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Comparison of
SEASONAL PRICE VARIATIONS
Of Selected
Alabama Farm Commodities
 FIVE- AND TEN-YEAR BASE PERIODS



Agricultural Experiment Station
AUBURN UNIVERSITY
 E. V. Smith, Director Auburn, Alabama

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Comparison of Seasonal Price Variations of Selected Alabama Farm Commodities

FIVE- AND TEN-YEAR BASE PERIODS

S. C. MASSINGILL, Formerly Instructor of Agricultural Economics
MORRIS WHITE, Professor of Agricultural Economics

MOST AGRICULTURAL PRODUCTION is highly seasonal — nature dictates that it be so. Although products like broilers, eggs, and milk are produced throughout the year, quantities are much greater during certain seasons. Peaches and strawberries are examples of products with extremely short harvest periods. Other products, such as turkeys, have traditionally had a highly seasonal demand.

Because of seasonal variation in volumes marketed and in quantities demanded, there is also seasonal variation in prices. Prices of agricultural commodities should be expected to be higher in some months than in others. Costs are usually less when commodities are marketed directly from the field rather than placed in storage and sold later. Charges for handling, insurance, and storage are incurred when marketing is delayed.

Most agricultural commodities are sent to market in greater volumes at harvest time, and the offering of large quantities for sale results in depressed prices. As prices are depressed, some commodities are placed in storage (assuming they are storable). When the heavy marketing period ends and smaller quantities are placed on the market, prices normally begin to rise.

Theoretically, the rise in price throughout the low-volume marketing period should only equal costs associated with storage. Consequently, prices of perishable crops can be expected to fluctuate.

tuates seasonally more than prices of more durable (storable) crops. Crops such as fresh peaches and strawberries cannot be withheld from the market during periods of heavy shipments when prices are low and stored for several months until shipments become lighter and prices rise. Durable commodities like wheat, cotton, and corn can be stored at comparatively low costs; therefore, seasonal price fluctuations are comparatively less for these commodities.

Government price support and storage programs have been important factors in reducing wide seasonal changes in prices of certain storable commodities. Under these programs, government purchases and loans are made at harvest when greatest quantities are available for sale by producers. Amounts placed in storage at harvest time may be released later when marketings by producers slacken. This action prevents prices from rising to the level they otherwise would reach during the normal non-marketing season. Too, government price support programs for storable commodities tend to hold prices up during the years of large crops and to hold prices down in years of small crops.

The level of prices paid and received by farmers greatly influences returns to farming, and therefore is a key factor in determining the financial success or failure of a farm operation. Significance of the relationship between prices received and prices paid increases as cash expenditures for items of production comprise a greater proportion of total costs.

Prices that may be expected to prevail at the time farm commodities will be sold are important in making decisions about changing enterprises, or in making shifts within existing enterprises. A knowledge of factors that affect prices is needed to forecast price changes. Therefore, keeping currently informed on volumes of commodities being produced and marketed, and on general supply-demand conditions could benefit producers.

This publication presents recent information about seasonal price variation for major commodities produced and sold by Alabama farmers. Price information on five feeds purchased by farmers is also included.

Auburn University Agricultural Experiment Station Bulletins 295 and 350 presented information about seasonal price variation during the periods 1948-54 and 1953-62. Changes in production, seasonal price patterns, and the general price level have rendered

that information inadequate. Up-to-date information in this publication reflects those changes.

METHOD OF STUDY

Indexes of seasonal variation of prices for 12 commodities sold and 5 commodities purchased by Alabama farmers were calculated for the 5- and 10-year periods, 1963-67 and 1958-67. Mid-month prices received and paid by Alabama farmers, as reported by the Alabama Cooperative Crop Reporting Service, were used in all calculations. Indexes of seasonal variation were derived for each commodity by dividing averages for each month of the year during the 5- and 10-year periods by the overall average for the entire period.

Indexes of seasonal price variation are shown for individual commodities by the upper scale on the charts, with the 5-year period indicated by a broken line and the 10-year period by a solid line. The charts also show actual average monthly prices on the lower scale of the charts. Averages for the 5-year period are represented by the broken line, and those for the 10-year period by a solid line.

Tables present data from which charts were drawn, plus indexes of irregularity. Indexes of irregularity were used to measure in percentage the average amount by which individual monthly prices differed from the monthly average price. Application of this information is illustrated by the following example, based on Table 3:

The seasonal index of price variation for hogs was 108 in July. If the annual average price of hogs was estimated to be \$18 per hundred pounds in a future year, the July price could be estimated as \$19.44 per hundred pounds, or 8 per cent above the average annual price. The index of irregularity of 15 for July means that hog prices might vary 15 per cent from the monthly average. Based on historical data presented, two-thirds of the time prices for the month of July are estimated to fall between \$16.52 and \$22.36 (\$19.44 minus 15 per cent and \$19.44 plus 15 per cent). By a similar process, expected prices, based on historical variation in prices, can be estimated for any given month through use of the seasonal index of price variation and the index of irregularity.

LIVESTOCK AND LIVESTOCK PRODUCTS

Broilers

Broilers are among the farm commodities for which prices were lower in 1967 than in 1958. The average price declined from 17.6 to 11.9 cents per pound between 1958 and 1967.

Development and adoption of new production technology, together with increased processing and marketing efficiency, enabled the broiler industry to expand production while experiencing declining prices. Production of broilers in the United States increased at an average rate of 6 per cent per year during the 1958-67 period. Alabama's increase was 15 per cent annually during the same period.

Price fluctuations within the year showed a rise through January to a peak in February and March, Table 1 and Figure 1. This rise was followed by a drop in April to a level that was maintained until June. Prices rose through July and then declined sharply through October.

Percentage change in price of broilers from the month of highest price to the month of lowest price was 19 per cent for 1963-67 and 18 per cent for 1958-67 — 2.6 cents in both periods.

TABLE 1. BROILERS: AVERAGE SEASONAL VARIATIONS IN ALABAMA FARM PRICES, 1963-67 AND 1958-67

Months	Price per pound		Index of variation		Index of irregularity	
	1963-67	1958-67	1963-67	1958-67	1963-67	1958-67
	<i>Cents</i>	<i>Cents</i>				
January.....	13.8	15.2	101	105	7	12
February.....	14.5	15.7	107	109	5	11
March.....	14.4	15.8	106	109	9	13
April.....	13.8	14.8	102	102	8	12
May.....	13.8	14.7	102	102	10	14
June.....	13.9	14.7	102	102	9	16
July.....	14.6	14.9	107	103	5	12
August.....	13.6	14.1	100	97	8	11
September.....	13.4	13.8	99	96	6	10
October.....	12.6	13.2	93	91	10	11
November.....	12.7	13.3	93	92	11	11
December.....	11.9	13.4	88	92	14	15
AVERAGE.....	13.6	14.5	100	100	8	12

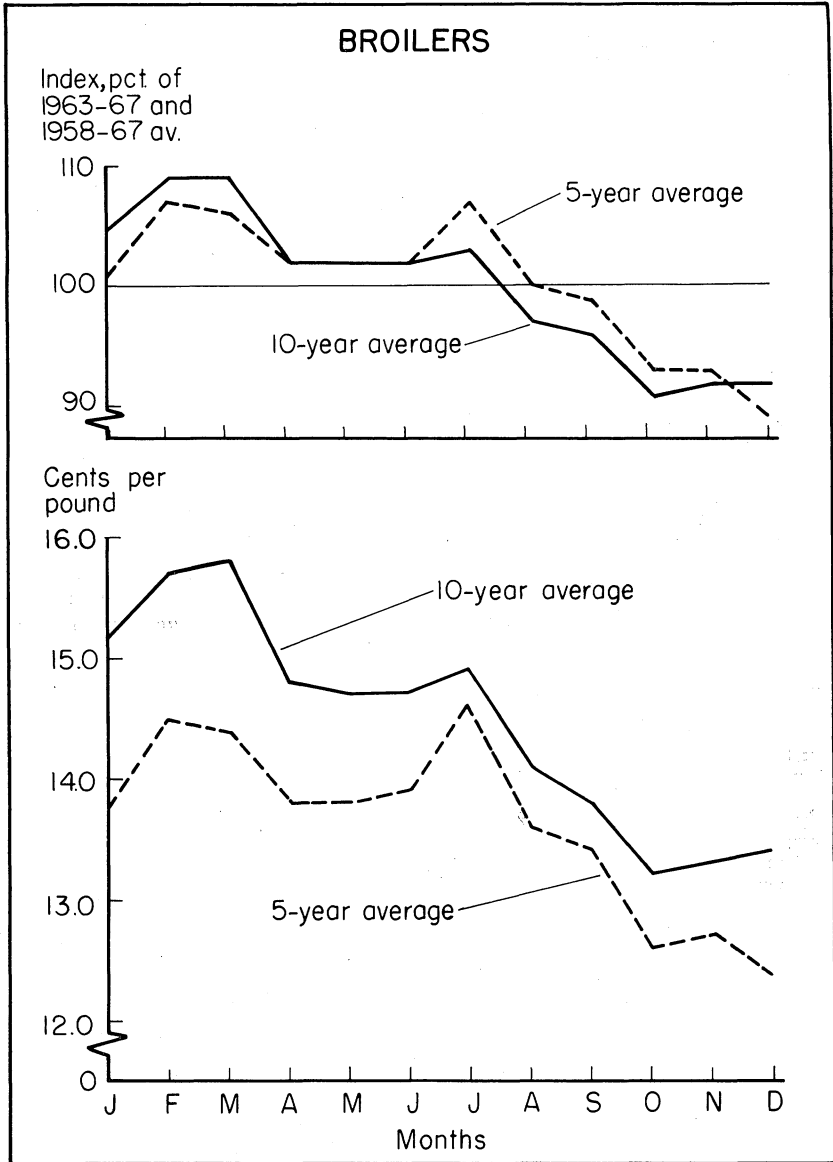


FIG. 1. Broilers: Indexes of seasonal variation and average monthly prices, Alabama, 1963-67 and 1958-67 (5- and 10-year averages = index of 100).

Eggs

Seasonal price changes have been greater for eggs than for any other farm commodity. During 1963-67, the change in average price from the low in May to the high in January was 5.4 cents per dozen, or 14 per cent. The variation was even greater for the 10-year period; the June low was 6.8 cents per dozen below the January high — a change of 18 per cent.

Normally, egg production reached a peak in May and declined throughout the rest of the year. Peak prices were reached in late fall and winter, Table 2 and Figure 2.

Egg production in Alabama increased from 1,149 to 2,645 million eggs, or 130 per cent, between 1958 and 1967. This amounted to an average of 13 per cent annually. Egg prices declined 6 out of the 10 years.

TABLE 2. EGGS: AVERAGE SEASONAL VARIATIONS IN ALABAMA FARM PRICES, 1963-67 AND 1958-67

Months	Price per dozen		Index of variation		Index of irregularity	
	1963-67	1958-67	1963-67	1958-67	1963-67	1958-67
	<i>Cents</i>	<i>Cents</i>				
January.....	42.8	44.6	105	107	6	8
February.....	42.3	43.6	103	105	7	8
March.....	42.6	42.5	104	102	5	7
April.....	39.4	39.8	96	95	4	6
May.....	37.4	37.9	91	91	3	8
June.....	37.6	37.8	92	91	3	8
July.....	39.2	39.3	96	94	3	6
August.....	40.3	40.5	99	97	5	6
September.....	42.4	42.7	104	103	7	7
October.....	41.6	43.4	102	104	8	8
November.....	42.5	44.0	104	106	7	8
December.....	42.5	43.9	104	105	8	8
AVERAGE.....	40.9	41.7	100	100	6	7

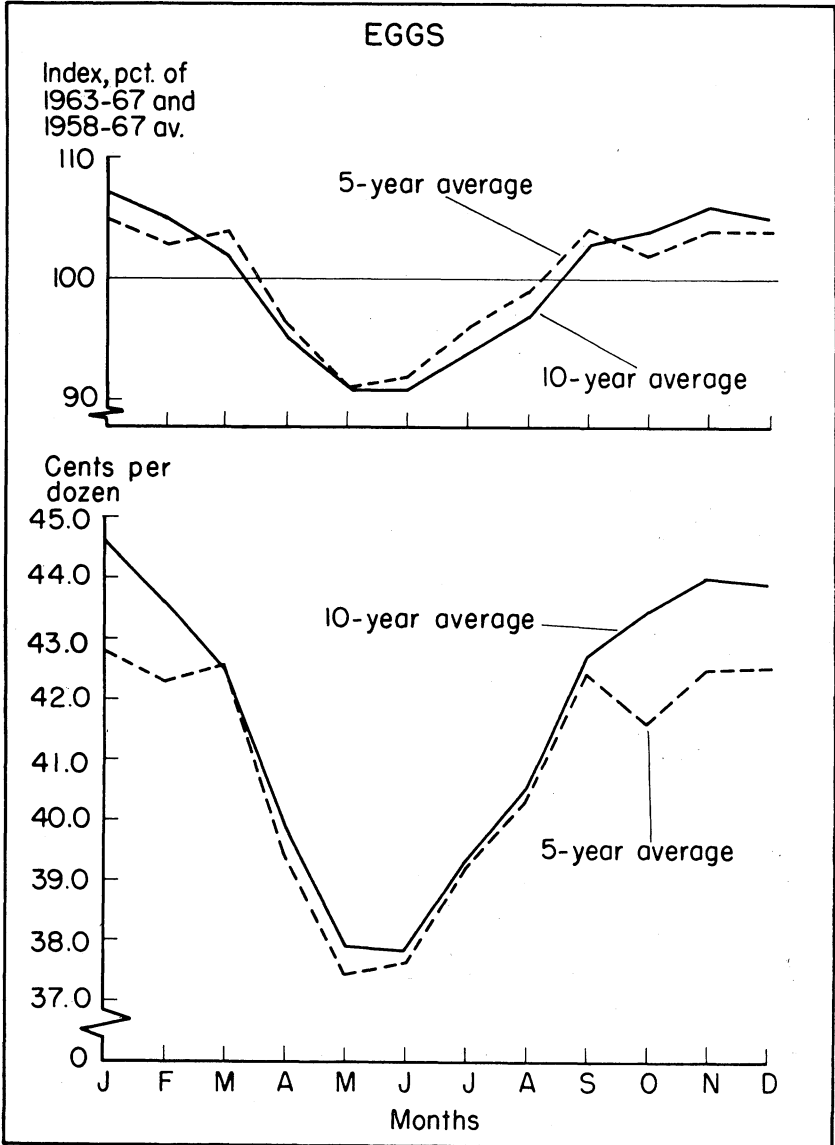


FIG. 2. Eggs: Indexes of seasonal variation and average monthly prices, Alabama, 1963-67 and 1958-67 (5- and 10-year averages = index of 100).

Hogs

Hog prices have been subject to wide price fluctuations in both the 5- and 10-year periods. Widest fluctuation was 126 per cent, with prices per hundredweight ranging from \$11.70 in January 1960 to \$26.50 in February 1966.

In both periods, average monthly hog prices were lowest in April and highest in August, Table 3 and Figure 3, and followed a distinct pattern. Prices began to rise sharply in May and peaked in August, then declined through November, rose slightly in December, January, and February and then declined.

Hog prices were severely depressed during 1959-64 because of heavy marketings. Numbers marketed decreased in late 1964 and prices began to rise by 1965, becoming strong in June. The rise continued to a high of \$26.50 in February 1966, which was the peak for the 1958-67 period.

Hogs had the highest indexes of irregularity of any commodity studied. Averages of indexes of irregularity were 19 and 17 per cent for 1963-67 and 1958-67 respectively.

TABLE 3. HOGS: AVERAGE SEASONAL VARIATIONS IN ALABAMA FARM PRICES, 1963-67 AND 1958-67

Months	Price per hundredweight		Index of variation		Index of irregularity	
	1963-67	1958-67	1963-67	1958-67	1963-67	1958-67
	<i>Dollars</i>	<i>Dollars</i>				
January.....	17.68	16.65	98	97	25	22
February.....	17.82	16.75	99	98	25	22
March.....	16.90	16.55	94	97	20	16
April.....	16.30	16.27	90	95	19	15
May.....	17.82	17.01	99	99	20	17
June.....	18.82	17.69	104	103	16	16
July.....	19.44	18.17	108	106	15	16
August.....	19.48	18.26	108	107	16	16
September.....	18.80	17.79	104	104	15	15
October.....	18.28	17.24	101	100	16	16
November.....	17.48	16.63	97	97	18	16
December.....	17.68	16.55	98	97	24	21
AVERAGE.....	18.04	17.13	100	100	19	17

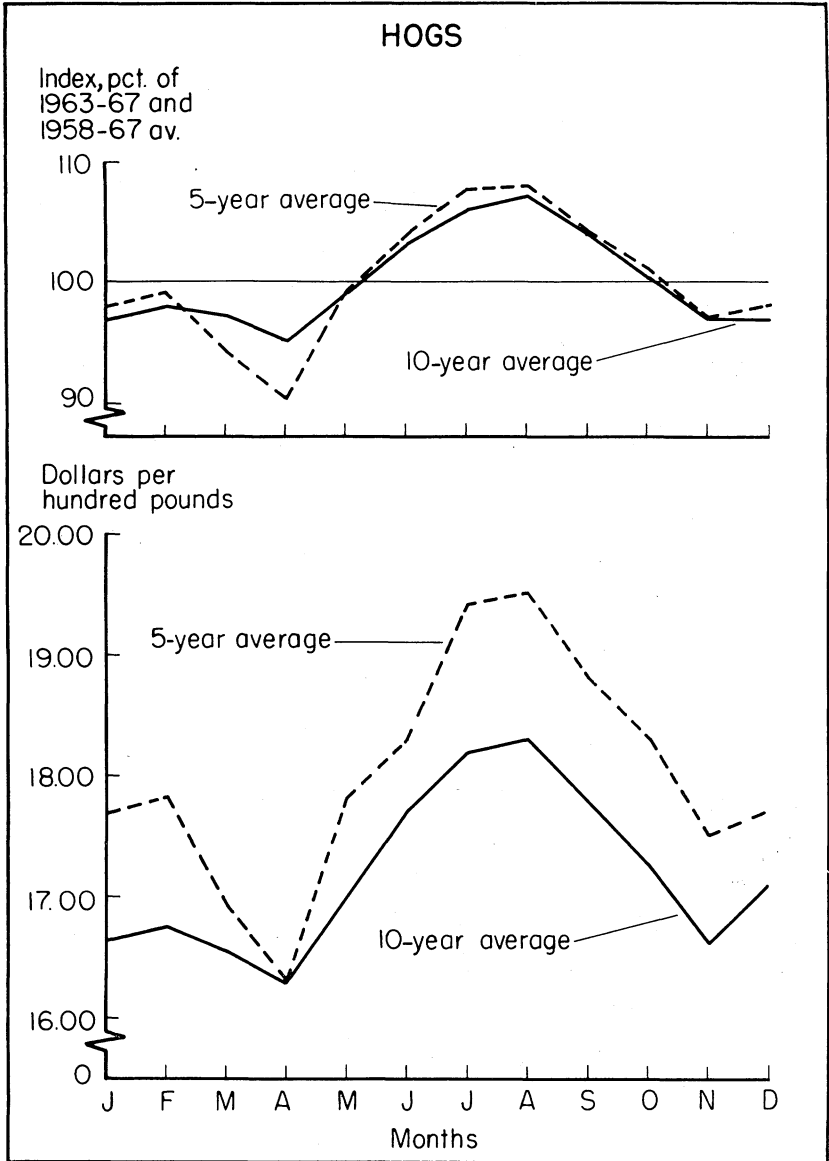


FIG. 3. Hogs: Indexes of seasonal variation and average monthly prices, Alabama, 1963-67 and 1958-67 (5- and 10-year averages = index of 100).

Beef Cattle

Beef cattle prices were relatively high in spring and low in the fall, Table 4 and Figure 4. A strong demand for cattle to be put on pastures in the spring and sale of cattle off pastures in the fall are major contributing factors.

For both periods, November prices averaged 6 per cent below average annual prices and April prices averaged approximately 5 per cent above the average. There was a variance of \$2.03 between the April high and the November low for 1958-67.

Beef cattle prices reported were for all grades and classes, excluding calves. Therefore, the averages shown are significantly below the market price for Prime and Choice cattle and considerably above the quoted market price for low grades of cattle, but adequately reflect seasonal price changes.

TABLE 4. BEEF CATTLE: AVERAGE SEASONAL VARIATIONS IN ALABAMA FARM PRICES, 1963-67 AND 1958-67

Months	Price per hundredweight		Index of variation		Index of irregularity	
	1963-67	1958-67	1963-67	1958-67	1963-67	1958-67
	<i>Dollars</i>	<i>Dollars</i>				
January.....	17.72	18.07	98	98	11	10
February.....	17.98	18.34	100	100	10	9
March.....	18.56	19.01	103	104	9	8
April.....	18.84	19.32	105	105	9	8
May.....	18.66	19.20	104	105	10	8
June.....	18.42	18.74	102	102	11	10
July.....	18.58	18.73	103	102	10	9
August.....	18.20	18.30	101	100	12	10
September.....	17.96	18.24	100	99	12	10
October.....	17.14	17.52	95	95	11	10
November.....	16.92	17.29	94	94	10	9
December.....	17.18	17.71	95	96	12	10
AVERAGE.....	18.01	18.37	100	100	11	9

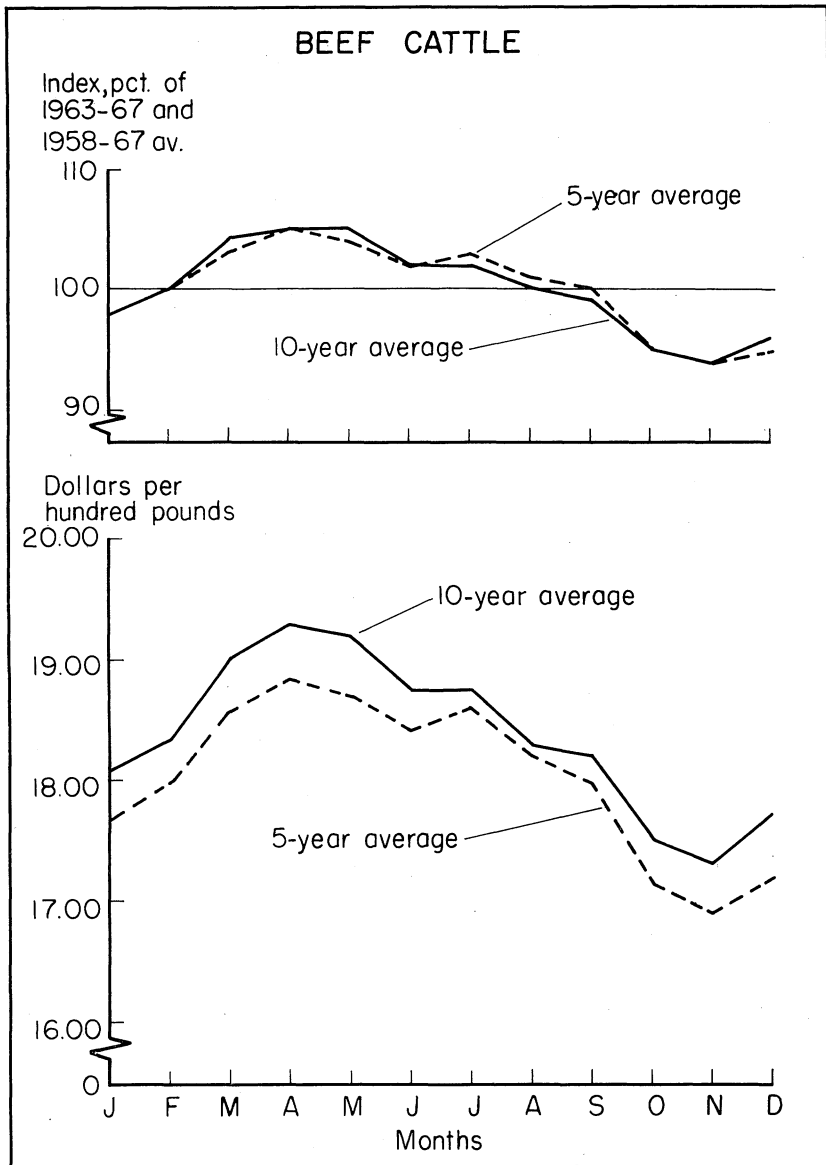


FIG. 4. Beef cattle: Indexes of seasonal variation and average monthly prices, Alabama, 1963-67 and 1958-67 (5- and 10-year averages = index of 100).

Calves

The seasonal price pattern for calves corresponded closely to that of beef cattle for both periods. Prices of all calves under 1 year old were relatively high in the spring and low in the fall, Table 5 and Figure 5. There was a seasonal change in price of approximately 11 per cent during both the 5- and 10-year periods, but there was little difference in average price for the two periods.

TABLE 5. CALVES: AVERAGE SEASONAL VARIATIONS IN ALABAMA FARM PRICES, 1963-67 AND 1958-67

Months	Price per hundredweight		Index of variation		Index of irregularity	
	1963-67	1958-67	1963-67	1958-67	1963-67	1958-67
	<i>Dollars</i>	<i>Dollars</i>				
January.....	21.50	21.90	99	99	10	11
February.....	22.04	22.63	101	102	10	10
March.....	22.86	23.26	105	105	12	10
April.....	22.80	23.44	105	105	11	10
May.....	22.54	23.10	104	104	10	10
June.....	22.18	22.40	102	101	12	11
July.....	21.92	22.26	101	100	12	11
August.....	21.84	22.02	100	99	14	12
September.....	21.50	21.91	99	99	13	12
October.....	20.82	21.37	96	96	12	11
November.....	20.22	20.89	93	94	10	10
December.....	20.54	21.27	95	96	13	11
AVERAGE.....	21.73	22.20	100	100	12	11

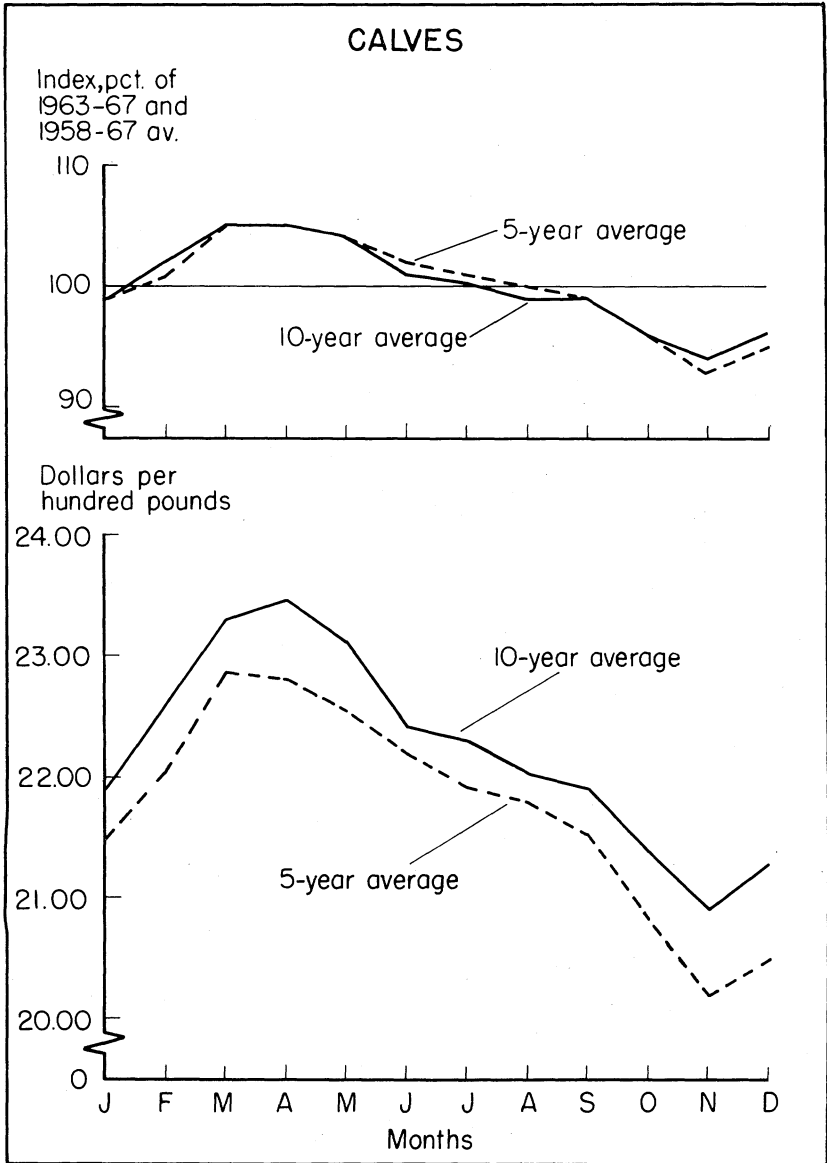


FIG. 5. Calves: Indexes of seasonal variation and average monthly prices, Alabama, 1963-67 and 1958-67 (5- and 10-year averages = index of 100).

Milk

Average prices of milk were relatively lower in April, May, and June, the flush spring production period, for both the 5- and 10-year periods, Table 6 and Figure 6. Price was highest during the fall and winter months when less fluid milk was diverted to manufacturing purposes. There was an approximate 10 per cent difference (57 cents per hundredweight) in the low price of April and the high price of November for both periods.

Seasonal variation in price of milk resulted from fluctuations in production. Increased milk supplies during the spring, which resulted in lower prices, were chiefly the result of higher production per cow.

Milk prices were a combination of prices of milk used for fluid and for manufacturing purposes. Fluid milk producers sold large quantities of surplus milk at manufacturing prices during spring and early summer. Despite lower prices during spring and early summer, income remained fairly constant because of changes in the volume of milk sold.

Milk had the most stable price of any farm commodity. The average index of irregularity was 2 per cent. A major reason for the stability of milk prices was the system under which milk was marketed. A State Milk Control Board determined the price that processors paid to producers for each class of milk.

TABLE 6. MILK: AVERAGE SEASONAL VARIATIONS IN ALABAMA FARM PRICES, 1963-67 AND 1958-67

Months	Price per hundredweight		Index of variation		Index of irregularity	
	1963-67	1958-67	1963-67	1958-67	1963-67	1958-67
	<i>Dollars</i>	<i>Dollars</i>				
January.....	5.91	5.89	101	103	1	2
February.....	5.84	6.80	100	102	1	2
March.....	5.76	5.66	99	99	1	3
April.....	5.66	5.44	97	95	5	6
May.....	5.62	5.45	96	96	5	5
June.....	5.62	5.46	96	96	5	5
July.....	5.72	5.55	98	97	6	6
August.....	5.72	5.55	98	97	7	6
September.....	5.96	5.80	102	102	6	5
October.....	6.06	5.90	103	104	6	5
November.....	6.18	6.01	106	105	6	5
December.....	6.09	5.93	104	104	6	5
AVERAGE.....	5.84	5.70	100	100	5	5

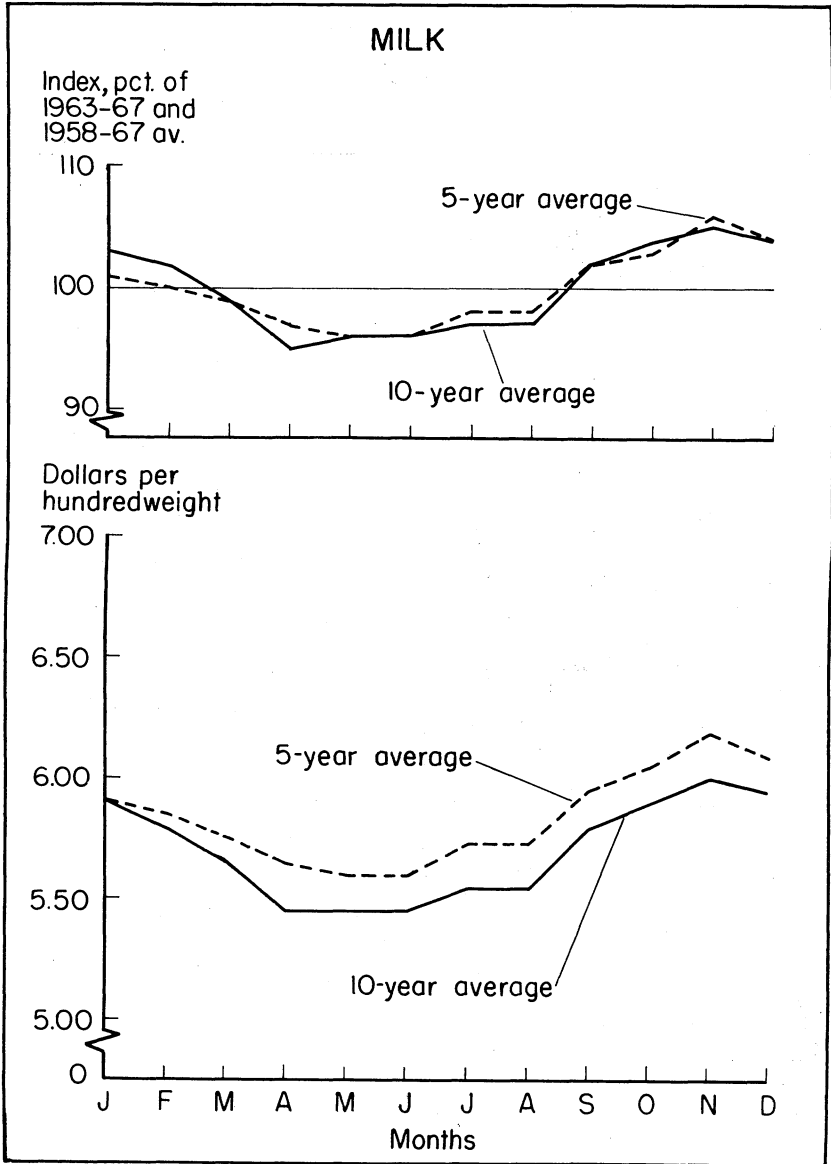


FIG. 6. Milk: Indexes of seasonal variation and average monthly prices, Alabama, 1963-67 and 1958-67 (5- and 10-year averages = index of 100).

FEEDS PURCHASED

Broiler Mash

Continuous demand for feed and availability of basic feed ingredients at fairly uniform prices contributes to stability in broiler mash prices. Seasonal variation in prices of broiler feed was only 4 per cent in the 1963-1967 period and even less, 2 per cent, in the 10-year period, Table 7 and Figure 7. The average price of broiler mash in 1967 was \$5.04 per hundredweight, only 8 cents above the average for 1958.

Formula feeds, including broiler mash, are now almost entirely transported and delivered in bulk, with prices quoted in dollars per ton by feed manufacturers. Since this is a new development, a series of prices per ton was not available for the time period involved. However, the seasonal pattern reflected in prices per hundredweight should closely parallel that from prices quoted on a per ton basis. Major factors that contribute to price variation would have their values reflected in either a per hundredweight or a per ton quotation.

TABLE 7. BROILER MASH: AVERAGE SEASONAL VARIATIONS IN ALABAMA FARM PRICES, 1963-67 AND 1958-67

Months	Price per hundredweight		Index of variation		Index of irregularity	
	1963-67	1958-67	1963-67	1958-67	1963-67	1958-67
	<i>Dollars</i>	<i>Dollars</i>				
January.....	4.93	4.84	100	100	2	3
February.....	4.99	4.86	101	100	1	3
March.....	4.96	4.87	101	101	2	2
April.....	4.89	4.84	99	100	1	2
May.....	4.88	4.82	99	100	1	2
June.....	4.90	4.83	99	100	1	3
July.....	4.91	4.84	99	100	2	4
August.....	4.95	4.86	100	100	2	4
September.....	5.00	4.88	101	101	3	4
October.....	5.01	4.87	102	101	2	4
November.....	4.87	4.78	99	98	2	3
December.....	4.91	4.80	100	99	2	3
AVERAGE.....	4.93	4.84	100	100	2	3

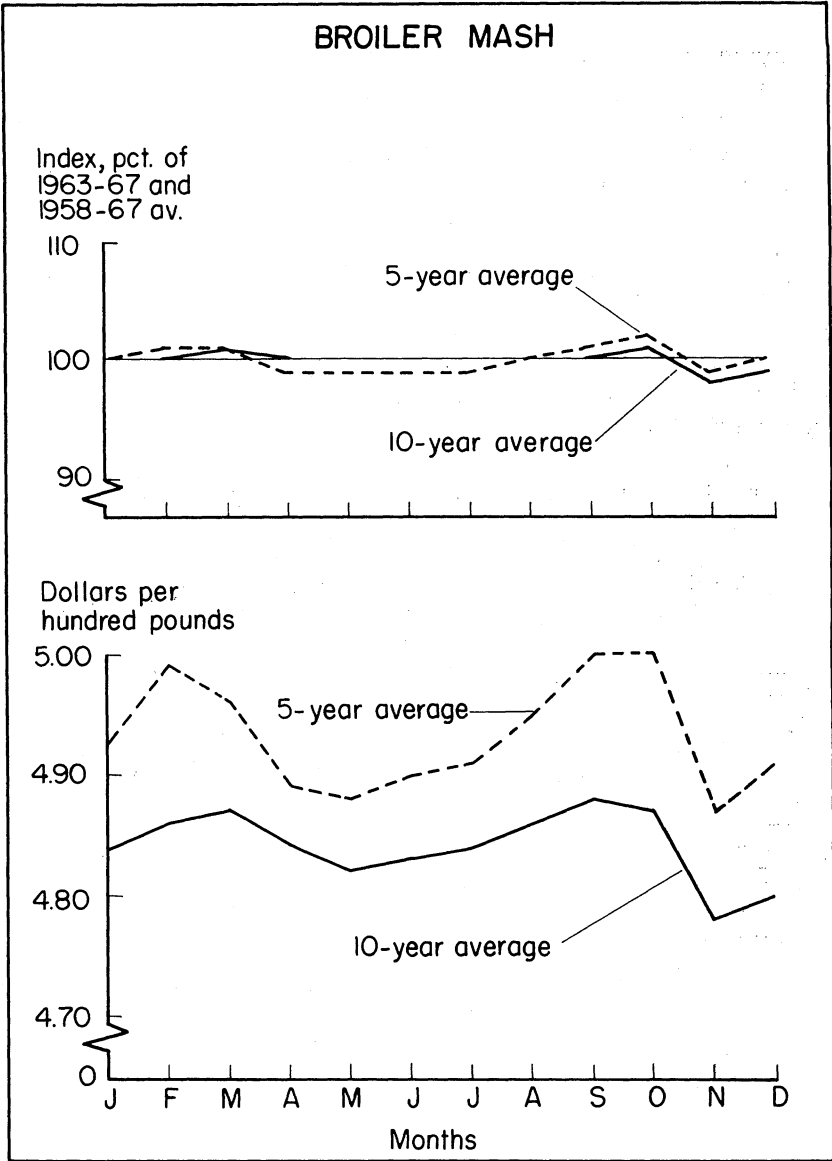


FIG. 7. Broiler mash: Indexes of seasonal variation and average monthly prices, Alabama, 1963-67 and 1958-67 (5- and 10-year averages = index of 100).

Laying Mash

Laying mash prices were relatively stable throughout the year for both the 5- and 10-year periods. These prices peaked in September in both periods. The low average price was \$4.67 per hundredweight during 1963-67 and was \$4.59 during 1958-67. Price quotations for laying mash in bulk quantities were not available.

Variation in average price of laying mash amounted to 3 per cent during 1963-67 and 2 per cent in 1958-67, Table 8 and Figure 8.

Large scale egg production on a non-seasonal basis and availability of feed ingredients at stable prices have tended to limit wide fluctuations in the price of laying mash.

TABLE 8. LAYING MASH: AVERAGE SEASONAL VARIATIONS IN ALABAMA FARM PRICES, 1963-67 AND 1958-67

Months	Price per hundredweight		Index of variation		Index of irregularity	
	1963-67	1958-67	1963-67	1958-67	1963-67	1958-67
	<i>Dollars</i>	<i>Dollars</i>				
January.....	4.70	4.63	100	100	3	3
February.....	4.72	4.65	100	100	2	2
March.....	4.67	4.63	99	100	2	2
April.....	4.67	4.64	99	100	3	2
May.....	4.69	4.65	100	100	2	2
June.....	4.67	4.64	99	100	2	2
July.....	4.71	4.66	100	100	3	3
August.....	4.73	4.67	102	100	3	3
September.....	4.77	4.68	102	101	2	3
October.....	4.72	4.64	100	100	3	3
November.....	4.67	4.59	99	99	3	3
December.....	4.72	4.63	100	100	2	3
AVERAGE.....	4.70	4.64	100	100	3	3

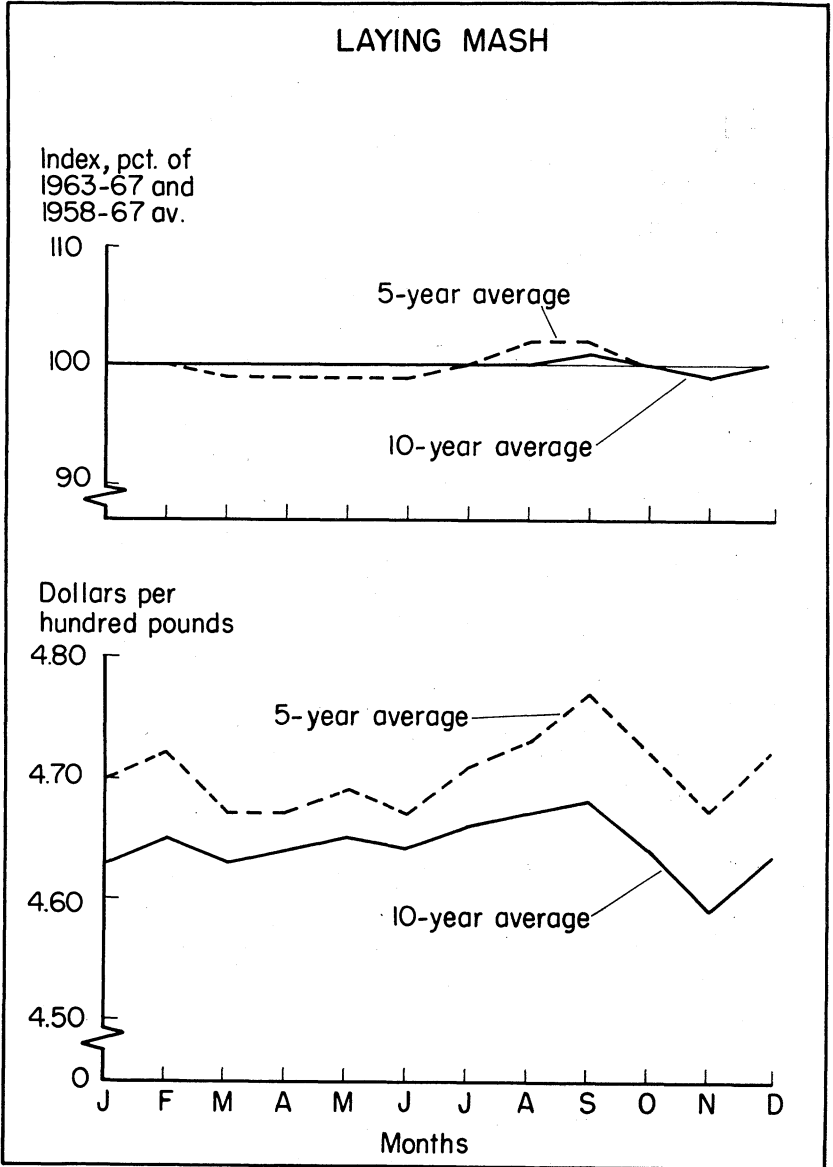


FIG. 8. Laying mash: Indexes of seasonal variation and average monthly prices, Alabama, 1963-67 and 1958-67 (5- and 10-year averages = index of 100).

Mixed Dairy Feed

The price of mixed dairy feed was almost constant throughout the season. Slightly higher prices were noted in the winter months of both periods, but the variation was only a few cents per hundredweight. Dairy feed was cheapest in June, reflecting availability of good pastures during that month.

Practically constant numbers of dairy cows on farms plus rather constant concentrate rations have virtually eliminated seasonal variation in the price of dairy feed.

There was a variance of only 4 cents per hundredweight in the average price of dairy feed for the 5- and 10-year periods, Table 9 and Figure 9.

TABLE 9. MIXED DAIRY FEED: AVERAGE SEASONAL VARIATIONS IN ALABAMA FARM PRICES, 1963-67 AND 1958-67

Months	Price per hundredweight		Index of variation		Index of irregularity	
	1963-67	1958-67	1963-67	1958-67	1963-67	1958-67
	<i>Dollars</i>	<i>Dollars</i>				
January.....	3.91	3.85	101	101	3	3
February.....	3.91	3.86	101	101	3	3
March.....	3.89	3.85	101	101	3	3
April.....	3.86	3.83	100	100	3	3
May.....	3.84	3.82	99	100	2	3
June.....	3.83	3.81	99	100	3	3
July.....	3.83	3.81	99	100	3	3
August.....	3.84	3.82	99	100	3	3
September.....	3.85	3.80	100	99	3	3
October.....	3.86	3.80	100	99	4	3
November.....	3.86	3.80	100	99	3	3
December.....	3.89	3.83	101	100	3	3
AVERAGE.....	3.86	3.82	100	100	3	3

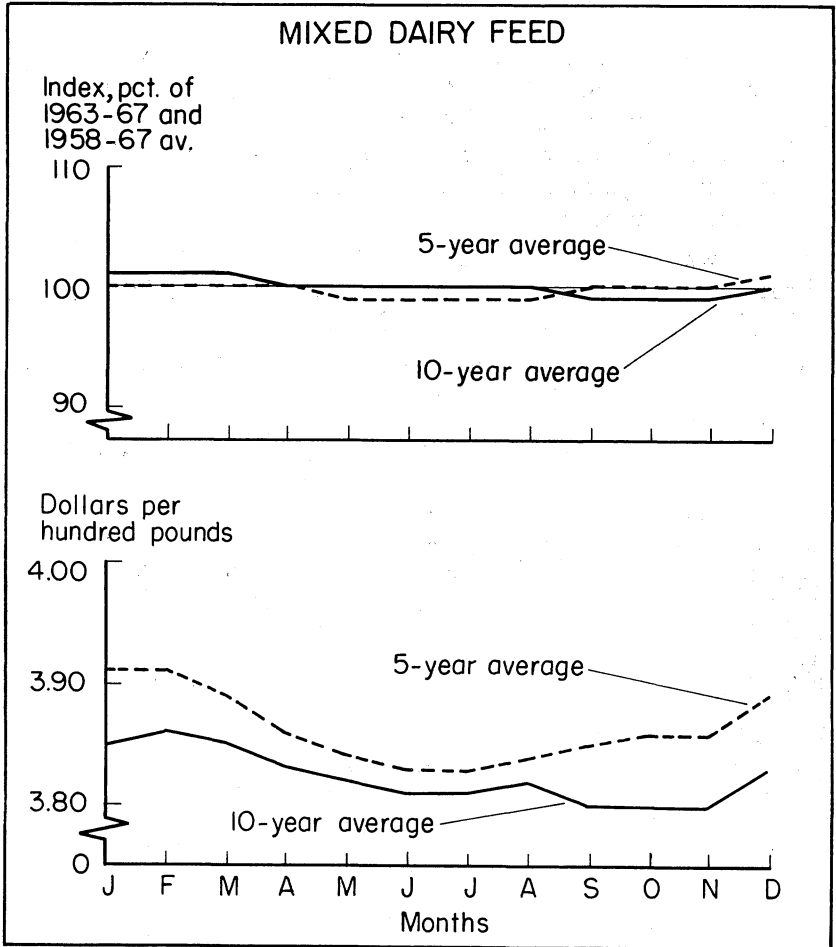


FIG. 9. Mixed dairy feed: Indexes of seasonal variation and average monthly prices, Alabama, 1963-67 and 1958-67 (5- and 10-year averages = index of 100).

Cottonseed Meal

Cottonseed meal prices were relatively stable in both the 5- and 10-year periods, Table 10 and Figure 10. During 1963-67 there was a maximum variation of 4 per cent between the September high and the June low. For the 10-year period the high price occurred in August and the low in January. Again there was a 4 per cent variation in price.

There was a slight upward trend in the annual average price of cottonseed meal. Farmers paid an average of \$85 per ton in 1963-67 and \$79 per ton during 1958-67.

TABLE 10. COTTONSEED MEAL: AVERAGE SEASONAL VARIATIONS IN ALABAMA FARM PRICES, 1963-67 AND 1958-67

Months	Price per hundredweight		Index of variation		Index of irregularity	
	1963-67	1958-67	1963-67	1958-67	1963-67	1958-67
	<i>Dollars</i>	<i>Dollars</i>				
January.....	4.18	3.89	99	98	9	11
February.....	4.19	3.92	99	99	9	10
March.....	4.21	3.95	99	100	9	10
April.....	4.19	3.94	99	100	9	10
May.....	4.17	3.94	98	100	8	9
June.....	4.15	3.93	98	100	10	9
July.....	4.24	3.97	100	101	10	10
August.....	4.32	4.04	102	102	10	11
September.....	4.35	4.00	102	101	11	12
October.....	4.31	3.91	101	99	10	13
November.....	4.31	3.92	101	99	11	13
December.....	4.34	3.98	102	101	11	13
AVERAGE.....	4.25	3.95	100	100	10	11

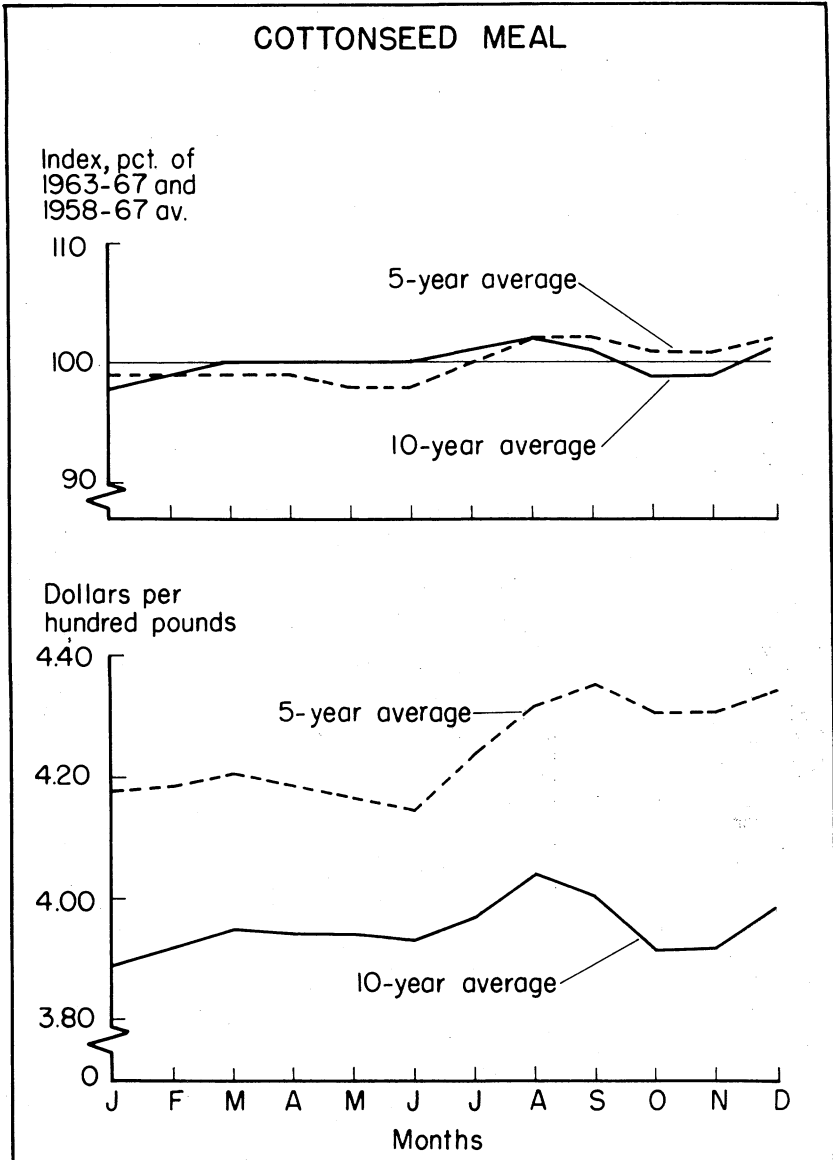


FIG. 10. Cottonseed meal: Indexes of seasonal variation and average monthly prices, Alabama, 1963-67 and 1958-67 (5- and 10-year averages = index of 100).

Soybean Meal

Soybean meal prices reached a peak in September during both periods, Table 11 and Figure 11. Prices tended to be rather stable from January through June, and then rose sharply from July through September. After September prices began a slow decline.

The price of soybean meal corresponded to the supply of soybeans available for processing and demand for the meal.

The use of soybean meal as a major source of protein in feeds has increased during recent years. The annual average price per hundredweight increased from \$3.88 in 1958 to \$5.04 in 1967. This increase of approximately 30 per cent was the greatest among feedstuffs during this period.

TABLE 11. SOYBEAN MEAL: AVERAGE SEASONAL VARIATIONS IN ALABAMA FARM PRICES, 1963-67 AND 1958-67

Months	Price per hundredweight		Index of variation		Index of irregularity	
	1963-67	1958-67	1963-67	1958-67	1963-67	1958-67
	<i>Dollars</i>	<i>Dollars</i>				
January.....	4.77	4.29	100	98	5	12
February.....	4.82	4.34	101	99	4	12
March.....	4.77	4.35	100	99	4	10
April.....	4.72	4.33	99	99	4	10
May.....	4.66	4.33	98	99	3	8
June.....	4.64	4.32	97	99	5	8
July.....	4.79	4.42	100	101	9	11
August.....	4.81	4.43	101	102	9	11
September.....	4.90	4.52	102	103	9	12
October.....	4.82	4.38	101	100	6	12
November.....	4.84	4.41	101	101	6	12
December.....	4.80	4.39	100	100	6	11
AVERAGE.....	4.78	4.38	100	100	6	11

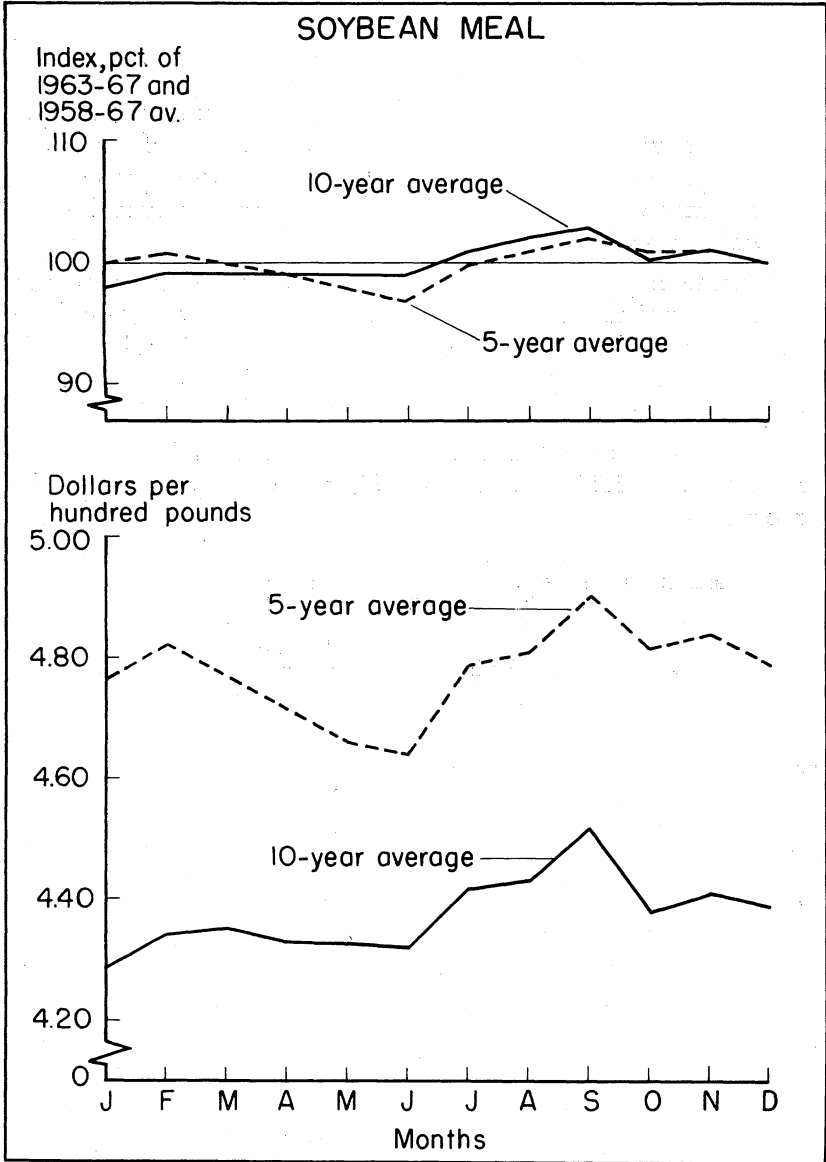


FIG. 11. Soybean meal: Indexes of seasonal variation and average monthly prices, Alabama, 1963-67 and 1958-67 (5- and 10-year averages = index of 100).

CROPS

Corn

Corn prices were highest during June, July, and August—just before the new crop was harvested and when stores of corn were almost depleted, Table 12 and Figure 12. Likewise, prices were lowest during October, November, and December when the new crop was harvested and stores of corn were greatest.

Government price support programs have done much to limit seasonal variations in prices of storable grains. Average indexes of irregularity for corn were 6 and 7 for 1963-67 and 1958-67, down from 16 and 17 for the periods 1953-62 and 1948-54, respectively.

Average price per bushel of corn declined from \$1.34 to \$1.27 for the periods 1953-62 and 1958-67, respectively—a drop of 5 per cent.

TABLE 12. CORN: AVERAGE SEASONAL VARIATIONS IN ALABAMA FARM PRICES, 1963-67 AND 1958-67

Months	Price per bushel		Index of variation		Index of irregularity	
	1963-67	1958-67	1963-67	1958-67	1963-67	1958-67
	<i>Dollars</i>	<i>Dollars</i>				
January.....	1.31	1.24	99	98	8	8
February.....	1.35	1.28	102	100	6	7
March.....	1.37	1.32	103	103	6	7
April.....	1.37	1.32	104	104	5	6
May.....	1.37	1.32	103	104	4	6
June.....	1.39	1.34	105	106	4	6
July.....	1.38	1.34	104	105	4	5
August.....	1.37	1.33	103	105	3	6
September.....	1.30	1.25	98	98	6	6
October.....	1.23	1.17	93	92	10	9
November.....	1.22	1.16	92	91	10	10
December.....	1.25	1.19	94	94	9	9
AVERAGE.....	1.33	1.27	100	100	6	7

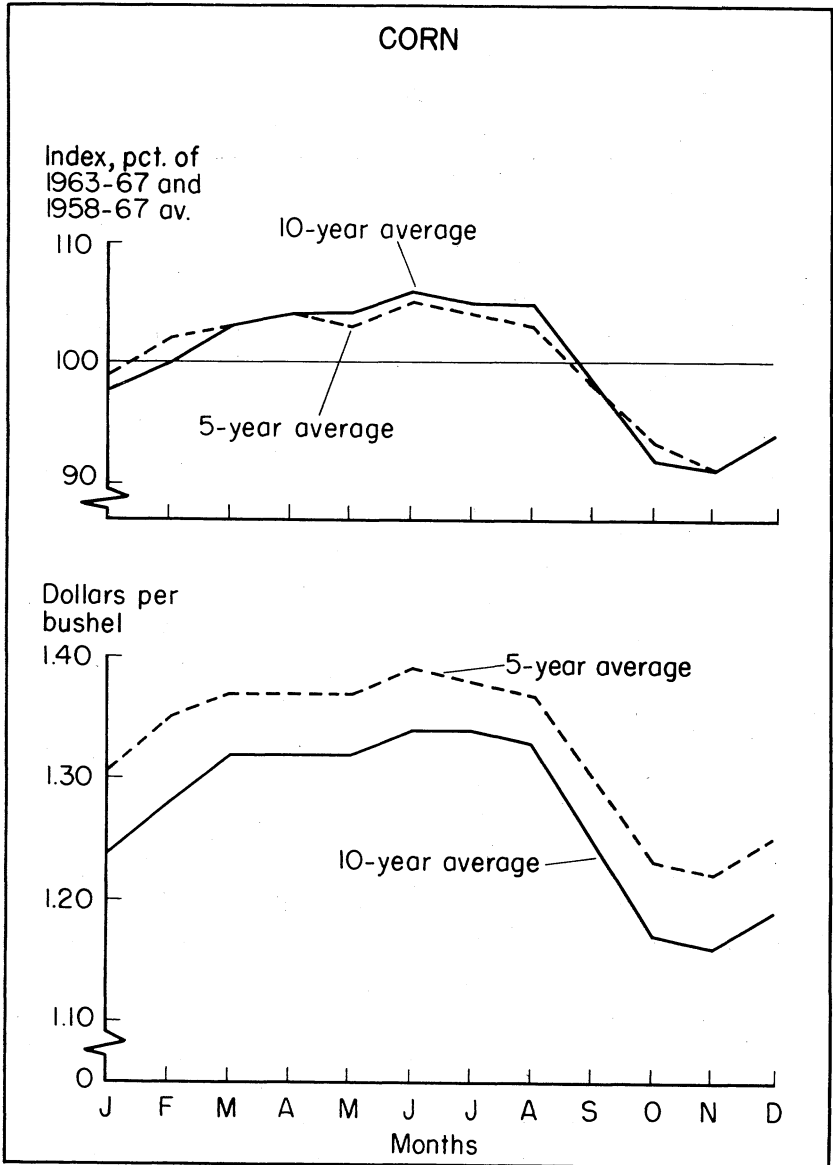


FIG. 12. Corn: Indexes of seasonal variation and average monthly prices, Alabama, 1963-67 and 1958-67 (5- and 10-year averages = index of 100).

Wheat

Wheat prices were at a peak in February and dropped to a low in July during both periods, Table 13 and Figure 13.

Prices for wheat varied by as much as 16 per cent between the high and low month in 1963-67 and by 11 per cent during 1958-66. This amounted to 27 and 17 cents per bushel, respectively.

The average indexes of irregularity for wheat were 10 and 9 for 1963-67 and 1958-67, respectively. Comparison figures for 1954-62 and 1948-53 were 5 and 8, respectively.

The average price per bushel for wheat was \$1.64 in 1963-67 and \$1.73 for 1958-67.

TABLE 13. WHEAT: AVERAGE SEASONAL VARIATIONS IN ALABAMA
FARM PRICES, 1963-67 AND 1958-67

Months	Price per bushel		Index of variation		Index of irregularity	
	1963-67	1958-67	1963-67	1958-67	1963-67	1958-67
	<i>Dollars</i>	<i>Dollars</i>				
January.....	1.76	1.79	107	104	10	7
February.....	1.77	1.80	108	105	8	7
March.....	1.75	1.80	107	105	6	6
April.....	1.75	1.79	107	104	7	6
May.....	1.60	1.71	97	99	12	10
June.....	1.56	1.68	95	97	11	10
July.....	1.50	1.63	92	94	11	11
August.....	1.58	1.67	96	96	11	10
September.....	1.59	1.70	97	98	10	10
October.....	1.60	1.70	97	98	12	10
November.....	1.62	1.73	98	100	11	10
December.....	1.63	1.73	99	100	11	10
AVERAGE.....	1.64	1.73	100	100	10	9

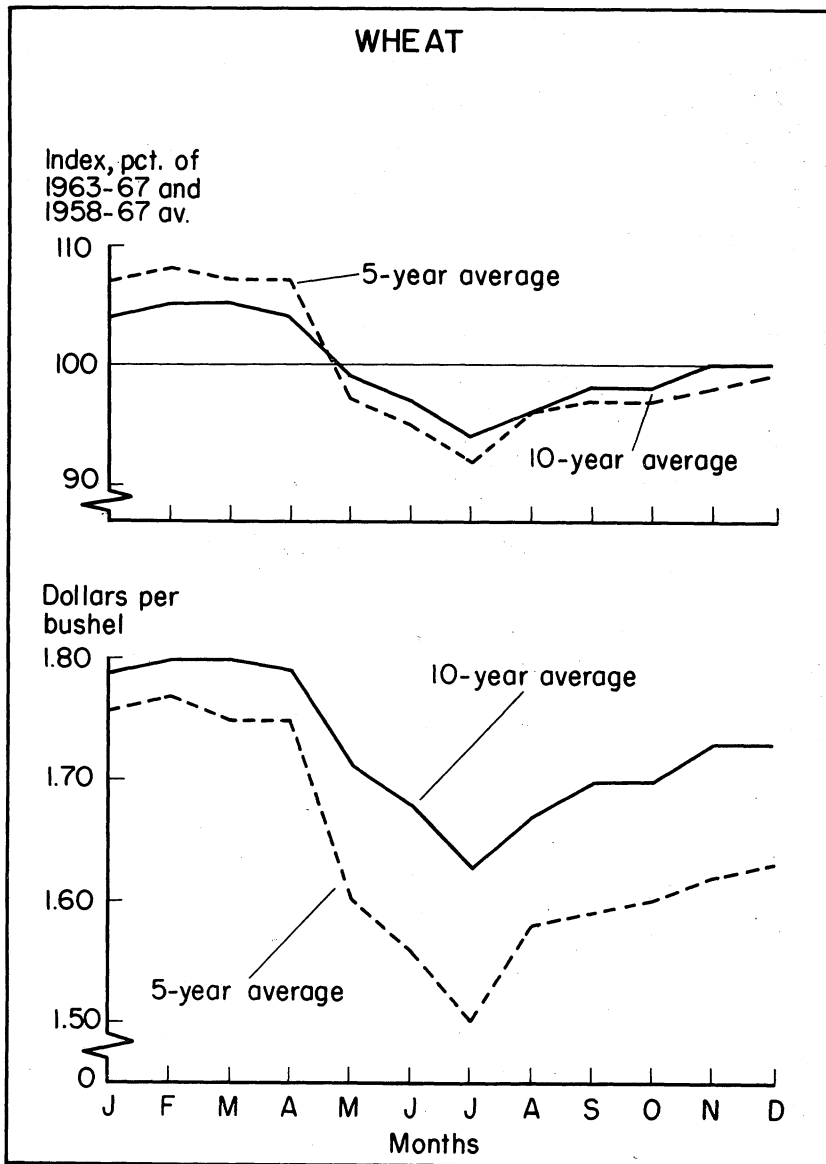


FIG. 13. Wheat: Indexes of seasonal variation and average monthly prices, Alabama, 1963-67 and 1958-67 (5- and 10-year averages = index of 100).

Oats

The seasonal price pattern for oats was characterized by a price 9 to 10 per cent higher during January, February, and March than in July; this was true for both time periods. Price normally declined from March through July, with the lowest prices occurring in June and July, Table 14 and Figure 14.

Oats were grown principally as a feed or seed crop on Alabama farms. Seasonal variation in price normally is not enough to make storing oats profitable. Even in the highest month during 1963-67 the price was only 9 cents per bushel above the lowest price.

Oats averaged 86 cents per bushel during 1963-67 and 85 cents per bushel during 1958-67.

TABLE 14. OATS: AVERAGE SEASONAL VARIATIONS IN ALABAMA FARM PRICES, 1963-67 AND 1958-67

Months	Price per bushel		Index of variation		Index of irregularity	
	1963-67	1958-67	1963-67	1958-67	1963-67	1958-67
	<i>Dollars Dollars</i>					
January.....	0.89	0.88	103	104	4	3
February.....	.89	.87	103	103	3	3
March.....	.90	.88	104	104	4	3
April.....	.89	.87	103	103	3	4
May.....	.86	.85	100	100	4	3
June.....	.81	.80	95	95	4	4
July.....	.81	.79	94	94	5	4
August.....	.83	.81	97	96	5	5
September.....	.85	.83	99	98	6	5
October.....	.86	.85	100	100	4	5
November.....	.87	.86	101	102	5	5
December.....	.87	.86	101	101	5	4
AVERAGE.....	.86	.85	100	100	4	4

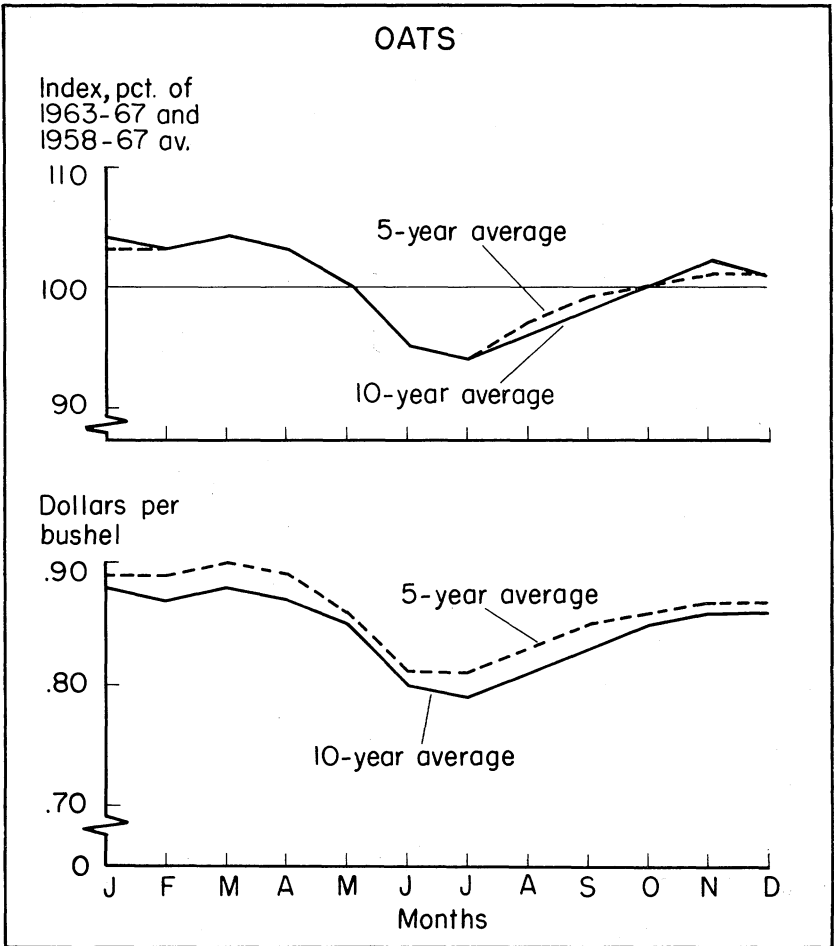


FIG. 14. Oats: Indexes of seasonal variation and average monthly prices, Alabama, 1963-67 and 1958-67 (5- and 10-year averages = index of 100).

Soybeans

Soybean prices were lowest at time of harvest and highest in spring and summer. April was the month of highest prices in both time periods; the lowest price occurred in September for the 5-year period and November for the 10-year period, Table 15 and Figure 15. The average price for soybeans for each month was higher in the 1963-67 period than the 1958-67 period. Prices averaged 40 cents per bushel higher during the 5-year period than for the 10-year one.

Because of growing interest in soybean production recently, new areas have been placed under cultivation and new grain elevators have been built. Soybeans are already an important cash crop in several counties, especially in Baldwin, Jackson, Escambia, Mobile, and Madison.

Storing soybeans may be profitable for some individuals, but the additional costs and added returns of storing should be carefully investigated. Costs to be considered should include building or bin costs, possible losses in quality, insect and rodent control, and labor and machinery costs for placing soybeans in storage and moving them out.

TABLE 15. SOYBEANS: AVERAGE SEASONAL VARIATIONS IN ALABAMA FARM PRICES, 1963-67 AND 1958-67

Months	Price per bushel		Index of variation		Index of irregularity	
	1963-67	1958-67	1963-67	1958-67	1963-67	1958-67
	<i>Dollars Dollars</i>					
January.....	2.66	2.36	100	98	6	15
February.....	2.72	2.43	103	101	6	14
March.....	2.74	2.47	103	103	5	13
April.....	2.72	2.51	103	104	6	12
May.....	2.68	2.50	101	104	6	11
June.....	2.66	2.47	100	103	6	10
July.....	2.62	2.41	99	100	5	11
August.....	2.63	2.41	99	100	7	12
September.....	2.61	2.37	98	98	8	13
October.....	2.60	2.34	98	97	5	13
November.....	2.58	2.30	97	95	6	16
December.....	2.62	2.33	99	97	6	16
AVERAGE.....	2.65	2.41	100	100	6	13

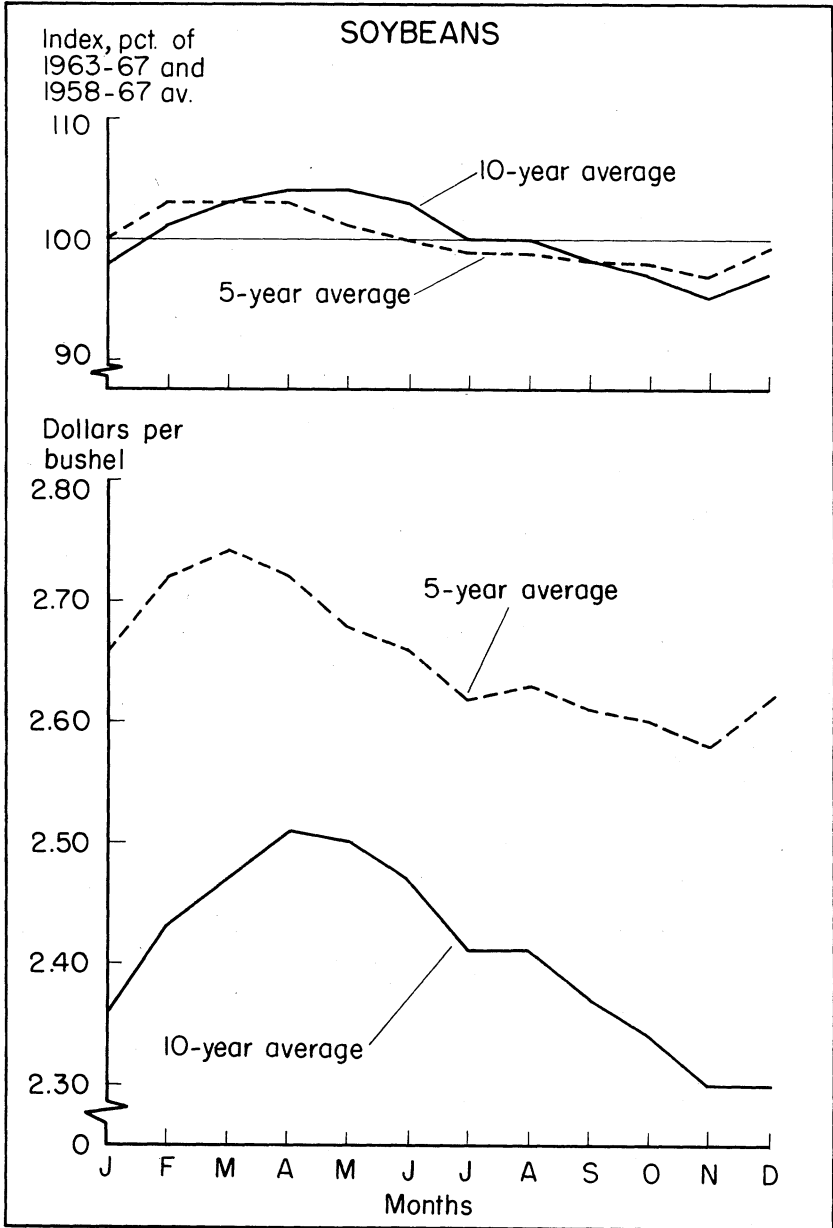


FIG. 15. Soybeans: Indexes of seasonal variation and average monthly prices, Alabama, 1963-67 and 1958-67 (5- and 10-year averages = index of 100).

Cotton

The seasonal price pattern for cotton shifted slightly between 1958-67 and 1963-67. The highest prices occurred in August and September for the 10-year period and in June and July for the 5-year period. December and January were the months of lowest prices, Table 16 and Figure 16. There was only a 9 per cent variation from the month of lowest price to the month of highest price, or 2.6 cents per pound, for 1958-67. The average price of cotton was 31.0 cents for the 1963-67 period and 31.7 cents for the 1958-67 period.

Prices of cotton did not vary greatly because price support programs were relatively stable. A change in support level effective in 1966 was reflected by lower prices and more fluctuation in prices in 1966 and 1967.

TABLE 16. COTTON: AVERAGE SEASONAL VARIATIONS IN ALABAMA FARM PRICES, 1963-67 AND 1958-67

Months	Price per pound ¹		Index of variation		Index of irregularity	
	1963-67	1958-67	1963-67	1958-67	1963-67	1958-67
	<i>Cents</i>	<i>Cents</i>				
January.....	29.6	30.3	95	96	6	6
February.....	30.0	30.6	97	97	6	6
March.....	30.3	30.9	98	98	6	5
April.....	31.1	31.4	100	99	6	5
May.....	31.1	31.6	100	100	5	4
June.....	31.6	32.0	102	100	6	5
July.....	32.2	32.6	104	103	3	4
August.....	31.4	32.7	101	103	3	5
September.....	31.7	32.9	102	104	4	5
October.....	31.1	32.3	101	102	5	5
November.....	31.2	31.8	101	100	10	8
December.....	30.6	31.1	99	98	12	9
AVERAGE.....	31.0	31.7	100	100	6	6

¹ Prices from August 1966 through 1967 include domestic price support payment.

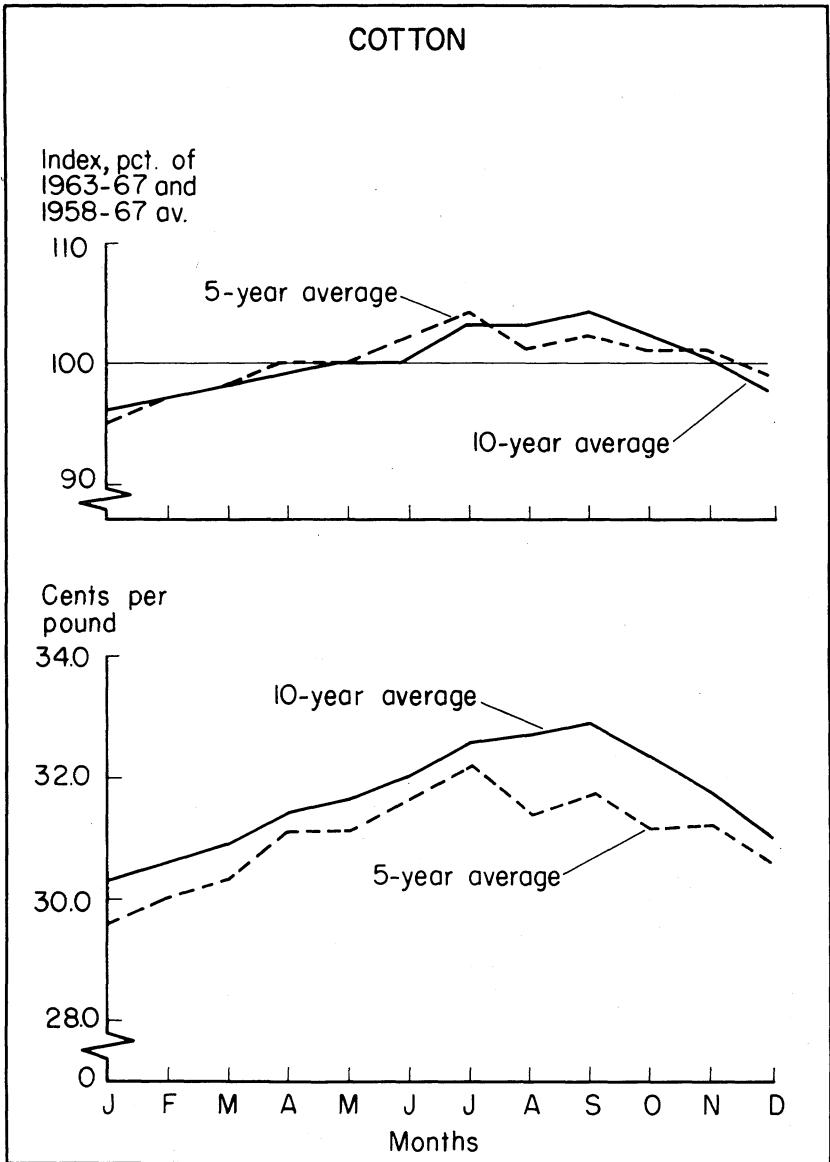


FIG. 16. Cotton: Indexes of seasonal variation and average monthly prices, Alabama, 1963-67 and 1958-67 (5- and 10-year averages = index of 100).

Hay

Hay prices have a distinct seasonal variation, being highest in winter and early spring and dropping sharply during late spring and summer while grazing is plentiful, Table 17 and Figure 17. A rise in hay prices normally begins in September and continues to a peak in March; then prices decline, reaching the low in August—the main haying season. Hay prices were for all baled hay.

Average price of hay was \$26.02 per ton for the 1963-67 period and \$25.47 per ton during 1958-67. Demand for hay is increasing as the number of cattle and horses in the State increases.

TABLE 17. HAY: AVERAGE SEASONAL VARIATIONS IN ALABAMA
FARM PRICES, 1963-67 AND 1958-67

Months	Price per ton		Index of variation		Index of irregularity	
	1963-67	1958-67	1963-67	1958-67	1963-67	1958-67
	<i>Dollars</i>	<i>Dollars</i>				
January.....	27.46	26.50	105	104	6	7
February.....	27.60	26.66	106	105	8	7
March.....	28.10	27.03	108	106	11	10
April.....	27.00	26.08	104	102	7	7
May.....	26.46	25.62	102	101	8	7
June.....	24.96	24.66	96	97	4	3
July.....	25.10	24.46	96	96	3	4
August.....	24.52	24.24	94	95	3	4
September.....	24.60	24.36	95	96	3	5
October.....	24.78	24.64	95	97	3	5
November.....	25.38	25.32	98	99	4	5
December.....	26.30	26.03	101	102	4	6
AVERAGE.....	26.02	25.47	100	100	5	6

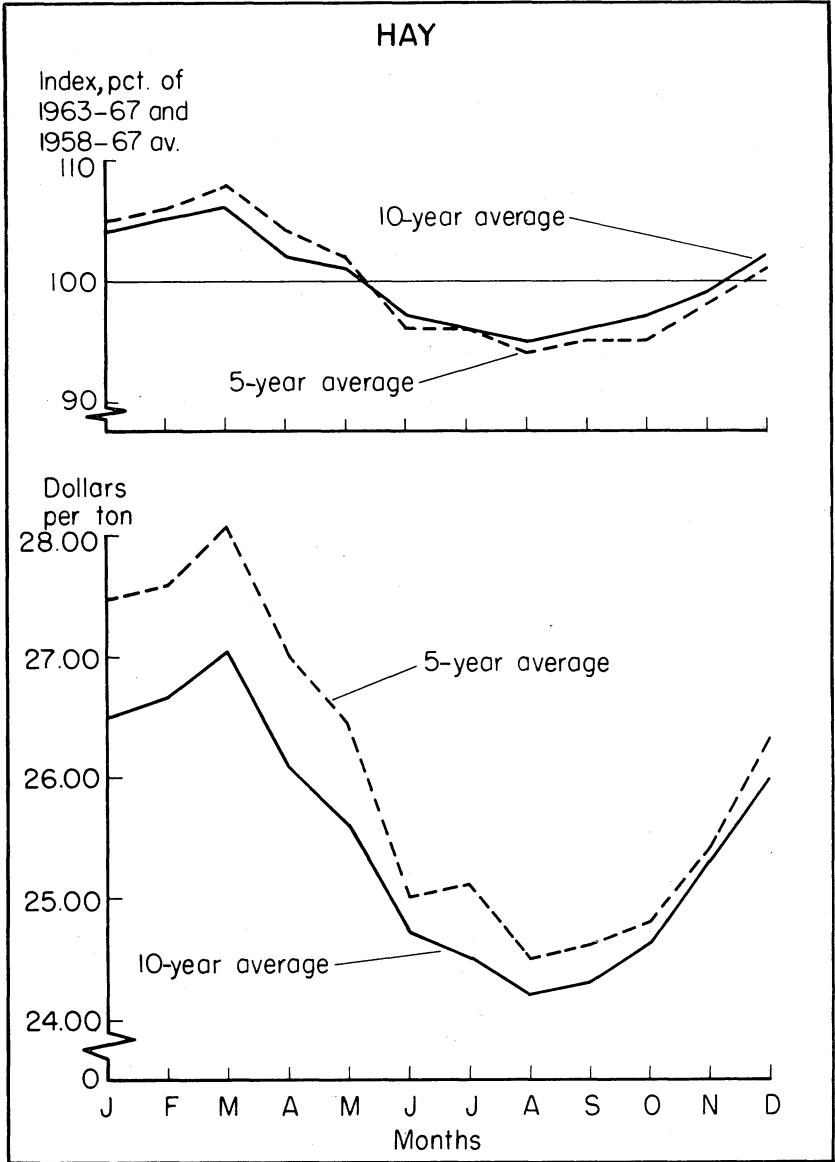


FIG. 17. Hay: Indexes of seasonal variation and average monthly prices, Alabama, 1963-67 and 1958-67 (5- and 10-year averages = index of 100).

RELIABILITY OF SEASONAL PRICE PATTERNS

Seasonal price patterns calculated for the periods 1963-67 and 1958-67 were very similar; also these price patterns were similar to those that prevailed during 1948-54. Many seasonal demand factors, such as eating habits of consumers, change slowly. However, a substantial change in seasonal production of such commodities as broilers and eggs can be made in a relatively short period. During a particular year these changes may result in slightly different seasonal price patterns than those presented. For example, producers who are aware of the number of pigs farrowed, as well as of other key factors that will later affect prices of market hogs, can adjust to take advantage of indicated seasonal production and prices.

A degree of error exists in estimating seasonal prices for any farm commodity. However, a measure of this error was calculated based on past monthly price variations. Indexes of irregularity were used to measure in percentage the average amount by which individual monthly prices differed from the monthly average price.

During the 5- and 10-year periods, 1963-67 and 1958-67, prices of certain commodities varied more from the monthly averages than others. Data below show that for a majority of commodities sold by farmers, the degree of variation from average monthly prices was less in the 5-year period than during the 10-year period. The lower the index of irregularity the more precise the estimate that can be made from historical data.

Commodity	Average index of irregularity	
	1963-67	1958-67
Broilers.....	8	12
Eggs.....	6	7
Hogs.....	19	17
Beef cattle.....	11	9
Calves.....	12	11
Milk.....	5	5
Broiler mash.....	2	3
Laying mash.....	3	3
Mixed dairy feed.....	3	3
Cottonseed meal.....	10	11
Soybean meal.....	6	11
Corn.....	6	7
Wheat.....	10	9
Oats.....	4	4
Soybeans.....	6	13
Cotton.....	5	6
Hay.....	6	6

CHANGES IN PRICE LEVELS AND PRICE PATTERNS

Changes in Price Levels

Comparison of average annual prices for 12 commodities sold and 5 feeds purchased revealed that prices for three-fourth of the commodities sold by farmers declined from the 1948-57 period to the 1958-67 period. Four of the five feeds purchased also showed price drops from the earlier period.

Averages of annual prices for the periods 1948-57 and 1958-67 along with price differences in dollars and percentage are given in Table 18.

Broilers had declined more percentage-wise in price than any other farm commodity, 44.2 per cent. Calves had increased in price by 17.1 per cent since the 1948-57 period. This was the largest increase among the commodities studied.

Of the five feeds purchased, only cottonseed meal had increased in price, and this amounted to just 1.8 per cent. Mixed dairy feed had declined in price by 11.8 per cent.

TABLE 18. COMPARISON OF AVERAGES OF ANNUAL PRICES FOR TWELVE
COMMODITIES SOLD AND FIVE FEEDS PURCHASED BY ALABAMA
FARMERS, 1948-57 AND 1958-67

Commodity and unit of sales	Average of annual prices		Price differences	
	1948-57	1958-67	Dollars	Per cent
	<i>Dollars</i>	<i>Dollars</i>		
Broilers, lb.	0.260	0.145	-0.115	-44.2
Eggs, doz.469	.417	- .052	-11.1
Hogs, cwt.	18.46	17.13	-1.33	- 7.2
Beef cattle, cwt.	16.29	18.37	2.08	12.8
Calves, cwt.	18.96	22.20	3.24	17.1
Milk, cwt.	5.46	5.70	.24	4.4
Broiler mash ¹ , cwt.	5.26	4.84	- .42	- 8.0
Laying mash, cwt.	5.25	4.64	- .61	-11.6
Mixed dairy feed, cwt.	4.33	3.82	- .51	-11.8
Cottonseed meal, cwt.	3.88	3.95	.07	1.8
Soybean meal ² , cwt.	4.58	4.38	- .20	- 4.4
Corn, bu.	1.56	1.27	- .29	-18.6
Wheat, bu.	2.05	1.73	- .32	-15.6
Oats, bu.	1.05	.85	- .20	-19.0
Soybeans, bu.	2.60	2.41	- .19	- 7.3
Cotton, lb.344	.317	- .027	- 7.8
Hay, ton	26.21	25.47	- .74	- 2.8

¹ Broiler mash prices were not quoted until 1953; therefore, the price given for the 1948-57 average is only a 5-year average.

² Soybean meal prices were not quoted until 1951; therefore, the price given for the 1948-57 average is only a 7-year average.

Changes in Price Patterns

To provide comparisons, the monthly indexes of prices received by Alabama farmers for 11 farm commodities were calculated for the period 1948-54. Methods similar to those used in calculating monthly indexes for 1958-67 were used in arriving at the 1948-54 seasonal pattern of prices.

Except for a few commodities, seasonal price patterns for the two periods were quite similar, Figures 18 and 19.

There was less seasonal fluctuation in prices of livestock products in the 1958-67 period than during 1948-54, except for poultry. This is partially accounted for by more stable feed prices, improved production methods, better transportation and storage facilities, and improved marketing information.

Seasonal price patterns for crops have not changed significantly. For the 1958-67 period, corn prices tended to be more stable throughout the year. During this period there was a 14 per cent difference between the July and November price of corn, as compared with a 20 per cent difference during 1948-54.

Wheat prices peaked in February during 1958-67, as contrasted to January in the 1948-54 period.

Seasonal variations in prices of oats and hay were almost identical during both periods.

The seasonal pattern for soybeans shifted slightly with the low price coming in November in the more recent period as compared with October in 1948-54. The major change, however, was in the magnitude of seasonal price fluctuation.

Cotton exhibited more change in seasonal price pattern than any commodity. The highest seasonal price occurred in April and June during 1948-54, but shifted to August and September in the 1958-67 period. January had the low price in the 1958-67 period, as opposed to August in the earlier period.

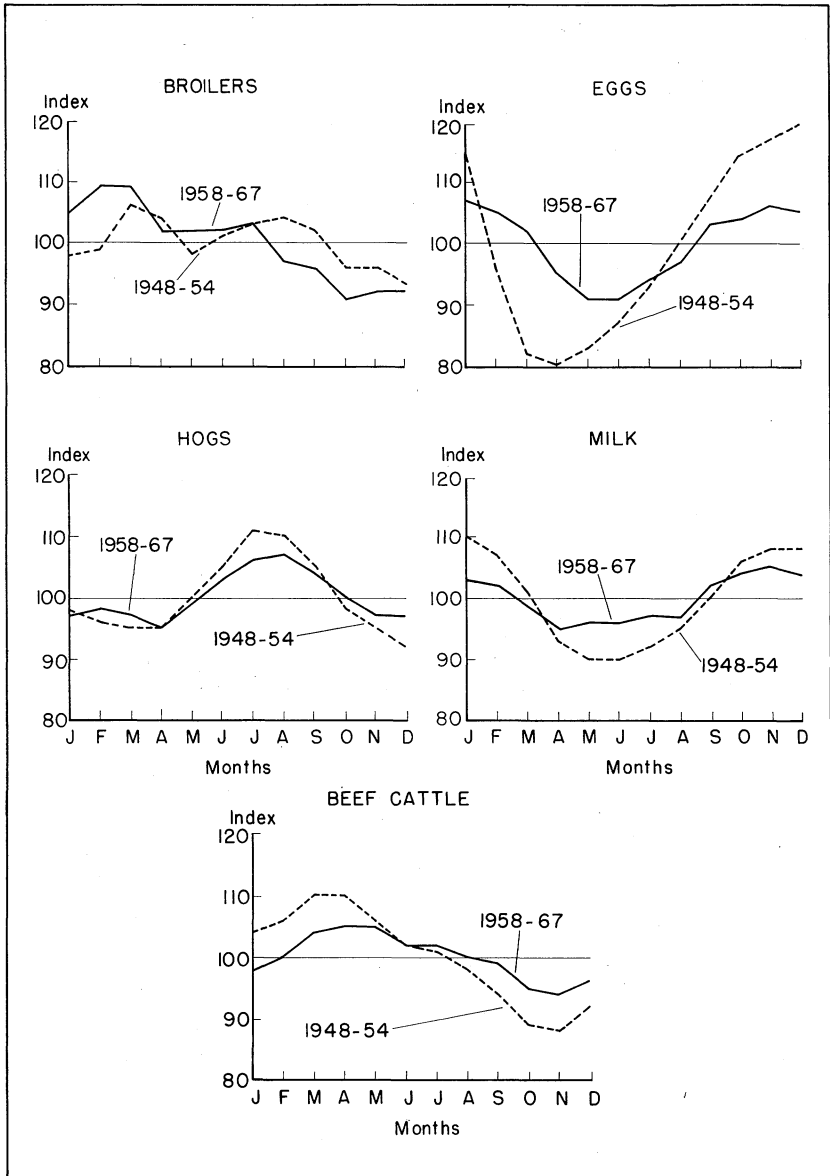


FIG. 18. Comparison of seasonal price patterns for selected livestock and livestock products, Alabama (1948-54 and 1958-67 averages = index of 100).

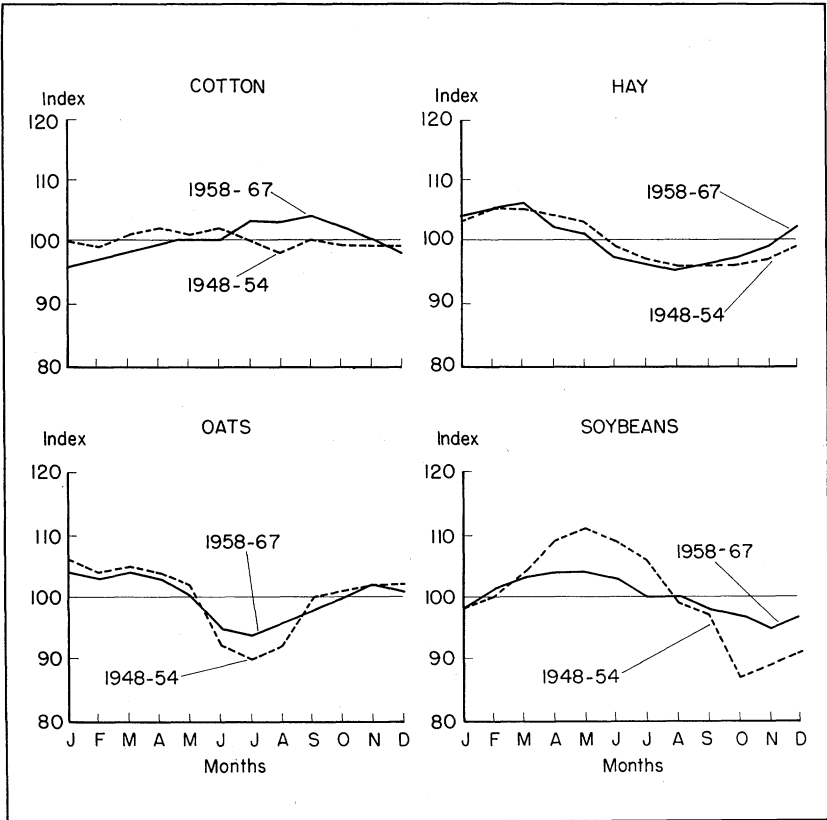


FIG. 19. Comparison of seasonal price patterns for selected crops, Alabama (1948-54 and 1958-67 averages = index of 100).

SUMMARY AND CONCLUSIONS

The degree of seasonal variation in prices for most commodities was less in the 1963-67 period than in the 1958-67 period. The percentage increase from the month of lowest price to the month of highest price for 1963-67 and 1958-67 is given below for 12 commodities sold and for 5 feeds purchased. Prices received by farmers changed considerably more within the year than did prices paid by farmers.

Commodity	Percentage increase from month of lowest to month of highest average price	
	1963-67	1958-67
Broilers.....	14	18
Eggs.....	14	16
Hogs.....	18	12
Beef cattle.....	11	11
Calves.....	12	11
Milk.....	8	10
Broiler mash.....	3	3
Laying mash.....	3	2
Cottonseed meal.....	4	4
Soybean meal.....	5	5
Mixed dairy feed.....	2	2
Corn.....	13	15
Wheat.....	16	11
Oats.....	10	9
Soybeans.....	6	9
Cotton.....	7	8
Hay.....	14	11

The price of all commodities purchased by farmers increased more percentage-wise in the 1963-67 period than during 1958-67.

A larger percentage increase occurred during 1963-67 for hogs, calves, wheat, oats, and hay than in the 1958-67 period.

Livestock and livestock products, as well as crops such as soybeans, corn, and small grains, are becoming more important to Alabama farmers as the State's cotton acreage continues to decline. The seasonal price patterns of several of these commodities indicated that considerable farmer effort would be justified to adjust production or marketing, or both, to ensure highest possible seasonal prices.

Lowest seasonal crop prices usually occurred during or shortly after the harvest season. For livestock and livestock products, as well as for crops, the various supply and demand factors must be considered in accounting for the seasonal pattern of prices. Supply and demand factors and their relative importance change with the passage of time.

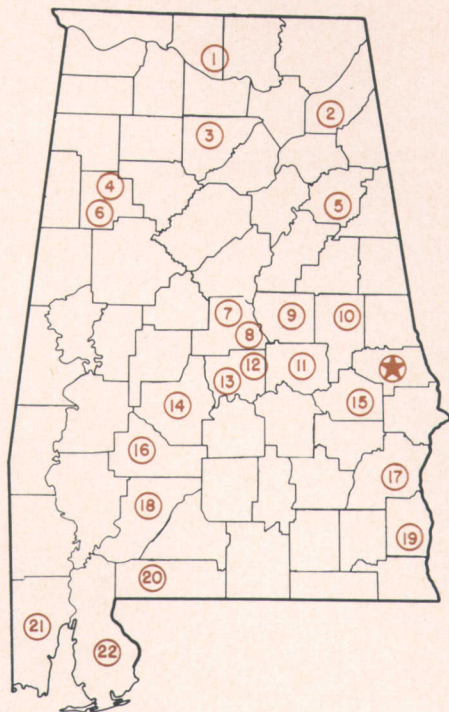
Price patterns as presented for various commodities give an indication of the seasonal pattern that may be expected in the future. However, farmers must constantly be alert to the many factors that can change the future seasonal pattern of price for a given commodity. Several things that farmers can do to take advantage of seasonal prices are:

1. Become familiar with the entire marketing system through which products move.
2. Make adjustments in numbers of livestock and poultry, or size of other enterprises, to obtain greatest returns.
3. Consider putting into practice a breeding program that takes into account the seasonal price pattern of livestock produced, but at the same time consider additional costs that might result from a different breeding program.
4. Make adjustments in amount and kind of feed used.
5. Time the purchases of cattle, hogs, and feed to take advantage of low seasonal prices. Likewise, time the sale of livestock to take advantage of high seasonal prices.
6. Consider the storage of farm commodities that lend themselves to storing and for which there is considerable seasonal variation in prices.

Making adjustments in the farming operation on the basis of a historical, seasonal price pattern does not guarantee increased profits. Seasonal price patterns result from the forces of supply and demand peculiar to a given season and product. Thus, prices do not always run the same path.

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, live-stock, 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.

1. Tennessee Valley Substation, Belle Mina.
2. Sand Mountain Substation, Crossville.
3. 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.
10. Piedmont Substation, Camp Hill.
11. Plant Breeding Unit, Tallassee.
12. Forestry Unit, Autauga County.
13. Prattville Experiment Field, Prattville.
14. Black Belt Substation, Marion Junction.
15. Tuskegee Experiment Field, Tuskegee.
16. Lower Coastal Plain Substation, Camden.
17. Forestry Unit, Barbour County.
18. Monroeville Experiment Field, Monroeville.
19. Wiregrass Substation, Headland.
20. Brewton Experiment Field, Brewton.
21. Ornamental Horticulture Field Station, Spring Hill.
22. Gulf Coast Substation, Fairhope.