

INFORMATION REPORT INFORMATION REPORT

CENTRAL INTELLIGENCE AGENCY

This material contains information affecting the National Defense of the United States within the meaning of the Espionage Laws, Title 18, U.S.C. Secs. 793 and 794, the transmission or revelation of which in any manner to an unauthorized person is prohibited by law.

S-E-C-R-E-T

25X1

COUNTRY	USSR	REPORT	
SUBJECT	Information on Soviet Agriculture, Artificial Insemination, and Fertilizers	DATE DISTR.	10 January 1958
		NO. PAGES	2
		REQUIREMENT NO.	RD
		REFERENCES	

ENCLOSURE ATTACHED

25X1

DATE OF INFO.

PLACE & DATE ACQ.

SOURCE EVALUATIONS ARE DEFINITIVE. APPRAISAL OF CONTENT IS TENTATIVE.

25X1

The following documents containing information on various aspects of Soviet agriculture

Attachments

25X1

1. General notes on Soviet agriculture, a four-page document containing general information on agriculture in the USSR. While the 1957 cereal yield was expected to be thirty percent lower than the 1956 yield, the extension of areas under cereal cultivation was expected to bring the total 1957 cereal production up to the 1956 figure. Although milk output had risen sixty percent in two years, the lack of transport and roads had led to poor distribution and waste. Pork production had risen, but problems in beef production had not been solved, principally because of shortages of beef breeds, good pastures, and proper facilities for cattle fattening. The shortage of butter, caused by transport difficulties and the low butter-fat content of Soviet milk, was not believed likely to improve in the near future. During 1957, 21,000,000 hectares were under corn/maize cultivation, of which about 13,000,000 hectares were grown for grain, principally in the Eastern Ukraine and Kuban areas, which were considered to be the most favorable areas for corn cultivation. It was considered doubtful whether the 1960 agricultural target could be achieved in full, chiefly because of the lack of suitable farm buildings, the great shortage of fertilizers, and the shortage of concentrates. Problems in farm machinery lay principally in the shortage in some areas of auxiliary farm machinery, the shortage of spare parts, and the lack of necessary smaller-scale agricultural machines. In 1957, the cultivation of virgin lands was extended by between 12,000,000 and 15,000,000 hectares. Scarcity of water still remained a serious problem, although large ground-water reserves were recently discovered in Kazakh SSR. Experimentation was in progress

S-E-C-R-E-T

25X1

STATE	<input checked="" type="checkbox"/>	ARMY	<input checked="" type="checkbox"/>	NAVY	<input checked="" type="checkbox"/>	AIR	<input checked="" type="checkbox"/>	FBI	<input checked="" type="checkbox"/>	AEC		ORR Ev	<input checked="" type="checkbox"/>	
-------	-------------------------------------	------	-------------------------------------	------	-------------------------------------	-----	-------------------------------------	-----	-------------------------------------	-----	--	--------	-------------------------------------	--

(Note: Washington distribution indicated by "X"; Field distribution by "#".)

INFORMATION REPORT INFORMATION REPORT

S-E-C-R-E-T

25X1

-2-

in order to determine whether the pumping of the ground-water reserves, which lay at a depth of 1,500 meters, would be economical. Further details on these agricultural subjects can be found in the document.

2. **Artificial insemination**, a two-page document in which are described problems in the practice of agricultural artificial insemination in the USSR.

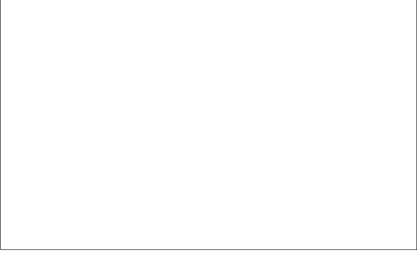
25X1

3. **Fertilizers**, a one-page document which describes the results of the fertilizer shortage in the USSR, the production of nitrogenous fertilizers, and research on the direct introduction of ammonia gas into the soil.

4. **Apparent shortage of metal in the USSR**, a one-page document in which are described the remarks of two Soviet agricultural delegates who, during their visit [redacted] made constant references to the shortage of metal in the USSR. When discussing barbed-wire fencing, automatic watering systems for cattle, and bins for grain storage, the Soviet delegates in each instance stated that it would be impossible to obtain metal for such installations.

25X1

25X1



S-E-C-R-E-T

25X1

SECRET

25X1

U. S. S. R.

Economic/Agriculture

General Notes on Soviet Agriculture

1957 Harvest

1. The overall yield for cereals in 1957 is expected to be 30% lower than in 1956 principally owing to dry easterly winds which dried up the corn immediately prior to ripening. On the other hand the ploughed area has been extended and the overall figure is expected to be about the same as last year.

2. Output of Milk

The output of milk has risen by 60% in the last two years, but it would seem that only large centres in the milk producing central areas are properly supplied. This is principally due to lack of transport and roads. At present large quantities of milk are wasted and/or fed to stock. Although it was known that milk production was to be increased, nobody seems to have thought of the distribution implications, neither were preparations made for processing the excess production.

3. Output of Meat

Although meat production has risen in the last two years, beef is still in short supply almost everywhere except MOSCOW, and its quality leaves much to be desired. The main rise has been in pork production, as this was considered the quickest way to remedy a situation which was threatening to become acute. The question of beef production has not been solved and is not likely to be solved for some time, principally due to the shortage of a) beef breeds, b) good pastures, c) farm buildings (yards) where cattle can be fattened during the winter.

25X1

in winter it was not so much the question of fattening the cattle as of keeping them alive until the spring.

25X1

4. Output of Butter

Butter is only obtainable in large centres and at collective and state farms. The output has risen slightly, but although there is plenty of milk, transport difficulties intervene and also the butter-fat content of the

SECRET

/milk 9853

25X1

SECRET

25X1

milk is much lower than that required for economical production. A great deal of work is now being done in trying to increase the butter-fat content by crossing with imported Jersey and Guernsey bulls, but this is slow work, and the situation is not likely to improve in the near future.

5. Area under Maize

The area under maize cultivation is at the moment 21,000,000 hectares of which about 13,000,000 is grown for corn and seed, the rest being cut for silage before ripening. It has been decided to concentrate maize growing for seed and corn in the Eastern UKRAINE and the KUBAN areas, as it is considered to be the best area to produce results. It has been tried elsewhere, but results have not been satisfactory. The UKRAINE is from now on going to concentrate on the following crops:

- Sugar beet,
- Maize,
- Tobacco,
- Garden produce.

Sugar beet tops will be used for silage and so will the maize stalks, although it is realised that the latter will not produce first-class fodder, nevertheless it is "better than nothing". A certain amount of corn will also be grown, but this will be used mainly for producing meal for cattle.

6. 1960 Target

Although great progress has been made since the launching of the last five-year plan, it is doubtful whether the 1960 target could be achieved in full for the following main reasons:

- a) lack of suitable buildings,
- b) great shortage of fertilizers,
- c) shortage of concentrates.

The lack of farm buildings is one of the greatest problems facing Soviet agriculture. Without them it is quite impossible to keep the livestock in any sort of condition during the winter, with the result that in autumn many collective and state farms try to get rid of their cattle, especially

/young

SECRET

9853

25X1

SECRET

- 3 -

young stock. This is being discouraged by every possible means, including castigation in the press, but it is admitted that results are far from encouraging.

The shortage of fertilisers has an adverse effect on husbandry in general and crop and grass yields in particular with the result that not enough silage and concentrates are available for feeding stock during the long winter. By spring the cattle are so emaciated that it takes the whole summer to bring them back into fair condition, with a consequent drop in fertility and milk yield.

The shortage of concentrates is principally due to difficulties in distribution owing to lack of roads and other transport facilities. The concentrates mainly consist of seed cake (sunflower and cotton seed) grown in the southern areas and corn meal (mostly wheat). Silage is fed extensively when available, but the quality is not always good and the difficulty of keeping it from freezing solid during the winter precludes the use of open pits and surface storage.

7. Machinery

There is no shortage of tractors although a great number has been sent to virgin land areas. On the other hand combine harvesters, binders and other auxiliary machines are again in short supply in some areas. The greatest problem at the moment is the shortage of spares for current and capital overhaul of existing machines, as the demand from virgin land areas has absorbed most of the production. Some areas, such as the Baltic States and North-West and Central Russia, also feel the lack of smaller machinery as production has been concentrated on larger types needed in the virgin lands.

8. Virgin Lands

The virgin land area under plough is to be extended by a further 12 to 15 million hectares. Most of the land is very rough pasture which dries up after about six weeks following the spring rains. This is mostly grazed by sheep, which are moved to the hill pastures where grass becomes scarce. Often the drying up of pastures is so sudden that a great many

SECRET/sheep ⁹⁸⁵⁸

SECRET

25X1

- 4 -

sheep die for lack of water on their trek to the hills. This year has been particularly disastrous in this respect.

A recent discovery of large underground reserves of water in the KAZAKHSTAN virgin land area may solve the problem of irrigation, but the engineering task involved is by no means a light one. The water is located at a depth of some 1,500 metres and powerful pumps will have to be installed before it can be brought to the surface. Thermal power stations have been discarded as being uneconomic and a test is being made to use wind power for this purpose. A trial has been made with fair results in the KAMOLINSK Province where a 500 kw. power station is now operated by this means. It is hoped that the trials will prove conclusive and that another much more costly scheme which entails the damming and diversion of the IRTYSH River will not have to be adopted.

SECRET

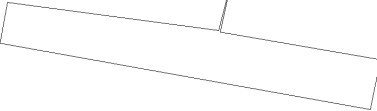
9863

25X1

Attachment No. 2

25X1

SECRET



U. S. S. R.

Economic/Agriculture

Artificial Insemination

1. Artificial insemination is not as widely practised in the U. S. S. R. as it is in this country and results are far below those prevailing

25X1



25X1

2. The average conception rate (first service) is between 30 - 40 % and this is due to the following main factors:

- a) Lack of organisation.
- b) Lack of transport and roads.
- c) Lack of qualified inseminators.
- d) Lack of equipment for keeping the semen.
- e) Lack of suitable buildings.

3. It appears that results in laboratory and experimental station conditions are quite satisfactory and the conception rate is even higher than here, but the moment they are tried in field conditions, the conception rate drops alarmingly.

4. Taking lack of organisation first, the artificial insemination stations are situated in either stock breeding or milk producing areas, but as a general rule they have not been established at strategic points with easy access to the surrounding countryside. They have also to cover a very large area with disastrous results, especially in bad weather when roads are even worse than usual. The orders come either by post or telegram, the telephone being used only on very rare occasions. This is due to excessive red tape, the artificial insemination station not being willing to take the risk of sending an inseminator out without "documentary evidence" to the effect that his trip is really necessary.

5. The lack of transport and roads also plays a big part in the general failure of the service. Inseminators are not as a general rule provided with motor transport of one kind or another and have to rely on public transport, which is seldom available to within a reasonable distance of the collective

/or state

SECRET

9853



25X1

SECRET

- 2 -

or state farms. In spring and autumn roads are often so bad that it sometimes takes the inseminator several days to reach his destination, by which time the semen is usually no longer effective.

6. The difficulty of getting qualified inseminators is great, as few people apply for the job in view of the difficult working conditions and also because their proficiency is judged by results. There is a predominance of female inseminators, but they do not stay for two reasons:

- a) the conditions of work are as described above, and
- b) because of the attitude of the average collective farmer, who never misses an opportunity of making rude remarks and jokes about the whole process, especially if the inseminator is a girl.

7. Equipment for keeping the semen is sadly lacking, especially vacuum containers for carrying the semen to the scene of operations. Dry ice is also hard to get in many areas, with the result that the semen is kept in ordinary refrigerators which greatly reduces its life.

8. The question of suitable buildings is most acute. At present most artificial insemination stations are housed in old ramshackle buildings without proper facilities for conducting their work in more or less hygienic conditions. The bulls are penned and do not get enough exercise, neither do they have any access to pasture. They are fed on hay, silage and concentrates the year round, with consequent overfattening and reduction of virility.

SECRET

25X1

SECRET

Attachment NO. 3

25X1

U. S. S. R.

Economic/Agriculture

Fertilizers

1. There is a tremendous shortage of fertilizers in the U.S.S.R. and yields are consequently extremely low in comparison with those of this country.
2. The average yield of potatoes is in the region of 6 tons per hectare and of corn 2 tons per hectare.
3. The shortage of fertilizers also affects leys and pastures with the consequent low yield of milk which averages about, or rather under, 1,000 litres per lactation.
4. The chemical industry is quite unable to cope with the demand and has concentrated, or rather is about to concentrate, on production of nitrogenous fertilizers which are considered to be the most likely to give immediate results. These are produced in the form of nitrate of ammonia powder, but the quantity is insufficient to supply even the most pressing needs. Phosphates are produced in even smaller quantities and the same applies to potash fertilizers.
5. Some research work has been carried out on introducing ammonia gas direct into the soil thus doing away with the lengthy process of producing nitrate of ammonia. The process has been used at one or two experimental stations and is reported to have given good results, but this entails the use of a special machine, which is not in production. Briefly, the ammonia gas is reduced to a liquid state and pumped from a cylinder through tyres straight into the soil to a depth of some 15 cms. The gas has no time to escape from that depth before being absorbed by the grass roots.

SECRET

25X1

SECRET

9853

Attachment NO. 4

SECRET

U. S. S. R.

Economic

Apparent Shortage of Metal in the U. S. S. R.

1. During their visit [redacted], A. M. SIROTIN, Chief Editor of the Soviet daily agricultural newspaper SELSKOE KHOZYAISTVO, and [redacted] Ya. DOLOTOV, Member of the Board of the same paper, made constant references to the shortage of metal in the U. S. S. R. and the following instances may well illustrate the point.

2. When discussing fencing at one of the farms visited during the tour, SIROTIN stated that no barbed wire fencing was used in the U. S. S. R. Later he was pressed to explain why this was so, to which he replied that it was simply because metal was not made available for this purpose. Pressed further, he stated that metal of any kind was in short supply as it was needed for other purposes.

3. Automatic watering in byres and milking parlours also attracted SIROTIN's attention and he wistfully remarked that he wished they could afford the same luxury in the U. S. S. R. (cow barns) Asked why such a simple thing could not be arranged, he replied that again it was the question of getting metal which was not made available.

4. SIROTIN and DOLOTOV were both interested in bins for storing corn (GRAIN) at one of the farms. They took copious notes of dimensions but later SIROTIN remarked that, of course, they would have to modify them as they would have to be made of wood, since they could not hope to get the necessary metal.

SECRET

SECRET