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COLLECTIVE FARMING IN RUSSIA AND THE UKRAINE[1]

By Sir JOHN RUSSELL, F.R.S.

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AT the outset I must remind you of a few geographical facts in regard to European Russia. It is a vast rolling plain, with no mountains except at its edges, but it has a backbone of higher land in the center so that most of the rivers rise here and wind slowly north, south or east to the sea. Moscow at the center owes its rise and development to the fact that it is near to all of them. The rainfall (including the snow) is highest in the west central part and falls off as you go to the southeast, but it is nowhere high by English standards: not more than 25 inches. In the wetter part there is much forest; coniferous trees and birch in the north, more deciduous trees in the center and to the south, but with much marsh. To the southeast, where the rain suffices for grass but not for trees, there is the black earth and the steppe, and still further eastwards the steppe becomes more arid in character. The forest and the steppe have given a distinctive character to Russian life, just as its rivers have played a great part in shaping its history. It is impossible to convey any adequate impression of the vast size and almost endless solitude of Russia: even in 1935 only about 6 per cent. of the land of European and Asiatic Russia was in cultivation; the rest was mostly wild.

From early times the Russians adopted a system of agriculture very much like the old three-field system, with its scattered strips common in northern Europe. Alongside a feudal system very different from ours were the peasant Communes who held in common the land alloted to them, periodically redividing it among themselves. The peasants' share grew steadily, and

[1] Afternoon lecture, Royal Institution of Great Britain, December 18, 1941.

they always wanted the whole of it; they had an unchangeable belief that the land belonged to the men who tilled it. There is an old peasant saying: "My back belongs to my master but the land belongs to me"—and this in spite of another: "The peasant's back is made to be beaten."

The agricultural system had two grave defects: it was incapable of technical improvement and the scattered strips involved much waste of time. Stolypin in 1910 had arranged for consolidation of the holdings and for the establishment of peasant farms with state loans to finance improvements, the logical outcome would have been the Danish cooperative system. But before his reforms could achieve results the war came on and then the Revolution. The peasants joined in the liquidation of the landlords, believing that at last the whole of the land would be theirs. They were bitterly disappointed when they found it was not.

One of the earliest of the new activities was the establishment of state farms. They were on factory lines. The farms were very large, so as to secure all the advantages of large-scale management and allow of the fullest use of machinery and of scientific methods; one of the best known was Gigant on the Don Cossack steppe about 120 miles due eastwards from Rostov. When I first visited it in 1930 it exceeded half a million acres—considerably larger than Leicestershire—and, as usual in those days, the director was a politician, the justification being that the purpose of all the national activity was the founding of a new order of society, and the detailed work of running a farm was only incidental thereto. He had, however, a technical adviser, but the director need not accept his advice. I still remember the long and impassioned speech on the principles of Marxism and Communism to which I had to listen on a hot day in August, with the camera men and their dazzling searchlights actively at work the whole time. The area proved too big. Another one I visited was half the size—but still nearly as large as Bedfordshire. The workers, instead of living in separate cottages, were housed in great barracks; they had their separate bedrooms, but a common dining room; there was also a large meeting room—a sort of theater. As everywhere in Russia there were political slogans in huge letters on scarlet banners hung up on the walls, with portraits of Lenin, Marx and Engels. On my second visit in 1934 the slogans were a little different: "Practice self criticism; do not judge by looking at other people's faces"; "Develop Party Politics" and the portraits had changed, more prominence being given to Stalin.

But the peasants never really liked these state farms and they were not developed. There was for a time a period of what was almost peasant proprietorship, which the peasants liked much better. It was the so-called "New Economic Policy," dominated by Bukharin's slogan of 1925, "Peasants, get yourselves rich!" But it was theoretically objectionable, so was given up. It was replaced by a new method, Collectivization, introduced in 1927 and actively developed from the spring of 1929; the method is attributed to a Ukrainian. The entire village and all its agricultural land was to be run as one farm. All land divisions were to be obliterated and the whole area, which might be 2,000 acres or more—in the south and the Volga regions it might be up to 10,000 acres—was divided into some half-dozen fields, to correspond with the rotation; the whole village population were to come in as workers. No wages were to be paid but all their possessions were to be pooled and all the produce shared after the necessary outgoings, including the Government share, had been met.

There was at first tremendous opposition on the part of the peasants. They understood the idea of collective ownership of land but not of livestock. Those who had worked hard and built up a little farm, with a few animals and implements and stocks of seeds, greatly resented having it all taken away. Further, the poor harvests of 1931 and 1932 and the many requisitions of grain, left them faced with hunger and rather than give up their animals they killed and ate them, doing much other destruction; in short, they adopted the "scorched earth" policy, the Russian peasants' traditional method of dealing with a hostile situation. The government took a strong line and great numbers of peasants were removed and disappeared: how many will never be known; in the unequal struggle they lost as they were bound to lose. But Russia came near to starvation, and in the end Stalin called off the fight. The fall in numbers of livestock was enormous.

Several methods were adopted in trying to reconcile the peasants to the new order. Probably the most effective was the introduction of the tractor. The peasants were shown what it could do; how it could plough in one day far more than any of them could have done in a week, and so the tractor was sent round adorned with a banner and accompanied by a shock brigade practising all the arts of propaganda in which the Russians are such past masters, and compulsion as well. The tractor became much more than an implement; it became the symbol of advancing civilization—"overcoming the age-old backwardness and poverty of agriculture" to quote one of the slogans. The Russians, even the peasants, have an innate respect for what they call "culture": the connotation is much wider than in English and it includes all the amenities and decencies of civilized life. You not infrequently find notices telling you to use a particular appliance "in a cultural way"; you can not insult a Russian more deeply than to say that his actions are "uncultural." The propagandists were very zealous Communists fired

with missionary zeal and what seemed to an Englishman almost fantastic enthusiasm. You will find the full story in Sir Bernard Pares' remarkable little book on Russia, and dramatic accounts in Maurice Hindu's "Red Bread" and in Sholokov's "Quiet Flows the Don" and "Virgin Soil Upturned." I knew several of the propagandists: one, a White Russian peasant, who felt she owed everything to the Revolution, was almost the living image of the chief character in Sholokov's story.

What, however, most sharply distinguished the new system was that production was planned: the first five-year plan ran from 1928 to 1933; they were in the third when war broke out. Individual farms were not left to grow what they liked, they were told what they must grow and how much of it they were expected to produce. The plan is drawn up at the State Planning Committee (Gosplan) in Moscow, it allocates the respective shares to the different regions and notifies the governments of those regions. These can make suggestions for changes which are duly considered, but the final decision lies with Moscow. The regional government allocates the plan to the different districts and these to the different farms. Here again discussion is permitted, but once the final decision is made it must be accepted. So each collective farm knows what it has to do.

The plan for 1937 and for 1941 in comparison with the realization of 1938 are given in Table I.

TABLE I

AREAS PLANNED FOR SOWING IN 1937 AND 1941 AND ACTUALLY SOWN IN 1938

Million ha. 1 ha. = 2.47 acres	Plan for 1937	Realized in 1938	Plan for 1941[2]
Total area sown ...	138.9	136.9	157.0
Grain	104.0	102.4	111.0
Vegetables and Fruit		9.4	11.4
Fodder crops	13.7	14.1	22.5
Technical crops	11.0	11.0	12.0

Total area of U.S.S.R. 2109 million ha.

[2] N. Voznesensky. Economic Results of the U.S.S.R.—1940 and Plan—for 1941, Moscow 1941. It is not clear whether the boundaries are the same as in 1938.

The 1939 plan (Table II) shows the relation of collective to state farms and gives the proportion of fallow. The figures are in million hectares.

TABLE II

	Collective Farms	State Farms	Total
Spring crops ..	76.14	7.51	83.65
Winter crops ..	34.30	2.28	36.58
Fallow	29.63	3.18	32.81
	140.07	12.97	153.04

Great efforts are made to utilize science as fully as possible. Even before the Revolution Russia had possessed good agricultural colleges and agricultural research stations where important investigations on soil formation and soil classification had been carried out. After the Revolution these were greatly expanded and new ones were added.

Elaborate soil surveys were organized under Polynov at the Dokuchaiev Institute, which was founded at Leningrad but transferred in 1933 to Moscow, and soil maps were prepared for use in drawing up the plan for agricultural production. Investigations on the manuring of crops were made by Prianishnikov and his staff at the Timirazev Academy, and successful search was made for natural deposits of potash and of phosphate; nitrogenous fertilizers were made synthetically. Rotations were studied by Williams—son of an American engineer and a Russian mother—whose knowledge of English agriculture convinced him that grass and clover and cultivated crops must be included as they had been in England. He worked out basic rotations which have been adopted and modified in the different regions; it has been necessary to keep the fallow in most regions, but occasionally it could be replaced by crops where the rainfall is higher. The old three-course rotation was thus changed as shown in Table III.

TABLE III

OLD AND NEW ROTATIONS IN U.S.S.R.

Old 3 courses	Modern 6 or 8 courses: Williams' proposal[3]	Dry Regions (Saratov)	Moister Regions (Gorky)	(Ukraine)	Old Norfolk
Fallow	Fallow	Fallow	Fallow	Grass	Clover
Winter rye or wheat	Winter wheat	Winter wheat	Winter wheat	Winter wheat	Wheat
	2 years Lucerne and grass	3 years Lucerne			Cultivated crops
Spring corn	Spring wheat (hard)	Spring wheat	Spring corn	Spring corn	Spring corn
	Spring wheat (soft)				
	Sunflowers etc.	Sunflowers	2 years grass	Cultivated crops	
	Wheat		Flax	Millet	
	Millet etc.		Cultivated crops		
			Spring corn		
		Percentage of			
fallow 33	11	14	12.5		
grain 66	44	28	37.5	40	50

[3] Separate fodder crops are grown for the animals.

These rotations are not yet widely adopted; if they were the percentage of fallow would have been reduced to about 14; as it is, it is 20 to 25, which, of course, is a great improvement on the 33 per cent. of the old three-course rotation.

In addition to the central institutes, there are large institutes with research staffs studying the most im-

portant problems of the different regions. One of the best known of these is (or was) at Odessa, where Lysenko did much of his work on vernalization and on the production of new varieties of wheat and cotton, not on Mendelian but on Marxist lines. He comes of a peasant family and was greatly honored as the embodiment of the Revolution—the peasant become Academician.

The Saratov Institute is another example. It was started in 1929 and has expanded so that in 1939 it had a staff of 118 senior scientific and technical workers and 280 assistants, with a budget of 3 million rubles per annum; still further extensions were contemplated. Its principal work is the struggle against drought and the staff are daily reminded of this by a huge scarlet banner hanging up in the conference room and bearing Molotoff's slogan, "The Bolshevik struggle against drought is the organized struggle on Soviet lines for the harvest." The average rainfall of the region is only 12 inches per annum, and often there is less or it is badly distributed and then comes famine. Drying winds, dust and mist also do much damage. The chief crops are wheat and sunflower; the latter gives an oil much used in cooking; it makes good to some extent deficiencies of other fats. Suitable resistant varieties of both crops have been obtained by cross-breeding (in-breeding has been given up). Great efforts are being made to find out how to grow potatoes in these naturally unsuitable conditions. The potato crop is being extended wherever possible, its dietetic value being fully recognized.

Associated with these institutes are advisers who tour the countryside and keep in touch with the collective farms. These advisers have a local center, called a "hut" laboratory, usually a cottage fitted up as a museum or showroom, with pictures of common diseases and pests, specimens of fertilizers, improved varieties of seeds and other things about which the adviser would talk and, generally speaking, anything likely to interest or help the peasants.

The organization within the farm is comparatively simple. The members of the collective meet and elect a committee and a chairman, who, however, must be acceptable to the Party; he receives a higher rate of pay than the others. The ordinary members of the committee are not paid, however, but regard their service as a social duty. The committee decide how the plan is to be carried out, they can not modify it but only discuss how best to do it. They divide the workers into groups called "brigades" (military terms were used from the outset), each under a leader and they allocate the tasks. The numbers of workers per 100 acres are usually much higher than those to which we are accustomed.

There is also another official whose role is less easy to describe: the representative of the Party. When collectivization began Stalin had declared that the Party "can no longer confine itself to individual acts of intervention in the process of agricultural development; it must take over the leadership of the collective farms." Those I have met were not technical men; they have to see that the plan and also the decisions of the Party are carried out. In 1934 their influence was very great, but in 1937 and especially in 1939, I got the impression that it was less; also the function had changed;[4] the office had, of course, the usual photographs—Stalin, Molotov, Kalinin—but there were also exhibits of technical interest. Very few of the members of the collective are members of the Party, the idea is to keep it small and select so as to ensure obedience and efficiency. This is true all over Russia; by far the greater part of the population call themselves "sympathizers," and many of my Russian friends have assured me, especially in the years before 1937, that this was the safest line to adopt. A member of the Party might do well for a time, but if he got "purged" it was bad for him. The young people are advised to become Pioneers (aged 10 to 16) and afterwards Komsomolisy (ages 16 to 21) but only few will become Party members.

Rules and regulations are fairly numerous, and are posted in a prominent place for all to see. An outlet for the farmer's universally admitted right to grumble is found in the so-called "Wall Newspaper," a sheet written by hand and hung up prominently, where complaints may be voiced and offenders against the rules may be reproved. Thus you may read that Ivan Feodorovitch drinks too much and so doesn't get his day's work properly done; that Boris Dimitrievitch is an idle fellow and must mend his ways. In 1930 the wall newspapers had been very serious and I have known a professor put in considerable trepidation because a student had written saying that his lectures were dull and no one could learn anything from them. But as time went on the comic sketch and the humorous article began to appear.

Every effort is made to increase output. As between different farms and regions "Socialistic competitions" were started. In his speech at the 1934 Plenum of the Communist Party of the Ukraine, Postyschev declared that "we have aroused a tremendous war of socialist competition between regions and districts, collective farms and brigades. We discovered thousands of heroes of collective farm production." And in the wonderful agricultural exhibition in Moscow opened in 1939 there hangs, written in scarlet, Molotov's dedication: "This exhibition shows the whole program for agricultural improvement and should stimulate competition between farms and Machine Tractor Stations,

[4] See L. H. Hubbard, "Economics of Soviet Agriculture," pp. 157 and 319, for a full account.

between districts and regions and republics." A banner is given to the winner of a competition.

Other methods are applied to stimulate individuals to greater activity. Besides the admonitions of shirkers in the wall newspaper, direct encouragement is given to the best workers by publicly exhibiting their photographs. In the earlier days these best workers were organized in special brigades, the "shock brigades"—the udarniki—which were called in when work was specially important or urgent. They had certain special privileges. In recent years these specially effective workers are called Stakhanovites after a coal miner Stakhanov, who found a way of considerably increasing his output. As they are paid on a piece-work basis the more they do the more they earn. In 1939 the method was being intensified and a farm that exceeded its "planned" output was to receive a bonus on all excess deliveries, so that workers and especially its Stakhanovites would receive still higher rates of pay. In consequence one meets with great inequalities of income in Russia.

The payment on the farm is mostly in kind. Various outgoings have to be met. The government share has to be sent off; there is a very small payment for it. The machine tractor station has to be paid for its services, and provision has to be made for seed, insurance, capital expenditure and such social services as sick and needy, the crèche, etc. Whatever is left is shared among the workers in accordance with the number of "labor-days" they have put in: the classical formula "to each according to his needs" was found unworkable and was replaced by "to each according to his work" now embodied in Article XII of the Constitution. A "labor-day" is not counted by time but by the job. The committee decides that a certain job, such as the sowing of a certain area of land or the milking of a certain number of cows, is a day's work, and when this is done the worker gets credit for one "labor-day." He can accomplish two or even three "labor-days" in one day; then he gets double or treble pay. The calculation of the remuneration is very complex; it is made with an abacus, a little instrument possible only because everything is done on the decimal system: yields are in quintals per hectare and prices in kopeks and rubles (1 r. = 100 kopeks). Some of the figures are given in Table IV.

The system involves the peasant bearing the loss due to season or diseases, and in consequence even on the same farm the payment varies from year to year. In any given year the peasant never knows what he will receive until the harvest is in and the accounts all paid. Naturally during the year he has to draw advances.

It is not possible to say how much of the total produce is available for division among the peasants. Figures given me on a number of farms vary: some range about 50 per cent.[5], but this is still subject to loss on storage which may be considerable.

Troubles lasted for some time. I remember well in 1930 a disgruntled group of peasants who, having put the invariable question "Are you a worker?" and received a favorable reply, proceeded to show me a day's ration of bread, already mouldy and smelling badly, and then offered me some tobacco. I said I didn't smoke and they replied: "It is just as well, this tobacco would only make you sick." So also in 1934 there was much discontent. Then in 1937 I saw a marked change. The peasants had always wanted to own the land and this desire for ownership was recognized. By the new Constitution of 1936 the land and all that is beneath it was declared in Article 6 to be "state property, *i.e.*, the property of the whole people," but by Article 8 "The land occupied by collective farms is secured to them for perpetual use, *i.e.*, for ever." As I visited each farm in 1937 I was shown with great pride and with sparkling eyes the title deeds recently received, vesting the land in the collective forever. The peasants now believed that at last the land really was theirs. The long struggle, first with the landowners and then with the state, seemed to be terminated in their favor. Further, the peasant's desire for a piece of land of his own was granted. Article 7 stated that "Each collective farm household has for its own use a plot of land attached to the house and as

TABLE IV

VALUE IN MONEY AND KIND OF ONE "LABOR-DAY" IN CERTAIN COLLECTIVES IN DIFFERENT YEARS

		Shpitky, Ukraine			Karl Liebnecht Ukraine	Steingut	Saratov	Tarasocka Moscow
		1933	1935	1936	1936	1937	1938	1937
Grain	kilos	1	1.8	2	2.5	2	None	None
Potatoes	"	5	4	10	0.5	...	...	10
Hay	"	4	1	1.5	5	not measured		3
Vegetables	"	3	1.5	2	3	...	...	10
Apples	"	0.1	...	...	(Grapes 0.5 k	3	1	..
Honey	"	...	0.1	0.2	Wine 0.5 l.)		(Cherries 0.2)	..
Cash	r.	0.79	0.70	1.10	10	4.70	5.03	20

[5] From "Collective Farms in the Second Five Year Plan," a statistical summary issued by Gosplan, it appears that in 1937 the average "Labor-day" rewards per "Dvon" (household) were 17.4 q. of grain and R. 376 in money. This works out at about 30 per cent. of the total grain harvest and about 48 per cent. of the total money income.

individual property—the house, produce animals and poultry." Later decrees regulated the size of the holdings: they vary from half up to one or more acres, according to the region and the type of farming; on these the peasants can grow what they like. Each household was promised a cow, one or two pigs and some poultry. The peasants may dispose of the produce to the cooperative or in any way they please; there is, in fact, a good deal of selling in peasant markets especially by the women. Many found their own piece of ground more profitable than the collective. The peasant's wife and children may help him, but he may not pay any wage; that would amount to exploitation of a man's labor, which is forbidden. You may hire a person to look after your house or your dog if you have one, but not to look after your cow because that is an animal for production.

Thus the peasant's total income is derived partly from the collective, partly from his own plot and sometimes from other labor. The proportions vary a good deal. In the Gosplan publication already quoted the average income from labor-day payments per household in the collective farms in 1938 was 17.4 q. of grain and R. 376, while the total income was R. 5,843; putting the grain at R. 25 per q., the income from the farm is less than 14 per cent. of the total. On the other hand, the percentage distribution of working hours in 1937 was[6] as given in Table V.

Whatever the average, some workers instead of putting in the average two hundred labor-days on the collective, were putting in far fewer, and stringent orders were issued that not less than 60 to 100 labor-days per annum (according to the district) must be devoted to the farm.

In one direction, however, the private property took on very large proportions. It has been already stated that the livestock were drastically reduced when collectivization began. The numbers fell till 1933, then slowly rose, but the increase has been marked since the peasants were allowed animals of their own. By 1936 the numbers of animals on the collective farms were, in millions,[7] as shown in Table VII.

TABLE V

	Work on the collective	Work on private allotment	Work outside the farm	Domestic and other duties
Men ...	67.5	4.0	23.9	4.6
Women .	52.8	19.6	7.1	20.5

TABLE VI*

	Income: r. per worker per annum			Distribution of time		
	from collective	from private allotment	Per cent. of income derived from collective	on collective	on private	other work
Superior farms	5510	597	90	85	14	1.0
Good farms ..	4267	771	84.6	80	17.5	2.4
Medium farms	3035	849	78	72	22.6	5.4
Poor farms ..	2080	852	72			

* These figures show the impossibility of generalizing about collective farming. I am indebted to Mr. L. Hubbard for these and other data.

TABLE VII

Ownership	Cattle	Pigs	Sheep and goats	Land under crops, million ha.
Collective ...	14.8	6.3	22.75	116.0
Private	25.2	12.9	31.26	9.1
Private as per cent. of collective	172	207	137	8

(To be concluded)

INTERNATIONAL SCHOLARSHIPS AND FELLOWSHIPS[1]

By Dr. FRANK AYDELOTTE

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PERHAPS no great educational system has ever been so truly international as that of the United States. From Colonial days American students have gone abroad seeking education in every land under the sun, and from the time of their foundation American universities have welcomed, and indeed sought, students and professors from every country on earth. American education has never been isolationist.

At the end of the nineteenth century American students went in large numbers to the great German universities of that day and American scholarship owes much to German example. From Germany our students brought back the ideal of academic freedom which is rigorously maintained to this day in the

[6] As against this in "Communal economic foundations of Kolchoznik prosperity, 1941" it is stated that in the province of Voronezh the ratio of income from work on the collective farms and on private holdings was as given in Table VI.

[1] World-wide broadcast of the American Philosophical Society and WRUL, Philadelphia, June 19, 1942.

[7] *Kolkhozy vo vtoroi Stalinskoi Piatiletke, 1940.* Beside these animals there are others on the state farms, but even when these are added in the privately owned animals are still 40 per cent. of cattle and pigs and 30 per cent. of sheep and goats.