FCS INFORMATION 84

# COOPERATIVE COTIA
## a force for development in brazil

U.S. DEPARTMENT OF AGRICULTURE • FARMER COOPERATIVE SERVICE
COOPERATING WITH U.S. AGENCY FOR INTERNATIONAL DEVELOPMENT

## FARMER COOPERATIVE SERVICE
## U.S. DEPARTMENT OF AGRICULTURE

Farmer Cooperative Service provides research, management, and educational assistance to cooperatives to strengthen the economic position of farmers and other rural residents. It works directly with cooperative leaders and Federal and State agencies to improve organization, leadership, and operation of cooperatives and to give guidance to further development.

The Service (1) helps farmers and other rural residents obtain supplies and services at lower cost and to get better prices for products they sell; (2) advises rural residents on developing existing resources through cooperative action to enhance rural living; (3) helps cooperatives improve services and operating efficiency; (4) informs members, directors, employees, and the public on how cooperatives work and benefit their members and their communities; and (5) encourages international cooperative programs.

The Service publishes research and educational materials and issues *News for Farmer Cooperatives*. All programs and activities are conducted on a nondiscriminatory basis, without regard to race, creed, color, sex, or national origin.

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February 1972

## HIGHLIGHTS

The Agricultural Cooperative of Cotia - Central Cooperative (CAC-CC) is one of the most proficient in the world. Cooperatives in many lands could learn from some of the unique experiences and innovations of this association. It has been an effective force for development in Brazil.

This report gives an account of the development and significant trends of the cooperative including its organization, operations, services, and innovations.

CAC-CC is a federated cooperative headquartered in the city and State of Sao Paulo. It has eight regional associations as members that operate throughout several States in Southern Brazil. Cotia was a large regional cooperative until 1966 when it was reorganized into a federation. The eight regionals were also organized at that time.

The federation is diversified and complex. It markets more than 100 commodities, provides a variety of production supplies, and performs a large number of other related services to 10,479 producer-members. Principal vegetables and fruits marketed are potatoes, tomatoes, bananas, grapes, and strawberries.

CAC-CC began in 1927 as a potato marketing cooperative. Potatoes are still one of its highest value products. Other important products marketed are eggs, broilers, peanuts and peanut products, cotton and cotton products, soybeans and soybean products, coffee, and tea. The association is among the largest egg-handling cooperatives in the world. It processed and sold 1.2 million cases in 1970.

Fertilizers and mixed feeds are the most important farm supplies handled. However, it provides members with virtually all types of supplies needed in production, such as seeds and seedlings, agricultural chemicals and pesticides, veterinary products, packing materials, construction materials, petroleum products, farm implements and hardware, and a wide variety of consumer goods.

In addition to marketing and handling farm supplies, the association provides members with a number of important services needed to produce crops and poultry products -- production credit, technical assistance, engineering advice and assistance in constructing farm buildings and operating farm equipment, and machinery repair.

The association operates five research farms that conduct research and produce basic stock for members -- seeds and seedlings, poultry breeding stock, and hatching eggs.

Credit has been one of the most important business activities of the association and one of the greatest needs of producers. Total credit business (loans to members and deposits of members) has been almost as large as the combined total value of marketing, purchasing, and service operations. However, since 1969 the association has been unable to provide credit services because of requirements under the recent cooperative law. As a result, members have organized a separate credit cooperative.

A summary of value of business by major departments in 1970 follows:

| Department | Value 1/ | Equivalent U. S. value 2/ |
|---|---|---|
| | CR$ million | Million dol. |
| Marketing | 305 | 67 |
| Purchasing | 68 | 15 |
| Services | 17 | 4 |
| Sub-total | 390 | 86 |
| Credit | 306 | 67 |
| Grand total | 696 | 153 |

1/ Cruzeiros
2/ Exchange rate in 1970 averaged CR$ 4.548 per $1.

CAC-CC had 2,054 employees in 1970. The eight regional associations had a combined total of 1,670 more employees, making a grand total of 3,724. Total wages, salaries, and directors' fees paid by all nine cooperatives in 1969 totaled CR$ 28.3 million or nearly $7 million.

Among their employees are 110 highly trained technicians -- agronomists, economists, animal and poultry technicians, engineers, architects, veterinarians, and industrial chemists. Almost all are college graduates. Over the years these employees, along with key management personnel, have provided members with pertinent advice and assistance in their production and marketing efforts. Partly because of this type of technical assistance, members of CAC-CC are among the most proficient farmers in Brazil. For example, production per unit (hectare) of association members are from two to three times more than the average of nonmembers for a number of crops.

CAC-CC is actively engaged in exports and imports, and is one of the most experienced cooperatives in the world in agricultural foreign trade. It imported seed potatoes in 1929 and exported tomatoes in 1935. Since those early years, it has imported large quantities of seed potatoes, fertilizers, insecticides and other supplies; and has exported large volumes of bananas, coffee, cotton, peanut meal, tea, tomatoes, and other commodities. Exports reached 17 percent of total products sold in 1970. The association has 20 sales agents or representatives in 14 foreign countries -- South America, Europe, Japan, and the United States.

Members of CAC-CC have at their disposal a network of modern plants and facilities for processing, storing, and selling their products. These include vegetable oil refineries; poultry, rice, tea, coffee, and frozen food processing plants; feed mills; fertilizer plants; hatcheries; cotton gins; winery; warehouses; and numerous stores to receive produce and sell association products, farm supplies, and consumer goods.

The association does not own all of these facilities. Because of problems inherent in the cooperative law, inflation, and difficulties in raising capital among producers, the association was instrumental in getting a noncooperative company (CODAI - Company for Developing Agri-Industries) organized primarily to raise capital to build or invest in some of the facilities. Without this unique principle of making costly facilities available to producer-members, the association no doubt would not have been able to expand or adequately meet the growing needs of members.

Two other unique operations that have helped the association to be successful are a system of advisory committees and groups for collective transportation.

In 1970 the CAC-CC system, the federation and the eight regionals, had an estimated 100 advisory committees. Each regional and the federation has an advisory committee called Groups of Producers (GPs) for each of the 12 major product lines of the association -- potatoes, poultry and eggs, fruits and vegetables, coffee, cotton, rice and cereals, peanuts, tea, bananas, alfalfa, ramie, and vegetable oils -- if production in the area warrants such a group. These groups mainly advise their respective boards of directors on production, marketing, and service operations of the particular product line in question.

The GP program was started in 1950. Since then thousands of members have served on the committees. In addition to advising and assisting directors, this program has done much to improve membership relations in the cooperative, the understanding of members, and the leadership characteristics of farmers.

Another program that has helped to improve the efficiency of transportation and distribution, as well as membership education, is Groups for Collective Transportation (GTCs). By 1970 some 50 GTCs had been organized in the association's operating area and were using 170 trucks, either owned or contracted. GTCs have the responsibility for transporting virtually all produce received from members and supplies provided them between interior points and the federation's headquarters.

The association has issued a monthly publication for 28 years. It is probably the most widely read farm magazine in Brazil, as present circulation is about 60,000. For the past 20 years, it also aired a 15-minute radio program. Some 2,500 visitors personally tour CAC-CC each year.

The association gives substantial emphasis to youth. It sponsors the organization and operation of 4-H and other youth clubs and has helped sponsor 1-year training programs to the United States and Japan for about 150 youth. Through these programs the association hopes to develop young rural leaders and good farmers, for future members and leaders of the association.

During its 43-year history, CAC-CC has probably done as much as any other organization in its operating area to improve agricultural production, marketing conditions and efficiency, and leadership capabilities of farmers. The result is improved income and quality of life for its producer-members.

CAC-CC accomplished these benefits under difficult conditions, especially in its earlier stages. Brazil is a developing country, where much of its agriculture is still carried on in traditional ways, but where modernization is making inroads. A high rate of illiteracy still exists, but the Government is making laudable efforts to improve the situation. Average per capita incomes have remained low. Institutional credit programs have been expanding rapidly although still not reaching all who need it. Inflation, rampant in previous years, gradually is being brought under control. Cooperative legislation has evolved recently from being somewhat restrictive to being more permissive. Public agencies currently have recognized their role in the systematic provision of technical assistance and research services to cooperatives.

Despite these and other unfavorable conditions, CAC-CC, starting with 83 members investing the equivalent of about $390, has advanced to an $85 million per year marketing, purchasing, and service cooperative. Additionally members have developed the $70 million per year credit cooperative.

Much of the success of these cooperatives can be attributed to the honesty, integrity, and outstanding management performance of their leaders, the loyal support of their members, and the competent corps of technicians and other employees.

# COOPERATIVE COTIA — A FORCE FOR DEVELOPMENT IN BRAZIL

By Henry W. Bradford 1/

This report describes the development, significant trends, organization and operations of the Agricultural Cooperative of Cotia - Central Cooperative (CAC-CC). This federated cooperative has been an effective force for development in Brazil providing purchasing, marketing, credit, and related services in several States in the southern part of the country.

One of Brazil's first cooperatives, CAC-CC was organized in 1927 with headquarters in the city of Sao Paulo and State of Sao Paulo. It has developed into a large, complex business organization. It is among the most proficient cooperatives in the world.

Brazil is a land of many cooperatives, the earliest dating from the middle or late 1920's. By 1970 a total of 3,305 cooperatives had been given authorization to operate, excluding credit cooperatives. More than half of these are agricultural cooperatives. Others are consumer, school, rural electric, and a wide variety of miscellaneous types. The number of cooperatives in Brazil by types and by States are shown in appendix table 1.

## REASONS FOR ORGANIZING

Japanese immigrants first landed in Brazil around 1908. Within five years they had formed two colonies in the State of Sao Paulo and started to produce crops, principally potatoes. The colony that later founded the association settled in the city of Cotia. Although only 16 miles from the city of Sao Paulo, Cotia was then considered wilderness.

Efforts to produce potatoes during the first years virtually failed primarily because of poor soil and lack of finances and management know-how. However, the colonists persisted by concentrating their efforts in small areas.

Since no commercial fertilizer was available, they enriched the soil by transforming grass, weeds and brush into organic fertilizer. For the first time in Brazil, the colonists used residues from a slaughtering plant for fertilizer. These pilot tests in small plots proved successful.

Starting with only four families, by 1920, 50 families had settled in the region. In that year they produced 20,000 sacks of potatoes that had to be

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1/ Nelson K. Toyama, cooperative technician, Department of Cooperatives and Rural Extension, National Institute of Agrarian Reform, Brasilia, D.F., assisted in obtaining data for this report.

hauled to market in Sao Paulo. This caused a huge transportation problem. The settlers assembled 100 oxcarts and moved the potatoes to the capital city. This 32-mile round trip took three days to make because of the poor roads.

However, future transportation worried the colonists. They considered buying a truck but ruled against it because of the high costs and poor roads. At a general meeting they decided to establish a cooperative, build a warehouse, and repair the road. They collected about $36, to get started, but abandoned the undertaking when a heavy frost destroyed the entire 1921 crop.

By 1923 the Government began to build roads through the area. This induced greater potato production and transportation to Sao Paulo was cut to one day.

Selling presented no undue problems in the early years when volumes were small, and Cotia potatoes had become well known for their high quality. With larger volumes farmers faced serious sales problems. They were selling their potatoes to middlemen who controlled price and distribution. Some farmers claimed that exploitation was so severe they considered discontinuing production.

This unfavorable marketing situation continued until 1927 when the group in a general meeting decided the best solution was to form a cooperative. Thus, on December 27, 1927, 83 farmers invested CR$390 and organized the first cooperative in the State, "Cooperative Society with Limited Responsibility of Potato Producers in Cotia, Inc."

## EARLY OPERATING EXPERIENCES

Pioneers suffered more than their share of trials and tribulations in getting the Cotia cooperative operating. Historians recorded that the difficulties members had and the bitterness they experienced from "outsiders" were beyond comprehension. Perhaps one of the principal reasons for the cooperative's success today stems from those early operating difficulties when the founders learned the need and technique of working together to overcome common problems.

When the Cotia cooperative was first formed Brazil had no cooperative law, so it was organized under general corporation laws. Not until five years later, 1932, did Brazil pass its first cooperative law. The corporation then reorganized to conform to the new legislation and changed its name to "Agricultural Cooperative of Cotia" (CAC), named after the city of Cotia.

As the cooperative expanded and gained more experience, potato buyers boycotted CAC. The association overcame the boycott by not producing potatoes for a short time. This experience, however, led the cooperative to find ways of selling potatoes directly to consumers, bypassing intermediaries. One way was to establish a direct sales outlet in the Sao Paulo municipal market. The boycott victory helped unite members even more. Nonmember producers also better learned what force a cooperative can have and many joined CAC.

This experience and other difficulties led members to diversify into other crops so the association would not be dependent on a monoculture. Japanese immigrants are credited with being the first commercial producers of rice,

several vegetables, tea, peppermint, Japanese tangerine, and silk in the State of Sao Paulo. They also first planted ramie and cotton in the State of Parana.

Colonists not only diversified their crops and produced larger volumes, but moved more and more into new areas. This was the beginning of what is known today as the "Green Belt" around the city of Sao Paulo.

By 1936 the cooperative started promoting commercial egg production. At present it is one of the largest egg handling cooperatives in the world. It processed and sold more than 1.2 million cases in 1970.

It has made continued developments and improvements over the years to meet members' needs and to correct various deficiencies. Principal improvements and innovations include the establishing of modern processing and marketing facilities for vegetable oils, broilers, coffee, frozen foods, and other products; constructing feed manufacturing plants and fertilizer mixing facilities; setting up special services to help members improve production efficiency of many crops and poultry, and to provide them with production credit and medical care; beginning a unique transportation system; and developing a program of advisory committees representing principal products of the association.

## ORGANIZATIONAL STRUCTURE

Until 1965, CAC's organizational structure was similar to a centralized structure in the United States. It had a board of directors at the headquarters in Sao Paulo and had organized about 70 branches in five States. In addition, it had set up some 60 offices throughout several States to sell its products. Some of the branches served both as receiving and selling posts.

On May 5, 1966, it changed its organizational structure to a federation and changed its name to "Agricultural Cooperative of Cotia - Central Cooperative" (CAC-CC). (A central structure in Brazil is similar to a federation in the United States.) At that time members set up eight regional cooperatives, and each regional became a member of CAC-CC. The federation is still often referred to and known as "Cotia."

Each regional has a centralized structure. Each has a board of directors and operates from two to 21 branches with a combined total of 84 branches. Each carries the common name "CAC" (Agricultural Cooperative of Cotia) followed by words denoting its geographic location. The names and number of branches of each regional are given in table 1.

All 84 branches receive members' products and most serve as outlets for farm supplies and consumer goods. Many branches also sell CAC-CC products. The federation continues to operate sales outlets in many sections of the country outside the area of the regionals.

Table 1. -- CAC-CC member regional cooperatives and number of branches operated by each, 1970

| Regional cooperative | Branches |
|---|---|
| | Number |
| 1. CAC - Greenbelt of Sao Paulo | 5 |
| 2. CAC - North Sao Paulo | 17 |
| 3. CAC - Southwest Sao Paulo | 20 |
| 4. CAC - West Sao Paulo | 12 |
| 5. CAC - North Parana | 21 |
| 6. CAC - South Parana | 5 |
| 7. CAC - Rio de Janeiro | 2 |
| 8. CAC - South Mato Grosso | 2 |
| Total | 84 |

## Management

The federation has 15 directors elected for three-year terms with no limitation on the number of successive terms they can serve. Eight are presidents of member regionals and seven are elected at large.

All voting in the federation and the eight regionals is based on one man-one vote. This principle is a requirement in the cooperative law.

Because of the large number of producers in the system and its wide geographic area, CAC-CC set up a delegate system for producer-member representation and election of directors.2/ Each regional has several districts and elects eight delegates at large, making a total of 64 delegates in the system.

These delegates also elect a Fiscal Committee of three members and three alternates annually. The primary function of this committee, as required under the cooperative law, is to review, approve, or disapprove financial operations of the federation.

Among the directors are three officers, president, vice president, and superintendent or manager. Mr. Gervasio Tadashi Inoue was elected president in 1956 and has been reelected to that position since that time.

## Groups of Producers

Early in the cooperative's history, after it expanded its area of operations into several States with many producers located hundreds of miles from headquarters, member relations problems developed. Most serious of these were:

2/ When "members" or "producer-members" are mentioned in this report, it means farmers as members of the eight regional associations or as members of the Agricultural Cooperative of Cotia before it became a federation.

Above: GTC collecting produce for members. Below: Vegetables and legumes displayed for sale at general wholesale market of State of Sao Paulo.

How to keep in close touch with members and how to be aware of their needs and wants. Complicating factors were the increasing variety of products handled and services performed, poor public communications and transportation.

To help remedy these conditions, in 1950 the association organized a unique system of product committees called, "Local Group of Producers" (GP). A few years later it set up a number of GPs in each of the 12 major product lines of the cooperative -- potatoes, poultry and eggs, fruits and vegetables, coffee, cotton, rice and cereals, peanuts, tea, bananas, alfalfa, ramie, and vegetable oils. For example, potato growers organized several GP-Potato, one in each of the local, heavy producing areas. Producers of the other product lines did likewise.

At the start, local GPs were informal groups. They functioned similar to advisory committees, but their area of interest was limited to their geographic areas. As the association became larger and more complex, the need arose for better coordination and a broader scope of interest among GPs.

Rather than changing the system of local GPs, the association established 12 GPs at the headquarters level, one for each product line. These worked with their respective local GPs and served as advisory committees to the general board of directors.

When this change was made, the association gave certain executive powers to local GPs. For example, a local GP-Potato had the power and responsibility to study and analyze potato receiving and sorting operations in its area. If it decided new facilities and equipment were needed it had the authority to buy, install, and supervise operations. But the local potato growers involved had to pay for the cost of such facilities and services. In some respects, this system was similar to the operation of a local cooperative.

Local GPs had executive responsibilities with production, receiving and sorting, but not with transportation, association grading, storing, and selling. The responsibilities for carrying out these functions before the association became a federation, were as follows:

| Function | Responsibility |
|---|---|
| Production 1/ | GP |
| Receiving and sorting | GP |
| Transportation | GTC 2/ |
| Grading and storing | CAC Dept. of Sales |
| Selling | CAC Dept. of Sales |

1/ Includes the obtaining of farm supplies and other services used by members in producing crops and products.

2/ The organization and functions of GTC (Group Transport Collective) are discussed in the next section.

This structure of GPs remained until 1966, or until Cotia reorganized into a federation. At that time CAC-CC discontinued the many GPs at local levels. To take their place, each of the eight member cooperatives established 12 GPs, one for each product line, if production of the particular product line was sufficient to justify a GP.

CAC-CC continued the GP system at the federation level with 12 GPs to represent the total system. Called "Central Consultive Council of Groups of Producers" followed by the name of the product line, CCC-GP Potato, for example, their principal functions are to advise and make recommendations to the federation's board of directors on all aspects of production and marketing of the product involved.

Figure 1 shows the organizational structure of the GP system, using the potato group as an example. Potato growers from each regional elect a "GP-Potato" committee, and this committee elects a chairman.

The chairmen of the GPs-Potato of the eight regionals constitute the "CCC-GP Potato" committee at the federation level. This committee also elects a chairman from its number. GPs at both regional and federated levels meet monthly and more often if necessary.

An estimated 400 producers currently serve on GP committees, assuming that about one-third of them serve on more than one committee. However, since 1950 thousands have served in such capacities. In addition to advising and assisting on improving production, marketing, and service operations of the association, this large number does much to improve the member relations and understanding of members. At the same time, they develop greater individual leadership characteristics. Thus, it is one program that helps maintain the solidarity and support of members.

## Groups for Collective Transportation

Although transportation always has been among major problems, Cotia has adopted some unusual programs to alleviate its transportation difficulties.

Before World War II, Cotia had its own fleet of trucks and a transportation section in the association. These trucks hauled farm supplies to branches in the interior and returned with members' produce. However, poor communications (telephone, telegraph and mail) prevented advance knowledge of branch supply needs, or quantities of produce they had for backhaul. Thus, many trucks traveled at less than full capacity, making transportation expensive. The inability to properly control inventories of farm supplies at branches also became expensive.

During World War II the Government adopted controls on gasoline, tires, and other products vital to transportation. These controls made it essential that the association make the best possible use of trucks. Because it could not overcome the communication problems, a completely different organizational structure for transportation was established. In this new system the major burden of transportation and truck ownership was transferred from the association to members.

Producers in many communities organized local transportation groups called, "Groups for Collective Transportation" (GTC). These functioned similar to a local transportation cooperative. Members had to buy or contract trucks and were responsible for virtually all transportation of produce and supplies between their local areas and the association's headquarters. In this system, trucks moved with loaded produce from interior points to headquarters and returned with farm supplies. GTC's ordered trucks to headquarters only when fully loaded, and they knew in advance what supplies they needed for backhaul. Contract truckers could also backhaul items other than association business to utilize truck capacity. This new system helped solve two important problems. It improved overall transportation efficiency and conserved gasoline, tires, and other Government controlled items.

Soon after 1942, a total of 32 GTCs had been organized involving about 80 percent of all members. Unique as it was, the system was not without problems, particularly in those instances when GTCs owned and operated trucks. Truck ownership was the rule rather than the exception during early years.

Truck drivers as employees of GTCs were not unduly interested in taking proper care of the trucks or utilizing them to the maximum. This coupled with poor roads, breakdowns and repairs, and high depreciation costs caused transportation costs to stay relatively high. Even truck driver labor was considered high as it cost the GTCs about double their basic salary -- for overtime, vacations, and contributions for the Government's medical-retirement fund.

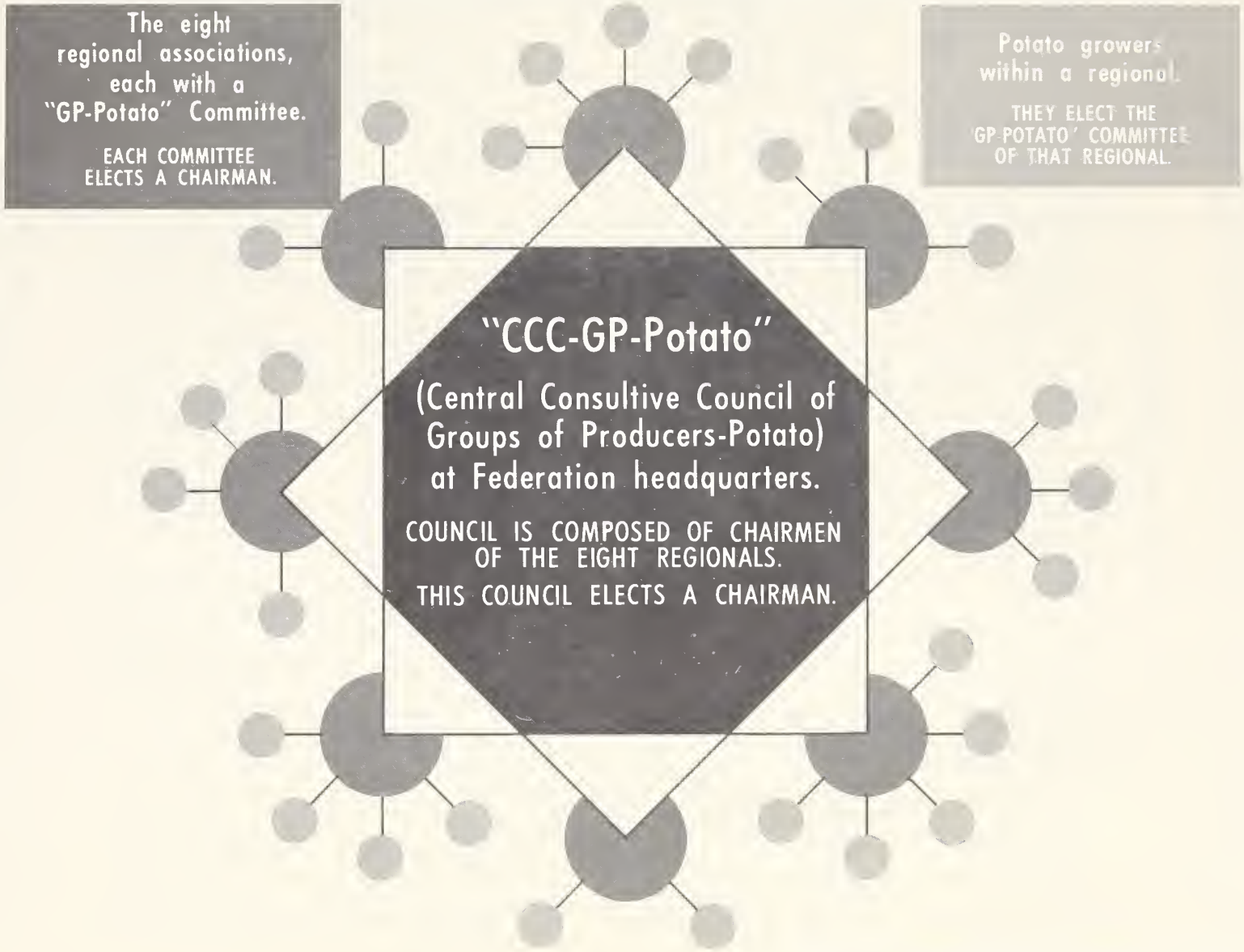
As a result many GTCs changed from owning trucks to contracting. This gave several advantages to each group. GTCs avoided all personnel problems and received lower cost transportation in most cases. Contract haulers had incentives to work harder, longer hours, and to take better care of their trucks. In general, they also earned more money.

GTCs have been in continuous operation since first organized. In the present CAC-CC federated system they are responsible for transporting all produce and supplies between regional cooperatives and their branches and between regionals and the federation headquarters in Sao Paulo. The number of trucks owned and operated by GTCs has declined in recent years with increased contract arrangements. However, total number of trucks utilized by GTCs, both owned and contracted, has been increasing with the greater volumes of products handled -- from an estimated 120 trucks in 1962 to 170 trucks in 1970. About 50 GTCs were operating in 1970.

## Transportation and Mechanical Assistance

In addition to the GTCs, the federation owns about 10 trucks and contracts another 60 for transporting processed products to sales outlets throughout much of Brazil, and for hauling farm supplies from factories and ports to headquarters. In earlier years the ratio of owned to contract trucks was much higher. But it is using more and more contract truckers because contractors can make full use of backhauls as the law permits the association to backhaul only its own commodities.

# ORGANIZATIONAL STRUCTURE OF "GROUPS OF PRODUCERS" FOR POTATOES, CAC-CC, 1970




SAME TYPE STRUCTURE EXISTS FOR THE OTHER 11 PRODUCT LINES.

The transportation department, with some 25 employees, also provides maintenance for its 10 trucks, and for trucks and cars of members and employees for a fee.

## SERVICE OPERATIONS

During its 43-year history, CAC-CC has developed into a diversified and large cooperative. It provides a market for almost every crop produced by members and provides supplies they need to produce crops and livestock. This is one of the philosophies of the cooperative -- to perform a complete line of services for members.

### Marketing

Although Cotia started out as a single product cooperative, within a few years it had branched out into many product lines. By 1969 it sold more than 100 commodities (table 2).

Marketing continues to be the association's principal business. During 1970 it marketed products valued at more than CR$305 million (about $67 million). This was 78 percent of the association's total business (table 3).3/ Table 3 also shows the fast business growth of the association, from CR$1,000 in 1928 to CR$390,000,000 ($85.7 million) in 1970. However, inflation accounts for part of this increase.

#### Principal Products Marketed

Vegetables are still the most important business of the association. They accounted for 29 percent of all products marketed in 1970 (table 4). However, over the last decade they have decreased in relative importance. Eggs and poultry, on the other hand, have increased in importance -- from 16 percent of total marketing in 1961 to 28 percent in 1970. These two product lines, eggs and poultry and vegetables, have accounted for about 60 percent of total marketing in recent years.

Other important commodities are peanuts, cotton, soybeans, coffee, and fruits. The first three have increased in importance within the past 10 years. Soybeans and soybean products, realtively new lines, are expected to become more important in the years ahead as soybean production continues to increase. Brazil is now the world's third largest producer of soybeans, exceeded only by the United States and Mainland China.4/ However, production in 1969 was only 4 percent of U. S. production. Some major producing areas in Brazil are presently outside the operating area of CAC-CC.

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3/ The exchange rate in 1970 averaged CR$4.548 per $1.
4/ FAS M-225, FAS, U. S. Dept. Agr., Jan. 1971.

Table 2. -- Quantities of specified products marketed and other products sold, CAC-CC, 1969

| Products marketed | Unit | Quantity | Other products marketed | |
|---|---|---|---|---|
| Alfalfa | M Tons | 115 | Alfalfa meal | Lemons |
| Artichokes | Boxes | 88,468 | Apples | Mangoes |
| Bananas | Bunches | 899,306 | Asparagus | Manioc flour |
| Beans, dry | Sacks | 17,735 | Avocados | Medlars |
| Broilers | Head | 7,373,883 | Bananas, mashed | Nuts |
| Cabbage | Sacks | 216,949 | Beets | Okra |
| Carrots | Boxes | 237,108 | Brandy | Papaya |
| Cauliflower | Dozens | 255,563 | Broccoli | Parsley |
| Coffee | Sacks | 215,508 | Castor beans | Pears |
| Corn | Sacks | 104,969 | Celery | Pepper, black |
| Cotton | Bales | 501 | Chicory | Peppers, hot |
| Cotton linters | M Tons | 455 | Chuchu | Pineapple |
| Cotton, seed | Bales | 534 | Coconut | Plums |
| Cottonseed oil | M Tons | 575 | Corn meal | Popcorn |
| Cucumbers | Boxes | 150,234 | Cottonseed meal | Pork |
| Egg plant | Boxes | 88,478 | Ducks | Rabbits |
| Eggs | Cases | 1,153,729 | Feather meal | Radishes |
| Grapes | Boxes | 217,350 | Fiber mats | Salisfy |
| Green beans | Boxes | 143,560 | Figs | Seeds & seedlings |
| Honey | Cans | 2,368 | Flowers | Spinach |
| Lettuce | Crates | 27,704 | Fowl | Suckling pigs |
| Limes | Sacks | 4,577 | Garlic | Sunflowers |
| Manioc | Boxes | 37,511 | Ginger | Sweet corn |
| Melons | 1,000 | 284 | Green peas | Swiss chard |
| Onions | M Tons | 1,470 | Greens, various | Tangerines |
| Oranges | Boxes | 80,900 | Guava | Turkeys |
| Peaches | Boxes | 304,235 | Hearts of palm | Turnips |
| Peanut meal | M Tons | 12,701 | Jams | Wheat |
| Peanut oil | M Tons | 6,114 | Jellies | Yams |
| Peanuts; in shell | Sacks | 77,176 | Juices | |
| Peanuts; shelled | Sacks | 4,097 | | |
| Pepper, green | Boxes | 199,279 | | |
| Persimmons | Boxes | 68,110 | | |
| Potatoes | Sacks | 1,516,181 | | |
| Pumpkin | M Tons | 342 | | |
| Ramie | M Tons | 2,535 | | |
| Rice | Sacks | 83,033 | | |
| Soybean meal | M Tons | 10,012 | | |
| Soybean oil | M Tons | 2,346 | | |
| Squash | Boxes | 108,854 | | |
| Strawberries | M Tons | 959 | | |
| Sweet potatoes | Boxes | 80,661 | | |
| Tea | M Tons | 1,065 | | |
| Tomatoes | Boxes | 1,013,270 | | |
| Watermelons | M Tons | 544 | | |
| Wine | Bottles | 553,921 | | |

Table 3. -- Value of business with members 1/ by marketing, purchasing, and services divisions, CAC-CC, specified years and periods, 1928-70

| Year or period 2/ | Marketing | Purchasing | Services 3/ | Total |
|---|---|---|---|---|
| | | CR$ 1,000 | | |
| 1928 | 1 | 4/ | - | 1 |
| 1929 | 4 | 1 | - | 5 |
| 1930-34 av. | 5 | 1 | 4/ | 6 |
| 1935-39 av. | 18 | 9 | 4/ | 27 |
| 1940-44 av. | 51 | 23 | 2 | 76 |
| 1945-49 av. | 154 | 75 | 13 | 242 |
| 1950-54 av. | 458 | 229 | 47 | 734 |
| 1955-59 av. | 1,914 | 1,030 | 207 | 3,151 |
| 1960-64 av. | 23,211 | 11,333 | 1,855 | 36,399 |
| 1965 | 111,577 | 44,200 | 6,953 | 162,730 |
| 1966 | 102,705 | 46,829 | 7,266 | 156,800 |
| 1967 | 150,019 | 75,173 | 11,372 | 236,564 |
| 1968 | 194,935 | 5/ 55,895 | 14,759 | 265,589 |
| 1969 | 263,388 | 5/ 62,713 | 17,809 | 343,910 |
| 1970 | 305,344 | 5/ 67,756 | 16,755 | 389,855 |
| | | Percentage of Total | | |
| 1928 | 100 | - | - | 100 |
| 1929 | 80 | 20 | - | 100 |
| 1930-34 av. | 83 | 17 | - | 100 |
| 1935-39 av. | 67 | 33 | - | 100 |
| 1940-44 av. | 67 | 30 | 3 | 100 |
| 1945-49 av. | 63 | 31 | 6 | 100 |
| 1950-54 av. | 62 | 31 | 7 | 100 |
| 1955-59 av. | 61 | 32 | 7 | 100 |
| 1960-64 av. | 64 | 31 | 5 | 100 |
| 1965 | 69 | 27 | 4 | 100 |
| 1966 | 65 | 30 | 5 | 100 |
| 1967 | 63 | 32 | 5 | 100 |
| 1968 | 73 | 5/ 21 | 6 | 100 |
| 1969 | 77 | 5/ 18 | 5 | 100 |
| 1970 | 78 | 5/ 18 | 4 | 100 |

1/ Represents business done with members; not sales value of the association.
2/ Fiscal year ending March 31 until 1965, thereafter calendar year; 9-month period (April-Dec.) for 1966.
3/ Not including credit services.
4/ Less than CR$ 500.
5/ Represents wholesale value to regional associations.

Table 4.--Value of specified products sold by CAC-CC, 1961-70

| Year 1/ | Vegetables 2/ | Fruits | Cereals | Eggs and poultry 3/ | Canned goods, preserves, wine | Peanuts and products | Cotton and products | Soybeans and products | Coffee | Tea | Other | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | CR$ 1,000 | | | | | | |
| 1961 | 4,666 | 285 | 414 | 1,328 | 60 | 196 | 7 | - | 750 | 147 | 315 | 8,168 |
| 1962 | 8,411 | 461 | 600 | 2,556 | 107 | 352 | 15 | 17 | 1,630 | 311 | 385 | 14,845 |
| 1963 | 15,101 | 971 | 1,575 | 4,685 | 144 | 498 | 508 | 15 | 4,502 | 476 | 594 | 29,069 |
| 1964 | 21,817 | 2,014 | 3,697 | 11,000 | 337 | 1,804 | 3,228 | 52 | 12,736 | 1,372 | 1,254 | 59,311 |
| 1965 | 45,020 | 3,642 | 4,059 | 22,456 | 551 | 3,366 | 4,268 | 83 | 23,394 | 2,485 | 2,253 | 111,577 |
| 1966 | 46,983 | 3,618 | 4,419 | 22,476 | 526 | 3,198 | 7,737 | 138 | 9,185 | 1,844 | 2,581 | 102,705 |
| 1967 | 54,623 | 7,769 | 5,253 | 40,918 | 809 | 5,908 | 7,361 | 2,013 | 18,411 | 3,457 | 3,497 | 150,019 |
| 1968 | 57,812 | 10,155 | 7,999 | 57,847 | 1,690 | 10,529 | 22,503 | 4,538 | 15,018 | 3,906 | 2,938 | 194,935 |
| 1969 | 85,242 | 16,241 | 7,828 | 68,143 | 711 | 19,140 | 23,802 | 8,210 | 18,710 | 3,858 | 11,503 | 263,388 |
| 1970 | 88,640 | 20,883 | 4,441 | 83,819 | 1,211 | 31,064 | 24,048 | 22,422 | 20,107 | 4,784 | 3,925 | 305,344 |
| | | | | | | Percentage of Total | | | | | | |
| 1961 | 57 | 4 | 5 | 16 | 1 | 2 | 4/ | -0- | 9 | 2 | 4 | 100 |
| 1962 | 57 | 3 | 4 | 17 | 1 | 2 | 4/ | 4/ | 11 | 2 | 3 | 100 |
| 1963 | 52 | 3 | 5 | 16 | 4/ | 2 | 2 | 4/ | 16 | 2 | 2 | 100 |
| 1964 | 37 | 3 | 6 | 19 | 1 | 3 | 5 | 4/ | 22 | 2 | 2 | 100 |
| 1965 | 41 | 3 | 4 | 20 | 4/ | 3 | 4 | 4/ | 21 | 2 | 2 | 100 |
| 1966 | 46 | 3 | 4 | 22 | 1 | 3 | 8 | 4/ | 9 | 2 | 2 | 100 |
| 1967 | 37 | 5 | 4 | 27 | 1 | 4 | 5 | 1 | 12 | 2 | 2 | 100 |
| 1968 | 30 | 5 | 4 | 30 | 1 | 5 | 12 | 2 | 8 | 2 | 1 | 100 |
| 1969 | 33 | 6 | 3 | 26 | 4/ | 7 | 9 | 3 | 7 | 1 | 5 | 100 |
| 1970 | 29 | 7 | 1 | 28 | 4/ | 10 | 8 | 7 | 7 | 2 | 1 | 100 |

1/ April-March, 1961-65; April-Dec., 1966; Jan.-Dec., 1967-70.
2/ Includes potatoes and onions often included with cereals by CAC-CC.
3/ Includes small amounts for rabbits, ducks, turkeys, and suckling pigs.
4/ Less than .05 percent.

Potatoes, tomatoes, and eggs have been important products in quantity for the association for many years. However, in the past 15 years the quantity of potatoes and tomatoes being sold has remained about constant with only some year-to-year fluctuations, but the quantity of eggs has about tripled (table 5). The number of broilers and fowl marketed has also increased rapidly in recent years, but in 1970 the number was slightly less than in 1969.

Table 5. -- Quantity of potatoes, tomatoes, eggs, and broilers and fowl sold by CAC-CC for specified years and periods, 1929-70

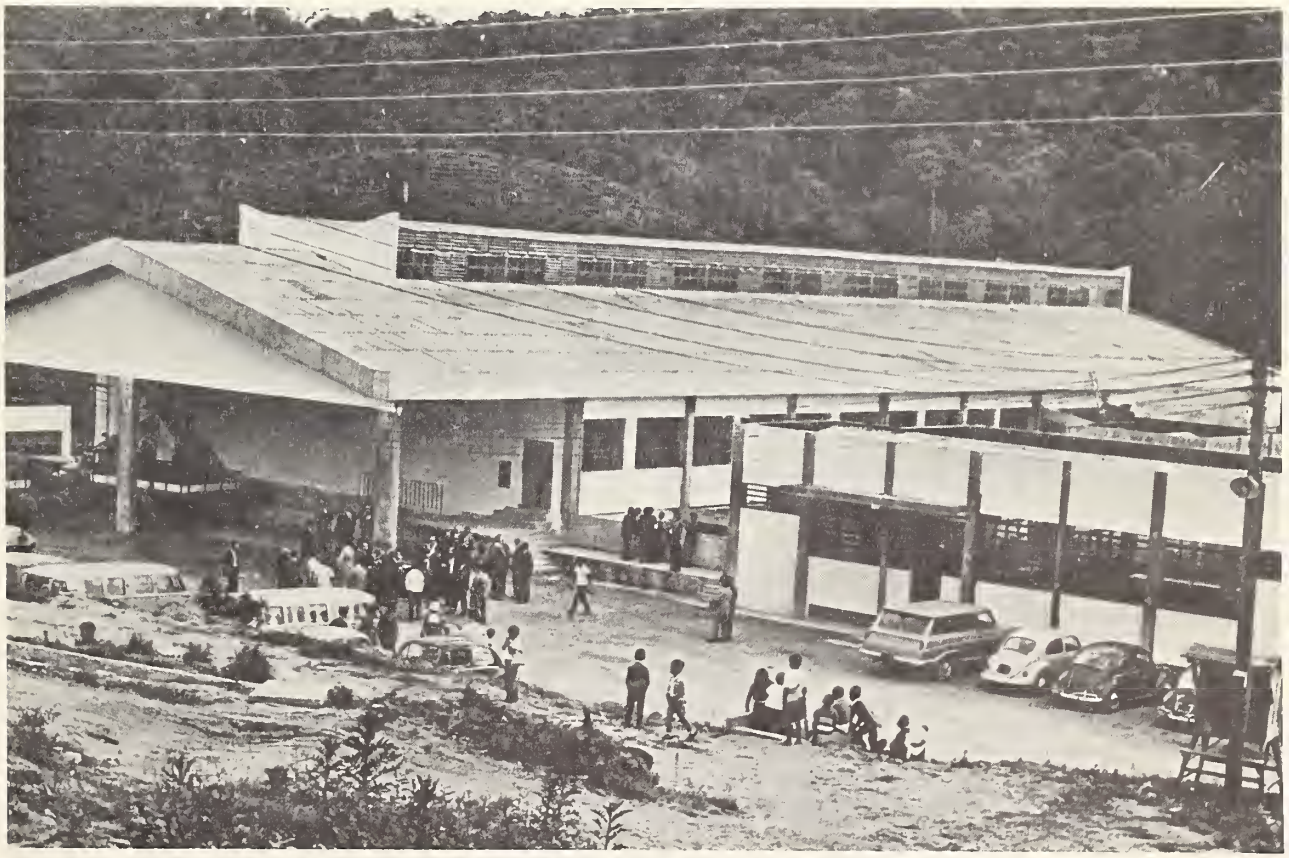
| Year or period | Potatoes | Tomatoes | Eggs | Broilers and fowl |
|---|---|---|---|---|
| | 1,000 sacks | 1,000 boxes | Cases | 1,000 head |
| | 1/ | 2/ | | |
| 1929 | 140 | - | - | - |
| 1930-34 av. | 159 | 4/ 34 | - | - |
| 1935-39 av. | 453 | 144 | 5/ 3,701 | - |
| 1940-44 av. | 305 | 425 | 40,835 | - |
| 1945-49 av. | 356 | 545 | 100,328 | - |
| 1950-54 av. | 681 | 763 | 223,200 | - |
| 1955-59 av. | 1,424 | 1,130 | 374,478 | 277 |
| 1960-64 av. | 2,201 | 1,606 | 511,393 | 1,467 |
| 1965 | 1,934 | 1,500 | 863,125 | 3,682 |
| 1966 3/ | 1,497 | 1,130 | 723,455 | 3,493 |
| 1967 | 2,054 | 1,521 | 1,047,016 | 4,982 |
| 1968 | 2,216 | 1,370 | 1,162,655 | 6,589 |
| 1969 | 1,517 | 1,013 | 1,153,729 | 7,384 |
| 1970 | 1,694 | 1,242 | 1,206,773 | 6,436 |

1/ 132 lbs. per sack
2/ 54 lbs. per box
3/ 9-month period, April-Dec.
4/ 2-year average
5/ 4-year average

## Payments Based on Grade

Cotia has been a leader in Brazil, and particularly in the State of Sao Paulo, in marketing quality produce. Over the years the cooperative has initiated packing and selling fresh fruits and vegetables and other commodities on a graded basis, generally on its own grades. It has been a leader also in paying producers on graded bases. This practice has encouraged members to improve and conserve quality.

A CAC-CC employee packs potatoes in 1, 2, and 5 quilo sacks (1 quilo equals about 2.2 lbs.). Right: A supermarket at CAC-CC's Sao Paulo State headquarters. Below: View of a tea processing plant at Tapirai, Sao Paulo State, where high-quality tea is produced for the export market.



## Pooling

The association has monthly pools for such products as eggs, broilers, fruits and vegetables, and annual pools for coffee, tea, ramie, bananas, rice, beans, and corn. Soon after delivery, it pays producers an advance of about 85 percent of the estimated market value, after deducting handling or processing charges. On annual pools, it often makes an additional payment before final settlement, depending on how fast and at what prices the products are sold. The association does all bookkeeping and accounting by modern computers and is able to make final settlement of pools within 48 hours after they close.

## Use of State Wholesale Market

Cotia is probably the largest individual handler and seller of produce in the large, modern wholesale market called CEAGESP (General Wholesale Market for the State of Sao Paulo) in the City of Sao Paulo. Cotia rents about 6 percent of the total market space, including large warehouses to receive, process, and load out eggs, potatoes, fruits, and vegetables. The center also serves as a focal point for the association to reassemble orders for out-of-city and out-of-state shipments.

With the recently established market news system in Brazil, the association makes good use of diverting some products from the wholesale center by shipping them directly from producing areas to major consuming markets such as Rio de Janeiro.

## Marketing Outlets

The association sells its products throughout most of Brazil and in a number of foreign countries. In 1970 it had 77 branch sales offices in seven States and the Federal District of Brasilia. Some of these also serve as receiving stations. In addition, it had 16 sales agents or representatives in 15 States throughout Brazil, and 20 agents in 14 foreign countries, including the United States (table 6).

However, the major outlets are in the cities of Sao Paulo and Rio de Janeiro. In 1969 it sold 31 percent of its products in the city of Sao Paulo and 20 percent in Rio de Janeiro. Nearly 50 percent of all sales were made in the State of Sao Paulo.

Table 6. -- Number of sales offices, agents, and representatives, CAC-CC, 1970

| Location | Branch sales office | Sales agents and representatives |
|---|---|---|
| | Number | Number |
| Brazil: | | |
| Alagoas | - | 1 |
| Bahia | - | 2 |
| Brasilia, D.F. | 1 | - |
| Ceara | - | 1 |
| Espirito Santo | - | 1 |
| Goias | 1 | - |
| Mato Grosso | - | 1 |
| Minos Gerais | 2 | 1 |
| Maranhao | - | 1 |
| Para | - | 1 |
| Parana | 3 | 1 |
| Piaui | - | 1 |
| Paraiba | - | 1 |
| Pernambuco | 1 | 1 |
| Rio de Janeiro & Guanabara | 12 | - |
| Rio Grande do Norte | - | 1 |
| Rio Grande do Sul | 2 | 1 |
| Santa Catarina | - | 1 |
| Sao Paulo | 55 | - |
| Subtotal | 77 | 16 |
| Foreign countries: | | |
| Argentina | - | 1 |
| Belgium | - | 1 |
| Bolivia | - | 1 |
| England | - | 1 |
| France | - | 1 |
| Germany | - | 3 |
| Greece | - | 1 |
| Holland | - | 3 |
| Italy | - | 1 |
| Portugal | - | 1 |
| Japan | - | 1 |
| Sweden | - | 1 |
| Uruguay | - | 1 |
| USA | - | 3 |
| Subtotal | - | 20 |
| Total | 77 | 36 |

The following tabulation gives principal consumer markets in 1969:

| Market area | Percentage of total sales | |
|---|---|---|
| Sao Paulo: | | |
| City of Sao Paulo | 31 | |
| Santos | 8 | |
| Other cities | 9 | 48 |
| Guanabara (Rio de Janeiro) | | 20 |
| Parana | | 12 |
| Other States | | 4 |
| Foreign countries | | 16 |
| Total | | 100 |

## Purchasing

About one-third of Cotia's business, excluding credit, over the years has been purchasing farm supplies for members. It provides virtually every type of supplies needed by farmer-members to produce the crops and products handled by the association. These include mixed feeds, fertilizers, seeds and seedlings, agricultural chemicals, veterinary supplies, packing materials, petroleum products, building materials, agricultural machinery and tools including parts and fairly complete lines of consumer products -- foods, textiles, clothing and housewares.

### Reasons for Starting Farm Supply Services

Although the association began providing farm supply services soon after its formation in 1927, it was not necessarily by choice. At that time members were not able to obtain quality seed potatoes and fertilizer for good potato crops at reasonable prices. Their experiences and problems of trying to obtain these items were as severe as early potato marketing problems, but of a different nature.

Importers, for example, were reported to have put fillers in their fertilizers and to sell them at unduly high markups. At that time, the cooperative had little capital and could not afford to import fertilizers, but it started a program of raising capital by withholding a portion from potato sales. By 1933 it was in a position to import fertilizer. Two years later it was supplying 90 percent of members' needs.

The association charged members CR$ 300 per ton, but others were selling fertilizer for CR$ 450 a ton. This wide difference in price caused the regular quoted price to drop to CR$ 400. The co-op then raised its price to CR$ 400 to prevent a price war. At the end of the year it paid a patronage refund of CR$ 100 per ton.

Stacking fertilizer in warehouse -- CAC-CC makes at least 10 different formulations. Upper right: Broiler flock. Lower left: Poultry by-products plant transforms poultry eviscera and waste into poultry feed -- completed 28 June 1966. Lower right: Loading baby chicks for delivery to a co-op member.

Obtaining seed potatoes was a different kind of problem. Prior to the organization of Cotia, potatoes and seed potatoes were of poor quality, and for several years this situation had not improved. In 1929 the cooperative imported seed potatoes from Argentina, but these were diseased and did not germinate. During the next 2 years, members tried to produce seed potatoes but without results due to diseases. Even today, the State of Sao Paulo cannot produce good seed potatoes for the same reason.

In 1932 the cooperative first imported high quality seed potatoes from Holland that gave excellent results. Since then it has imported large quantities every year. Because of its initiative, CAC-CC largely is given credit for saving the potato industry of Sao Paulo.

## Organization of Purchasing Activities

The association's two departments that pertain to purchasing are the Department of Supplies and Department of Poultry Supplies.

Six sections come under the Department of Supplies -- programing and supervision of distribution, fertilizers, farm supplies, crates and packing materials, agricultural implements, and consumer goods.

The Department of Poultry Supplies has four sections -- mixed feeds, poultry experimental farm, and two hatchery sections. In addition to incubation, one hatchery is also responsible for the management of a poultry farm that produces hatching eggs. The other hatchery section is responsible for a farm that produces both poultry breeders and hatching eggs.

## Mixed Feeds and Fertilizers

Mixed feeds and fertilizers are the two most important single items in farm supplies. Each accounts for more than 25 percent of the farm supply business (table 7).

The CAC-CC system has 15 feed plants, one at the federation headquarters and 14 throughout the area of the eight regionals. The federation plant manufactures both concentrates and balanced rations. Those at regional levels are essentially mixing plants.

Of the total mixed feeds, 97 percent is for poultry, both layers and broilers. All formulations are done by electronic equipment.

Tonnages manufactured increased rapidly from 1941 to 1967 when the volume reached 104,000 tons. Since 1967, however, the amount has fallen sharply at the federation level because regionals have sold feeds directly to producers that were not reported by the federation (table 8).

Table 7. -- Value of farm supplies handled by CAC-CC, average of 5-year periods, 1955-64, and annually, 1965-70

| Year | Mixed feeds | Fertilizer | Seeds and seedlings | Agricultural drugs | Packing materials | Construction materials | Petroleum products | Agricultural implements, vehicles, and parts | Consumer goods | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | CR$ 1,000 | | | | | |
| 1955-59 average | 262 | 182 | 65 | 77 | 128 | 3/ 17 | 31 | 86 | 182 | 1,030 |
| 1960-64 average | 2,826 | 2,274 | 553 | 1,035 | 1,173 | 455 | 343 | 575 | 2,099 | 11,333 |
| 1965 | 12,993 | 7,770 | 1,436 | 4,652 | 5,082 | 1,649 | 1,281 | 3,110 | 6,227 | 44,200 |
| 1966 1/ | 16,402 | 7,318 | 1,803 | 3,798 | 4,629 | 1,574 | 1,209 | 4,443 | 5,653 | 46,829 |
| 1967 | 28,152 | 13,208 | 4,830 | 5,794 | 6,522 | 1,383 | 1,860 | 6,620 | 6,804 | 75,173 |
| 1968 2/ | 14,249 | 13,424 | 3,942 | 6,388 | 4,810 | 1,642 | 1,429 | 2,930 | 7,081 | 55,895 |
| 1969 2/ | 16,231 | 17,382 | 4,738 | 7,542 | 5,131 | 1,246 | 1,416 | 3,369 | 5,658 | 62,713 |
| 1970 2/ | 18,150 | 18,770 | 5,190 | 9,253 | 4,584 | 1,097 | 1,516 | 3,358 | 5,838 | 67,756 |
| | | | | | Percentage of total | | | | | |
| 1955-59 average | 25 | 18 | 6 | 8 | 12 | 2 | 3 | 8 | 18 | 100 |
| 1960-64 average | 25 | 20 | 5 | 9 | 10 | 4 | 3 | 5 | 19 | 100 |
| 1965 | 29 | 18 | 3 | 11 | 11 | 4 | 3 | 7 | 14 | 100 |
| 1966 | 35 | 16 | 4 | 8 | 10 | 3 | 3 | 9 | 12 | 100 |
| 1967 | 37 | 18 | 6 | 8 | 9 | 2 | 2 | 9 | 9 | 100 |
| 1968 | 24 | 25 | 7 | 12 | 9 | 1 | 2 | 6 | 14 | 100 |
| 1969 | 26 | 28 | 8 | 12 | 8 | 2 | 2 | 5 | 9 | 100 |
| 1970 | 27 | 28 | 8 | 14 | 7 | 1 | 2 | 5 | 8 | 100 |

1/ 9-month period, April-Dec.
2/ Represents wholesale values, or values to regional co-ops. Prior years are retail values at member-producer levels.
3/ 3-year average.

Table 8. -- Tons of fertilizer and mixed feeds sold by CAC-CC for specified years and periods, 1930-70

| Year or period | Fertilizer | Mixed feeds |
|---|---|---|
| | Metric Tons | |
| 1930-34 av. | 2/ 1,472 | - |
| 1935-39 av. | 6,727 | - |
| 1940-44 av. | 7,298 | 2/ 5,210 |
| 1945-49 av. | 10,184 | 10,480 |
| 1950-54 av. | 19,061 | 22,921 |
| 1955-59 av. | 38,818 | 41,842 |
| 1960-64 av. | 68,061 | 58,074 |
| 1965 | 62,766 | 101,579 |
| 1966 1/ | 52,985 | 96,392 |
| 1967 | 76,993 | 104,000 |
| 1968 | 74,023 | 48,077 |
| 1969 | 73,852 | 39,714 |
| 1970 | 75,000 | 33,871 |

1/ 9-month period, April-Dec.
2/ 4-year average

Principal fertilizer facilities are located also at the federation headquarters. The association buys or imports ingredients and mixes and blends the fertilizers at that location, and then distributes in sacks to regionals and branch offices.

Tonnages of fertilizer sold increased to around the 75,000-ton-per-year level in 1966 and have since held steady (table 8).

## Other Supplies

Other important farm supply items include agricultural drugs, consumer goods, seeds and seedlings, packing materials and agricultural implements. Petroleum products and construction materials are of less importance (table 7).

## Other Services

The association provides many other services to producer-members -- credit, technical assistance, engineering, research through experimental farms, machinery repair, carpentry, and medical. Although business from service operations, excluding credit, accounts for only 5 or 6 percent of total business, most of these activities are important and essential for members' welfare.

## Credit

Credit to producers has been a major activity since the credit section was installed in 1932. In fact, credit business (total of loans to members and deposits of members) each year has been about the same as the combined total value of marketing, purchasing and service business. Major exceptions were 1969 and 1970 when total credit business was about CR$ 80 million a year less than other business.

Credit activities of CAC-CC ended in July 1969 as required under the 1967 cooperative law that prohibits agricultural cooperatives to conduct credit activities. Members had the choice in 1967 of eliminating the credit department or organizing a credit cooperative separate from the association. They decided on the latter and on April 16, 1968, formed the "CAC Regional Cooperative of Rural Credit, Ltd." This cooperative began operations in July 1969. It serves essentially the same membership as did the CAC-CC system.

Information in table 9 shows credit activities from 1955 to 1970. Figures for 1970 and part of 1969 reflect business of the credit cooperative; the earlier years reflect credit activities of CAC-CC.

Of the total loans of CR$ 266 million in 1970, agricultural loans (preparing land, seeds, fertilizer, harvesting, etc.) accounted for 6 percent and marketing advances the balance of 94 percent. From 1955-69, however, agricultural loans were larger, ranging from 9 to 46 percent of total loans during the 15-year period.

In general, member producers are permitted to obtain agricultural or production loans up to 10 times the amount of deposits they have in the credit cooperative. Such a policy encourages member investments and interest is paid on these deposits if they are made for a fixed period such as 6 or 9 months. But when deposits are made to a checking account, members receive no interest.

The credit cooperative has two types of marketing advances -- regular and special. No interest is charged on regular advances for such products as eggs that require little processing and move into the market and are sold reasonably fast.

Special marketing advances are made when a product requires further processing, such as soybeans into vegetable oils, and if the cooperative needs to borrow money to finance processing services. In such instances it charges interest to producer-members.

## Technical Assistance

Assistance given member producers over the years on all phases of production and marketing of most crops and livestock has been a major factor contributing to the success of the farm operations of members, and in turn to the success of the CAC-CC system.

Table 9. -- Value of loans and deposits of CAC-CC or credit cooperative, by specified periods and years, 1955-70. 1/

| Period or year | General or investment loans | Agricultural loans | Regular marketing advances 2/ | Special marketing advances 3/ | Total loans | Deposits | Total loans and deposits |
|---|---|---|---|---|---|---|---|
| | | | CR$ 1,000 | | | | |
| 1955-59 av. | 183 | 151 | 1,229 | 87 | 1,650 | 541 | 2,191 |
| 1960-64 av. | 1,907 | 1,970 | 12,219 | 4,857 | 20,953 | 9,890 | 30,843 |
| 1965 | 33 | 14,274 | 53,096 | 32,209 | 99,612 | 51,829 | 151,441 |
| 1966 4/ | - | 14,987 | 55,725 | 18,449 | 89,161 | 57,182 | 146,343 |
| 1967 | 411 | 39,391 | 83,339 | 28,577 | 151,718 | 74,126 | 225,844 |
| 1968 | 404 | 66,301 | 107,465 | 40,411 | 214,581 | 93,843 | 308,424 |
| 1969 1/ | 63 | 75,773 | 28,093 | 60,458 | 164,387 | 96,851 | 261,238 |
| 1970 1/ | - | 17,363 | 175,637 | 73,267 | 266,267 | 39,995 | 306,262 |
| | | | Percentage of total loans | | | Percentage deposits of total loans and deposits | |
| 1955-59 av. | 11 | 9 | 75 | 5 | 100 | 25 | |
| 1960-64 av. | 9 | 10 | 58 | 23 | 100 | 32 | |
| 1965 | 5/ | 14 | 53 | 33 | 100 | 34 | |
| 1966 | - | 17 | 62 | 21 | 100 | 39 | |
| 1967 | 5/ | 26 | 55 | 19 | 100 | 33 | |
| 1968 | 5/ | 31 | 50 | 19 | 100 | 30 | |
| 1969 1/ | 5/ | 46 | 17 | 37 | 100 | 37 | |
| 1970 1/ | - | 6 | 66 | 28 | 100 | 13 | |

1/ Starting in July 1969 credit services have been performed through a credit cooperative independent of CAC-CC.
2/ Advances to members on products delivered without interest charge.
3/ Advances to members on products delivered with interest.
4/ 9-month period, April-Dec.
5/ Less than half of one percent.

In effect, the cooperative has its own extension program. It started this in the early years of the association before State and Federal Departments of Agriculture had effective extension programs. Today it has about 110 trained technicians to advise and assist members and to make detailed and complex plans to improve and strengthen the operations of the cooperative itself.

Types and numbers of technicians are as follows: 33 agronomists; 19 animal and poultry technicians; 10 general technicians; and five veterinarians -- a total of 67 for this group. In addition, it has 27 economists; seven lawyers; six engineers and architects; two industrial chemists; and one chemical engineer -- a total of 43 in this group. Almost all of these are college graduates. Forty received their training in Japan.

In general, the production technician group works for either the federation or the regional cooperatives in such activities or programs as hatcheries, poultry processing, extension service, experimental stations, poultry experimental farms, marketing, and purchasing. Most technicians in the latter group, including several agronomists, veterinarians, and animal husbandry technicians in the first group, work for the federation and give advice and assistance to its board of directors.

For example, these specialists at the federation level prepare 5-year projects and plans for the production and processing of each major product. Once these plans are approved by the federation's board of directors, the specialists then advise and assist the operating departments and the regionals in executing the plans. The specialists also prepare a number of technical and popular publications for use by producers. One of these is a 250-page "Rural Guide" that gives detailed instructions and diagrams on cultural and production practices for most crops and livestock.

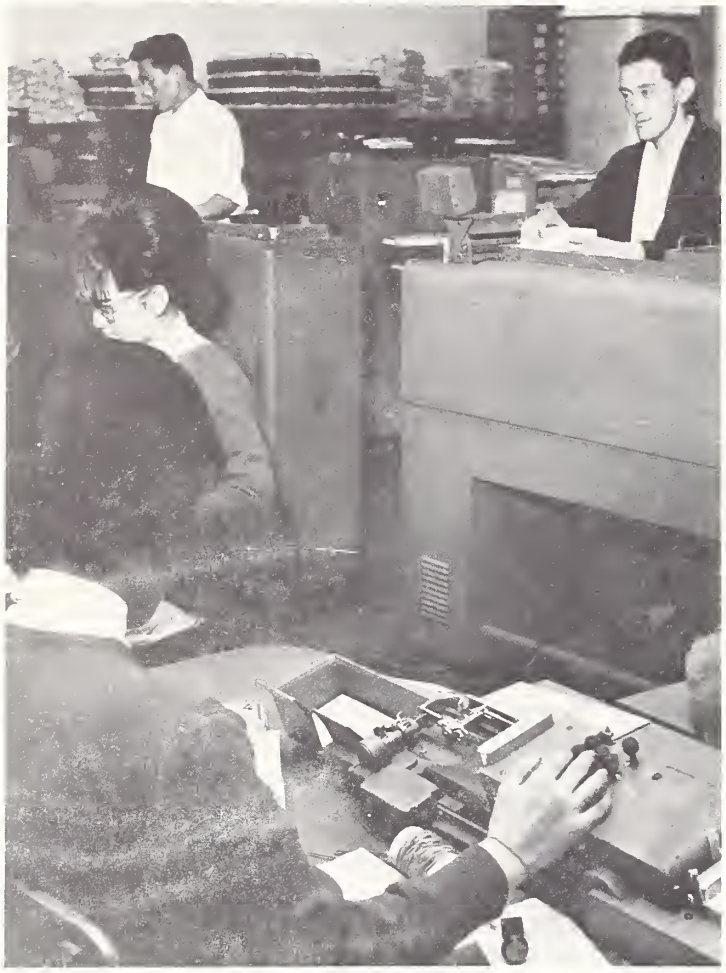
Each of the eight regionals has a corps of extension specialists who obtain information from the federation's specialists and pass it on to producers. They also work directly with producers helping them adopt modern cultural and production practices.

In addition to helping individual producers solve emergency problems such as plant and animal diseases, the extension group plans and conducts meetings and seminars with members giving field demonstrations, films, slides, and the like. The technicians have these activities planned by days and weeks for one year in advance so producers of a particular product, grapes for example, know well in advance when special meetings and demonstrations will be held in their local areas. Part of this work includes field trips by members to outstanding producers of the products in question to study, learn, and observe firsthand the reasons for their success. Extension personnel prefer to work with reasonably large groups of producers at a time to make the best possible use of their time and efforts.

Until 1966, the association provided complete soil tests and fertilizer analyses for producers because State organizations did not have adequate facilities for these services. The State now has such services, and association members use them.

## Engineering

The association has its own engineers and architects that not only plan and execute complex building programs for the federation and the regionals, but give instructions to producers for on-farm facilities including rural electrification.



CAC-CC's computer set-up is one of the most modern in Brazil. Below: Aerial view of CAC-CC at Jaguare in State of Sao Paulo. Co-op has 200,000 sq. meters to store mixed feeds, fertilizer, and equipment. Transportation center and employee restaurant also located here.

## Experimental Farms, Research, and Production of Breeding Stock

CAC-CC has five experimental farms in various locations in the States of Sao Paulo and Parana where it conducts experiments and research and produces breeding stock, hatching eggs, and seeds, as follows:

1. A large vegetable farm of about 600 acres is used for reforestation and production of breeding hogs. The hogs are sold to producers for commercial production. Agroflora started to manage this farm in 1970. 5/

2. A tomato farm.

3. A farm for production of poultry breeding stock.

4. A farm for coffee and field crops such as rice, corn, peanuts, soybeans, and cotton.

5. A farm to produce hatching eggs.

As indicated, some of these farms are used for commercial purposes. For example, basic seeds are produced at some. These are distributed to selected members who produce seeds under contract for the association. The association also produces some seeds and seedlings commercially and sells them to members. It also produces most of the broiler hatching eggs used in one of its two hatcheries. At this farm it has about 50,000 breeders that produce eggs for some 4 million broiler chicks a year. For the other hatchery the association contracts with members for the production of broiler and layer hatching eggs.

## Machinery Repair

The association has maintained a farm machinery, and truck and tractor maintenance service for a number of years. These services are performed primarily for association-owned equipment, but also for members and employees for a fee.

## Packing Materials and Carpentry

The association makes large volumes of packing crates and boxes used by members and the association. Because almost all produce is transported from farms to the association and from there to buyers in crates, boxes or bags, this is a high volume service that saves the association -- and members -- substantial sums. This is also a big convenience because packing materials are available in the right places and at the right time. This service also includes a carpentry section that repairs and maintains some buildings and equipment of the association.

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5/ Agroflora is discussed on page 32.

## PRODUCER MEMBERS

CAC-CC began with 83 members in 1927. By 1970 its membership had grown to 10,479, with a peak number of 13,306 in 1967 (tables 10 and 11). Since 1967, however, membership has decreased by more than 900 a year, but average value of business per member has more than doubled -- CR$ 17,800 in 1967 versus CR$ 37,200 in 1970. This indicates that association members are becoming larger producers similar to the trend of cooperative members in the United States.

Table 10. -- Number of producer members of CAC-CC or regional member cooperatives by specified periods and years, 1927-70

| Period or year | Producer members |
|---|---|
| | Number |
| 1927 | 83 |
| 1928 | 110 |
| 1929 | 210 |
| 1930-34 av. | 328 |
| 1935-39 av. | 1,322 |
| 1940-44 av. | 2,565 |
| 1945-49 av. | 3,888 |
| 1950-54 av. | 4,723 |
| 1955-59 av. | 6,040 |
| 1960-64 av. | 10,110 |
| 1965-69 av. | 12,684 |
| 1970 | 10,479 |

Table 11. -- Number of members of CAC-CC or regional cooperatives by original nationality, 1963-69

| Year | Brazilians | Japanese | Italians | Portuguese | Germans | Spanish | Others 1/ | Total |
|---|---|---|---|---|---|---|---|---|
| 1963 | 4,282 | 6,378 | 82 | 59 | 75 | 40 | 201 | 11,117 |
| 1964 | 4,717 | 6,684 | 82 | 61 | 82 | 48 | 207 | 11,881 |
| 1965 | 5,224 | 6,960 | 88 | 70 | 87 | 52 | 216 | 12,697 |
| 1966 | 5,647 | 6,906 | 89 | 75 | 92 | 54 | 228 | 13,091 |
| 1967 | 5,910 | 6,867 | 83 | 73 | 93 | 51 | 229 | 13,306 |
| 1968 | 5,688 | 6,609 | 79 | 70 | 90 | 49 | 220 | 12,805 |
| 1969 | 5,118 | 5,946 | 71 | 63 | 81 | 44 | 198 | 11,521 |

1/ Represents about 35 other nationalities.

More than 90 percent of its members are located in two States, Sao Paulo and Parana. The following is a summary of number of members by States in 1969:

| State | No. of members | Percentage of total |
|---|---|---|
| Sao Paulo | 6,983 | 61 |
| Parana | 3,753 | 32 |
| Guanabara and Rio de Janeiro | 449 | 4 |
| Other States | 336 | 3 |
| Total | 11,521 | 100 |

Although Cotia is frequently considered to be a Japanese-oriented cooperative, only about half of its members are of original Japanese descent.

Producer members of CAC-CC are among the most proficient farmers in the State of Sao Paulo and in Brazil. Their production per hectare (2.47 acres) for many products, or eggs per layer per year, in most instances are considerably higher than the average of all farmers.

Potato production per hectare for CAC-CC members ranged from 234 to 247 percent as much as that for all farmers in Brazil from 1962-65; and from 168 to 193 percent as much as that for farmers in Sao Paulo from 1962-65 and in 1970 (table 12).

The efficiency of CAC-CC members in producing tomatoes and eggs was also considerably greater than the average of all farmers in Brazil and in the State of Sao Paulo. Compared with farmers only in Sao Paulo, the production per hectare in 1970 of CAC-CC members was 145 percent as much for seed cotton, 191 percent as much for peanuts, and 194 percent as much for soybeans.

A major reason for the higher production rates by members of the association is the technical assistance, extension, and other services offered by CAC-CC.

## EXPORTS AND IMPORTS

In agricultural foreign trade CAC-CC is one of the most experienced cooperatives in the world. As indicated earlier, it imported seed potatoes from Argentina in 1929 and from Holland in 1932, and fertilizer in 1933. In 1935 it exported some experimental shipments of tomatoes to London. Since those early years, the association has been involved continually in exporting and importing. Exports are an important part of total products marketed, reaching 17 percent in 1970.

Table 12. -- Relation of production per unit of specified products by farmers in Brazil, State of Sao Paulo, and as producer members of CAC-CC, specified years, 1962-70

| Year | Brazil | State of Sao Paulo | Members of CAC-CC | Production per unit by members of CAC-CC as percentage of farmers in -- Brazil | State of Sao Paulo |
|---|---|---|---|---|---|
| | Potatoes (metric tons per hectare) 1/ | | | Percentage | |
| 1962 | 5.78 | 8.02 | 13.50 | 234 | 168 |
| 1963 | 5.85 | 8.02 | 13.86 | 237 | 173 |
| 1964 | 6.06 | 7.76 | 14.95 | 247 | 193 |
| 1965 | 6.16 | 8.64 | 14.66 | 238 | 170 |
| 1970 | 2/ | 7.54 | 14.17 | 2/ | 188 |
| | Tomatoes (metric tons per hectare) | | | | |
| 1962 | 14.06 | 23.11 | 44.15 | 314 | 191 |
| 1963 | 13.71 | 21.32 | 46.40 | 338 | 218 |
| 1964 | 14.37 | 21.02 | 44.37 | 309 | 211 |
| 1965 | 14.63 | 25.71 | 45.40 | 310 | 177 |
| 1970 | 2/ | 47.28 | 47.33 | 2/ | 100 |
| | Eggs per layer per year | | | | |
| 1962 | 58 | 80 | 188 | 324 | 235 |
| 1963 | 59 | 84 | 195 | 331 | 232 |
| 1964 | 63 | 95 | 210 | 333 | 221 |
| 1965 | 65 | 97 | 214 | 329 | 221 |
| 1970 | 2/ | 100 | 211 | 2/ | 211 |
| | Seed cotton (metric tons per hectare) | | | | |
| 1970 | 2/ | 1.00 | 1.45 | 2/ | 145 |
| | Peanuts (metric tons per hectare) | | | | |
| 1970 | 2/ | 1.39 | 2.65 | 2/ | 191 |
| | Soybeans (metric tons per hectare) | | | | |
| 1970 | 2/ | 1.46 | 2.83 | 2/ | 194 |

1/ One hectare is equal to 2.47 acres.
2/ Data not readily available.

Quantities of principal products exported between 1962-70 are shown in table 13. Bananas, coffee, cotton, ramie, tea, and tomatoes have been exported during most of the 9 years. Coffee has accounted for an average of about one-third of total exports.

Principal commodities imported have been fertilizers, seeds and seedlings, potato seed, mixed feeds, and insecticides and fungicides (table 14). CAC-CC has also imported some agricultural equipment and supplies, including 215 tractors. Because Brazil has been manufacturing tractors for several years, imports of these are no longer required. However, the association helps members buy tractors at the lowest price possible.

## FACILITIES

To carry out the various activities and services in the CAC-CC system, including the eight regional member associations, require a large number of varied facilities. A summary of major facilities follows:

Facilities near federation headquarters:

Athletic club
Carpentry shop
Computer, electronic installation
Consumer store, supermarket
Dispensary
Feed mill, primarily for concentrates
Fertilizer mixing and blending plant
Frozen food processing plant
Office buildings - several
Mechanics repair shop
Warehouse buildings (about 10 large ones, including those rented from CEAGESP, for handling eggs, fruits and vegetables, mixed feeds and fertilizers).

Facilities at other locations:

| Number | Type |
|---|---|
| 84 | Branches, primarily for receiving produce and selling supplies and consumer goods |
| 77 | Branches, primarily for selling produce and manufactured products of CAC-CC |
| 7 | Coffee processing plants with electronic machines |
| 5 | Cotton gins |
| 5 | Experimental or production farms 1/ |
| 14 | Feed mixing plants |
| 2 | Hatcheries |
| 2 | Poultry processing plants 1/ |
| 2 | Poultry by-product plants 1/ (one equipped to make feed and the other only fertilizer) |

1/ One of these located near federation headquarters.

Table 13. -- Quantities of commodities exported by CAC-CC annually, 1962-70

| Commodity exported | Unit | 1962 | 1963 | 1964 | 1965 | 1966 1/ | 1967 | 1968 | 1969 | 1970 |
|---|---|---|---|---|---|---|---|---|---|---|
| Bananas | 1,000 bunches | 311 | 434 | 514 | 551 | 530 | 989 | 870 | 847 | 1,065 |
| Coffee | Sacks 2/ | 18,880 | 117,454 | 130,916 | 181,137 | 64,093 | 82,859 | 70,660 | 96,656 | 7,933 |
| Cotton | 500 lb. bales | - | 2,170 | 2,070 | 3,820 | 6,737 | 2,683 | 13,396 | 33,431 | 33,440 |
| Cottonseed meal | Metric tons | - | - | - | - | 608 | - | - | - | 1,891 |
| Eggs | Dozen | - | - | 60,000 | 49,770 | - | - | - | - | - |
| Peanuts, shelled | Metric tons | 100 | 5 | - | 84 | - | 25 | - | 1 | 2,785 |
| Peanuts, in shell | " " | - | - | - | 3 | 6 | 11 | 6 | 68 | 1,135 |
| Peanut meal | " " | - | - | - | 1,150 | - | 2,702 | 4,550 | 12,168 | 14,433 |
| Potatoes | Sacks 2/ | - | - | - | - | - | - | 52,229 | - | - |
| Rami | Metric tons | 225 | 150 | 385 | 360 | 820 | 764 | 1,520 | 1,350 | 1,075 |
| Soybean meal | " " | - | - | - | - | - | - | 2,100 | 7,191 | 23,929 |
| Strawberries | " " | - | - | - | 4 | 14 | 39 | 45 | 125 | 78 |
| Tea | " " | 908 | 705 | 958 | 1,275 | 752 | 1,583 | 1,184 | 765 | 1,145 |
| Tomatoes | Boxes | - | - | 12,000 | 10,000 | 42,000 | 32,558 | 9,000 | 62,100 | 14,800 |

1/ 9-month period, April-Dec.
2/ 60 kilos; or about 132 lbs. each.

| Number | Type |
|---|---|
| 3 | Rice processing plants |
| 2 | Tea processing plants |
| 240 | Trucks, including contract 2/ |
| 2 | Vegetable oil refineries |
| 1 | Winery |

2/ 70 of these used by federation.

Table 14. -- Quantities of specified commodities imported by CAC-CC, 1959-70

| Year | Fertilizer | Seeds and seedlings | Potato seed | Mixed feeds | Insecticides and fungicides |
|---|---|---|---|---|---|
| | MT | MT | 1,000 boxes | MT | MT |
| 1959 | 18,059 | 11 | 89 | - | 178 |
| 1960 | 24,397 | 6 | 92 | 100 | 509 |
| 1961 | 20,794 | 3 | 73 | - | 403 |
| 1962 | 17,004 | 12 | 100 | - | 213 |
| 1963 | 18,862 | 8 | 152 | 400 | 148 |
| 1964 | 24,867 | 12 | 65 | 700 | 119 |
| 1965 | 16,001 | 17 | 70 | 430 | 391 |
| 1966 1/ | 17,259 | 35 | 86 | 714 | 374 |
| 1967 | 32,662 | 11 | 192 | 1,985 | 73 |
| 1968 | 13,564 | 36 | 113 | 1,837 | 64 |
| 1969 | 23,702 | 8 | 117 | 923 | 46 |
| 1970 | 27,520 | 7 | 95 | 1,938 | 49 |

1/ 9-month period, April-Dec.
Note: CAC-CC also imported some agricultural equipment and supplies, including 215 tractors, during this period.

Several of these facilities are new and reasonably modern, particularly the concentrate feed mill, frozen food plant, poultry processing plants, and vegetable oil plants. Capacity of one poultry plant, for example, is 4,500 birds per hour. About half of the output is frozen in its 400-ton capacity freezer for shipment in refrigerated trucks throughout Brazil.

## LEASING AND ORGANIZATIONS SERVICING CAC-CC

CAC-CC obtains several types of processing and other services by leasing and working with other organizations. To understand the reasons for such arrangements, it is necessary to consider and understand some of the problems associated with raising and investing capital under high rates of inflation, and the legal structure of operations for Brazilian cooperatives.

The cooperative law does not permit associations to:

1. Issue securities for any part of their capital.

2. Obtain loans from banks or others by obligating "capital shares" -- money invested by members to capitalize the association and to denote membership.

3. Transact business with nonmember producers, except that agricultural cooperatives were permitted to do such business for export purposes or to utilize idle processing capacity up to 5 percent of the processing value of any product in a given year if they obtain advance government approval.

4. Transact business with nonmember cooperatives that handle the same products or perform the same services as the association.

5. Receive or handle produce that originates outside their authorized operating or procurement area. Operating areas are defined or limited according to type of cooperatives: First Degree, Second Degree, and Third Degree.

   First Degree are local cooperatives. Their operating areas generally are limited to the county in which they are headquartered and adjacent counties.

   Regional cooperatives are also classified as First Degree, and they have the same legal structure as local cooperatives. They are allowed to have larger operating areas than local cooperatives, but their areas depend upon prior authorization of the regulating government agency. The eight members of CAC-CC are regional cooperatives.

   Second Degree cooperatives are the same as federations and their operating areas may be extended to more than one State. CAC-CC is classified as a Second Degree cooperative.

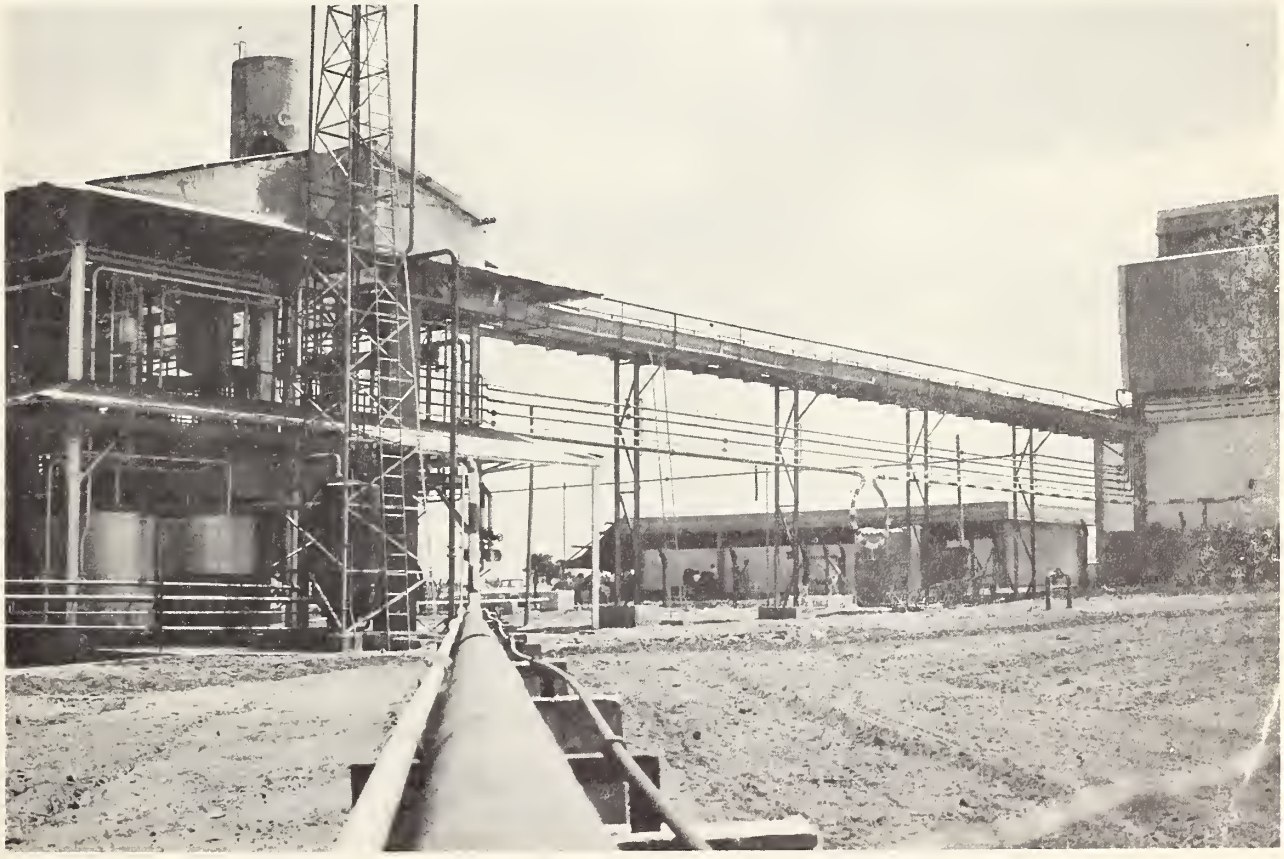
   Third Degree are called confederations of cooperatives. Their membership is made up of federations and their action areas may cover the whole nation.

6. Associate with noncooperative corporations through subscription of stocks or any other form, except with public utilities where this is necessary to obtain their services.

7. Hold or keep the capital invested by members that has been credited to their accounts, after they withdraw membership. Members may withdraw at any time.

Because of these regulations CAC-CC cannot raise necessary capital for new facilities to adequately meet members' needs. Even if it could, it would not be able to operate the facilities at maximum or even reasonably efficiency

Cotton warehouse of Group of Producers, Inc., Assai, Parana. Below: Vegetable oil refinery of CODAI at Adamantina, State of Sao Paulo -- inaugurated 31 March 1967.



levels, unless volumes from members were sufficient. Neither could the association receive all advantages possible from large volume (shipload) export and import operations.

Another problem applicable to all businesses in Brazil during the past several years has been extremely high rates of inflation. In the sixties, inflation rose several hundred percent. Because of the high rates, cooperatives had problems raising adequate capital within a short time to construct needed and costly facilities. Any capital raised had to be invested immediately in fixed assets or its value would deflate more or less to the rate of inflation.

Still another problem peculiar only to cooperatives is the practice of returning to members in cash on an annual basis virtually all net savings. This practice is due partly to high inflation but also to inherent beliefs and practices of many members and some cooperative officials throughout Brazil. Members vote on distribution of net savings and generally choose to have them returned immediately, except small percentages that are obligated by law to be placed in reserves.

In some instances members withdraw from associations to obtain their investments. They may do this at any time, and when they do, it often places undue financial hardships on some cooperatives.

To help meet or adjust to these situations, the association has developed a unique system so that members could continue to be provided with new and expanded services either through association-owned facilities or through facilities of other firms. Thus, it was instrumental in getting a noncooperative company organized that would raise capital. The money raised would be used to build facilities needed by association members, or to invest in other companies that would process or manufacture products for members for a fee. A brief description of some of these arrangements follows.

## Company for Developing Agri-Industries (CODAI)

CODAI was organized in 1965. It is similar to a holding company with the primary function of raising capital to invest in its own plants and in other firms. The entire operations of CODAI, however, are to further the purpose and objectives of the CAC-CC system.

All investors of CODAI are either members or employees of the CAC-CC system. In April 1969 it had about 8,500 investors -- 7,000 members and 1,500 employees. By that date CODAI had accumulated about CR$ 5.5 million. It invested 80 percent in two large, modern vegetable oil plants and in one modern poultry processing plant. These three plants are solely owned by CODAI. The remaining 20 percent are invested in eight other commercial firms. All of these firms provide processing or other services to members of the CAC-CC system, but their services are not limited to members.

Names and general services offered by the eight firms in which CODAI has investments are:

1. IRPASA - Reunited Industries of Parana -- manufactures vegetable oils.

2. Chemical Industries of Mitsui Ihara -- manufactures and distributes agricultural chemicals.

3. Wine Industry of Vargen Grande -- produces wine.

4. Kimber Farms of Brazil -- improves poultry breeding stock and supplies baby chicks.

5. Concordia - Insurance Company -- serves the CAC-CC system (members and employees) as well as the general public.

6. Agroflora - Reforesting and Livestock -- performs reforestation and manages such farms. In Brazil any person or firm can use up to 50 percent of annual income taxes due the Government to plant or improve forests. Agroflora was organized primarily to perform and/or supervise reforestation projects and insure that most projects conducted by it would be applied to lands owned by producer members of CAC-CC.

7. Frozen Food Products -- processes frozen foods.

8. RICEIA - Representation, Industry and Marketing -- provides many types of items to supermarkets, including products of CAC-CC that are given preference. It also has authority to build or buy and operate supermarkets but as yet has not entered this field.

CODAI invests in these firms to insure that members of the CAC-CC system have the right to receive services offered by them at reasonable prices. For example, in years of overproduction of a certain product, noncooperative firms generally buy quantities only to serve their needs. But firms that CODAI has investments in are obligated to handle all produce of CAC-CC members. Since CODAI is part owner, and in some instances has controlling interest, it has influence over the types, quality, and charges for services of such firms.

Another example of the services performed by CODAI is the speed that it can get costly and complex facilities constructed. One of its vegetable oil plants was built in 10 months when the normal period is about 18 months.

All products processed for CAC-CC members in such plants remain the cooperative's property and are marketed by CAC-CC.

## Other Companies

CAC-CC was instrumental in starting three other companies to give direct benefit to the cooperative and its members.

These are:

1. Coopercotia Foundation -- an independent foundation to publish or arrange for publishing magazines, books, and other materials, including three major publications of CAC-CC.

2. Agro-Export -- an independent company to conduct import and export business that permits the association to take full advantage of shipload rates.

3. Coopercotia Beneficient Society -- an independent organization providing medical and hospital services for members and employees of the CAC-CC system. The society was set up primarily to better serve members and employees located long distances from the Sao Paulo headquarters.

With this complex of companies and arrangements, the association has been able to overcome problems and build greater efficiency into the operations. In addition, it is now more flexible and can make quicker adjustments to rapid changes in the economic environment.

## FINANCIAL STRUCTURE

The assets, liabilities, and member capital of the association have grown at exceptionally fast rates, partly because of inflation. Each has about tripled since 1965. Values converted to U. S. dollars as of December 31, 1970, were as follows: 6/

| Item | Amount | Percentage of total assets |
|---|---|---|
| | Million dollars | Percent |
| Assets: | | |
| Current | 54.6 | 87 |
| Fixed | 7.8 | 13 |
| Total | 62.4 | 100 |
| Liabilities & member capital: | | |
| Current liabilities | 49.2 | 79 |
| Member capital & reserves | 13.2 | 21 |
| Total | 62.4 | 100 |

6/ Balance sheet as of December 31, 1970, and operating statement for the 1970 calendar year are given in appendix tables 2 and 3.

In recent years current assets have accounted for around 85 percent of total assets, and they have exceeded current liabilities every year since 1958 (table 15). As shown in this table all liabilities are listed as current. Primarily because of inflation the association has no long-term liabilities.

Table 15. -- Assets, liabilities, and member capital, CAC-CC, 1958-70

| Year | Assets | | | Liabilities (current) | Member capital & reserves | Total liabilities and member capital |
|---|---|---|---|---|---|---|
| | Current | Fixed | Total | | | |
| | CR$ 1,000 | | | | | |
| 1958 | 1,219 | 545 | 1,764 | 1,128 | 636 | 1,764 |
| 1959 | 1,868 | 642 | 2,510 | 1,636 | 874 | 2,510 |
| 1960 | 2,804 | 877 | 3,681 | 2,515 | 1,165 | 3,681 |
| 1961 | 6,989 | 1,121 | 8,110 | 6,293 | 1,818 | 8,110 |
| 1962 | 14,814 | 1,634 | 16,444 | 13,306 | 3,138 | 16,444 |
| 1963 | 21,491 | 3,225 | 24,716 | 18,309 | 6,407 | 24,716 |
| 1964 | 32,454 | 6,685 | 39,139 | 25,825 | 13,314 | 39,139 |
| 1965 | 68,772 | 11,665 | 80,437 | 59,945 | 20,492 | 80,437 |
| 1966 | 75,594 | 16,703 | 92,297 | 66,289 | 26,008 | 92,297 |
| 1967 | 117,471 | 22,999 | 140,470 | 108,545 | 31,925 | 140,070 |
| 1968 | 168,904 | 24,757 | 193,661 | 156,149 | 37,512 | 193,661 |
| 1969 | 234,070 | 32,616 | 266,686 | 223,556 | 43,130 | 266,686 |
| 1970 | 248,337 | 35,669 | 284,006 | 223,765 | 60,241 | 284,006 |

Member capital and reserves or ownership of members in the association, has been decreasing relatively. For example, members owned 32 percent of the assets in 1960; 25 percent in 1965; and only 21 percent in 1970. Thus, other creditors' share of ownership has increased since 1960.

CAC-CC is capitalized primarily by five methods:

1. By requiring members to invest in the association more or less in proportion to their business. These are called "quota parties" and are considered permanent investments. They are subject to withdrawal when members resign.

2. By withholding 2 to 5 percent from sales as handling or service charges.

3. Operating in a pool for some products where payments are deferred for short periods.

4. From net savings and setting aside part of net savings in legal and special reserves.

5. By borrowing.

Even using all of these methods the association has not been able to obtain sufficient capital to meet its needs. Net savings, for example, have accounted for only a small fraction of capital needs. From 1966 to 1970 they equaled less than .05 percent of total association business. In fact, most net savings have been returned to members in cash (table 16). Thus, the primary reason for CODAI is to help meet the capital needs of the association.

Table 16. -- Net savings and their distribution, CAC-CC, by specified periods and years, 1940-70

| Period or year | Net savings | Disposition of net savings | | |
|---|---|---|---|---|
| | | Legal reserve | Special reserve or available for distribution to members | Returned in cash |
| | | CR$ | | |
| 1940-44 av. | 922 | 22 | - | 900 |
| 1945-49 av. | 478 | 60 | 147 | 271 |
| 1950-54 av. | 13,922 | 1,392 | 3,034 | 9,496 |
| 1955-59 av. | 35,884 | 3,571 | 3,229 | 29,084 |
| 1960-64 av. | 280,172 | 28,018 | 131,735 | 120,419 |
| 1965 | 415,230 | 41,523 | 186,853 | 186,854 |
| 1966 1/ | 22,798 | 2,280 | 20,518 | 2/ |
| 1967 | 59,424 | 5,942 | 53,482 | 2/ |
| 1968 | 71,132 | 7,113 | 64,019 | 2/ |
| 1969 | 116,362 | 11,636 | 104,726 | 2/ |
| 1970 | 443,537 | 44,353 | 399,184 | 2/ |

1/ 9-month period, April-Dec.
2/ Amount returned in cash not available, 1966-70.

## EMPLOYEES AND THEIR BENEFITS

CAC-CC and its member regionals are important employers. In December 1970 they had a combined total of 3,724 employees; 2,054 employed by the federation and 1,670 by the eight regionals (table 17).

The total number of employees in the CAC-CC system has more than doubled since the 1955-59 average of 1,833 to 3,724 in 1970. The peak was 3,864 employees in 1968. However, since the association was reorganized into a federation the number of employees of CAC-CC has decreased every year -- from 2,449 in 1967 to 2,054 in 1970.

Table 17. -- Number of employees of CAC-CC, of member regionals, and total of both groups, by specified periods and years, 1955-70

| Year or period | CAC-CC | Member regionals | Total employees |
|---|---|---|---|
| | | Number | |
| 1955-59 av. | 1,833 | - | 1,833 |
| 1960-64 av. | 2,587 | - | 2,587 |
| 1965 | 3,351 | - | 3,351 |
| 1966 | 3,563 | - | 3,563 |
| 1967 | 2,449 | 1,271 | 3,720 |
| 1968 | 2,248 | 1,616 | 3,864 |
| 1969 | 2,137 | 1,714 | 3,851 |
| 1970 | 2,054 | 1,670 | 3,724 |

The following tabulation gives a comparison of the number of total employees of CAC-CC to producer members and average business per employee for five selected years.

| Year | Average number of members per employee | Average value of business per employee 1/ |
|---|---|---|
| | Number | CR$ |
| 1955-56 | 3.0 | 993 |
| 1960-61 | 3.6 | 3,516 |
| 1965-66 | 3.8 | 48,562 |
| 1969 | 5.4 | 160,931 |
| 1970 | 5.1 | 189,803 |

1/ Part of the increase is due to inflation.

The ratio of members to employees, ranging from 3 to 5.4 may be considered low by some measures. However, many services performed by the association require large numbers of employees, such as processing broilers. At the same time the cooperative uses a considerable amount of hand labor for some services that could be lowered by adopting more modern techniques and equipment. As labor becomes more costly the association may find it more economical to adopt more labor-saving techniques.

Employees in Brazil who work for registered companies, including cooperatives, have reasonably good medical and retirement benefits under a Government program. The employee and the firm each contribute 8 percent of the employee's salary for these benefits. In addition CAC-CC supplements medical benefits provided by the Government.

## Medical

If an employee is ill and unable to work, or is hospitalized for more than 15 days, he is eligible to receive from the Government 70 percent of his average salary for the most recent 12 months with this limitation: He cannot receive more than 70 percent of 10 times the minimum salary in the State. For example, if the minimum salary were CR$ 187.20 per month, the maximum an employee could receive would be CR$ 1,310.40 per month. In some cases CAC-CC pays all or part of the remaining 30 percent. It also pays an employee his full salary during the first 15 days of illness, or for the period before the Government begins its contributions.

In 1935 the association organized a medical clinic of its own and offered some medical services to both employees and members because medical costs were high and services were not prompt or adequate. The clinic also provides drugs and medicines at cost.

In 1936 the association also offered dental services for members and employees but abolished this service several years ago.

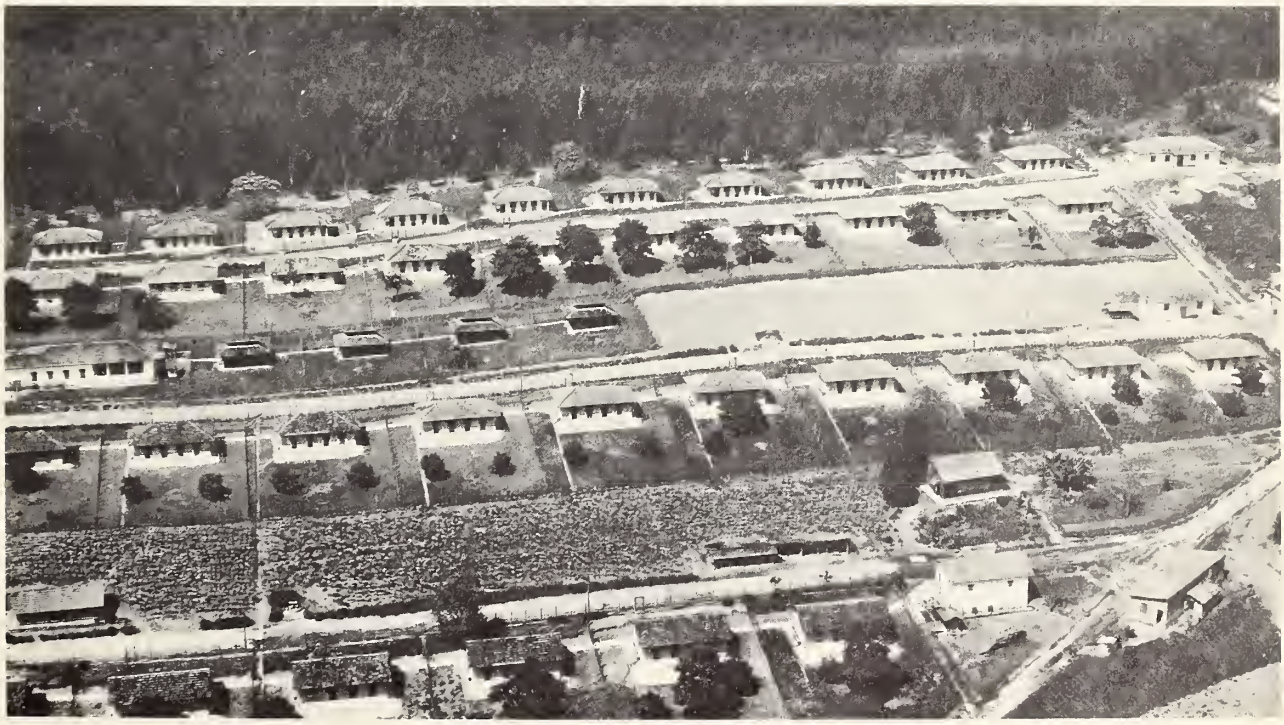
## Retirement

An employee is eligible for retirement after 30 years of service, or at age 65 if he has contributed to the Government fund for 5 or more consecutive years. He receives 80 percent of his average salary for the most recent 12 months with a limit of 80 percent of 10 times the minimum salary in his area. For each year of service over 30, he receives an additional 4 percent in retirement. However, an employee can never receive more than 100 percent of his average salary.

Under Brazilian labor laws an employee earns certain rights and benefits. For example, if he performs satisfactory work for the same organization from one to 9 years and the company lays him off or fires him, the organization must pay him one month's salary for each year employed. If he is employed 10 years or more and is layed off, the company must pay him 2 months' salary for each year worked. If an employee resigns or is fired due to dishonest or similar acts, he receives no compensatory wages.

Some employees prefer quitting before retiring if they have built up substantial benefits and can arrange to receive such settlements. These settlements may be relatively large and adequate to buy a used car or make a substantial payment on a house. If they arrange for settlement, however, they are not eligible for retirement benefits.

Brazilian farmers attending a training course on grape and other fruit culture. Right: Farmer co-op members attend an annual meeting -- 4 April 1968. Below: Poultry breeder experimental farm at Moinho Velho, State of Sao Paulo.



## Training

CAC-CC has several programs for training employees. Most new employees are given at least two days orientation, but some technical employees may be given on-the-job training for a month or more. In addition, the association sends many of its key administrative employees to special courses for professional development. In 1967, the association paid for training of one week to three months duration for some 200 employees.

# YOUTH PROGRAMS

CAC-CC and a few other cooperatives in Sao Paulo have sponsored and conducted youth training programs for a number of years. In general they have had three types of programs to develop rural leaders and good farmers: (1) Cooperative, agricultural, community, and 4-H club training for rural youth; (2) sponsor and encourage the organization and operation of 4-H and other youth clubs; and (3) provide agricultural and community training for rural youth in the United States and other countries.

## Training School for Rural Youth

Before the reorganization of Cotia into a federation, the association operated a training school at the city of Moinho Velho for rural youth. At least once a year a 20- to 25-day course was conducted for about 100 youth, both boys and girls, from all areas of the association. Most were sons or daughters of members. The association discontinued this particular program when it became a federation, but most of the regionals are now conducting similar youth training.

## Youth Clubs

Training schools encourage the organization and operation of agricultural youth clubs including assistance in developing projects for individual members. By 1970 around 75 clubs with a total membership of about 3,000 had been organized that conduct activities similar to 4-H (4-S in Brazil) and Young Farmers in the United States.

## Foreign Training

The association places great emphasis on developing its youth. Outstanding leaders from the two youth programs are chosen and given opportunities for further training in the United States or Japan. Some youth may be sent to Holland in the near future. One requirement is workable knowledge of the language of the chosen country.

These are longer and more intensive training programs lasting about a year. By 1970 seven different groups totaling about 140 young men from 19 to 26 have come to the United States. Coordinated in the United States by the California Farm Bureau Federation, the young men live with American farm families, mostly

in California but also in other States, work on their farms, and participate in community, 4-H, and other activities. They receive nominal pay for their labors to cover costs for board, room, and most of the international travel. Generally they move from one type farm to another about every three months for greater diversity and experience. They are placed on farms that produce similar crops or livestock to those in their local areas in Brazil, or according to the interests of the youth. After their training, they return to Brazil to continue farming and to serve as leaders in future youth training programs.

The program in Japan is similar to that in the United States. However, only three groups of five boys and girls have been sent there since 1967.

## MEMBER, EMPLOYEE, AND PUBLIC RELATIONS

Without question the unity and support of members, and the growth in the CAC-CC system, has been the result of effective member, employee, and public relations activities of the association. Programs such as Groups of Producers, Group Transport Committees, and technical assistance were not set up primarily for improving member relations, but they have accomplished much in this area. The actual involvement of thousands of producer members in association business activities contributes greatly in keeping them well informed on association activities and helps strengthen their loyalty and support.

Each regional association holds several meetings a year in addition to its annual meeting to discuss special cooperative problems and certain problems and programs in production and marketing. Part of these programs include group tours to outstanding farms, processing plants, and the like.

The federation also holds several meetings a year including the annual meeting. At present only the 64 delegates are the official voting members at the annual meeting but other members are welcome to attend.

In addition to the meetings, the association has published and distributed a monthly magazine, "Coopercotia," for 28 years. Its present circulation is 60,000. For the past 20 years the association has also published in Japanese another monthly magazine, "Farming and Cooperation," for members who do not read Portuguese. This magazine has a circulation of 7,000 a month. At present, both magazines are published by Coopercotia Foundation, an independent organization closely linked to CAC-CC.

Through Coopercotia Foundation, the association publishes a technical bulletin "Rural Guide." Some 20,000 copies have been printed and are being sold through bookstores and newsstands throughout many parts of Brazil.

In 1968 the Foundation began publishing a more popular type monthly magazine, "World Economics." It prints 40,000 copies a month and also sells them through commercial channels.

For some 20 years, CAC-CC has used a 15-minute daily radio program to get information to members and the public. In addition to quoting market prices, it gives other news items of interest to farmers and communities. These programs go to many cities in Brazil.

Another means of getting the CAC-CC story across is through the many people who visit the association. The cooperative estimates that an average of 2,500 visit the association each year -- about 500 Brazilians; 1,000 Japanese, Americans, and other foreigners; and 1,000 students from many States in Brazil.

Cooperative officials speak by invitation at many community and business meetings and give lectures and seminars at universities and at special training courses.

Over the years, CAC-CC has actively participated in various expositions and agricultural fairs. Depending on the occasion, it provides exhibits on fruits, vegetables, dwarf trees, miniature gardens, flower arrangements, orchids, and the like.

Another important employee and public activity is an employee choral group that performs at community affairs, parties, and at some cooperative and employee activities.

The association also supports and has made available a club for employee activities, such as soccer, tennis, baseball, and picnics. The employees have organized a number of teams in these sports and compete among themselves and with teams sponsored by other groups. The cooperative also supports a library for members and employees that has about 4,000 technical books and farm magazines.

## FUTURE OUTLOOK

CAC-CC has been successful in providing marketing, purchasing, credit, and related services to members. It has made valuable contributions to Brazilian agriculture through poultry breeding, seed selection and multiplication, introducing new varieties of fruits and vegetables, and by helping members to increase their efficiency of production. Its operations also have resulted in varied benefits to many rural communities in Brazil.

Its success and contributions become more meaningful when considering the adversities an enterprise of this nature encountered in its early stages of development. These pertain to poor communications; transportation; processing, storing, and marketing facilities; grades and standards; and market price information. In addition, farming throughout much of Brazil was carried on in traditional ways. Some features of cooperative legislation adversely affected the development of cooperatives. Technical assistance provided cooperatives by the Government and other public agencies was lacking and inadequate. There were shortages of credit to finance operations and facilities of cooperatives.

The association has met and overcome many of these problems through an alert, innovative, and ingenious management team. Perhaps this one factor has contributed more to the success of CAC-CC than any other one. Management has been flexible and able to adjust to rapid changes and has shown a high degree of competence, honesty, and integrity.

CAC-CC's future outlook is bright. With its reorganization into a federation, the eight regionals are in a better position to keep in close touch with members and to better serve their day-to-day needs, thus increasing volume of business.

Equally important, the association is now structured for quicker expansion. It would be a simple procedure for other local or regional cooperatives to become a member of CAC-CC.

With a total of nine cooperatives presently in the CAC-CC system, many more officers and directors are involved in management operations than before the reorganization. This alone should be beneficial in developing greater leadership characteristics in local people and obtaining wider loyal support for the Cotia system.

The CAC-CC system has the management know-how, the organizational structure, a unique system of raising capital for new facilities and services, and an industrious and ambitious membership. It's a system well-founded and experienced, not only capable of tackling what the future may bring, but making a bright future for itself. CAC-CC's emphasis on performance, service to members, and competent management helps identify guideposts for success that cooperatives in developing countries could follow to advantage.

Appendix table 1. -- Number of cooperatives authorized to operate, by type and by States or Territories, Brazil, December 31, 1970

| State or Territory | Agricultural | Consumer | School | Rural electric | Other | Total |
|---|---|---|---|---|---|---|
| | | | Number | | | |
| Rondonia | 6 | 1 | - | - | - | 7 |
| Acre | 6 | - | - | - | - | 6 |
| Amazonas | 15 | 7 | - | - | - | 22 |
| Roraima | 3 | 2 | - | - | - | 5 |
| Para | 63 | 8 | 1 | - | - | 72 |
| Amapa | 1 | - | - | - | - | 1 |
| Maranhao | 21 | 4 | - | 2 | 3 | 30 |
| Piaui | 16 | 9 | - | 4 | 4 | 33 |
| Ceara | 72 | 13 | 1 | 2 | 7 | 95 |
| Rio Grande do Norte | 56 | 8 | 2 | 2 | 5 | 73 |
| Paraiba | 70 | 10 | 1 | 8 | 9 | 98 |
| Pernambuco | 112 | 20 | 58 | 10 | 21 | 221 |
| Alagoas | 9 | 5 | - | 4 | 4 | 22 |
| Sergipe | 9 | 2 | 1 | - | 1 | 13 |
| Bahia | 68 | 14 | 5 | 6 | 4 | 97 |
| Minas Gerais | 213 | 60 | 2 | 37 | 14 | 326 |
| Espirito Santo | 55 | 9 | 2 | 3 | - | 69 |
| Rio de Janeiro | 68 | 49 | 67 | 12 | 1 | 197 |
| Guanabara | 13 | 21 | 14 | - | - | 48 |
| Sao Paulo | 252 | 281 | 37 | 26 | 38 | 634 |
| Parana | 93 | 45 | 108 | 8 | 5 | 259 |
| Santa Catarina | 93 | 35 | 29 | 45 | 5 | 207 |
| Rio Grande do Sul | 320 | 133 | 125 | 23 | 9 | 610 |
| Mato Grosso | 38 | 11 | 1 | - | 4 | 54 |
| Goias | 50 | 27 | 3 | 11 | 1 | 92 |
| Federal District | 6 | 4 | 1 | 1 | 2 | 14 |
| Total | 1,728 | 778 | 458 | 204 | 137 | 3,305 |

Source: National Institute of Colonization and Agrarian Reform, Brasilia, D.F

Appendix table 2. -- Balance Sheet, CAC-CC, Sao Paulo, Brazil, Dec. 31, 1970

ASSETS (CR$ 1,000)

| | | | |
|---|---|---|---|
| **Current assets** | | | |
| Cash on hand | 651 | | |
| Cash in banks | 8,889 | 9,540 | |
| Accounts receivable | | 214,963 | |
| Inventories | | 17,665 | |
| Prepayments | | 6,169 | |
| Total | | | 248,337 |
| **Fixed assets** | | | |
| Land and buildings | | 17,959 | |
| Machinery and equipment | | 9,920 | |
| Office equipment | | 2,489 | |
| Vehicles | | 1,858 | |
| Total | | | 32,226 |
| **Other assets** | | | |
| Financial investments | | | 3,443 |
| Total assets | | | 284,006 |

LIABILITIES AND CAPITAL

| | | | |
|---|---|---|---|
| **Current liabilities** | | | |
| Accounts payable: | | | |
| Members | 81,523 | | |
| Employees | 109 | | |
| Trade | 134,358 | | |
| Government | 1,063 | 217,053 | |
| Members' deposits | | 2,374 | |
| Deferred liabilities: | | | |
| Anticipated receipts | 1,672 | | |
| Provision for loss in production | 2,222 | | |
| Funds | 2,553 | | |
| Provisions | 13,725 | | |
| Net margin for determination at annual meeting | 359 | 20,531 | |
| Total | | | 239,958 |
| **Capital accounts** | | | |
| Paid up capital | | 24,270 | |
| Reserves | | 19,778 | 44,048 |
| Total liabilities and capital | | | 284,006 |

Appendix table 3. -- Operating Statement, CAC-CC, Sao Paulo, Brazil, Calendar Year 1970

| INCOME | | CR$ 1,000 | |
|---|---|---|---|
| Gross margins from major operations: | | | |
| Marketing | 17,635 | | |
| Purchasing | 7,783 | | |
| Credit | 5,090 | 30,508 | |
| Income from auxillary services: | | | |
| Poultry processing | 2,095 | | |
| Other processing | 1,201 | | |
| Experiment station | 542 | | |
| Poultry farms | 2,583 | | |
| Hatcheries | 3,611 | 10,290 | |
| Other receipts | | 14,099 | |
| Total gross income | | | 54,897 |
| EXPENSES | | | |
| Operating expenses: | | | |
| Wages and salaries | 12,319 | | |
| General expenses | 11,668 | | |
| Financial expenses | 9,697 | | |
| Interest | 9,689 | | |
| Depreciation | 610 | 43,983 | |
| Administrative expenses: | | | |
| Salaries | 7,016 | | |
| General expenses | 3,089 | | |
| Directors' fees | 242 | | |
| Fiscal council | 68 | | |
| Depreciation | 55 | 10,470 | |
| Total expenses | | | 54,453 |
| NET MARGIN | | | 444 |
| Distribution of net margin: | | | |
| Legal reserve | | 45 | |
| Special reserve | | 40 | |
| Balance for determination at annual meeting | | 359 | 444 |