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# CREDIT CONTROL IN SELECTED RETAIL FARM SUPPLY COOPERATIVES

## Area VI — *New York, New Jersey, Virginia, West Virginia, North Carolina, and Georgia*

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The Farmer Cooperative Service conducts research studies and service activities of assistance to farmers in connection with cooperatives engaged in marketing farm products, purchasing farm supplies, and supplying business services. The work of the Service relates to problems of management, organization, policies, financing, merchandising, product quality, costs, efficiency, and membership.

The Service publishes the results of such studies; confers and advises with officials of farmer cooperatives; and works with educational agencies, cooperatives, and others in the dissemination of information relating to cooperative principles and practices.

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# Highlights

This area study, the sixth and last of a series, deals with credit policies, practices, and trends in local farm supply cooperatives in the Atlantic region. Fourteen cooperatives in New York, New Jersey, Virginia, West Virginia, North Carolina, and Georgia provided information on their credit operations during the 5-year period, 1953-54 through 1957-58. On the basis of available information, their operations were typical of general supply operations of the area and above average in credit control performance.

This is a factual report of the credit programs the 14 cooperatives followed. It does not cite any one of them as having a best method of handling credit. However, review of their credit progress and analysis of their credit operations should prove helpful to other farm supply distributors in improving their credit performance.

## Policies and Practices

- All retail associations studied were financed to some extent and managed by regional wholesale cooperatives. Some were local subsidiaries of centralized regional cooperatives. In general, the local credit policies were recommended by the regionals and adopted by the affiliated locals. Thus there was considerable uniformity in the credit operations of locals affiliated with the same regional. Differences in practices resulted more from interpretation and application of policies by managers of locals than from basic differences in policies.

- Established policies allowed credit for 30 days, with due dates varying from the first of month after purchase to the tenth of month after purchase. Six associations balanced their accounts to zero once a month.

- Exceptions to general policies were granted on fertilizer purchases. Accounts had due dates of from 6 to 12 months after purchase. Other special programs of financing purchases included the use of promissory notes for cash-crops and pullet-raising enterprises. Deferred payments were permitted for fuel oil bought during seasons of low use.

- Strong points of credit policies reported by managers included: (1) Permitting no charges after an account was overdue, (2) setting a maximum credit limit, and (3) using a list of past due accounts.

- Weak points in credit included: (1) Restricting volume by tight credit policy, and (2) allowing of special favors.

- All but two associations informed patrons of credit policies. Some did this by announcement in membership publications and others by posters in places of business.

- Eight associations used credit bureau ratings in determining eligibility for credit. Regionals helped to make credit bureau services available to local associations. In some instances, membership by a regional in a credit bureau enabled its locals to use the bureau services.

- Six associations allowed cash discounts of two percent for prompt payment. The prompt-payment period varied from 7 to 15 days after purchase.

- Two associations added a 2 percent credit charge to the purchase price when cash was not paid. None of the associations levied interest charges on open accounts.

- The managers did not favor a strictly cash policy; they feared volume would decline. None of the managers wanted credit terms liberalized because credit risks might increase with the increased volume.

- Techniques reported successful in improving credit operations included: (1) Maintaining lists of "slow" accounts and "no credit" patrons, (2) keeping close contact with account holders, (3) using budget accounts, (4) working more closely with deliverymen, (5) making personal contacts, and (6) doing a better job of informing members of programs and goals of the cooperative.

- Four associations placed the financial responsibility on the employees who extended credit. This was carried out by charging credit losses against employee bonuses.

- Eight associations used notes to cover past due or doubtful accounts. They also used notes to finance seasonal purchases of seed and fertilizer items.

- Nine associations used collection agencies. However, accounts turned to collection agencies in the latest year did not exceed $300 in any association.

- PCA's (production credit associations) and local banks were used in some instances to finance farm operating expenses. Patrons of four associations used the Farmers Home Administration to finance principally building supply expenditures. Two managers thought PCA's might relax some on loan security; another thought they could be more aggressive in meeting credit needs of farmers.

- Some managers believed they could assist credit agencies to render improved services by (1) encouraging patrons to use credit agencies, (2) restricting credit operation of the associations, and (3) intensifying education programs on the cost of an open-account credit business.

## Credit Operations

- Farm supply sales in 11 associations increased an average of 34 percent over the 5-year period. Accounts receivable increased 44 percent.

- The proportion of sales made on credit increased during the period from 54 percent in 1953-54 to 61 percent in 1957-58.

- Year-end accounts receivable averaged 4.6 percent of total retail sales in 1953-54, but had climbed to 6.0 percent in 1957-58. Year-end accounts increased from 9.2 percent of credit sales in 1953-54 to 10.8 percent in 1957-58. The number of day's credit sales in year-end accounts receivable rose from 33 in 1953-54 to 39 in 1957-58.

- The proportion of accounts over 30 days old was reduced from 29 percent in 1953-54 to 22 percent in 1957-58.

- Average monthly accounts receivable were 84 percent of fiscal year-end accounts in 1957-58.

- Estimated credit costs averaged $1.20 for $100 of credit sales. For each $100 of average accounts receivable, the cost was $17.34.

- Costs in extending credit and their relative importance were: Interest, 32 percent; bookkeeping, 27 percent; collection, 24 percent; extending, 13 percent; and bad debt losses, 4 percent.

- Approximately two out of three patrons used credit at least once in the last year. Only one out of five patrons had accounts outstanding at year-end.

- In each association the 10 patrons with largest accounts at year-end accounted for about 10 percent of total purchases, but they were responsible for 32 percent of the volume of year-end accounts receivable.

## Suggestions

Suggestions for improving credit operations among farm supply cooperatives include the following:

1. Establish realistic credit policies by action of the board of directors.

   a. Obtain approval of the policy by the members.

   b. Minimize exceptions to it.

   c. Hold manager responsible for enforcement rather than formulation of credit policy.

2. Adopt specific procedures for extending credit.

   a. Select credit applicants carefully, using a formal application.

   b. Maintain a list of patrons who are not eligible for credit.

   c. Discuss the policy and specific terms for mutual understanding.

   d. Have employees sell the credit policy along with the commodities.

   e. Establish regular board review of practices and individual accounts.

3. Establish sound collection practices.

   a. Send monthly statements to patrons with accounts.

   b. Be firm with account holders in enforcing policy. Make special efforts to obtain payment on due date.

   c. Check the ages of all accounts monthly.

   d. Protect the association by using notes on slow accounts.

e. Use collection agencies as a last resort.

4. Recognize and allocate the costs of credit.

a. Consider credit as a service and set a price on it.

b. Allow a cash discount or make a charge for credit.

5. Encourage and assist farmers to use existing credit agencies.

a. Establish close working relationships with PCA's, rural credit unions, local banks, and other credit agencies.

b. Recognize inefficiencies that result when both farm supply cooperatives and credit agencies provide the same type of credit services.

# Credit Control in Selected Retail Farm Supply Cooperatives

## Area VI--New York, New Jersey, Virginia, West Virginia, North Carolina, and Georgia

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The credit needs of farmers have expanded considerably since the early 1950's. In many instances, supply cooperatives have met these needs by providing credit service in the form of open-account financing. With charge sales often accounting for more than 50 percent of total sales, extending credit has become an important farm supply service. But frequently this service has developed without adequate policies and practices. Thus its use has varied with patrons and commodities.

Several factors have influenced the increased use of credit. First, costs of farm production have climbed. New and increased technology and rising prices have contributed to these increased production expenditures. Second, declining net income in agriculture has squeezed farmers' cash position. And third, the increased emphasis on, and use of, consumer credit in retail business has encouraged its use among local farm supply distributors.

Directors and managers of many farm supply cooperatives, therefore, are confronted with credit problems. They need information on ways credit can be controlled and handled efficiently and equitably.

## Purpose and Method of Study

This study is the sixth and last of a series that covers general retail farm supply cooperatives in different areas of the United States. It includes

Note: Appreciation is expressed to officials of the farmer cooperatives who provided information on their credit operations, and to J. Warren Mather, Chief, Farm Supplies Branch, Farmer Cooperative Service, for assistance in planning and developing this study.

supply associations in New York, New Jersey, Virginia, West Virginia, North Carolina, and Georgia.

Farmer Cooperative Service conducted these area studies to determine: (1) The nature of and trends in use of credit by local cooperatives handling diversified lines of supplies and equipment, and (2) practical policies and procedures for successfully controlling credit operations.

Fourteen local associations participated in this area study. Each was managed and to some extent financed by its affiliated regional association. These associations were under more supervision than associations in the other areas studied and generally followed business practices established by the regionals. The locals received services such as auditing, accounting, and supervisory aids from these regionals. In the case of credit, each regional established an overall credit policy that was generally followed by the locals in their areas.

Regional cooperatives suggested names of local affiliates that were superior in credit practices and comparable in the types of diversified supplies they handled. From this information, Farmer Cooperative Service selected the participating locals. The data presented throughout this study, therefore, do not necessarily reflect the conditions prevailing as to credit control in the area as a whole. They do give some indication, however, of the nature and extent of credit problems among those associations arbitrarily selected.

Data for the study were obtained by personal interviews with managers and other key personnel of regional and local cooperatives and included their opinions and experiences in administering credit services. Credit information obtained included policies, practices, and operating data. Trends were established by analysis of sales and operating data for a 5-year period, beginning in 1953-54 and ending in 1957-58.

## Credit Policies

The basis for good credit practices is a sound credit policy, one which establishes definite guides for management and has the approval of the member-patrons.

As mentioned, the regional wholesale cooperatives established the credit policies for all the local retail associations in this study. Most managers reported that local boards of directors or advisory committeemen officially accepted these recommended policies. This had the effect of emphasizing responsibility for credit at the local level. Because of the supervision provided by regional cooperatives, variations in credit policies of locals were tied closely to those of the different regionals.

### Terms of Policies

Terms of credit policies did not vary much. Distribution of associations according to due date of accounts was as follows:

| Credit terms | Number of associations |
|---|---|
| Due first of month after purchase and "past due" after 10th of month following purchase | 1 |
| Due 10th of month following purchase | 2 |
| 30-day credit--no specific definition | 5 |
| 30-day credit--balance to zero once a month | 6 |
| Total | 14 |

Another feature in the credit policies of 11 associations was to give a cash discount of 2 percent if paid within 7 days. They made exceptions to established credit policies on the basis of commodity, season, and individual patron. For instance, the associations affiliated with one of the regionals allowed no discounts on purchases of seeds or fertilizer, even though payment was within 7 days. At the same time, no discount was given unless the patron had all accounts cleared with the cooperative. Payments on account went toward the oldest charge sale so that a cash discount was given only when no balance was outstanding against the patron. Affiliates of another regional allowed a cash discount only if the patron's account had been balanced in full the previous month.

Fertilizer was most often mentioned as receiving special credit treatment. Some associations carried fertilizer sales on the books from July to June of the following year. One association carried fertilizer on open-account for six months after which the account was converted to a note at 6 percent interest. Another carried lime and fertilizer sales 15 days after billing, with the billing date at the option of the association. Still another association gave credit on fertilizer and spray materials on a crop-year basis.

Locals affiliated with one regional minimized credit problems by taking advantage of a short-term financing program sponsored by the regional. This form of financing included conditional sales contracts and promissory notes. The notes were used to finance cash-crops, pullet production, and fertilizer purchases. In some instances, notes were used when it was advisable to convert open accounts. Still another program was one of deferred payments for on-the-farm storage of items such as fertilizer or fuel oil bought during seasons of low use.

## Managers' Appraisals

All the managers in this study reported general satisfaction with their existing credit policies. Strong points mentioned by managers included: (1) Permitting no further credit after an account was overdue; (2) setting a maximum amount of credit for each account holder; and (3) using a list of past due accounts. One manager expressed the opinion that there was not much room for improvement in the credit operation of his association.

Recognized weaknesses in existing credit operations included: (1) Limiting volume by tight credit policy; (2) allowing too many special favors; and (3) encountering difficulty in policy enforcement. One manager was skeptical of his association's 7-day cash policy in view of 30 days allowed by many other distributors.

## Changes in Credit Policies

The associations made few changes in their credit policies during the 5 years covered by this study. A major change was extension of the cash discount period from 10 days to 15 days. Two associations made this change to bring their cash policy a little more in agreement with community practices. One association added monetary restrictions to its policy, permitting no charge sales for less than $5 and requiring that credit for more than $300 per patron be cleared at the central office.

Managers of supply cooperatives in this study did not look with favor on changing or adhering to a strictly cash basis. They feared volume would decline considerably. However, one manager figured that with about a year's effort a cooperative could inform and sell the membership on the merits of a cash policy, and volume would show little decline. Some managers thought most farmers would accept the cash principle but believed that absentee landlords and public institutions would have to be granted 30-day credit. Changing to a cash basis, however, was not considered practical generally because "repercussions would result from going against the trend." Severely restricting credit terms was thought to have about the same effect on volume as going to cash.

On the other hand, no sentiment was expressed favoring any effort toward liberalizing credit terms. Managers generally believed that such a move would add some volume, but at the expense of unsound credit.

## Credit Extension Practices

Credit practices often reflect patrons' understanding of policy. Detailed descriptions and outlines of policy and diligence in informing patrons about policy are aspects to which management may often fail to give adequate attention.

### Policy Announcement

All but two associations followed the practice of informing their patrons of association credit policy. One of the two had recently adopted the program of generally advising patrons, while the other mentioned the credit policy only upon patron inquiry.

To inform their patrons on credit policies, nine associations used oral statements, three used written statements, and one presented its terms in a letter. Four associations had mentioned credit policies in their membership publications and five associations had posters in their places of business stating credit policy. One manager voiced an objection to giving a written notice of credit policy, feeling that it might encourage greater use of credit by the patrons.

### Applications and Investigations

All but two associations used formal credit applications. Two associations required an oral review of patron income and expenses and three others required a net worth statement. One manager not using a formal credit application explained that he was a long-time resident of the area and knew the patrons personally.

In addition to using the above procedures, some managers checked with local banks and other farm suppliers to assure themselves of information regarding credit. In one association the decision for granting credit was not made immediately upon application, but a letter of credit approval was sent to the patron advising him of action taken.

Of the associations that made credit investigations, eight used credit bureau ratings, and six relied extensively on credit bureau information. Five used only association personnel, and two used both association personnel and credit bureau facilities. One of the last group of associations had its employees make the credit investigation of farmers but used credit bureau facilities for urban patrons.

Most of the associations preferred credit bureaus because of their specialized nature. Two managers who reported using their own personnel to make investigations included central office personnel in this category.

Managers reported having a variety of understandings with patrons at the time credit was extended. In all cases these were reached on a verbal basis. In addition, one association had patrons sign sales slips containing printed terms while another prepared special written terms on sales slip for signature of certain patrons. Most cooperatives tried to have patrons sign all charge sales slips. One cooperative used conditional sales contracts for farm supply items. Feed and fertilizer items were generally handled on open accounts with some use made of notes.

## Responsibility for Extending Credit

Managers generally felt that they should determine who should receive credit and how much should be given. In some associations this responsibility was shared by the assistant manager; but when it was shared, the manager was responsible for granting credit to new patrons. Some managers cleared prospective credit patrons with the regional or central credit office.

## Selling Approach

Cash sales were stressed as the ideal, and employees were directed to encourage them. In actual practice, however, acquaintance with an individual patron often determined whether or not cash was requested. Where a patron had established a satisfactory credit rating, the option of cash or credit was left to the patron.

## Review of Practices

Managers of nine local associations reported that boards of directors or advisory committeemen periodically reviewed credit practices. Directors in two associations reviewed practices while checking quarterly operating statements. In five associations, directors examined credit practices quarterly while reviewing accounts receivable. In another association directors reviewed practices twice a year.

On the other hand, directors in five other associations made little review of credit practices and left this responsibility to the central regional cooperative. The district field representative in one of these associations assumed major responsibility for credit review and checked accounts each month.

Only one association reported that credit was discussed at membership meetings. This consisted of a yearly presentation of credit problems to the members. In the opinion of the manager, better control of credit resulted.

Some managers reported that auditors referred to accounts receivable in their reports but had few specific instructions or suggestions for better control. Most auditor comments were of a routine nature in connection with presenting the audit.

### Other Control Techniques

Managers reported that a number of techniques were helpful in handling credit extension. They included the following: (1) Use a list of names with "slow" accounts, (2) keep a close check on outstanding accounts, (3) make personal contacts, (4) work closely with delivery men, (5) obtain a clear understanding with the patron, (6) follow up applications consistently, and (7) inform members of programs and goals of the cooperative.

One manager said his credit policy would be satisfactory if just followed more closely. Another said investigations should be more thorough for patrons buying farm supply items, like hardware and equipment, on credit.

### Commodity Problems

Fertilizers and feeds were the items most often reported as causing special credit problems. Heating oils caused some credit difficulties. The credit problem with oils was intensified because of the large increase in urban accounts during the winter time. The problem was eased considerably, however, by the use of a budget plan for fuel oil patrons.

Managers varied in their appraisal of the ways that cooperative credit practices differed from practices of other suppliers in their trade areas. The opinions ranged from "about the same" to "more strict," and they generally thought that cooperatives had better control and stricter regulations concerning credit. One cooperative manager, however, thought his cooperative was more lenient than the other suppliers in that it did not charge for credit or take mortgages.

In one area suppliers were swinging from seasonal credit to 30 days on open accounts. Another supplier gave a 5 percent cash discount on all except feed items. This was a considerably higher discount than the usual 2 percent given by cooperatives. Some suppliers considered a purchase as "cash" if payment was made within 30 days; in contrast several suppliers considered a purchase as "cash" if payment was made within 10 to 15 days.

## Credit Collection Practices

Collection practices are important determinants of credit problems. They have much to do with size and age of accounts receivable as well as losses on bad debts. Thus attention to collection practices may minimize credit problems.

### Responsibility for Collection

To provide better handling of credit, cooperatives often place responsibility for collection of accounts receivable. This responsibility has been used in making collections and in placing financial responsibility for uncollected accounts.

In most of the associations, the manager handled the bulk of the credit collections. Ten of the associations, however, required employees who extended credit to assist in collections. Four associations charged credit losses against the bonuses of employees who extended that credit. One other association noted that if one of its employees extended credit beyond an approved amount, he would be responsible for collecting the overage or for making up any losses.

## Statements

Three associations used form letters as reminders when accounts became due. Two associations used phone calls with satisfaction, and personal letters brought good results for the associations using them.

All associations sent monthly collection statements. To collect on overdue accounts, two associations used a series of reminders while another had a series of three form letters. The first letter was sent after an account was 60 days overdue, the second after 20 more days of no response, and the third after another 20 days. If no results were apparent after the third letter, the association would begin legal action.

Most of the associations received follow-up assistance from the credit offices of their regionals.

## Personal Contacts

All the associations but one made personal contacts to collect overdue accounts. But this association had previously been successful in making collections without such efforts.

During the month preceding this study, associations spent an average of 13 hours making personal contacts. The range among the associations studied was from no time to 80 hours of personal contacts per association. This compared to an average of about 60 hours--a range of from 2 to 180 hours--for the months ending their latest fiscal year. Thus, about five times as many hours, on the average, were spent in personal collection efforts for the month in which the fiscal year ended as in the month preceding this study.

Four managers reported that personal contacts helped considerably in handling credit. Another, though, reported that such contacts brought promises but little money. Still another considered that while personal visits were important in the collection of certain accounts, their overall value was limited. One manager said he was most successful when contacts were not prearranged.

## Use of Notes

Eight associations used notes receivable. Two of these associations used them to secure past due accounts while three used them regularly on doubtful accounts. One used them only as a last resort. In the last association, a note could not be made to cover open accounts without receiving permission from the regional's credit department.

In addition to using notes to secure open accounts, several associations used them to finance crop expenses like seed and fertilizer. A 6 percent interest rate was most common among the associations studied. One association, however, charged 8 percent. In general, notes were extended up to 6 months while some were fitted to harvest dates. One association let notes run from 60 days to one year while another usually let its notes run for three months with renewal privileges.

Seven associations held all of their notes, although note volume was not large in any of the associations in this study. During the most recent year the number of notes made by individual associations ranged from one up to 30. The association with 30 notes had the highest total amount--approximately $10,000. Although some patrons refused to sign notes, most patrons generally accepted them. One manager estimated that about one of every six patrons who had given notes had stopped patronizing the cooperative.

## Collection Agencies and Techniques

Nine of the cooperatives in this study used collection agencies. The accounts handled by these agencies in the last year of this study did not exceed $300 in any association. The proportion of accounts collected by these agencies ranged from 67 to 100 percent.

Four of the cooperatives in this study made deductions from employees' commissions for purposes of building reserves for collecting accounts. This was part of an incentive bonus plan sponsored by the regional cooperative.

About half of the associations occasionally made deductions from the proceeds of products marketed in order to cover charge accounts. They took this action mostly on delinquent accounts when their holders were counted as poor risks.

Eight of the associations applied cash stock dividends and patronage refunds on delinquent accounts. This practice was not considered especially helpful, however, because refunds were seldom equal to the full amount of an account; it was used mostly as a last resort. One association, however, had bylaws prohibiting the attachment of dividends or patronage refunds to offset delinquent accounts.

Attorneys helped to collect such accounts in nine associations. In most instances the attorneys were affiliated with the regional cooperatives and their services were available to the local associations. One association turned over its accounts of more than $200 to the regional's attorney who made the collection for a 25 percent fee.

About half of the associations used a justice of the peace in their collection efforts. Here again the practice was not common, varying in use from three to eight times a year. One association reported using a justice of the peace on only three accounts in a period of 15 years, and two of these accounts were settled out of court.

## Allocation of Credit Costs

Credit costs may be equitably allocated between cash and credit patrons by use of discounts for cash or a service charge for credit. Both plans encourage patrons to pay cash at time of purchase or within a few days.

### Cash Discounts

Six associations allocated credit costs by allowing a cash discount on a purchase paid for within a certain period. The general practice was to allow a 2 percent discount if payments were made within 7 days to 15 days. One association allowed only a cash discount of 10 cents a bag on feed. Of the associations not offering a cash discount, one had margins so low it gave no discount. In two others the managers considered cash discounts as an admission of credit practices and therefore did not offer cash discounts.

None of the associations in this survey had used or encouraged advance deposits to make it possible for patrons to pay cash at time of sales.

### Charges for Credit

While some associations used cash discounts as one means for instituting a credit charge, two associations charged 2 percent for credit to compensate for the cost of handling it. The managers thought this a more effective way of drawing patrons' attention to the cost of credit. None of the associations charged interest on past-due open accounts; however, one association believed that converting an open account to an interest-bearing note was also a means of charging for credit.

## Use of Credit Agencies

All but one manager encouraged patrons to use existing credit agencies. Most of the associations in this study had access to PCA's but the extent of their use varied considerably.

For one association, the nearest PCA office was 28 miles away and the secretary of that PCA was in the town only one day a week where the cooperative was located. This limited its usefulness to the credit program of the cooperative.

In five associations where PCA's were convenient, patrons made very little use of them. One association reported that farmers hesitated to tie up farm operations with PCA's because of mortgage and collateral requirements. Another association referred holders of all accounts over $1,500 to PCA's. Still another association not only referred its patrons to the PCA, but asked the PCA to contact individual patrons on the farm.

Services of rural credit unions were not available to patrons of any of the associations studied.

At least five associations had good cooperation from local banks in providing patrons with needed credit. In one area of minimum local bank support, both the banker and the cooperative were distributing fertilizer competitively. Three associations reported about the same amount of cooperation with local banks as with PCA's. Approximately 80 percent of the patrons in one local used local banks for their farm production financing. Equipment and appliance sales in another cooperative were financed by the local bank.

Credit facilities of the Farmers Home Administration (FHA) were used by patrons of four associations. The patrons used FHA predominantly to finance the purchase of building supplies, with minor help on operating expenses.

Some managers suggested ways that credit agencies could improve and extend their services. Two managers mentioned that PCA's might be more liberal on loan security. Another believed that PCA's could be more aggressive in meeting the credit needs of all agricultural segments. One of the managers said that PCA's in his area should render broader services. For instance, some farmers used PCA's for seed loans but did not finance petroleum purchases through them. Making more personal contacts was suggested as one way that all existing credit agencies could be of more assistance to farmers.

Managers thought they could assist credit agencies in doing a better job by: (1) Encouraging patrons to use credit agencies; (2) explaining credit programs to more patrons; (3) furnishing references to credit agencies on the patron's ability to pay; (4) restricting association credit operations, and (5) intensifying educational programs on the cost of an open-account credit business.

## Analysis of Credit Operations

A comparison of credit data for 1953-54 and 1957-58 shows its use and problems increased during the 5-year period. For example accounts receivable climbed faster than sales.

Only 11 of the cooperatives studied had sufficient data to compare accounts receivable and sales. The total farm supply sales of these associations increased 34 percent over the 5-year period (table 1). They all had increases that ranged from as little as 8 percent to as much as 105 percent.

Year-end accounts receivable increased an average of 89 percent, but the median increase was 44 percent during this period. The average figure was greatly influenced by the big increases in accounts receivable reported in three associations; hence the median figure of 44 percent more nearly represented the changes that occurred for most of the associations.

Increases in accounts receivable over this period ranged from as little as 7 percent to as much as 279 percent in particular associations. While the total volume of accounts receivable rose as indicated over the 5-year period, the increase when related to sales was less pronounced.

TABLE 1.--Comparative credit data for 11 farm supply cooperatives in the Middle Atlantic region, 1953-54 and 1957-58

| Association code number | Increase in total farm supply sales, 1953-54 through 1957-58 | Increase in year-end accounts receivable, 1953-54 through 1956-57 | Monthly average accounts receivable as a percent of accounts receivable at end of 1957-58 fiscal year |
|---|---|---|---|
| | | *Percent* | |
| 4 | 47 | 279 | 77 |
| 5 | 50 | 11 | 91 |
| 6 | 25 | 124 | 73 |
| 7 | 105 | 259 | 77 |
| 8 | 28 | 30 | 104 |
| 9 | 19 | 96 | 76 |
| 10 | 30 | 13 | 67 |
| 11 | 38 | 38 | 95 |
| 12 | 17 | 33 | 103 |
| 13 | 9 | 7 | 82 |
| 14 | 8 | 44 | (1) |
| Average | 34 | 89 | 84 |
| Median | 28 | 44 | 80 |

1 Data were not available.

## Increased Use of Credit

While total sales increased an average of 34 percent in 11 associations from 1953-54 to 1957-58, the proportion of sales made on credit in all 14 associations remained more constant, increasing only 7 percent--from 54 percent to 61 percent of total sales (table 2). The proportion of sales made on credit increased in seven, remained the same in two, and decreased in five associations.

The range in the proportion of sales made on credit by individual associations for 1953-54 was from a low of 11 percent to a high of 95 percent. In 1957-58 the ranges were identical, with the same associations representing extremes in the proportion of sales on credit for the two periods. The greatest increase in the proportion of sales made on credit by an individual association was from 29 percent in 1953-54 to 71 percent in 1957-58. The greatest decrease in the proportion of sales made on credit was a drop from 66 percent in 1953-54 to 56 percent in 1957-58.

The number of days' total retail sales in accounts receivable for

TABLE 2.--Changes in use of credit in 14 farm supply cooperatives in the Middle Atlantic region, 1953-54 and 1957-58

| Association code number | Proportion of sales made on credit | | Days' total retail sales in accounts receivable at end of year | | Proportion of accounts receivable over 30 days old at end of fiscal year | | Proportion of assets in accounts receivable at end of year | |
|---|---|---|---|---|---|---|---|---|
| | 1953-54 | 1957-58 | 1953-54 | 1957-58 | 1953-54 | 1957-58 | 1953-54 | 1957-58 |
| | *Percent* | | *Days* | | *Percent* | | *Percent* | |
| 1 | 11 | 11 | 6 | 19 | 45 | 36 | 8 | 14 |
| 2 | 47 | 43 | 12 | 18 | 11 | 11 | 13 | 22 |
| 3 | 66 | 56 | 17 | 22 | 11 | 11 | 20 | 33 |
| 4 | 29 | 71 | 11 | 28 | 25 | 6 | 13 | 19 |
| 5 | 56 | 45 | 25 | 18 | 26 | 17 | 18 | 8 |
| 6 | 26 | 22 | 6 | 11 | 70 | 32 | 4 | 6 |
| 7 | 29 | 35 | 8 | 14 | 21 | 17 | 10 | 11 |
| 8 | 95 | 95 | 21 | 21 | 6 | 3 | 25 | 21 |
| 9 | 60 | 90 | 11 | 17 | 19 | 13 | 17 | 27 |
| 10 | 59 | 64 | 28 | 25 | 12 | 21 | 18 | 15 |
| 11 | 51 | 65 | 13 | 12 | 45 | 18 | 22 | 24 |
| 12 | 48 | 70 | 9 | 14 | 20 | 44 | 17 | 22 |
| 13 | 61 | 67 | 16 | 16 | 22 | 28 | 18 | 16 |
| 14 | 80 | 75 | 12 | 15 | 4 | 9 | 11 | 15 |
| Average | 54 | 61 | 14 | 18 | 29 | 22 | 15 | 18 |
| Median | 54 | 64 | 12 | 18 | 20 | 17 | 17 | 18 |

1953-54 averaged 14 compared to 18 for 1957-58 (table 2). The range in 1953-54 was from 6 to 28 days. The range for 1957-58 was from 11 to 28 days. Thus, none of the associations had more than 28 days of retail sales in accounts receivable in either of the two periods. But the minimum number had increased from 6 days in 1953-54 to 11 days in 1957-58. The greatest increase over the period for a single association was from 6 to 19 days.

Sometimes the relative size of accounts receivable is measured by the proportion they represent of total retail sales. This is easy to compute and avoids variations arising from the selection of different numbers of selling days in the year. A standard of 5 percent of total retail sales in accounts receivable is used in some associations as an operating standard. Five percent of sales is comparable to about 15 days of sales, counting 300 selling days in the year. Year-end accounts receivable for the associations in this study averaged 4.6 percent of retail sales in 1953-54, but had climbed to 6 percent in 1957-58.

Another measure of the significance of credit in a farm supply operation is the proportion of assets in accounts receivable. Year-end accounts for 1957-58 averaged 18 percent of total assets (table 2). For 1953-54 the average proportion was 15 percent. For 1957-58, the proportion ranged from a low of 6 percent to a high of 33 percent for individual associations.

## Age of Accounts

The age of accounts is a very important measure in credit analysis. It is desirable to have as many accounts as possible under 30 days old.

An aging of year-end accounts was available for 12 of the 14 associations. At the end of the year 1953-54, an average of 29 percent of all accounts receivable was over 30 days old (table 2). By 1957-58 the percentage had dropped to 22 percent, showing considerable progress in controlling accounts. The proportion of accounts receivable over 30 days had decreased in eight associations, increased in four, and remained the same in two. The range in proportion of accounts receivable over 30 days old for 1953-54 went from 4 percent up to 70 percent. For 1957-58 the range varied from 3 to 44 percent.

Another measure often used in considering the volume and age of accounts receivable is the number of days of credit sales they represent. This is commonly referred to as the "collection rate" to indicate how long accounts remain on the books or how fast they are being collected. Because credit terms are generally stated in calendar days, the measure "days' of credit sales" is based on a year of 360 days--12 months of 30 days each.

Thus, an association with a 30-day credit policy should generally not have as much as 30 days of credit sales outstanding because many credit patrons pay their accounts in less than 30 days. Thus an average of 30 days would indicate some patrons were not paying within the 30-day period.

This measure is not entirely satisfactory, however, because it is influenced by seasonal variations in the volume of credit sales. Credit sales per day in peak volume periods would be higher than credit sales per day on a yearly basis. An increase in days' credit sales in accounts receivable at a given time could be due more to a volume increase in sales than to a decrease in the rate of collection.

Changes over the 5-year period in the number of days of credit sales in year-end accounts receivable for

13 of the associations were as follows:

| Association code number | Number of days' credit sales in year-end accounts receivable | |
|---|---|---|
| | 1953-54 | 1957-58 |
| | *Days* | *Days* |
| 2 | 29 | 51 |
| 3 | 35 | 46 |
| 4 | 45 | 48 |
| 5 | 53 | 49 |
| 6 | 28 | [1]62 |
| 7 | 34 | 49 |
| 8 | 26 | 27 |
| 9 | 21 | [2]23 |
| 10 | [1]58 | 46 |
| 11 | 30 | [2]23 |
| 12 | 23 | 24 |
| 13 | 32 | 29 |
| 14 | [2]18 | 25 |
| Average | 33 | 39 |

[1] Highest.
[2] Lowest.

The range in the number of days of credit sales in year-end accounts receivable was from 18 to 58 days in 1953-54, with an average of 33 days. For 1957-58 the range was from 23 to 62 days, with an average of 39 days.

In 1957-58, credit sales in accounts receivable ranged from 18 to 45 days, with an average of 39 days. This was just a little over the generally accepted goal of 30 days.

## Year-end Versus Monthly Average Accounts

The size and importance of accounts receivable are most often based on fiscal year-end figures. This base is satisfactory for purposes of comparison, but it usually minimizes the real significance of the credit problem. Sales volume fluctuates seasonally and accounts receivable follow the movement of credit, so year-end accounts receivable may be larger or smaller than other months of the year. Thus a more accurate figure to use in considering credit volume is the monthly average of accounts receivable.

In this study 10 cooperatives had sufficient data to determine average accounts for the year. For individual associations, the monthly average varied from 67 to 104 percent of year-end accounts, with an average of 77 percent for all 10 associations. This was a reversal of the situation in other areas where year-end accounts receivable have been lower than average accounts.

Perhaps the major reason for this reversal was that the fiscal years ended at different times. All associations in this study closed their year in May or June which was a high volume season, thus raising accounts receivable to a higher level than would be maintained over the year as a whole. Only two associations had average accounts receivable larger than the accounts receivable at year-end (table 1).

## Monthly Trends

The seasonal pattern of farm supply sales is reflected in the monthly variations in credit sales and ac-

TABLE 3.--Monthly variation in credit sales shown as a percentage of a 12-month average in nine farm supply associations, 1957-58

(12-month average for each association = 100 percent)

| Association code number | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Range Low | Range High |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | *Percent* | | | | | | | |
| 2 | 71 | 89 | 139 | 121 | 151 | 91 | 73 | 76 | 112 | 133 | 79 | 66 | 66 | 151 |
| 3 | 79 | 89 | 126 | 118 | 110 | 93 | 68 | 84 | 116 | 138 | 90 | 90 | 68 | 138 |
| 4 | 37 | 105 | 103 | 117 | 116 | 155 | 94 | 94 | 99 | 105 | 83 | 90 | 37 | 155 |
| 5 | 75 | 66 | 112 | 186 | 106 | 135 | 68 | 69 | 119 | 115 | 89 | 59 | 59 | 186 |
| 6 | 60 | 61 | 70 | 145 | 183 | 135 | 76 | 72 | 81 | 158 | 84 | 76 | 60 | 183 |
| 7 | 68 | 91 | 123 | 95 | 107 | 137 | 101 | 91 | 105 | 99 | 105 | 78 | 68 | 137 |
| 8 | 117 | 97 | 100 | 103 | 94 | 103 | 95 | 95 | 96 | 109 | 93 | 99 | 93 | 117 |
| 11 | 95 | 85 | 88 | 108 | 117 | 114 | 104 | 106 | 104 | 109 | 81 | 89 | 81 | 117 |
| 12 | 111 | 96 | 105 | 99 | 89 | 102 | 109 | 94 | 93 | 113 | 90 | 100 | 89 | 113 |
| Average | 79 | 87 | 107 | 121 | 119 | 118 | 88 | 87 | 103 | 120 | 88 | 83 | 79 | 121 |

counts receivable. Among the 14 associations studied, monthly variations in credit sales fluctuated from 79 percent of the 12-month average to a high of 121 percent (table 3 and figure 1). Lowest levels of sales occurred in midwinter and summer, with peaks occurring in April and October.

Variations in accounts receivable followed closely the general pattern of credit sales, climbing from a low of 82 percent of average in January to a high of 120 percent in June (table 4 and figure 1). There was a lag of two months between the April peak of credit sales and the June peak for accounts receivable. The two-month build-up of accounts receivable indicated a slowdown in the rate of payment.

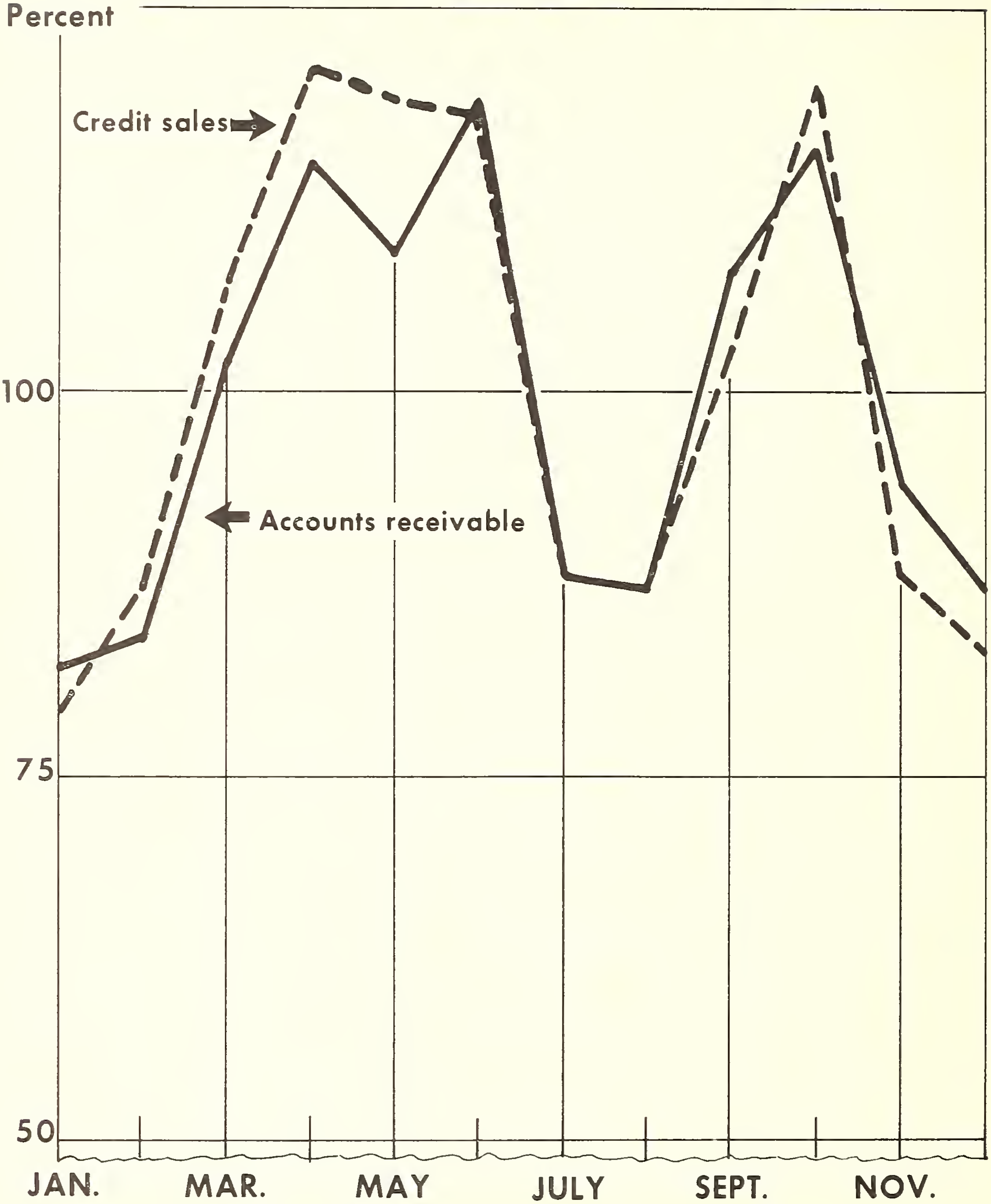
## Variation in Patrons' Use of Credit

The problem of patron equity in credit costs would be less important if credit services were used in proportion to patronage by all patrons. But patrons vary in their use of credit both in the proportion of purchases made on credit and the length of time for which credit is used.

In 10 of the 14 associations, about two-thirds of the patrons used credit at least one or more times in the fiscal year. However, only about one out of five patrons had an account with his association at the close of the last fiscal year. The proportion of patrons with year-end accounts varied by associations from 5 to 43 percent (table 5).

Figure 1

## Monthly Variation in Credit Sales and Accounts Receivable for Farm Supply Associations in Middle Atlantic Region, 1957-58




1/ Nine associations for credit sales. Eleven associations for accounts receivable.

TABLE 4.--Monthly variation in accounts receivable shown as a percentage of 12-month average in 11 local farm supply associations, 1957-58

(12-month average for each association = 100 percent)

| Association code number | Jan. | Feb. | Mar. | Apr. | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Range | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | Low | High |
| | | | | | | | Percent | | | | | | | |
| 1 | 61 | 55 | 104 | 86 | 11 | 160 | 112 | 95 | 127 | 140 | 91 | 69 | 11 | 160 |
| 2 | 68 | 64 | 116 | 133 | 127 | 107 | 87 | 79 | 104 | 119 | 96 | 98 | 64 | 133 |
| 3 | 90 | 69 | 116 | 133 | 102 | 107 | 59 | 76 | 127 | 140 | 83 | 98 | 59 | 140 |
| 4 | 58 | 103 | 102 | 117 | 126 | 142 | 90 | 93 | 94 | 102 | 84 | 90 | 58 | 142 |
| 5 | 76 | 74 | 108 | 162 | 117 | 110 | 81 | 81 | 112 | 110 | 100 | 70 | 70 | 162 |
| 6 | 65 | 69 | 65 | 116 | 152 | 138 | 99 | 88 | 81 | 129 | 108 | 90 | 65 | 152 |
| 7 | 70 | 87 | 110 | 92 | 114 | 129 | 97 | 95 | 114 | 105 | 105 | 83 | 70 | 129 |
| 8 | 121 | 116 | 114 | 118 | 110 | 95 | 51 | 51 | 103 | 118 | 100 | 104 | 51 | 121 |
| 11 | 108 | 104 | 114 | 104 | 118 | 106 | 94 | 78 | 102 | 97 | 81 | 94 | 78 | 118 |
| 12 | 95 | 93 | 103 | 97 | 113 | 97 | 102 | 111 | 105 | 102 | 97 | 83 | 83 | 113 |
| 13 | 86 | 86 | 65 | 111 | 112 | 123 | 100 | 114 | 123 | 109 | 87 | 83 | 65 | 123 |
| Average | 82 | 84 | 102 | 115 | 109 | 119 | 88 | 87 | 108 | 116 | 94 | 87 | 82 | 119 |

The 10 largest account holders in each of these 10 associations, on the average, accounted for about 32 percent of the total volume of year-end accounts receivable. Yet these 10 patrons represented only about 5 percent of patrons with accounts.

The 10 patrons with the largest accounts in each association had an average of 56 percent of their total accounts receivable less than 30 days old. This compared unfavorably with total accounts in which 78 percent were less than 30 days old. It indicated that patrons with large accounts lagged considerably behind patrons with smaller accounts in rate of payment.

Some managers believed that contributions of large-volume purchasers reduce unit costs and tend to off-set credit costs. In this study, patrons in each association with the largest accounts were responsible for about 32 percent of the volume of accounts receivable at year-end, but these same patrons had little more than 10 percent of total volume. These figures indicate that patrons with the largest accounts did not contribute proportionately as much to volume as they did to accounts receivable.

TABLE 5.--Variations in patrons' use of credit in 10 local farm supply cooperatives, 1957-58

| Association code number | Proportion of patrons with accounts receivable | Proportion of total volume of accounts receivable in 10 largest accounts | Proportion of total number of accounts represented by 10 largest accounts | Proportion of total purchases made by 10 patrons with largest accounts | Proportion of accounts receivable under 30 days of age | |
|---|---|---|---|---|---|---|
| | | | | | 10 largest accounts | All accounts |
| | | | *Percent* | | | |
| 1 | 18 | 38 | 6.2 | 5 | 52 | 36 |
| 4 | 19 | 15 | 4.4 | 18 | 88 | 94 |
| 5 | 7 | 37 | 4.2 | 10 | 67 | 83 |
| 6 | 5 | 38 | 4.8 | 18 | 48 | 68 |
| 7 | 12 | 44 | 4.7 | 17 | 75 | 83 |
| 9 | 53 | 21 | 4.0 | 6 | 39 | 87 |
| 10 | 43 | 24 | 3.3 | 6 | 70 | 79 |
| 11 | 15 | 24 | 4.6 | 7 | 48 | 82 |
| 12 | 18 | 55 | 6.7 | 11 | 30 | 56 |
| 13 | 5 | 25 | 9.6 | 7 | 40 | 72 |
| Average | 20 | 32 | 5.2 | 10 | 56 | 74 |
| Median | 17 | 31 | 4.7 | 8 | 50 | 80 |

# Cost of Credit

Although credit is presently recognized as a necessary service, its cost to patrons is seldom fully considered. Charges made for credit by a supply cooperative often cover only interest costs on funds that are used in providing credit to patrons. But such costs are only a fraction of total credit costs.

Determining the entire cost of credit in retail farm supply cooperatives is difficult. To arrive at a precise figure would require cost accounting of a nature not yet practiced by most associations. Estimates of credit costs, however, by those closely associated with credit may be quite accurate and helpful.

Representatives of 5 of the 14 associations included in this study made estimates of their credit costs in 1957-58. A description of the items considered in such estimates follows:

1. Interest was charged at the rate of 5 percent. Capital tied up in accounts receivable was based on the 12-month average of accounts receivable.

2. Extending costs included charges for time needed to establish policies and practices, for explanation to patrons, investigation of applications, and opening of the accounts.

3. Bookkeeping and collection costs included time of manager and clerical employees, supplies, travel, legal expense, and related items.

4. Bad debts were the accounts written off as uncollectible, less any recovered amounts.

Estimated credit costs for the five associations ranged from 66 cents to about $2 per $100 of credit sales, with an average of $1.21 per $100 of credit sales.

The average cost of interest was 32 percent of total costs (table 6). Bookkeeping and collection costs were 27 and 24 percent respectively. The estimated extending costs were about 13 percent, with bad debt expenses accounting for 4 percent of total costs.

Credit costs for each $100 of average monthly accounts receivable averaged $17.34. This figure, however, was based on only 3 associations, but it was close to the figures of the other areas previously studied. Regardless of the measures that are used to indicate the cost of handling credit, whether based on credit sales or on accounts receivable, the cost is real and substantial.

These cost estimates--interest and bookkeeping accounted for about 60 percent of the total in this study--bring out the necessity of recognizing all the costs associated with credit services. To assure equitable treatment of members, patrons should pay for credit services rendered just as they now receive refunds based on patronage.

TABLE 6.--Costs of extending credit in five local farm supply cooperatives, 1957-58

| Association code number | Accounts receivable--yearly average | Total estimated cost of credit | Cost per $100 of credit sales | Proportion of credit costs represented by: | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | Extending | Interest | Bookkeeping | Collection | Bad debts |
| | | *Dollars* | | | | *Percent* | | |
| 1 | 17,208 | 2,675 | 1.23 | 14 | 32 | 15 | 33 | 6 |
| 10 | 36,666 | 6,187 | 1.44 | 22 | 29 | 33 | 15 | 1 |
| 12 | 14,273 | 4,052 | 1.98 | 20 | 18 | 27 | 30 | 5 |
| 13 | 31,474 | 3,154 | .66 | 6 | 50 | 35 | 8 | 1 |
| 14 | 45,000 | 7,328 | .73 | 3 | 31 | 27 | 33 | 6 |
| Average | | | 1.21 | 13 | 32 | 27 | 24 | 4 |

# Area Comparisons

This is the sixth and last area to be reported in this credit series. The report number, area, and respective States for each study are as follows:

| Report Number | Area | States |
|---|---|---|
| General Report 35 | I | Indiana, Ohio, Pennsylvania, Michigan |
| Service Report 36 | II | Washington, Oregon, Idaho, Utah |
| General Report 43 | III | Wisconsin, Minnesota, North Dakota, South Dakota, Northern Iowa |
| General Report 57 | IV | Kansas, Nebraska, Missouri, Iowa, Illinois, and Southern Wisconsin |
| Service Report 41 | V | Tennessee, Alabama, Mississippi, Arkansas |
| General Report 71 | VI | New York, New Jersey, Virginia, West Virginia, North Carolina, Georgia |

A comparison of data on selected credit measures by areas is presented in table 7. It should again be emphasized that the data included in these comparisons are for the limited number of associations included in the studies for each area and do not necessarily reflect area-wide conditions. However, on the basis of the data presented and other information available to Farmer Cooperative Service, the following observations are made with respect to Area VI:

1. Its accounts receivable had less age than those in any other area. About 78 percent of the accounts at year-end were under 30 days old. This compared to 54 percent for the next highest area and 40 percent for the area with the lowest proportion under 30 days of age. This favorable proportion of accounts under 30 days undoubtedly reflected the influence of regionals on member locals in providing credit training, supervision, and services.

2. The proportion of assets that was represented by accounts receivable at year-end was 18 percent, the highest of any area. The coincidence of year-end closing dates occurring at seasonal volume peaks could account for this high proportion.

3. The average of 33 days of credit sales in monthly average accounts receivable was next to the lowest area.

4. The cost of credit per $100 of credit sales was lowest of all six areas, averaging $1.21.

TABLE 7.--Measures of credit operations in selected retail farm supply cooperatives in six areas of the United States[1]

| Item | Areas | | | | | |
|---|---|---|---|---|---|---|
| | I | II | III | IV | V | VI |
| For 5-year period studied[2] | | | | | | |
| Percent increase in farm supply sales | 12 | 20 | 30 | 39 | 45 | 34 |
| Percent increase in accounts receivable[3] | 40 | 68 | 52 | 54 | 58 | 44 |
| For last year of study[2] | | | | | | |
| Total sales | | | | | | |
| Percent made on credit | 65 | 68 | 66 | 56 | 55 | 61 |
| Percent in year-end accounts receivable | 5 | 8 | 6 | 4 | 6 | 6 |
| Number of days of sales in year-end accounts receivable | 14 | 23 | 19 | 11 | 18 | 18 |
| Percent in average monthly accounts receivable[4] | 7 | 11 | 9 | 7 | 7 | 5 |
| Number of days of sales in average monthly accounts receivable[4] | 21 | 33 | 30 | 19 | 22 | 15 |
| Credit sales | | | | | | |
| Percent in year-end accounts receivable | 7 | 12 | 10 | 6 | 12 | 9 |
| Number of days of sales in year-end accounts receivable | 25 | 46 | 41 | 22 | 42 | 39 |
| Percent in average monthly accounts receivable[4] | 10 | 17 | 16 | 10 | 14 | 8 |
| Number of days of sales in average monthly accounts receivable | 34 | 55 | 60 | 44 | 44 | 33 |
| Year-end accounts receivable | | | | | | |
| Percent under 30 days old | 47 | 40 | 41 | 54 | 53 | 78 |
| Percent of total assets | 10 | 14 | 10 | 8 | 14 | 18 |
| Percent of average monthly accounts | 68 | 70 | 64 | 57 | 83 | 119 |
| Estimated cost of credit | | | | | | |
| Per $100 of credit sales | 1.70 | 2.27 | 2.45 | 1.74 | ([5]) | 1.21 |
| Per $100 of average accounts receivable | 16.80 | 13.30 | 13.40 | 16.00 | ([5]) | 17.34 |
| Number of associations in each study | 8 | 11 | 22 | 30 | 8 | 14 |

[1] Data based on simple averages to give approximately equal weight to the performance of each cooperative.
[2] Areas I and II covered period 1951-52 through 1955-56. Area III covered period 1952 through 1956. Areas IV and V included period 1952-53 through 1956-57. Area VI includes period 1953-54 through 1957-58.
[3] Based on medians to lessen influence of extremes.
[4] Computed from ratio of average to year-end accounts receivable.
[5] Not available.

## Other Publications on Credit

Credit Control in Selected Retail Farm Supply Cooperatives, Area I, General Report 35, June 1957. John M. Bailey

Credit Control in Selected Retail Farm Supply Cooperatives, Area III, General Report 43, June 1958. T. R. Eichers

Credit Control in Selected Retail Farm Supply Cooperatives, Area IV, General Report 57, April 1959. T. R. Eichers

How Cooperatives Use Credit Agencies to Meet Patrons' Needs, General Report 52, 1959. John M. Bailey, Arthur H. Pursell, Russell C. Engberg

Controlling Open Account Credit in Feed Cooperatives, Circular No. 24, 1957. Charlie B. Robbins and Lacey F. Rickey

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