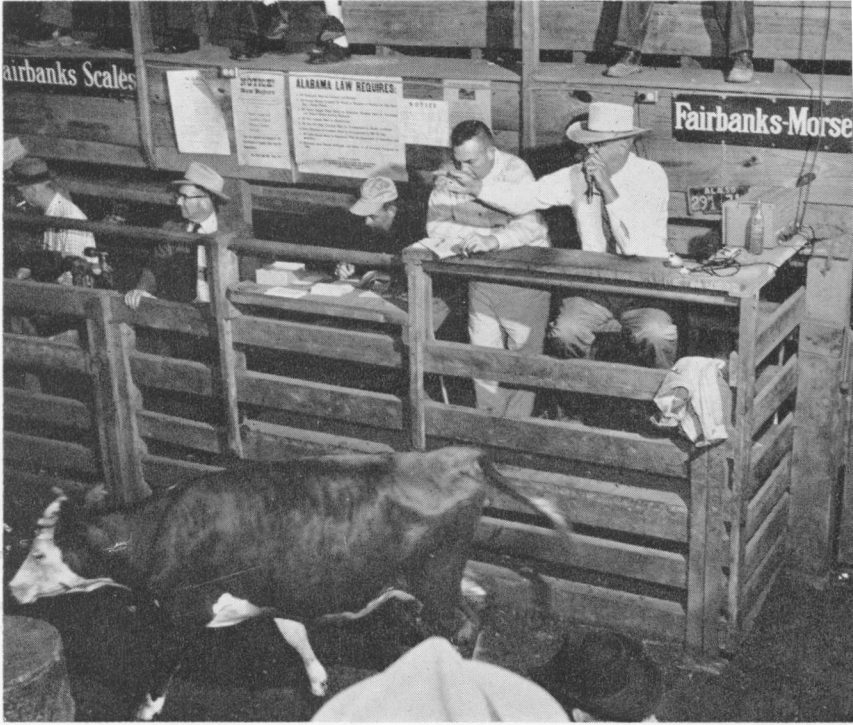


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MARKETING CATTLE *and* CALVES *on* *Alabama Auction Markets*



**AGRICULTURAL EXPERIMENT STATION
of the ALABAMA POLYTECHNIC INSTITUTE**

E. V. Smith, Director

Auburn, Alabama

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Marketing Cattle and Calves on Alabama Auction Markets*

M. J. DANNER, *Agricultural Economist***

R. O. RUSSELL, *Assistant in Agricultural Economics****

LIVESTOCK PRODUCTION has become a major farm business in Alabama in recent years.¹ In addition to beef cattle and hogs, poultry has shared in this development that has occurred primarily since 1925.

Numbers of cattle on Alabama farms have more than doubled since 1925.² One important factor in growth of the cattle business has been the reduction of acreage devoted to harvested crops, especially cotton and corn. This has released much land for pasture and harvested forage production.

In general, market facilities have kept pace with development of the beef cattle industry. In January, 1958, there were 80 stockyards serving Alabama farmers, 67 of which were livestock auctions. In addition most livestock slaughterers provided direct-to-market facilities. Other outlets were provided by dealers, country buyers, and the like. Today the auction market is by far the most important outlet for cattle in the State. An earlier study revealed

* This study was supported by funds provided by the Agricultural and Marketing Act of 1946 and by State Research funds. It was carried out as Alabama research project 534 and is a contributing study to the Southern Regional Livestock Marketing Research Project SM-7, "Marketing Livestock in the South." Participating states and agencies cooperating in SM-7 include Alabama, Georgia, Louisiana, South Carolina, Tennessee, Virginia, and West Virginia, and the Agricultural Marketing Service, U.S. Department of Agriculture.

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*** Resigned.

¹ *Farm Income Situation*. U.S. Department of Agriculture, Agricultural Marketing Service, February, 1958.

² *Livestock on Farms, January 1, 1867-1935*. U.S. Department of Agriculture, January, 1938; and *Livestock and Poultry Inventory, January 1*, U.S. Department of Agriculture, February, 1957.

that almost three-fourths of the cattle and calves bought and sold by Alabama farmers moved through livestock auctions.³

In the past, only limited information has been available concerning the kinds of cattle and calves sold at local auction markets. Information was needed, particularly on classes, grades, and breed-types of cattle consigned, to assist producers and various processing and marketing groups in making needed adjustments for a sound livestock program. Information relative to relationships between prices and grades, classes, markets, and seasons is needed since producers must be aware of such differences to do the best job possible in buying and/or selling. This study was made to fulfill these general needs.

Specific objectives were:

- (1) To determine the market class, breed-type, grade, and weight distributions of cattle and calves sold at selected Alabama auction markets;
- (2) To determine the importance of purchases made by various types of buyers at these auctions; and
- (3) To determine price differences resulting from class, grade, season of sale, and market location.

Information for this study was compiled from data obtained at auctions in Eutaw, Demopolis, Athens, Atmore, Moulton, and Hartselle, Alabama. These six auctions were selected to contribute to a southern regional sample of auction markets. Although not specifically drawn to represent Alabama auctions, it is felt that in many respects they are representative.⁴ Average weekly volume ranged from about 125 to almost 600 head, based on 1952 annual receipts. Observations were made at each market on two sale days of each season for fall of 1953, spring of 1954, fall of 1954, and spring of 1955.

Cattle and calves sold at these auctions during the observation periods were classified and graded by experienced personnel employing official United States Department of Agriculture standards for slaughter cattle and calves.⁵ Grades assigned to cattle were

³ Danner, M. J. *How Alabama Farmers Buy and Sell Livestock*, Bulletin 281, Agricultural Experiment Station of the Alabama Polytechnic Institute, March, 1952.

⁴ For purposes of regional analysis, 32 markets were selected by stratified random sampling procedure to represent auction markets in Alabama, Georgia, Louisiana, South Carolina, Tennessee, Virginia, and West Virginia. Markets that averaged less than 100 cattle and calves per sale were not included.

⁵ The grades used during this period were Prime, Choice, Good, Commercial, Utility, Cutter, and Canner. Effective June 1, 1956, the Commercial grade was replaced by two new grades—Standard and Commercial.

subdivided into high, middle, and low within the full grade, with the exception of cull calves. An estimate of dressing percentage, as well as actual weight, class, breed-type, price, and type of buyer, was recorded for each animal graded. In all, a total of 13,604 cattle and calves were observed.

KINDS of CATTLE SOLD

Market Class and Breed-Type

The two most important classes of livestock⁶ sold on auctions studied were slaughter calves and steers, which accounted for 29 and 26 per cent of the total, respectively. Classes of livestock received, in order of importance, were:

<i>Market class</i>	<i>Percentage of total</i>
Slaughter calves	29
Steers	26
Cows	20
Heifers	16
Veal calves	9

Some classes of livestock accounted for a larger proportion of total sales during one period than in others. Calves accounted for 38 per cent of total sales during the fall period of sale as compared to only 16 per cent in the spring, Figure 1. This difference is even more striking if absolute figures are compared. Calves numbered 3,123 during the fall but only 885 for the spring. This increase in calves alone accounted for 84 per cent of the total increase in number of animals sold during the fall over spring. The influx of calves during the fall was primarily due to the large number of young calves that were kept on pastures during the spring and summer, while grazing was good, then dumped on the market in early fall. This increase in number of animals sold may explain why prices are often depressed in the fall.

⁶ All cattle and calves were grouped in the following classes, which are in general agreement with U.S. Department of Agriculture standards:

(1) Veal calves—calves between 2 weeks and 3 months of age and weighing less than 250 pounds.

(2) Slaughter calves—calves 3 to 10 months of age and weighing less than 450 pounds.

(3) Steers—all male animals except veal and slaughter calves, stags, and bulls.

(4) Heifers—all female animals that had never had calves or were not in an advanced stage of pregnancy except veal and slaughter calves and barren cows.

(5) Cows—all female animals that had had one or more calves, were in advanced stages of pregnancy, or were of calf-bearing age but barren.

Cows with calves at side, bulls, and stags were excluded from this study.

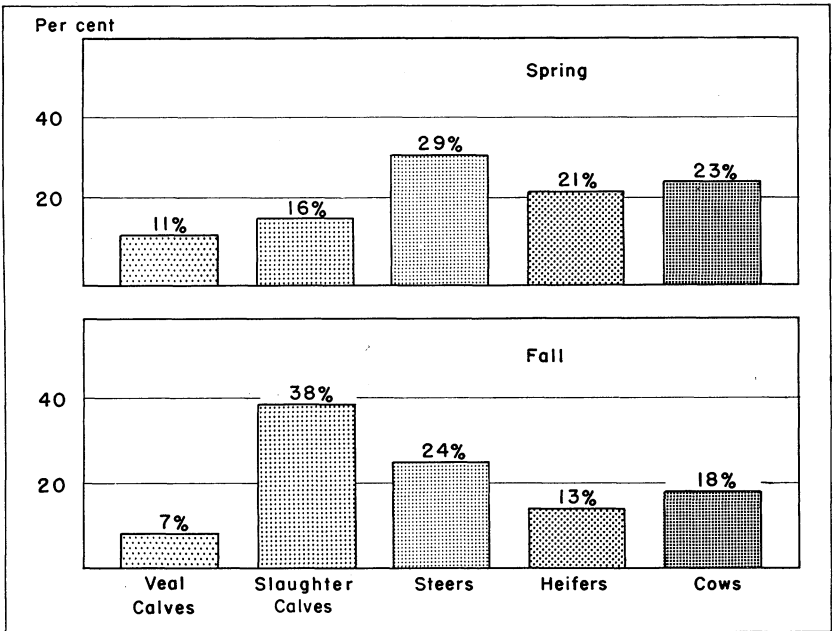


FIGURE 1. Percentage of slaughter cattle sold at selected Alabama livestock auction markets during fall and spring seasons, 1953-55, is shown by class.

The distribution of animals of different classes by breed-type⁷ varied considerably, Appendix Table 1. For veal calves, the mixed-type accounted for the largest number, about 38 per cent, while beef-type accounted for 35 per cent.

For slaughter calves and steers, almost two-thirds were animals of predominantly beef breeding, Figure 2. More than 80 per cent of the heifers were either beef or mixed-type, while cows, for the most part, were either dairy or mixed breeding. The evidence of good breeding in steers and calves would appear to offer possibilities for holding them to heavier weights, especially lightweight calves.

Lightweight calves, which primarily accounted for heavier fall receipts, were of better breeding than the spring calves. There were no important seasonal differences in breed-type for other classes.

⁷ The following definitions were used in classifying cattle as to breed-type:

- (1) Beef—animals that appeared to be $\frac{3}{4}$ or more beef breeding.
- (2) Dairy—animals that appeared to be $\frac{3}{4}$ or more dairy breeding.
- (3) Brahman—animals that showed Brahman characteristics.
- (4) Mixed—animals not included in foregoing groups.

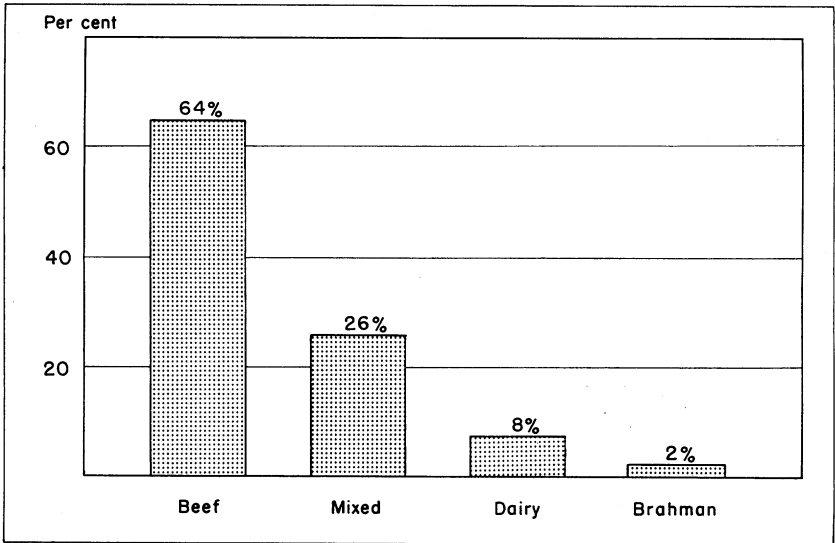


FIGURE 2. The graph shows the percentage of slaughter calves and steers sold, by breed-type, during 1953-55 at selected livestock auction markets in Alabama.

The number of animals in each class varied considerably among auction markets studied. For example, veal calves were important in northern Alabama but relatively unimportant in west-central and southern Alabama, Appendix Table 2. Veal calves accounted for one-fourth of total sales on one northern Alabama auction; this represented almost half the entire total of veal calves sold on the six markets combined.

Slaughter calves were the most important class sold on 3 of the 6 markets studied. About one-third of the west-central Alabama auction sales were slaughter calves. Almost two-thirds of all slaughter calves included in this study were found on these west-central Alabama auctions. Slaughter heifers and cows did not vary importantly as a percentage of total sales on the different markets. Steers accounted for a much smaller proportion of total sales in northern Alabama when compared to west-central and southern auctions.

More than half the animals sold on the west-central and southern auctions were of beef-type breeding, Appendix Table 3. This proportion was considerably greater than for northern Alabama auctions. While there were no important area differences involving cattle of mixed breeding, dairy-type cattle accounted for a larger proportion of total sales on northern Alabama auctions.

Average weights of the various classes ranged from 184 pounds for veal calves to over 700 pounds for cows. Average weights of all classes are presented below:

<i>Market class</i>	<i>Average weight</i>
Veal calves	184
Slaughter calves	327
Steers	593
Heifers	487
Cows	733

Most of these lightweight cattle were sold off grass. Since most showed evidence of good breeding, they would seem highly suitable for feeding to heavier weights. Steers and heifers sold in the fall were heavier than those sold in the spring by 70 pounds and 57 pounds, respectively. Seasonal differences in weight were not important for other classes.

There was considerable variation in weight among various breed-types. In almost all cases, animals of similar classes possessing beef-type breeding outweighed those of other breed-types, Table 1. Slaughter calves and steers predominantly of beef breeding, for example, weighed 50 and 65 pounds heavier, respectively, than those of mixed breeding. Brahman cattle were not sold in sufficient numbers to afford a weight estimate.

TABLE 1. AVERAGE WEIGHTS OF CLASSES OF CATTLE AND CALVES SOLD, BY BREED-TYPE, SELECTED ALABAMA LIVESTOCK AUCTION MARKETS, 1953-55

Class	Average weight, by breed-type			
	Beef	Dairy	Mixed	Brahman
	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>	<i>Pounds</i>
Veal calves.....	198	166	185	160
Slaughter calves.....	345	259	295	354
Steers.....	618	541	553	556
Heifers.....	511	456	462	486
Cows.....	829	717	689	695
ALL CLASSES.....	496	529	461	473

Grade Distribution

More than half of the cattle and calves sold on the auctions studied graded Standard, Commercial, or Utility, Figure 3. About a third were in the Cull, Cutter, and Canner grades, which are not ordinarily sold as block beef. Less than a sixth of the cattle and calves graded as high as Good.

The distribution of grades among the various classes is shown in Figure 4. About a third of the veal calves, principally in north-

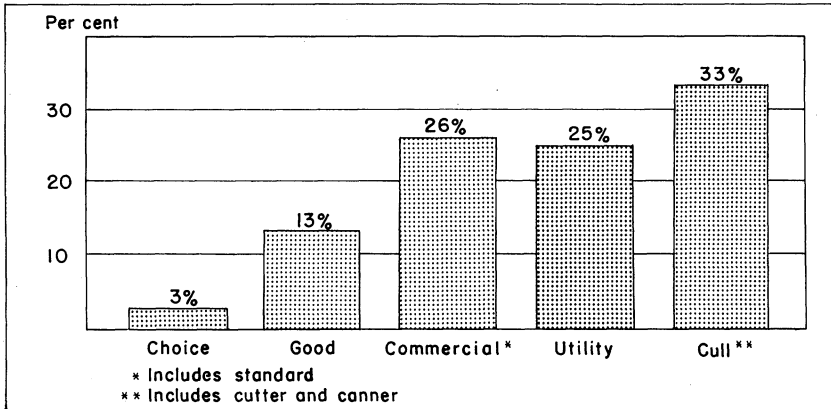


FIGURE 3. Percentage of each grade of slaughter cattle sold at selected Alabama livestock auction markets in 1953-55 is illustrated above.

ern Alabama, graded Choice and Good, considerably higher than for other classes. Almost two-thirds of the slaughter calves and steers graded Standard, Commercial, and Utility. About one-third of the heifers and almost four-fifths of the cows graded Cutter and Canner.

There appears to be considerable opportunity for improving quality of cattle by upgrading. Sometimes a higher grade can be had by holding and feeding to heavier weights. This has been shown by results of tests at the Gulf Coast Substation, Fairhope, and Tennessee Valley Substation, Belle Mina.

As reported in Progress Report No. 67 of the Agricultural Experiment Station,⁸ lightweight stocker calves at the Tennessee Valley Substation were upgraded to Good and Choice grades by holding for 10 months. Following 188 days of grazing on oats, the calves were moved to feed lot for 115 days. The steers graded Standard at the end of oat grazing, but were all Good or Choice (carcass grades) after feed lot finishing. Two feeding treatments were used. One lot received silage and limited grain during the first part of the feeding period. The other group was fed only the grain ration. Although the no silage group made higher average gains, cost of gain was less among those fed silage and grain.

An earlier study at the Gulf Coast Substation gave similar results, as described in Progress Report No. 64.⁹ In this 1954-55

⁸ *From Beef Calf to Fat Steer in Ten Months on Oat Grazing and Dry Lot Feeding*, by W. B. Anthony et al., June 1957.

⁹ *Increasing Weight and Slaughter Grade of Thin Beef Calves by Grazing and Feeding*, by Otto Brown et al., November 1956.

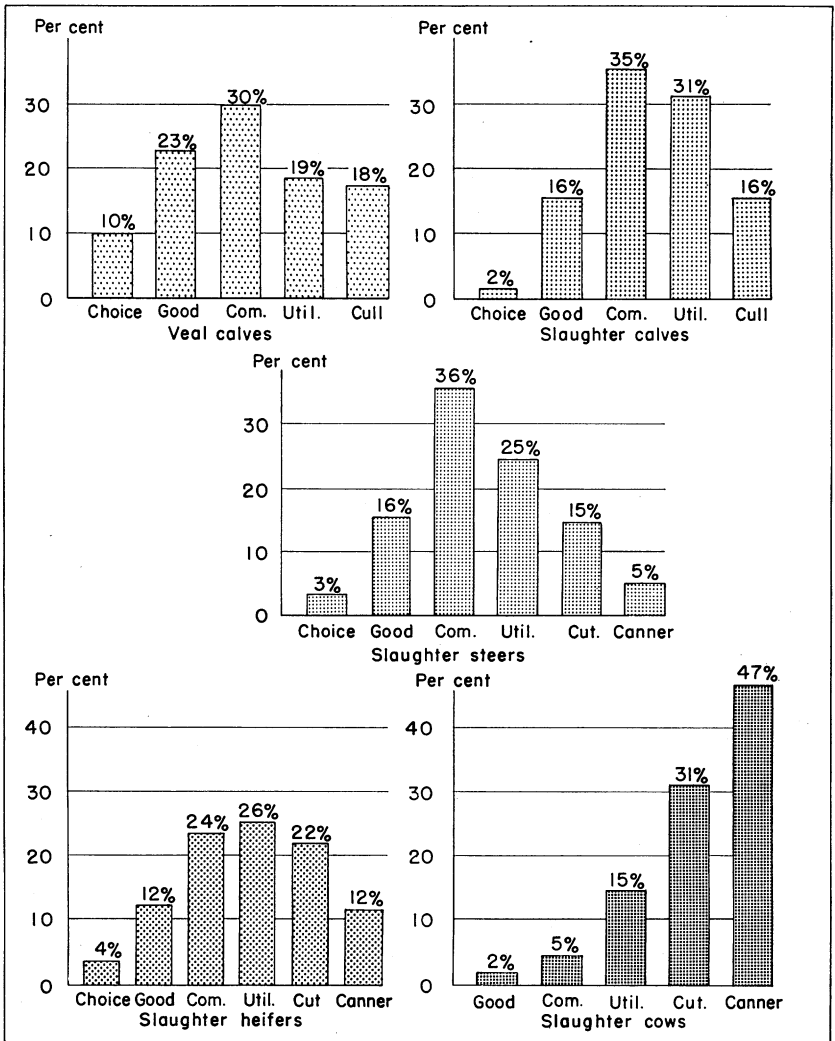


FIGURE 4. Shown above is the percentage of cattle and calves by class and grade at selected Alabama livestock auction markets during 1953-55.

project, 30 Utility or Commercial stocker steers were used to compare three finishing methods— (1) fed in dry lot for 197 days, (2) pastured for 223 days, followed by 55-day feeding period in dry lot, and (3) pastured 223 days, followed by 55 days grazing plus feed, and 28 days full feed. At the end of feeding, carcass grades were 16 Choice, 13 Good, and 1 Commercial.

Results showed it more profitable to use winter and spring grazing followed by dry lot feeding than to full feed for the longer period.

Another method of raising grade is through better breeding. Table 2 shows the relationship between breed-type and grade for different classes of cattle. Except for veal calves, beef-type cattle averaged about a full grade higher than cattle of mixed breeding, and almost two grades higher than cattle of dairy breeding. The average grade for all slaughter calves and steers was low Commercial. Slaughter heifers averaged Utility and cows low Cutter.

Almost two-thirds of all beef-type animals graded Commercial or better, compared to only 10 per cent for dairy animals and 26 per cent for mixed-type animals, Appendix Table 4. Veal calves and slaughter calves graded higher in the spring than in the fall. At the same time, there was a greater proportion of Cull calves in the spring, Appendix Table 5. For other cattle, there did not appear to be appreciable differences in grade between fall and spring.

There appeared to be a direct relationship between grade and weight. For most animals, those grading Choice and Good were heavier than those in lower grades, Figure 5. Average weights of veal calves ranged from 201 for Choice to 171 pounds for the Cull grade. Slaughter calves of Good grade averaged 379 pounds and Utility calves 312 pounds. Choice steers were almost 200 pounds heavier than Utility steers. A similar relationship existed for heifers and cows, although not so pronounced for heifers. Steers grading Commercial and Utility averaged 122 and 123 pounds heavier, respectively, in the fall than in the spring, Appendix Table 6. The reverse was true for Good and Choice steers, but this comparison may not be valid due to insufficient numbers.

A direct positive relationship existed between grade and esti-

TABLE 2. AVERAGE GRADE¹ OF SLAUGHTER CATTLE, BY CLASS AND BREED-TYPE, SELECTED ALABAMA LIVESTOCK AUCTION MARKETS, 1953-55

Breed-type	Average grade, by class				
	Veal calves	Slaughter calves	Steers	Heifers	Cows
Beef.....	Com +	Com	Com	Com -	Util -
Dairy.....	Util +	Util -	Cut +	Cut	Can +
Mixed.....	Com	Util +	Util	Util -	Cut -
Brahman.....	Com	Com	Com -	Com -	Cut +
ALL BREEDS.....	Com	Com -	Com -	Util	Cut -

¹ A plus sign (+) indicates the high $\frac{1}{3}$ of a grade; a minus sign (-) means the low $\frac{1}{3}$ of a grade; and no sign indicates the middle $\frac{1}{3}$ of a grade.

mated dressing percentage (expected carcass yield) for each class, Appendix Table 7. Choice steers, for example, were estimated to have a dressed yield of 57 per cent of the animals live weight, while Canner steers were estimated to yield 41 per cent. Class of cattle appeared not to affect dressed yield, except perhaps that Utility and Cull veal calves dressed slightly higher than com-

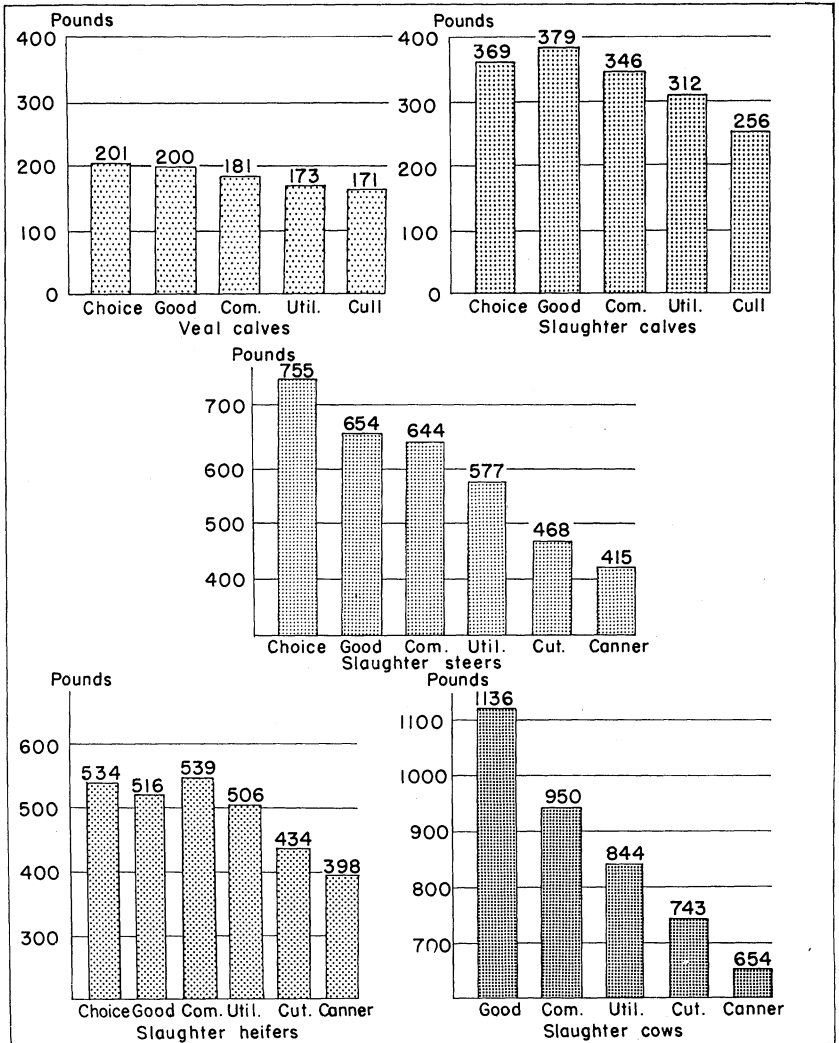


FIGURE 5. Average weights of cattle and calves at selected Alabama livestock auction markets in 1953-55 are given above by class and grade.

parable grades of other classes. Similarly, breed-type did not appear to be a factor in determining dressed yield for comparable grades, Appendix Table 8.

BUYERS

Packer and order buyers purchased more than half the cattle and calves sold at the sales observed, Figure 6.¹⁰ Packers purchased 31 per cent of all animals sold, while order buyers bought 24 per cent. Speculators and farmers were the next most important buyers with purchases of 20 and 17 per cent, respectively.

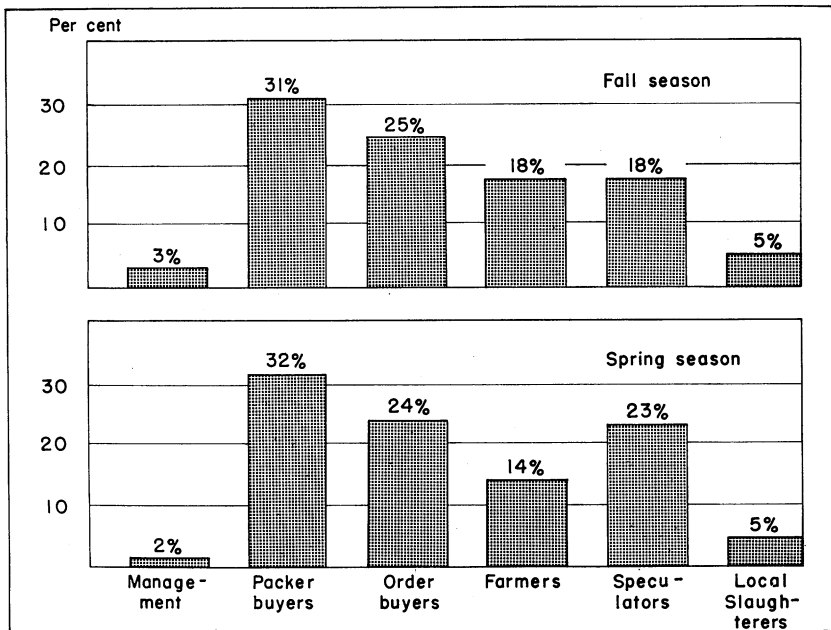


FIGURE 6. Distribution of cattle and calf purchases by types of buyers is shown for selected Alabama livestock auction markets during 1953-55.

¹⁰ Buyers were classified as follows:

- (1) Packer buyer—a person employed by a packing plant to buy cattle at auctions.
- (2) Local slaughterer—a person who bought cattle for slaughter and sale in the local community, mainly wholesale and retail butchers who handled fresh meats.
- (3) Order buyers—independent buyers who purchased cattle on order for a second party.
- (4) Management—auction market operators or their representatives.
- (5) Other—all other buyers but mainly farmers (called farmers in this study).
- (6) Speculator—any person purchasing livestock with the intention of immediate reselling for profit.

Local slaughterers and auction operators had combined purchases of only 8 per cent.

Even though it was necessary to grade all cattle and calves as slaughter animals in order to obtain usable data, it was apparent that many of these animals did not go directly to slaughter. Instead, many were returned to farms for further finishing or were taken to other markets for immediate resale.

Some variation was noticed between purchases of animals by different types of buyers during different seasons of the year. Speculators, for example, bought a greater proportion in the spring than in the fall. Contrary to popular belief, farmers purchased more animals in the fall than in the spring. This was true both on a percentage basis and an absolute basis and did not vary greatly by areas. Actual purchases by farmers in the fall were almost double those in the spring. Fall marketings were con-

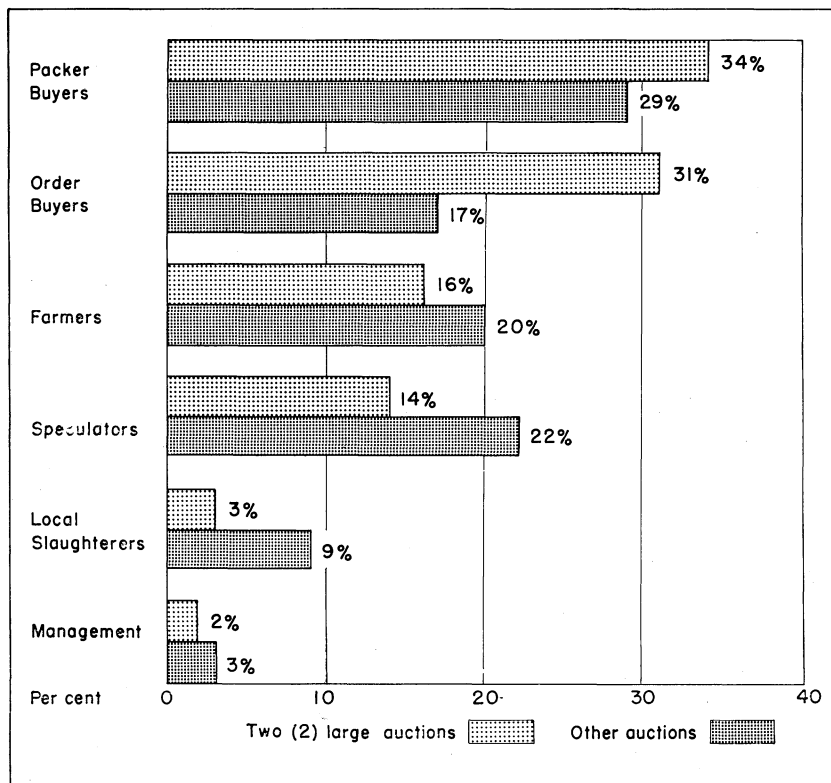


FIGURE 7. Shown is a comparison of cattle and calf purchases by types of buyers at different volume Alabama livestock auction markets during 1953-55.

siderably greater than in the spring. Purchases by packer and order buyers did not vary proportionately between seasons, but with larger receipts in the fall their total purchases were greater.

There was no apparent relationship between total number of buyers at auction markets and volume handled. However, the largest auctions in terms of volume not only had the largest number of packer and order buyers but also had the largest proportion of livestock purchased by these buyers, Figure 7. Approximately two-thirds of the cattle and calves observed at the two largest auctions were bought by packer and order buyers. These buyers bought 55 per cent of the cattle at smaller auctions. Speculators and farmers, as a result, bought a larger proportion of cattle at the smaller auctions studied than at the larger ones, Appendix Table 9.

Classes of Cattle Bought

Packers bought almost half the veal calves and 42 per cent of the cows, but only about 25 per cent of the calves, steers, and heifers, Appendix Table 10. Order buyers were the most important buyers of calves, accounting for a third of the total number of animals in the class. Order buyers were important buyers in every class, as they purchased 19, 25, 18, and 20 per cent of the veal calves, steers, heifers, and cows, respectively. Farmers' purchases were greatest for steers and heifers. Purchases by speculators varied little by class, amounting to approximately 20 per cent of the animals in each class.

Season of sale influenced some types of buyers differently in their purchases. Packers bought almost 60 per cent of the veal calves during the spring, but only about a third in the fall. Packers bought fewer heifers in the spring than in the fall. Order buyers and speculators bought veal calves more importantly in the fall than in the spring. Purchases by farmers were also influenced by the season. Farmers' purchases of both steers and cows were considerably greater in the fall than in the spring.

Cows accounted for the largest percentage of packer buyers' purchases with 29 per cent of the total, Figure 8. Slaughter calves and steers together accounted for half the purchases by packers. Purchases by local slaughterers were most important for the heifer class. Over half of their purchases were heifers. About two-thirds of the cattle and calves bought by order buyers were slaughter calves and steers. Farmers and speculators bought all classes of

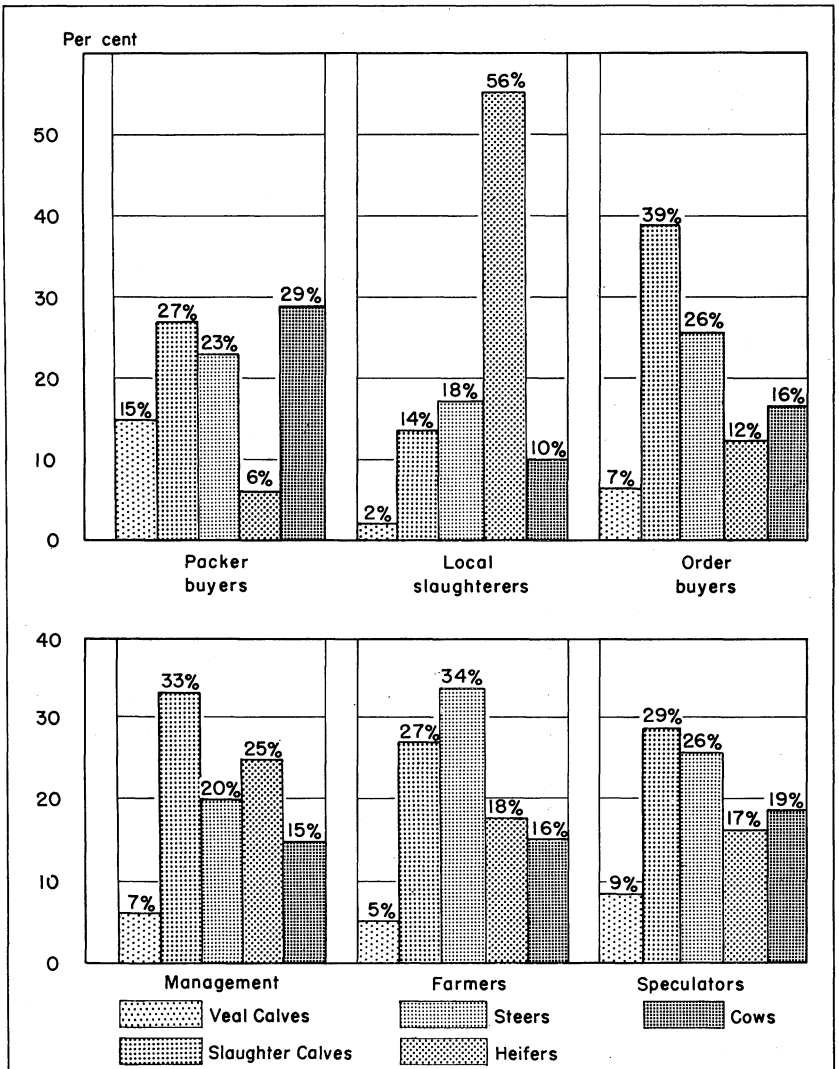


FIGURE 8. Purchases of different classes of cattle and calves is shown by type of buyer at selected Alabama livestock auction markets during 1953-55.

cattle except veal calves, but had relatively greater purchases of slaughter steers and calves.

Grades of Cattle Bought

Packer buyers bought a larger proportion of the cattle in the higher grades, Table 3. For example, they bought more than half

TABLE 3. PERCENTAGE OF CATTLE AND CALVES PURCHASED, BY TYPE OF BUYER AND BY GRADE, SELECTED ALABAMA LIVESTOCK AUCTION MARKETS, 1953-55

Type of buyer	Per cent purchased, by grade					
	Choice	Good	Commer- cial	Utility	Cutter ¹	Canner
	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>
Packer.....	74	49	33	24	22	27
Local slaughterer.....	3	4	6	8	5	2
Order.....	16	25	30	26	18	21
Management.....	0	1	2	3	4	2
Farmer.....	1	11	13	17	25	20
Speculator.....	6	10	16	22	26	28
Number of cattle purchased, by grade ...	372	1,798	3,638	3,360	2,711	1,725

¹ Includes Cull calves.

of the Good and Choice animals. Most of the lower-grade cattle bought by packers were cows. Order buyers were important purchasers of all grades of cattle and calves. Speculators and farmers were important buyers of the lower grades, purchasing over half the Cutter and Canner cattle. Undoubtedly cattle of these lower grades were subject to good speculative gains for traders who regularly followed auction sales. But it also meant that undesirable animals were often sold several times. Frequently these sales were to farmers who may have gained only by adding weight to the animals before a later resale.

PRICES

Price relationships shown in this study are based on data collected during the 2-year period 1953-55. While relatively low during this period, prices were remarkably stable, although usual seasonal changes did occur. Since price levels were consistent from beginning to end of the period, the comparisons presented should be quite dependable.

Price Differences Between Classes and Grades

Price differentials for most classes exceeded 70 per cent between Utility and Choice grades. For example, prices of all slaughter steers observed averaged \$11.48 per 100 pounds for Utility animals and \$19.87 for Choice steers. The only exception was slaughter cows, which had a relatively small price spread between grades, Appendix Table 11. For the most part, the differential between grades amounted to 2 to 3 cents per pound with little variation noted between fall and spring.

Prices for slaughter calves and steers of the same grade were about the same in the spring. During the fall, however, prices for Choice, Good, and Commercial steers averaged about \$1.00 per 100 pounds above prices for these same grades of slaughter calves, Figure 9. Undoubtedly, this was a result of extremely heavy marketings of calves in the fall as described earlier.

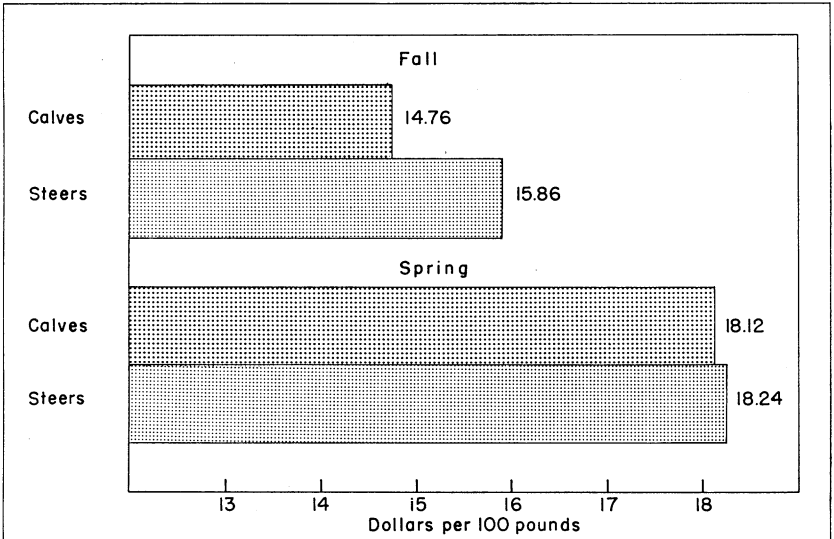


FIGURE 9. Prices of Good grade slaughter calves and steers at selected Alabama livestock auction markets in fall and spring seasons, 1953-55, are given above.

Steers generally sold for higher prices than heifers of the same grade, averaging better than 1 cent per pound higher for the middle and lower grades.

Prices of veal calves, which accounted for only 9 per cent of all cattle observed, were quite erratic between areas in Alabama. Veal calves of the same grade were sold for about 2 to 3 cents per pound less at southern Alabama auctions than at auctions in northern Alabama, Appendix Table 12. This relationship held for both spring and fall. Several reasons can be advanced for these price differences. Lack of volume at southern Alabama auctions was an obvious factor. An additional factor would appear to be that buyers of slaughter cattle had little interest in veal calves at southern auctions, leaving these calves for speculators and farmers, Appendix Table 13.

Price Differences Between Breed-Types

The influence of breed-type on price is noted in Appendix Table 14. As would be expected for veal calves, breeding was not a factor in prices received. For most other classes, cattle of predominantly beef breeding commanded substantial price premiums over other breed-types of the same grades. Prices of slaughter steers of beef breeding, for example, were more than \$1.00 per 100 pounds higher than for steers of mixed breeding for most grades. This difference existed for heifers and cows, also. Price differences between slaughter calves of different breed-types appeared important only for the Utility and Cull grades, with a difference of almost \$1.00 per 100 pounds in favor of beef-type calves. Observations of Brahman and dairy breed-type cattle were not numerous enough to afford valid comparisons.

Price Differences Between Fall and Spring

Spring prices greatly exceeded fall prices for all classes of cattle. The difference amounted to about \$3.00 per 100 pounds for

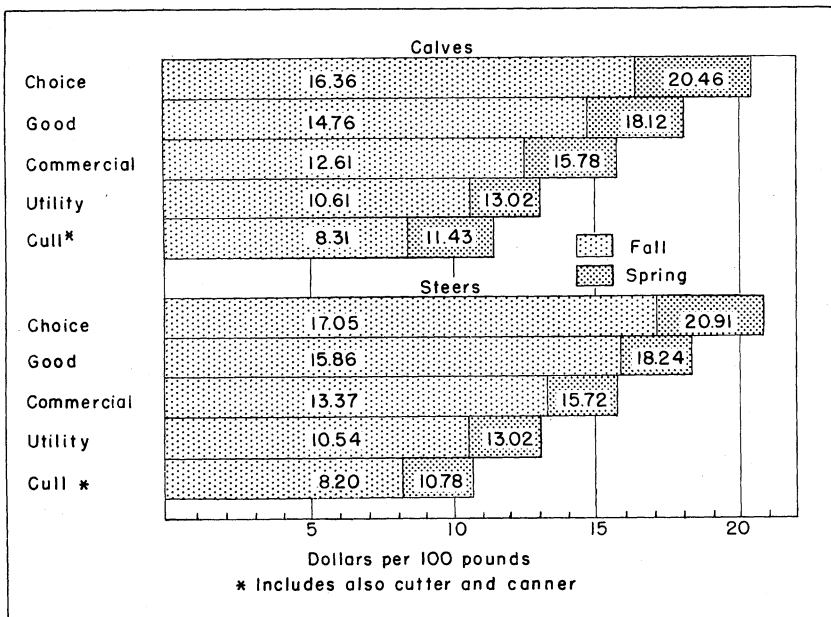


FIGURE 10. Shown above are prices of slaughter steers and calves of different grades sold at selected Alabama livestock auction markets in spring and fall seasons, 1953-55.

slaughter calves and about \$2.50 for steers, Figure 10. This spread was consistent between grades as well as between classes.

The spread between fall and spring prices at the two largest auctions was not as wide as at all other auctions studied. That is, prices were more favorable in the fall at auctions of largest volumes than for the same grades at auctions of smaller volumes, Appendix Table 15. This difference was most apparent for the grades Utility and better, but it was true for all classes except veal calves, exceeding an average of \$1.00 per 100 pounds for cows. For Cull, Cutter, and Canner cattle, however, fall prices at auctions of smaller volumes were as strong or stronger than at auctions of larger volumes. In light of evidence presented earlier, this suggests that a different set of buyers, perhaps farmers and traders, were competing for these cattle at smaller auctions.

There were no consistent grade-price differences in the spring between auctions of different volumes. In general, auctions of smaller volumes had prices at least as favorable as did larger auctions.

SUMMARY

Livestock auctions are the most important outlet used by Alabama farmers in buying and selling livestock. At least three-fourths of the cattle and calves bought and sold by Alabama farmers move through auctions. Very little information has been available about the kind of cattle and calves sold, buying practices, or prices paid for cattle and calves at auctions. This study was made to provide these kinds of information.

Slaughter calves and steers accounted for over half of all cattle observed. More important, however, was the seasonal distribution of receipts. Total fall receipts were considerably greater than spring receipts, primarily because of slaughter calves. Calves represented 38 per cent of all marketings in the fall, but only 16 per cent in the spring.

Almost two-thirds of all slaughter calves and steers observed were of predominantly beef-type breeding. Fall calves had better breeding than spring calves.

Cattle were generally sold at light weights, especially slaughter calves. This latter class averaged 327 pounds. Steers and heifers averaged between 500 and 600 pounds and were somewhat heavier in the fall than in the spring. Cattle of predominantly beef-type breeding were heavier than other cattle.

Veal calves were important only in northern Alabama. At west-central Alabama (Black Belt) auctions, steers and slaughter calves made up a higher proportion of receipts than at other auctions. These auctions also had cattle of better breeding. A relatively greater proportion of cattle observed at northern Alabama auctions were of predominantly dairy breeding.

More than half of the cattle observed at the six Alabama auctions were of the grades Standard, Commercial, or Utility. One third of all cattle were in Cull, Cutter, and Canner grades, which are not suitable for sale as meat cuts. Less than one-sixth graded Good or better.

The average grade for all slaughter calves and steers was low Commercial. Cattle of beef-type breeding graded a full grade higher than cattle of mixed breeding and two grades higher than cattle of dairy breeding.

Cattle in the higher grades were also heavier. Choice steers were almost 200 pounds heavier than Utility steers. Steers sold in the fall were heavier than those sold in the spring.

Packer and order buyers purchased more than half the cattle and calves observed in this study. The larger auctions had more packer and order buyers; these buyers bought a larger proportion of livestock at the larger auctions than at smaller auctions. They also bought a larger proportion of cattle in the higher grades than did other buyers.

Speculators and farmers were more active buyers at smaller auctions. Farmers bought more cattle in the fall, but speculators bought relatively more in the spring than in the fall. Speculators and farmers were relatively more important buyers of lower grades of cattle and calves.

Price differences between grades amounted to \$2.00 to \$3.00 per 100 pounds. Steers of the same grades sold about \$1.00 per 100 pounds higher than slaughter calves in the fall, although there were no price differences between these classes in the spring. Steers generally sold for higher prices than heifers of the same grade. Veal calves sold considerably higher in northern Alabama than elsewhere. Cattle of beef-type breeding, particularly steers, heifers, and cows, sold for more than \$1.00 per 100 pounds higher than cattle of mixed-breed type.

The seasonal difference in favor of spring over fall prices was \$2.50 to \$3.00 per 100 pounds for steers and slaughter calves. No price differences were noted between auctions of different vol-

umes in the spring. However, fall prices for the middle grades appeared to be higher at auctions having largest volumes. For the lower grades of cattle, auctions of smaller volumes had prices as strong or stronger than auctions of larger volumes.

CONCLUSIONS

It is evident from results of this study that improvement of quality of cattle and calves offers excellent opportunity for increasing returns to Alabama livestock producers. Cattle and calves sold on Alabama livestock auctions chiefly were animals coming off pastures without added feed, which often resulted in lightweight, low-grade cattle. This may appear to be the most practicable system of producing cattle for many farmers, but it may not be most profitable for most farmers.

Undoubtedly, heavy fall receipts caused by lightweight, young calves off summer grass will continue to unduly depress prices in the fall unless farmers can find some way to hold these calves. In effect, a discount of \$1.00 per 100 pounds for these lightweight calves was the penalty for this marketing practice. Good beef-type breeding was evident in most of these calves. It should be possible to add finish and weight by growing and finishing these animals on high quality farm-produced feeds. The wintering of cattle and calves on coarse roughage will not add finish nor grade but it can add weight. It might, of course, permit the sale of these animals in the spring as feeders at somewhat higher seasonal prices. If livestock producers are forced to sell under-finished cattle during the fall and if these animals possess superior breed-type characteristics, producers should consider selling at auctions of larger volumes for best prices.

Farmers who continue to sell unattractive, low grade, and inferior breed-type cattle have little reason to choose between different auction markets. The fact that cattle of these kinds sold as well pricewise on smaller auctions was probably caused by added buying competition from farmer buyers. It perhaps indicates, in addition, that these animals were over-priced compared with better kinds of cattle.

APPENDIX

APPENDIX TABLE 1. NUMBER AND PERCENTAGE OF CATTLE AND CALVES SOLD, BY CLASS AND BREED-TYPE, SELECTED ALABAMA LIVESTOCK AUCTION MARKETS, 1953-55

Class	Cattle and calves sold, by breed-type				
	Total	Beef	Dairy	Mixed	Brahman
	<i>No.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>
Fall					
Veal calves.....	585	35	27	38	¹
Calves.....	3,123	67	5	24	4
Steers.....	1,881	60	7	30	3
Heifers.....	1,090	48	14	35	3
Cows.....	1,451	18	37	44	1
All classes.....	8,130	52	14	31	3
Spring					
Veal calves.....	598	35	28	37	¹
Calves.....	885	54	12	32	2
Steers.....	1,625	65	9	24	2
Heifers.....	1,122	51	14	33	2
Cows.....	1,244	29	46	24	1
All classes.....	5,474	49	21	29	1
Fall and spring					
Veal calves.....	1,183	35	27	38	¹
Calves.....	4,008	64	7	26	3
Steers.....	3,506	63	8	27	2
Heifers.....	2,212	49	14	34	3
Cows.....	2,695	23	41	35	1
All classes.....	13,604	51	17	30	2

¹ Less than 0.5 per cent.

APPENDIX TABLE 2. PERCENTAGE OF CATTLE AND CALVES SOLD, BY CLASS AND MARKET, SELECTED ALABAMA LIVESTOCK AUCTION MARKETS, 1953-55

Markets	Cattle and calves sold, by class				
	Veal calves	Calves	Steers	Heifers	Cows
	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>
A.....	2	20	41	17	20
B.....	4	38	23	14	21
C.....	2	29	33	16	20
D.....	25	21	16	17	21
E.....	20	29	15	21	15
F.....	18	35	14	18	15
ALL MARKETS.....	9	29	26	16	20

APPENDIX TABLE 3. PERCENTAGE OF CATTLE AND CALVES SOLD, BY BREED-TYPE AND MARKET, SELECTED ALABAMA LIVESTOCK AUCTION MARKETS, 1953-55

Market	Cattle and calves sold, by breed-type			
	Beef-type	Dairy-type	Mixed-type	Brahman
	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>
A.....	51	13	30	6
B.....	57	13	27	3
C.....	57	9	32	2
D.....	38	29	33	0
E.....	35	33	32	1
F.....	43	22	35	1

¹ Less than 0.5 per cent.

APPENDIX TABLE 4. PERCENTAGE OF CATTLE AND CALVES SOLD, BY BREED-TYPE AND GRADE, SELECTED ALABAMA LIVESTOCK AUCTION MARKETS, 1953-55

Grade	Cattle and calves sold, by breed-type			
	Beef	Dairy	Mixed	Brahman
	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>
Fall				
Choice.....	3	¹	1	¹
Good.....	21	2	6	18
Commercial.....	39	7	18	44
Utility.....	25	23	34	28
Cutter ²	9	35	26	8
Canner.....	3	33	15	2
Spring				
Choice.....	7	1	3	1
Good.....	21	2	7	18
Commercial.....	35	10	18	43
Utility.....	20	15	23	24
Cutter ²	13	33	31	9
Canner.....	4	39	18	5
Fall and spring				
Choice.....	5	¹	1	1
Good.....	21	2	7	18
Commercial.....	37	8	18	43
Utility.....	23	19	30	27
Cutter ²	11	34	28	8
Canner.....	3	37	16	3

¹ Less than 0.5 per cent.

² Includes Cull.

APPENDIX TABLE 5. PERCENTAGE OF CATTLE AND CALVES SOLD, BY CLASS AND GRADE, SELECTED ALABAMA LIVESTOCK AUCTION MARKETS, 1953-55

Grade	Cattle and calves sold, by class					
	Veal calves	Slaughter calves	Steers	Heifers	Cows	All classes
	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>
Fall						
Choice.....	3	1	1	7	0	2
Good.....	22	15	18	14	1	13
Commercial.....	32	37	35	21	4	28
Utility.....	26	33	29	29	16	28
Cull.....	17	14	--	--	--	6
Cutter.....	--	--	14	22	30	12
Canner.....	--	--	3	7	49	11
Spring						
Choice.....	16	6	4	1	0	4
Good.....	25	20	15	11	3	13
Commercial.....	28	24	38	27	6	25
Utility.....	12	25	21	23	15	20
Cull.....	19	25	--	--	--	6
Cutter.....	--	--	15	21	33	16
Canner.....	--	--	7	17	43	16
Fall and spring						
Choice.....	10	2	3	4	0	3
Good.....	23	16	16	12	2	13
Commercial.....	30	35	36	24	5	26
Utility.....	19	31	25	26	15	25
Cull.....	18	16	--	--	--	6
Cutter.....	--	--	15	22	31	14
Canner.....	--	--	5	12	47	13

APPENDIX TABLE 6. AVERAGE WEIGHTS OF CATTLE AND CALVES SOLD, BY CLASS AND GRADE, SELECTED ALABAMA LIVESTOCK AUCTION MARKETS, 1953-55

Grade	Average weight, by class				
	Veal calves	Slaughter calves	Steers	Heifers	Cows
	<i>Lb.</i>	<i>Lb.</i>	<i>Lb.</i>	<i>Lb.</i>	<i>Lb.</i>
Fall					
Choice.....	201	395	543	536	0
Good.....	206	384	643	503	1,195
Commercial.....	181	350	702	568	961
Utility.....	175	313	624	544	833
Cutter ¹	162	257	472	464	735
Canner.....	--	--	440	427	659
Spring					
Choice.....	201	353	836	529	0
Good.....	194	366	669	534	1,124
Commercial.....	181	326	580	516	942
Utility.....	169	307	501	459	857
Cutter ¹	179	253	462	403	751
Canner.....	--	--	402	385	647
Fall and spring					
Choice.....	201	369	755	534	0
Good.....	200	379	654	516	1,136
Commercial.....	181	346	644	539	950
Utility.....	173	312	577	506	844
Cutter ¹	171	256	468	434	743
Canner.....	--	--	415	398	654

¹ Cull for veal calves and slaughter calves.

APPENDIX TABLE 7. AVERAGE ESTIMATED DRESSED YIELD OF CATTLE AND CALVES SOLD, BY CLASS AND GRADE, SELECTED ALABAMA LIVESTOCK AUCTION MARKETS, 1953-55

Grade	Estimated dressed yield, average by class				
	Veal calves	Slaughter calves	Steers	Heifers	Cows
	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>
Choice.....	58	57	57	58	..
Good.....	56	55	56	56	55
Commercial.....	54	52	53	52	52
Utility.....	51	48	50	49	48
Cutter ¹	47	43	44	44	45
Canner.....	--	--	41	41	41

¹ Cull for veal calves and slaughter calves.

APPENDIX TABLE 8. AVERAGE ESTIMATED DRESSED YIELD OF CATTLE AND CALVES SOLD, BY BREED-TYPE AND GRADE, SELECTED ALABAMA LIVESTOCK AUCTION MARKETS, 1953-55

Grade	Estimated dressed yield, average by breed-type			
	Beef	Dairy	Mixed	Brahman
	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>
Choice.....	58	59	58	58
Good.....	55	56	56	55
Commercial.....	53	53	53	53
Utility.....	49	49	49	50
Cutter ¹	44	45	44	46
Canner.....	41	41	40	41

¹ Cull for veal calves and slaughter calves.

APPENDIX TABLE 9. PERCENTAGE OF CATTLE AND CALVES PURCHASED, BY TYPES OF BUYERS, SELECTED ALABAMA LIVESTOCK AUCTION MARKETS OF DIFFERENT VOLUMES, 1953-55

Type of buyer	Purchases at different auction markets					
	A	B	C	D	E	F
	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>
Packer.....	32	33	35	29	25	17
Local slaughterer.....	4	2	8	11	11	4
Order buyer.....	31	29	10	24	8	36
Management.....	2	3	2	2	7	1
Farmer.....	13	16	17	24	17	21
Speculator.....	18	17	28	10	32	21
Total cattle and calves, <i>number</i>	4,081	3,532	2,243	1,844	1,155	749

APPENDIX TABLE 10. PERCENTAGE OF CATTLE AND CALVES PURCHASED, BY TYPE OF BUYER, BY CLASS, AND BY SEASON OF SALE, SELECTED ALABAMA LIVESTOCK AUCTIONS, 1953-55

Type of buyer	Cattle and calves purchased, by class				
	Veal calves	Slaughter calves	Steers	Heifers	Cows
	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>
Fall					
Packer.....	36	25	29	33	43
Local slaughterer.....	3	4	6	12	3
Order buyer.....	24	34	21	16	16
Management.....	2	4	2	4	3
Farmer.....	9	15	26	17	16
Speculator.....	26	18	16	18	19
Total cattle and calves, <i>number</i>	585	3,123	1,881	1,090	1,451
Spring					
Packer.....	59	29	20	24	41
Local slaughterer.....	1	2	7	8	6
Order buyer.....	15	26	30	21	23
Management.....	1	2	2	3	1
Farmer.....	10	15	16	19	10
Speculator.....	14	26	25	25	19
Total cattle and calves, <i>number</i>	598	885	1,625	1,122	1,244
Fall and spring					
Packer.....	48	26	25	29	42
Local slaughterer.....	2	4	6	10	4
Order buyer.....	19	32	25	18	20
Management.....	2	3	2	4	2
Farmer.....	9	15	22	18	13
Speculator.....	20	20	20	21	19
Total cattle and calves, <i>number</i>	1,183	4,008	3,506	2,212	2,695

APPENDIX TABLE 11. PRICES OF SLAUGHTER CATTLE AND CALVES SOLD AT SELECTED ALABAMA LIVESTOCK AUCTION MARKETS, BY CLASS AND GRADE, SPRING AND FALL SEASONS, 1953-55

Grade	Prices by class				
	Veal calves	Slaughter calves	Steers	Heifers	Cows
	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>
Fall					
Choice.....	20.88	16.36	17.05	19.38	--
Good.....	16.76	14.76	15.86	15.81	10.36
Commercial.....	12.82	12.61	13.37	12.21	9.65
Utility.....	11.14	10.61	10.54	9.48	8.43
Cull.....	9.10	8.31	--	--	--
Cutter.....	--	--	8.58	7.48	6.90
Canner.....	--	--	6.74	7.00	5.40
Spring					
Choice.....	21.77	20.46	20.91	19.76	--
Good.....	19.82	18.12	18.24	17.69	12.91
Commercial.....	16.68	15.78	15.72	14.42	12.41
Utility.....	14.48	13.02	13.02	11.98	10.97
Cull.....	11.65	11.43	--	--	--
Cutter.....	--	--	11.26	10.86	9.58
Canner.....	--	--	9.83	9.60	7.90
Fall and spring					
Choice.....	21.61	18.94	19.87	19.46	--
Good.....	18.37	15.68	16.86	16.62	12.49
Commercial.....	14.64	13.10	14.47	13.47	11.24
Utility.....	12.20	11.04	11.48	10.60	9.57
Cull.....	10.53	9.41	--	--	--
Cutter.....	--	--	9.83	9.14	8.19
Canner.....	--	--	8.70	8.83	6.51

APPENDIX TABLE 12. PRICES OF VEAL CALVES SOLD AT SELECTED ALABAMA LIVESTOCK AUCTION MARKETS, BY GRADE, SPRING AND FALL SEASONS, 1953-55

Market	Prices by grade				
	Choice	Good	Commercial	Utility	Cull
	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>
Northern Alabama					
Auction 1.....	21.66	18.78	15.41	12.46	11.20
Auction 2.....	22.65	20.15	16.05	12.96	11.12
Auction 3.....	22.98	20.04	15.54	13.73	10.00
Southern Alabama					
Auction 1.....	18.88	14.91	12.31	8.00	8.76
Auction 2.....	18.06	13.81	12.75	10.21	9.22
Auction 3.....	15.25	12.68	11.43	10.06	8.40

APPENDIX TABLE 13. PERCENTAGE OF VEAL CALVES PURCHASED, BY TYPES OF BUYERS, SELECTED ALABAMA LIVESTOCK AUCTION MARKETS, 1953-55

Market	Purchases of veal calves, by type of buyer					
	Packer	Local slaughterer	Order buyer	Manage- ment	Farmer	Speculator
	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>
Northern Alabama						
Auction 1.....	70	2	4	0	9	15
Auction 2.....	55	3	13	8	9	12
Auction 3.....	2	1	74	0	6	17
Southern Alabama						
Auction 1.....	38	3	21	0	35	3
Auction 2.....	14	3	37	0	5	41
Auction 3.....	8	0	29	1	12	50

APPENDIX TABLE 14. PRICES OF SLAUGHTER CATTLE AND CALVES SOLD AT SELECTED ALABAMA LIVESTOCK AUCTION MARKETS, BY BREED-TYPE, CLASS, AND GRADE, 1953-55

Class	Grade	Prices by breed-type			
		Beef	Dairy	Mixed	Brahman
		<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>
Veal calves	Choice	21.76	21.89	21.24	--
	Good	18.03	18.16	18.61	--
	Commercial	14.01	14.36	15.25	--
	Utility	12.11	12.67	11.68	--
	Cull	10.59	10.07	10.57	--
Slaughter calves	Choice	18.81	19.80	19.02	17.50
	Good	15.70	14.00	15.63	14.85
	Commercial	13.13	13.26	12.85	13.11
	Utility	11.36	10.77	10.56	10.10
	Cull	10.21	9.17	8.78	7.29
Steers	Choice	19.86	--	18.90	--
	Good	17.04	--	15.80	15.32
	Commercial	14.56	13.82	13.63	12.89
	Utility	12.39	9.67	10.82	10.19
	Cutter	11.28	8.23	9.38	7.67
Heifers	Canner	9.64	7.21	9.04	7.00
	Choice	19.43	--	--	--
	Good	16.68	14.30	15.81	16.43
	Commercial	13.68	11.83	12.91	13.33
	Utility	11.17	9.64	10.07	10.07
Cows	Cutter	10.21	8.50	8.81	7.60
	Canner	8.77	8.65	8.79	8.00
	Good	--	--	--	--
	Commercial	11.50	8.37	10.16	10.00
	Utility	10.05	9.15	9.14	9.08
Cows	Cutter	8.87	7.93	7.64	7.82
	Canner	7.00	6.67	5.95	5.67

APPENDIX TABLE 15. PRICES OF SLAUGHTER CATTLE AND CALVES SOLD AT SELECTED ALABAMA LIVESTOCK AUCTION MARKETS OF DIFFERENT VOLUMES, BY CLASS AND GRADE, SPRING AND FALL SEASONS, 1953-55

Grade	Prices at selected auctions, by class							
	Slaughter calves		Steers		Heifers		Cows	
	Two largest auctions	All others	Two largest auctions	All others	Two largest auctions	All others	Two largest auctions	All others
	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>
Fall								
Choice.....	17.21	15.24	17.37	16.52	19.96	17.14	--	--
Good.....	14.95	14.36	16.01	15.99	16.05	15.20	10.52	9.40
Commercial.....	12.74	12.33	13.48	13.09	12.43	11.76	9.91	9.02
Utility.....	10.63	10.33	10.89	9.84	9.68	9.39	9.70	8.13
Cull.....	7.78	8.47	--	--	--	--	--	--
Cutter.....	--	--	8.74	8.28	7.58	7.09	6.83	6.97
Canner.....	--	--	6.62	6.86	6.29	6.85	5.17	5.80
Spring								
Choice.....	20.82	19.75	17.62	21.13	20.30	18.91	--	--
Good.....	18.28	17.74	17.46	18.78	17.63	17.78	13.03	12.53
Commercial.....	15.69	15.86	15.46	15.77	14.29	14.60	12.58	12.03
Utility.....	12.89	13.13	12.98	12.97	11.72	12.18	10.96	10.97
Cull.....	10.66	11.86	--	--	--	--	--	--
Cutter.....	--	--	11.43	10.87	10.12	11.37	9.40	9.80
Canner.....	--	--	9.95	9.59	8.91	10.17	7.82	8.03

