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Purchases of Feeds and Grains in Alabama 1935

A PROGRESS REPORT

By

BUIS T. INMAN

AGRICULTURAL EXPERIMENT STATION

OF THE

ALABAMA POLYTECHNIC INSTITUTE

M. J. FUNCHESS, *Director*

AUBURN

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ALABAMA, with a type of farming that depends chiefly upon cotton as the one cash crop, has been extremely lacking in the production of food and feed crops sufficient for her own needs. Because of this type of farming the State has had to spend a large part of its annual cash income for foods and feeds that might have been produced in the State with a diversified type of farming.

The shortage in production of food and feed products in the State has been modified to a small extent in recent years by farmers' shifting a part of their cropland from cotton to grain and hay production. For instance, corn harvested for grain increased from 35,683,874 bushels on 2,591,322 acres in 1929 to 44,343,543 bushels on 3,629,604 acres in 1934. Hay production also increased from 364,853 tons on 464,696 acres in 1929 to 657,603 tons on 906,286 acres in 1934. The decrease in area in cotton was 1,436,436 acres from 1929 to 1934. In all probability this shift was influenced in part by the Federal programs. Although there has been this change from cotton to food and feed crops, a large part of the cash income is still expended for these latter products.

This study, which is a phase of a general investigation of the balance in Alabama's production and consumption of farm products, was made in order to arrive at reliable data regarding the amounts and kinds of feeds and grains purchased for use in Alabama. No consideration is given here of inter-farm movements of feeds.

METHOD

Several sources were used in obtaining data for the study. The records of the Alabama Department of Agriculture and Industries showed that stamps were sold for use on 218,327 tons of commercial feeds* during the calendar year 1935. As the law requires that all commercial feeds sold in the State shall be stamped, the sale of stamps was considered an accurate measure of the tons of feed handled. In order to determine the kinds of commercial feeds represented in this tonnage, personal reports were obtained from 75 feed dealers in 20 cities of the State. These reports comprised approximately 25.6 per cent of the com-

*The term "commercial feeds" shall be held to include all feed stuffs used for feeding domestic and wild animals and domestic and wild birds; except whole seed or grains, the unmixed meals made directly from entire grains of corn, wheat, rye, barley, oats, buck wheat, flaxseed, kaffir and milo when packed for human consumption, whole hays, straws, cottonseed hulls and corn stover when unmixed with other materials. (Excerpt from Agr. Code Ala. 1927).

mercial feeds handled. In calculating the total feeds sold in the State it was assumed that these same dealers also handled an equal percentage of non-commercial feeds. Manufacturers of foods and feeds and the State grain inspector's office furnished data on the use of grains in manufactured products. The agricultural censuses were also used in determining the importance of expenditures for feed throughout the State.

COMMERCIAL FEEDS

Commercial feeds with a total value of $7,581,148 were sold in Alabama during 1935 (Table 1). These feed sales, made almost entirely to farmers, represented an expenditure of $27.72 per census farm, 69 per cent of which was for feeds from outside the State. With the exception of cottonseed meal, most of the ingredients which enter into these feeds are corn and by-products of milling flour and consequently are generally out-of-State products. Very little Alabama-grown corn is used by feed manufacturers because it is white corn and lacks uniformity. The expenditure for commercial feeds alone was equal to 37 per cent of the cash income from livestock and livestock products in 1935.

Cottonseed meal is the only commercial feed material of which Alabama produces a surplus with present feeding standards. In 1935 Alabama mills produced 136,127 tons of meal. Of this meal approximately 20 per cent or 27,225 tons were sold outside the State while 73,511 tons were sold as meal in the State for feed. The remaining 35,391 tons were used in the State in mixed feeds and for fertilizer. In addition to the consumption of Alabama-produced meal 7,005 tons were purchased outside the State for feed.

OATS

Oats are one of the important feeds purchased in Alabama. Approximately 1,693,180 bushels of this grain valued at $948,181 were purchased for feed in the State in 1935 (Table 2). In addition to the oats purchased for feed, approximately 200,000 bushels valued at $98,000 were purchased by manufacturers for use chiefly in the manufacture of commercial feeds. Practically all of this grain was purchased from outside markets, since approximately only 318,000 bushels were threshed in the State and few of these left the farm where produced.

Although a few oats are threshed in Alabama annually, a much greater amount is cut and fed unthreshed. Thus of the 1935 crop estimated at 99,000 acres yielding 1,881,000 bushels only 17 per cent was threshed. The lack of harvesting and threshing machinery is a limiting factor for the production of threshed oats in most parts of the State.

TABLE 1.—Quantity and Retail Value of Commercial Feeds Sold in Alabama, 1935

Feed	State-grown products		Out-of-State products		Total	
	Tons	Value	Tons	Value	Tons	Value
Mixed:						
Dairy	569	$ 21,622	32,269	$1,226,222	32,838	$1,247,844
Poultry: Mash	10	520	16,147	839,644	16,157	840,164
Scratch	25	1,125	12,596	566,820	12,621	567,945
Horse and mule	983	34,405	18,112	633,920	19,095	668,325
Hog supplement	--	--	1,432	71,600	1,432	71,600
Pigeon	--	--	153	10,251	153	10,251
Dog: Canned	--	--	300	42,000	300	42,000
Dry	40	4,000	166	16,600	206	20,600
Rabbit	--	--	47	2,961	47	2,961
By-products milling wheat	--	--	37,070	1,223,310	37,070	1,223,310
Velvet bean feed	333	4,995	12	180	345	5,175
Brewers' grain	--	--	1,375	49,500	1,375	49,500
Distillers' grain	--	--	364	15,288	364	15,288
Cottonseed meal	73,511	2,058,308	7,005	196,140	80,516	2,254,448
Peanut meal	3,240	97,200	--	--	3,240	97,200
Linseed meal	--	--	60	2,820	60	2,820
Soybean meal	--	--	70	2,800	70	2,800
Corn gluten feed	--	--	88	3,784	88	3,784
Ground, cracked and chopped corn	2,668	93,380	2,224	93,408	4,892	186,788
Corn bran	14	364	--	--	14	364
Corn feed meal	165	4,620	1,220	34,160	1,385	38,780
Whole ear corn ground	1,526	36,624	199	4,776	1,725	41,400
Ground oats	10	440	676	29,744	686	30,184
Peanut vine ground	--	--	8	80	8	80
Alfalfa meal	--	--	376	15,040	376	15,040
Chopped lespedeza	13	325	--	--	13	325
Apple pulp	--	--	50	1,500	50	1,500
Meat and bone meal	50	2,500	340	17,000	390	19,500
Skimmilk powder	60	7,200	--	--	60	7,200
Rice bran	--	--	157	5,024	157	5,024
Beet pulp	--	--	2,594	108,948	2.594	108,948
Total	83,217	$2,367,628	135,110	$5,213,520	218,327	$7,581,148

CORN

Alabama manufacturers use a relatively large amount of corn annually. These manufacturers purchased approximately 700,000 bushels of yellow corn in 1935 for the production of commercial feeds, all of which came from outside the State. Alabama mills also used 1,500,000 bushels of white corn for the manufacture of foods such as grits and corn meal. Only 10 per cent, or 150,000 bushels, of this white corn were produced in the State. Even this small percentage became available as a result of increased production in northern Alabama during recent years. The total expenditure for these milling corns was approximately $2,068,000.

Farmers do not purchase any great amount of corn for feed through dealers other than that included in commercial feeds. In 1935 approximately 431,621 bushels of corn were handled by feed dealers, 166,262 bushels of which were purchased from outside the State. Dealers who attempt to handle corn grown and sacked locally often encounter difficulty because the grain has not been graded and the quality cannot be guaranteed. Corn purchases for feeding have been reduced considerably in recent years by greater local production.

There are some factors limiting considerably the marketing of local corn to Alabama manufacturers. One of the most important of these factors is the shortage of storage space for bulk corn. The principal market for this corn is in Birmingham where storage space for only 60,000 bushels of grains, or less than half a month's supply, is available. Farmers desire to market their products soon after the harvest season, but are unable to do so with their corn because of the limited storage space. Consequently only a little Alabama corn, chiefly from northern Alabama at present, is used by manufacturers and that during the six months' period from October through March. A second factor limiting the sale of corn is weevil damage. Weevils have usually damaged the corn of northern Alabama sufficiently by April to make it practically unsalable. In southern Alabama they are usually present earlier than this, often damaging the corn in the field. A third factor is the growing of hybrid varieties of corn that are crosses between white and yellow varieties. Though these hybrid corns may increase yields somewhat they are discriminated against by both the food and feed manufacturers. A fourth factor is the poor quality and lack of grades. The manufacturer does not care particularly for unstandardized or poor-quality corn while the small dealers are practically unable to handle it. As a fifth factor, efficient production needs much consideration, for greater efficiency is necessary in order that Alabama farmers may be able to compete with other areas. Since yield per acre is considered one of the most important factors in efficient corn production for Alabama, it seems that a first requirement is to correct its present downward trend.

TABLE 2.—Oats, Corn, and Cottonseed Hulls Handled by Alabama Feed Dealers, 1935.

Feed	State-grown		Out-of-State		Total	
	Amount*	Value	Amount*	Value	Amount*	Value
Oats	12,500	$ 7,000	1,680,680	$ 941,181	1,693,180	$ 948,181
Corn	265,359	265,359	166,262	166,262	431,621	431,621
Cottonseed hulls	78,863	1,025,219	---	---	78,863	1,025,219
Total		$1,297,578		$1,107,443		$2,405,021

*Oats and corn in bushels; cottonseed hulls in tons.

COTTONSEED HULLS

The annual expenditure for cottonseed hulls represents one of the important feed costs for Alabama farmers. Since hulls are not permitted as an ingredient of mixed feeds they are sold unmixed to the consumer for feeding purposes. Of the 83,045 tons produced by Alabama mills in 1935 approximately 78,863 tons valued at $1,025,219 were used for feed, the remaining tonnage being used chiefly as a filler in fertilizers. Practically no hulls were purchased from outside the State for feed.

HAY

Out-of-State purchases of hay are no longer an important feed expense (Table 3). In 1935 approximately 1,875 tons of alfalfa, 1,188 tons of timothy, and 254 tons of clover, having a total value of $88,400 were purchased outside the State.

Feed dealers also handled 15,819 tons of hay grown locally, chiefly Johnson grass from the Black Belt. This grass hay has practically replaced timothy hay on the market as feed for work stock, while the increased production of legume hays such as peanut and soybean has displaced a large tonnage of alfalfa that was previously imported from other states.

TABLE 3.—Tons and Value of Hay Handled by Alabama Feed Dealers, 1935.

Kind	State-grown		Out-of-State		Total	
	Tons	Value	Tons	Value	Tons	Value
Alfalfa	507	$ 11,154	1,875	$56,250	2,382	$ 67,404
Timothy	--	--	1,188	27,324	1,188	27,324
Clover	195	3,705	254	4,826	449	8,531
Johnson grass	12,277	159,601	--	--	12,277	159,601
Peanut	1,445	23,120	--	--	1,445	23,120
Soybean	922	15,674	--	--	922	15,674
Mixed	324	5,184	--	--	324	5,184
Pea vine	129	2,580	--	--	129	2,580
Crab grass	20	240	--	--	20	240
Total	15,819	$221,258	3,317	$88,400	19,136	$309,658

ALL FEEDS AND GRAINS

Although Alabama farmers have increased their acreage of grains and hays in recent years, feed merchants sold approximately $10,295,827 worth of feeds in Alabama in 1935 (Table 4). Of these sales $6,409,363 were from materials purchased outside the State. Corn and oats valued at approximately $2,025,000 were also purchased outside the State by Alabama mills. These out-of-State expenditures for feed and milling grains amounted to $31 per census farm, most of which represents a potential market for Alabama-grown products.

TABLE 4.—Total Value of Feeds Handled by Alabama Feed Dealers, 1935.

Kind	State-grown	Out-of-State	Total
Commercial feeds	$2,367,628	$5,213,520	$ 7,581,148
Hay	221,258	88,400	309,658
Corn, oats, cottonseed hulls	1,297,578	1,107,443	2,405,021
Total	$3,886,464	$6,409,363	$10,295,827

DISTRIBUTION OF FEED EXPENDITURES

Alabama is characterized by areas of high and low expenditures for feed. This is shown very definitely by the 1930 Census of Agriculture which gives the expenditures for feed by counties and types of farms within the counties buying the feed (Figure 1). In 1929 the expenditures, as given by 88,111 farmers reporting feed purchases, were $8,228,525 which include both inter-farm and market purchases of feed (Table 5).

Relatively large feed expenditures are associated with certain types of farming while small expenditures are associated with other types. Thus the 1930 Census shows that in 1929 dairy farms had the largest expenditures with $1,739 outlay per farm for feed while poultry farms had the next largest with $779 per farm. Self-sufficing farms had the smallest purchases with $44 per farm. Cotton farms, though having only $57 feed expense per farm, represented 78 per cent of the farms and 47 per cent of the feed expense.

Large expenditures for feed were also associated with the larger centers of population and with areas where dairy and poultry farming were important. Thus 40 per cent of the expenditures for feed in the State were made by 10 counties having only 18.5 per cent of the total animal units; 8 of these counties had cities of over 10,000 population. Baldwin county, with no large center of population, had 27 per cent of the poultry farms in the State. Talladega was the only one of the ten counties having large expenditures for feed that had neither large centers of population nor many dairy and poultry farms. In this county the large expenditures were attributed to abnormal type farms.

The 10 counties low in feed expenditures, while containing 10.8 per cent of the total animal units of the State, had only 5 per cent of the total expenditures. Here the majority of feed expenditures were made for cotton and general farms, while dairy and poultry farms were few in number and had a small percentage of the expenditures. Cotton, general, and abnormal type farms incurred a large part of the expenditures for feed in all counties; however, in the counties with high feed expenditures these types of farms purchased a proportionally smaller percentage of the total feeds than they did in counties of low expenditures. The counties below the Black Belt were characterized by low feed expenditures, Mobile and Baldwin excepted.

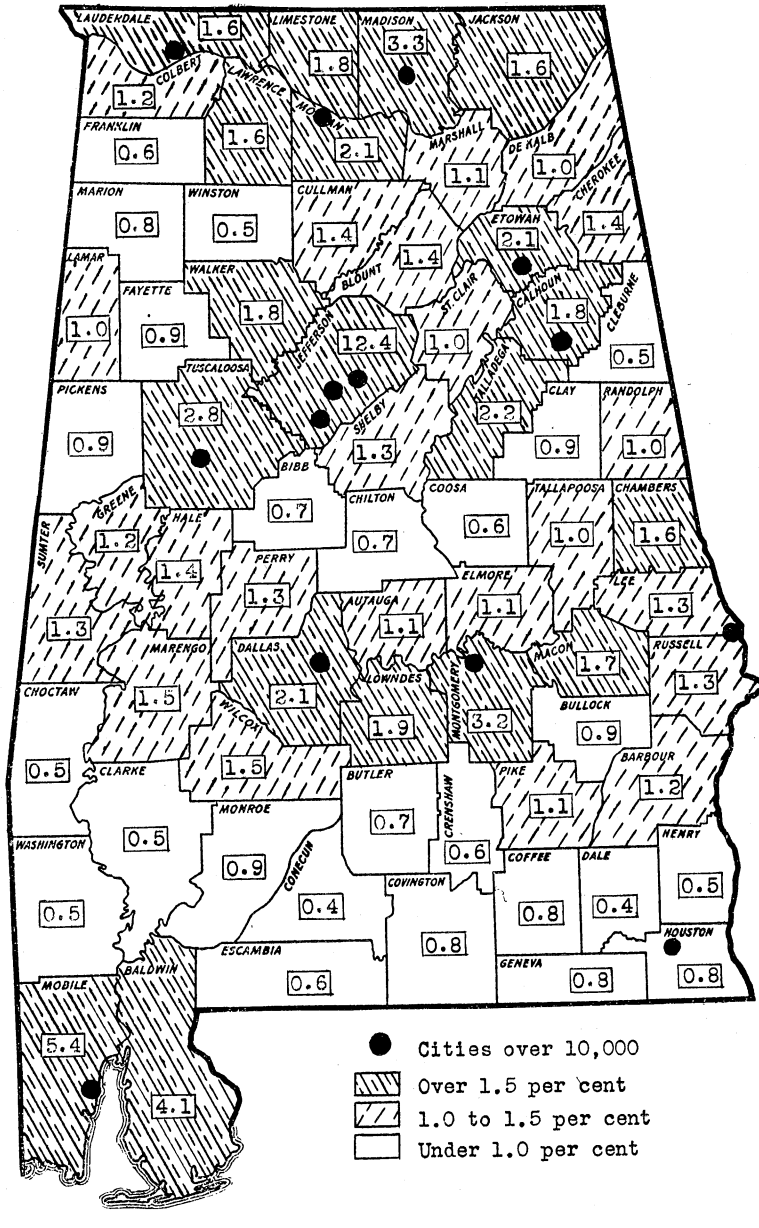

FIGURE 1.—Location of Cities with over 10,000 Population, and Per Cent of Total State Feed Expenditures by Counties, Alabama, 1929.

TABLE 5.—Number of Farms Reporting, Total Feed Expenditures, and Feed Expenditures per Farm, by Type of Farm, Alabama, 1929[1].

Type of farm[2]	Number of farms reporting	Feed expenditures	
		Total	Per farm
General	6,191	$ 538,129	$ 87
Cotton	68,766	3,897,460	57
Crop-specialty and cash-grain	840	67,274	80
Fruit and truck	887	113,585	128
Dairy	1,203	2,091,569	1,739
Animal-specialty and stock-ranch	531	194,717	367
Poultry	612	476,925	779
Self-sufficing	5,040	221,036	44
Abnormal and unclassified	4,041	627,830	155
Total	88,111	$8,228,525	$ 93

[1]Census, 1930.
[2]Basis of classification:
General—less than 40 per cent of total value of all products from one source.
Self-sufficing—50 per cent or more of value of all farm products used in the home.
Abnormal—institutions and county estates, part-time farms, and those where 50 per cent or more of receipts come from boarding and lodging, forest products, or horse sales.
Unclassified—not operated in 1929 or incomplete report.
Other types—40 per cent or more of total value of products from that particular source.

SUMMARY AND CONCLUSIONS

(1) Feed dealers sold $10,295,827 worth of feeds in Alabama in 1935, $6,409,363 of which were for feeds not grown in the State.

(2) The chief shortage of feed materials in Alabama is in those materials with medium and low protein content, particularly grains. The present production of such high protein feeds as cottonseed meal and peanut meal are in excess of needs with present feeding standards.

(3) The shortage of grains for food and feed materials could be modified very much by the increased production of corn and oats.

(4) Corn and oats for both the food and feed markets can be supplied in the State if certain improvements are brought about such as: (a) adequate storage space, (b) weevil control, (c) better standardization of corn varieties, (d) improved quality of corn, and (e) lower production costs.

(5) Dairy, poultry, and animal-specialty and stock-ranch farms had high expenditures for feed per farm while cotton and self-sufficing farms had low expenditures.

(6) Areas of high expenditures for feed were associated with the larger centers of population and where dairy and poultry farming were important.