	44.21	25.60*	943
1974P	4,433	2,462*	269	35.00	33.20*	910

\* Net Weight basis. P - Preliminary.
Source: Statistics on Cotton and Related Data, USDA Bulletin 329; Texas Cotton Statistics and Texas Field Crop Statistics, Texas Crop and Livestock Reporting Service.

Table 37. COTTON GINS IN TEXAS, BY COUNTIES, 1915 AND AS OF JANUARY 1, 1975

	Numbe			Numbe				er of
	Active			Active				e Gins
County	1915	1975	County	1915	1975	County	1915	1975
Anderson	42		Cooke	22	1	Hamilton	20	1
Andrews			Coryell	33	3	Hansford		
Angelina	19		Cottle	12	6	Hardeman	10	5
Aransas			Crane			Hardin		
Archer	4		Crockett			Harris	13	
Armstrong			Crosby	6	18	Harrison	37	
Atascosa	20		Culberson		2	Hartley		
Austin	40	3	Dallam			Haskell	22	12
Bailey		16	Dallas	49		Hays	20	
Bandera	4		Dawson	4	25	Hemphill		
Bastrop	30	1	Deaf Smith		1	Henderson	28	
Baylor	9	2	Delta	23	4	Hidalgo	1	23
Bee	14	1	Denton	28	2	Hill	67	18
Bell	58	9	De Witt	27	_	Hockley	0,	31
Bexar	22	-	Dickens	- <i>i</i> 5	5	Hood	10	31
Blanco	8		Dimmit		•	Hopkins	40	
Borden	-	1	Donley	4	3	Houston	39	3
Bosque	19	1	Duval	8	,	Howard	7	11
Bowie	28	2	Eastland	20		Hudspeth	,	3
Brazoria	14	4	Ector			Hunt	60	9
Brazos	28	5	Edwards			Hutchinson	00	,
Brewster	1	,	Ellis	77	20	Irion		
Briscoe	-	7	El Paso	,,	15	Jack	17	1
Brooks		,	Erath	21	13	Jackson	10	3
Brown	18		Falls	48	6	Jasper	11	3
Burleson	29	2	Fannin	55	6	Jasper Jeff Davis	TT	
Burnet	16	2	Fayette	53	1	Jefferson		
Caldwell	33	2	Fisher	14	7			
Calhoun	9	5	Floyd	3	19	Jim Hogg Jim Wells	7	2
Callahan	16	,	Foard	3 7	3		7	2
Cameron	7	28	Fort Bend	26	12	Johnson	34	5
Camp	19	20	Franklin	13	12	Jones	27	15
<del>-</del>	13			27	-	Karnes	22	_
Carson	56		Freestone		1	Kaufman	57	5
Cass Castro	20	10	Frio	11	2	Kendall	6	
		12	Gaines		24	Kenedy	_	_
Chambers	/ 0		Galveston			Kent	6	2
Cherokee	42	•	Garza	10	6	Kerr	1	
Childress	11	3	Gillespie	18	_	Kimble	1	
Clay	18	1	Glasscock		3	King		1
Cochran	•	11	Goliad	13		Kinney		
Coke	9	_	Gonzales	33		Kleberg	1	1
Coleman	25	3	Gray			Knox	16	. 7
Collin	64	13	Grayson	46	4	Lamar	61	4
Collingsworth	9	5	Gregg	20		Lamb		30
Colorado	27	2	Grimes	34		Lampasas	12	
Coma1	14		Guadalupe	33	2	La Salle	4	
Comanche	15		Hale	1	32	Lavaca	38	
Concho	12	2	Hall	17	12	Lee	23	

Table 37.--Continued

	Numbe			Numbe				er of
	Active		0	Active		0	Active 1915	1975
County	1915	1975	County	1915	1975	County	1913	
Leon	33		Palo Pinto	13		Swisher		12
Liberty	11		Panola	33		Tarrant	25	2
Limestone	47		Parker	29		Taylor	27	4
Lipscomb			Parmer		12	Terrell		
Live Oak	6	1	Pecos	/	2	Terry		21
Llano	6		Po1k	<b>23</b> /		Throckmorton	4	2
Loving			Potter			Titus	26	
Lubbock	3	37	Presidio -		1	Tom Green	7	8
Lynn	4	24	Rains	8	1	Travis	47	3
McCulloch	20	1	Randall			Trinity	13	
McLennan	74	11	Reagan			Tyler	13	
McMullen			Real			Upshur	43	
Madison	13	1	Red River	43	2	Upton		1
Marion	18		Reeves		10	Uvalde	6	
Martin		11	Refugio	10	2	Val Verde		
Mason	8	•	Roberts			Van Zandt	49	1
Matagorda	7	3	Robertson	45	5	Victoria	19	
Maverick		1	Rockwall	16	2	Walker	17	1
Medina	17	1	Runnels	23	11	Waller	23	1
Menard	4		Rusk	67		Ward	1	
Midland		1	Sabine	20		Washington	44	3
Milam	56	5	San Augustine	30		Webb		
Mills	12		San Jacinto	13		Wharton	17	15
Mitchell	15	6	San Patricio	12	12	Wheeler	1	4
Montague	28	1	San Saba	17		Wichita	9	1
Montgomery	16		Schleicher	3	1	Wilbarger	17	8
Moore			Scurry	11	8	Willacy		10
Morris	20		Shackleford	1		Williamson	71	18
Motley	6	4	Shelby	42		Wilson	18	
Nacogdoches	41		Sherman			Winkler		
Navarro	69	8	Smith	76		Wise	30	
Newton	7		Somervell	5		Wood	35	
Nolan	11	4	Starr		1	Yoakum		9
Nueces	21	17	Stephens	7		Young	16	2
Ochiltree			Sterling			Zapata	•	
Oldham			Stonewall	9	2	Zavala		3
Orange			Sutton	-		Others	38	

## Summary

	<u> 1915</u>	<u>1975</u>
Total active gins 4	,093	916
Total counties with active gins	218	130
Total counties with no active gins	36	124

Source: U.S. Department of Agriculture, AMS, Cotton Division (Regional Office), El Paso, Texas; U.S. Department of Commerce Bulletin No. 134.

Table 38. AVERAGE NUMBER\* OF BALES PER GIN, BY CROP REPORTING DISTRICTS

		·								
District	1974-75	1973-74	1971-72	1968-69	1960-61	1950-51	1940-41	1930-31	1920-21	1915-16
1-N	2,985	4,386	2,042	1,807	4,309	1,489	1,193	860	1,076	
1 <b>-</b> S	3,302	8,561	3,712	4,790	4,925	2,810	1,661	1,335	1,809	396
2	2,426	6,115	2,549	3,898	3 <b>,</b> 738	2,018	1,388	1,002	1,841	1,450
3	1,100	2,807	775	1,505	1,675	477	587	441	839	482
4	1,342	6,573	1,672	1,810	1,481	1,101	1,085	1,160	1,473	953
5	1,869	1,772	1,615	2,242	1,731	521	845	800	615	413
6	2,478	2,121	2,078	3,663	4,142	3,694	2,269	1,637	1,015	-
7	3,907	4,139	2,453	2,796	2,568	1,841	653	590	1,208	579
8	2,458	1,443	1,076	1,331	1,638	875	598	1,362	1,248	905
9	1,956	965	1,561	1,157	1,434	1,247	1,387	1,491	736	378
10-N	236	1,094	913	1,444	2,186	863	446	1,161	1,335	505
10 <b>-</b> S	4,624	3,019	4,019	3,234	3,417	3,027	1,213	835	1,157	
State	2,687	4,945	2,521	2,940	3,034	1,556	1,033	1,066	1,159	749

<sup>\*</sup> These data were developed by dividing number of bales (Table 35) by number of active gins (Table 2) for crop reporting districts.

Table 39. BREAK-EVEN POINTS, BY CROP REPORTING DISTRICTS, FOR THE 1964-65, 1965-66, AND 1968-69 SEASONS

	Nu	mber of Ba	les	Percentage				
	That	Must be G	inned	Break-even Point is of				
	t	o Break Ev	ren	Avera	ge Bales G	inned		
District	1964	1965	1968	1964	1965	1968		
1-N	3,090	2,435	2,150	59	48	*		
1-S	2,956	2,848	3,579	52	43	69		
2	2,095	2,367	2,551 /	72	58	60		
3	1,100	NA	NA /	76	NA	NA		
4	1,438	1,326	1,714	72	66	90		
5	1,110	920	2 <del>,</del> 034	56	45	68		
6	2,450	2,500	2,913	46	68	38		
7	1,665	1,850	1,100	NA	NA	22		
8	1,344	1,290	1,369	58	61	90		
9	1,644	1,458	1,750	46	60	*		
10-N	1,815	1,820	2,375	77	60	*		
10-S	2,794	2,655	2,943	56	55	64		
State	2,108	2,038	2,435	65	52	71		

<sup>\*</sup> Average break-even figure reported exceeded average number of bales ginned.

Table 40. AVERAGE COST PER GIN OF NEW EQUIPMENT, BY CROP REPORTING DISTRICTS, 1965-66, 1968-69 AND 1971-72 SEASONS

District	1965-66	1968-69	1971–72
1-N	\$16,139	\$12,707	\$12,145
1-S	29,065	29,570	19,136
2	15,152	33,817	7,442
3	NA	10,600	NA
4	8,170	11,728	8,080
5	9,333	9,089	NA
6	2,500	20,833	NA
7	5,000	15,323	NA
8	10,777	13,622	4,000
9	23,545	18,182	12,400
10-N	4,667	7,967	NA
10-S	7,380	25,366	NA
State*	\$13,634	\$21,192	\$14,000

NA - Not available or insufficient data.

NA - Not available or insufficient data.

<sup>\*</sup> Weighted average.

Table 41. AVERAGE NUMBER OF EMPLOYEES PER GIN, BY CROP REPORTING DISTRICTS, FOR SELECTED YEARS

District	1963-64	1965-66	1968-69	1971-72
1-N	22.8	28.5	16.5	15.6
1-S	20.3	29.6	21.1	23.7
2	13.3	20.2	13.9	12.7
3	6.7	NA	8.8	3.7
4	11.9	14.5	12.6	12.9
5	12.0	10.1	7.1	10.9
6	15.4	20.4	23.1	21.2
7	9.3	13.0	18.4	10.0
8	10.2	12.8	11.7	10.6
9	16.7	19.1	13.3	13.7
LO-N	11.2	17.8	10.8	9.0
10-S	19.7	26.2	25.7	35.0
tate*	15.4	20.9	16.4	17.5

NA - Not available or insufficient data.

<sup>\*</sup> Weighted average.

Table 42. ESTIMATED TOTAL EXPENDITURES FOR SELECTED OPERATING COST ITEMS (ALL ACTIVE GINS), BY CROP REPORTING DISTRICTS, 1971-72 SEASON

District	Electricity		Water	Maintenance Including Replacement Parts	Fire Tighting	Insurance	Taxes	Labor (Payroll)
1-N	\$ 638,000	\$	14,000	\$ 811,000	\$ 19,600	\$ 365,000	\$ 135,000	\$ 2,286,000
1-S	2,071,000	•	72,000	4,340,000	124,000	1,243,000	549,000	14,791,000
2	733,600		28,000	1,204,000	56,000	389,000	178,000	2,610,000
3	15,900		Ins.	Ins.	Ins.	Ins.	Ins.	Ins.
4	526,000		19,000	625,000	25,000	373,000	118,000	2,165,000
5	59,000			67,000	1,700	27,000	11,000	239,000
6	113,000		3,500	311,000	9,000	76,000	29,000	563,000
7	78,800		2,600	198,000	2,600	63,000	10,000	415,000
8	158,000		5,000	236,000	8,000	114,000	74,000	547,000
9	101,000		4,000	277,000	3,000	70,000	31,000	363,000
10-N	16,000		Ins.	15,000	700	14,500	Ins.	62,000
10-S	277,000		11,000	420,000	24,000	207,000	154,000	1,287,000
State	\$4,787,300	\$	159,100	\$8,504,000	\$ 273,600	\$2,941,500	\$ 1,289,000	\$25,328,000

<sup>\*</sup> Including night watchman.

Ins. - Insufficient data.

Table 43. AVERAGE GINNING CHARGES PER BALE, INCLUDING BAGGING AND TIES, BY CROP REPORTING DISTRICTS, 1971-72, 1968-69, AND 1965-66 SEASONS

****	Ave	rage	Average	Charge				
		rge		agging	Average Charg			ing,
		CWT		Ties		g Bagging		
District	1971-72	1968-69	1971-72	1968-69	1971-72	1968-69	1965-66	
1-N	\$0.61	\$0.60	\$6.65	\$6.11	\$22.11	\$19.28	\$19.96	
1 <b>-</b> S	.63	.59	7.07	6.25	23.38	19.15	19.41	
2	.64	.61	5.91	5.72	22.68	19.03	18.46	
3	.70	.69	6.49	5.35	19.65	20.36	NA	
4	.74	.68	6.63	6.10	21.64	20.42	18.53	
5	.73	.69	5.93	5.43	20.93	18.01	16.55	
6	.96	.78	5.03	5.10	19.04	17.60	19.10	
7	.65	•54	5.91	5.60	22.24	16.66	16.07	
8	.90	.75	6.28	5.53	22.29	19.59	18.86	
9	1.09	.80	6.54	5.49	20.14	17.91	16.94	
10-N	.88	.84	6.82	5.44	NA	21.57	18.62	
10 <b>-</b> S	.99	.92	6.49	5.84	23.29	20.51	20.27	
State**	\$0.72	\$0.67	\$6.96	\$6.57	\$23.21	\$19.36	\$18.84	

<sup>\*</sup> Based on method of harvesting, per cwt charge plus cost of bagging and ties.

<sup>\*\*</sup> Weighted average.

NA - Not available or insufficient data.

Table 44. AVERAGE CHARGES FOR SAW GINNING UPLAND COTTON, AVERAGE CHARGES FOR SELECTED SERVICES INCIDENT TO MARKETING, AND RELATED INFORMATION, BY STATES, SEASONS 1968-69, 1971-72, 1973-74 AND 1974-75

	/ 1974-75		1973-74		1971-72		1968-69	
Item	U.S.	Texas	U.S.	Texas	U.S.	Texas	U.S.	Texas
BALES GINNED* (running bales)thousands WRAPPING AND GINNING CHARGES PER BALE: Total charge per 500-pound	11,222	2,499	12,500	4,470	10,095	2.496	10,833	3,446
gross-weight bale 1/dollars Charge per bale for bagging and	29.38	33.20	23.74	25.60	20.33	23.21	18.64	19.36
ties when assessed separatelydollars METHOD OF HARVESTING:	8.77	10.01	7.20	8.00	6.21	6.96	5.58	6.13
Hand-pickedpercent	2/	2/	2/	2/	1	2/	3	1
Hand-snappedpercent	$\frac{2}{2}$	$\frac{-1}{2}$	$\frac{2}{2}$	$\frac{\overline{2}}{2}$	2/	$\frac{2}{1}$	1	1
Machine-pickedpercent	7 <del>2</del> ,	$\frac{\frac{2}{2}}{21}$	$6\overline{3}'$	$\frac{2}{2}$ / $\frac{2}{9}$	7 <del>5</del>	20	68	22
Machine-strippedpercent	20	78	36	90	23	78	27	75
Machine-scrappedpercent	1	1	1	1	1	1	1	1
WEIGHT OF SEED COTTON PER	_	_	_	_	_			
500-POUND BALE:								
Hand-pickedpounds	1.400	1,541	1,339	1,459	1.414	1,561	1,360	1,470
Hand-snappedpounds	2,058	1,969	1,973			2,123	1,956	-
Machine-pickedpounds	1,477	1,557	1,445	1,533	-	1,547	1,478	-
Machine-strippedpounds	2,284	2,309	2,132			2,755	2,173	
Machine-scrappedpounds	2,252	2,114	2,370	2,506	•	2,328	2,440	-
PROPORTION OF PRODUCTION PURCHASED FROM GROWERS BY GINNERS:	-,-5	-, '		_,,,,,	_,	<b>.,.</b>		
Purchased as seed cottonpercent	NA	NA	NA	NA	NA	NA	2/	' <u>2</u> / 35
Purchased as baled lintpercent CHARGES FOR WAREHOUSING AND RELATED SERVICES:	8	16	25	38	28	38	2 <u>/</u> 24	35
Charge per bale for receiving								
cotton at public warehousesdollars Charge per bale per month for	1.32	1.28	1.18	1.17	1.06	1.08	.90	1.01
insured storage $3/$ dollars Charge per bale for compressing	.85	.79	.76	.72	.66	.62	.58	.53
cotton to								
Standard densitydollars	3.07	3.14	2.73	2.88	2.25	2.31	2.01	
High density $4/\dots$ dollars			2.76	2.76	2.55	2.35	2.28	2.24
Universal densitydollars	3.09	3.14	2.72	2.76				

<sup>1/</sup> Includes bagging and ties, drying of seed cotton, and use of lint cleaners. 2/ Less than 0.5 percent. 3/ Based on published tariffs. For storage under Government price-support programs, warehousemen are paid lower rates. 4/ Excludes extra charges occasionally made for high density compression of standard density bales as compared to that for flat bales. Most compresses made the same charge for either type of bale. \* Based on the final report, by Bureau of the Census, but excluding all American-Egyptian bales and bales of roller-ginned upland cotton. Also excluded are bales ginned in Illinois, Kentucky, and Virginia. Source: USDA, ERS, CED, and AMS, Cotton Division.

Table 45. AVERAGE VALUE OF GIN PLANTS, BY CROP REPORTING DISTRICTS, 1965-66, 1968-69, AND 1971-72 SEASONS

District	1965-66	1968-69	1971-72
1-N	\$248,300	\$193,126	\$181,167
1-S	236,600	245,415	216,004
2	249,700	153,214	129,300
3	NA	82,500	83,200
4	96,200	76,446	77,945
5	72,900	146,364	65,500
6	142,800	213,400	151,428
7	164,000	127,201	107,013
8	78,000	105,084	96,488
9	143,400	94,081	70,682
10-N	105,300	73,667	126,833
10-S	238,800	161,946	169,000
State*	\$174,900	\$158,682	\$122,238

NA - Not available or insufficient data.

<sup>\*</sup> Weighted average.

# Return to: Natural Fibers Economic Research P. O. Box 8180, University Station

Austin, Texas 78712

In an effort to assist the Texas cotton ginning industry in maintaining an accurate as possible source of information, we kindly ask that you supply the answers to the following questions. In those instances where records are not available, please estimate. The information that you furnish will be treated as strictly confidential.

1.	Gin code County
	Production:
	a) Total number of bales ginned, 1973 crop, 1974 crop
	b) Number of weeks gin was in operation, 1973, 1974 crop
	c) Average number of bales ginned per hour, 1973, 1974 crop
	d) Number of bales required to break even, 1973, 1974 crop
3.	Number of employees:
	a) Total number of employees, 1973, 1974
	b) Full time employees (yearly), 1973, 1974 Seasonal employees (part-time
	or less than a year), 1973, 1974
	c) Source of gin labor, number of employees from gin local area, 1973,, 1974
4.	Estimated number of gin patrons or customers, 1973, 1974
5.	Is your gin a coop, corporation, partnership, single proprietor
	What percentage of gin owners are currently cotton producers?
6.	Ginning charges paid by the gin customer:
	a) Per cwt for seed cotton, 1973 \$, 1974 \$
	b) Per bale for wrapping only (in bagging & ties), 1973 \$, 1974 \$
	c) Hauling charge on bales (gin to warehouse or compress), 1973 \$, 1974 \$
	d) Insurance charge per bale, 1973 \$, 1974 \$
	e) Average charge per bale, including wrapping, 1973 \$, 1974 \$
7.	Number of cotton trailers owned by gin Charge to customer for trailer use \$
8.	Total cost of new ginning equipment added prior to 1974 crop, if any \$
	List equipment added.
	Was the number of bales ginned per hour increased by addition of this equipment?
10.	Book value of your gin and related equipment, 1973 \$, 1974 \$
11.	Does gin:
	a) Have a moisture control or restoration system? Was it used in 1974?
	b) Have an automatic sampler? Was it used in 1974?
	c) What kind of press does gin have (flat, modified flat, universal, standard, or
	high density)?
	d) Gin the customers' cotton for the value of the seed, 1974?
	e) Sell its trash? If so, for what and for how much?, \$
	f) Buy farmers cotton in bales? How many bales were bought of 1974 crop?
	a) Sample the hale for USDA (green card) class?

12.	Did gin use the following in processing 1974 crop (supply amount and total cost)?					
	a) Natural gas for crop drying (cubic feet), total cost \$					
	Natural gas for general use (cubic feet), total cost \$					
	Diesel & fuel oil for crop drying (gallons), total cost \$					
	Diesel & fuel oil for general-power (gallons), total cost \$					
	LPG fuel for drying (gallons), total cost \$					
	LPG fuel for general use (gallons), total cost \$					
	Does your gin have back-up source of fuel for dryer?, Kind					
	Did your gin exceed the minimum rate for natural gas in 1974-75?					
	b) Water \$, Electricity used (Kwh), total cost \$					
	Did your gin exceed the minimum rate for electricity in 1974-75?					
	c) Other fuels (gasoline, diesel for truck, etc.) used in gin operation \$					
	d) Machinery maintenance (labor) \$					
	e) Machinery replacement parts \$ Supplies (tools, tags, paper, etc.) \$					
	f) Other maintenance (repair & upkeep on trucks, tractors, trailers, etc.) \$					
	g) Fire fighting equipment (including night watchman) \$					
	h) Insurance (all except on cotton) \$, On cotton \$					
	i) Other (please specify) \$					
13.	Taxes paid on real and personal property (gin building, land, etc.) for most recent					
	year. City \$, County \$ Other (indicate) \$					
14.	Total payroll for the 1974 crop (1974-75 season) \$					
15.	What percentage of gin total income was solely from the processing of seed cotton					
	into baled lint? What other business is gin in?					
16.	Did your gin sell planting seed? Average selling price per cwt \$					
17.	Did your gin experience any energy problems while ginning the 1974 crop?If so,					
-	please indicate problem (shortage of electricity, natural gas, diesel fuel, etc.).					
18.	Did your gin experience problems in obtaining credit during the 1974-75 season, for					
	long term? for short term? What was interest rate?					
19.	Did you modify your press box to produce a bale that can be pressed to Universal Den-					
	sity at the compress? What did modification cost? \$ Are you experiencing					
	any trouble? If so, what?					
	If not now modified, do you plan to do so at the end of ginning the 1974-75 crop?					
20.	What causes light weight bales under 380 pounds and heavy weight bales over 550					
	pounds?					
	How many light weight bales (under 380 lbs.) did you have in 1974-75?					
	How many heavy weight bales (over 550 lbs.) did you have in 1974-75?					
21.	What do you feel will be the economic effect on your operation in attempting to					
	comply with Air Pollution and Occupational Safety and Health regulations? Use back					
	of sheet if needed.					

We thank you for your time in completing this questionnaire.

