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the
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in
RUMANIA

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NOTE: 1 hectare = 2,471 acres
1 metric quintal = 220.46 pounds
1 metric ton = 2,204.6 pounds

Earlier publications on the agricultural situation in Eastern Europe, issued by the Foreign Agricultural Service, are: FAS-M-31, Eastern Germany; FAS-M-39, Bulgaria; FAS-M-54, Poland; FAS-M-79, Hungary; FAS-M-86, Yugoslavia.

THE AGRICULTURAL SITUATION IN RUMANIA

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Position of Agriculture in the Economy

Rumania is an agrarian country. Though government policies have been strongly oriented in favor of heavy industry in the past decade, nearly two out of every three of Rumania's people are still dependent on agriculture for a living. Besides contributing a substantial proportion of the national income, agriculture furnishes about one-fourth of the value of all exports.

The country is roughly as large as the States of New York and Pennsylvania combined and 60 percent of its area is used for agricultural production. Among the Soviet satellites, Rumania is second only to Poland in size.

Land Tenure

Conditions of land tenure have undergone two major changes during this century--the breakup of the large estates and, three decades later, the collectivization of agriculture.

Land Reform

Over the years the landless and small peasants have engaged in an intense struggle to gain land from the large estate holders. An open peasant revolt in 1907 was important in setting the stage for the far-reaching 1918-21 land reform, which converted the country's agriculture from one of predominantly latifundia to small peasant farms.

On the eve of the 1945 land reform, only 17 percent of the country's agricultural area (which totaled 14.7 million hectares, two-thirds of which was arable) was in holdings exceeding 50 hectares. Reform was, however, expedient to the Communist-led government. For the peasant the 1945 reform represented the end of long-standing strife with estate owners but just the beginning of resistance to the government's collectivization pressures.

The reform provided for the confiscation of agricultural lands of private owners in excess of 50 hectares as well as the property owned by German citizens and Nazi collaborators. Land belonging to the crown and the church was exempt from the reform at this time, only to be expropriated in 1949.

During the course of the reform, reportedly 1.4 million hectares were taken over by the state. Of this amount, almost 400,000 hectares were retained for setting up state farms and for reserves. The remainder was distributed among some 800,000 peasants who initially owned less than 5 hectares each. Although the state gave no compensation for land confiscated, recipients had to pay for the land received in small amounts over a period of years.

The 1945 reform did not have profound economic significance; it involved less than 10 percent of the country's agricultural area. It did, however, eliminate the vestiges of the old order and pave the way for socialization of agriculture.

Collectivization

The years of 1945-49 were marked by consolidation of the Communists' power in the government and gradual adjustment of the nation's economy to peacetime conditions.

Rumania was slow in recouping war losses. During 1948 the government tightened its grip on the economy, and industry was rapidly brought under state control. In these early years the peasants were assured that they would be able to maintain ownership of their land. In 1949, contrary to these assurances, the regime initiated a collectivization drive. For awhile only "advanced" collectives were set up; but in 1952 an intermediary form called the simple association was established; still later, in 1956, so-called "producer cooperatives" appeared.

The peasants' situation at the outset of the collectivization campaign was, in general, very weak. With the exception of some relatively large farmers called kulaks, 1/ peasants could hardly eke out a living from their tiny, scattered plots and had to seek supplemental employment. In 1948 the average-size farm was only 4.6 hectares; half of the farm area was in holdings ranging from 3 to 10 hectares and about 20 percent in farms with less than 3 hectares.

Poor peasants are least able to resist Communist pressures to collectivize. The regime's original concentration on the low-producing south-east corner of the country was determined partly by this factor. Also, it apparently wanted to use an area of low productivity as an experimental ground for collectivization, thereby avoiding disruption of production in the important grain growing regions. At this point the government was not willing to test the Communist postulate that large-scale farming automatically leads to an increase in production, for it was in no position to equip large units.

In the first few years of collectivization the regime met with substantial success. By the end of 1953 over a million hectares of agricultural land were in the collectivized sector. Aside from this, the state owned an additional 3.5 million hectares. Thus, the socialized sector (state and collectivized sectors) at that time made up one-third of the total agricultural area.

The "New Course," which was adopted throughout the Soviet Bloc in 1953, brought a temporary standstill to collectivization. Very little area was added to the socialized sector during 1954 and 1955.

1/ These wealthier peasants, who were branded as enemies of the people, suffered the brunt of the regime's coercion; it was recently announced that as a class, this group has been eliminated.

The turning point came with the second 5-year plan (1956-60) when a drive was initiated to bring 60-70 percent of the country's agricultural area into the socialized sector by 1960. In 1957 this sector increased its agricultural area by one-third and further big gains were made in 1958, 1959, and 1960. In fact, in July 1960, 80 percent of the agricultural land reportedly was in one of the socialist forms--51 percent in the collectivized sector, 29 in the state. By fall, 83 percent reportedly had been taken in.

TABLE 1.--Collectivized sector: Number and agricultural area of farms, by type

As of	Collective farms	"Producer cooperatives"	Simple associations			
December 31:	Number	Agricultural area	Number	Agricultural area	Number	Agricultural area
	: 1,000 ha.	: 1,000 ha.	: 1,000 ha.	: 1,000 ha.	: 1,000 ha.	: 1,000 ha.
1949.....	56	15	--	--	--	--
1950.....	1,027	278	--	--	--	--
1951.....	1,089	302	--	--	--	--
1952.....	1,795	736	--	--	1,834	188
1953.....	1,997	827	--	--	2,026	235
1954.....	2,070	884	--	--	2,898	315
1955.....	2,152	933	--	--	4,455	392
1956.....	2,565	1,102	17	2	8,128	710
1957.....	2,755	1,569	120	13	11,733	2,026
1958.....	2,906	1,871	122	21	12,359	2,301
1959.....	3,745	2,971	83	28	11,482	3,425
1960 <u>1/</u>	4,202	3,610	48	12	10,401	3,838

1/ July 1960.

Dezvoltarea Agriculturii în R.P.P. 1959, pp. 230-231.

Buletin Statistic Trimestrial 4, 1959, p. 39 and 2, 1960, p. 43.

During these recent years the regime has concentrated its effort on the corn-wheat belt to the country's south. The impressive results have been achieved only through political and economic pressures for the peasants were hardly willing to give up their cherished land for membership in cooperatives and collectives.

Complete socialization of agriculture is envisioned by the government at the end of the impending 6-year plan (1960-65). Presumably, this means that by 1965 the collectivized sector will cover roughly 70 and the state sector 30 percent of the farmland. Conversion of collectives into state farms is the eventual objective of the Rumanian Government; this is also true for other Communist regimes, and in the Soviet Union some collectives have already been converted. Rumania is certainly very far from achieving this long-range objective; over half of its collectivized sector consists of loosely organized peasant associations which, except for limited functions, operate as a group of independent farms. The rest of the sector is made up of collective farms, the counterpart of the Soviet kolkhoz, and "production cooperatives", a modified version of the collective.

Collective Sector

Agricultural collective farms (Gospodării Agricole Colective, or GAC) are well advanced in socialist farming principles and for that reason come the closest of those units in the collectivized sector to meeting the government's demands. However, GAC's comprise only a little less than half of the total collectivized area. Thus the regime is struggling not only to drive the remaining private farmers into collectivized units, but also to gradually convert the "lower" forms of collectivization, the agricultural associations and "producer cooperatives", into GAC's.

The average-size GAC has 770 hectares of farmland and includes 220 peasant families.

In theory the GAC is run by the Assembly, a monthly plenary meeting of the members. In practice, however, all important decisions are made by the president of the collective, who is allegedly the choice of the members but actually responsible to local state organs. The annual plan of the collective is prepared under the supervision of the president, who is "guided" by village government officials and has the rubber-stamped approval of the Assembly. Through rural officials the government thus has a strong measure of control over the production patterns of collectives. This is in addition to the control it exerts over the sales and purchases of these units.

When peasants are recruited into collectives, all their land and most of their farm capital become common property. They are allowed to retain for use a household plot of 0.2 to 0.3 hectare of arable land. As personal property members may keep their dwelling, some small equipment to work their plot, 1 cow, 2 head of young cattle, 1 sow, 10 sheep or goats, 20 beehives, all the rabbits and poultry desired plus buildings necessary for housing their animals.

All the work on the farm (save that on the household plots) is done collectively. The labor force is divided into "brigades"--field, livestock, viticultural, pomicultural--which have from a few to several dozen members plus an appointed supervisor. The brigades are formed for **definite periods**. Field brigades are assigned for the duration of the crop cycle and zootechnological for at least 3 years.

Until 1958, wages of members were paid solely on the basis of work-days earned, with no regard to quality of work. The present wage system provides for supplemental payments for performance which exceeds quality and quantity norms. It is believed that this amendment has added incentive to production. Nevertheless, incentive is still low, one important reason being that wages are still more frequently paid in goods than in cash.

The great deal of paperwork involved in the wage system is a good example of the bureaucratic inefficiencies connected with running collective farms. Officials realize that the administrative staff required on the GAC is burdensome and could well stand pruning, with consequent release of recordkeepers to productive work.

Wages (including the value of payment in goods) reportedly absorb about 80 percent of collective net income. The remaining 20 percent is divided between reinvestment in the collective and payments to the state in the form of taxes, securities (for pensions, insurance), and other contributions. The state uses these payments as a source for investment in agriculture.

In sharp contrast to the GAC's are the agricultural associations (Introvărășiri Agricole). In these units members retain ownership to all their property, and merely pool part of their land for joint cultivation. Apparently only a very small proportion of the members' property is actually pooled, and the rest of their land is farmed individually. The little amount of land that is contributed is consolidated, boundaries are removed, and the principal operations are carried out by organized groups. The income derived from the collective effort is divided as follows: payment is made to the members according to the land contributed and the work performed and the remainder is placed in a common fund used to purchase animals and equipment for common ownership.

Agricultural associations were first formed in 1953 with the idea that they would serve as a first step in an evolution toward collectives. The regime has not had much difficulty in establishing these units because the peasant gives up only little freedom in joining. In fact, associations have a certain advantage for farmers since membership means lower taxes and better access to seed, fertilizer, and the services of the Machine Tractor Stations. Resistance is apparent, however, when associations are pressured to convert to GAC's.

In 1956 the government introduced "agricultural producer cooperatives" (Cooperative Lor Agricole De Productie), an intermediary form between the associations and GAC's.

Except for a small household plot, producer cooperative members pool all their land, but unlike GAC members they retain ownership to it. They must, however, contribute most of their equipment and livestock to common ownership.

Remuneration to members of producer cooperatives consist of two parts: rent is received for the land contributed and wages are paid according to work performed.

Thus the producer cooperative is a kind of watered-down GAC. Eventually they are expected to be converted to GAC's.

Producer cooperatives never have been an important part of the collective sector. Lately their numbers have dwindled, apparently as a result of conversion into GAC's.

State Sector

The state sector includes state farms, land administered by People's Councils (mostly communal pastures), experimental stations, property of

institutions, state forests, and state-owned fallow land which eventually is to be brought under production.

State farms account for only about half of the agricultural land but most of the arable land in the state sector. They were the first units in the socialized sector, established through use of some of the land confiscated during the 1945 land reform as well as land already owned by the state. State farms were assigned the functions of serving as models of large-scale production, supplying the state with farm products, conducting agricultural experiments, and producing seeds and breeding animals for use in other farm units.

The initial state farms were very poorly organized, one important reason being that their plots were generally scattered over large areas. In 1951, 331 state farms, averaging 2,375 hectares of farmland, were spread out over 19,710 plots of land. At that time a drive to consolidate these farms was undertaken so that the excessive fragmentation might be reduced. By the end of 1954 the number of state farms was cut to 266, with an average size of 3,670 hectares of farmland, and their area was divided into 7,473 plots of land. In a change of policy, it was then decided that some farms had grown too large. Consequently, in late 1956 a limit of 5,000 hectares per farm was designated by the regime, resulting in the breaking up of some of the larger farms.

In 1957 a decree changed the State Farms Administration from a separate ministry to a department in the Ministry of Agriculture and Silviculture. A certain amount of decentralization accompanied this move, and more authority in running the farms was given to regional government officials.

Despite these attempts at improving the organization of state farms, many and perhaps even most of them are badly managed and operate at a loss. The most recent move to remedy this situation was taken in March 1959 when the regime moved to further tighten the Communist Party's control over state farms; farm councils were set up on each unit and consisted of the farm director, a party organizer, and several lower farm officials. By decree, the regime made it explicit that if disagreement arose in the council, the director and the party organizer had the final word; if these two disagreed, the problem would be taken up by local party officials. Thus, the party has clearly been given final authority in state farm management.

Each state farm is divided into sections which are directed by a section farm chief (also a member of the farm council), an accountant, a plan supervisor, and a supply man. The sections are further divided into brigades, resembling those on collective farms. This complex chain in management necessitates a vast amount of paper work, with a large nonproductive administrative staff on each farm.

The workers are paid base wages according to their type of work, with provision for bonuses or deductions depending on how well they fulfill norms. Most state farms have canteens for employees' entertainment, as well as nurseries to care for the children while the women do field work. There is

a rapid turnover in state farm labor, indicating the unsatisfactory status of this employment.

In the face of these problems, state farm area nevertheless has steadily expanded, especially in the past couple of years. Land formerly administered by People's Councils and reclaimed land have been turned over to state farms as rapidly as the government could handle their transformation. This policy will continue until all the land of potential use to state farms is utilized.

By July 1960 the number of state farms had increased to 556, with an average area of around 3,000 hectares of farmland; their farm area then equalled one-eighth of the country's total.

TABLE 2.--State sector of agriculture: Breakdown of agricultural area, 1950-1959

As of December 31	: Agricultural area :					
	: Total	: Arable	: Pasture	: Meadows	: Vineyards	: Orchards
	: :1,000 ha.:	: :1,000 ha.:	: :1,000 ha.:	: :1,000 ha.:	: :1,000 ha.:	: :1,000 ha.:
Total state sector:						
1950.....	3,086	863	2,032	147	25	19
1955.....	3,598	1,325	2,117	93	30	33
1956.....	3,549	1,285	2,101	96	31	36
1957.....	3,666	1,292	2,209	95	31	39
1958.....	3,791	1,319	2,290	108	32	42
1959.....	4,156	1,614	2,332	116	42	51
State farms only:						
1950.....	787	577	134	36	23	17
1955.....	977	758	139	27	29	24
1956.....	1,017	801	134	26	29	27
1957.....	1,265	974	191	38	30	32
1958.....	1,437	1,081	234	56	31	35
1959.....	1,719	1,314	264	64	38	40

Anuarul Statistic Al R.P.R. 1959, pp. 138-139.

Buletin Statistic Trimestrial 4, 1959, p. 44.

State farms have become an important component of the country's agriculture not only through increasing their area but also by specializing in production of grains. The pattern of land utilization on state farms (especially since 1956) shows a shift from a more diversified farming to concentration on cereal production. In 1950 about 45 percent of state farm arable area was in grains; this percentage probably exceeded 70 percent in 1960. State farms have become a very important source of marketed grain.

Livestock production on state farms is unimportant relative to the country's total. Only a small proportion of the total livestock population is owned by the state sector.

Private Sector

The private sector, which had been losing ground rapidly since 1956, was dealt a blow in March 1959. The regime then decreed that a peasant's holding could not exceed an area which he (and his immediate family) could till alone. The decision as to what amount of land this constituted in each case was left to the local People's Council. Also, a prohibition was placed on employing hired labor as well as renting land either on a cash or share-crop basis. At that time, the private sector accounted for about 40 percent of the total farm area, but it has since fallen to less than 20 percent.

The remaining private peasants, some 680,000 families (as of July 1960), are located mostly in the mountain areas. Their farm practices are primitive, and the average family cultivates only 4.3 hectares. Thus the private sector has been reduced to a rather unimportant position in Rumanian agriculture, and indeed it seems sure that its days are numbered. Some officials have predicted that private farming will be done away with by the end of 1962.

These facts would seem to testify to the success of the regime in "transforming" agriculture from a free to a socialist basis. However, it bears repetition that the "lower" forms of collectivization, the agricultural associations, still make up about one-third of the socialist sector's farm area. In effect these units operate little differently than they did when they were part of the private sector. The extent to which the Communists have really changed the structure of land tenure in Rumania is overrated if one measures it by what is officially called "socialist agriculture."

Land Utilization

Among the Soviet satellites, Rumania is second only to Poland in size. Its land is well adapted to agriculture; fully 60 percent of the country's total area is agricultural. These facts intimate Rumania's potential importance in the agricultural economy of the Soviet satellites.

Physical Conditions Affecting Land Use

Rumania is located at a latitudinal range roughly the same as that of the State of Minnesota. It is subject to a continental climate with severe temperatures in summer and winter. The average range of frost-free days is from 230 days in the south to about 150 days in central mountain and northern sections.

Variations in climate, topography, and soil permit a diversified agriculture. Physical factors divide the country roughly into five agricultural zones:

1. Zone I is the major farm area. It includes the southern plains, rich in fertile black soil (chernozem), where half the country's grain is produced. Almost half the total vineyards and orchards also are located in this zone. Fresh vegetable production is important in this area, especially in the environs of Bucharest. Zone 1 includes over a third of the country's

agricultural area. It is, however, subject to summer droughts, especially in the eastern part. This zone comprises the regions of București, Craiova, Galați, Pitești, and Ploești and is known historically as Wallachia.

2. Zone II is largest in terms of total area but much of it is covered by mountains and forest. It includes the central basin and northwest section of the country, historically known as Transylvania, and the political regions of Cluj, Hunedoara, Stalin, Reguina Autonomă Maghiară, Oradea, and Baia-Mare. The central basin is surrounded by mountains and covered predominately by podsols, a heavy unproductive soil. Rainfall is substantial in this section, and livestock production is important; a high proportion of the land is devoted to pastures and meadows. Grain and potatoes are the major crops grown in the central basin. The northwestern section of Zone II is an extension of the Hungarian plain. Compared to the central basin, it has less rainfall but a better soil, and wheat production is favored.

3. Zone III is located in the northeast, forming most of the border with the Soviet Union. It includes most of the old principality of Moldavia and the political regions of Bacău, Iași, and Suceava, accounting for one-sixth of the country's farm area. This zone is comprised mainly of valleys and hillsides with relatively poor soil, although some chernozem can be found. Rainfall is scant. Despite these handicaps corn is the major crop in this area. Wheat and potatoes are also important.

4. Zone IV is part of a plains area known as Banat, which extends from Yugoslavia. It is formed by the political region of Timișoara and accounts for one-tenth of the country's farm area. Grains, especially wheat, predominate in this zone, but fruits and vegetables are also important. Rainfall in this area is more abundant than in the southern plains. Much of its soil is chernozem.

5. Zone V, located in the country's southeastern corner, is Rumania's least important agricultural area. Although the soil in the zone is fertile (much of it chernozem and alluvial soil formed by the Danube) frequent droughts reduce its potential. This zone includes most of the old Dobruja Plateau, which lies partly in Bulgaria. Constanța is the political region comprising the area. Corn, wheat, barley, and oats are all important in this zone. Sunflower and dry legume culture is also significant here.

Shifts in Use of Farmland 2/

The abnormal events of war, land reform, and socialization have had a disruptive influence on land use in Rumania. The outstanding developments during the war were a steady decline in arable area, amounting to one-half million hectares by 1944, and an increase in sunflower, cotton, vegetable, and sugar beet cultivation accomplished mainly at the expense of all grains except rice.

2/ The absence of producer price data in Rumanian statistics makes evaluation of shifts in land use very difficult. Moreover, political factors have played an enormous role in this area.

The land reform, in breaking up large farms into small holdings, brought further shifts in land use. Between 1945 and the beginning of collectivization, wheat cultivation increased; there were also increases for such crops as dry legumes, potatoes, sunflowerseed, and fodder crops. But all these increases combined were less than the reported decrease for corn. By 1950, arable area, according to official sources, was about 700,000 hectares below the 1938 level; this roughly equaled the net loss in agricultural land during that period, much of which was caused by erosion.

TABLE 3.--Land area: Distribution by use, selected years, 1938-1959

Year	: Arable	: Pastures	: Meadows	: Vine-	: Orchards	: Total agri-	: Country
	: 1,000	: 1,000	: 1,000	: yards	: 1,000	: cultural	: total
	ha.	ha.	ha.	ha.	ha.	ha.	ha.
1938/1	10,093	2,703	1,714	249	247	15,006	23,750
1950.....	9,377	2,852	1,682	227	184	14,324	23,750
1955.....	9,662	2,693	1,361	229	167	14,112	23,750
1957.....	9,701	2,776	1,380	248	176	14,281	23,750
1958.....	9,752	2,823	1,403	264	181	14,423	23,750
1959.....	9,754	2,870	1,393	283	191	14,492	23,750
	Percent	Percent	Percent	Percent	Percent	Percent	Percent
	of	of	of	of	of	of	of
	total	total	total	total	total	total	total
1938.....	42.5	11.4	7.2	1.1	1.0	63.2	100.0
1950.....	39.5	12.0	7.1	1.0	.8	60.4	100.0
1955.....	40.7	11.3	5.7	1.0	.7	59.4	100.0
1957.....	40.9	11.7	5.8	1.0	.7	60.1	100.0
1958.....	41.1	11.9	5.9	1.1	.7	60.7	100.0
1959.....	41.1	12.0	5.9	1.2	.8	61.0	100.0

1/ 1938 is on basis of postwar boundaries.
Anuarul Statistic Al R.P.R. 1959, p. 137.
Buletin Statistic Trimestrial 3, 1959, p. 43.

Since 1950 arable area has expanded, largely at the expense of meadows. With increases also for vineyards and orchards, total agricultural land amounted to 61 percent of the country's area in 1959 as compared with 63 percent in 1938.

Though arable area has increased, it still remained below the 1938 level in 1959. Official statistics indicate such a decrease in fallow, however, that the area actually planted to field crops in recent years has exceeded the average for 1934-38. Oilseed crops (mainly sunflowerseed) and sugar beets registered particularly striking increases, while the area under vegetables doubled. Fodder crops were grown on an area one-third larger than in prewar days. Grain area on the other hand declined. Yet grains still occupied three-fourths of the arable land in 1959; corn alone covered 36 percent and wheat 31 percent.

In an effort to put the country on a self-sufficient basis in vegetable oils and sugar, the government succeeded in greatly increasing the sunflower and sugar beet area in 1959.

According to official statistics, the area in orchards has declined since before the war. The government plan is to increase the orchard area to 300,000 hectares by 1965 and 550,000 hectares by 1975. Similar increases are planned for the vineyard area which, however, has increased since 1938.

TABLE 4.--Arable land: Distribution by crop, average 1934-38, annual 1957-59

Crop	1934-38	1957	1958	1959
	Percent	Percent	Percent	Percent
Grains.....	81.1	77.5	75.7	74.6
Potatoes.....	1.5	2.7	2.8	2.8
Fresh vegetables.....	1.0	2.1	2.1	2.1
Oleaginous crops.....	1.2	3.9	4.5	6.3
Dry legumes.....	1.0	.8	.8	.9
Sugar beets.....	.3	1.4	1.4	2.1
Fodder crops.....	6.3	8.1	8.5	8.7
Fallow.....	<u>1/6.7</u>	1.2	2.4	1.8
Other.....	.9	2.3	1.8	.7

1/ 1938.

Anuarul Statistic Al R.P.R. 1959, pp. 144-147.

Buletin Statistic Trimestrial 3, 1959, pp. 44-47.

Input of Resources

Farm Labor Force

The February 1956 census showed that of the 10.5 million people gainfully employed in Rumania, about 7 million were on the farm; of this total 54 percent were women. There was one person for every 2 hectares of farmland.

The nation's total population has been increasing at the relatively high annual rate of 1.4 percent. The nonfarm sectors of the economy have expanded only fast enough to provide jobs for the natural increase in the labor pool, while the farm labor force has remained roughly equal to that of 1938. The government may not be too anxious to press mechanization and release farm workers as long as there are not enough openings in industry.

The abundant normally underemployed farm labor force apparently is inadequate during the busy harvest seasons when additional hands are recruited from the factories, schools, and the military.

Mechanization

The general level of mechanization in Rumanian agriculture is very low. Although the inventory of tractors and other equipment has expanded rapidly in postwar years, at the start of 1960 there was still only one tractor for 270 hectares of plowland; for each combine there were 300 hectares of small grain area. Corn, the country's main crop, still is harvested almost completely by hand.

Much of the machinery available is obsolete, worn out, and in need of frequent repair. This is costly from both the standpoints of fuel waste and parts replacement. Furthermore, parts are usually hard to obtain. Thus, breakdown often results in the tying up of machinery for inordinate periods of time; idle equipment is a common sight in Rumania.

The distribution of machinery on different types of farms is uneven. State farms own 45 percent of the tractors and over half of the grain combines, but they account for only 13 percent of the arable area. Most of the field operations on these farms are mechanized.

The Machine Tractor Stations (MTS) own roughly half the total farm equipment (except combines). These state-owned stations function primarily for the collectives; in 1958, 86 percent of the total work performed by the MTS reportedly was carried out on these units.

Private farms are the least mechanized in Rumania. In 1958, when the private sector included about half the country's arable area, private farmers possessed less than 10 percent of the tractors. At that time, however, they owned 85 percent of the draft animals. The reduction of the private sector since then has left it with an insignificant number of tractors but still far more than its share of draft animals.

The policy of the government has been to give state farms priority in the allocation of machinery and to direct the bulk of the remainder to the MTS. A major role of the MTS has been to make what little machinery that is available to them stretch as far as possible. The stations contract for work with producers at the start of each agricultural year.

TABLE 5.--Principal machines: Total units and MTS inventory in 1959 and 1960 ^{1/}

Type of machine	1959		1960	
	Total	On MTS's	Total	On MTS's
Tractors (units).....	32,920	16,377	36,529	19,752
Tractor plows.....	32,875	17,686	38,000	21,978
Mechanical planters.....	16,788	7,170	23,100	11,524
Mechanical cultivators.....	14,951	7,981	18,300	10,591
Reaper-binders.....	7,272	4,839	6,705	4,914
Combines, self-propelled....	1,584	544	1,584	(2/)
Combines, tractor drawn.....	7,461	1,972	10,801	(2/)
Threshers.....	14,665	8,368	13,412	9,480

^{1/} January. ^{2/} Unavailable. Anuarul Statistic Al R.P.R. 1959. Buletin Statistic Trimestrial 4, 1959, p.45 and 2, 1960, p. 49.

Besides furnishing producers with mechanical assistance, these units have functioned as levers in the regime's collectivization drive by favoring collectives with their service. Socialist units are not only given priority in the work plan of the stations but are also charged lower rates than private farmers.

MTS's have also assisted the government in procuring grain and other crops for the central reserve of agricultural products. Payments-in-kind for MTS services are an important source for urban food supplies and exports.

The number of MTS's has been increasing slowly in recent years; in 1953 there were 220 stations, in 1956, 235, and at the beginning of 1960 a peak of 243 stations was reached. The average size in terms of equipment has grown more rapidly. In 1953 there were 46 tractors per station while at the start of 1960 the number was 68.

The stations are distributed throughout the country, with the general idea that each one services about 10-15,000 hectares of arable land.

In early 1960 the average MTS had 174 employees. Among these are tractor drivers, mechanics, and a large corps of administrative personnel.

A major problem the regime has had with the MTS system is in getting the station employees interested in production. For example, tractor drivers are not concerned with high yields; they are more interested in getting the job done as quickly as possible because they are paid according to how much land they plow, cultivate, etc. To meet this problem, tractor drivers are grouped into brigades (three to five drivers in each) under a brigade leader. Brigades have been assigned to certain collectives where their work presumably can be more closely supervised. This is a step toward doing away with MTS's and giving the equipment over to collectives, a process already underway in the Soviet Union, Czechoslovakia and Bulgaria. Rumania, however, is still a long way from this because there is still far too little machinery to be distributed to the collectives.

Plans for mechanization of Rumanian farming are ambitious. By 1965, there are to be 100,000 tractors (1 per 100 hectares of arable land), 43,000 small grain combines and 8,000 corn combines. These goals hinge, of course, on industrial development in the impending 6-year plan.

Fertilizer

The principal source of fertilizer in Rumania is stable manure. In pre-war days manure was used extensively for heating and insulating peasants' huts. Although this practice is opposed by the present regime it is probably still followed to some extent.

Chemical fertilizer is used only to a very limited extent; consumption per hectare of plowland is estimated at roughly one-tenth the all-European average. State farms and collectives consume the lion's share of the small supply that is available; it is applied mainly to corn, wheat, potatoes and sugar beets.

Fertilizer production in Rumania consists mainly of superphosphate, most of which is derived from imported raw materials. A lesser amount of nitrate fertilizer is produced, mostly in the form of ammonium nitrate. Potash is not produced, but Rumanian soils, in the main, do not require much potassium; the small amount that is used is imported.

Production of chemical fertilizer in 1959, which almost equaled the total for the previous 3 years, still amounted to only 5.6 kgs. of pure nutrients (actual weight, 30 kgs.) per hectare of arableland.

The second 5-year plan (1956-1960) set a consumption target of 1 million tons (actual weight) of chemical fertilizer for 1960. When it became apparent that this goal could not be reached, it was cut to 625,000 tons. With production at roughly 280,000 tons in 1959, even the downgraded 1960 goal apparently was far from realized.

By 1965, the regime foresees a production of 2 million tons of fertilizer, which would approximate 200 kgs. (actual weight) per hectare of arable land. Long-range plans call for production of 5-6 million tons (1.5 - 2 million tons of plant nutrients) by 1975.

Rural Electrification

In 1959 some 2,930 Rumanian villages (one-fifth of the total) had access to electricity. Although the proportion is small it represents progress since 1945 when less than 1,000 villages had electricity. Nevertheless, dissatisfaction has been expressed even by the government at the relatively slow pace of electrification compared with the rapid socialization of the countryside.

According to a decree, the government contributes 20 percent of the cost involved in bringing electricity to a village. The village inhabitants must furnish labor, some materials, and funds (payable in either cash or farm produce) equal to the remainder of the cost. Priority is given in assisting those villages which deliver to the state (under contract, compulsory delivery, etc.) the largest share of their farm production.

Almost all the electricity used in Rumanian agriculture is consumed by MTS's, state farms, and, to a lesser extent, collectives. Some of the MTS's equipped with generators have assisted in extending electricity to nearby villages.

Land Improvement

The principal land improvement measures employed in Rumania are: Irrigation; draining of floodlands and marshes; conversion of saline soils to cropland; stabilizing mobile sands; clearing permanent pastures and meadows; and halting soil erosion.

Irrigation is favored in Rumania by an abundance of watercourses. Sprinkler systems have been introduced but almost all irrigation is done

through ditches. In 1959, 176,000 hectares were under irrigation. Vegetables are the main crop irrigated but increasing attention is being given to irrigating field crops, especially corn. The plan for 1960 called for the irrigation of 240,000 hectares about half of which was to be on state farms. By 1965, 800,000 hectares is to be under irrigation. The 1975 target is 2 million hectares.

Reclamation of floodlands and marshes receives much attention as means to increase arable land. The government claims that the high yields attained on drained land have made this program especially rewarding.

Reclamation of saltlands and shifting sands each could bring at least 100,000 more hectares into production. Priority has not been given to these programs apparently because they are more costly and time-consuming than draining floodlands.

There are 300,000 hectares of natural pastures and meadows with very low productivity in the southern part of the country that are overrun with bramble. The government intends to have this area plowed up and put into crops, mainly corn. This project will have to include irrigation because it will be in the country's driest region.

Erosion, mostly due to torrential downpours in the hilly areas, has been a heavy drain on the country's farmland. Anti-erosion practices, such as contour plowing, are uncommon in Rumania. It was reported that over the years almost 1 million hectares have been rendered unproductive by soil erosion; an additional 3 million hectares have been badly damaged by erosion. On the other side, the government claims that 300,000 hectares of eroded area has been improved in the past 15 years. During the past 2, it has shown increased attention to halting erosion. To help implement the program, nine soil conservation centers have recently been set up across the country.

Much of the labor used to carry out land improvement measures has been recruited from urban areas. "Voluntary work brigades" consisting of peasants, factory workers, professional men, students, and the military have been a common sight in the Rumanian countryside during the past few years.

Production

Rumanian agricultural production consists chiefly of crops grown for human consumption at home and abroad. Though livestock products have gained in importance during the past decade they still account for only about two-fifths of the total value of "end use" output. Agricultural production as estimated for the crop years of 1958 and 1959 was about one-fourth above the average for 1934-38; this increase was only slightly greater than the growth in population for that period.

As in other Satellite countries agricultural development in Rumania has been retarded by the regime's effort to promote heavy industry at the expense of the farmer. Forced sale of farm products at very low prices has been a prime source for the diversion of resources from agriculture to

industry. Forced collectivization also has discouraged farm production although in theory it has provided a basis for more efficient use of the country's limited farm equipment. During the latter part of the 1950's marketing and price policies were modified to give farmers more incentive to produce but pressure for collectivization remained strong and investment in agriculture relatively small.

Crops

Overall Rumanian crop yields are little different from those attained before the war and are among the lowest in Europe. The backward farm practices which still prevail make yields highly sensitive to weather conditions; recurrent droughts (as in 1956 and 1958) cause very sharp drops, while in good crop years (as in 1957 and 1959) yields far exceed the average. Yet even in 1957 when growing conditions in large parts of Europe were less favorable than in Rumania, Rumanian yields ranked low, amounting to 84 percent of the average for Europe (excluding the Soviet Union) for corn, 54 percent for wheat, 65 for barley, 64 for oats, 53 for sugar beets and 75 for potatoes.

Since state farms and collectives have been favored in the allocation of the country's limited supplies of farm machinery, fertilizer, and other means of production, it is not surprising that crop yields on these socialist units should exceed those of private farmers. It is interesting to note that, according to official figures, private farmers fare about as well as their socialist counterparts in growing potatoes and sugar beets, which still require a great deal of hand labor.

TABLE 6.--Principal crops: Yield per hectare on socialist and private farms, 1958 and 1959

Crop	Year	State	Collective:	Private	Total
		farms	farms	farms	farms
		Quintals	Quintals	Quintals	Quintals
Wheat, fall.....	1958	12.9	11.1	8.8	9.8
	1959	17.1	13.9	12.2	13.4
Rye.....	1958	12.0	9.1	8.8	8.8
	1959	12.2	10.7	10.4	10.8
Barley, fall.....	1958	15.2	13.7	10.2	13.2
	1959	19.7	15.7	12.3	15.5
Oats.....	1958	11.2	9.9	7.5	8.1
	1959	14.9	12.9	8.9	10.5
Corn.....	1958	12.6	12.9	9.4	10.0
	1959	17.6	17.2	14.9	16.0
Sunflower <u>1/</u>	1958	10.0	9.7	6.8	7.7
	1959	10.3	10.8	9.0	10.0
Potatoes, fall....	1958	102.6	108.8	107.8	107.8
	1959	106.3	102.5	102.5	103.6
Sugar beets.....	1958	137.8	134.4	123.4	122.4
	1959	162.7	199.0	154.5	171.1

1/ Includes that planted as main crop only.

Anuarul Statistic Al R.P.R. 1958, 1959.

Buletin Statistic Trimestrial 4, 1959, p. 47.

Corn historically has been the major crop produced in Rumania. During 1955-59 it occupied 37 percent of the total area under cultivation. Corn is not only a basic animal feed but also a staple in the Rumanian diet and an important export item. It has been labeled "the foundation of Rumanian agriculture."

Hybrid corn seed has been used on a large scale only during the past few years. In 1958 it was sown reportedly on less than one-tenth of the corn area and in 1960 on about one-fourth of it. Yields attained from the hybrid plantings have been exceeding yields of open-pollinated varieties by perhaps 50 percent

The plan for 1960 corn area called for an increase to 4 million hectares, or about 40 percent of the total arable area. However, by 1965 the area in corn for grain is to be cut to roughly 3 million hectares, while yield is envisioned at 25 to 28 quintals per hectare (assuming normal crop conditions) and production 8 million to 9 million metric tons. With the use of only hybrid seed and much more fertilizer, machinery, and irrigation, plus good weather, it would be possible to attain these levels. But it is doubtful that these favorable conditions will prevail in 1965.

Silage corn is becoming an important animal fodder. In 1959 it covered 116,000 hectares, and the 1965 plan envisions 1.2 million hectares. Its area is to be extended mainly at the expense of corn for grain but it also will be planted as a second crop, following early crops (as legumes), in about mid-June. This practice was reportedly initiated in Rumania in 1960.

Wheat has been increasing in importance; its area reached a peak of almost 3 million hectares in 1959. The government has long favored greater wheat production so that it might replace corn in the diet and thus evidence an increase in the standard of living. Plans indicate the maintenance of present wheat area and dependence upon higher yield to increase production to over 5 million metric tons by 1965. To attain this goal, emphasis will be placed mostly on use of better seed.

Barley, oats, and more recently rye have declined sharply in importance since prewar days. Land formerly allocated to these crops has apparently been put to more profitable use, such as in cultivation of sunflower and wheat.

Sunflowerseed became a major source for edible oil during the war years and, though declining steadily between 1950 and 1957, remained high above the prewar level. Its cultivation was increased in 1959 to more than 1/2 million hectares; according to plans it will remain approximately at that level. Increased production is to come from a yield envisioned at 15 quintals per hectare in 1965 compared to the actual 1959 yield of 10 quintals. Sunflower now accounts for roughly four-fifths of the oilseed production. Other oil crops grown are soybeans, castorbeans, flax, mustardseed, rapeseed, poppyseed, and pumpkinseed.

TABLE 7.--Principal crops: Area, yield, and production, average 1934-38, annual 1948-59

Commodity :	Unit :	1934-38 :	1948 :	1954 :	1958 :	1959 :
Corn:						
Area.....	1,000 ha.	3,884	3,673	3,302	3,645	3,555
Yield.....	Quintals/ha.	10.4	6.2	15.0	10.0	16.0
Production..	1,000 m.t.	4,056	2,260	4,953	3,657	5,680
Wheat:						
Area.....	1,000 ha.	2,563	2,545	2,457	2,973	2,988
Yield.....	Quintals/ha.	10.3	9.4	8.7	9.8	13.4
Production..	1,000 m.t.	2,630	2,397	2,140	2,914	4,001
Barley:						
Area.....	1,000 ha.	839	479	438	292	289
Yield.....	Quintals/ha.	7.2	5.8	8.8	10.5	15.5
Production..	1,000 m.t.	602	280	386	305	449
Oats:						
Area.....	1,000 ha.	674	566	435	311	300
Yield.....	Quintals/ha.	7.8	6.6	8.2	8.1	10.5
Production..	1,000 m.t.	529	375	357	250	315
Rye:						
Area.....	1,000 ha.	179	113	195	140	119
Yield.....	Quintals/ha.	9.2	7.6	8.7	8.8	10.8
Production..	1,000 m.t.	165	85	170	124	128
Sunflower ^{1/}:						
Area.....	1,000 ha.	56	417	336	352	513
Yield.....	Quintals/ha.	8.7	3.0	8.2	7.7	10.0
Production..	1,000 m.t.	48	141	282	286	529
Potatoes ^{1/}:						
Area.....	1,000 ha.	151	172	250	271	276
Yield.....	Quintals/ha.	77.2	39.1	95.4	101.8	103.6
Production..	1,000 m.t.	1,318	717	2,397	2,777	2,897
Sugar beets:						
Area.....	1,000 ha.	26	67	107	141	201
Yield.....	Quintals/ha.	153.5	89.2	131.3	122.4	171.1
Production..	1,000 m.t.	393	597	1,408	1,732	3,446

^{1/} Area and yield include that planted as main crop but production also comprises that which is interplanted.

Anuarul Statistic Al R.P.R. 1959, pp. 144-155.

Buletin Statistic Trimestrial 3, 4, 1959.

Sugar beets were also sown on a record area in 1959, reportedly exceeding the previous year's figure by 40 percent. Plans call for an increase in yield to 250 quintals per hectare by 1965, to be gained by increasing the area under irrigation and the use of more fertilizer.

Potato area has expanded steadily in the postwar years; the record level reached in 1959 was 60 percent over the 1948 figure. Area in potatoes will have to be increased further to meet the planned production figure of 4 - 4.5 million metric tons at 1.5 metric tons per hectare in 1965. A sizable proportion of the potatoes produced is used for animal fodder.

Besides potatoes a large variety of other vegetables is produced in Rumania. The planned area for vegetables in 1965 is 185,000 hectares, or roughly the same as the 1959 figure. Among the principal vegetables are onions, cabbage, tomatoes, and garlic.

Tobacco area in 1959 was 10 percent below the record level of 1957. Exports of tobacco are estimated at roughly 1,000 metric tons in 1959; a slight amount of Turkish tobacco is imported for blending purposes.

Cotton cultivation, which reached 224,000 hectares in 1953, has declined to insignificance in the past 2 years. The effort to grow cotton on a large scale was a regime project which ended in complete failure simply because Rumania is not suited to its production. Other textile crops grown are fiber flax and fiber hemp.

The main fruits grown in Rumania include grapes, apples, pears, plums, apricots, peaches, and cherries. Plum brandy (slivovitz, known domestically as suica) is an important export item. Wine is also exported.

Livestock and Livestock Products

In contrast to land, livestock is still largely privately owned in Rumania. Besides the animals owned by private peasants, there is a large number possessed by members of collectives as part of their individual household economy.

Animal productivity is low in Rumania, lagging far below that in almost all other European countries. Higher output in postwar years has been due primarily to larger livestock numbers.

Cattle contribute the largest proportion to the value of livestock output. Although beef and veal are normally secondary to pork in meat output, dairy products give the edge in value of production to cattle over hogs. Most of the cattle in Rumania are eastern steppe breeds which are well adapted for draft purposes but poor producers of meat and milk. Simmental cattle, which were imported from Switzerland many years ago, make up an appreciable part of the livestock population. These cattle are good producers and generally are not used for draft.

Cattle numbers still have not recovered from the drop in late 1956 and 1957, caused by the intensive collectivization drive and short fodder supplies during that period. The state plan envisions a cattle population of 5.8 million by 1965.

Milk production in 1959 reportedly reached 25 million hectoliters, a record for Rumania. Of the milk produced that year, cow's milk accounted for 85 percent of the total and sheep and goat milk made up the rest. Production per cow is still only about 1,000 liters.

Hogs are not only the major meat source but are also important contributors to the fat supply. Both meat and lard-type breeds are raised, with the former predominating; about half of the hogs are of the alb de carne breed, and one-third are mangolitzza.

Hog numbers declined even more strikingly than cattle in 1956-57 and for the same reasons. In 1960, they were still 13 percent short of the 1956 high. Hogs are expected by the regime to reach 7.5 million by 1965. It is planned that total meat production will be expanded chiefly through higher pork output.

Both breeding cattle and hogs are being imported in an attempt to improve types. Early in 1960 it was announced that 400 Landrace hogs would be purchased from Canada. A number of breeding cattle has been imported from the United States and other countries on both sides of the Iron Curtain.

TABLE 8.--Livestock: Total numbers, selected years, 1938-60 ^{1/}

Type	: 1938	: 1948	: 1955	: 1956	: 1958	: 1959	: 1960
	Thou- sands	Thou- sands	Thou- sands	Thou- sands	Thou- sands	Thou- sands	Thou- sands
Cattle ^{2/}	3,653	4,183	4,630	4,800	4,470	4,394	4,450
Cows only	1,787	1,967	1,914	1,950	1,943	2,137	2,156
Hogs.....	2,761	1,591	4,370	4,950	3,249	4,008	4,300
Sows only	606	288	372	369	303	496	524
Sheep.....	10,087	10,634	10,882	11,120	10,374	10,662	11,200
Horses.....	1,581	932	1,120	1,150	1,309	1,223	1,110
Poultry.....	27,325	15,263	29,500	33,000	35,000	35,000	37,000

^{1/} January 1 numbers; 1938 may not be comparable with postwar data.

^{2/} Includes buffalo.

Anuarul Statistic Al R.P.R. 1959, pp. 195-196.

Buletin Statistic Trimestrial 1, 1960, pp.48-49.

Sheep numbers have held fairly steady in the postwar years. Wool production in 1959 was reported 21,000 metric tons but apparently was not sufficient to meet domestic needs. Some of the clip is kept on the farm to make clothing. Mutton accounts for roughly one-eighth of the meat consumed and sheep's milk for a somewhat smaller proportion of the milk supply. Government plans call for an increase in the quantity and quality of wool produced. Sheep numbers are to reach 13 million by 1965, with a decided increase in the fine and semi-fine wool breeds. The proportion of these types is now about one-third; many of them are Merinos.

Poultry is assuming a growing importance in Rumanian agriculture. The record level in poultry numbers in 1958 was probably stimulated by the stipulation that collective farm members may raise privately any number they desire. Egg production per hen reportedly averaged 70 in 1956. Poultry is a significant item in the regime's plan to expand food production. Chickens are the predominating type of poultry raised. Other types raised are geese, turkeys, and ducks. Imports of Rhode Island Reds, Leghorns, and other breeds of chickens have contributed to increased production.

Marketing of Farm Products

Farm products are marketed either through state organs or in the free markets. Although the state handles the dominant share of marketings, the free market is still an important source of urban food supplies. The co-existence of these dissimilar marketing systems is a corollary of the two different kinds of farms in Rumania--socialist and private.

Data on prices paid to Rumanian farmers are sparse. It is clear, however, that compulsory delivery prices have been far below those paid for state contract purchases. Moreover, it is believed that prices received on the free market generally exceed contract prices.

State-Controlled Market

The state-controlled market has as its source of supply compulsory deliveries, producer-state contracts, state farm deliveries, and producer's payment-in-kind of MTS fees. Government procurement under these arrangements forms the central fund of agricultural products; this fund furnishes the bulk of the urban population's food supply, agricultural raw materials for industry, goods for export, and the country's food stocks.

In 1959 the socialist sector, which at the beginning of the summer comprised 67 percent of the arable area, supplied 75 percent of the state's central fund for wheat, more than 60 percent of its corn, 66 percent of its sunflowerseed, and about 90 percent of its sugar beets.

Until 1957, compulsory deliveries were the main form for state procurement. Under this system, which was introduced in 1948, producers were compelled to hand over to the state a high proportion of their production. Prices paid for these deliveries were extremely low; indeed, the system was

very depressing to farm income. On the other hand, compulsory deliveries were an important source for state income. The products procured under this system were resold at great margins of profit which provided funds for industrial expansion. Kulaks were especially hard-hit by this form of state exploitation since the quotas imposed on them were much higher than those assigned to smaller producers. Compulsory delivery quotas were perhaps the most effective measure in forcing kulaks into bankruptcy and their land into the socialist sector. These quotas were abolished, except for meat and wool, on January 1, 1957; contracts to deliver meat and wool to the state can be substituted for compulsory delivery quotas.

A system of producer-state contracts has been established and is destined eventually to replace compulsory deliveries. Contracts were introduced to a limited extent in 1953 (only for industrial crops, vegetables, fruit, milk, and meat). In 1955, 600,000 hogs were purchased under contract by the state. By 1957, contracts were negotiated for virtually all kinds of farm products. In 1959, contracts were signed for roughly 480,000 tons of wheat and rye, 475,000 tons of corn, and 260,000 tons of sunflowerseed. These totals represented sizable increases over 1957 and 1958, and are in addition to procurements from state farms.

The Ministry of Consumer Goods, through its local agents (consumer co-operatives), handles government contracting. Although contracts allegedly are voluntary, some pressure undoubtedly is exerted on producers to sign. Contracts are usually signed at the beginning of the agricultural year. For intensively cultivated crops (as vegetables, industrial crops) the contract contains extra provisions regarding area sown and materials to be used in production. Contracts for cereals contain only the sum to be delivered and the price.

Advantages offered to producers who sign contracts include advance payment of a share of the value of products to be delivered and the opportunity to purchase quality seeds, fertilizer, tools, etc., from the consumer co-operatives at reduced state prices.

To assure a steady flow of goods, the state encourages contracts on a long-term basis. Contracts signed by collectives are automatically long term in the sense that they are extended each year unless abrogated by one of the contracting parties.

Government procurement of crops produced on state farms is automatic. State farms do, however, sign contracts for the delivery of livestock. Prices paid to state farms for their products are apparently close to those paid under contracts to other producers. Although revenue paid by the government to state farms is in a sense meaningless, these units are expected to be self-supporting. In 1959, state farms delivered 520,000 tons of wheat and rye (80 percent of what they produced) to the state purchasing organs.

Free Market

A free market for farm products can be found in every town and large village. These markets are especially active in good crop years when the producers can meet their obligations to the state and still have a surplus to sell privately. Collective members with household plots are important contributors to the free market because they generally have only small commitments to the state. Some producers simply do not have access to a private market due to their location; they have no alternative but to sell to the state.

Free market prices depend on supply and demand. However, the state attempts to keep these prices down by undercutting them in the state retail shops, but the quality and variety of goods in the free market are usually better.

Although the free market for farm products still operates under state sanction, merchandising of other goods is almost completely socialized. This paradox does not rest well with the government. It is intended eventually to liquidate this living example of capitalism just as private farming is to be abolished.

Foreign Trade in Agricultural Products

Rumania is a net exporter (in terms of value) of agricultural products. In 1958, products of farm origin comprised about one-fourth of the value of all exports, which equaled \$522 million.^{3/} A decline in the share of farm products in total exports has paralleled the growth of industrial exports, especially oil.

Imports of agricultural products account for less than 10 percent of all imports, which totaled \$502 million in 1959.

Foreign trade became a state monopoly in 1949. The Ministry of Foreign Trade supervises the operations of 11 large state trading enterprises; each one handles certain classes of goods. Agricultural trade (according to type of commodity) is conducted by three enterprises: Agroexport, which is in charge of the export and import of grains and other field crops; Prodexport, which handles trade of fruit, vegetables, and livestock products; and Rominoexport, which deals in textile and leather trade.

The composition and direction of Rumanian trade are often dictated by political motives. For example, large shipments of meat to the USSR were made prior to 1957 notwithstanding the extremely low domestic consumption of meat. Under the direction of the state, the importance of trade with different countries has changed drastically. Before the war, Rumania's main trading partners were in Western Europe. During the postwar period, about three-fourths of total trade has been with the Soviet Bloc, mainly the USSR. Trade with the United States, which accounted for 18.6 percent of Rumania's total commerce in 1947, dwindled to a mere 0.2 percent in 1959.

^{3/} Based on the official exchange rate of 6 lei per U.S. dollar.

The major farm exports are corn, livestock, meat, vegetables, fruit, wine, and dry beans and peas. Corn is exported in substantial quantities to both sides of the Iron Curtain. In 1957-58, corn shipments are estimated roughly to have equaled 500,000 tons. Of this amount, 165,000 tons went to Western Europe, 212,000 tons to the USSR and most of the remainder to East Germany and Czechoslovakia.

In the future the government envisages a switch in exports to livestock and livestock products rather than corn. Corn would, in other words, be converted to products of animal origin and exported in that form.

Exports of livestock are currently lagging behind prewar quantities, especially since 1958 when hog and cattle numbers fell to a low level. However, with numbers once again on the rise, plus the government's interest in developing foreign markets, prospects are for an increase in livestock and meat exports.

Before the war, Rumania was an important exporter of wheat and barley. A big increase in the domestic consumption of wheat and a two-thirds reduction in barley cultivation have reduced these exports to insignificance. In fact, Rumania imported 450,000 tons of wheat from the USSR following the extremely poor grain crop in 1956.

TABLE 9.--Trade in principal agricultural products: Quantity, 1958 and 1959

Commodity	Exports		"	Commodity	Imports	
	: 1958	: 1959			: 1958	: 1959
	: 1,000	: 1,000	"		: 1,000	: 1,000
	: <u>tons</u>	: <u>tons</u>	"		: <u>tons</u>	: <u>tons</u>
Grains, total <u>1/</u>	476.0	223.0	"	Cotton, raw	46.1	42.2
Meat and meat preparations	4.4	16.8	"	Sugar	39.9	28.0
Vegetables, canned and fresh	20.8	31.1	"	Vegetable oils, edible	32.4	22.7
Fruit, canned and fresh <u>2/</u>	126.3	129.1	"	Rice	17.0	20.9
Wines	38.3	24.0	"	Wool	2.8	2.5
			"	Raw hides	11.3	8.7
			"	Olives	4.5	5.4
			"			

1/ Corn undoubtedly makes up the bulk of the total.

2/ Includes grapes and nuts.

Rumanian Statistical Pocketbook, 1960, pp. 193-196.

NOTE: Trade Statistics of Rumania have not been published in complete form. The above information recently released is the most comprehensive thus far published by the Rumanian Government.

Imports of agricultural products in 1958 and 1959 consisted mainly of cotton, wool, raw hides, sugar, vegetable oils, and rice. Cotton supplies, virtually all imported, come primarily from the USSR (71 percent in 1958 and 1959) and also from Egypt.

Sugar imports dropped off sharply in 1959 and probably were discontinued in 1960. The increase in sugar production via greater sugar beet area apparently has made the country self-sufficient in sugar, but at a low level of consumption.

Vegetable oil imports fell in 1959, due to a sharp rise in oilseed (sunflower) area. Rumania apparently was able to discontinue these imports in 1960.

The future course of Rumanian foreign trade hinges on the plans of the government as well as on the country's role in the Soviet-dominated Council of Mutual Economic Assistance (CEMA). The government has put it this way: "An especially important factor in Rumania's economic development is the existence of the socialist world's economic system, economic collaboration and comradely mutual aid with the socialist camp countries (CEMA) on the basis of international socialist division of labor." 4/

Specifically, Rumania has been asked by CEMA to produce more agricultural products, especially grains, fruits, and vegetables for export to the deficit areas of Eastern Europe.

With respect to trade prospects with Western countries, Rumania is apparently anxious to expand contacts. The major barriers in increasing trade with the Free World are Rumania's commitment to CEMA and a lack of foreign currency reserves.

Food Situation

The average Rumanian diet has improved somewhat in recent years. However, fully two-thirds of the total calories still are derived directly from grains; in prewar days this proportion was three-fourths.

Perhaps even more significant than the decrease in the position of grains is the shift in the kind of grains consumed. For many years the staple of the diet has been corn, consumed in a meal and water porridge called mamaliga. This dish has been associated with underdeveloped Rumania for centuries; the replacement of mamaliga with wheat flour has long been a political issue. The Communist government, notwithstanding its stated intentions to the contrary, has until recently upheld the position of mamaliga in the diet. In the last few years, however, wheat apparently has been the main cereal consumed, but corn holds a strong second position.

Average per capita consumption of grain in Rumania is among the highest in Europe. Per capita consumption of meat, dairy products, sugar, and fats and oils, judged by West European standards, is still low, even though postwar increases have been marked for some of these products.

4/ Communiqué of the government published on May 19, 1960.

Population: 18,155,000

TABLE 10.--Estimated food balance, 1958-59 (excluding alcoholic beverages)

Product	Supply			Utilization					Supply for food		Net	
	Production	Net trade	Total supply	Seed and waste	Nonfood uses	Industrial	Feed	Total	Extr. rates	Total		Per capita
				1,000 metric tons					Percent	1,000 m.t.	Kilograms	Calories
Wheat and rye.....	3,038	175	3,213	650	30	15	695	2,518	80	2,014	110.9	1,060
Corn.....	3,657	-170	1/3,937	232	1,868	100	2,200	1,737	85	1,476	81.3	810
Rice, milled.....	24	20	44	4			4	40		40	2.2	20
Other grain.....	555		555	108	379	30	517	38	65	25	1.4	15
Total grain.....	7,274	25	1/7,749	994	2,277	145	3,416	4,333		3,555	195.8	1,905
Sugar, refined.....	168	34	202							202	11.1	120
Potatoes.....	2,777		2,777	2/497	3/1,030	50	1,577			1,200	66.1	125
Dry legumes.....	129	-25	104	19	10		29			75	4.1	40
Other vegetables.....	1,500	-26	1,474	300			300			1,174	64.7	40
Fruit (in terms of fresh) 4/	790	-125	665	120			120			545	30.0	40
Meat (carcass wt.).....	420	-10	410							410	22.6	115
Fish (landed wt.).....	31		31							31	1.7	5
Fats and oils (fat content).....	177	32	209			19	19			190	10.5	255
Cheese.....	113		113							113	6.2	30
Whole milk.....	2,370		2,370	600	5/830		1,430			940	51.8	95
Eggs.....	100	-2	98							98	5.4	20
Total consumption												2,790

1/ Includes a decrease in stocks of 450,000 tons.

2/ Seed only.

3/ Includes waste.

4/ Excludes fruit for wine and brandy.

5/ For the manufacture of butter and cheese.

Based partly on official data, partly estimated.

Meat consumption is roughly equal to prewar levels, but amounts to only about half the per capita average for Western Europe.

Milk and egg consumption have been increasing but are also equal to only about half of what is consumed per person in Western Europe.

Sugar consumption, as in other southeastern European countries, has increased sharply. Still, it equals only about one-third of the average in West European countries.

Fats and oils intake has risen rapidly, mainly due to higher sunflower production. Vegetable oil consumption has doubled since before the war. However, per capita consumption of fats and oils remains about half the West European average.

On balance, the moderate increase in farm production since prewar days has not been sufficient, except for sugar and vegetable oils, to supply significantly larger quantities of food. The rapid population growth itself has required a sizable increase in food production each year. Smaller food exports compared to the past have added somewhat to food supplies in recent years.

The increase in farm production foreseen in the long-term state plans would not raise Rumanian food consumption to present West European standards. Furthermore, if production plans should be met, the state might choose to export a good share of the increased food supplies in order to obtain foreign currency for purchase of industrial materials abroad.

Plans

State plans for agriculture are formulated at a high level in the central government. These directives are handed down through regional state organs to local officials who have direct contact with plan execution.

Both annual and long-term plans are drawn up. The second 5-year plan, ^{5/} which was to be completed in 1960, was suddenly terminated in 1959, probably because targets obviously were out of reach; 1960 was made the first year of a new 6-year plan (1960-1965). The other Soviet Bloc countries have also drawn up long-range plans to end in 1965, presumably to facilitate coordination among their economies. In addition, Rumania has published targets for 1975.

Rumania's overall level of farm production in 1965 is envisaged at 70-80 percent above 1959 (a far better than average year). By 1975 production is scheduled to be as much as three times as great as the 1959 output.

Such rates of increase would appear beyond the power of agriculture in any country and particularly in countries like Rumania where the government places so much stress on heavy industry at the expense of agriculture. Rumanian farm production plans are based on tremendous strides in farm technology, including the use of much more fertilizer, farm machinery, quality

^{5/} The first 5-year plan ran from 1951 to 1955.

TABLE 11.--State plans: Production targets for 1960, 1965, and 1975 compared to actual achievement in 1934-38 and 1959

Item	Unit	Actual level			Target		
		1934-38 average	1959	1960	1965	1975	
Total grain.....	Million tons	8.0	10.5	15.0	14.0-16.0	20.0-22.0	
Wheat and rye.....	-----do-----	2.8	4.1	5.5	5.0-5.4	5.0-6.0	
Corn.....	-----do-----	4.1	5.7	8.0-9.0	8.0-9.0	10.0-12.0	
Sugar beets.....	-----do-----	.4	3.4	3.0	(3/)	8.0-9.0	
Sunflowerseeds.....	-----do-----	.05	.5	.4	.8	1.0	
Potatoes.....	-----do-----	1.3	2.9	3.5	4.5-5.0	6.0	
Milk (cow's).....	Million liters	14.5	<u>1/</u> 19.5	25.0	50.0	(3/)	
Eggs.....	Billion pieces	1.4	2.2	(3/)	4.5-5.0	(3/)	
Cattle.....	1,000	3.7	<u>2/</u> 4.5	5.0	5.8	8.0-9.0	
Hogs.....	-----do-----	2.8	<u>2/</u> 4.3	6.0	7.5	10.0	
Sheep.....	-----do-----	10.1	<u>2/</u> 11.2	15.0	13.0	13.0-14.0	
Tractors, 15 hp. equivalent.....	-----do-----	4.9	<u>2/</u> 51.7	62.7	100.0	150.0	
Chemical fertilizer (actual weight).....	1,000 tons	<u>4/</u> 12	280	1,000	2,000	5,000-6,000	
Silage corn <u>5/</u>	1,000 hectares	--	116.5	200	1,200	(3/)	

1/ 1958.

2/ 1960.

3/ Not available.

4/ 1938.

5/ Area.

Based on official published statistics and plan directives.

seeds, and irrigation. But even if inputs are as great as planned--a condition that has not been met in the past--agricultural output is unlikely to show anywhere near the rate of increase planned.

Prospects are for a continuation of the pattern of recent years, i.e., moderate crop production increases with intermittent bumper crops and drought years. Livestock yields should climb steadily. The weather will continue to be the dominating factor and much will also depend on how well the state can meet its technology commitment to the producers and organize production on collectives and state farms.

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