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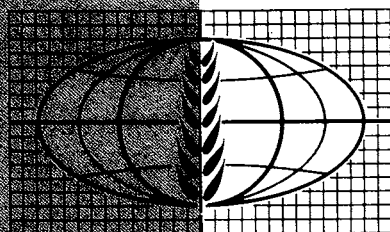
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THE AGRICULTURAL ECONOMY AND TRADE OF ROMANIA



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ABSTRACT

Problems and accomplishments of the Romanian agricultural economy since 1955 are discussed, as well as aspects of agricultural policy that have particularly influenced development. The structure of the socialized agricultural sector is described. Goals of 5-year plans are compared with actual results. Plans and prospects for development through 1975 are also discussed.

Key words: Romania, Agriculture, Trade, Production, Policy.

CONTENTS

	<u>Page</u>
Summary.....	i
Introduction.....	1
Agriculture in the Economy.....	2
Population and Labor Force.....	2
Physical Environment.....	2
Farm Structure.....	4
Agricultural Policy.....	5
Investment and Agricultural Inputs.....	8
Land Use and Agricultural Production.....	9
Agricultural Products in Foreign Trade.....	13
Food Consumption.....	16
Agricultural Performance During the 1966-70 Plan.....	17
Outlook for 1975.....	17
Tables.....	19
Literature Cited.....	36

SUMMARY

Although the agricultural sector of the Romanian economy continues to lag behind its potential, considerable progress occurred during 1966-70. Investment in agriculture increased and production growth rates were among the highest in Eastern Europe. Compared with levels of 1956-60, the number of tractors more than tripled, chemical fertilizer use increased eightfold, and the irrigated area more than tripled. Significant increases in crop yields and total production occurred. Livestock, except goats and horses, increased in number.

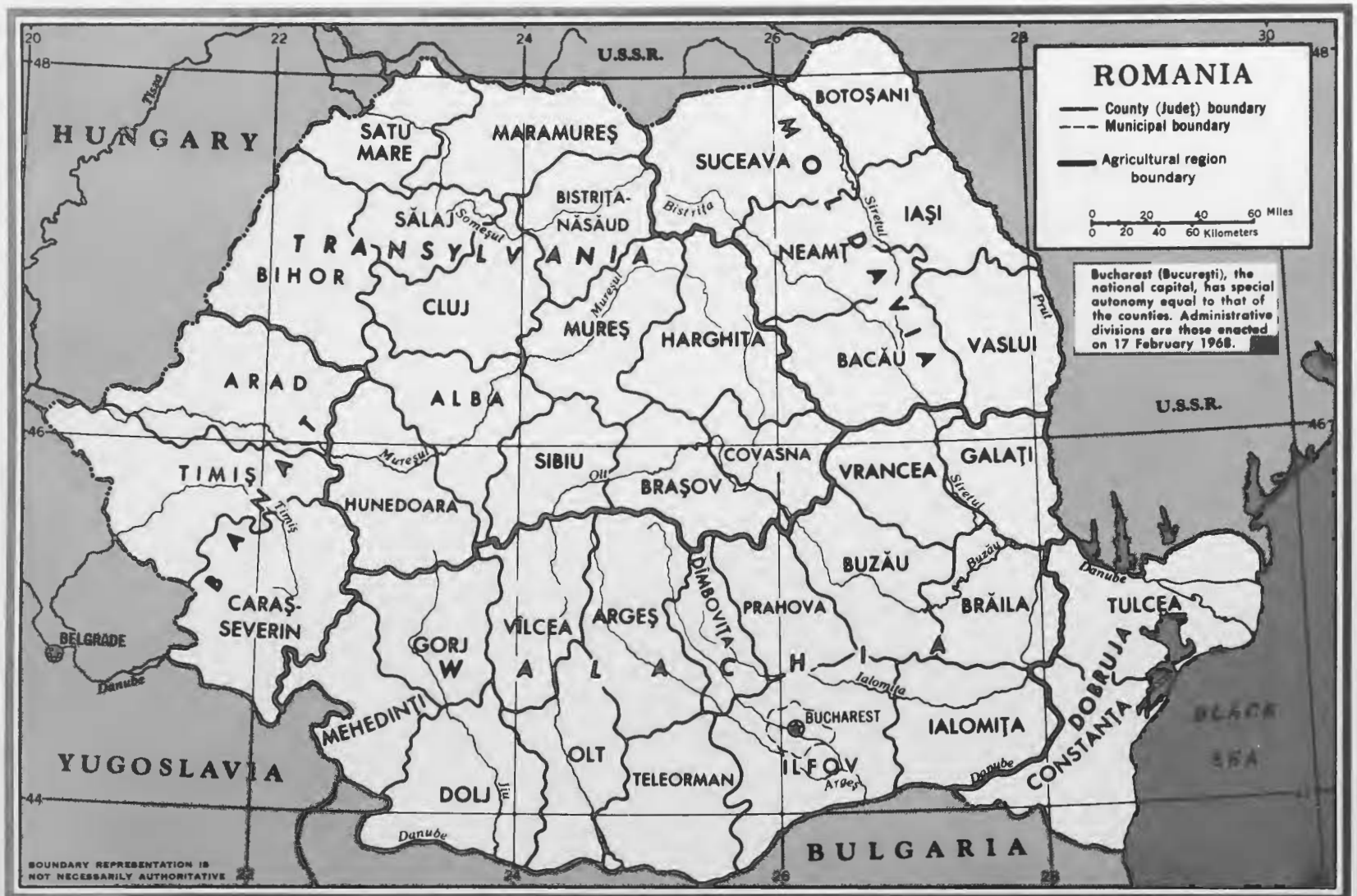
To accelerate economic growth, the Romanian Government has instituted a number of reform programs since 1968. Highlights of the reform include some decentralization of farm decision making and a new system of paying farmworkers. Instead of receiving a residual share of farm profits at the end of a year, farmworkers are now guaranteed profit-share reimbursements on a monthly basis. The amount of such payments is based on fulfillment of work norms.

For 1971-75, the Government plans an ambitious agricultural development program that calls for a growth rate in output higher than in any other East European country. To achieve this goal, the program is aimed principally at improving irrigation systems and livestock facilities.

Little progress occurred in agricultural development during the prereform years, when the Government concentrated primarily on collectivization and rapid improvement of the industrial sector. Collectivization, which began in 1955, became a means of extracting resources from the farms for the benefit of developing industry. At the same time, agriculture provided the foreign exchange for imports of industrial equipment. The agricultural sector received only a small share of national investment and it was unable to generate profits or reinvest in farms. As a result, Romania was the least mechanized of any country in Eastern Europe with socialized agriculture; and except for Albania, Romania had the lowest level of fertilizer use. Only a small share of irrigable land was developed and crop and livestock yields were among the lowest in the region.

Romanian agriculture's relative significance in the economy has declined and will continue to decline. Agricultural exports--primarily grain, fresh meat, sunflowerseed oil, fruits, vegetables, and wine--have nearly doubled since 1956-60 and have far exceeded agricultural imports. However, these exports, as a share of total exports, are declining.

U.S.-Romanian trade has been relatively small, but has increased in recent years. In most years, hides and skins have been the major U.S. exports to Romania, but in 1970 U.S. grain, cotton, and nonfat dry milk were exported to Romania at record levels.



THE AGRICULTURAL ECONOMY AND TRADE OF ROMANIA

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INTRODUCTION

Significant achievements have been made in Romanian agriculture (during the current Five-Year Plan). As a result of the effort exerted by the state toward modernization of the materials and machinery resources of this branch, more efficient use of land, organization of production, and work under better conditions, agriculture--despite the unfavorable climatic conditions of recent years, especially the floods this year--has recorded a growth of 24 percent in gross output in comparison to the preceding Five-Year Plan, thus meeting the consumption needs and other requirements of the economy.

One of the basic problems of the forthcoming Five-Year Plan is intensification of the development of agriculture, increases in agricultural production in all sectors. Investments of 80 billion lei are planned for agriculture, more than twice as much as under the current Five-Year Plan. In this way provision will be made for complete mechanization of agricultural work, substantial increase in the use chemicals in production, and the carrying out of a national program for land improvement and development of livestock raising. As I pointed out at the recent working session of the Central Committee, during the forthcoming period measures will be applied to improve the management, organization, and planning of agriculture, and to improve organization and remuneration in agricultural organizations. All this will insure increase in gross agricultural output at an average annual rate of 6-7 percent above the average for the years 1966-70. This will create better conditions for supply of agricultural food products for the population and agricultural raw materials for industry. 1/

The above statement summarizes the results of Romania's 1966-70 Five-Year Plan for agriculture and expresses the goals for 1971-75. Contemporary Romanian agricultural policy had its beginning in 1955. Since then, changes in policy have occurred with the implementation of three 5-year plans characterized by, respectively, rapid collectivization (1956-60), completion and consolidation of collectivization (1961-65), and development of socialized agriculture (1966-70).

1/ Nicolae Ceausescu--Premier of the Council of Ministers and Secretary General of the Communist Party--in a statement on the 1971-75 Five-Year Plan, given in Bucharest at the Nov. 25, 1970, session of the Executive Committee of the Central Committee of the Romanian Communist Party and Government.

This report makes comparisons of agricultural production during the three periods and also compares the output with plan targets. The 1971-75 goals, which include extensive reforms in the organization and management of agriculture, are also discussed.

AGRICULTURE IN THE ECONOMY

Romania is predominantly an agrarian country, with 60 percent of its 20 million people living in rural areas. Agriculture has provided the necessary labor and material resources for Romania's emergence into the industrialized world, as well as the foreign exchange for imports of industrial equipment. During 1966-69, agricultural exports averaged \$517 million annually and accounted for 36 percent of total exports. Agricultural exports nearly doubled from 1956-60 to 1966-69, but their share of total exports declined from the 1956-60 average of 39 percent.

Under a tightly controlled, centrally planned economy, investment has been channeled into industry at the expense of agriculture. During 1966-69, agriculture receive 16 percent of total investment, a continuation of the policy since 1955 of granting agriculture 15 to 20 percent of total investment funds. The share of national income originating in the agricultural sector declined from 36 percent annually during 1956-60 to 27 percent during 1966-69, primarily because of the high growth rate that occurred in the industrial sector.

POPULATION AND LABOR FORCE

Romania, with a population of 20.3 million people in mid-1970, is the third most populous country in Eastern Europe. Population growth was 0.9 percent annually during the 1960's, or slightly higher than the average for Eastern Europe. With 218 persons persquare mile, Romania is one of the less densely populated countries of the region.

Bucharest, the capital, has a population of 1.5 million people and 11 other cities have populations of 100,000 or more. Yet the majority of the Romanian people still live in villages.

During the 1950's and 1960's, massive migration occurred from rural villages toward industrial cities. Consequently, the agricultural work force declined from an average of 67 percent of the total labor force during 1956-60 to 56 percent during 1966-69. In 1969, 55 percent of the labor force was engaged in agriculture. The shift in the work force from agriculture to industry has generally been beneficial to the Romanian agricultural economy, even though the proportion of elderly persons and women in agriculture has increased as the young men have left the farms.

PHYSICAL ENVIRONMENT

Romania shares its borders with the USSR, Hungary, Yugoslavia, and Bulgaria and is situated between the Black Sea, the Carpathian Mountains, and the Hungarian Basin. The country, which is about the same size as Oregon, occupies

a territory of 91,676 square miles. Among the East European countries, Romania is second only to Poland in land area.

The northern part of Romania is bounded by the Carpathian Mountains and the Transylvanian Alps run from west to east across most of the south-central part. The Danube River plain covers the southern part and the plateau of Dobruja is along the Black Sea. The river system, which resembles a radial pattern, belongs almost entirely to the Danube River. With such varied topography, Romania has diversified regional weather and soil conditions. The country has basically a continental climate; a steppe-type climate predominates in the plains and lowlands, while a mountain-type climate prevails at higher elevations. Nevertheless, Romania has a long growing season of 180-210 days which generally ends with frosts in October.

Annual precipitation averages about 25 inches, but fluctuates as a result of recurring droughts. Precipitation ranges from only 15 inches on the Dobruja plateau to 40 inches in the mountainous regions. In the principal farming regions, annual precipitation averages about 23 inches in the fertile southern plain, but dips below 20 inches in the hilly regions of Moldavia in the north-eastern part of the country. The amount of precipitation increases during the spring period, reaching its maximum in late May, thus giving sufficient moisture in the growing period. Minimum precipitation occurs in February. All parts of Romania have snow in the winter months. Over the plains, the snow cover protects autumn-sown crops from the full severity of the cold; and in spring, the melt provides much needed moisture.

Soil types vary from mountain-type soils to podzolic soils in the plateaus to chernozem soils in the fertile plains. Nearly 20 percent of Romania's soil is of the chernozem type. Alluvial soils, which cover the flood plains of the Danube River, are the dominant intrazonal soils.

The diverse physical factors divide Romania roughly into five agricultural zones: (1) Wallachia, (2) Transylvania, (3) Moldavia, (4) Banat, and (5) Dobruja (see frontispiece). Wallachia is the major agricultural area in Romania. It includes the rich southern plains, where half the country's grain is produced. Almost half the vineyards and orchards are located in the foothills surrounding the southern plains. Vegetable production is also important in this area, especially near Bucharest. While rich chernozem soils predominate in Wallachia, agricultural production fluctuates because of recurring summer droughts.

In contrast, Transylvania in central and northwestern Romania enjoys substantial rainfall but is quite mountainous. Livestock production is the predominant enterprise on the mountain pastures and meadows. The central basin, which is surrounded by mountains, is covered predominantly by podzol, a heavy, relatively infertile soil. Grain and potatoes are the major crops grown in the central basin.

Corn is the major crop in Moldavia (in northeastern Romania), followed by wheat and potatoes. Rainfall is scant and the soils of the region are generally poor.

The Banat region in western Romania has the most favorable natural conditions for agriculture. Chernozem soils predominate. The region benefits from fall rainfall, which makes soil moisture more abundant than in Wallachia.

Grain, especially wheat, is the principal crop and fruits and vegetables are also important.

While grain, sunflowerseed, and legumes are cultivated on the chernozem and alluvial soils of the Dobruja plateau, agriculture there is limited by inadequate rainfall. The plateau in southeastern Romania is the country's least important agricultural area.

FARM STRUCTURE

As a result of the full-scale collectivization program begun in 1955, ownership of agricultural land has shifted from the private sector to the socialist sector. In 1955, 74 percent of the arable land was privately owned; by 1962, the private sector held only 4 percent and the socialized sector had acquired the other 96 percent. Since then, a slight modification of relative shares has occurred; in 1969, for example, the socialist sector held 95 percent of the arable land (table 2). Collective farms, intercooperative farm associations, agricultural associations, state farms, and other state agricultural units are all components of the socialized sector.

The collective farms (Cooperative Agricole de Productie--or CAP) are products of the 1955 collectivization campaign. In 1969, they occupied 74 percent of the arable land and numbered 4,655 farms averaging 1,891 hectares each. These farms have become centrally managed organizations requiring members to combine their resources and work the farms and distribute profits cooperatively.

Investment in the collective farms originates principally from plowed-back farm profits, and labor payments to the collective workers are distributed from the residual. In the collective farm system, the land becomes common property, with the collective farmer legally retaining title to an area of land equal to the amount contributed to the collective. But collective farmers are allowed in fact to have their dwelling and private plots of .3 hectare of arable land.

The collective farms are primarily engaged in general farming; in contrast, labor-intensive farming methods are employed on the private plots. Although the private plots account for only 9 percent of the arable land, they provide a larger share of Romania's output of certain agricultural products: in 1969, for example, they accounted for 15 percent of total corn production, 36 percent of potato production, 30 percent of vegetable production, 41 percent of fruit production, and 60 percent of egg production (table 7). Thirty percent of Romania's cattle and hogs and 37 percent of its sheep were raised on these farms in 1969.

A recent outgrowth of the collective farm system is the intercooperative farm associations. These are independent economic units with capital and voluntary manpower from several collectives in particular enterprises, such as specialized crop or livestock production, land improvement, storage and processing, and sales. The associations were initially formed with a priority on animal husbandry, but an increasing number are combining to produce hothouse vegetables.

Closely related to the collective farms are the agricultural associations (Introvarasire Agricole), which are transitional organizations in the collectivization process. Members of these associations retain ownership of their land, animals, and equipment but work their land collectively. The number of these associations reached a peak in 1960, when they held 24 percent of the arable land. Since then, nearly all agricultural associations have been transformed into CAP's; the remaining agricultural associations hold less than .2 percent of the land.

The state farms (Intreprinderilor Agricole de Stat--or IAS) are state-owned farms worked by state employees. They are models of large-scale production, supplying the state with farm products, conducting agricultural experiments, and producing seeds and breeding animals for use in other state units. To accomplish these aims, state farms have had a priority on Government investment funds, seed, chemical fertilizer, and farm machinery. The farms were first established on some of the land confiscated during the 1945 land reform as well as on land already owned by the state. Some cooperative farms have since been transformed into state farms. The 359 state farms in existence in 1969 averaged 4, 972 hectares of arable land and occupied 17 percent of the arable land.

State farms are generally large-scale, capital-intensive farming enterprises; in 1969, they produced 25 percent of the wheat, 22 percent of the corn, and 30 percent of the sunflowerseed. In recent years, the state farms have developed large-scale, specialized livestock enterprises, particularly for hog production. State farms in 1969 had 33 percent of the hog inventories.

Other state agricultural units include experimental stations, property-of-state institutions, state forests, and state-owned fallow land and pastures. These types of units occupied 3.4 percent of the arable land in 1969.

Private farms have been allowed to remain on land that is unsuitable for collectivization, particularly in the mountainous regions. Private farms occupied only 5 percent of the arable land in 1969, but because of their labor-intensive farming methods, they produced a larger share of certain agricultural commodities--17 percent of the potatoes, 28 percent of the fruit, 13 percent of the meat, 17 percent of the milk, 11 percent of the wool, and 20 percent of the eggs.

AGRICULTURAL POLICY

Prereform Policies

Until far-reaching economic reforms were introduced in 1968, Romanian agricultural policy very closely followed the Soviet model. In the early 1950's, Romanian policymakers began emphasizing collectivization to achieve higher and more efficient agricultural production. After several years of alternating hard-line campaigns with measures of clemency, the Government began full-scale collectivization of agriculture in 1955 and formally completed the task in 1962.

To implement the collectivization program, the Government introduced auxiliary programs to extend its control over all phases of collectivized agriculture. Specific plans were assigned to each farm; these plans covered nearly all crops grown and included many operational indices to measure production performance.

Through the charters of collective farms, the Government specifically defined the method of paying collective farmworkers. Workers were paid a share of residual farm profits at the end of a year. The workers' shares were allocated according to earned "work day" credits based on norms set for performance of specific tasks. The Government established machine-tractor stations--supplied with expropriated agricultural machinery--to do nearly all mechanized agricultural work on a contract basis. To channel investments into collectives, the Government permitted the socialized Agricultural Bank to grant long-term credit for carefully defined agricultural projects. To perform marketing functions, the Government introduced a powerful procurement system for acquiring farm produce and a state-controlled marketing system to operate side by side with the traditional peasant markets.

Instead of becoming the panacea of Romanian agriculture, collectivization became the means of extracting investment resources from the farms for the benefit of developing industry. State procurements were set at a high enough level to fulfill urban food requirements and export commitments. But the procurements were at the expense of peasants' consumption in kind, sales on the peasant market, and output that might otherwise be retained for farm use. State procurement prices were set at a low level which precluded farm profits and subsequent reinvestment in the farms themselves. Although collectivization permitted the Government to establish sufficient control to meet its objectives, weaknesses in the socialized system of agriculture became evident. The machine-tractor stations proved to be inefficient in dispersing machinery to individual collectives. Breakdown of machinery and subsequent delays in plowing and harvesting impeded the success of collectives. Credit to collectives was extremely limited, and long-term credit from the Agricultural Bank was insufficient for modernizing purposes. The system of labor payments brought hardship to the farmworker, and the disparity between farm and urban workers' incomes increased. As a result of these weaknesses, agricultural production did not increase to the extent anticipated.

Reform Policies

In view of these shortcomings in agriculture, the Government's policy since late 1968 has been to bring reform within the socialized system. The reforms, which are discussed below, are currently among the most far reaching in East European socialized agriculture.

Measures introduced in December 1969 encouraged greater decentralization of planning, organizational, and management activities of the collectives. As of early 1971, collective farms receive specific plans for only (1) commodity production contracted with the state, (2) the area to be planted to principal crops, (3) output of livestock products, and (4) end-of-year livestock inventories. The area to be planted to most crops for feed and farm consumption will be left to the discretion of the farms. Within the collective farms, internal units specializing in particular enterprises will have permanent retention of land and means of production, and they will manage their own activities in line with the broad financial and production plans of the farm. Furthermore, Intercooperative Councils--each grouping together several collective farms--have been founded to coordinate intercooperative investment, equipment use, and the organization of intercooperation farmers.

The most sweeping reform is the change in the system of farm labor payment. Even though a worker's compensation still represents an advance payment of his claim to residual farm profits, the compensation will be paid on a monthly or semimonthly basis, in cash or in kind, or as a percentage of output or returns. "Work day" credits have been replaced by wage scales related to the value of the work performed. Up to 80 percent of the sums earned are to be paid on a monthly or semimonthly basis, with the residual distributed at the end of the year in proportion to plan fulfillment.

The collective farm wage system has been reinforced by (1) the establishment of a guaranteed minimum monthly wage of 300 lei to cooperative members working at least 20 days a month if male and 15 days a month if female, and (2) a substantial increase in pension payments. In addition, farmers are entitled to purchase specified amounts of wheat and corn for home consumption and between 20 and 30 percent of the farm's above-plan production of other crops.

The previous system of separate machine-tractor stations (recently named Agricultural Mechanization Enterprises--IMA's) has been modified. Since the beginning of 1970, each collective farm has had a physically attached mechanized section (nominally a part of the IMA organization) which is responsible to the farm management for fulfillment of a production and financial plan. The manager of the section is a member of the farm's management council. Mechanics and equipment operators receive a piece-work wage plus a portion of income originating from the production achievements of the collective farms they service.

Modification of credit regulations in December 1968 was one of the first measures of the agricultural reform program. The Agricultural Banks have increased the use of long-term credit for investment and the use of short-term credit for working capital and for labor payments on collective farms. Also, banks have been given increased supervision over credit use.

The marketing system has had little structural change; monopoly-buying powers of organizations and centrally fixed prices still prevail. The state still draws upon three basic sources of procurement: (1) compulsory deliveries from the farms, (2) acquisitions and contracts, and (3) payments in kind by the farms to machine-tractor stations, flour mills, and other state-run agencies. Methods of procurements, however, have become less harsh. Compulsory deliveries today are limited to meat and wool. Acquisitions and contracts, which are more voluntary in principle, have come the prevailing method of procurement.

A new system of agricultural taxes was also introduced in 1968. Collective farmers now pay a land tax based on per hectare productivity rates instead of a flat rate per hectare. In addition to paying agricultural income taxes, collective farmers pay a tax of .46 percent of the property value of private buildings located on the collective. This same tax has also been imposed on pensioners living on the collectives. The land tax on private farms was increased 10 percent in general, and 20 percent if the farm was located near an urban area. In addition, a new farm tax based on the income of state and collective farms became effective January 1, 1969.

The state farm system has also undergone reorganization. In 1967, an amalgamation of the existing state farms occurred and greater authority on day-to-day decisions was vested in the new farms. In February 1971, in a further

amalgamation of state agricultural enterprises, 144 large autonomous units; 53 enterprises producing hothouse vegetables, hogs, and poultry; and four mixed feed plants were formed from already existing production farms. They are responsible for processing and marketing commodities produced on their subordinate farms, which in turn function on the principle of internal economic administration.

The Ministry of Agriculture and Forestry was reorganized in January 1971 to include the former ministries of the food industry and water resources. The new Ministry of Agriculture, Food Industry, Forestry and Water Resources now includes at the national level, separate departments for agriculture, the food industry, land improvement, forestry, and water resources. Subordinate to the Ministry are research institutes, experiment stations, specialized schools, and state farms.

The County Agricultural Directorate, the county-level arm of the Ministry, operates as the local expert body in policy matters. The Directorate is under double subordination--to the Ministry and to the executive committee of the County People Council, the general governing body in each county.

The Ministry exerts influence on collective farms by recommending either the president or vice-president of each farm's management council. However, the National Union of Agricultural Production Cooperatives (UNCAP) and its subordinate district and county unions are the main link between national planning and production on collective farms.

Integral parts of the agriculture-food processing marketing complex are the Centrals, which are specialized organizations having jurisdiction over producing farm units and industrial enterprises processing particular agricultural commodities.

INVESTMENT AND AGRICULTURAL INPUTS

Although agriculture is still second to industry in Romania, recent investment fund allocations--like other aspects of economic policy--reflect the Government's changed attitude toward agriculture.

During 1955-69, only 15 to 18 percent of total investment was allocated to the relatively underdeveloped agricultural sector (table 8). As a result, Romania has had the least mechanized agriculture of any East European country with socialized agriculture. Chemical fertilizer use has been the lowest in Eastern Europe (excluding Albania) and only a small share of the irrigable area has been developed. Only during the late 1960's was investment in agriculture sufficient to begin to unleash the potential of Romania's agriculture. During 1966-69, average annual agricultural investment amounted to 9.4 billion lei, a 67-percent increase over the 6.6 billion lei invested during 1961-65. In 1969, agricultural investment amounted to 16.4 percent of total investment.

Under the auspices of the massive development program slated for 1971-75, the agricultural sector is to receive 105 billion lei (an average annual investment of 21 billion lei), including 80 billion lei of centralized investments. Agriculture's share during the 5-year period would be 19.4 percent of total investment.

Mechanization has absorbed a large part of the limited agricultural investment. The number of tractors (in 15-horsepower units) increased from 46,400 in 1956-60 to 177,500 in 1969 (table 9). One tractor unit was available for every 59 hectares of arable land in 1969. Nevertheless, the degree of mechanization ranges from less than 50 percent in some tasks in corn and sunflowerseed production to 96 percent in the plowing and sowing of wheat (2). 2/

Fertilizer use in Romania increased eightfold between 1956-60 and 1966-69-- from an average of 5 kilograms of plant nutrients per hectare to 43 kilograms per hectare. Application rates are still lower than in other East European countries, however. Although increased mineral fertilizer use has been encouraged by rapid expansion of the domestic chemical industry, 1969 imports of phosphate totaled 309,000 tons (approximately 125,000 tons nutrient content) and those of potassium totaled 34,000 tons (approximately 7,000 tons nutrient content). In 1969, 538,000 tons of mineral fertilizer (nutrient content) were applied. Romanian agriculture has also utilized large amounts of organic fertilizer. It is estimated that about 750,000 tons of organic fertilizer (nutrient content) are applied annually, but such applications are declining.

An irrigation and land improvement program was the primary target for investment in agriculture during the 1966-70 Five-Year Plan. The average annual irrigated area more than tripled between 1956-60 and 1966-69, increasing from 139,400 to 437,800 hectares. In 1969, 147,000 hectares of corn, 118,000 hectares of vegetables, 106,000 hectares of alfalfa and clover, and 87,000 hectares of other crops were cultivated on the 562,000 hectares of irrigated arable land. Massive development of the irrigation system is the primary goal for agricultural development during the 1971-75 Five-Year Plan. Thirty-five billion lei--one-third of the total investment fund for agriculture--is slated for irrigation and land improvement during 1971-75. By the end of 1975, 2.1 million to 2.5 million hectares of land are to be under irrigation. About 57 irrigation systems will be in operation in the country.

Introduction of improved plant varieties and animal breeds has also contributed to Romanian agricultural development. More productive, disease-resistant wheat varieties (such as Bezostaya I, developed in the USSR) as well as drought-resistant corn and high-oil-content sunflowerseed (principally Record--developed in Romania, and Vniimk 8931--developed in the USSR) have replaced less productive varieties. Livestock enterprises have also introduced improved breeds, but native breeds still predominate.

LAND USE AND AGRICULTURAL PRODUCTION

Romania is well endowed with land suitable for cultivation. Fifteen million hectares, almost two-thirds of the total land area, are used in agricultural production; of these, 10.5 million hectares are arable (table 1).

Because of land reclamation by irrigation and orchard and vineyard renovation, agricultural land has increased by 500,000 hectares since the late 1950's. The area in orchards and vineyards alone increased by nearly 300,000

2/ Underscored numbers in parentheses refer to references listed at the end of this report.

hectares. The area in permanent pasture and meadow has also increased significantly, while the cultivated land area has stabilized at about 9.8 million hectares.

Romanian agriculture has only begun to realize its production potential. Introduction of improved plant varieties and increased use of inputs resulted in a 42-percent increase in gross agricultural output during 1956-60 to 1966-70. But there is still much land which could benefit from better management and increased irrigation and fertilizer application. Crop yields and livestock productivity are still among the lowest in Eastern Europe.

Grains

Historically, grain has been Romania's major crop. Although the area cultivated to cereals has been declining since World War I, grain still occupies over 60 percent of Romania's arable land (table 3). In recent years, cereal production in particular has benefited from the introduction of high-yielding varieties and additional agricultural inputs. Total grain production increased from a 1956-60 average of 9.1 million tons to a 1966-70 average of 12.7 million tons, while the average area harvested decreased from 7.3 million to 6.5 million hectares during the same period. Romania is second only to Poland in East European grain production. The principal cereals are wheat and corn, which are cultivated mainly in the plains of the Banat, Wallachia, and Dobruja regions, and in the Moldavian upland.

A basic wheat-corn crop rotation sequence is a traditional part of Romanian agriculture. Corn, the most important Romania grain, has been a staple of the Romanian diet, and Romania ranks with Yugoslavia as Eastern Europe's leading corn producer. While the area under corn cultivation has been maintained at about 3.3 million hectares since 1960 (table 4), corn production increased 23 percent from 1961-65 to 1966-70, from an average of 5.8 million to 7.2 million tons. Increased interest in developing the livestock industry has given new impetus to corn production.

Romania was Eastern Europe's largest wheat producer until 1969. During 1955-69, the harvested wheat area remained at about 2.9 million hectares, but in 1970 the seeded area was reduced as a result of drought conditions the previous fall. The banner wheat crop of 5.8 million tons in 1967 represented a 76-percent increase over average annual production of the late 1950's. Wheat production during 1968-70, however, suffered setbacks, falling short of a 1961-65 average annual production of 4.3 million tons. Wheat production has benefited from the introduction of improved varieties, including Bezostaya I and Triumph. Nearly all of Romania's wheat is fall sown.

Production of other grains--rye, oats, and barley--has declined slightly from levels of the late 1950's and currently accounts for only 6 percent of the grain crop.

Industrial Crops

Industrial crop production has increased significantly in recent years, reflecting the post-World War II policy of producing cash crops for export.

Sunflowerseed and sunflowerseed oil production exemplify the policy; Romania is the second largest exporter of sunflowerseed oil in the world and the largest sunflowerseed producer in Eastern Europe. Sunflowerseed production has doubled since the late 1950's, having increased from an average of 363,000 tons annually during 1956-60 to 727,000 tons during 1966-70. Although the cultivated area increased 35 percent during the period, increased production was influenced more by the use of improved seed varieties such as Record and Vniimk 8931. Sunflowerseed is raised on 5 percent of Romania's arable land, principally the plains of Wallachia and Moldavia. Other oilseeds include soybeans, flaxseed, castorbeans, poppyseed, and mustardseed.

Beet sugar is also an important Romanian export commodity. Sugarbeet production increased 60 percent during 1956-60 to 1966-70, from an average of 2.4 million to 3.8 million tons. Sugarbeets, which are cultivated throughout Romania, occupied about 170,000 hectares of arable land in 1970. Virtually all of the sugarbeets are cultivated on collective farms.

Fiber and other industrial crops--including hemp and tobacco--together occupied only about 1 percent of the arable land.

Fruits and Grapes

Romania has traditionally been a major fruit producer. It is second only to Yugoslavia in Eastern Europe in total fruit and grape production.

During the early 1950's, when Communist agricultural policy deemphasized intensive agriculture, orchards and vineyards fell into neglect. Subsequent reevaluation of the economic importance of horticulture and viticulture necessitated considerable improvement and replacement of the trees and vines. In 1969, over 7 percent of the arable land was planted in orchards and vineyards, compared with 4 percent in 1955. During 1966-70, grape production averaged 1.1 million tons annually, accounting for 48 percent of the 2.3 million-ton average annual fruit crop. Plums, used primarily in brandy, accounted for 32 percent. Apples, pears, cherries, and apricots are also important fruits. Orchards and vineyards are located throughout the foothills of Romania.

Potatoes, Pulses, and Vegetables

Potatoes, which are a staple in the Romanian diet, were cultivated on 3 percent of the arable land in 1969. Average annual potato production reached 3.1 million tons during 1966-70, an increase of 7 percent over the 2.9 million-ton average of 1956-60.

Vegetables were raised on only 2 percent of the arable land in 1969, when 223,000 hectares were planted to vegetable crops, including 56,000 hectares of tomatoes, 38,000 hectares of onions, 23,000 hectares of cabbage, and 21,000 hectares of green peppers. In recent years, vegetable production has been increased to meet domestic and export requirements. Expansion of irrigation projects and construction of hothouses have aided vegetable crop production. Tomato production alone increased 110 percent during 1956-60 to 1966-69, from 328,000 to 697,000 tons. As a result, Romania currently is the fourth largest tomato producer in Europe, after Italy, Spain, and Bulgaria.

Romania has also become one of the leading European exporters of pulses. Average annual production of pulses--primarily peas and beans--increased from 164,000 tons in 1956-60 to 215,000 tons in 1966-70.

In addition to being cultivated on specialized truck farms and on private plots, vegetables--particularly pumpkins and squash, potatoes, and beans--are often intercropped with corn or raised as catch crops following the winter grain harvest.

Forage Crops

Cultivation of forage crops for livestock feed has been encouraged in recent years. As a result, the land area in forage crops increased from 742,000 hectares during 1956-60 to 1,358,000 hectares during 1966-69. The major forage crops harvested for hay are alfalfa and clover (perennial crops) and vetch (an annual crop). Corn is the principal silage crop, while various annuals are harvested as green feed.

Production of alfalfa during 1966-69 was more than triple that of 1956-60, and that of corn for silage, more than double. Annuals harvested as green feed also registered large increases.

Livestock

Substantial gains were made in increasing livestock numbers in Romania during the 1960's. Development of the Romanian livestock economy, however, has been hampered by poor livestock breeding, an inadequate feed base, and generally inefficient production methods. In recent years, state farms have developed large-scale specialized livestock enterprises, particularly for hog production, but the majority of livestock is still raised in small herds on private farms and private plots.

Improvement in animal husbandry practices and an increase in livestock inventories are primary goals of the current 5-year plan (1971-75). To implement the livestock programs, almost 20 billion lei are to be allocated for the development of large-scale livestock production-processing complexes. According to the March 1970 draft plan for livestock production, most specialized farms will fatten 2,000 to 3,000 hogs annually, but some farms will have capacities for up to 30,000 head. Specialized sheep enterprises will fatten an average of 25,000 to 30,000 sheep annually. Dairy and beef production will also be concentrated in large-scale enterprises. By 1975, specialized livestock enterprises are to account for two-thirds or more of pork, poultry, and egg output on collective farms and almost all of the output of these commodities on state farms. State farms are also expected to concentrate about half of their milk production and two-thirds of their beef production on large-scale farms by 1975.

The Government is also encouraging livestock production on the private plots of collective farms by granting tax exemptions to farmers with livestock feeding and breeding operations.

January 1, 1971, cattle inventories amounted to 5.2 million head, including 2.6 million dairy cows (table 5). During 1956-60 to 1966-70, cattle numbers increased 13 percent, from an annual average of 4.5 million to 5.1 million head.

In 1969, cattle provided 91 percent of the milk and one-third of the meat (live-weight basis) in Romania. Nearly half of the cattle are raised in the foothills of Transylvania and Moldavia, although specialized dairy operations are located near the largest cities. Almost 45 percent of the cattle are of the native dual-purpose Baltata Romanesca breed; other types include specialized breeds developed in isolated regions. In recent years, Holstein and Simmenthal cattle have been imported from Western Europe. Bovine animals employed in Romanian agriculture also include water buffalo.

Hogs provide nearly half the meat produced in Romania. Hog numbers increased 39 percent during 1956-60 to 1966-70, and reached 6.4 million head in 1971. Although hogs are produced throughout the country, they are the predominant livestock in the Transylvania Plateau. Hogs are primarily of the fat type.

Romania, with a sheep population of 13.8 million head on January 1, 1971, is the leading sheep producer in Eastern Europe. Sheep are more numerous in the hills of the south and southeast than in other parts of the country. Nearly 50 percent of the sheep are of the Turcana breed and 30 percent are of the Tigaia breed. These native sheep are long-wool breeds resembling the Merino. Their wool and milk provide cash income for many Romanian private farms.

Poultry numbers increased 33 percent from 1956-60 to 1966-70, from an annual average of 34.0 million to 45.5 million birds. On January 1, 1971, there were 54.1 million birds, 80 percent of which were chickens. Poultry are raised in the cereal-producing regions of the south, east, and west. Rhode Island Red, Plymouth Rock, and Sussex breeds have been introduced on large-scale, factory-type operations, and these breeds have contributed to increased production of poultry meat and eggs. Most poultry, however, are still raised in small flocks.

As a result of increased use of machinery as a source of traction in Romanian agriculture, horse numbers have declined. The January 1, 1971, inventory was 665,000 head.

Livestock Products

Production of livestock products increased substantially from 1956-60 to 1966-69 (table 3). Average annual outputs of meat, wool, and eggs increased about 50 percent and milk production, one-third. Meat production increased from an average of 885,000 tons (liveweight basis) during 1956-60 to 1.28 million tons during 1966-70. Pork, with a 61-percent production increase, has replaced beef as the leading meat produced in Romania. Average annual output of poultry meat during 1966-70 was nearly double the level of 1956-60, but still accounted for only one-tenth of total livestock production.

Per capita availabilities of livestock products, however, are still at very low levels, ranking only above those of Yugoslavia in Eastern Europe.

FOREIGN TRADE

Agricultural exports generated a significant part of the foreign exchange required for financing imports of capital goods and industrial raw materials

during 1960-69, when industrialization was rapid. Such exports were valued at \$527 million in 1969, and accounted for 36 percent of total exports during the the 1960's. Agricultural imports, which rose to \$225 million in 1969, have accounted for only 14 percent of all imports since 1960. While Romania generally had a deficit in total trade during the 1960's, the value of agricultural exports far exceeded the value of agricultural imports (table 10).

Romania's leading agricultural exports include grain, fresh meat, sunflower-seed oil, fresh vegetables, and wine. Shipments of grain, the leading agricultural export, ranged from 1.0 million to 1.5 million tons during 1961-66 and hit a record 2.3 million tons in 1967 (table 11). Wheat exports during 1961-67 amounted to 1.2 million tons, while corn exports reached a record 1.1 million tons. Since 1967, lower grain exports have reflected the impact of adverse weather conditions on wheat and corn crops, as well as increased domestic utilization. Nevertheless, average annual exports of grain during 1966-69 amounted to 1.6 million tons, 40 percent more than the 1961-65 annual average of 1.1 million tons. During 1966-68, Switzerland, Lebanon, and the United Kingdom were the principal purchasers of Romanian wheat, while Italy, Switzerland, France, and East Germany were the largest importers of Romanian corn (24).

Romanian exports of fresh and frozen meat registered rapid gains during the 1960's, and in 1968 they amounted to 50,000 tons valued at about \$35 million. Italy, Spain, and West Germany were the leading importers of Romanian meat products during 1966-68.

Although Romania did not export sunflowerseed oil until 1959, it is now second only to the USSR in world exports of the oil. Exports reached 143,500 tons in 1969. Average annual exports of 111,000 tons during 1966-69 were nearly triple the 1961-65 level of 38,000 tons. The United Kingdom, France, and West Germany imported the largest share of Romanian sunflowerseed oil during 1966-68.

Fresh vegetables and wine have been traditional Romanian export commodities. During 1966-69, exports of these products continued to trend upward. Fresh vegetable exports increased from an average of 122,100 tons in 1961-65 to the 1966-69 average of 185,300 tons. Average annual wine exports increased from 32,900 to 56,000 tons during the same period. In 1969, 212,000 tons of fresh vegetables and 67,500 tons of wine--each valued at more than \$20 million--were exported from Romania. The USSR, East Germany, Czechoslovakia, and West Germany were the leading importers of both fresh vegetables and wine during 1966-68.

Other leading exports include live cattle, canned meat, butter, eggs, fresh and canned fruit, pulses, sugar, animal fats, tobacco, and sunflowerseed.

Romanian imports are mainly industrial raw materials (table 12). Agricultural imports include primarily raw cotton, natural rubber, and hides and skins. Imports of cotton, which alone account for 30 percent of total agricultural imports, increased from the 1961-65 average of 64,000 tons to 77,000 tons during 1966-69; in 1969, they reached 84,000 tons. Major cotton suppliers during 1966-68 included the USSR, the United Arab Republic, and Iran. Imports of natural rubber have increased more than 70 percent since the early 1960's. Following an upward trend, average annual imports of natural rubber--principally from Ceylon and Singapore--rose from 17,200 tons during 1961-65 to 29,700 tons during 1966-69.

Romania's imports of hides and skins doubled between the first half of the 1960's and the second half. During 1966-69, average annual imports amounted to 21,300 tons, compared with 10,400 tons during 1961-65. The United States, the Netherlands, and Italy have been the major suppliers of hides and skins to Romania. Other major imports include citrus fruit, milled rice, oilseed cake, and sugar.

As a result of poor crop production in 1970, Romania has recently experienced a setback in agricultural exports and a rise in such imports. The country has become a net importer of grain--particularly wheat and barley--and 1971 sugar exports are expected to be lower than in previous years. In 1970, however, the country continued to be a net exporter of agricultural commodities.

The presence of the West in Romanian agricultural trade is indicative of changes that occurred in foreign trade during the 1960's (table 13). From 1961-65 to 1966-69, Romania's agricultural exports to the developed countries of the West increased 92 percent. Such exports to less developed and Communist countries increased 142 and 32 percent, respectively. During the same period, agricultural imports from the Western developed countries increased 125 percent, and those from less developed and Communist countries increased 72 and 19 percent, respectively.

The developed countries of the West increased their share of Romanian trade from 24 percent of total exports and 28 percent of total imports during 1961-65 to 30 percent of the exports and 43 percent of the imports during 1966-69. Romania has been an observer to the General Agreement on Tariffs and Trade (GATT) since 1957. To overcome price levies in the United Kingdom and the European Community, Romania formally applied for membership in GATT in 1968. As a member, Romania would benefit from Kennedy Round tariff reductions with Western Europe.

Romania encouraged trade with less developed countries (LDC's) during the 1960's. The LDC's share of total Romanian exports increased from 7 percent in 1961-65 to 11 percent in 1966-69; their share of total Romanian imports remained at 6 percent during the 1960's. Romania currently maintains economic and trade relations with approximately 70 LDC's; relations with 52 are based on inter-governmental agreements. Agricultural commodities account for nearly one-half of total Romanian exports to LDC's and for one-third of total imports from LDC's.

The Communist countries' share of total Romanian exports declined from 69 percent in 1961-65 to 59 percent in 1966-69, with these shares representing average annual exports of \$925 million and \$1,420 million, respectively. Romanian imports from Communist countries also reflect the reorientation of trade, having declined from 66 percent of total imports during 1961-65 to 51 percent during 1966-69.

Romania is a member of the Council for Mutual Economic Assistance (CEMA), the trading association of East European countries and the Soviet Union, and maintains membership in the International Bank of Economic Cooperation (CEMA's clearinghouse for multilateral transactions) and the International Investment Bank (CEMA's bank for long-term investment, which was established in 1970).

Romania does not enjoy most-favored nation privileges in U.S. trade, and U.S.-Romanian trade is relatively small, accounting for less than 1 percent of

total Romanian trade. However, during 1960-69 total U.S. exports to Romania increased 250 percent, from \$6 million to \$22 million. U.S. imports from Romania increased from \$630,000 to \$9.2 million. In 1969, U.S. agricultural exports to Romania reached \$4.4 million, when as recently as 1963 they were practically nil. U.S. agricultural imports from Romania were valued at \$1.1 million in 1969. In 1969, 20 percent of U.S. exports to Romania were agricultural, compared with only 12 percent of U.S. imports from Romania.

Although total U.S.--Romanian trade has increased in recent years, the shortfall in Romania's 1970 agricultural output has affected agricultural trade between the two countries. U.S. agricultural exports to Romania during 1970 reached a record \$27.8 million and continued at a high level well into 1971. In 1970, cotton valued at \$6.7 million, wheat at \$9.1 million, barley at \$4.2 million--all new items in U.S. sales to Romania--and hides and skins at \$3.7 million were the leading U.S. exports to Romania. Total U.S. wheat sales to Romania for the 1970/71 marketing year reached 485,000 tons; total barley sales (including 220,000 tons transshipped through Canada), 310,000 tons.

Foreign trade methods have also changed in Romania. Since 1967, the Government has taken steps to decentralize foreign trade activities by placing more foreign trade turnover under the jurisdiction of the economic ministries and production enterprises. A March 1971 bill on the organization and conduct of foreign trade conferred on producers--industrial centrals and other large enterprises--the right to establish direct trade relations with foreign customers. Producers with direct foreign trade relations may draw up their own foreign trade plans, choose their trading partners, negotiate contracts, and arrange their own outlet networks. But the Ministry of Foreign Trade retains authority to conclude certain transactions--including trade in certain raw materials and basic products. The Ministry, together with the State Planning Committee, draws up the overall foreign trade plan. In addition, the Ministry exercises general control over trade, conducts negotiations, and concludes trade agreements. The ministry issues import and export licenses to coordinate trade of the producer units, the enterprises of the Ministry of Foreign Trade, and the subordinates of other ministries.

The law also provides for the establishment of free trade zones within Romania and for authorization of trade operations between domestic enterprises and foreign firms located in Romania. Also outlined in the bill is the general legal framework for joint ventures abroad and within Romania.

FOOD CONSUMPTION

Romania's average per capita food consumption has been estimated at over 3,000 calories a day. This is quantitatively an adequate diet. However, about half the total calories are derived directly from grain products. In addition to annual per capita consumption of 105 kilograms of wheat flour, nearly half as much corn and corn flour is also consumed (table 15). The estimated per capita consumption of all grains of about 175 kilograms is three times the U.S. level.

Consumption of animal proteins in Romania is below the level of Eastern Europe as a whole. Romanian per capita consumption of meat and meat products was the lowest in the region in 1970, amounting to about 31 kilograms per capita.

However, this level represents a 17-percent increase over the 1965 level, which was 27 kilograms per capita. During 1965-70, per capita consumption of milk (excluding butter) increased 33 percent. Consumption of fish and fishery products, edible oils, and sugar also showed a similar trend, while the intake of whole wheat bread fell nearly 25 percent. The shift to a higher quality diet is a stated goal of Romanian policymakers.

AGRICULTURAL PERFORMANCE DURING THE 1966-70 PLAN

While Romania's 1966-70 plan called for gross agricultural output to increase 26 to 32 percent over the 1961-65 level, the actual increase was 24 percent (table 16). Adverse weather made 1970, the terminal year of the plan, disappointing for Romanian agriculture and was the major factor preventing agriculture's reaching the production goals. Of the major crops, only sunflowerseed met the 5-year plan's production target.

Livestock numbers also fell short of the 1966-70 plan. The plan for livestock inventories had been revised upward early in the 5-year period when policymakers became optimistic about agriculture's rapid growth. However, livestock feed supplies hampered growth in the livestock sector in the later years of the plan. By January 1, 1971, cattle and hog inventories had reached 5.2 million head and 6.4 million head, respectively; but the plan had called for cattle and hog numbers to reach 5.4 million and 7.5 million head, respectively. Production of meat and milk during 1966-70 met the plan's target, however.

Shortfalls in investments and inputs in agriculture also adversely affected 1970 agricultural output. Total agricultural investment of 48 billion lei during 1966-70 fell short of the planned investment of 51 billion lei. Plans for tractor power and fertilizer application were revised downward in 1966. While the revised tractor power plan was met, the supply of chemical fertilizers was particularly poor. The revised plan envisaged that 723,000 tons of fertilizer would be supplied in 1970, whereas actual fertilizer applications in 1970 reached only an estimated 695,000 tons (nutrient content).

OUTLOOK FOR 1975

Preliminary plans call for Romania's gross agricultural output to increase 6 to 8 percent annually during 1971-75. Grain output is to reach 17.5 million to 18.5 million tons; sunflowerseed, 1.0 million tons; vegetables, 4.0 million tons; and fruit and grapes, 3.7 million tons. By 1975, cattle inventories are to reach 6.3 million to 6.5 million head, and those of hogs, 9.5 million to 10.0 million head. Government purchases of meat (liveweight) are to be 1.64 million tons; milk, 3.14 million tons; and eggs, 2.05 billion.

To accomplish these goals, the Romanian Government has outlined an ambitious development program based primarily on construction of a massive irrigation system and improvement of the livestock industry. Romanian probably will make significant strides toward achieving its goal of irrigation development. In view of past irrigation accomplishments, the goal appears optimistic, even though the planned allocation of resources to this work is impressive. Improvement of the livestock industry as outlined in previous 5-year plans has been a difficult task at best. About half the production of livestock products has been in the

domain of private farms and private plots. Perhaps with more organized production on large-scale enterprises, Romanian livestock production could be more successful. Nevertheless, improvement of the livestock industry hinges on improvement of livestock feed supplies.

Plans for other inputs, particularly fertilizer applications, are also rather ambitious. Fertilizer applications are to triple between 1971 and 1975. In contrast, the goal for increasing the tractor fleet from 106,000 units in 1970 to 120,000 to 123,000 units by 1975 is more likely to be met. If shortcomings do arise in the achievement of goals pertaining to increased use of inputs, production goals may be difficult to accomplish. While the agricultural sector may experience difficulty in reaching the goals of the present 5-year plan, it is nevertheless expected to vastly improve.

CONVERSION EQUIVALENTS

One kilogram	equals	2.2046 pounds
One centner or metric quintal	"	220.46 pounds
One metric ton	"	10 centners or 2204.6 pounds
One hectare	"	2.471 acres
One acre	"	0.4 hectare
One kilometer	"	0.6 mile

Metric tons to bushels

<u>One metric ton</u>	<u>Bushels</u>
Wheat and potatoes.....	36.743
Rye and corn.....	39.368
Barley.....	45.929
Oats.....	68.894

Bushels to metric tons

<u>One bushel</u>	<u>Metric tons</u>
Wheat and potatoes.....	.02722
Rye and corn.....	.02540
Barley.....	.02177
Oats.....	.01452

To convert centners per hectare to bushels per acre,
multiply by:

Wheat and potatoes.....	1.4870
Rye and corn.....	1.5931
Barley.....	1.8587
Oats.....	2.7878

To convert bushels per acre to centners (metric quintals)
per hectare, multiply by:

Wheat and potatoes.....	0.6725
Rye and corn.....	0.6277
Barley.....	0.5380
Oats.....	0.3587

One metric ton of seed cotton = 1.562 bales of 480 pounds.
One metric ton of ginned cotton = 4.593 bales of 480 pounds.

Pounds per bushel

Wheat and potatoes.....	60
Rye and corn.....	56
Barley.....	48
Oats.....	32

Monetary exchange rates

Official exchange rate: 6 Romanian lei = US\$1
Tourist exchange rate: 18 Romanian lei = US\$1

Table 1.--Distribution of land area in Romania, 1969

Area	Hectares	Distribution
	--- <u>Thousands</u> ---	--- <u>Percent</u> ---
Total area.....	23,750	100.0
Agricultural land.....	14,969	63.0
Arable land.....	10,544	44.4
Cultivated.....	9,772	41.1
Orchards and gardens.....	426	1.8
Vineyards.....	347	1.5
Permanent meadow.....	1,419	6.0
Permanent pasture.....	3,005	12.6
Forest land.....	6,316	26.6
Other.....	2,466	10.4

Source: (6).

Table 2.--Distribution of arable land, 1/ by type of farm, Romania, 1955, 1960, 1965, and 1969

Type of farm	1955		1960		1965		1969	
	<u>1,000 hectares</u>	<u>Percent</u>	<u>1,000 hectares</u>	<u>Percent</u>	<u>1,000 hectares</u>	<u>Percent</u>	<u>1,000 hectares</u>	<u>Percent</u>
Socialized farms:								
State farms.....	745.2	7.4	1,424.5	13.8	1,726.4	16.5	1,785.1	16.4
Other state units.....	642.5	6.4	363.9	3.5	349.2	3.3	352.1	3.4
Collective farms.....	807.8	8.0	4,266.6	41.2	7,854.5	75.0	7,852.1	74.5
With private plots.....	(33.6)	(3.3)	(330.9)	(3.2)	(930.0)	(8.9)	(951.6)	(9.0)
Agricultural associations.....	387.2	3.8	2,528.8	24.4	29.5	.3	18.5	.2
Private farms.....	1,475.4	74.4	1,726.4	17.1	515.7	4.9	536.7	5.0
Total farms.....	10,058.1	100.0	10,346.0	100.0	10,475.3	100.0	10,544.4	100.0

1/Cultivated land, orchards, and vineyards.

Source: (23).

Table 3.--Distribution of arable land, by use, Romania, 1955, 1960, 1965, and 1969

Item	1955		1960		1965		1969	
	1,000 hectares	Percent	1,000 hectares	Percent	1,000 hectares	Percent	1,000 hectares	Percent
Total arable land.....	10,058	100.0	10,346	100.0	10,475	100.0	10,544	100.0
Grain.....	7,219	71.8	7,066	68.3	6,767	64.6	6,563	62.2
Wheat.....	2,948	29.3	2,837	27.4	2,983	28.5	2,759	26.2
Corn.....	3,265	32.5	3,572	34.5	3,306	31.6	3,293	31.2
Other grains.....	1,006	10.0	657	6.4	478	4.6	511	4.8
Industrial crops.....	859	8.5	892	8.6	838	8.0	1,009	9.6
Oilseeds.....	401	4.0	590	5.7	544	5.2	691	6.6
Sunflowerseed.....	(300)	(3.0)	(480)	(4.6)	(462)	(4.4)	(533)	(5.2)
Sugarbeets.....	145	1.5	200	1.9	190	1.8	188	1.8
Other industrial crops <u>1/</u>	313	3.0	102	1.0	104	1.0	130	1.2
Potatoes, vegetables, and pulses...	591	5.9	631	6.1	629	6.0	682	6.5
Potatoes.....	258	2.6	292	2.8	298	2.8	305	2.9
Vegetables.....	169	1.7	191	1.8	181	1.7	223	2.1
Pulses.....	141	1.4	129	1.2	130	1.2	138	1.3
Melons.....	23	.2	19	.2	20	.2	16	.2
Forage crops.....	742	7.4	1,097	10.6	1,339	12.8	1,358	12.9
Seed crops.....	28	.3	48	.5	119	1.1	95	.9
Orchards.....	396	4.0	525	5.1	661	6.3	773	7.3
Bearing area.....	(167)	(1.7)	(214)	(2.1)	(349)	(3.3)	(426)	(4.0)
Vineyards.....	229	2.3	311	3.0	312	3.0	347	3.3
Bearing area.....	(213)	(2.1)	(270)	(2.6)	(242)	(2.3)	(288)	(2.7)
Idle land.....	223	2.1	87	.8	122	1.2	64	.6

1/ Includes tobacco, hemp, and flax.

Source: (6).

Table 4.--Production, yield, and area of principal crops, Romania, averages 1956-60, 1961-65, and 1966-70, and annual 1966-70

Item	Unit	Average			Annual				
		1956-60	1961-65	1966-70 <u>1/</u>	1966	1967	1968	1969	1970 <u>1/</u>
Grain:									
Production.....	1,000 metric tons	9,186	10,887	12,714	13,899	13,512	12,770	12,824	10,564
Yield.....	Centners/hectare	15.1	16.1	19.5	20.4	20.5	19.2	19.5	20.3
Area.....	1,000 hectares	7,311	6,772	6,521	6,821	6,604	6,657	6,563	5,962
Wheat --									
Production....	1,000 metric tons	3,300	4,321	4,686	5,065	5,820	4,848	4,349	3,350
Yield.....	Centners/hectare	11.3	14.6	16.9	16.7	20.0	17.2	15.8	14.5
Area.....	1,000 hectares	2,932	2,966	2,767	3,034	2,913	2,817	2,759	2,312
Corn --									
Production....	1,000 metric tons	5,028	5,853	7,211	8,022	6,858	7,105	7,676	6,395
Yield.....	Centners/hectare	17.5	17.6	22.1	24.4	21.3	21.3	23.3	24.0
Area.....	1,000 hectares	3,613	3,308	3,235	3,288	3,221	3,344	3,293	3,028
Oilseed production..	1,000 metric tons	435	566	830	754	822	818	857	902
Sunflowerseed:									
Production <u>2/</u> ...	do.	363	504	727	671	720	730	747	769
Yield.....	Centners/hectare	10.9	11.1	14.0	14.4	15.0	14.0	14.0	12.8
Area.....	1,000 hectares	385	452	521	468	481	520	533	603
Sugarbeets:									
Production.....	1,000 metric tons	2,428	3,439	3,811	4,368	3,830	3,936	3,783	3,140
Yield.....	Centners/hectare	172.2	194.2	208	224.8	217.5	213.1	201.2	200
Area.....	1,000 hectares	162	177	183	194	176	185	188	170
Fruit production <u>3/</u> ..	1,000 metric tons	1,709	1,813	2,339	2,344	2,116	2,221	2,866	2,150
Grape:									
Production.....	do.	895	908	1,004	954	910	1,167	1,189	800
Yield.....	Centners/hectare	36.7	35.2	37.3	38.0	37.7	34.5	41.3	308
Area.....	1,000 hectares	244	257	269	253	264	278	288	260
Plum production...	1,000 metric tons	488	535	n.a.	837	670	562	962	n.a.

Footnotes at end of table.

--Continued

Table 4.--Production, yield, and area of principal crops, Romania, averages 1956-60, 1961-65, and 1966-70, and annual 1966-70--Continued

Item	Unit	Average			Annual				
		1956-60	1961-65	1966-70 <u>1/</u>	1966	1967	1968	1969	1970 <u>1/</u>
Potatoes:									
Production <u>4/</u>	1,000 metric tons	2,883	2,600	2,880	3,352	3,096	3,707	2,165	2,080
Yield.....	Centners/hectare	100.5	82.8	92	105.7	98.3	111.0	67.4	73.0
Area.....	1,000 hectares	287	314	314	317	315	334	321	285
Vegetable production..		1,524	1,657	2,087	2,176	2,000	2,296	1,963	2,000
Tomatoes:									
Production.....	1,000 metric tons	328	465	n.a.	640	655	855	639	n.a.
Yield.....	Centners/hectare	111.1	125.4	n.a.	147.6	148.2	156.0	114.1	n.a.
Area.....	1,000 hectares	30	37	n.a.	43	44	55	56	n.a.
Pulses:									
Production <u>5/</u>	1,000 metric tons	164	214	215	280	289	119	189	200
Yield.....	Centners/hectare	17.8	14.1	14.1	18.5	17.6	7.9	13.7	13.3
Area.....	1,000 hectares	92	152	152	151	164	150	138	155

1/ Preliminary.

2/ Includes double cropping.

3/ Includes walnuts and grapes.

4/ Excludes melons.

5/ Includes peas, beans, and lentils.

Source: (23).

Table 5.--Livestock inventories, 1/ Romania, averages 1956-60, 1961-65, and 1966-70, annual 1966-71

Item	Average			Annual					
	1956-60	1961-65	1966-70	1966	1967	1968	1969	1970	1971
	----- 1,000 head -----								
Cattle <u>2/</u>	4,542.8	4,639.2	5,127.2	4,935.0	5,197.9	5,332.2	5,136.3	5,034.8	5,215
Cows.....	2,019.0	2,542.4	2,156.8	2,007.7	2,126.6	2,218.3	2,202.5	2,228.7	2,624
Hogs.....	4,081.4	4,835.0	5,668.3	5,365.4	5,399.6	5,751.6	5,853.2	5,971.6	6,358
Sheep.....	10,771.2	12,217.5	13,949.6	13,125.2	14,109.1	14,380.2	14,297.7	13,835.9	13,812
Goats.....	512.5	575.7	712.8	807.0	828.0	732.0	632.0	565.0	540
Horses.....	1,198.2	838.2	699.5	688.9	704.6	715.1	702.5	686.2	665
Poultry.....	35,000.0	39,021.8	46,542.0	40,084.5	43,966.2	47,147.5	47,617.7	53,894.0	54,164

1/ January 1 inventories. 2/ Includes buffalo.

Source: (23).

12

Table 6.--Production of livestock products, Romania, averages 1956-60, 1961-65, and 1966-70, annual 1966-70

Livestock product	Average			Annual					
	1956-60	1961-65	1966-70 <u>1/</u>	1966	1967	1968	1969	1970 <u>1/</u>	
	----- 1,000 metric tons -----								
Total meat <u>2/</u>	885	982	1,279	1,128	1,237	1,354	1,326	1,349	
Beef and veal <u>3/</u>	358	358	443	378	421	503	467	444	
Pork.....	342	406	550	501	541	559	560	590	
Lamb and mutton <u>3/</u>	109	123	143	132	144	150	148	142	
Poultry <u>3/</u>	76	95	141	111	127	142	151	173	
Milk <u>4/</u>	2,362	2,680	3,194	3,092	3,391	3,135	3,101	3,250	
Eggs <u>5/</u>	2,057	2,502	3,131	2,814	3,011	3,113	3,315	3,400	
Wool.....	20.2	24.0	29.1	26.1	28.6	30.6	30.8	29.5	

1/ Preliminary. 2/ Domestic meat production in liveweight; excludes inventory changes. 3/ After 1964, USDA estimates. 4/ Milk produced for human consumption. 5/ Million.

Source: (23).

Table 7.--Distribution of arable land and agricultural production, by type of farm, Romania, 1969

Item	State farms	Other state units	Collective farms		Agricultural Associations	Private farms
			Total	With private plots		
			Percent			
Arable land.....	16.4	3.4	74.5	(9.0)	.2	5.0
Crop production:						
Grains.....	23.6	.9	72.3	(9.0)	.1	3.1
Wheat.....	25.1	.7	72.5	(--)	.1	1.6
Corn.....	21.7	.8	73.6	(15.0)	.1	3.8
Sunflowerseed.....	30.1	.2	69.6	(.1)	--	.1
Sugarbeets.....	.3	.1	99.6	(--)	--	--
Potatoes.....	6.5	.6	75.4	(36.3)	.1	17.4
Fruit.....	9.9	1.8	59.1	(40.9)	1.1	28.1
Grapes.....	14.6	1.4	80.3	(35.5)	--	3.7
Vegetables.....						
Livestock numbers:						
Cattle.....	11.8	1.3	71.3	(30.3)	--	15.6
Hogs.....	33.2	2.1	56.9	(30.0)	--	7.8
Sheep.....	11.5	.4	75.1	(37.4)	.1	12.9
Livestock products:						
Meat.....	24.1	2.9	60.5	(39.3)	--	12.5
Milk.....	16.0	.7	66.4	(38.2)	--	16.9
Wool.....	16.8	.9	71.4	(33.1)	.1	10.8
Eggs.....	16.7	.3	63.2	(60.0)	--	19.8

Source: (23), 1970, pp.348, 354, 360, 406, 411, and 418.

Table 8.--Investment in agriculture, by value and as a percentage of total investment, Romania, averages 1956-60, 1961-65, 1966-69, and 1971-75, annual 1966-70

Item	Total investment	Agricultural investment	Agriculture's share
	----- <u>Million lei</u> -----		--- <u>Percent</u> ---
Average:			
1956-60.....	17,514	2,633	15.0
1961-65.....	37,136	6,554	17.6
1966-69.....	59,543	9,391	15.8
1971-75 (planned).....	108,000	21,000	19.4
1966.....	48,909	7,659	15.7
1967.....	57,408	8,608	15.0
1968.....	64,276	10,238	15.9
1969.....	67,529	11,059	16.4
1970.....	71,000	10,400	14.6

1/ 1963 prices.

Source: (23).

Table 9.--Selected agricultural inputs, Romania, averages 1956-60, 1961-65, 1966-69, annual 1966-70

Input	Unit	Average			Annual				
		1956-60	1961-65	1966-69	1966	1967	1968	1969	1970
Fertilizer use:									
Total plant nutrients.....	1,000 metric tons	48.2	167.0	450.0	336.4	440.7	484.6	538.1	695
Per hectare of arable land....	Kilograms	5	16	43	32	42	46	51	n.a.
Tractor use:									
Total.....	Thousands	33.3	66.3	95.5	90.8	92.8	96.4	101.9	107.5
15 h.p. units.....	do.	46.4	103.5	162.3	151.1	155.7	164.9	177.5	n.a.
Arable land per tractor.....	Hectares	158	105	65	70	68	64	59	n.a.
Irrigated land:									
Total.....	do.	146.4	214.8	456.7	316.8	417.4	505.4	587.1	729.0
Arable.....	do.	139.4	198.8	437.8	306.3	399.5	482.0	562.4	578.0
Agricultural labor force:									
Total.....	Thousands	6,656	6,123	6,366	5,896	5,823	5,816	5,756	5,665
Percentage of total labor force	Percent	67.3	60.5	56.3	58.6	56.8	55.7	54.8	52.1

Source: (4), (23), and (29).

Table 10.--Agricultural trade, by value and as a percentage of total trade, Romania, 1960-70

Item	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
----- Million US dollars 1/-----											
Total trade:											
Exports.....	717	792	818	915	1,000	1,101	1,186	1,395	1,469	1,633	1,800
Imports.....	648	815	941	1,022	1,168	1,077	1,213	1,546	1,609	1,740	2,000
Agricultural trade: 2/											
Exports.....	257	300	301	348	369	390	450	568	503	527	n.a.
Imports.....	119	129	125	135	176	153	177	181	197	225	n.a.
----- Percent -----											
Agriculture's share:											
Exports.....	35.9	37.8	36.9	38.1	36.9	35.3	38.0	40.7	34.2	32.2	n.a.
Imports.....	18.3	15.8	13.3	13.2	15.0	14.2	14.6	11.7	12.2	12.9	n.a.

1/ Converted from Romanian lei at the official exchange rate of 6 lei = US\$1.

2/ Includes the following categories as reported in Romanian foreign trade statistics: Vegetables and raw materials (excluding food); live animals (excluding slaughter livestock); raw materials for foodstuffs production; and foodstuffs.

Source: (23).

Table 11.--Principal agricultural exports, by quantity and value, Romania, average 1961-65, annual 1966-69

Export	Quantity				
	1961-65	1966	1967	1968	1969
	----- 1,000 metric tons -----				
Live cattle (1,000 head):	8.6	98.0	62.5	46.5	n.a.
Fresh meat.....:	18.4	31.1	56.8	50.0	60.5
Canned meat.....:	1.8	4.8	7.4	6.1	7.0
Butter.....:	4.3	<u>1/15.2</u>	<u>1/20.5</u>	<u>1/16.1</u>	n.a.
Eggs.....:	7.9	15.9	16.1	17.3	18.8
Grain.....:	1,160.3	<u>1/1,303.0</u>	<u>1/2,339.4</u>	<u>1/1,561.6</u>	<u>2/1,376.6</u>
Wheat.....:	214.8	<u>1/864.3</u>	<u>1/1,221.6</u>	<u>1/1,176.0</u>	n.a.
Corn.....:	920.9	<u>1/413.7</u>	<u>1/1,077.5</u>	<u>1/375.2</u>	n.a.
Fresh fruit.....:	108.3	<u>1/92.4</u>	<u>1/113.3</u>	<u>1/113.2</u>	141.8
Grapes.....:	46.5	37.8	46.3	48.6	60.3
Canned fruit.....:	89.7	97.2	100.8	83.8	99.9
Fresh vegetables <u>3/</u>:	122.1	148.7	158.5	221.6	212.3
Pulses.....:	10.3	31.1	56.0	53.2	n.a.
Canned vegetables.....:	20.6	35.9	40.5	43.7	50.4
Sugar, refined basis.....:	124.2	106.0	192.2	63.3	104.1
Lard.....:	.7	19.2	21.1	16.2	n.a.
Other animal fats.....:	11.5	44.3	48.6	46.9	29.8
Wine.....:	32.9	46.0	52.7	57.9	67.5
Tobacco.....:	4.9	5.1	8.0	7.6	n.a.
Sunflowerseed.....:	26.9	<u>2/30.9</u>	<u>2/58.6</u>	<u>2/61.9</u>	n.a.
Sunflowerseed oil.....:	38.3	76.5	110.0	115.8	143.5
	----- Value -----				
	1961-65	1966	1967	1968	1969
	----- Million US dollars <u>4/</u> -----				
Live cattle (1,000 head):	1.9	19.9	12.6	8.2	n.a.
Fresh meat.....:	10.8	23.5	39.9	36.0	n.a.
Canned meat.....:	1.9	6.1	8.6	7.1	n.a.
Butter.....:	3.6	<u>1/8.3</u>	<u>1/9.1</u>	<u>1/6.4</u>	n.a.
Eggs.....:	3.6	6.7	8.2	8.7	n.a.
Grain.....:	103.8	<u>5/ 78.8</u>	<u>5/134.8</u>	<u>5/83.0</u>	n.a.
Wheat.....:	10.9	51.8	70.1	62.1	n.a.
Corn.....:	70.6	25.6	62.5	20.3	n.a.
Fresh fruit.....:	n.a.	<u>1/11.8</u>	<u>1/13.1</u>	<u>1/13.5</u>	n.a.
Grapes.....:	4.8	4.5	5.3	5.6	n.a.
Canned fruit.....:	n.a.	n.a.	n.a.	n.a.	n.a.
Fresh vegetables <u>3/</u>:	n.a.	12.4	13.2	20.0	n.a.
Pulses.....:	1.5	5.1	8.8	8.6	n.a.
Canned vegetables.....:	n.a.	n.a.	n.a.	n.a.	n.a.
Sugar, refined basis.....:	12.5	6.2	12.6	4.0	n.a.
Lard.....:	.1	5.8	6.4	4.7	n.a.
Other animal fats.....:	3.2	9.0	10.8	9.0	n.a.
Wine.....:	12.9	17.6	19.2	22.0	n.a.
Tobacco.....:	4.9	4.8	9.2	9.5	n.a.
Sunflowerseed.....:	4.8	4.5	8.0	6.7	n.a.
Sunflowerseed oil.....:	10.5	21.3	29.3	23.7	n.a.

1/Source: (24). 2/ Source: (23). 3/ Excludes pulses, but includes potatoes. 4/ Converted from Romanian lei at the official exchange rate of 6 lei=US\$1. 5/ Estimated. Source: Unless otherwise noted, (10).

Table 12.--Principal agricultural imports, by quantity and value, Romania, average 1961-65, annual 1966-69

Import	Quantity				
	1961-65	1966	1967	1968	1969
	----- 1,000 metric tons -----				
Rice, milled.....	29.6	29.5	32.0	29.7	<u>1</u> /32.2
Citrus fruit.....	20.2	<u>2</u> /26.2	<u>2</u> /30.1	<u>2</u> /27.3	<u>1</u> /28.7
Sugar, refined basis.....	22.5	---	---	50.5	<u>1</u> /62.8
Oilseed cake.....	1.5	16.0	26.9	41.2	50.0
Hides and skins.....	10.4	20.8	21.8	18.3	<u>1</u> /24.1
Natural rubber.....	17.2	24.9	26.7	30.5	<u>1</u> /36.8
Raw cotton.....	64.1	76.8	71.9	76.1	<u>1</u> /84.3
	Value				
	1961-65	1966	1967	1968	1969
	----- Million US dollars ^{3/} -----				
Rice, milled.....	4.1	4.2	5.3	5.5	n.a.
Citrus fruit.....	2.3	<u>2</u> /3.1	<u>2</u> /3.6	<u>2</u> /3.5	n.a.
Sugar, refined basis.....	2.6	---	---	5.2	n.a.
Oilseed cake.....	.1	1.5	2.6	n.a.	n.a.
Hides and skins.....	n.a.	<u>2</u> /15.7	<u>2</u> /11.6	9.4	n.a.
Natural rubber.....	10.5	12.3	12.0	11.3	n.a.
Raw cotton.....	52.2	56.7	52.5	58.8	n.a.

^{1/} Source: (23).

^{2/} Source: (24).

^{3/} Converted from Romanian lei at the official exchange rate of 6 lei=US\$1.

Source: Unless otherwise indicated, (10).

Table 13.--Regional distribution of Romania's foreign trade, by value and percent, average 1961-65 and 1966-69, annual 1966-69

Period	Exports				Imports			
	Communist countries <u>1/</u>	Developed countries	Less developed countries	Total	Communist countries	Developed countries	Less developed countries	Total
	----- <u>Million US dollars 2/</u> -----							
Average:								
1961-65.....	639.6	224.3	61.3	925.2	666.1	289.6	48.7	1,004.4
1966-69.....	842.0	430.5	148.2	1,420.6	790.6	653.0	83.6	1,527.2
1966.....	735.3	353.9	96.9	1,186.1	694.3	461.6	57.3	1,213.2
1967.....	789.0	439.1	167.2	1,395.3	754.0	727.2	64.9	1,546.1
1968.....	873.2	439.8	155.5	1,468.5	826.6	693.1	89.3	1,609.0
1969.....	970.5	489.3	173.3	1,633.1	887.4	730.1	122.9	1,740.4
	----- <u>Percent</u> -----							
Average:								
1961-65.....	69	24	7	100	66	28	6	100
1966-69.....	59	30	11	100	51	43	6	100
1966.....	62	30	8	100	57	38	5	100
1967.....	57	32	12	100	49	47	4	100
1968.....	59	30	11	100	51	43	6	100
1969.....	59	30	11	100	51	42	7	100

1/ Includes Yugoslavia and Cuba.

2/ Converted from Romanian lei at the official exchange rate of 6 lei=US\$1.

Source: (20) and (23).

Table 14.--U.S.-Romanian trade, principal commodities, by value and quantity, 1960-70

Item	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
----- <u>US\$ 1,000</u> -----											
U.S. exports to Romania:											
All commodities.....	6,300	4,020	2,130	870	5,200	9,110	26,730	10,100	19,080	22,150	66,400
Agricultural commodities....	<u>1/143</u>	253	256	137	2,057	2,378	6,415	1,939	1,070	4,371	27,839
Nonfat dry milk.....	---	---	---	---	---	---	---	---	---	---	1,060
Grain.....	78	143	15	17	169	---	---	---	4	---	14,994
Wheat.....	---	---	---	---	169	---	---	---	---	---	9,135
Barley, direct shipment :	---	---	---	---	---	---	---	---	---	---	4,199
Barley, transshipped....	---	---	---	---	---	---	---	---	---	---	---
through Canada <u>2/3/</u>	---	---	---	---	---	---	---	---	---	---	9,879
Corn.....	78	143	---	---	---	---	---	---	4	---	---
Oats.....	---	---	---	---	---	---	---	---	---	---	1,660
Grain sorghum.....	---	---	15	17	---	---	---	---	---	---	---
Oilseed cake and meal.....	---	---	---	---	---	---	---	---	479	787	---
Hides and skins.....	---	---	---	---	---	1,618	6,010	1,603	570	3,234	3,664
Cattle hides.....	---	---	---	---	---	1,523	5,515	1,580	570	3,091	3,664
Cotton.....	---	---	---	---	1,387	---	43	---	---	---	6,732
----- <u>1,000 tons</u> -----											
Agricultural commodities											
Nonfat dry milk.....	---	---	---	---	---	---	---	---	---	---	2
Grain.....	<u>4/</u>	<u>4/</u>	<u>4/</u>	<u>4/</u>	1	---	---	---	<u>4/</u>	---	278
Wheat.....	---	---	---	---	1	---	---	---	---	---	152
Barley, direct shipment:	---	---	---	---	---	---	---	---	---	---	92
Barley, transshipped :	---	---	---	---	---	---	---	---	---	---	---
through Canada <u>1/2/</u>	---	---	---	---	---	---	---	---	---	---	332
Corn.....	<u>4/</u>	<u>4/</u>	---	---	---	---	---	---	<u>4/</u>	---	---
Oats.....	---	---	---	---	---	---	---	---	---	---	30
Grain sorghum.....	---	---	<u>4/</u>	<u>4/</u>	---	---	---	---	---	---	---
Oilseed cake and meal.....	---	---	---	---	---	---	---	---	5	10	---
Hides and skins <u>5/</u>	---	---	---	---	---	253	514	148	77	396	449
Cattle hides <u>5/</u>	---	---	---	---	---	241	474	145	77	379	449
Cotton.....	---	---	---	---	2	---	<u>4/</u>	---	---	---	10

Footnotes at end of table.

--Continued

Table 14.--U.S.-Romanian trade, principal commodities, by value and quantity, 1960-70--continued

Item	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970
	----- US\$ 1,000 -----										
U.S. imports from Romania:											
All commodities.....	630	1,200	1,300	915	1,850	2,630	4,600	8,800	6,600	9,200	13,400
Agricultural commodities.....	630	1,142	257	226	220	395	979	1,229	1,327	1,106	1,107
Cheese and curds.....	4	10	2	3	7	114	375	506	589	695	490
Spices and condiments.....	49	79	106	78	79	127	468	430	471	154	274
Poppyseed.....	---	---	---	3	---	86	321	328	406	109	203

1/ Excluding transshipments through foreign ports.

2/ In addition to direct US-Romanian trade.

3/ (34).

4/ Less than 500 tons.

5/ In thousand units.

Source: (31).

Table 15.--Per capita consumption of selected foods and food products, Romania, 1965 and 1970, and planned for 1975

Item	1965	1970	1975	1965	1970	1975	Protein		
							1965	1970	1975
	----- Kilograms/year -----			----- Calories/day -----			----- Grams/day -----		
Meat and meat products.....	26.6	31	48-50	153	180	279-292	13.1	15.4	23.9-25
Fish and fish products.....	3.5	5	7-8	10	14	19-22	1.8	2.5	3.4-4.0
Milk (excluding butter).....	105	140	190-200	193	260	354-372	10.1	1.6	18.5-19.5
Edible oils.....	6.7	8	9	166	204	231	---	---	---
Sugar and sugar products.....	15.0	20	24	168	225	275	---	---	---
Whole wheat bread.....	138.5	105	75-85	834	634	458-519	32.2	24.6	17.7-20

Source: (25).

Table 16.--Basic indicators of fulfillment of 1966-70 and 1970 agricultural plans, Romania, and goals for 1971-75 and 1975

Item	Unit	1966-70 plan	1966-70 actual (preliminary)	1970 plan	1970 plan (revised)	1970 actual (preliminary)	1971-75 plan	1975 plan
Annual increase in gross agricultural production.....	Percent	4.7-4.9	4.4				6.3-8.3	
Annual crop production:								
Grain.....	Million metric tons	1/12.4	2/12.7	3/15.1		2/10.5		4/17.5-18.5
Wheat and rye.....	do.	1/4.8	2/4.7	3/5.1		2/3.4		n.a.
Corn.....	do.	1/7.6	2/7.2	3/8.9		2/6.4		n.a.
Sunflowerseed.....	do.	1/.6	2/.7	3/1.0		2/.7		4/1.0
Vegetable production.....	do.	1/2.5	2/2.1	3/3.6		2/2.0		4/4.0
Sugarbeets.....	do.	1/4.0	2/3.1	3/4.6		2/3.2		n.a.
Fruit and grapes.....	do.	1/2.6	2/2.3	3/2.9		2/2.9		4/3.7-3.8
Year-end livestock numbers:								
Cattle.....	Millions	---	---	1/5.0	3/5.4	5.2		4/6.3-6.5
Hogs.....	do.	---	---	1/6.5	3/7.5	6.4		4/9.5-10.0
Sheep.....	do.	---	---	1/13.0	n.a.	13.8		4/15.0
Poultry.....	do.	---	---	n.a.	n.a.	54.2		4/70-75
Annual production of livestock products:								
Meat (liveweight).....	Million metric tons	1/1.1	2/1.3	1/1.1	5/1.4	2/1.3		n.a.
Milk.....	do.	1/2.9	2/3.2	1/2.9		2/3.3		n.a.
Annual agricultural inputs:								
Tractor inventories.....	Thousand units			1/115	5/105	6/108		4/120-123
Land developed for irrigation.....	Thousand hectares			1/600	7/1,000	7/900		8/2,100-2,300
Fertilizer applications (nutrients).....	Thousand tons			1/1,100	5/723	2/695		2,000
Total agricultural investment.....	Billion lei 9/	10/51	6/48				11/105	
Centralized investment.....	do. 9/	3/35	5/37				11/80	

35

1/ (7). 2/ Estimated. 3/ (8). 4/ (11). 5/ (19). 6/ (4). 7/ (22). 8/ (12). 9/1963 prices. 10/ (27). 11/ (16).

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