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Marketing Channels and Sources of Price Information for Tennessee Farmers

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I. INTRODUCTION

The market system for farm products is composed of a series of channels and pricing points through which products move from producers to consumers. In the course of this movement, marketing services are added, values are determined for the products and their attached marketing services, and transfers of ownership occur.

Price discovery is one of the most crucial functions of the market system. The values that are generated guide resource allocation, income distribution, and distribution of the final product. Changes have occurred, however, in the structures and functions of the markets in which these prices are generated. These changes include reduced volumes of sales through traditional central and auction markets, more direct sales by producers to first buyers, increases in central purchasing by retail chain-store firms of specified products and volumes at regularly scheduled intervals, and increases in vertical integration downward by retailers and upward by farmers.

In any case, accurate and timely price information is required for the marketing system to be efficient in coordinating activities of producers and marketing firms with consumer demands. And so, research was undertaken to assess the impact of changes in the market system on price discovery and information systems for commodities important to Tennessee agriculture. This report contains results of work done to identify and describe marketing channels, price discovery systems, and sources of market information for primary farm producers. A subsequent report deals with results of a survey made of the first buyers with whom the primary producers deal.

II. PROCEDURE

A survey of primary producers was made to obtain information on outlets and marketing channels for major commodities. The producers covered were chosen in the following manner. Lists were made of the counties which accounted for 90% of the cotton, soybeans, and tobacco produced in Tennessee in 1976.[1] These three commodities were used as the basis for selecting producers for interview because: 1) they were the three leading cash crops in Tennessee in 1976; 2) the combined list of counties accounting for 90% of the output of the three products included counties from all parts of the state; and 3) the counties on the list also accounted for 71.3 and 71.5%, respectively, of the beef cow and hog inventories in the state in early 1976. These lists were then merged into one, so that each county appeared only once on the combined list. The 57 counties so identified were then delineated on a state map. At random, one county was selected as a starting point, then 28 additional counties were selected by taking those that were adjacent to each other on no more than two sizes. Figure 1 shows the counties selected in this manner. Next, a list of U. S. Postal Service zip codes by counties was obtained from the Tennessee Crop Reporting Service. For each of the 29 counties, the zip code for the central area of the county was identified. On the basis of these selections, the Tennessee Crop Reporting Service provided names and addresses of 32 farm operators receiving mail in the indicated zip code areas in each county. Beginning with the first name on each zip code list an average of 14 producers were selected

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[1]Tennessee Crop Reporting Service, Tennessee Agricultural Statistics: Annual Bulletin, T-14, Nashville, September, 1977.

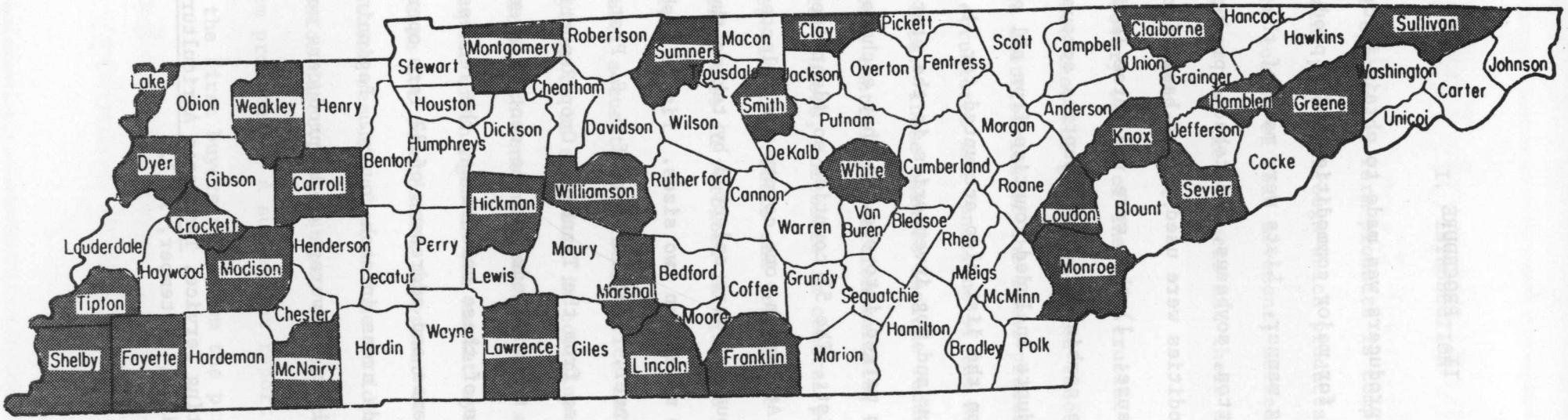

Figure 1. Tennessee Survey Counties, 1978.

Survey Counties

Nonsurvey Counties

from each county, with a total 405 schedules taken across the state. The aim was a systematic pattern that would be representative of the major agricultural producing areas of the state. Finally, because the survey focused on commercial agriculture in the state, the average size of farm and average sales of products were greater than the averages reported by the U. S. Census of Agriculture.

Table 1 summarizes the major characteristics of the farms covered in the survey. Of the schedules taken, 113, 155, and 137, respectively, were from producers located in East, Middle, and West Tennessee. The figures in parentheses in the table give the numbers of responses to survey questions regarding the indicated characteristics. Differences in the numbers of responses reflect applicability and willingness to provide the specific items of information requested.

In East Tennessee, tobacco was the most frequently cited source of cash farm income (80 of 116 responding), while cattle (51 of 116) was the most frequently cited source of income from livestock. Tobacco was also the most frequently mentioned crop source of cash income in Middle Tennessee (67 of 154 responding), and sales of calves were the most frequently reported source of income from livestock enterprises (73 of 154 responding). In West Tennessee, 121 of 136 producers reported sales of soybeans. Cotton was the next most frequently mentioned crop. Among the livestock enterprises, cattle and hogs were reported by 18 and 15 respondents, respectively.

III. MARKET OUTLETS AND PRICES

Soybeans

One hundred and fifty-five producers reported selling soybeans produced in 1977. The average amount sold was 9,453 bushels. Forty-two of

Table 1. Characteristics of Farms Surveyed, East, Middle, and West Tennessee, and Totals for the State

	East Tennessee		Middle Tennessee		West Tennessee		All Tennessee	
	N[a]	Average	N	Average	N	Average	N	Average
A. General information								
1. Years farmed	113	30.5	155	28.3	157	22.1	405	26.8
2. Acres operated in 1977	116	145.0	154	193.5	136	726.0	406	357.0
3. Acres cropland harvested	67	59.0	110	95.0	136	580.0	313	298.0
4. Acres cropland idle/failed	4	23.3	14	26.0	7	119.3	25	51.7
5. Acres cropland rented	7	48.4	14	260.0	105	493.8	126	443.1
6. Acres cropland owned	73	69.8	121	92.7	70	137.9	264	98.4
7. Acres pasture rented	18	88.1	9	292.1	18	126.1	45	144.2
8. Acres woodland owned	74	25.2	67	56.8	46	135.5	187	63.7
B. Major crops sales - 1977								
1. Soybeans (bu.)	5	2,020	29	9,566	121	11,393	155	9,453
2. Tobacco (lb.)	80	3,344	67	6,600	1	2,000	148	4,850
3. Cotton (lb.)	0	--	1	11,500	53	58,762	54	99,389
4. Corn (bu.)	7	2,744	12	3,368	23	10,321	42	7,072
5. Wheat (bu.)	3	513	8	1,741	23	6,563	34	4,895
C. Major livestock sales - 1977								
1. Cattle (head)	51	27	34	54	18	173	103	62
2. Calves (head)	25	25	73	21	1	15	99	22
3. Hogs (head)	3	87	24	196	15	206	42	192
4. Feeder pigs (head)	3	450	17	82	3	371	23	168
5. Milk (cwt.)	18	9,283	16	5,809	0	--	34	7,649

[a]N = number of farmers responding to the indicated question.

them stored soybeans in off-farm facilities. The average amount stored by the 42 producers was 4,897 bushels. Storage costs average 7¢ a bushel from harvest time until the first of the year. Thereafter, storage costs averaged 3¢ per bushel per month. On farm storage by 40 producers averaged 6,734 bushels.

The major outlets to which producers reported selling were located in Memphis. Other reported outlets were located in Tiptonville, Greenback, Clarksville, Atwood, and Dyersburg. The distance of producers to primary or preferred buyers ranged from 14 to 24 miles. The distance to other buyers to whom they could have sold ranged from 25 to 31 miles. All producers reported selling their soybeans to grain elevators, except two, who sold to processors. All deliveries were made in trucks owned by producers.

The expressed market strategy of the producers was, as far as possible, to sell their crop at harvest time. Producers not contracting reported that their sales prices were based on market prices prevailing at the time deliveries were made. Fifty-six of the producers sold under written contracts. The contracts required delivery to the buyer and specified a #2 contract grade. Prices were determined on the basis of futures prices prevailing at the time that the contracts were made and were generally set about 50¢ below the November Chicago futures price. The average price received by all producers (contract and noncontract) for deliveries made in November, 1977, was $5.81 per bushel. The average price reported by producers who contracted was $7.00 a bushel. Finally, four producers reported receiving $6.18 a bushel for deliveries that were made in March, 1978.

Tobacco

One hundred and forty-eight producers reported selling tobacco produced in 1977. The average amount sold was 4,850 pounds. Two farmers had tobacco stored off the farm at the beginning of 1978. The main channels used by these producers were tobacco warehouses in Knoxville at which auctions were held. Other locations to which tobacco was delivered were Gallatin, Springfield, Sparta, and Greeneville.

The distance of producers to primary or preferred buyers ranged from 15 to 17 miles. The distance to markets at which they could have sold ranged from 20 to 33 miles. All sales were through auctions. The average price received for deliveries made in December, 1978, was $1.15 a pound. All prices were established by auction at the time of sale. All producers except two (who used hired vehicles) delivered their tobacco in their own trucks. The market strategy of the producers was to sell at harvest.

One producer reported selling all his tobacco under contract. Two sold through a cooperative and indicated that the affiliation was beneficial.

Cotton

Fifty-six producers reported selling an average amount of 95,896 pounds out of their 1977 crop. None reported any storage either on or off the farm.

Outlets to which producers sold were located in Memphis, Jackson, Milan, and Tiptonville. The distance of producers to primary or preferred buyers was 17 to 18 miles. The distance to other buyers ranged from 22 to 41 miles. All producers reported selling their cotton to either ginners or merchants. The average price received for deliveries made in November was 53.6¢ a pound for slm grade cotton. All prices received were the market

prices prevailing at the time of sale. The cotton, typically, was taken to market in trucks owned by buyers. As in the case of other commodities, the market strategy was to sell at harvest.

Two producers surveyed reported selling cotton under written contracts. The commodity had to be delivered to the buyer, and the specified contract grade was slm. Prices were determined on the basis of futures prices prevailing at the time the contract was made and were 4 to 6¢ below the December New York futures price.

Only one producer reported any hedging operations, and none reported affiliation with producer cooperatives.

Wheat

Forty-two producers sold an average amount of 4,895 bushels out of their 1977 crop. None reported any storage either on or off the farm.

Outlets to which wheat producers sold were located in Tiptonville, Dyersburg, Hickman, and Jackson. The distance of producers to primary or preferred buyers was 12 to 13 miles. The distance to other markets at which they could have sold was about 18 miles. All producers except one (who sold to a miller) reported selling to grain elevators. The average price received for deliveries made in June was $2.59 a bushel. Producers reported that their sales were based on market prices prevailing at the time that deliveries were made. All deliveries to market were made on producer owned trucks.

The market strategy reported was to sell at harvest.

Three producers reported selling their wheat under written contract. The commodity had to be delivered to the buyers and the specified contract grade was #1. Contract prices were linked to futures market quotations at

the time the contract was made and were 50 to 90¢ below the Chicago July futures price.

Only one producer sold through a cooperative and indicated that this affiliation was not deemed beneficial.

Corn

Forty-two producers sold an average amount of 7,072 bushels out of their 1977 crop. Three reported an average off-farm storage volume of 5,100 bushels at the beginning 1978, at an average cost of 4¢ a bushel from harvest until the first of the year. Nine reported an average on-farm storage volume of 10,033 bushels.

Outlets to which corn producers sold were local individuals and/or buyers in Jackson, McKenzie, Atwood, Martin, College Grove, and Red Bay, Alabama. The distance of producers to primary or preferred buyers ranged from 8 to 76 miles. The distance to other markets at which they could have sold ranged from 12 to 16 miles. All producers reported selling their corn to grain elevators, except three, who sold to processors. The average price received for deliveries in November was $2.36 a bushel for #2 corn. Producers reported that their sales were based on market prices prevailing at the time that deliveries were made. Also, deliveries to market were made mostly in trucks owned by producers with two reporting the use of hired trucks.

The market strategy used was to sell at harvest. Four producers reported selling their corn under contract--one oral and three written. The corn has to be delivered to the buyer, and contract grades were specified. Contract prices were linked to futures market quotations that

prevailed at the time of making the contract and were 35 to 45¢ below the December futures quotation.

One producer sold through a cooperative but did not deem the arrangement especially beneficial.

Cattle

One hundred and three producers reported selling an average of 62 head each in 1977. Outlets to which producers sold were located in Morristown, Knoxville, Lexington, Trenton, Spring Hill, Rogersville, Franklin, Kingsport, Columbia, Brownsville, Greeneville, New Tazewell, Dickson, Unionville, and Pulaski.

The range of distances of producers to primary or preferred buyers was 20 to 108 miles. The distance to other buyers to whom they could have sold ranged from 23 to 80 miles. All producers reported selling cattle through auctions at the indicated locations, except two who sold to other farmers. Additional sales were made directly to individuals and feed lots.

The average price received for stocker animals in the third quarter of 1977 was 34.7¢ per pound. All prices were those established by auctions on the dates of sale. Deliveries to market were made mostly in trucks owned by producers with two reporting that buyers picked up purchases with trucks that they owned.

The marketing strategies used were reported to be based either on a herd management plan, or, in other cases, on the maturity of the animals.

One producer who marketed through a cooperative was not satisfied with the arrangement.

Calves

Ninety-nine producers sold an average of 22 calves each in 1977. Outlets used were located in Franklin, Newport, Cookeville, Thompson Station, Pulaski, Spring Hill, Knoxville, Sevierville, New Tazewell, Kingsport, Fayetteville, Carthage, Columbia, Unionville, and Greeneville.

The range of distances of producers to primary or preferred buyers was 16 and 37 miles. The average distance to other markets at which the animals could be sold was 21 miles. All producers reported selling their calves through auctions at the indicated locations. The average price received for stocker calves sold throughout 1977 was 33¢ per pound. For those sold during the third quarter, the price was 38¢ a pound. Prices were those established at the auctions through which the calves were sold. Deliveries to the first market were made by producers in their own trucks.

Time of sale was determined by the maturity of the animals. Two producers marketed through a cooperative and reported that they considered the affiliation advantageous.

Hogs

Forty-two producers reported selling an average of 192 hogs each in 1977. Outlets to which they reported selling were located in Memphis, Lexington, McKenzie, Knoxville, Newbern, Columbia, Nashville, Union City, Hohenwald and Manchester.

The distance of producers to primary buyers ranged from 9 to 37 miles. The distance to alternative markets ranged from 12 to 29 miles. All producers reported selling through auctions at the indicated locations, except one, who sold directly to a packer. The average price reported for sales of top hogs throughout 1977 was 43¢ a pound. All reported that prices

paid were determined by auction market transactions. Producers delivered the animals to market in their own trucks, and time of sale was determined by the maturity of the animals.

Feeder Pigs

Twenty-three producers reported selling an average of 168 head each in 1977. These producers reported selling through outlets located in Cookeville, Carthage, Pulaski, and Albany, Kentucky. Distances from producers to primary market outlets ranged from 26 to 91 miles. No secondary alternative markets were reported. All transactions were made at auction markets, and producers reported receiving an avarage price of 36.1¢ a pound for #1 and #2 grade pigs. All pigs were transported to market in farmer owned vehicles. Finally, decisions on time of marketing were based on maturity of the animals.

Milk

Thirty-four dairymen in the survey reported selling an average of 764,882 pounds of milk each during 1977. Outlets to which producers sold were located in Greene, Knox, and McMinn counties.[2] The average distance between producers and the plants to which the milk was delivered was from 30 to 52 miles. The average distance to alternative markets was 31 miles.

Most producers marketed their milk through a large regional producers association. Three producers sold their milk to proprietary firms. The average price reported received through the year was $9.27 per hundred weight.

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[2]The sample did not happen to include milk producing counties located in Middle Tennessee.

IV. TYPES AND SOURCES OF MANAGERIAL INFORMATION

Information for Production Planning

Each producer controls a set of resources that can be combined in different ways and in different proportions to produce varying amounts of different outputs. When farm producers decide how to use these resources, they know approximately how much of each resource is needed to produce each alternative product.[3] In addition to this information, they also need to use two other sets of information as planning guides. The first set is the relative input prices--the prices of the resources used to produce the different outputs. The second is the relative product prices--the prices they expect to receive for the different products that can be produced from the resources that they manage.

The survey that was made sought to assess the perceived importance of these sets of information and related factors as influences in making production and marketing decisions.

Table 2 summarizes the responses of the producers in the survey to questions dealing with the perceived importance of factors affecting production planning decisions. Producers were presented with the list of factors given in Table 2 and were asked to indicate which among them were considered as important in affecting their decisions. Some producers who responded indicated only one factor; others indicated as many as four. The frequencies with which producers identified each factor were expressed as percentages of the total frequencies for each product and product group.

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[3]These data are also referred to as "input/output ratios."

Table 2. Perceived Importance of Factors Affecting Production Planning Decisions, Frequencies of Responses as Percent of Total Numbers of Responses for Each Product and Product Group

	Commodities and commodity groups												
	Soy-beans	Tobacco	Cot-ton	Wheat	Corn	Total crops	Cat-tle	Calves	Hogs	Feeder pigs	Milk	Total live-stock	Total all products
Total numbers of responses	417	222	150	49	95	933	185	102	72	45	119	523	1,456
	(percent of total numbers of responses for each commodity or commodity group)												
Input costs (fertilizer, feed, etc.)	17.7	12.2	15.3	20.4	22.1	16.6	17.8	11.8	4.2	8.9	12.6	12.8	15.2
Cash price when making plans	9.4	5.0	10.7	18.4	9.5	9.0	9.7	3.9	1.4	4.4	3.4	5.5	7.8
Invested capital in special-ized equipment	2.4	2.3	6.0	0.0	5.3	3.1	7.0	4.9	2.8	4.4	22.7	9.4	5.4
Futures market price when making plans	11.8	5.9	10.7	12.2	10.5	10.1	8.1	5.9	4.2	0.0	4.2	5.5	8.4
Special interest and experi-ence with the commodity	16.3	24.8	13.3	18.4	18.9	18.2	21.1	37.3	33.3	26.7	18.5	25.8	20.9
Expected cash price at harvest or marketing	17.7	28.4	12.7	14.3	14.7	19.0	17.8	25.5	30.6	31.1	16.0	21.8	20.0
Previous years cash price at harvest or marketing	12.7	15.8	8.7	14.3	7.4	12.3	8.1	4.9	19.4	17.8	10.9	10.5	11.9
Target price level for this product	2.4	1.8	3.3	0.0	2.1	2.3	2.7	1.0	0.0	2.2	0.8	1.5	20.0

Table 2 (continued)

	Commodities and commodity groups												
	Soy-beans	Tobacco	Cot-ton	Wheat	Corn	Total crops	Cat-tle	Calves	Hogs	Feeder pigs	Milk	Total live-stock	Total all products
Loan rate level for this product	1.4	0.9	5.3	0.0	1.1	1.8	0.5	0.0	1.4	0.0	1.7	0.8	1.4
Price of other products produced	2.6	1.4	6.0	0.0	2.1	2.7	2.2	2.0	0.0	2.2	0.0	1.3	2.2
Talk with other farmers	5.0	1.4	7.3	2.0	3.2	4.2	2.2	1.0	1.4	0.0	0.8	1.3	3.2
(Other)	0.5	0.5	0.7	0.0	3.2	0.8	2.7	2.0	1.4	2.2	8.4	3.6	1.8
Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Crops. Input costs was the factor most frequently cited by cotton, wheat, and corn farmers. For soybean producers, input costs and expected cash price at harvest were tied for most frequently mentioned factor. Tobacco growers cited expected cash price at harvest most frequently. For the five crops as a group, input costs were the third most frequently cited decision-making influence.

The most frequently cited factor for the five crops as a group was expected cash price at harvest. It was the most frequently cited factor for soybean (tied with input costs) and tobacco growers and the third most frequently cited by cotton, wheat, and corn producers. The second most frequently cited factor for the five crops as a group was special interest and experience with the commodity.

Previous year's cash price at harvest was fourth in frequency of citation, and futures price when making plans was fifth.

Animal products. Special interest and experience with the commodity was the most frequently cited factor for this commodity group. It was first with cattle, calf, and hog producers and second for feeder pig and milk producers. The most frequently cited factor for feeder pig producers was expected cash price at time of marketing, and dairymen cited invested capital in specialized equipment most frequently.

For the producers of the five animal products as a group, expected cash price at time of marketing was the second most frequently cited factor, while input costs was third, and previous year's price was fourth.

Sources of Market Price Information

Table 3 summarizes the responses of the farm operators in the survey to questions dealing with sources of information on cash prices at harvest and marketing time. Producers were presented with the list of sources given in Table 3 and were asked to indicate which among them were considered important sources of price information. Some producers who responded indicated only one source; others indicated as many as four. The frequencies with which producers identified each source were expressed as percentages of the total frequencies for each product and product group.

Crops. For all five crops as a group, farm magazine was the most frequently cited source of price information, and information from local buyers was a close second. The Progressive Farmer and the Farm Journal were the publications cited most frequently by crop producers as a group. Conversations with other farmers and radio programs were tied for third in frequency of citation, and newspaper articles was fourth.

Farm magazines was the most frequently cited source of price information for cotton and corn farmers, with the Farm Journal and the Progressive Farmer as the two leading sources. For tobacco growers, information from local buyers and conversations with other farmers were tied for first in frequency, with radio programs a close second. Wheat producers cited information from local buyers most frequently, and conversations with other farmers and radio programs were tied for second in frequency as sources of price information.

Animal products. For the five animal products as a group, radio programs was the most frequently cited source of price information, and conversations with other farmers and information from local buyers were virtually tied for second. Although fourth in frequency, farm magazines

Table 3. Perceived Importance of Sources of Price Information at Harvest and Marketing Time, Frequencies of Responses as Percent of Total Numbers of Responses for Each Product and Product Group

	Commodities and commodity groups												
	Soy-beans	Tobacco	Cot-ton	Wheat	Corn	Total crops	Cat-tle	Calves	Hogs	Feeder pigs	Milk	Total live-stock	Total all products
Total numbers of responses	631	293	179	66	147	1,316	223	279	107	55	84	748	2,064
	(percent of total numbers of responses for each commodity or commodity group)												
USDA publications	5.9	4.1	6.1	4.5	4.8	5.3	6.3	4.3	5.6	16.4	7.1	6.3	5.7
County agent	2.2	3.4	3.4	1.5	2.7	2.7	5.8	2.5	1.9	3.6	8.3	4.1	3.2
Futures price reports	9.0	2.7	8.9	10.6	6.8	7.4	4.0	1.8	5.6	1.8	7.1	3.6	6.1
Information from local buyers	11.9	22.2	11.7	21.2	15.0	15.0	14.8	20.8	21.5	18.2	6.0	17.2	15.8
Conversations with other farmers	10.8	22.2	11.7	15.2	15.0	14.1	16.6	19.7	16.8	14.5	14.3	17.4	15.3
Private newsletters (Kiplinger-Doane)	6.5	0.7	8.4	4.5	3.4	5.0	2.2	1.8	2.8	3.6	7.1	2.8	4.2
Radio programs	12.7	19.1	8.9	15.2	15.6	14.1	18.8	21.9	21.5	20.0	8.3	19.3	15.9
Forward cash contract prices	4.1	0.0	4.5	1.5	1.4	2.8	0.4	0.0	0.9	1.8	1.2	0.5	2.0
Newspaper articles	10.5	13.3	9.5	12.1	7.5	10.7	12.6	14.0	7.5	7.3	6.0	11.2	10.9
Conversations with commodity brokers	3.6	0.7	5.6	1.5	2.7	3.0	1.3	0.4	0.0	0.0	1.2	0.7	2.2

Table 3 (continued)

	Commodities and commodity groups												
	Soy-beans	Tobacco	Cot-ton	Wheat	Corn	Total crops	Cat-tle	Calves	Hogs	Feeder pigs	Milk	Total live-stock	Total all products
Farm magazines -													
Progressive Farmer	8.6	3.4	6.1	6.1	10.2	7.1	6.7	6.1	7.5	5.5	13.1	7.2	7.2
Farm Journal	7.9	2.7	7.8	4.5	8.8	6.7	4.9	4.7	4.7	3.6	6.0	4.8	6.0
Delta Farm Press	2.1	0.0	2.2	0.0	2.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	1.0
Farm Bureau News	0.0	1.7	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Tennessee Farmer	0.0	0.0	0.0	0.0	0.0	0.0	3.6	1.1	0.0	0.0	0.0	1.5	0.5
Successful Farmer	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.1	a
Hoard's Dairyman	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3	0.9	0.3
Total magazines	18.5	7.8	16.2	10.6	21.0	15.7	15.2	11.8	12.1	10.9	27.4	14.6	15.3
T.V. programs	4.3	2.4	5.0	1.5	4.1	3.8	1.8	1.1	3.7	1.8	0.0	1.6	3.0
Other	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	a
None used	0.0	1.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	5.9	0.7	0.4
Totals	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[a]Less than 0.1%.

were important sources of price information, with Progressive Farmer and Farm Journal as the most frequently cited publications. Newspaper articles were the fifth most frequently cited sources of price information for the producers of the five products as a group.

Cattle, calf, hog, and feeder pig producers cited radio programs most frequently as a source of price information. Information from local buyers was the second most frequently cited source for calf, hog, and feeder pig farmers; conversations with other farmers was the second in frequency for cattle producers and third for calf and hog producers. Farmers producing feeder pigs had the highest apparent use of USDA publications as a source of price information; this source was third in frequency of citation by them.

Milk producers cited farm management most frequently as sources of price information, with the Progressive Farmer, Hoard's Dairyman, and the Farm Journal in that order of frequency. Conversations with other farmers was second in frequency, and county agents and radio programs were tied for third.

Totals for 10 products. The last column of Table 3 shows the frequencies with which producers of all 10 products identified sources of price information as percentages of total frequencies for all sources. Based on these percentages, the order of use for each source was:

1. Radio programs.
2. Information from local buyers.
3. Conversations with other farmers. } tie
   Farm magazines. }
4. Newspaper articles.
5. Futures price reports.
6. USDA publications.

7. Private newsletters.

8. County agents.

9. Television programs.

10. Conversations with commodity brokers.

11. Forward cash contract prices.

The ordering suggests that timeliness of information was most important to respondents in the survey. Radio programs, information from local buyers, and conversations with other farmers ranked at the top. These three sources provide much information on daily price changes. Farm magazines--because of their publication schedules--provide medium run information; that is, what can be expected during the next several months. The next ranked source, newspaper articles, combines immediate and medium run price information.

In any case, these five sources accounted for 73% of the frequencies with which producers cited sources of price information.

Finally, county agents had low frequencies of citation as sources of price information. However, county extension offices are sources of information for material used in local radio programs and local newspaper articles. Similarly, USDA reports and publications are sources of material used by other media of communications.

V. SUMMARY AND CONCLUSIONS

This report presented results of a survey of 405 producers across Tennessee. Information was gathered regarding market outlets and prices, factors affecting production decisions, and sources of market price information. The data collected focused on five leading crops (soybeans, tobacco,

cotton, corn, and wheat) and five leading livestock products (cattle, calves, hogs, feeder pigs, and milk) produced in the state.

Both crop and livestock producers preferred using nearby market outlets. For crops, the objective was to sell the crop at harvest time. Price received for sales not under contract were based on market prices prevailing at the time deliveries were made. Some grain producers, notably soybean farmers, sold their products under contracts written prior to harvest. Prices received in these sales were based on futures market prices prevailing at the time that the contracts were made.

For livestock, the objective was to sell the animals according to a herd management plan that also took maturity and market readiness into account. Prices received for cattle, calves, hogs, and feeder pigs were established at the auction at which they were sold. In all cases, live animals were transported to market in producer owned trucks. Most milk producers sold their product through a large regional producers organization, with prices established under Federal Order market regulation.

For both crops and animal products as groups, the same three factors --input costs, expected cash prices, and special interest and/or experience with the commodity--emerged as important influences on production planning decisions, though not in the same order. However, the factor most frequently cited by dairymen was invested capital in specialized equipment.

In respect to sources of market information, the same three sources--farm magazines, radio, and conversations with other farmers--emerged as important for producers of both crop and animal products.

The implications for producers' information needs are these: Public and private information agencies should provide timely and detailed data on input costs, expected cash prices, and information useful in evaluating

attitudes regarding past experience and interest in producing specific commodities. Finally, the agencies should funnel the information as much as practicable through the media most used by producers, viz., radio, farm magazines, and leading farmers in the respective producing areas.