

# FARMER COOPERATION IN NORTHERN ALABAMA

A Physical Inventory and Appraisal of Cooperative  
Endeavor in Sixteen Counties

By

L. C. SALTER and E. L. MORGAN

AGRICULTURAL EXPERIMENT STATION  
OF THE  
ALABAMA POLYTECHNIC INSTITUTE

M. J. FUNCHESS, *Director*  
AUBURN, ALA.

IN COOPERATION WITH  
TENNESSEE VALLEY AUTHORITY  
DEPARTMENT OF AGRICULTURAL RELATIONS



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L. C. SALTER, *Chief*

and

E. L. MORGAN, *Assistant Cooperative Analyst*

Cooperative Research and Experiment Division  
Tennessee Valley Authority

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## SUMMARY

The 18 cooperative associations active in northern Alabama (13 county exchanges, two strawberry marketing associations, two cotton gins, and a dry-mix fertilizer association) had 9,299 members, 8,123 of which were patrons. In addition there were 6,309 non-member patrons. Fifteen of these associations had kept records of their sales volume for 1938, which totaled \$771,000. Eleven of the cooperatives that function chiefly as buying associations accounted for \$657,000, or 85 per cent, of the total volume of business. The principal commodities bought for members were fertilizer, feed and seed, and the principal commodity marketed was strawberries. A small volume of poultry and hogs was handled. Balance sheets for 16 cooperatives showed total assets of \$180,800, liabilities of \$65,500, and an equity to the members of \$115,300 in net worth. The New Orleans Bank for Cooperatives was the main source of finance.

In the process of analysis, favorable and unfavorable factors were noted.

### *Favorable factors:*

1. Wholesale purchasing services of the Farmers' Marketing and Exchange Association were available to local associations.
2. A federation of ten member associations operated a dry-mix fertilizer plant, whose function was to dry-mix fertilizer materials bought at wholesale and to furnish its member associations with fertilizer.
3. Most of the active associations have operated on a profitable basis.
4. Some of the cooperatives had efficient management.
5. A few of the associations followed the cooperative practice of allocating on their books each member's prorata share of income retained by the association.
6. The directors served without compensation.
7. The few associations that operated on a "near-cash" or limited credit basis have found such a policy advantageous.
8. The trend was for the cooperatives to make more use of the Bank for Cooperatives as a source of credit.
9. Democratic control of all cooperatives was promoted by allowing only one vote per member.
10. The cooperatives have not over-invested in fixed assets.

### *Unfavorable factors:*

1. In most associations membership requirements did not include capital investment.
2. There was a tendency to operate on too small a margin.
3. There was no adequate educational program.
4. Accounting methods of several associations were unsatisfactory.

5. Adequate wholesale facilities were not available in northern Alabama.

6. Some of the boards of directors were not assuming their full responsibility.

7. Several associations failed to allocate on a patronage basis capital accumulated from earnings.

8. Some cooperatives' managers may have assumed too much control.

9. Several associations extended too much credit in proportion to their capital.

10. Limited effort was expended in interesting non-member patrons in becoming members.

11. The average annual patronage was too low in some cases.

12. Dishonest management was reported as the cause of failure of two associations.

13. Disloyal membership contributed to some failures.

14. Competition between associations in the same trade area was harmful and caused some failures.

15. Some cooperatives failed because farmers stopped growing the crops they handled.

# Farmer Cooperation in Northern Alabama\*

## A Physical Inventory and Appraisal of Cooperative Endeavor in Sixteen Counties

### I. INTRODUCTION

**T**HIS JOINT report by the Alabama Polytechnic Institute and Tennessee Valley Authority covers a study of farmers' cooperative associations in sixteen counties in Northern Alabama. Five of these counties — Colbert, Jackson, Lauderdale, Limestone, and Madison — are wholly in the Tennessee Valley; ten — Blount, Cullman, DeKalb, Etowah, Franklin, Lawrence, Marion, Marshall, Morgan and Winston — are partly in the Valley; and Cherokee, which is outside the Valley, was included to complete the northern tier of counties. The study is a segment of an extensive examination of cooperatives in the entire Tennessee Valley area, which is being carried on by the Authority and the Land-Grant Institutions of the Valley states.

The object of the study was to obtain information with which the Alabama Extension Service, the Tennessee Valley Authority, and other public agricultural institutions or agencies may more effectively plan and carry on activities having to do with the further development and efficient operation of cooperatives. The purposes of the study were to:

- (1) Make a physical inventory and appraisal of cooperatives and cooperative endeavor in northern Alabama.
- (2) Determine the chief factors that have contributed to either the success or failure of farmers' cooperatives in the area.
- (3) Determine the type of cooperative enterprises most likely to succeed in this part of the Tennessee Valley.
- (4) Determine the need for educational and business advisory services in the area.
- (5) Devise a method of getting to the individual associations information that will help them to more efficiently and effectively conduct their affairs.

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\*ACKNOWLEDGMENTS: This study was undertaken and conducted as a tri-party arrangement between the Alabama Experiment Station, the Alabama Extension Service and the Tennessee Valley Authority. Acknowledgment is made of the contribution of J. D. Samford, Alabama Extension Service, in planning the study, and the assistance of B. T. Inman, Alabama Experiment Station, in preparation of the questionnaire and in collection of field data.

Special credit is due John L. Liles, Jr., Alabama Extension Service, and B. F. Alvord and J. N. Mahan, Alabama Experiment Station, for many helpful suggestions in the arrangement and completion of the final draft of this publication.

Recognition is herewith made of the cooperation of the Cooperative Research and Service Division, New Orleans Bank for Cooperatives, in consultation respecting the study and in furnishing information on out-of-business cooperatives.

Data used in the study, which covered the fiscal year ending in 1938, were obtained from the records and files of farmers' marketing, purchasing, and processing cooperatives that had been active for at least a year. Other cooperatives, such as the Alabama Cotton Association which has headquarters at Montgomery, county soil conservation associations, electric cooperatives, and credit associations were not included. To obtain the use of material already available, conferences were held with representatives of the Farm Credit Administration's cooperative division and its New Orleans Bank for Cooperatives. The collection and analysis of data and information, the drawing of conclusions and recommendations, and the preparation of this report represent the joint and collective opinion of representatives of the Institute and the Authority.

## II. AGRICULTURAL BACKGROUND

Farmers' organizations, in general, represent the interests of the farmer as they relate to the development of agriculture and to improvement in rural life. Marketing and purchasing cooperatives, in particular, are farm enterprises extending farmers' efforts, usually focused on the land, into commerce and trade with the objective of improving farm income. In this light, the relation of cooperatives to types of farming, and even to soils and topography, becomes more apparent.

Managers and directors, especially, ought to have a good understanding of the agriculture of their area. They should know their agriculture historically and statistically, by soils and by developments under way through programs of both government and private agencies. This knowledge is a basis for sound planning and operating for fitting the cooperative securely to the needs and opportunities of the area it serves.

### 1. Farming Sections as Defined by Soil Conditions\*

The agriculture of northern Alabama can be classified into four major farming sections, as defined by soil conditions (Figure 1).

(1) Red and yellow "limestone" soils (identified as an association chiefly of Decatur-Dewey-Clarksville types) — These soils are characterized by a predominantly undulating to gently rolling surface which gives way in some parts to a hilly condition. The smooth land is comprised for the most part of reddish productive soils that are devoted extensively to cotton, corn, and to a less extent to hay and other general farm crops. The hilly areas have yellowish cherty soils, low in productivity which support a subsistence type of farming, except on the most cherty and steeply sloping portions. These cherty soils are occupied for

\*This section on Soils including accompanying map was prepared by the personnel of the Cooperative Soil Survey of the Tennessee Valley Authority.



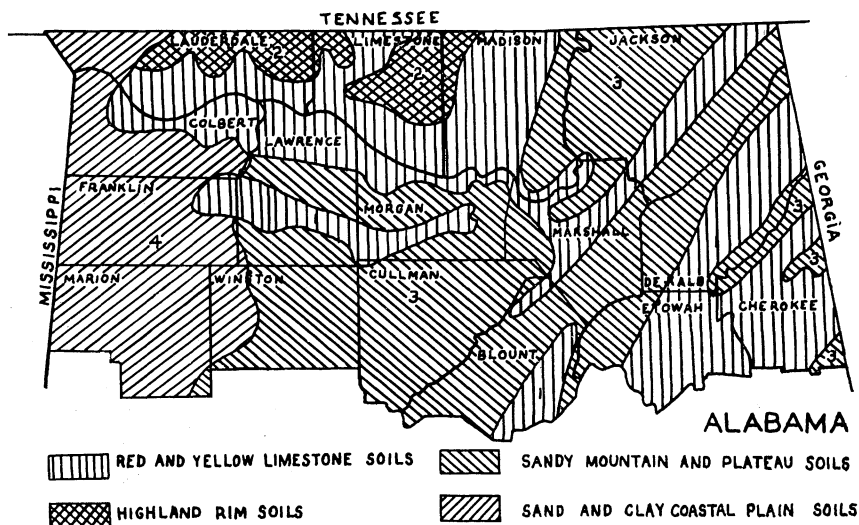


FIGURE 1.—Farming sections as defined by soil conditions.

the most part by forest. The red and yellow “limestone” soils are usually conducive to a prosperous type of agriculture.

(2) Highland rim soils (identified as an association chiefly of Dickson and Baxter types) — These soils occur in extensive smooth plateau areas, deeply dissected in places by the drainage system. The smooth plateau portions are comprised predominantly of yellowish “hardpan” soils that have a moderate natural productivity. The steep, dissecting areas are occupied by cherty soils that have a low natural productivity. Subsistence and general farming with corn, cotton, and hay as the principal crops are common to this area. With good management most of this area is capable of supporting a prosperous agriculture, although its capabilities are less than for the red and yellow “limestone” soils section.

(3) Sandy mountain and plateau soils (identified as an association chiefly of Hartselle-Muskingum types) — Agriculturally these soils may be divided into two major portions. The first part is comprised of undulating to gently rolling plateau-like areas occupied by yellowish sandy soils. Their natural productivity is low, but, when properly managed, they are capable of supporting a fair to good agriculture. General farming with cotton, corn, hay, and truck crops predominates. The second part consists of extensive stony, steep, rather mountainous slopes, a very large part of which is suited only to forest.

(4) Sand and clay coastal plain soils (identified as an association chiefly of Susquehanna-Savannah-Ruston types) — These soils are characterized by a gently rolling topography which grades to steeply rolling or rough. The acreage of smooth land is limited. The soils for the most part are of low fertility

and the most hilly parts are not farmed extensively. The smoothest areas are devoted extensively to cotton, and the less desirable farming areas support a subsistence type of farming. Cotton is the main cash crop, and corn and smaller acreages of hay, potatoes, and other crops are raised mainly for subsistence purposes. The agricultural capabilities of this section, on the whole, are probably less than those of the other sections. Under proper management some portions are capable of supporting a prosperous agriculture.

## 2. Number and Sizes of Farms, Farm and Crop Acreage

In 1935<sup>1</sup> there were 80,017 farms, consisting of 5,262,350 acres, in the sixteen counties of northern Alabama included in this study (Appendix A). They comprised 29.3 per cent of the farms and 26.8 per cent of the farm land in the State. The value of these farms and buildings was \$129,558,971, or 35.2 per cent of the total value of all farm land and buildings in the State. The average size farm for the State was 71.9 acres as compared to 65.8 acres for northern Alabama. During 1934 a total of 2,143,068 acres of cropland was harvested in northern Alabama. This was 29.6 per cent of the total cropland harvested in the State that year.

## 3. Major Crops and Livestock

Cotton was the most important cash crop (see Figures 2 and 3). For the period 1928-37 the average yearly production for this area was 454,000 bales, or 37.7 per cent of the average for the State. (Appendix B.) This was produced on an average of 923,680 acres, or 31.1 per cent of the ten-year average cotton acreage for the State. The area had a higher average yield per acre of cotton for the period than the State. The ten-year average annual production of cotton varied from 10,020 bales in Winston County to 50,250 bales in Madison County. (Appendix B.)

Corn was the second most important crop. In 1934, 15,742,696 bushels were harvested from 1,048,154 acres, or 28.9 per cent of the total corn land harvested in the State yielded 35.5 per cent of the total production. Most of this corn was consumed on farms. County production varied from 382,604 bushels in Winston County to 1,623,742 bushels in Madison County.

Hay, which was grown primarily for home consumption, was probably the third most important crop. This area produced 257,208 tons on 309,299 acres, or 39.1 per cent of the State production on 34.1 per cent of the total land in hay, during 1934. Other crops of less importance were Irish potatoes, sweet potatoes, strawberries and other truck crops.

With the exception of the territory centering around Cullman, most of the truck crops were raised for local consumption.

<sup>1</sup>Source: U. S. Department of Commerce, Bureau of Census, United States Census of Agriculture, 1935.

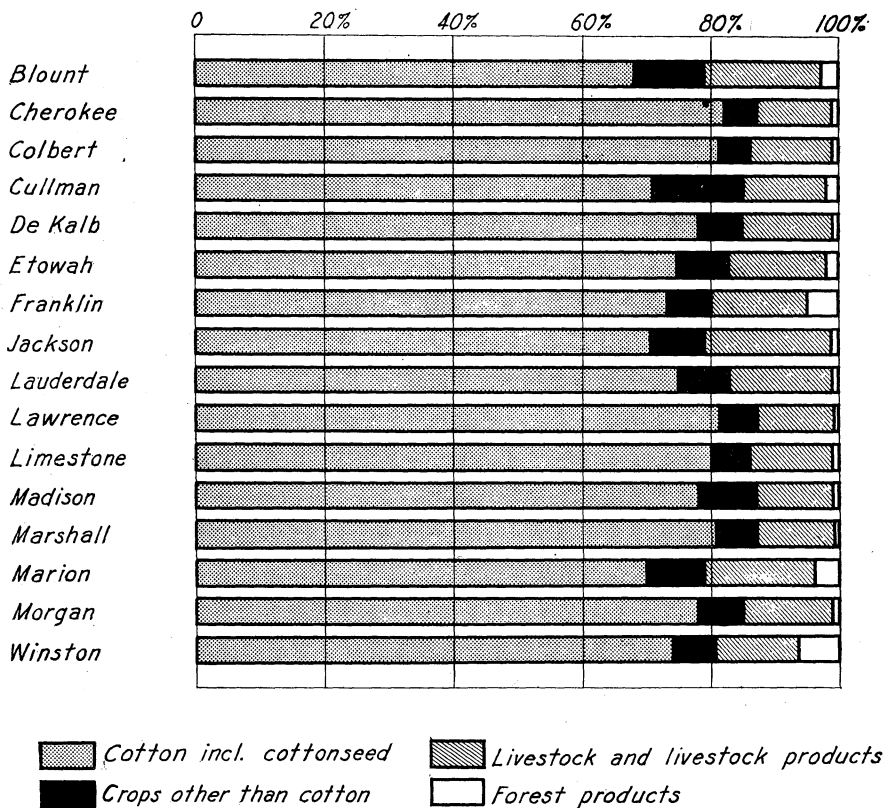


FIGURE 2.—Per cent of agricultural cash income received from major sources, 1929, counties of northern Alabama.

Cullman was the center of strawberry production for this area. In 1934 Cullman County produced 42.4 per cent and the area 61.0 per cent of all strawberries produced in the State. During the same period Blount County harvested 31.4 per cent of Alabama's total acreage of tomatoes for sale.

This area produced 34.1 per cent of the milk and 39.7 per cent of the butter churned on the farms in the State during 1934. While this area did not dominate poultry production, it produced 36.9 per cent of the eggs and raised 33.5 per cent of the chickens for the State during 1934.

#### 4. Population, Farm Ownership and Tenancy

The population of northern Alabama on April 1, 1930 was 581,771 persons, of whom 81.8 per cent were classified as rural (Appendix D). Of the rural population, 391,815 or 82.3 per cent were classified as farm. By January 1, 1935 the farm population had increased to 403,484 persons, of whom 88.7 per cent were classified as white and 11.3 per cent as colored. Appendix

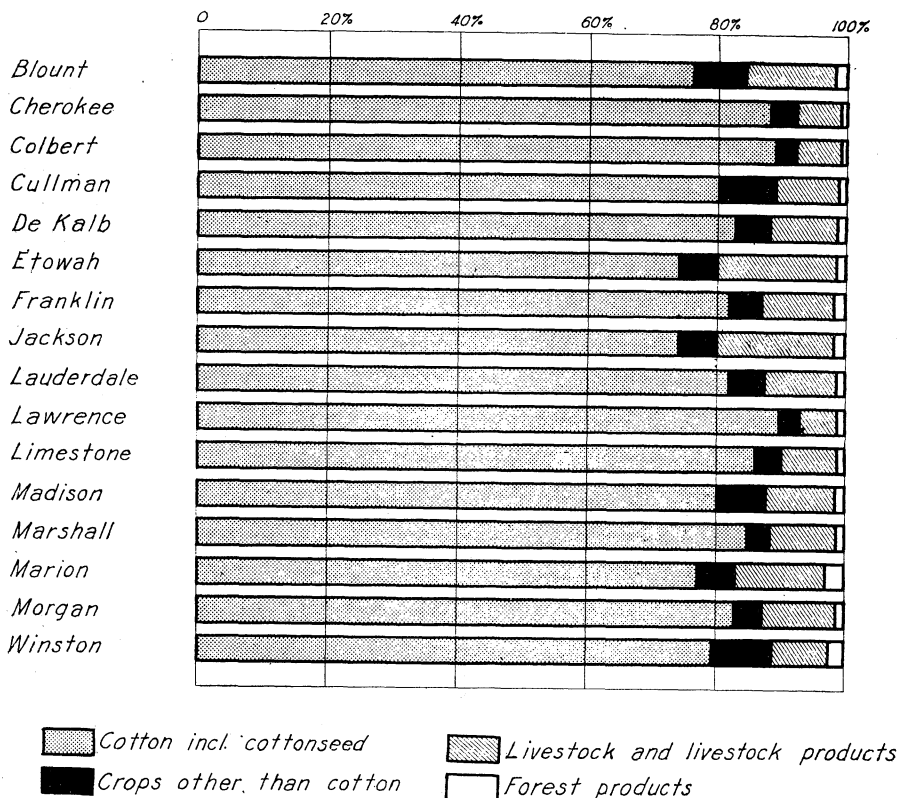


FIGURE 3.—Per cent of agricultural cash income\* received from major sources, 1935, counties of northern Alabama.

E). The four centers of population were relatively small. They were: Gadsden, a steel center, with 24,000 people; the Florence, Sheffield and Tuscumbia Tri-Cities area at Muscle Shoals with 22,500; Decatur, a trade center, with 15,500; and Huntsville, a textile city, with 11,500.

On January 1, 1935, 34.2 per cent of the 80,017 farmers in the area, or a total of 27,345, owned all of the land they operated; 4,369 owned some land but rented the remainder; 81 were managers; and 48,222 were tenants (Appendix C). Tenants represented 60.3 per cent of all farm operators.

### 5. Farmers' Cash Income

The agricultural cash income for northern Alabama had decreased from over fifty-six million in 1929<sup>1</sup> to less than thirty-five million in 1935 (Appendix G). In 1929 over 82 per cent of the Agricultural cash income was from cotton and cottonseed and about

\*Includes rental, benefit and price adjustment payments.

<sup>1</sup>Income in counties of Alabama, 1929 and 1935, by W. M. Adamson, Bureau of Business Research, University of Alabama, pages 40 and 58.

11 per cent from livestock and livestock products. However, by 1935 only 76.4 per cent of the Agricultural cash income was from cotton and cottonseed and 14.2 per cent from livestock and livestock products. Cash income from crops other than cotton had increased from 5.5 per cent in 1929 to 7.9 per cent in 1935. The percentage of the total cash income from forestry products was about the same for each year. Figures 2 and 3 show the variation of cash income by counties, by major sources, for the years 1929 and 1935.

## 6. Farmers' Expenditures for Feed and Fertilizer

Expenditures by farmers in northern Alabama for feed and fertilizer in 1929 are shown by counties in Figures 4 and 5. For the entire area, total expenditures for feed by operators of 24,009 farms amounted to \$1,935,076<sup>1</sup>, or an average of approximately \$81 for each reporting farm, as compared to the State average of \$93; and expenditures for fertilizer totaled \$6,891,056<sup>1</sup> for 69,976 farms, or an average of approximately \$98 for each reporting farm, as compared to the State average of \$105.

The largest expenditures for feed were in Madison, Etowah, and Morgan Counties, the averages per reporting farm being \$138, \$137, and \$92, respectively. Only one county in the area spent in excess of \$225,000 for feed (Figure 4).

Marshall and Cullman Counties each spent in excess of \$75,000 in 1929 for fertilizer (Figure 5). The average expenditures

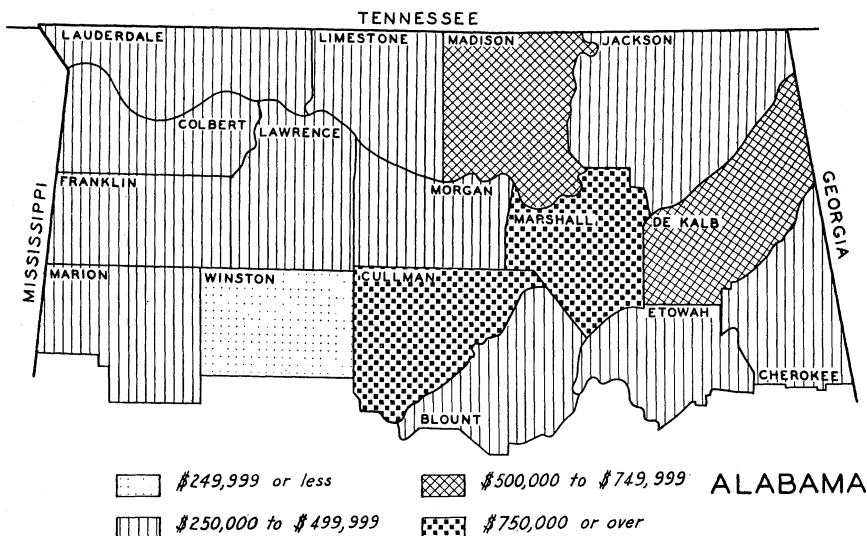


FIGURE 4.—Total farm expenditures for feed in northern Alabama by counties, 1929.

<sup>1</sup>U. S. Department of Commerce, Bureau of Census; Fifteenth Census of the United States, 1930; Agriculture Second Series, pages 30-35.

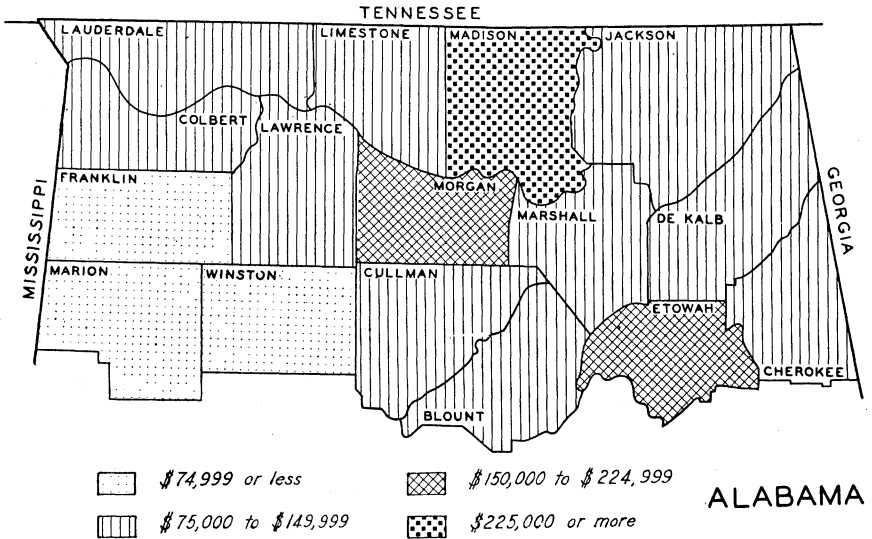


FIGURE 5.—Total farm expenditures for fertilizer in northern Alabama by counties, 1929.

per reporting farm were \$131 and \$125, respectively in the two counties.

### III. AN ANALYSIS OF THE EXPERIENCE OF COOPERATIVES

From shortly after the turn of the present century to the close of 1938, some 44 farmers' cooperatives are known to have been organized in northern Alabama<sup>1</sup>. There have been one or more associations in each county as shown by Figure 6. More associations have been organized in Cullman County than in any other county and most of these have been fruit and vegetable marketing associations.

The development and activities of farmers' cooperatives in this area have been influenced by the Alabama Polytechnic Institute, the one-time Federal Farm Board, the Farm Credit Administration through its New Orleans Bank for Cooperatives and Cooperative Research and Service Division, Alabama Farm Bureau Federation, local county farm bureaus and Farmers' Educational and Cooperative Union of America.

The influence of the Alabama Polytechnic Institute has been mainly through its extension specialists and county agents. In general, one or more specialists of the Extension Division's staff have devoted part of their time working with farmers' cooperative associations. In some instances, county agents have assisted groups of farmers in organizing associations.

<sup>1</sup>Out-of-business associations, Farm Credit Administration files.

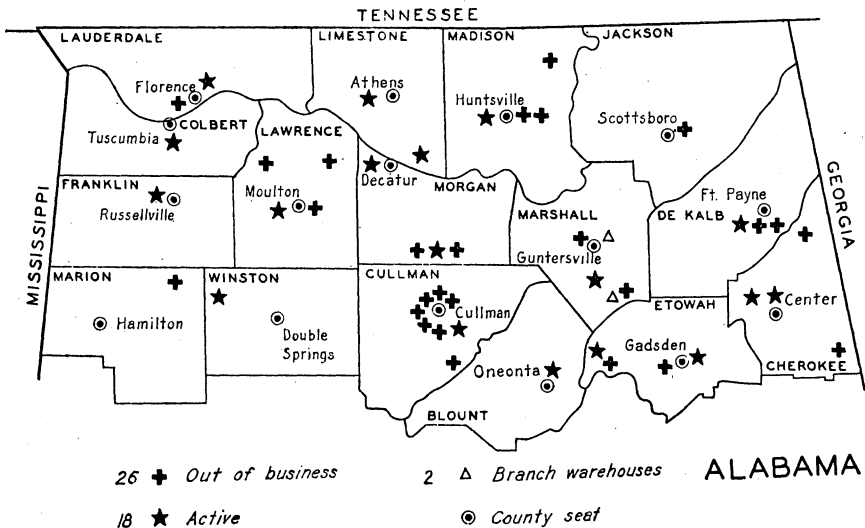


FIGURE 6.—Location of active and out-of-business associations\* in northern Alabama, December 31, 1938.

The Farm Credit Administration replaced the Federal Farm Board in 1933, and its cooperative Division has provided advisory services for cooperatives that are borrowers from the New Orleans Bank for Cooperatives. The Bank provides assistance to borrowing associations with respect to records, accounting and some advice on operations; and in some cases, it has participated even in organizational work where sizable loans were expected for purchasing facilities.

The Farmers' Educational and Cooperative Union of America<sup>1</sup> was the first general organization to foster the development of farmer cooperatives in northern Alabama. Beginning in 1906 it encouraged general cooperative purchasing, cooperative marketing of various farm products, and cooperative cotton warehousing and ginning.

In the past, the Alabama Farm Bureau Federation has encouraged farmers to form cooperatives. It was instrumental in the organization of the Alabama Cotton Cooperative Association and the Farmers' Marketing and Exchange Association. The Alabama Cotton Cooperative, with headquarters in Montgomery, is a state-wide centralized association whose function is the marketing of cotton. The Farmers' Marketing and Exchange Association, with headquarters also in Montgomery, is a federation of local county cooperative exchanges. At present the Alabama Farm Bureau Federation offers only a nominal sponsorship of farmers' cooperatives and does not offer business and advisory services.

\*Source: Out-of-business associations, Farm Credit Administration files.

<sup>1</sup>Farm Credit Administration files.

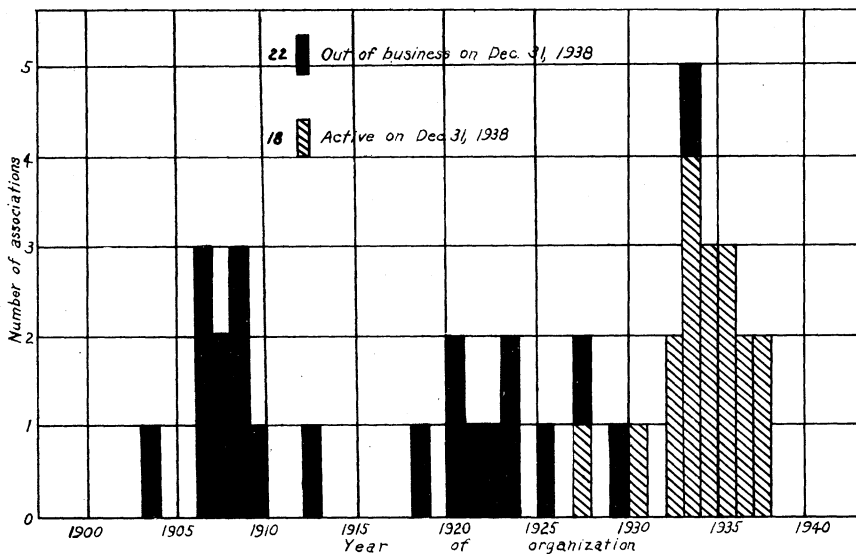


FIGURE 7.—Years of organization of associations in northern Alabama which were active and out of business December 31, 1938.

NOTE:—In addition to the above, there are four other inactive associations for which the dates of organization are not available.

The 44 associations that have been organized have been reduced to 18 active associations. Figure 7 shows that there have been three major periods of organizational efforts. The first period was from 1906 through 1909, during which time the Farmers' Educational and Cooperative Union of America was active in this part of Alabama and fostered the development of cooperatives. The second period was from 1920 to 1923, when the Farm Bureau Federation was becoming active and encouraged cooperative marketing and purchasing. The third period, which started in 1932, marked the elimination by many county Farm Bureaus of their marketing and purchasing activities, which resulted in the organization of cooperatives to perform these functions. Furthermore, in 1933 the Farm Credit Administration and its New Orleans Bank for Cooperatives made loans to several cooperatives in this area, and its resultant supervision has had an influence over such associations. The service of the Bank may have indirectly influenced other associations. All three periods have been years of economic distress or just following years of economic distress in agriculture<sup>1</sup>.

All of the associations organized prior to 1927 have become inactive (Figure 7) but it was possible to determine the number of years of operation for 13 of the 26 known inactive associations:

<sup>1</sup>U. S. Department of Agriculture, Bureau of Agricultural Economics.



Years of operation <sup>1</sup>	No. of associations <sup>1</sup>
1	1
3	2
4	2
5	1
11	1
12	1
13	1
16	2
20	1
24	1
<b>Total associations</b>	<b>13</b>

The enterprises once engaged in by the 26 associations now out of business are indicated by the following tabulation:

Enterprise	No. of associations
Marketing fruits and vegetables	10
Marketing seed	1
Marketing and purchasing	5
Purchasing	8
Cotton ginning and purchasing	1
Cotton warehousing	1
<b>Total associations</b>	<b>26</b>

Information pertaining to the reasons for failure was available for only 12 of the 26 inactive associations<sup>2</sup>.

No. of associations	Reasons for failure
2	Dishonest management
2	Disloyal membership
2	Competition with other associations
2	Merged with other associations
1	Inefficient management
1	Lack of capital and inefficient management
1	Disloyal membership and inefficient management
1	Discontinuance of the crop in the area and dissatisfied members

Poor management seemed to be an important factor contributing to the failure of five of the associations. Lack of membership loyalty contributed to the failure of three of the associations.

#### IV. STATUS OF COOPERATIVES IN 1938

A rather detailed description and analysis of the cooperative associations is given to present pertinent facts that this report may be of maximum aid in improving the effectiveness and efficiency of existing or future associations in the area.

<sup>1</sup>Source: Farm Credit Administration files.

<sup>2</sup>Farm Credit Administration files. Most of this information was assembled by mail, and it is believed that many of the reasons given were greatly influenced by the attitude of the person furnishing the information; undoubtedly all of the reasons were not given.

### 1. Number, Location and Types of Enterprise

The eighteen<sup>1</sup> cooperative associations consisted of 13 county exchanges, two strawberry marketing associations, two cotton gin associations, and a dry-mix fertilizer association. Serving the county exchanges was the Farmers' Marketing and Exchange Association, a state-wide federation of local associations, with headquarters in Montgomery. Also, the Alabama Cotton Cooperative Association, a centralized state-wide organization, received all the cotton sold cooperatively. However, an analysis of the Alabama Cotton Cooperative Association and the Farmers' Marketing and Exchange Association was not included in this study because they were not entirely within the area and their inclusion in the study would have required a study for the entire State.

The eighteen associations were fairly well distributed over the area, with the greatest concentration of business in the vicinity of Decatur (Figure 8). The county exchanges were, as their names indicate, local associations serving farmers in and

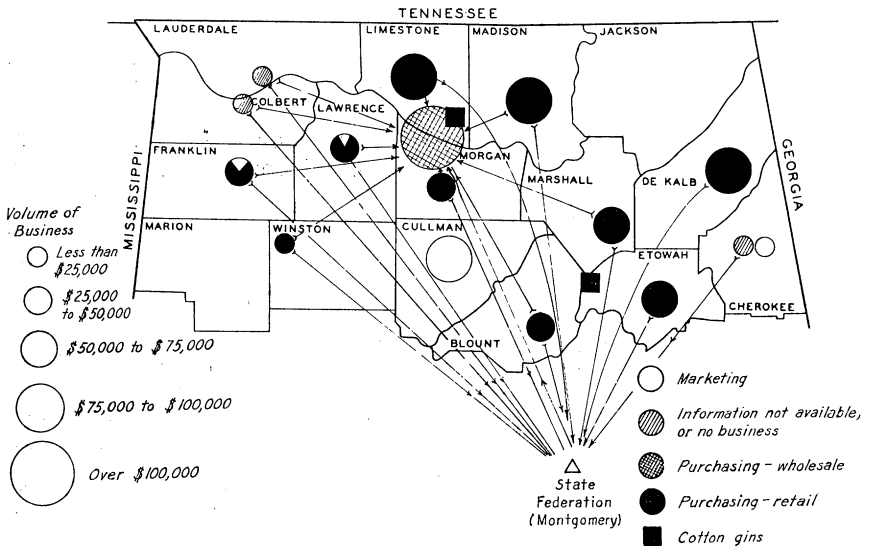


FIGURE 8.—Existing cooperative associations in northern Alabama showing volume of business by enterprises and affiliations, 1938.

near by the county of their location. Membership of the exchanges consisted of farmers who utilized the exchanges mostly for the purchase of farm supplies, including feeds, seeds, and fertilizers. These associations were primarily purchasing organizations; however, they were set up so that they might engage in marketing. Two associations marketed hogs and poultry for their members. One of the 13 exchanges

<sup>1</sup>This information deals with all 18 associations in the area.

was in the process of reorganization, and two others did not have sufficient records to permit an analysis of their operations. Each of the active exchanges was under the supervision of a board of directors and had a warehouse store under the direction of a manager. The exchanges were members of the Farmers' Marketing and Exchange Association, from which they received some wholesale purchasing services. Ten were also members of the dry-mix fertilizer association.

The fertilizer association, Tennessee Valley Fertilizer Cooperative, is a federated organization. Voting stock was held by ten active county exchanges, two county exchanges whose cooperative status was questionable, and the farmers' Marketing and Exchange Association. Representative delegates from the member cooperatives formed the board of directors, who in turn hired a manager. The function of this association was to buy fertilizer materials in wholesale quantities and mix them in required formula for the county exchanges. A major portion of the plant's output was trucked to exchanges within a fifty-mile radius. The exchanges in turn distributed the fertilizers from their stores to their farmer members.

The two strawberry marketing associations were the only commodity marketing associations located within the area. These were typical local marketing cooperatives functioning on a sea-

**TABLE 1.—Number of Farmers' Cooperative Associations in Northern Alabama by Kind of Enterprise and Volume of Sales, Fiscal Year Ending 1938.**

(A)			
No. of associations	Kind of enterprise	Volume of business (rounded to \$1,000)	
1	Marketing	\$	6,000
8	Purchasing (exchange)		473,000
3	Marketing-purchasing		146,000
1	Purchasing-processing		127,000
2 <sup>1</sup>	Processing and marketing		19,000
15 <sup>2</sup>	Total		\$771,000

(B)			
No. of associations	Marketing	Purchasing	Total
1	\$ 6,000	\$	\$ 6,000
8		473,000	473,000
3	89,000	57,000	146,000
1		127,000	127,000
2	19,000		19,000
15 <sup>2</sup>	\$114,000	\$657,000	\$771,000

<sup>1</sup>Cooperative gins received incomes from ginning (processing) totaling \$16,508 not included as sales.

<sup>2</sup>Of the 18 associations in the area, one county exchange, functioning as a collective bargaining association, arranged through an agent or dealer for group buying of \$9,869 worth of farm supply items (not included above); and two other associations, whose records were inadequate, were trying by some means to exist as cooperatives; one of these had a local dealer arrangement, and the other was in the process of reorganization.

sonal basis. The smaller association performed no function other than marketing. The other association, considerably larger, made cooperative purchases of crates and spray materials for its members.

The two cooperative cotton gin associations were of the local centralized type, farmer membership and control being direct. The gins served a limited area and handled an appreciable portion of the cotton. However, this was a very small fraction of the total produced in northern Alabama. The gins also marketed cottonseed, either as a service to farmer members or as a result of accepting seed in payment for ginning.

From the foregoing it may be readily discerned that the principal business of the 15 active associations in the area was cooperative purchasing, with marketing and processing following.

Table 1 shows the comparison between marketing and purchasing, the number of associations engaged in each operation, and the volume of business by kind of enterprise.

The purchasing of seed, feed, and fertilizer was by far the most important function of the associations as a group. The sales to farmers by ten associations handling these three commodities, plus the volume of business of the dry-mix fertilizer plant, accounted for about 85.2 per cent of the total volume of cooperative business (See Table 2).

**TABLE 2.—Number of Farmers' Cooperative Associations and Volume of Business in Northern Alabama by Major Commodity, Fiscal Year Ending 1938.**

Major commodity	Number of cooperatives	Volume of business (rounded to \$1,000)
Cottonseed (gins)	2	\$ 19,000
Miscellaneous fruits and vegetables	2	95,000
Fertilizer, feed, and seed	10	530,000
Fertilizer, dry-mix plant	1	127,000
Totals	15	\$771,000

A limiting factor in cooperative purchasing has been inadequate wholesale facilities. Other than fertilizer from the cooperative plant and a few items available from the Farmers' Marketing and Exchange Association, the local county exchanges have been making their own wholesale purchases in carload or job lots here and there whenever it seemed advantageous. The Farmers' Marketing and Exchange Association had no manufacturing facilities and maintained no warehouse in the area from which merchandise could be redistributed. Consequently, the State Exchange had a rather limited number of items from which the locals could draw.

Seeds of legumes, grasses and field crops constituted the main volume of purchases from the state association, and this volume was usually limited to "first" orders at the beginning

of a season. Late purchases were often made from other wholesalers, since the State Exchange did not carry large supplies.

All requirements for basic slag were supplied through the State Exchange, which contracts with mills at Birmingham. Other fertilizer requirements were supplied by the dry-mix association at Decatur, with the exception of nitrates bought in carlots through the state association. Associations outside trucking distance from the dry-mix plant arrange at times for fertilizer through the state association. Locals which were not members of the dry-mix association obtained fertilizers either through the state association on a brokerage basis or from commercial manufacturers.

Feeds could be bought from the state association on a brokerage basis; however, some associations made such arrangements as they could with commercial feed companies and wholesale or jobbing houses, while others bought part of their requirements through the state association. There was not sufficient cohesiveness among local exchanges to afford adequate wholesale services. Fertilizer and feed purchased cooperatively for the fiscal year ending in 1938 were compared with totals of fertilizer and feed purchased by all farmers in the area during 1929<sup>1</sup> (See Figure 9). Farmers in the area were cooperating in purchasing only a small portion of their total feed and fertilizer requirements.

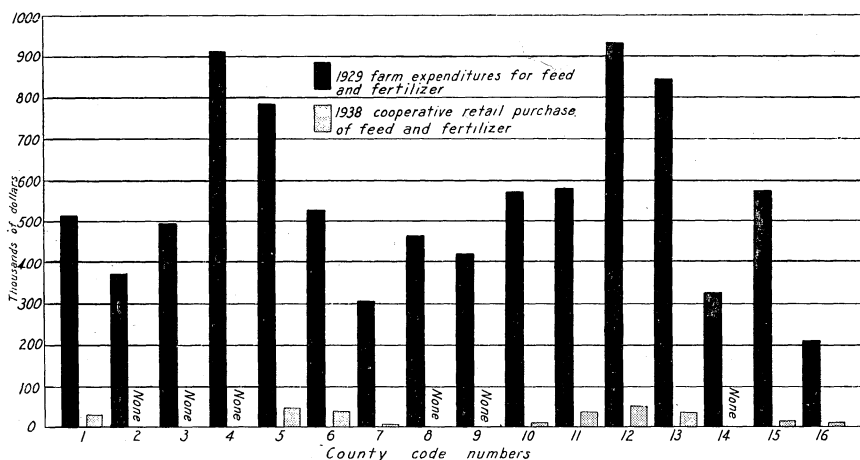


FIGURE 9.—Farm expenditures by counties for feed and fertilizer during 1929 and cooperative retail purchasing of feed and fertilizer during 1938 in sixteen northern Alabama counties.

The principal commodities marketed cooperatively were cotton, strawberries, poultry, hogs, and cottonseed.

Strawberries were sold cooperatively through the two com-

<sup>1</sup>U. S. Department of Commerce, Bureau of the Census, Fifteenth Census United States Agriculture, for the year 1929, the last year for which statistics are available for these items on a county basis.

modity marketing associations located within the area. The smaller of the two strawberry associations was reported to have handled about 90 per cent of the strawberries produced in its service area; whereas, the larger association estimated that its volume was about 60 per cent of the strawberries produced in its vicinity.

Marketing was engaged in by two of the county exchanges, whose major function was purchasing. One of these handled some \$4,200 worth of hogs and the other \$7,200 worth of poultry during the year studied.

An analysis of the statistics of the 1935 Agricultural Census indicates that there was a limited production of products for market, especially in volume that may be expected to be marketed cooperatively. Therefore, any increase in cooperative marketing might be expected to be developed by existing associations or by new associations set up to perform dual functions of marketing and purchasing.

The only cooperative processing of agricultural products in the area was the ginning of cotton. The two cooperative gin associations ginned some 4,094 bales of cotton during their fiscal year ending in 1938. The 1937 cotton crop for the area was 602,800 bales. This contrast is used merely to show the growth and development which may be possible in cooperative ginning. Along with cooperative cotton ginning would probably come one or more cooperative cottonseed oil mills. Cooperative ginning was new to this area, but the success of one of the associations appears to justify further development. The association from which information was available charged prevailing fees for its services and saved farmers \$1.48 per bale, or 34.9 per cent of its ginning charge; also, it realized a saving to farmers of \$2.72 per ton, or 10 per cent on the cottonseed it sold.

## 2. Organizational Structure

Fifteen of the 18 associations in the area were incorporated under the Alabama Cooperative Act. Two of the unincorporated associations indicated that the limited services being performed did not justify incorporating. The membership of the third unincorporated association preferred not to incorporate.

The 18 associations had a total membership of 9,299, of which 8,123 patronized the associations during the fiscal year ending in 1938. In addition, there were 6,309 non-member patrons during the same period. Membership requirements were rather nominal; however, little effort was expended to increase the membership. Nine associations with 2,625 non-member patrons made no effort to get them to join. Another group of five associations with 3,601 non-member patrons reported that some effort had been made through their employees to increase membership, but without plans or program.

Farmers' original capital investment in cooperative enterprises of the area was rather meager. Membership requirements in 13 associations did not include any financial investment on

the part of the prospective member. Four associations required fees or stock purchase for membership. One charged one dollar, two charged five dollars, and one charged ten dollars. The fertilizer association required \$100 of its member exchanges.

For the most part, eligibility for membership in some 14 associations consisted of being a farmer and agreeing to abide by the by-laws. An ineffective requirement of two associations was that members patronize their organization. Sixteen associations claimed that 99 per cent of their members were producers of agricultural products.

Cooperative principles of democratic control seemed to prevail in the group of associations. Voting was on the basis of one vote per member, regardless of the amount of stock or membership capital held in the association. Two associations permitted proxy voting.

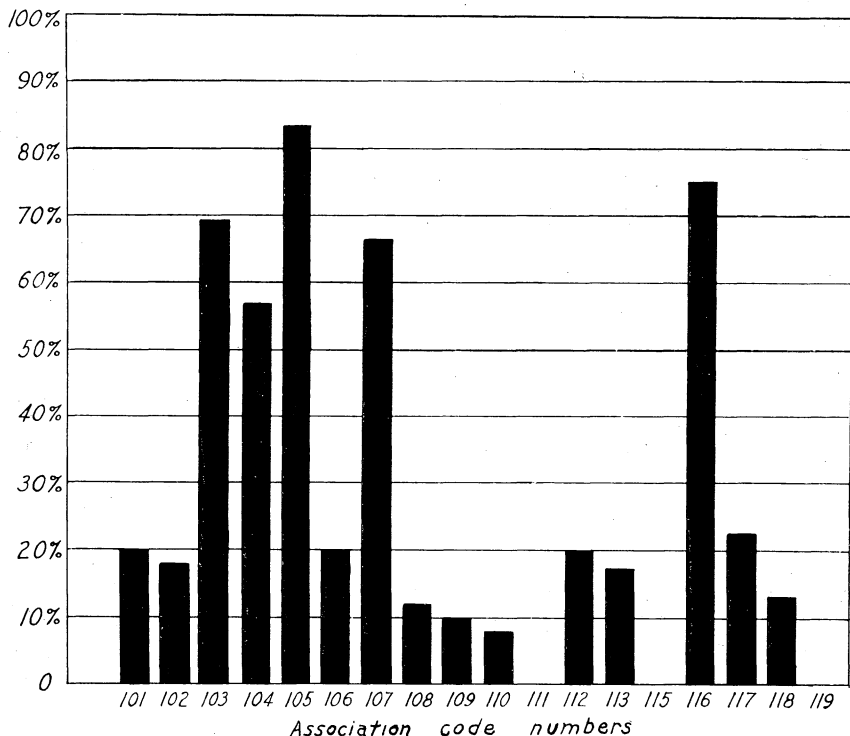


FIGURE 10.—Per cent of members attending annual membership meetings for 18 associations in northern Alabama.

Membership interest as reflected by attendance at annual meetings is indicated by Figure 10. The Associations fall into two groups: (1) ten associations with attendance ranging from 8 to 23 per cent; and (2) five associations with attendance ranging from 55 to 83 per cent.

The management of the associations was vested in boards of directors elected by members. Thirteen of the associations nominated and elected the directors at the annual membership meeting. One association had not elected directors since 1936, another had not elected directors since 1934, while another had not elected directors since it was organized in 1933. One association, which was a federation, had its directors elected on the basis of one from each member association. Eight associations had five directors and five had seven directors. Thirteen associations required their directors to be members of the association, while three required the directors to be patronizing members, and the federated association required a director to be a member of the association that he represented. Only three boards of directors met monthly. Most of the others met irregularly.

The major policies were determined by the directors in seven, by the executive committee in one, by the directors and manager in three, by the manager in three, by the president and county agent in two, and by the county agent and manager in one association. Most of the associations reimbursed their directors for nominal expenses incurred upon official business of the associations. The maximum was an allowance for mileage and a per diem of three dollars, including attendance at meetings. None of the associations had a large board of directors, but each had an executive committee.

### 3. Educational Program

It is generally accepted among cooperative leaders that definite educational programs are essential for effective and long-lived cooperative organizations. Six, or 33 per cent, of the cooperatives studied reported that they had no cooperative educational program and the remainder could hardly be said to have true programs. The programs of two, or 11 per cent of the associations, consisted only of annual meetings of the membership. Three, or 17 per cent, of the associations' educational programs consisted of activities related to agricultural programs directed by county agents. Two associations had only seasonal sales and quality-control meetings. Two associations' educational programs consisted of annual membership meetings, sales meetings, and the personal contacts of its managers. One association's educational program was the annual membership meeting and contacts of its employees. Only one association had made use of annual membership meetings and printed matter, such as circular letters, in its educational program.

This definitely indicates that a large number of the farmers' cooperative associations in northern Alabama were expending too little effort on educational activities in keeping their membership informed. Effective cooperative educational programs should begin with the directors and employees, yet eight, or 44 per cent, of the associations did no cooperative educational work among their directors or employees.



#### 4. Financial Structure

An over-all picture of the financial structure of the cooperative movement in northern Alabama can best be shown by a

**TABLE 3.—Consolidated Balance Sheet for Sixteen<sup>1</sup> Farmers' Cooperative Associations in Northern Alabama at the Close of the Associations' Fiscal Year Ending 1938.**

ASSETS	
	(Figures rounded to \$100)
Current assets:	
Cash	\$ 28,000
Receivables, less reserves	56,700
Inventory	46,300
Other	1,700
Fixed assets, less depreciation	38,200
Other assets:	
Investments	8,800
Prepaid expenses	1,100
<b>Total assets</b>	<b>\$180,800</b>
LIABILITIES AND NET WORTH	
Current liabilities	\$ 53,500
Fixed liabilities	12,000
Net worth:	
Capital stock	26,500
Certificate of indebtedness or ownership	7,500
Book credit	28,200
Reserves not evidenced by certificate or credit	6,500
Surplus	46,600
<b>Total liabilities and net worth</b>	<b>\$180,800</b>

<sup>1</sup>The records of two other associations were incomplete, and they could not be included in the consolidated balance sheet.

**TABLE 4.—Consolidated Income and Expense Statement for Fifteen<sup>1</sup> Farmers' Cooperative Associations in Northern Alabama for the Associations' Fiscal Year Ending 1938.**

(Figures rounded to \$100)	
Net sales	\$771,600 <sup>2</sup>
Less: cost of goods sold	700,600 <sup>2</sup>
Gross income	71,000
Less: operating expenses	48,300
Net operating income	22,700
Add: other income	16,400
	39,100
Less: other expenses	9,400
Net income	\$ 29,700

<sup>1</sup>Three other associations of the area were either in process of reorganization or were operating through agent or dealer.

<sup>2</sup>Two associations with incomplete operating statements, whose sales were \$32,200 and whose cost of goods sold were \$32,200, are included.

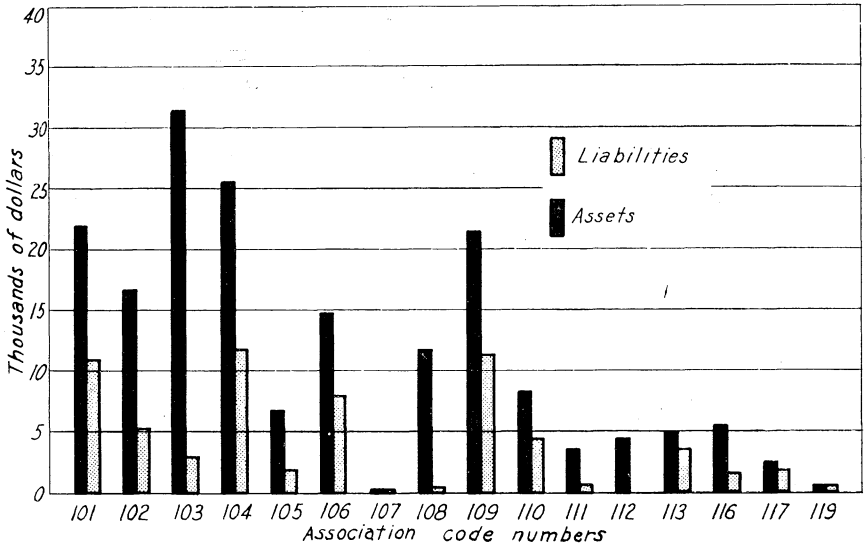


FIGURE 11.—Variations in the assets and liabilities of sixteen individual farmers' cooperative associations in northern Alabama.

consolidated balance sheet (Table 3) and a consolidated income and expense statement (Table 4).

The 16 associations for which balance sheets were available had assets in the amount of \$180,800. Against these assets they

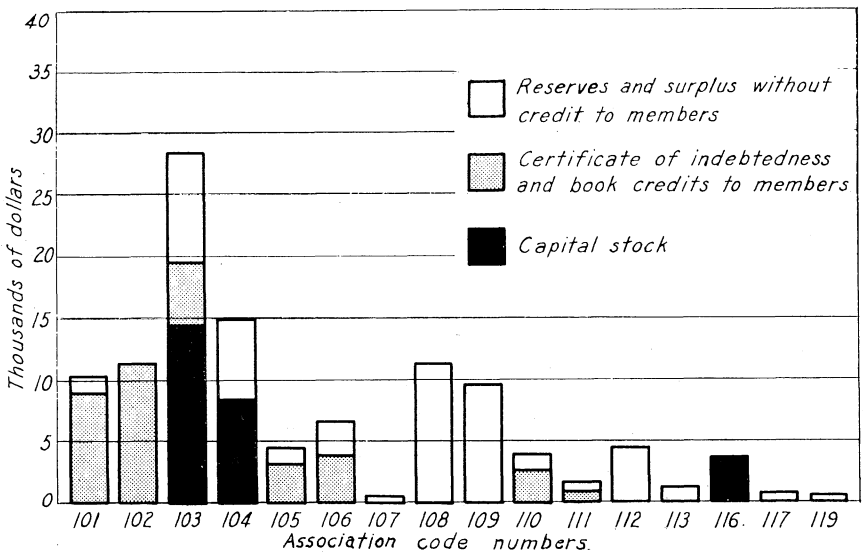


FIGURE 12.—Analysis of net worth of sixteen farmers' cooperative associations in northern Alabama.

owed \$65,500. Only four associations had assets in excess of \$20,000; nine had assets of less than \$10,000; and only three associations had liabilities of over \$10,000, as shown in Figure 11. The capital stock of the cooperatives was \$26,500, as indicated in the consolidated balance sheet.

Only three of these associations issued capital stock to their members (Figure 12). Seven of the associations issued certificates of indebtedness or gave book credit so as to show definitely each individual member's equity in the association. Only two of the associations had raised initial capital by the sale of stock, the balance of the net worth for the group of associations being an accumulation of earnings. Seven of the associations, however, that had accumulated their net worth from earnings, had made no attempt to credit individual members with their prorata shares.

The active farmers' cooperatives in northern Alabama as a whole operated on a profitable basis during their fiscal year ending 1938, as indicated by Table 4. Two of the associations, however, accounted for about half of the net income as shown by Figure 13. Only six of the associations had net incomes of \$2,000 or more.

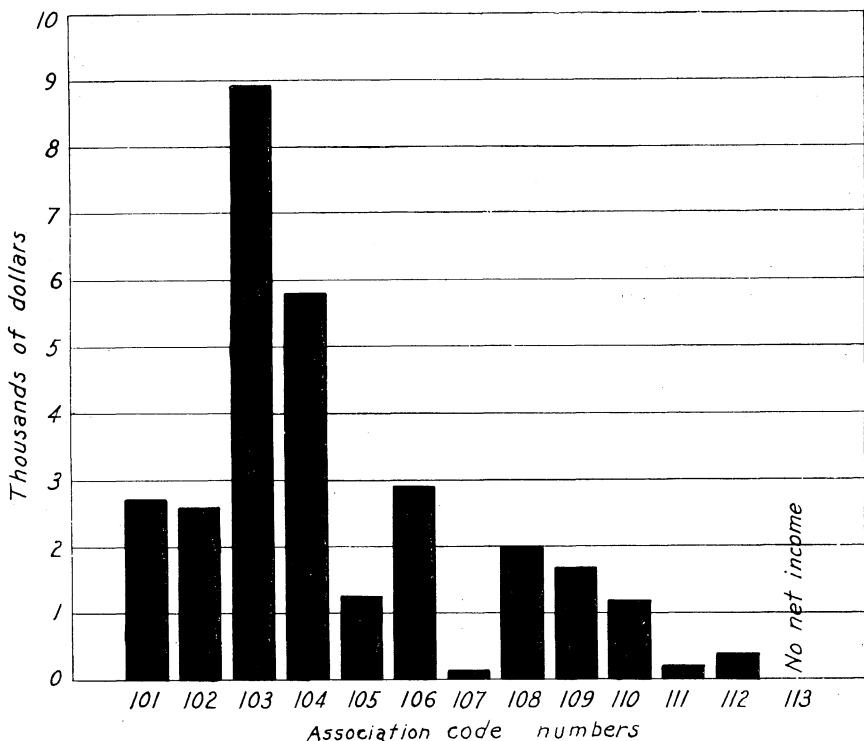


FIGURE 13.—Variation in the individual net income of thirteen farmers' cooperative associations in northern Alabama.

During 1938, eleven associations in northern Alabama had peak borrowings of \$126,900. Of this, \$112,900, or 89.0 per cent, was borrowed by seven associations from the New Orleans Bank for Cooperatives. During 1936, five of the same associations had peak borrowings of \$45,600. Of this, \$22,600, or only 49.6 per cent, was borrowed from the New Orleans Bank for Cooperatives by two associations (Figure 14). The associations

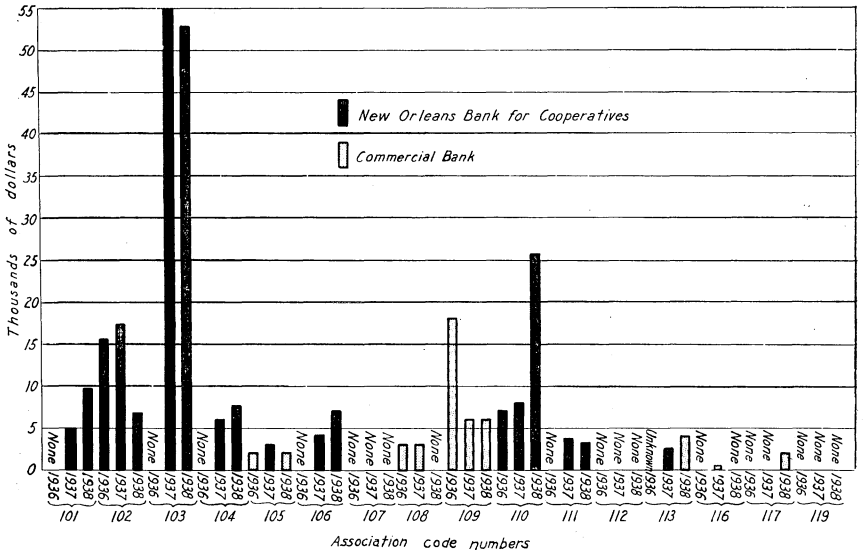


FIGURE 14.—Peak borrowings for three years for sixteen individual farmer cooperative associations in northern Alabama by source.

in the area appear to be using the Bank for Cooperatives as a source of credit more and more each year.

### 5. Statistical and Business Analysis of Associations for Fiscal Year Ending 1938 by Types of Enterprises

Similarity of operations and comparable sizes are important in making contrasts or comparisons. The treatment of various elements is often influenced by size of the operating unit, and, therefore, in considering the elements, size should be kept in mind. Volume of business is an important factor in judging past or possible future success of a cooperative business enterprise.

The county exchanges were dealt with first. These were divided into two groups of associations comparable in size within each group. These groups were treated separately, comparison and contrasts being made in terms of the group. Four of the 13 county exchanges did not have sufficient records to be included in the analysis. The remaining nine associations fell in two groups, one above and the other below a \$50,000 annual volume of business. There were five in the former group and four in the latter.

**Group I—(Volume of business over \$50,000).**—The current ratio of assets to liabilities indicates the position of the association with respect to its probable ability to meet its current obligations. An examination of the balance sheets of the associations in this group of exchanges showed that three of the five had ratios of current assets to current liabilities of less than 2 to 1. The highest ratio was 22.1 to 1; the lowest, 1.6 to 1; and the median 1.8 to 1 (See Table 5).

**TABLE 5.—Analysis of Working Capital, Fixed Capital, Membership and Patronage of Five County Cooperative Exchanges in Group I, Fiscal Year Ending 1938.**

Item	Association				
	101	102	108	109	110
<b>Working Capital Analysis</b>					
Ratio of current assets to current liabilities	1.7:1	2.7:1	22.1:1	1.8:1	1.6:1
Per cent receivables was of current assets	68.6	57.4	23.6	58.0	6.8
No. of days' sales in receivables	50	29	9.7	53	2
<b>Fixed Capital Analysis</b>					
Ratio of net worth to fixed assets	137.1:1	13.8:1	15.0:1	27.1:1	8.8:1
Ratio of sales to fixed assets	101.1:1	100.8:1	110.7:1	198.5:1	145.9:1
<b>Membership and Patronage Analysis</b>					
Average net worth per member	\$10.15	\$12.21	\$90.12	\$ 3.23	\$ 5.51
Average sales per patron	\$30.84	\$33.92	\$32.23	\$32.30	\$68.86

A desirable ratio should be at least 2 to 1. Even then the strength of such a position depends upon the nature of the current assets and the character of the accounts receivable. In this group of associations, three of the five had 57 per cent or more of their current assets tied up in accounts and notes receivable, and in two of these cases the current ratio was less than 2 to 1. Thus, less than 43 per cent of the current working capital of these associations was available to maintain an inventory with which to serve their members. Two of the associations with current ratios of less than 2 to 1 had an average of 50 or more days' sales tied up in receivables. Such a situation usually forces an association to use credit in buying, causes it to be unable to obtain cash discounts, and otherwise places the association in disadvantageous positions. The third association with a current ratio of less than 2 to 1 was the youngest of the group.

An examination of the fixed capital shows that the five exchanges had a ratio of net worth to fixed assets ranging from 137.1 to 1 to 8.8 to 1. A desirable ratio should be at least 1 to 1. The favorable position of the associations in this respect is accounted for by the fact that none of the associations had investments in buildings or real estate, as they rented the premises they occupied. Similarly, the ratio of sales to fixed assets was favorable — ranging from 100.8 to 1 to 198.5 to 1.

Net worth of the associations in terms of average member equity in the cooperative enterprise ranged from \$3.23 to \$90.12 per member. The median was \$10.15. This represented an accumulation of undivided earnings; however, no part of it was initial capital raised by the sale of stock or from membership dues or fees. As a matter of fact, the association with the highest average per member equity (\$90.12) had only three per cent of its patrons as members during the fiscal year covered by the study.

With reference to sales and patronage, the average sales per patron ranged from \$30.84 to \$68.86, with \$32.30 as a median. In fact, in four of the five associations the per-patron sale was between \$30 and \$34. That one association could sell an average of \$68.86 per patron suggests that the four other associations in this group were not supplying the same portion of the farm needs to their patrons.

In analyzing the income and expense statements of this group of associations, it was found that gross income ranged from 10.4 to 8.4 per cent of sales, and the median was 9.3 per cent (Table 6).

**TABLE 6.—Income and Expense Statements Expressed in Percentages for Five County Cooperative Exchanges in Group I, Fiscal Year Ending 1938.**

Item	Association				
	101	102	108	109	110
	Per cent	Per cent	Per cent	Per cent	Per cent
Net sales	100.0	100.0	100.0	100.0	100.0
Less: cost of goods sold	91.3	89.6	91.6	90.3	90.7
Gross income	8.7	10.4	8.4	9.7	9.3
Less: operating expenses	5.5	7.8	6.0	7.1	7.4
Net operating income	3.2	2.6	2.4	2.6	1.9
Add: other income	0.4	0.6	0.0	0.0	0.1
	3.6	3.2	2.4	2.6	2.0
Less: other expenses	0.1	0.2	0.0	0.2	0.2
Net income	3.5	3.0	2.4	2.4	1.8

Basing efficiency of operations upon sales, the most efficient association (No. 101) had a gross income of 8.7 per cent, a net income of 3.5 per cent, and operating expenses of only 5.5 per cent. This same association also had the highest inventory turnover, which was 37.7 (Table 7). However, Association 101 expended 72.8 per cent of its total operating expenses for salaries and wages; whereas, 60 per cent was more nearly the optimum figure for this type of association. Furthermore, with reference to ratios, Association 101 had next to the lowest current position, 1.7 to 1, with more than 68 per cent of its current assets tied up in receivables, which represented 50 days' average sales. Although its net worth position was highest of

the group, its ratio of sales to fixed assets was next to the lowest. Its average sales per patron were lowest, and the average net worth per member was the median of the group.

The least efficient association (No. 110), again based on sales, had the lowest inventory turnover, which was 11.6 times. It also had the lowest net income of only 1.8 per cent and next to the highest operating expenses, 7.4 per cent (Tables 6 and 7). This association, however, operated three warehouses in

**TABLE 7.—Analysis of the Operations of Five County Cooperative Exchanges in Group I, Fiscal Year Ending 1938.**

Item	Association				
	101	102	108	109	110
Annual inventory turnover	37.7	14.1	28.9	22.3	11.6
Percent that salaries and wages was of operating expenses	72.8	61.2	60.0	60.6	62.6
Per cent that all other operating expenses was of total operating expenses	27.2	38.8	40.0	39.4	37.4
Per cent produce sold for farmers was of sales					
Per cent supplies sold to farmers was of sales	100.0	100.0	100.0	100.0	100.0

order to serve its members better, and other things being equal, it would be expected to have higher expense per unit of sales. On the other hand, it sold an average of \$68.86 per patron, which was more than twice as much as any other association of the group. As it was the newest association of the group, it might be expected to increase the number of patrons at its several warehouses and thereby increase efficiency.

**Group II—(Volume of business less than \$50,000).**—An analysis of the balance sheets for this group of county cooperative exchanges shows that two of the four have ratios of cur-

**TABLE 8.—Analysis of Working Capital, Fixed Capital, Membership, and Patronage, Cooperative Exchanges in Group II, Fiscal Year Ending 1938.**

Item	Association			
	105	106	111	113
<b>Working Capital Analysis</b>				
Ratio of current assets to current liabilities	2.1:1	1.6:1	3.9:1	1.3:1
Per cent receivables was of current assets	70.5	47.4	31.3	30.3
Number of days' sales in receivables	30.8	40.3	9.37	37.2
<b>Fixed Capital Analysis</b>				
Ratio of net worth to fixed assets	4.9:1	5.2:1	15.1:1	7.1:1
Ratio of sales to fixed assets	39.9:1	35.5:1	213.1:1	65.2:1
<b>Membership and Patronage Analysis</b>				
Average net worth per member	\$15.67	\$ 28.10	\$ 2.81	\$ 6.76
Average sales per patron	\$77.93	\$191.79	\$39.57	\$61.99

rent assets to current liabilities of less than 2 to 1 (Table 8). The range was from 3.9 to 1 to 1.3 to 1. The two associations with low current ratios had averages of 40.3 and 37.2 days' sales tied up in accounts and notes receivable. One association had 70.5 per cent of its current assets invested in receivables, which amounts to an average of 30.8 days' sales. The association with the most unfavorable current ratio (1.3 to 1) had by far the smallest volume of business.

An analysis of the fixed capital shows that these exchanges have a ratio of net worth to fixed assets ranging from 15.1 to 1, to 4.9 to 1 (Table 8). The ratio of sales to fixed assets ranged from 213.1 to 1, to 39.9 to 1. In all associations except No. 105, this favorable position in both of these situations was due to or influenced by the associations renting the buildings they occupied.

The average net worth per member ranged from \$2.81 to \$28.10 (Table 8). Here, as in Group I, net worth, or members' equity, represents an accumulation of earnings, and no part of it was initial capital raised by the sale of stock or obtained from membership dues and fees. All four associations were non-stock corporations. The association with the largest average membership equity, \$28.10, also had the largest average sales per patron, which were \$191.79 (Table 8).

The income and expense statements of these exchanges show that they had a gross income ranging from 6.4 per cent to 11.9 per cent (calculations based on sales — Table 9). Operating expenses varied from 4.0 to 8.0 per cent. The most efficient of the group (Association 105) had the lowest operating expense of 4.0, a gross income of 6.4, and a net income of 4.5 per cent.

**TABLE 9.—Income and Expense Statement Expressed in Percentages, County Cooperative Exchanges in Group II, Fiscal Year Ending 1938.**

Item	Association			
	105	106	111	113
	Per cent	Per cent	Per cent	Per cent
Net sales	100.0	100.0	100.0	100.0
Less: cost of goods sold	93.6	88.1	91.7	91.9
Gross income	6.4	11.9	8.3	8.1
Less: operating expenses	4.0	6.9	7.4	8.0
Net operating income	2.4	5.0	0.9	0.1
Add: other income	2.2	1.2	0.0	0.0
	4.6	6.2	0.9	0.1
Less: other expenses	0.1	0.1	0.2	0.0
Net income	4.5	6.1	0.7	0.1

However, Association 106 had a higher operating expense, 6.9 per cent, but its gross income of 11.9 per cent enabled it to exceed Association 105 in net income — 6.1 against 4.5 per cent.



Three of the four associations within this group purchased farm supplies. The other association's volume of business was divided between sales of farm supplies to farmers (86 per cent) and the marketing of farm products (14 per cent) (Table 10).

The association with the lowest annual inventory turnover had the highest operating expense and the lowest net income, and yet it expended practically as much for salaries and wages as did the most efficient association (Table 10).

**TABLE 10.—Analysis of Operations of County Cooperative Exchanges in Group II, Fiscal Year Ending 1938.**

Item	Association			
	105	106	111	113
	Per cent	Per cent	Per cent	Per cent
Annual inventory turnover	41.7	6.6	38.0	5.8
Per cent that salaries and wages was of operating expenses	70.6	38.1	44.0	70.6
Per cent all other operating expenses was of operating expenses	29.4	61.9	56.0	29.4
Per cent produce sold for farmers was of sales	14.0	0.0	0.0	0.0
Per cent supplies sold to farmers was of sales	86.0	100.0	100.0	100.0

The per cent of operating expenses paid for salaries and wages varied from 38.1 per cent to 70.6 per cent. (Association 111 had a part-time manager and 44.0 per cent of its total expense was used for salaries and wages.)

**Dry-Mix Fertilizer Association** (Tennessee Valley Fertilizer Cooperative).—This is an analysis of the federated fertilizer mixing association, the Tennessee Valley Fertilizer Cooperative at Decatur, Alabama. The membership of this association was composed of 12 county exchanges and the Farmers' Marketing and Exchange Association at Montgomery.

Four of the 12 county organization members were not included in all phases of this study due to one having become inactive, supposedly in process of reorganization; the cooperative status of another being questionable; and inadequate records of two others. Three other county exchanges included in the study did not patronize the fertilizer association, although one of them was a member, because the distance from Decatur to their headquarters was too great for economical trucking operations (Figure 15).

In 1937 and 1938 about 75.0 per cent of the association's sales were made to member associations whose headquarters were within a 40-mile radius of the plant. The balance was sold within an additional ten-mile radius, except about three per cent in 1938, which was sold outside the area. The experience of this association indicates that as long as it depends on the present truck distribution it must plan to dispose of three-quarters of its output through member associations whose ware-

houses are located within a 40-mile radius, and all of its output through member associations whose warehouses are located within a 50-mile radius.

An analysis of this association's balance sheet showed that it had a ratio of current assets to current liabilities of 33.5 to 1. Furthermore, only 30.5 per cent, or an average of 14 days' sales, was in receivables. This indicates that this cooperative was in a sound financial condition and will be able to meet its current obligations as they come due, but its services may be increased by extending operations throughout more of the year. The ratio

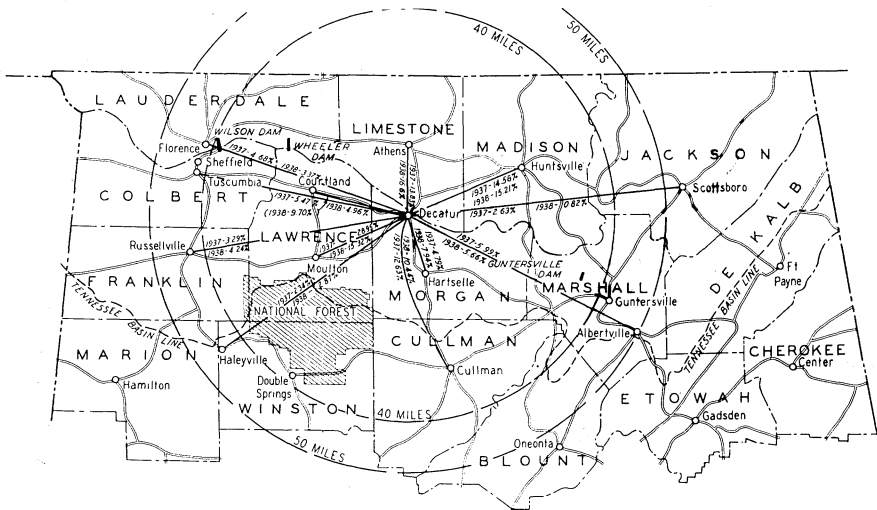


FIGURE 15.—Territory served by cooperative dry-mix fertilizer association in Decatur for the years 1937 and 1938—not including car lot shipments of nitrate of soda.

of net worth to fixed assets was 2.0 to 1, which is satisfactory. The ratio of sales to fixed assets was 10.7 to 1. This ratio should

TABLE 11.—Income and Expense Statement Expressed in Percentages for Dry-Mix Cooperative Fertilizer Association, Fiscal Year Ending 1938.

	Per cent
Net sales	100.0
Less: cost of goods sold	89.2
Gross income	10.8
Less: operating expenses	4.2
Net operating income	6.6
Add: other income	0.9
Total	7.5
Less: other expenses	0.5
Net income	7.0

be improved through increased sales of goods and service activities by member associations.

An analysis of the income and expense statement shows that the association had a gross income from operations of 10.8 per cent (Table 11). Operating expenses amounted to 4.2 per cent, which indicates a very economical operation. The net income of 7.0 per cent appears to bid well for a relatively small cooperative fertilizer dry mixing plant supplying fertilizer to member associations in northern Alabama. Considered from the viewpoint of capital invested, it represents an earning of 61.3 per cent to the member associations. Salaries and wages were 51.2 per cent of the total operating expense.

**Two Cooperative Cotton Gin Associations.**—The next group of associations to be analyzed consisted of two cooperative cotton gin associations. One of the associations, No. 104, operated two gins. An analysis of the balance sheet for the two cooperative cotton gin associations revealed that one of the associations had a current asset to current liability ratio of 2.8 to 1, and the other had no current liabilities. It would seem that these organizations should have no trouble in meeting their current obligations. One association had 13.6 per cent of its current assets in receivables, and the other had only 2.4 per cent. This indicates that they are operating approximately on a cash basis. Both associations had a ratio of net worth to fixed assets of 1.0 to 1 (Table 12). This indicates that the associations must borrow all of their operating capital. The ratio of gross income from ginning to fixed assets for Association No. 104 is 0.8 to 1 (See Table 12). The ratio of cottonseed sales to fixed assets for

**TABLE 12.—Analysis of Working Capital, Fixed Capital, Membership and Patronage of Two Cooperative Cotton Gin Associations, Fiscal Year Ending 1938.**

Item	Association	
	104 <sup>1</sup>	116
<b>Working Capital Analysis</b>		
Ratio of current assets to current liabilities	2.8:1	<sup>2</sup>
Per cent receivables was of current assets	13.6	2.4
<b>Fixed Capital Analysis</b>		
Ratio of net worth to fixed assets	1.0:1	1.0:1
Ratio of gross income from ginning to fixed assets	.8:1	<sup>3</sup>
Ratio of cottonseed sales to fixed assets	.9:1	<sup>3</sup>
<b>Membership and Patronage Analysis</b>		
Average net worth per member	\$355.62	\$47.31
Average gross income from ginning per patron	\$169.53	<sup>3</sup>
Average seed sales per patron	\$184.24	<sup>3</sup>

<sup>1</sup>Operates two gins.

<sup>2</sup>No current liabilities.

<sup>3</sup>Information not available.

Association No. 104 is 0.9 to 1. The average net worth per member of this association was \$355.62, and of Association No. 116, \$47.31. The average gross income per patron from ginning was

\$169.53 for Association No. 104, and the average seed sales per patron were \$184.24.

The cotton gin Association No. 104 (Table 13) earned 16.7 per cent on its ginning operations and 5.6 per cent on its trading operations. Ginning operations contributed 74.8 per cent of the

**TABLE 13.—Income and Expense Statements, Two Cooperative Cotton Gin Associations, Fiscal Year Ending 1938.**

Item	Association	
	104 <sup>1</sup>	116
	Per cent	
<b>Operating Income</b>		
Gross income from ginning	47.9	In- complete records
Less: ginning expenses	31.2	
Net operating income	16.7	
<b>Trading Income</b>		
Seed sales	52.1	
Less: cost of goods sold	46.1	
Gross trading income	6.0	
Less: trading expenses	.4	
Net trading income	5.6	
Add: other income	.0 <sup>2</sup>	
Total net income	22.3	

<sup>1</sup>Operates two gins.

<sup>2</sup>Less than .05 of 1 per cent.

total net income and the trading operations 25.0 per cent (Table 14).

**TABLE 14.—Analysis of Operations of Two Cooperative Cotton Gin Associations, Fiscal Year Ending 1938.**

Item	Association	
	104 <sup>1</sup>	116
Per cent salaries and wages was of total expenses	23.1	No
Per cent all other expenses was of total expenses	76.9	record
Per cent operating income was of net income	74.8	
Per cent trading income was of net income	25.0	

<sup>1</sup>Operates two gins.

**Cooperative Strawberry Marketing Associations.**—The two cooperative strawberry marketing associations in northern Alabama assembled and shipped strawberries to terminal markets and made returns to the growers on a daily pool basis. One association had an assembling and shipping shed, and the other had no facilities. One association paid its manager five per cent of sales and the other paid a daily wage when the manager was actually engaged in work for the association.

Table 15 indicates that neither association closed its 1938 fiscal year with current liabilities. Receivables were very small,

as the associations settled with growers after returns were received from shipments and thereby had an opportunity to deduct from growers' receipts the amounts owed the associations. Only one association had fixed assets, and this association had a ratio of net worth to fixed assets of 1.8 to 1. This association owned its facilities and probably had sufficient funds for its present operation (Table 15). The ratio of sales to fixed assets

**TABLE 15.—Analysis of Working Capital, Fixed Capital, Membership and Patronage, Two Strawberry Marketing Cooperatives, Fiscal Year Ending 1938.**

Item	Association	
	107	112
<b>Working Capital Analysis</b>		
Ratio of current assets to current liabilities	<sup>1</sup>	<sup>1</sup>
Per cent receivables was of current assets	0	5.3
Number of days' sales in receivables	0	0.4
<b>Fixed Capital Analysis</b>		
Ratio of net worth to fixed assets	0	1.8:1
Ratio of sales to fixed assets	0	36.2:1
<b>Membership and Patronage Analysis</b>		
Average net worth per member	\$ 2.67	\$ 6.02
Average sales per patron	\$420.00	\$137.04

<sup>1</sup>No current liabilities.

was 36.2 to 1, which indicates that the association is making good use of its fixed assets. The average net worth per member was \$2.67 in one and \$6.02 in the other association. The association with fixed assets had the higher average net worth per member. Average sales per patron were \$420 and \$137.04 for Nos. 107 and 112, respectively.

Operating expenses were 10.4 and 1.0 per cent, and net incomes were 0.4 and 2.3 per cent for Associations 107 and 112, respectively (Table 16). The association with the low operating

**TABLE 16.—Income and Expense Statements Expressed in Percentages, Two Strawberry Marketing Cooperatives, Fiscal Year Ending 1938.**

Item	Association	
	107	112
	Per cent	Per cent
Net sales	100.0	100.0
Less: cost of goods sold	96.7	89.9
Gross income	3.3	10.1
Less: operating expenses	1.0	10.4
Net operating income	2.3	-0.3 (loss)
Add: other income	0.0	0.7
Total	2.3	0.4
Less: other expenses	0.0	0.0
Net income	2.3	0.4

expenses and high net income was a small association whose members devote time without compensation. The other association had a more formal set up performing such functions as grading and pre-cooling before shipping. Sales of supplies to farmers amounted to 14.0 per cent of the larger association's total business.

## V. CONCLUSIONS AND RECOMMENDATIONS

The early unsuccessful attempts at cooperation have almost been forgotten in northern Alabama. The farmers of this area have at work for them now a number of reasonably strong associations. These constitute a nucleus from which cooperation can grow in extent and service. In fact, it appears that prospects for the future of farmer cooperatives in this area are as bright as anywhere in the South.

But sound growth will not come of itself. Guidance is needed, guidance that comes from the knowledge of past success and failure, from the correct appraisal of present situations, and from the applications of sound business and cooperative principles. This section of the report discusses both favorable and unfavorable factors of the past and present and indicates specifically some possible development for cooperatives in northern Alabama. It also calls attention to the need for guidance through cooperative education for members, directors and managers and for the establishment of business advisory services so that the various associations may function in an efficient and business-like manner.

### 1. Favorable Factors

The factors that have contributed to the success of cooperative enterprises in northern Alabama are potentially influential for increasing the effectiveness of existing associations. These favorable factors should be taken into consideration as new or additional cooperative services may be undertaken:

(1) Wholesale purchasing services of the Farmers' Marketing and Exchange Association at Montgomery were available to the local purchasing associations which were members of the state federation. This organization has been helpful, especially in the purchasing of seeds, seed inoculations and basic slag for its member associations.

Many of the member associations believed that additional functions and services should be performed by the state federation. Some adjustments may be necessary for that to be accomplished. It appears that the member associations must first demand and finance such additional services and functions, and then follow up with adequate patronage.

(2) The association operating the dry-mix fertilizer plant was an asset to the area. Ten of the purchasing associations were

members of this federation, whose function was to purchase fertilizer materials at wholesale, to dry-mix them, and to furnish its member associations with the mixed fertilizer<sup>1</sup>. Since its beginning, this federation has operated to a decided advantage to its members. The success of this venture should encourage the local associations to attempt the manufacturing or processing of other supplies, possibly through this federation, the state-wide federation, or through some other organization designed to service cooperatives in the northern area.

(3) Most of the active associations have operated on a profitable basis. The fact that some farmers' cooperatives can succeed should encourage other farmers to cooperate. Indeed, examples of successful cooperative operations have influenced less effective cooperatives to make the necessary stride and get on a "going concern" basis.

(4) Some of the farmers' cooperative associations had efficient management. Efficient management must begin with directors interested in what the cooperative is set up to do and willing to supervise its activities. These board members must have sufficient business experience and appreciation of what is being undertaken to enable them to determine sound policies and employ capable managers. Without good management, membership patronage cannot be expected.

(5) Some of the associations followed the good cooperative practice of allocating on their books each member's prorata share of net income retained by the association.

(6) Directors of cooperatives in northern Alabama serve without direct compensation. These cooperatives follow the good practice of reimbursing their directors for expenses incurred on official business. There should be avoided, however, the danger of compensation becoming the directors' prime interest. The same principle applies to the officers.

(7) Some of the associations operated almost on a cash basis. These examples encourage other associations to adopt a "cash", or limited credit, policy. When an association buys for cash, it can take advantage of discounts and reduce interest. And the manager with no credit worries can devote his full time toward building an organization and increasing the volume of business, which should lower operating costs.

(8) The trend was for the cooperatives to make more use of the Bank for Cooperatives as a source of credit, as indicated by Figure 14. Lower rates of interest prevail, and the influences usually exercised by the Bank are conducive to the more efficient functioning of the borrowers.

(9) Democratic control of all cooperatives is promoted by allowing only one vote per member.

(10) The cooperatives have not invested too much of their capital in fixed assets.

<sup>1</sup>The two other local members have questionable cooperative status.

## 2. Unfavorable Factors

The study also revealed factors that have contributed to the failure of cooperative enterprises in northern Alabama and factors which were retarding existing associations. Unless corrected, they may contribute to the failure of some of the cooperatives now active. These unfavorable factors are described below:

(1) Two associations excepted, members have not been required to invest capital either upon entrance or subsequently. Since the association must have adequate capital to operate effectively, it is necessary to raise such capital through sale of stock, fees, borrowing, or deduction from margins. Therefore, the membership in particular and the patrons should clearly understand this situation for it will tend to increase their interest and avoid friction.

(2) Most of the purchasing associations were operating on margins that were too small. Only two of the associations had as much as a ten per cent margin. Too small a margin, resulting often from price cutting, seriously handicaps an association in its operations, impairs its efficiency and eventually adversely affects membership and trade relations.

(3) There was no adequate cooperative educational program. This was one of the more serious weaknesses of cooperative endeavor in the area. Without an understanding of the principles, objectives, and basic operations of cooperation, members soon look upon their cooperative as "just another business concern". The simplest and most universal form of membership education that can be employed is the annual membership meeting, but three associations did not even have membership meetings during the year studied.

(4) The accounting records of several of the cooperatives were incomplete. Only nine of the thirteen county cooperative exchanges had records complete enough for an analysis of their operations. One cooperative gin did not have complete records. Members do not have confidence in cooperatives unless they keep records and make complete accounting to the membership of their operations and finances. Without adequate records efficient operation is impossible.

(5) Adequate cooperative wholesale facilities are not available in northern Alabama. The dry-mix fertilizer plant is too far from several of the purchasing associations, as Figure 15 shows. There are no cooperative facilities for the manufacture of feed. The state-wide federation does not maintain a stock of seed conveniently located for its member associations in this part of Alabama. Cooperative purchasing associations often reach their maximum effectiveness only after they have control of simple processing and manufacturing facilities for the major items they handle.

(6) Some of the boards of directors are not assuming their full responsibilities. Many of the boards do not meet at regular intervals to consider progress, or lack of progress, of their



associations. A few directors have permitted their managers to determine major policies, while other directors have left the matter of policy forming largely to a minority committee or to the local county agent and manager. In several cases, the directors have set managers' salaries so low that they have not been able to obtain efficient management. Associations with low-salaried managers have not increased business according to reasonable expectations. This is a criticism of the boards of directors rather than the managers.

A low salary cannot be depended upon to get the type of manager needed to produce results. A low salary, set to save money, usually results in an increased expense per unit volume of business. Various factors enter into the success of cooperatives, but good management is the one factor all cooperatives must have to be successful. Cooperative boards must be willing to pay for this talent and ability. It was found that poor management was responsible for the failure of five out of twelve associations on which information was available. The following contrast will illustrate in part the need for capable managers conducting the business of the farmers' organizations on full-time basis:

Association No. 101, organized in 1933, has had the continuous full-time service of the highest paid cooperative manager (\$150 per month) in northern Alabama. Its operation has been the most efficient in the area. It created a surplus while using an eight per cent mark-up. On the other hand, Association No. 113, organized in 1930, paid the lowest salary (\$50 per month) for a part-time manager who had served two years. This association had the lowest volume of business and the least efficient management found in the group, and, although operating on a similar margin, it was barely able to keep out of debt.

(7) Several cooperatives that had accumulated capital from operations had not made proper allocations of each individual member's prorata share, based on patronage. When a member is not conscious that he has helped to finance his cooperative, he does not have the interest in the association he would have otherwise. Unless the member is issued some type of certificate as evidence of this allocation of retained capital, he is likely to feel that he has had no part in financing the association.

(8) A few of the cooperatives may have been too much in the control of their managers. At least one supposedly farmers' cooperative was excluded from this study because it was understood that this organization no longer had cooperative features, but was practically in the control of the former manager and was being operated as his private business.

(9) In view of their limited capital, several associations had extended too much credit. Five of the nine purchasing associations had a ratio of current assets to liabilities of less than 2 to 1. In its mildest form, credit is an item of expense. Therefore, associations with unfavorable ratios are unable to make

further extension of credit and continue to operate on a sound business basis.

(10) Many of the associations had non-member patrons whom they were not attempting to interest in membership. In one association, only three per cent of the total number of patrons were members.

(11) In some associations, average annual patronage was too low. In five associations the figure was less than \$40, the lowest being \$30.84. However, in three associations the average was about \$70, and in one, annual sales to each patron averaged \$191.79. Hence, according to what some associations have done, others could do better. Perhaps they should carry a greater variety of items, offer additional services or do a better job of merchandising.

(12) Dishonest management was given as the cause for failure of two of the associations. Adequate audits would probably have avoided failure from this cause by bringing an impending situation to the attention of the board of directors in time for them to change managers before the association was completely wrecked.

(13) Disloyal membership is often caused by inadequate educational programs, inefficient management, associations prematurely started, associations started where there is no economic need, and a lack of investment in the enterprise by members. Disloyal membership was given as the direct cause for failure of two cooperatives in the area and a contributory cause for the failure of others.

(14) Competition with other cooperatives in the same area has caused the failure of a few associations in northern Alabama. Where there are two similar associations organized to perform the same function in the same general trade area, the result usually is the failure of one or both.

(15) The discontinuing of a particular crop has caused the failure of a few cooperatives. For example, in Madison County farmers started growing cantaloupes for distant markets and formed an association to market them. The crop proved unprofitable, growing stopped and the marketing cooperative discontinued operation. In Marshall County, strawberry growing, which had been carried on for years, dwindled away because it became unprofitable, and the marketing cooperative went out of existence. A well-established, efficient organization of value to a community in other respects may be lost through the failure of a single commodity. The effort and costs of establishing a cooperative may justify several services to help assure its permanency to the community.

### 3. Possible Future Developments

**As Related to Marketing.**—In northern Alabama which produces many different kinds of agricultural products in small quantities, there are limitations on the development of single-

commodity marketing associations. The small volume of products available and the seasonal character of production usually have not enabled associations to maintain adequate personnel and carry overhead expense throughout the year.

There is a strong indication that the quantity produced or the quantity that may be reasonably expected to be marketed through cooperatives in northern Alabama, with the possible exception of the territory in and around Cullman and Blount Counties, is not great enough to support new marketing associations. Consequently, unless the possibility of their being able to attract a satisfactory volume of business can be demonstrated new cooperatives should not be organized. Existing cooperatives might well expand their activities to care for apparent additional cooperative needs.

Existing associations can usually perform additional services without a great increase in overhead expenses and with less capital and equipment than a new organization would require. In fact, the purchasing associations now in this area should be able to market most any commodity in this region more effectively than new ones set up to do marketing alone. There is a possible exception in the case of cotton. Purchasing associations are more numerous and generally more successful than marketing associations in northern Alabama. Dual purpose associations should be encouraged, for they are the type likely to withstand the tests and rigors of competition, seasonal fluctuations in volume, crop failures, poor markets, management costs, and overhead expenses.

A dual functioning organization was Association No. 105. Though primarily a purchasing organization, it appeared to be rendering an effective service in marketing hogs. Likewise, No. 118 was a purchasing association engaged in marketing poultry.

The Cullman Strawberry Marketing Association handled effectively a satisfactory volume of berries and also purchased crates and insecticides for its members. If the present substantial production of commercial Irish and sweet potatoes should expand enough to create marketing problems, the existing association could extend its activities to take care of the cooperative needs of the producers.

An additional service might lie in the cooperative marketing of cottonseed through the further development of cooperative cotton gins. This possibility is discussed in the section on processing services.

Although the proximity of Birmingham may not warrant it, consideration might be given to the possibilities of cold storage and quick freezing facilities in this northern Alabama area.

**With Regard to Purchasing.**—More wholesale purchasing services are needed. Developments in wholesale purchasing could come through increased activity of the State Federation at Montgomery. Of course, the elements necessary for success must be present. Another possible center for new cooperative whole-

sale functions is the dry-mix fertilizer plant at Decatur. Again, caution should be exercised to determine whether over-all services can be made available to local associations most effectively by this approach.

As the needs arise, counties without cooperative exchanges probably will organize them at county seat towns or trading centers. And as these exchanges attempt to extend their activities, additional wholesale and processing services will be required of some over-all organization. It appears appropriate, therefore, that local cooperatives in the area give serious thought to bettering and extending their services to their farmers by jointly providing improved channels for wholesale purchases. If enlargement cannot be worked out satisfactorily with the existing wholesale set-up, then the associations in this area should provide other arrangements.

Possibilities include enlarging and expanding the federation, which heads up in the mixed fertilizer plant at Decatur, for service in the section west of the mountains. Decatur is a logical point for the storing and warehousing of reserve supplies and for the location of a small feed mill to serve county exchanges in this section. It is available to truck, rail and water transportation, and it is within a 50-mile radius of most of the purchasing associations. Year-round use of personnel of the fertilizer plant, and other doubling up, would keep overhead down.

Additional purchasing functions will probably be added by the county exchanges as the effectiveness of their present operations demonstrates ability to meet needs in other lines. Experience and confidence breed increased activity. For example, purchasing Association No. 109 was selling baby chicks and was considering the addition of a hatchery. The purchasing associations need new and varied functions to help them smooth out seasonal fluctuations.

With the development of water transportation, the cooperative distribution of petroleum products becomes a likely addition to services now being performed by the purchasing associations. Gasoline and oil probably could be sold the same distance from Decatur that fertilizer is distributed by truck.

**With Regard to Processing.**—The part processing in the vicinity of production might play in the development of markets and a diversified agriculture in the South could be given more attention by agricultural leaders, engineers, and technicians of the institutions of the South. This subject is worthy of consideration for northern Alabama. This report, however, cannot cover all possibilities.

Cold storage and quick freezing are mentioned above as possibilities in relation to markets and to marketing fruits and vegetables. Refrigeration should also be considered in connection with livestock marketing.

Cooperative cotton ginning is a major processing service that is likely to develop in northern Alabama. Two cooperative gin

associations in the area appear to be going along satisfactorily. With adequate business and technical advisory services, these cooperative cotton gins should not experience serious economic difficulties.

In view of the world cotton market condition, it would appear that cooperative ginning might be given consideration by the cotton marketing associations of the South. If cooperative ginning is not taken up this way in northern Alabama, it would be logical for local cooperative cotton gins and one or more cooperative cottonseed oil mills to be developed jointly by such organizations as the county exchanges and the existing cooperative gins. Establishment of cooperative cottonseed oil mills located in rural areas should follow the development of cooperative gins. Mills located in or adjacent to areas producing livestock offer particular advantages<sup>1</sup>. A cooperative cottonseed oil mill should be in a federated form of association with cooperative gins as members.

#### 4. Cooperative Educational and Advisory Business Services

The problems revealed in this report are, for the most part, due to lack of understanding of the cooperative way of doing business. This appears to be the outstanding weakness of cooperative endeavor in the area.

Many of these difficulties and handicaps can be overcome if proper educational and advisory services are rendered. Without an understanding of the principles, objectives, and basic operations peculiar to cooperatives, farmers should not be expected to convert their desires and efforts into healthful business enterprise, and their cooperatives will continue to make needless mistakes in a trial and error approach to success.

This understanding may be obtained from two sources: (1) From experience; (2) from agencies in a position to inform farmers about the conduct of farm business by cooperatives. In many sections of our country, farmers have long experienced cooperation in farm business organizations. The rough trail of trial and error may be paved with encouragement if farmers are told about the experiences of older associations and are shown proved methods of successful enterprises.

Cooperation as a form of business enterprise is not generally understood by farmers in the South. They are not familiar with the various types of cooperative organizations and the many laws pertaining thereto. In many instances, the people have not understood how to organize and finance a cooperative enterprise. Early experiences with cooperative pooling of annual crops, largely cotton, proved unsuccessful. Early efforts to market fruits and vegetables and to purchase farm supplies cooperatively were not successful, but now many farmers are showing a new interest in the possibilities of cooperative enterprises.

<sup>1</sup>University of Tennessee Engineering Experiment Station, Knoxville, Tenn.

The problems outlined in this report can be classified under three heads: (1) General problems of organization and operation; (2) problems of the membership, directorate and officers; and (3) specific problems of management, including business methods and procedures.

**General Problems of Organization and Operations.**—Although general in nature, these problems are of basic importance. For the most part they are caused by premature organization and inadequate preparation. Farmers planning to start a cooperative can minimize their problems by determining whether (1) there is a need for the services contemplated, (2) whether their performance by a cooperative association is economically feasible, and (3) by learning how an organization should be formed, financed, and operated. The information can then be made available at meetings and conferences of interested groups. Facts and findings should be presented by a person trained in the cooperative field.

In existing associations, studies may be made of various aspects of organization or operation, and the findings made available to and discussed with the management of the association.

**Problems of the Membership, Directorate and Officers.**—These problems usually can be traced to a lack of understanding by members, directors, and officers of the principles of cooperative enterprise. The result is that these persons do not appreciate the privileges and responsibilities of their respective positions. Such problems may largely be solved with educational programs conducted through group discussions, membership meetings, and membership "co-op" schools, and by the use of printed material.

Only a few of the associations studied made any pretense of having a membership educational program. Some of the associations have not even had annual membership meetings. Membership requirements in such instances are so easily fulfilled that being a member carried little significance or responsibility.

Probably one of the greatest handicaps of cooperatives in northern Alabama is that directors do not learn about the weaknesses of their organizations in time to correct them. An independent analysis that goes further than the ordinary audit is helpful to directors in correcting situations that might prove destructive.

In this area it is also true that directors and officers did not fully appreciate the nature and the seriousness of their duties and of the trust and responsibility placed in them. In many cases, directors have considered their duties completed when they had found a manager whom they thought capable of "running the business". In several instances, policies initiated by the directors have not been in keeping with good cooperative practices. Directors are frequently confused in the matter

of dividend payments, allocation of reserves, and interpreting financial statements.

These situations can be alleviated by special schools for the directors, by consultations with directors in their meetings, by use of printed educational material prepared especially for directors and officers, and through the assistance and advice of some person trained in the fundamentals of cooperative enterprise.

**Specific Problems of Management.**—There are several diverse problems of management, also growing out of lack of understanding of the conduct of cooperative business enterprise and the failure to observe good business practices:

- (a) Few of the managers seem to realize their responsibilities to the membership and directors.
- (b) There is a lack of understanding of the division between the duties of manager and directors.
- (c) Many managers assume responsibilities for policy making which should be reserved to the directors.
- (d) Frequently managers fail to inform the directors of membership grievances or misunderstandings.
- (e) Many managers, while excellent business men, fail to realize their responsibility for furnishing information to the membership and for helping members realize that the business belongs to them.
- (f) Many managers do not keep adequate records and are never sure of their standing.

Schools for managers, at which the principles and methods of cooperation may be taught and standard business practices stressed, would be helpful in solving these problems. Managers are appreciative of pamphlets or other material pertaining to the conduct of the type of business they are managing.

The need for advisory work with managers of cooperatives in northern Alabama is clearly revealed. Indicative of possible benefits is the success that has attended supervision given by the New Orleans Bank for Cooperatives to borrowers in this area. When the need for records was shown and a system of bookkeeping explained, managers were quick to respond.

## VI. APPENDIX

APPENDIX A — NUMBER OF FARMS, SIZES AND VALUES  
Northern Alabama, January 1, 1935

	Farms			Land and buildings			Per cent of total land in farms
	Number	Total acres	Acres per farm	Total value	Value per farm	Value per acre	
Blount	4,897	329,116	67.2	6,018,671	1,229	\$18.29	79.2
Cherokee	3,442	282,051	81.9	5,837,529	1,696	20.70	76.8
Colbert	2,726	219,825	80.6	6,815,160	2,500	31.00	55.6
Cullman	7,376	407,531	55.3	9,912,590	1,344	24.32	83.5
DeKalb	6,684	386,272	57.8	9,174,972	1,373	23.75	76.8
Etowah	4,182	277,929	66.5	7,307,952	1,747	26.29	80.0
Franklin	3,741	297,693	79.6	4,716,201	1,261	15.84	71.9
Jackson	5,517	417,274	75.6	8,317,258	1,508	19.93	57.2
Lauderdale	5,170	367,941	71.2	9,595,729	1,856	26.08	82.8
Lawrence	4,855	305,705	63.0	8,003,756	1,649	26.18	68.2
Limestone	6,266	338,151	54.0	12,449,028	1,987	36.81	88.7
Madison	7,034	422,883	60.1	15,545,704	2,210	36.76	81.5
Marshall	6,316	343,095	54.3	10,553,081	1,671	30.76	89.1
Marion	4,345	329,172	75.8	4,156,933	957	12.63	69.2
Morgan	4,912	332,425	67.7	8,839,360	1,800	26.59	88.5
Winston	2,554	205,287	80.4	2,315,047	906	11.28	50.9
Northern Alabama	80,017	5,262,350	65.8	129,558,971	1,619	24.62	
State	273,455	19,660,828	71.9	368,219,654	1,347	18.73	
Percent of State in area	29.3	26.8		35.2			

Source: U. S. Department of Commerce, Bureau of Census, United States Census of Agriculture, 1935.



APPENDIX B — ESTIMATED ACREAGE, PRODUCTION, AND YIELD  
OF COTTON IN NORTHERN ALABAMA (Average 1928-1937).

County	Acreage	Production	Yield
		(Bales)	(Pounds)
Blount	42,280	21,250	247
Cherokee	49,360	24,140	247
Colbert	46,920	20,380	217
Cullman	70,340	41,330	292
DeKalb	65,140	36,670	282
Etowah	43,220	20,160	237
Franklin	35,670	17,340	242
Jackson	48,690	23,250	236
Lauderdale	67,230	28,750	213
Lawrence	68,800	31,490	229
Limestone	90,150	40,250	225
Madison	109,500	50,250	231
Marshall	69,900	42,100	298
Marion	34,410	15,410	226
Morgan	61,520	31,210	255
Winston	20,550	10,020	243
Total area	923,680	454,000	245
State total	2,966,600	1,202,700	204
Per cent of State total	31.1	37.7	

Source: Alabama Cotton 1928-1937, Office of the Agricultural Statistician, Montgomery, Alabama.

## APPENDIX C — FARMS AND CROPLAND HARVESTED BY TENURE IN NORTHERN ALABAMA

County	Farms, January 1, 1935					Cropland harvested, 1934			
	Total farms	Full owner	Part owner	Manager	Tenant	Full owner Acres	Part owner Acres	Manager Acres	Tenant Acres
Blount	4,897	2,062	294	5	2,536	55,574	8,067	658	55,364
Cherokee	3,442	1,084	103	1	2,254	36,359	3,807	100	66,082
Colbert	2,726	617	308	3	1,798	19,213	16,542	182	51,478
Cullman	7,376	3,343	295	1	3,737	84,460	7,929	65	82,375
DeKalb	6,684	2,937	219	5	3,523	75,651	6,098	452	86,865
Etowah	4,182	1,607	113	7	2,455	39,080	3,394	500	60,542
Franklin	3,741	1,344	218		2,179	34,509	6,880		49,431
Jackson	5,517	1,847	417	3	3,250	44,450	14,009	92	88,489
Lauderdale	5,170	1,435	552	3	3,180	36,143	20,262	77	84,721
Lawrence	4,855	1,071	373	3	3,408	33,883	16,030	283	95,385
Limestone	6,266	1,424	306	15	4,521	41,271	11,498	2,365	117,383
Madison	7,034	1,543	408	25	5,058	56,149	19,467	5,205	141,644
Marshall	6,316	2,354	236	1	3,725	59,536	7,873	80	93,769
Marion	4,345	1,758	149	2	2,436	44,348	3,547	102	51,483
Morgan	4,912	1,594	315	7	2,996	50,270	14,258	494	79,737
Winston	2,554	1,325	63		1,166	32,492	1,520		23,096
Area, northern Alabama	80,017	27,345	4,369	81	48,222	743,388	161,181	10,655	1,227,844
State	273,455	81,624	15,068	516	176,247	2,295,475	520,235	80,646	4,342,250
Per cent of State represented by area		33.5	29.0	15.7	27.4	32.4	31.0	13.2	28.3
Per cent of total for area	100.0	34.2	5.5	.1	60.3	34.7	7.5	.5	57.3
Per cent of total for State	100.0	29.8	5.5	.2	64.5	31.7	7.2	1.1	60.0

Source: U. S. Department of Commerce, Bureau of Census, United States Census of Agriculture, 1935.

APPENDIX D — POPULATION OF NORTHERN ALABAMA  
BY COUNTIES — April 1, 1930

County	Total population	Rural population	Rural farm	Rural non-farm
Blount	28,020	28,020	22,048	5,972
Cherokee	20,219	20,219	18,225	1,994
Colbert	29,860	19,106	14,851	4,255
Cullman	41,051	38,265	34,230	4,035
DeKalb	40,104	36,729	33,635	3,094
Etowah	63,399	26,228	20,468	5,760
Franklin	25,372	22,226	17,463	4,763
Jackson	36,881	36,881	27,787	9,094
Lauderdale	41,130	29,401	26,350	3,051
Lawrence	26,942	26,942	24,345	2,597
Limestone	36,629	32,391	29,760	2,631
Madison	64,623	53,069	36,243	16,826
Marshall	39,802	34,260	30,937	3,323
Marion	25,967	25,967	19,420	6,547
Morgan	46,176	30,583	24,553	6,030
Winston	15,596	15,596	11,500	4,096
Area	581,771	475,883	391,815	84,068
State	2,646,248	1,901,975	1,336,409	565,566
Per cent of State total in area	22.0	25.0	29.3	14.9
Per cent of total of State population	100.0	71.9		
Per cent of total of State rural population		100.0	70.3	29.7
Per cent of total of area population	100.0	81.8		
Per cent of total of area rural population		100.0	82.3	17.7

Source: U. S. Department of Commerce, Fifteenth Census of the United States, 1930.

APPENDIX E — FARM POPULATION OF NORTHERN ALABAMA  
BY COUNTIES — January 1, 1935

County	Persons	White	Colored
Blount	24,604	24,106	498
Cherokee	17,845	16,509	1,336
Colbert	16,023	10,939	5,084
Cullman	36,247	35,750	497
DeKalb	33,007	32,801	206
Etowah	21,630	20,790	840
Franklin	18,170	17,648	522
Jackson	28,371	27,096	1,275
Lauderdale	26,045	22,168	3,877
Lawrence	24,623	18,750	5,873
Limestone	30,242	21,651	8,591
Madison	36,014	22,785	13,229
Marshall	30,235	29,807	428
Marion	21,428	20,977	451
Morgan	25,507	22,484	3,023
Winston	13,493	13,491	2
Area, northern Alabama	403,484	357,752	45,732
State	1,386,074	895,368	490,706
Per cent of State represented by area	29.1	40.0	9.3
Per cent of total area	100.0	88.7	11.3
Per cent of total for State	100.0	64.6	35.4

Source: U. S. Department of Commerce, Bureau of Census, United States Census of Agriculture, 1935.

APPENDIX F — CASH INCOME FROM AGRICULTURAL PRODUCTION BY SOURCE,  
1929 — COUNTIES OF NORTHERN ALABAMA

County	All agric. production	Cotton incl. cottonseed	Crops other than cotton	Livestock	Livestock products	Forest products
Blount	\$ 2,800,184	\$ 2,125,317	\$ 231,956	\$ 121,626	\$ 266,491	\$ 54,794
Cherokee	2,860,345	2,516,284	115,537	76,644	115,266	36,614
Colbert	2,571,840	2,295,854	85,737	78,829	93,669	17,751
Cullman	5,164,433	4,115,348	456,245	170,600	341,050	81,190
DeKalb	4,654,950	3,859,181	210,826	170,183	342,166	72,594
Etowah	2,690,614	1,981,093	176,725	100,235	386,656	45,905
Franklin	2,192,301	1,799,631	117,726	114,887	122,103	37,954
Jackson	3,085,755	2,278,622	176,525	247,891	314,875	67,842
Lauderdale	3,989,966	3,280,570	225,436	161,646	283,142	39,172
Lawrence	3,743,987	3,372,269	125,935	113,330	107,572	24,881
Limestone	4,703,652	4,080,439	203,486	139,842	227,136	52,749
Madison	5,521,288	4,448,847	410,095	251,917	376,087	34,342
Marshall	5,065,010	4,304,912	178,437	221,021	309,087	51,553
Marion	2,147,609	1,658,950	131,606	146,013	141,116	69,924
Morgan	3,693,218	3,077,299	152,105	179,472	241,500	42,842
Winston	1,224,679	969,147	110,322	52,522	56,565	36,123
Area total	\$56,109,831	\$46,163,763	\$3,108,699	\$2,346,658	\$3,724,481	\$766,230
Per cent of area total income		82.3	5.5	4.2	6.6	1.4

Source: Income in counties of Alabama, 1929 and 1935, by W. M. Adamson; Bureau of Business Research, University of Alabama, page 40.

APPENDIX G — CASH INCOME FROM AGRICULTURAL PRODUCTION INCLUDING RENTAL AND BENEFIT PAYMENTS BY SOURCE, 1935 — COUNTIES OF NORTHERN ALABAMA

County	All farm products	Cotton incl. cottonseed	Crops other than cotton	Livestock	Livestock products	Forest products
Blount	\$ 1,884,046	\$ 1,276,342	\$ 204,835	\$ 117,097	\$ 227,634	\$ 58,138
Cherokee	1,779,860	1,467,354	99,007	85,398	111,408	16,693
Colbert	1,498,569	1,222,301	70,237	116,699	76,092	13,240
Cullman	3,692,531	2,641,652	531,457	156,395	288,882	74,145
DeKalb	2,737,491	2,138,174	183,092	143,708	255,067	17,450
Etowah	1,797,061	1,342,809	133,829	98,644	181,381	40,398
Franklin	1,410,046	1,024,310	98,022	114,771	98,533	74,410
Jackson	1,954,447	1,388,723	148,494	190,507	204,858	21,865
Lauderdale	2,067,426	1,549,422	153,779	163,876	183,984	16,365
Lawrence	2,092,759	1,706,584	113,006	168,183	91,914	13,072
Limestone	2,719,179	2,193,781	157,059	178,602	164,848	24,889
Madison	3,677,089	2,855,672	324,845	237,250	247,051	12,271
Marshall	3,024,232	2,440,778	196,743	152,014	216,042	18,655
Marion	1,335,977	933,223	117,319	94,298	129,684	61,453
Morgan	2,180,383	1,694,211	153,052	141,069	171,207	20,844
Winston	841,667	620,450	55,553	61,224	50,623	53,817
Area total	\$34,692,763	\$26,495,786	\$2,740,329	\$2,219,735	\$2,699,208	\$537,705
Per cent of area total income		76.4	7.9	6.4	7.8	1.5

Source: Income in counties of Alabama, 1929 and 1935, by W. M. Adamson, Bureau of Business Research, University of Alabama, page 58.