

BULLETIN 382

PROCUREMENT OF PECANS BY MAJOR BUYERS IN ALABAMA



Agricultural Experiment Station AUBURN UNIVERSITY

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Procurement of Pecans by Major Buyers in Alabama

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Cor Years Alabama has been a leading pecan producing state. During 1960-1966, Alabama accounted for 14 per cent of total production in the nation and ranked third behind Georgia and Texas.¹ The State produces almost one-fourth of the nation's improved varieties of pecans.

Pecans were once a minor sideline on many farms and there was little interest in marketing. Long-term investments by farmers recently have caused attention to be focused on markets and marketing efficiency. Research by Auburn University Agricultural Experiment Station has dealt with pecan production, but little study has been made of the State's pecan market. A study of farm handling and marketing of pecans by Jones and Danner² found that the market was unorganized and lacked price incentives to encourage quality production. There have been wide variations in production, prices, and income from pecans, Table 1.

This study proposed to describe procurement practices and market organization, and to identify pecan marketing problems in Alabama. The objectives were:

(1) To determine procurement practices of major handlers of in-shell pecans produced in the commercial pecan-producing counties.

^{*} Resigned.

¹ Alabama Crop and Livestock Reporting Service. 1964. *Pecan Production Report.* Statistical Division, Ala. Dept. of Agr. in coop. with U.S. Dept. of Agr.

² Jones, Ronald E. and M. J. Danner. 1964. Farm Handling and Marketing of Pecans in Alabama. Auburn Univ. Agr. Exp. Sta. Cir. 148.

Year	Production	Price per pound	Value					
	$Thou.\ lb.$	Cents	Thou. dol.					
1956	30,500	18.0	5,315					
1957	4,000	28.7	1,032					
1958	36,000	27.2	9,556					
1959	15,000	30.8	4,529					
1960	17,300	30.1	5,366					
1961	50,000	18.5	9,220					
1962	6,000	35.9	2,154					
1963	61,000	15.6	9,500					
1964	12,500	25.6	3,200					
1965	29,500	18.4	5,405					
1966	26,500	29.3	7,764					
Average		21.9	5,731					

Table 1. Annual Volume of Production, Price, and Value of Pecan Crops, Alabama, 1956-66

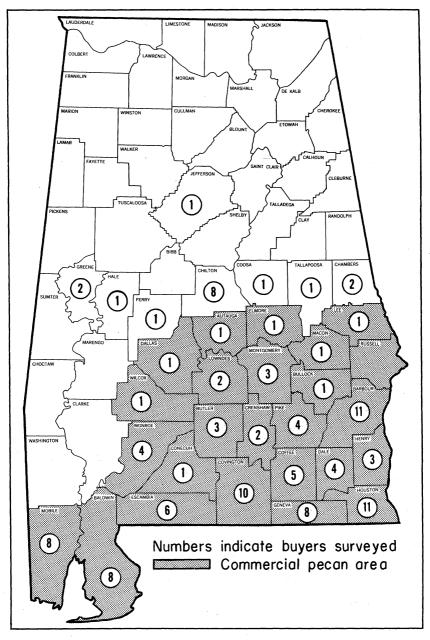
Source: Office of Agricultural Statistician, Crop and Livestock Reporting Service, United States Department of Agriculture, Montgomery, Alabama.

- (2) To make an economic comparison of first buyers for in-shell pecans.
- (3) To provide information for needed adjustments in the present pecan marketing system in the commercial counties of the State.

PROCEDURE

Procurement practices used were determined from personal interviews with 117 Alabama pecan buyers during the summer of 1965. This number made up a large percentage of the buyers that handled most of the pecans marketed in the State. Names of buyers were obtained from county Cooperative Extension Service personnel, and from buyers themselves. They included shellers and processors, major and minor accumulators (dealers), truckers, commission buyers, and others. The commercial pecan producing counties and number of buyers surveyed by counties are shown in the map on page 5.

Buyers were asked about business organization, buying and selling practices, sampling and grading procedures, storage operations, contractual relationships with growers or other agencies, size and source of lots purchased, procurement problems, and views about the present marketing system for pecans. Buyers were classified according to buying practices, gross sales and pecan sales, contractual arrangements, method of grading, procurement problems, and storage operations.



Number of pecan buyers surveyed in each county during the 1965 project are shown on the map, along with identification of the State's commercial pecan area.

CHARACTERISTICS OF PECAN BUYERS

Buyers were classified into six major categories—sheller and processor, major accumulator, minor accumulator (or dealer), trucker, commission buyer, and other. Of the 117 buyers surveyed, approximately 13 per cent were shellers and processors, 20 per cent were major accumulators, 41 per cent were minor accumulators, 14 per cent were truckers, 9 per cent were commission buyers, and 3 per cent were classed in the "other" category, Table 2.

Table 2.	Number	AND	PERCENTAGE	\mathbf{OF}	PECAN	BUYERS	\mathbf{OF}	Еасн	Type
			in Alabam	ſΑ,	1965				

Type of operation	Number	Per cent
Sheller and processor	15	12.8
Major accumulator	24	20.5
Minor accumulator	48	41.0
Trucker	16	13.7
Commission buyer	10	8.6
Other	4	3.4
Total	117	100.0

Definition of Terms

These terms were used in the study:

Processor—purchases in-shell pecans; cleans, bleaches, polishes, and sometimes dyes nuts for resale in-shell.

Sheller—purchases in-shell nuts; shells and markets kernels by color, size grade, quantities, and varieties in various bulk and retail packages.

Major accumulator—purchases in-shell nuts from producers, truckers, and minor accumulators (dealers); sells large quantities of nuts to shellers and processors.

Minor accumulator (dealer)—purchases in-shell nuts from producers and sells nuts to major accumulators, shellers, and processors. The main differences between major accumulators and minor accumulators were the volumes of pecans handled and markets into which pecans were sold. Minor accumulators sold mostly to major accumulators, with only a small quantity going to shellers and processors. Major accumulators sold almost entirely to shellers and processors. Generally, major accumulators handled a much larger volume than did minor accumulators.

Trucker—purchases in-shell pecans at producers' farms and usually resells the same day, mostly to major accumulators, shell-

ers, and processors. A "trucker" does not have an established buying point, but goes to the producer's home or orchard with trucks to purchase pecans.

Commission buyer—generally purchases in-shell nuts from growers, using capital provided by the person or firm for whom he is buying pecans. The commission buyer usually received 1 cent for each pound purchased. A few commission buyers received 2 cents per pound.

Other—denotes special cases that could not be classified in one of the above categories. Four buyers listed in this group purchased pecans from one of the other buyers and sold them at retail in small lots to customers rather than through regular marketing channels.

Type of Total Business

Replies about main business enterprise of pecan buyers studied showed 24 per cent operated farm supply stores, 17 per cent were farmers, 27 per cent were in the pecan business primarily, 4 per cent were farmer cooperatives, and 21 per cent were classed in the "other" category, Table 3.

Buyers were classified as being primarily in the pecan business if they received more than 50 per cent of their income from pecans. Almost all shellers and processors (13 of 15, or 87 per cent) were in this group, as was a large portion of the major accumlators (11 of 24, or 46 per cent). Several retired people who were pecan buyers were included in this group.

The group classified as farm supply stores regularly dealt with farm people, making it convenient to also buy pecans.

	Buyers reporting							
Main business enterprise	Sheller and processor	* · ·	Minor accumu- lator	Trucker	Com- mission buyer	Other	Total	
	$N \stackrel{ ightharpoonup}{o}$.	No.	No.	No.	No.	No.	No.	
Farm supply store	0	4	20	0	4	0	28	
Farmer Pecan business	0	2	7	10	1	0	20	
primarily	13	11	3	3	0	2	32	
Farmer cooperative		1	2	. 0	2	0	5	
Retail outlet	0	2	6	0	0	0	8	
Other	2	4	10	3	3	2 '	24	

Table 3. Number of Each Type of Pecan Buyer, by Main Business Enterprise, Alabama, 1965

Farmer-buyers received a majority of their total income from farming but bought pecans in the fall. Ten of the 16 truckers were classified as farmers.

Retail buyers other than farm supply stores operated grocery stores, auto parts stores, furniture stores, and a shoe shop.

Farmer cooperatives were usually retail outlets for farm supplies, but bought products such as eggs, grain, pecans, and seed from their farmer members.

Buyers classified as "other" included livestock companies, grain elevators, trailer parks, oil dealerships, service stations, and similar businesses.

Structure of the Business Organization

When pecan buyers were classified according to type of ownership, 70 per cent were single proprietorships, 17 per cent were partnerships, 9 per cent were private corporations, and 3 per cent were cooperatives. Of the 15 shellers and processors, 5 were incorporated, 7 were single proprietorships, and 3 were partnerships. The 24 major accumulators who reported average gross sales of more than one-fourth million dollars per year were mostly single proprietorships, with 30 of the 48 buyers being in this class.

Only 23 buyers indicated that a change had been made in ownership structure since formation of the business. Seven buyers gave family considerations as the cause of change and five named personnel changes. Four buyers said tax benefits was the reason for change and five indicated an ownership transfer. Family considerations involved a son or a brother becoming a partner in the business, or when several members of the family became involved, a corporation was sometimes formed. Personnel changes were usually caused by death or retirement. Ownership transfer and tax benefits were the only other reasons given for a change.

Length of Time in the Pecan Business

Buyers reported an average of 18 years' experience. Nineteen per cent had been in business less than 5 years, but 22 per cent had been operating more than 30 years. The youngest business was only a year old, and the oldest had been in operation for 68 years. All shellers and processors had been in business more than 15 years, Table 4.

	Buyers reporting							
Years in business	Sheller and processor		Minor accumu- lator	Trucker	Com- mission buyer	Other	Total¹	
	No.	No.	No.	No.	No.	No.	No.	
Under 5	. 0	3	11	1	3	3	21	
5-9	. 0	3	8	3	2	0	16	
10-14	0	2	3	4	3	0	12	
15-19	. 2	1	5	1	1	0	10	
20-24	. 3	6	2	- 1	0	0	12	
25-29	4	3	5	3	0	1	16	
30 and over	. 5	5	12	3	0	0 -	25	

Table 4. Number of Each Type of Pecan Buyer, By Years in Business, Alabama, 1965

Relation to Other Firms and Number of Business Units

Six buyers indicated an ownership relation to other firms—four were cooperative affiliates and two were branches of larger corporations. All of the cooperative affiliates were commission buyers. The two associated with larger corporations were shellers and processors. The remaining 111 pecan buying firms were independently owned and operated.

Only three buyers had more than one place of business. One minor accumulator had two business locations, a sheller and processor had four, and one sheller and processor reported eight units. The minor accumulator's two places of business were in the State, whereas the sheller and processor had one unit in the State and the others outside Alabama. Several other buyers had representatives in Alabama buying on commission, but these were not classed as separate business units since the commission buyers owned facilities at the buying locations.

Volume of Business

The 1964 pecan crop in Alabama was 12.5 million pounds. This was approximately 20 per cent of the record 1963 crop of 61 million pounds and less than half the average annual production since 1956. Thus, response from buyers to many questions discussed were affected by the small crop.

Average gross sales and average pecan sales for 1964 were computed to indicate volume of business for the different classes of buyers. The percentage that pecan sales were of gross sales showed the relative importance of the pecan enterprise to total

¹ Five of the 117 buyers did not state number of years in business.

Type of buyer	Average gross sales	Average pecan sales	Percentage pecan sales to gross sales
	Dol.	Dol.	Pct.
Sheller and processor ¹	356,000	312,000	. 88
Major accumulator	329,000	124,000	38
Minor accumulator	247,000	6,000	2
Trucker	10,000	6,000	60 ′
Commission buyer	650,000	$33,000^{2}$	5
Other	22,000	11,000	50

Table 5. Average Gross Sales and Average Pecan Sales of Each Type of Buyer, Alabama, 1964

business. Commission buyers had the largest gross sales, an estimated average of \$650,000 per firm. Truckers had the smallest gross, averaging \$10,000 sales. Pecan sales by shellers and processors averaged \$312,000 per firm, or 88 per cent of gross sales. Pecan sales by minor accumulators, on the other hand, averaged \$5,800 per firm and accounted for only 2 per cent of the gross, Table 5.

Quantity of Pecans Purchased in 1964

One-fourth of all pecan buyers bought less than 20,000 pounds of pecans in 1964. Purchases of less than 50,000 pounds were reported by half the buyers. All shellers and processors reporting bought more than 100,000 pounds, and four of them made purchases exceeding a million pounds. No trucker bought as much

Table 6. Number of	Each Type of Pecan Buyer, 1	BY QUANTITY OF PECANS
	Purchased, Alabama, 1964	
	· · · · · · · · · · · · · · · · · · ·	

	Buyers reporting							
Pounds of pecans purchased	Sheller and processor	Major accumu- lator	Minor accumu- lator	Trucker	Com- mission buyer	Other	Total	
	No.	No.	No.	No.	No.	No.	No.	
0- 9,999	. 0	0	13	4	0	1	18	
10,000- 19,999	. 0	0	7	1	2	1	11	
20,000- 49,999	. 0	1	17	5	3	2	28	
50,000- 99,999	. 0	0	5	2	2	0	9	
100,000-499,999	. 7	15	3	0	1	0	26	
500,000-999,999	. 1	6	0	0	0	0	7	
1,000,000 and above	. 5	1	0	0	0	0	6	
Not available	_ 2	1	3	4	2	0	12	

¹ Includes only the Alabama sales of these firms, even if a branch of a national firm.

²Computed by allowing 1 cent per pound commission on each pound bought, and assuming an average price of all pecans handled as being 24 cents per pound. Several of the commission buyers were farmer cooperatives that did a large volume of business, which accounted for the small percentage of pecan sales to gross sales.

as 100,000 pounds, and only three minor accumulators exceeded 100,000 pounds. Volume purchased in 1964 was not reported by 10 per cent of the buyers, Table 6.

Employment Characteristics

Differences in number of full-time employees of the different types of pecan buying firms was summarized for the four seasons of the year. Since most pecans are marketed during fall and winter, firms buying a large quantity of pecans would need more workers during these seasons. Shellers and processors had almost 50 per cent more employees during the fall and winter than during spring and summer; major accumulators, 45 per cent more; and commission buyers, 37 per cent more, Table 7. Much of this increase in employment can be attributed to the pecan buying and processing operations, as pecans were a major enterprise in total business of these firms.

Average number of employees of truckers also showed some seasonal change, with about 40 per cent more employees hired during the fall and winter than in spring and summer months. The increased employment by truckers during the pecan buying season generally amounted to hiring a man to go along on their routes and help handle pecans.

Employment numbers of minor accumulators showed about a 10 per cent change between the fall and winter and spring and summer months. Firms in this class were generally farm supply stores, other types of retail stores, or farmers, and their employment was fairly constant throughout the year. Seasonal changes in employment for these firms were not likely a result of their pecan business.

Table 7. Average Number of Employees of Each Type of Buying Firm, by Season of Year, Alabama, 1964¹

Type of buyer	Employees per firm						
Type of buyer =	Fall	Winter	Spring	Summer			
	No.	No.	No.	No.			
Sheller and processor	37.4	37.1	19.9	18.4			
Major accumulator	5.2	6.8	3.3	3.3			
Minor accumulator	5.0	4.5	4.0	4.5			
Trucker	1.4	1.4	1.0	1.0			
Commission buyer	7.7	7.3	4.8	4.7			
Other	2.3	2.3	2.0	2.0			

¹ Firms not supplying employment information were not included in the averages shown in this table.

Shellers and processors had the largest average number of workers per firm during fall and winter, 37.3 per firm. Commission buyers employed an average of 7.5 workers during these same periods, and major accumulators averaged 6.0 per firm.

PROCUREMENT PRACTICES OF PECAN BUYERS

Pecan buying practices studied included source of pecans, varieties preferred by buyers, types of grading systems used, determination of buying price, and services provided growers. Also studied were method of financing the pecan buying enterprise, distances and areas from which pecans were bought, and procurement problems encountered by the buying firms.

Sources of Pecans

Shellers and processors usually bought pecans from two major sources—growers who delivered to the sheller or processor's plant and accumulators, Table 8. Most of the accumulators selling to shellers and processors were classed as major accumulators. They assembled large volumes and could supply firms a large portion of their needs at any one time. Shellers and processors who bought from growers handled a smaller volume than those who mainly depended on accumulators for their supply.

Major accumulators bought mainly from growers at the accumulator's place of business and from truckers. Some pecans were purchased from minor accumulators. Of the 24 major accumulators, 10 bought more than 80 per cent of their supplies from growers at the accumulator's place of business and 6 bought 40 to 79 per cent of their pecans from this source. Several major accumulators who had commission buyers and minor accumulators buying for them at various locations in the State considered buying sites as their place of business. Commission buyers and minor accumulators who bought at these sites for major accumulators also considered the buying location as their plant. Therefore, reported sources of pecans are correct from the different buyers' point of view, but do not indicate correctly the source of pecans for all buyers involved.

Minor accumulators purchased pecans almost entirely from growers at the accumulator's place of business, and did not usually buy from truckers or other minor accumulators. Of a total of

Table 8. Number of Each Type of Pecan Buyer, by Percentage of Volume Purchased at Specified Locations, Alabama, 1964

	Buy	ers report	ing, by pe	ercentage	e of total	purchas	ses
Buyer and location of purchase	80-100 pct.	60-79 pct.	40-59 pct.	20-39 pct.	Under 20 pct.	None	Not avail- able
	No.	No.	No.	No.	No.	No.	No.
Shellers and processors	5						
Growers at plant		1	2	0	3	2	3
Growers at farm		0	0	0	1	9	4
Truckers		0	0	$\frac{2}{0}$	$\frac{1}{1}$. 8 11	$\frac{4}{3}$
Own grove Major and minor	0	U	U	U	1	11	3
accumulators	5	0	1	2	0	4	3
				_	v	-	J
Major accumulators	10	3	3	3	4	0	1
Growers at plant		3 1	0	0	4	18	i
Truckers		5	ĭ	2	2	12	i
Own grove	_	ŏ	Ô	õ	$\frac{2}{2}$	$\frac{12}{21}$	î
Minor accumulators		ĭ	ĭ	ĭ	$\bar{2}$	$\overline{18}$	î
Minor accumulators							
Growers at plant	41	0	3	1	0	2	1
Growers at farm		ĭ	2	$\frac{1}{2}$	ĭ	39	i
Truckers		ō	ĩ	õ	î	45	î
Own grove	-	ŏ	o o	ŏ	$\tilde{3}$	$\overline{44}$	ī
Other minor	. 0	Ü					
accumulators	. 0	0	0	0 -	. 0	47	1
Truckers							
Growers at plant	. 0	0	0	1	0	13	2
Growers at farm		ĭ	Ō	0	0	0	2
Other truckers		0	0	0	0	14	2
Own grove	. 0	0	0	0	0	14	2 2 2 2 2
Minor accumulators	. 0	0	0	0	0	14	2
Commission buyers							
Growers at plant	. 6	1	0	0	1	0	2
Growers at farm		0	1	0	0	7	2
Truckers	. 1	0	0	0	0	7	2 2 2 2
Own grove	. 0	0	0	0	0	8	2
Major and minor	•			0	0		2
accumulators	. 0	0	0	0	· 0	8	2
Other				3			
Growers at plant	. 1	0	0	0	0	2	1
Growers at farm		0	0	0	0	2	1
Truckers		0	0	0	0	3	1
Own grove		0	0	0	0	3	1
Accumulators	_ 1	0	0	0	0	2	1

48 minor accumulators, 41 bought more than 80 per cent of their pecans from growers at the buyer's place of business.

Truckers bought almost exclusively from growers at the grower's farm. Of 16 truckers surveyed, 13 bought all from this source. Truckers generally bought from certain producers annually. Com-

mission buyers bought most of their pecans from growers at the commission buyer's place of business.

A USDA study in 1960 showed that growers with small quantities of pecans sold to the nearest buyer. Growers with large quantities were able to attract buyers to their farms and bargain for price. The largest growers usually sold directly to shellers.³

Varieties of Pecans Preferred by Buyers

Buyers who indicated a variety preference generally preferred either Stuarts or seedlings. Most of these buyers said the two varieties were of higher quality from year to year than others produced in Alabama. A large number of buyers stated no choice, largely because they made the same margin of profit regardless of variety handled.

Type of Grading Systems Used

Systems used by buyers in determining the grade of a pecan were classed as private grade, federal grade, and no grade at all. Of the 117 buyers, 87 said no grading system was used, 29 used a private system, and one buyer used the federal grading system. Buyers who did not grade their purchases formally usually looked at the pecans, felt their weight versus a specified volume, and maybe cracked a few of the nuts. Buyers attempted to determine nut quality usually by filling a certain size sack and weighing it.

Where a private grade was used, some buyers purchased pecans on the basis of percentage meat yield, color grade, and moisture content. Prices paid decreased as percentage meat yield declined. The federal grading system was used by only one buyer contacted, a sheller and processor.

Determination of Buying Price

One marketing problem of buyers was determining the price to pay for pecans purchased on any given day during the buying season. Communication among various buying firms in the industry was often inefficient and incorrect information was received. Most buyers determined the buying price by securing a

³ McElroy, R. C. and J. V. Powell. 1963. Economic Aspects of Pecan Production and Marketing: Arkansas, Florida, Georgia, Mississippi, New Mexico, and South Carolina. ERS, U.S. Dept. of Agr. Rept. 41, p. 14.

quoted price, usually daily, from the firm or firms to whom the pecans were to be resold. The quoted price was generally a guaranteed amount. Thus, the first buyer knew the price for which he could resell the pecans and adjusted his buying price accordingly. Buyers generally tried to make a mark-up of 1 to 5 cents per pound on pecans handled. The exact amount usually depended on competition among buyers in the particular area. Should buying price change during a day, the firm or firms who bought pecans from a first buyer would inform him of the change. The first buyer would then adjust his buying price accordingly.

In determining buying prices 16 buyers used various market reports, such as the *Pecan Report* by the Fruit and Vegetable Division of the Agricultural Marketing Service.⁴ However, such reports were usually regarded by buyers as secondary information. Contact with other buyers was the primary source of information in determining daily prices paid.

Seven buyers who bought on commission for a large handler determined buying price by using a graduated scale, which was established on a percentage meat yield basis, coupled with color. Prices were paid accordingly, depending on the market price for pecans at that particular time.

Price offered at the beginning of a buying season was mostly an estimate established by shellers and processors based on information received by these firms before the buying season started. This information was received in the form of production forecasts, reports from pecan brokers, and cold storage reports. As the market situation became clearer, shellers and processors adjusted the beginning price estimation accordingly.

Services Provided Growers

Some services and supplies were provided growers by buyers in an effort to encourage the growers to sell to a particular buyer. Transportation was the major service, and it was provided by one-third of the buyers. This involved transporting pecans from a producer's farm to a buyer's place of business. Production and market information was supplied by 27 per cent of the buyers,

⁴ The *Pecan Report* is published semi-weekly from October 15 to December 31 from the offices of the Federal-State Marketing News Services, Albany, Georgia, and Baton Rouge, Louisiana.

		Buyers reporting							
Service provided	Sheller and processor	Major accumu- lator	Minor accumu- lator	Trucker	Com- mission buyer	Other	Total		
	No.	No.	No.	No.	No.	No.	No.		
Information	. 5	10	12	0	5	0	32		
Supplies	. 3	4	24	0	6	0	37		
Credit	. 0	0	8	0	2	0	10		
Transportation	. 3	7	11	16	1	1	39		
None	_ 7	9	18	0	2	3	39		

Table 9. Number of Each Type of Pecan Buyer, by Service Provided to Growers, Alabama, 1964

and 8 per cent provided credit to growers. One-third of the buyers provided no pecan marketing services to growers, Table 9.

Buyers also provided certain custom work to growers. Of the 20 reporting such service, 4 shelled pecans, 2 processed pecans, and 14 cracked pecans. Average cost to growers for shelling was 16 cents per pound, paid for on a percentage meat yield basis. Processing costs averaged 2 cents per pound, and involved polishing, waxing, cleaning, dyeing, and bleaching in-shell pecans. Average cost of cracking was 5 cents per pound.

Procurement Problems

The major procurement problem named by buyers was competition among themselves, Table 10. Because of the small pecan crop in 1964 buyers were probably more aware of competitive pressures than in other years. Where competition was strong among buyers, the grower benefitted by receiving a higher price for pecans. Availability of market outlets with satisfactory prices

Table 10.	Number of	OF	Еасн	Type	OF	PECAN	BUYER,	BY	Specified	PROCUREMEN'	т
			Pr	OBLEM	1S,	ALABAI	ма, 196	34			

			Buyers	reportii	ng		-
Procurement problem	Sheller and processor	Major accumu- lator	Minor accumu- lator	Trucker	Com- r mission buyer	Other	Total
	No.	No.	No.	No.	No.	No.	No.
Competition Labor Market outlets Price relative	. 0	18 6 9	36 4 10	$\begin{array}{c} 15 \\ 0 \\ 4 \end{array}$	5 1 0	$\begin{array}{c} 3 \\ 0 \\ 1 \end{array}$	87 11 30
to qualitySupply relative	. 3	1	1	0	0	0	5
to capacity Operating capital None listed	. • 0	0 0 3	0 3 10	0 3 1	0 0 5	0 1 1	$\begin{array}{c} 1\\7\\25\end{array}$

also was viewed as a problem with 30 buyers naming this as a barrier to their operation.

Other problems listed, in terms of number of buyers listing, were labor supplies, operating capital, price of pecans relative to their quality, and supply of pecans relative to the capacity of the buyer to handle the nuts.

Supply Areas

Most minor accumulators and all buyers in the "other" category bought more than 80 per cent of their pecan supplies in the county where their businesses were located, Table 11. However, no sheller or processor bought as much as 80 per cent of his purchases within the county. Because of the large volume required by the shelling and processing firms, they went outside the county for part of their supply. Generally, shellers and processors, along with major accumulators and truckers, could not give specific information relating to source of pecans. Buyers in this group, especially shellers, processors, and major accumulators, were

Table 11. Number of Each Type of Pecan Buyer, by Percentage of Pecans Purchased Within County, Alabama, 1964

	Buyers reporting								
Percentage bought in county	Sheller and processor		Minor accumu- lator	Trucker	Com- r mission buyer	Other	Total		
	No.	No.	No.	No.	No.	No.	No.		
80-100	0	5	30	5	5	4	49		
60- 79	. 2	4	6	0	1	0	13		
40- 59	. 3	0	0	1	0	0	4		
20- 39	. 0	2	1	0	0	0	3		
Under 20	. 3	2	2	3	0	0	10		
Not available	77	11	9	7	. 4	0	38		

Table 12. Number of Each Type of Pecan Buyer, by Percentage of Pecans Purchased Within State, Alabama, 1964

			Buyers	reportin	ıg		
Percentage bought in State	Sheller and processor		Minor accumu- lator	Trucker	Com- mission buyer	Other	Total
	No.	No.	No.	No.	No.	No.	No.
80-100	6	17	42	11	7	4	87
60- 79	3	2	2	0 .	0	0	7
40- 59	2	1	0	1	0	0	4
20- 39	. 0	0	0	0	0	0	0
Under 20	. 1	0	1	2	0	0	4
Not available	. 3	4	3	2	3	0	15

often secondary buyers and did not know the original source of the pecans. Most truckers did not know the specific production area of pecans purchased. Some bought in several different counties in the course of a single day during the buying season.

A majority of all types of buyers, except shellers and processors, purchased all their pecans within Alabama, Table 12. Six shellers and processors bought all their supply in the State. For some buyers, the pecan business is strictly a local operation. Sixty-one buyers bought more than 80 per cent of their pecans within 25 miles of their place of business, Table 13.

Table 13. Number of Each Type of Pecan Buyer, by Percentage of Pecans Purchased Within 25 Miles of Buyer, Alabama, 1964

	Buyers reporting								
Percentage bought within 25 miles	Sheller and processor	Major accumu- lator	Minor accumu- lator	Com- Trucker mission buyer		Other	Total		
	No.	No.	No.	No.	No.	No.	No.		
80-100	. 0	8	38	6	6	3	61		
60- 79	. 1	0	1	0	0	0	2		
40- 59	. 0	1	0	0	0	0	1		
20- 39	. 0	0	1	0	0	0	1		
Under 20	_ 2	2	1	4	0	0	9		
Not available	12	13	7	6	4	1	43		

Financing Buying Operations

Buyers in the study either used their own capital or capital supplied by the firm for which they purchased pecans. Commission buyers were authorized by the employing firm to write checks on the company for the amount of each purchase.

According to buyers, most firms providing their own capital had no trouble borrowing money from lending agencies for financing the pecan buying business. Firms generally resold the pecans within a short time; thus, the turnover in cash occurred rapidly and only small loans were necessary. Some buyers reported borrowing a sum of money at beginning of the pecan season to be repaid at the close of the season. These loans were required for about a 3-month period.

PECAN HANDLING OPERATIONS

The amount of pecans bought daily varied among buyers. Onethird of all buyers reported unlimited buying capacities, or handling capacities they had never reached. Dealers with a buying capacity of less than 10,000 pounds per day made up 18 per cent of the buyers contacted. Twenty per cent did not know their buying capacity, had never reached it, or would not give the limit.

During the marketing season for the 1964 crop, the major factor limiting operations of pecan buyers was availability of pecans. This limitation was named by 67 buyers. Other limiting factors, in order of number of buyers listing, were capacity of processing equipment, market, labor, storage facilities, and finances. Truckers considered truck capacity for transporting purchases to various buyers as being a machinery limit. A lack of market outlets was the limiting factor for some buyers. These buyers knew how many pecans they could sell and limited volume accordingly. This practice applied mainly to shellers and processors, although this factor limited some minor and major accumulators and truckers. Many buyers viewed availability of pecans as the limiting factor in their operations.

Major limiting factors by type of buyer were: sheller and processor, market outlets and availability of pecans; major accumulator, availability of pecans; minor accumulator, availability of pecans; trucker, machinery (capacity of hauling truck) and availability of pecans; commission buyer, availability of pecans and machinery; and "other" buyers, market outlets.

Estimated Percentage of Capacity Used in 1964

Shellers and processors interviewed had operated nearer to full capacity during 1964 than had other types of pecan buyers. Nine of 15 shellers and processors who supplied information on percentage of capacity operated at 57 and 46 per cent of capacity during fall and winter months, respectively. Operations fell to 36 per cent in spring and to only 22 per cent during the summer. Shellers and processors were the only firms contacted who were operating during the spring and summer months. Because many of these firms store pecans, they were able to continue processing operations throughout the year. Also, since the 1963 crop was unusually large, storage holdings were probably large in 1964.

Fourteen major accumulators operated at an average of 14 per cent of capacity during fall months and 27 per cent in winter. Likewise, minor accumulators and truckers who supplied information operated at low percentages of capacity during these months.

Storage of Pecans

An important factor in realizing a profit for some pecan buyers involved storage operations. Twenty buyers stored some pecans: 12 shellers and processors, 3 major accumulators, 2 minor accumulators, and 3 buyers in the "other" category. Commission buyers and truckers did not store pecans. Of the 20 buyers storing pecans, 7 stored only in-shell nuts, 9 both in-shell and shelled nuts, and 4 only shelled pecans. Most buyers used cold storage facilities for their storage operations, especially if the pecans were to be stored for long periods and if they were shelled. If only short periods of storage were needed, common storage facilities were generally utilized. However, buyers usually did not consider the holding of pecans for 2 or 3 weeks as storage operations.

In general, buyers were reluctant to supply information on storage operations. This reluctance stemmed from the fact that information concerning the quantity and quality of pecans in storage may affect market price for pecans, as this may be a significant portion of the total supply. Most shelled pecans were stored for longer than 6 months, as were most in-shell pecans, Table 14. Only three buyers stored in-shell pecans for periods under 6 months, and only three stored shelled pecans for less than 6 months.

Table 14. Number of Buyers Having Stored Pecans, by Type of Facilities Used and Length of Storage, Alabama, 1965

	Buyers reporting storage								
_	In-shel	l pecans	Shelled pecans						
Type of storage	Less than 6 months	Longer than 6 months	Less than 6 months	Longer than 6 months					
	No.	No.	No.	No.					
Cold storage	2 1	9 1	3 0	10 0					

Buyers who were willing to divulge information about pecans in storage had 4.75 million pounds of in-shell pecans and 0.3 million pounds of shelled pecans in storage as of August 1, 1965. These figures included only pecans held in storage by Alabama pecan buyers.

Production and Marketing Adjustments Desired by Pecan Buyers

Buyers were asked if they desired to comment on desired changes in the marketing structure and in pecan production in Alabama. Forty-two suggested changes in production practices of pecan growers, with a large majority stating a need for better cultural practices, such as spraying for insect and disease control and fertilizing according to soil test, in caring for orchards.

Thirty-one buyers suggested adjustments in the marketing structure for pecans. Over half of these said a uniform grading and pricing system was a major market need of the industry. Many problems occurring in the marketing process were believed by buyers to be caused by severe price fluctuations and an absence of uniformity in grading pecans. The buyers also called for more production information (including recommended cultural practices and production forecasts) to be made available to all buyers, and scales used by buyers to be inspected periodically by either State or federal inspectors.

More advertising is needed to help increase demand for pecans, according to buyers, and they said farmers need to be aware of qualities and varieties of pecans preferred by buyers. The buyers also suggested that farmers pool pecans to ensure equitable prices for their product, and said selling of inferior pecans should be prevented. One buyer recommended that pecans be marketed on a shed in similar fashion to Irish potatoes, with a State or federal inspector to determine grades. Other buyers proposed that once a uniform grading system for pecans had been achieved, a publication listing prices by grades for different markets and dates should be published by a State or federal agency. Another suggestion involved establishment of a minimum grade, so that no pecans containing more than a certain percentage of inedible nuts could be sold.

SUMMARY AND CONCLUSIONS

Major purposes of this study were to describe procurement practices and identify marketing problems of pecan buyers in Alabama. Data were obtained during the summer of 1965 from personal interviews with 117 pecan buyers in Alabama. Production is concentrated in 25 southernmost counties in the State that comprise the commercial pecan-producing area, and 100 of the buyers surveyed were located in this area.

Pecan buyers were classified into six categories — sheller and processor, major accumulator, minor accumulator, trucker, commission buyer, and other. About one-fourth of the buyers received

a majority of their gross income from the pecan business. Shellers and processors, major accumulators, and buyers in the "other" category accounted for 26 of 32 buyers that were listed as being primarily in the pecan business.

Varieties preferred by buyers were generally Stuarts and seedlings. Buyers reported that these were of higher quality from year to year than other varieties produced in the State. Seventyfour per cent of the buyers used no formal grading system for pecans. Prices paid for nuts were determined primarily from contact with other buyers, with shellers and processors generally serving as an agency for establishing prices.

Services provided growers by buyers included transportation of pecans from grower's farm to buying sites, information on cultural practices and price of pecans, certain farm supplies, and custom cracking and shelling.

Shellers and processors usually bought pecans from two major sources—growers who delivered to the sheller or processor's plant and accumulators. Shellers and processors who purchased from growers generally were smaller firms than those naming accumulators as their source. Major accumulators bought mainly from growers at the accumulator's place of business and from truckers. Minor accumulators bought almost entirely from growers at the accumulator's place of business, with only a small percentage of pecans being purchased at the grower's farm. Truckers depended almost exclusively on growers as a source of supply. Commission buyers purchased most of their pecans from growers at the commission buyer's place of business.

Only 20 buyers, the majority of which were shellers and processors, stored pecans. Most storage was for periods longer than 6 months.

Major problems in procurement, as expressed by Alabama pecan buyers, were: inadequate supplies of pecans; strong competition among buyers, which resulted in smaller profit margins; and inadequate labor supplies, because of seasonal labor needs. Lack of uniformity in grading procedures was recognized as a serious marketing problem. The major marketing adjustment suggested by buyers was the need to establish a uniform grading and pricing system for the industry. Primary production adjustments suggested by buyers for quality and yield improvement were more spraying to control insects and disease and fertilizing orchards according to soil tests.

AGRICULTURAL EXPERIMENT STATION SYSTEM OF ALABAMA'S LAND-GRANT UNIVERSITY

With an agricultural research unit in every major soil area, Auburn University serves the needs of field crop, livestock, forestry, and horticultural producers in each region in Alabama. Every citizen of the State has a stake in this research program, since any advantage from new and more economical ways of producing and handling farm products directly benefits the consuming public.



Research Unit Identification

Main Agricultural Experiment Station, Auburn.

- Tennessee Valley Substation, Belle Mina.
 Sand Mountain Substation, Crossville.
 North Alabama Horticulture Substation, Cullman.
- 4. Upper Coastal Plain Substation, Winfield. 5. Alexandria Experiment Field, Alexandria.
- 6. Forestry Unit, Fayette County.
- 7. Thorsby Foundation Seed Stocks Farm, Thorsby.
- 8. Chilton Area Horticulture Substation, Clanton.
- 9. Forestry Unit, Coosa County.

- Forestry Unit, Coosa County.
 Piedmont Substation, Camp Hill.
 Plant Breeding Unit, Tallassee.
 Forestry Unit, Autauga County.
 Prattville Experiment Field, Prattville.
 Black Belt Substation, Marion Junction.
 Tuskegee Experiment Field, Tuskegee.
 Lower Coastal Plain Substation, Camden.
 Forestry Unit, Barbour County.
 Monroeville Experiment Field, Monroeville.
 Wirearass Substation Headland.

- Wiregrass Substation, Headland.
 Brewton Experiment Field, Brewton.
 Ornamental Horticulture Field Station, Spring Hill.
- 22. Gulf Coast Substation, Fairhope.