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THE ORIGIN OF THE MACHINE TRACTOR STATION IN THE USSR: A NEW PERSPECTIVE

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1. INTRODUCTION

At the end of the 1920s, the Soviet government began to implement comprehensive collectivization, and started building up the so-called the Mashine Tractor Station (*Mashinno-tractornaia stantsiia* – MTS) networks throughout the country. What was the MTS? According to Markevich, the founder of the MTS, it was an energy station “where not only individual farm households but also whole villages were prohibited from possessing motor power, and where a powerful means of production was exclusively concentrated outside the villages.”¹ The MTS provided *kolkhozy* [collective farms] with draft power, sent them agronomists for instruction, and supplied selected seeds on a planned basis. Indeed, the MTS formed the foundation of the Soviet agricultural system. At the end of the Second Five-Year Plan, the means of production at almost all of *kolkhozy* were concentrated in the MTS, and the MTS became the tool by which the Communist Party strove to control the Soviet countryside.

According to the studies carried out to date, it has been said without exception, that the MTS was originally invented by Markevich, who was a communist agronomist, and its origin go back to the tractor columns that he directed at the Shevchenko *sovkhov* [state farm] in Odessa okrug in 1927.

How did the idea of the MTS, i.e., the separation of the means of production from peasantry, arise? Robert Miller, who wrote a comprehensive study on the MTS, points out that the clue to the answer is contained in the works of Lenin, who emphasized the role of cooperatives in building the socialist society, and Stalin, who highly evaluated the tractor columns of the Shevchenko *sovkhov* at the 15th Party Congress in December 1927.²

Certainly, the advantage of tractors was emphasized as an incentive to encourage peasants to organize cooperatives and move into collective farms. However, the idea of the MTS does *not* come from this cooperative movement. As Miller acknowledges, on the contrary, the cooperative movement in the 1920s expressed strong opposition to the separation of tractors and other machines from the *kolkhozy*, because such a policy would prevent peasants from voluntary collectivization.³

1 A.M. Markevich, *Mezhduselelennye mashinno-traktornye stantsii* (M., 1929), p. 29.

2 Robert F. Miller, *One Hundred Thousand Tractors: The MTS and the Development of Controls in Soviet Agriculture* (Cambridge, Massachusetts: Harvard University Press, 1970), vi; p. 71.

3 *Ibid.*, p. 40.

Moreover, there were not so many tractors used in the latter half of the 1920s. One of the leading experts on Soviet agropolitics in the 1920s, V.P. Danilov argues, in his pioneering work published in 1957, that the MTS were introduced as a strong leverage to promote collectivization of peasants' farms as the base of comprehensive collectivization, and release peasants from exploitation by kulaks. The MTS "became the objective foundation for the revolutionary *perestroika* [restructuring] of all socioeconomic relations in the Soviet countryside."⁴ On the other hand, however, Danilov points out that the number of tractors was not sufficient at all for actual collectivization.⁵ Even after collectivization, the main draft power used for a while in the Soviet countryside was horses, not tractors.

In 1928, when the first MTS was organized in the Soviet Union, tractors cultivated only one percent of the total sown area, and the overwhelming majority of peasants was engaged in communal land use, involving periodical redistribution of strips, and most kolkhozy did not have any tractors. In this situation, the MTS suddenly appeared in perfect form as a highly sophisticated socialistic mode of production. The MTS was expected to be the foundation that made individual peasants to put their land all together and move into kolkhozy which required joint rotation farming.

The main purpose of this paper is to clarify the fact that the idea of the MTS, which had no relation to the realities of Soviet agriculture, was introduced from abroad. The origin of the MTS was not the tractor columns organized by the Shevchenko sovkhos in 1927. Rather, the MTS originated from a tractor project that incorporated agricultural improvement measures invented and directed by Joseph Rosen, a representative of the American Jewish Joint Distribution Committee, and introduced on the steppes of Ukraine in 1923.

2. THE JOINT DISTRIBUTION COMMITTEE AND JOSEPH ROSEN

The American Jewish Joint Distribution Committee, which is still headquartered in New York at present, was established just after World War I broke out in 1914 to relieve war-devastated Jews in Europe. The committee was called "JOINT" in the non-English-speaking world. As the name implies, the Joint was born as a temporary "joint" organization that transcends social classes, birthplaces, differences of sects such as Reform and Orthodox Judaism, and differences of political beliefs. However, when the Joint was established, its leading members and important posts, such as chairmen of various committees and executive members, were dominated overwhelmingly by wealthy German Jews, including the Chairman, Felix Warburg.

4 V.P. Danilov, *Sozdanie material'no-tekhnicheskikh predposylok kollektivizatsii sel'skogo khoziaistva* (M., 1957), p. 370.

5 Ibid., p. 392.

A curious partnership between the Soviet government and the American “bourgeois” organization began in the early 1920s because they shared a mutual interest: to reconstruct the Jewish agricultural colonies in the South Ukraine, which had been devastated by pogroms, civil war, and famine.

Joseph A. Rosen, an agronomist of Russian Jewish origin, was responsible for this reconstruction work. Born in 1877 in Moscow, Rosen emigrated to the United States in 1903 and learned agronomy there. From 1908 to 1913, he headed the Agricultural Agency (*zemskaia sel'-khoz agentura*), set up by the Ekaterinoslav Provincial (guberniia) zemstvo to introduce American farming methods in Russia; he wrote a dozen of reports on American agriculture.⁶ In this period, Rosen studied soil and climatic correlation between the United States and Russia, and collaborated with a number of agricultural specialists including Viktor V. Talanov, Nikolai I. Vavilov and Moisei M. Vol'f.⁷ Talanov later stated that, thanks to the activities of Ekaterinoslav zemstvo's Agricultural Agency, Russia learned about the results of American experimental works, agricultural methods, and introduced varieties of feed grains from the United States. The agency's members collected and tested a number of seeds; especially the seeds of corns (maize) in similar regions of Russia. Talanov was the head of experimental station networks created in South Ukraine and southeastern regions of Russia until 1916.⁸

In the autumn of 1921, when the American Relief Administration (ARA), headed by Herbert Hoover, began to aid the famine stricken Volga region, Joseph Rosen was sent to Russia as a Russian agricultural specialist and also as a representative of the Joint. Rosen and Talanov then collaborated again in the introduction of corn. Rosen departed for Russia on September 22, 1921. He

6 Dana G. Dalrymple, “Joseph A. Rosen and Early Russian Studies of American Agriculture,” *Agricultural History* 38 (1964), pp. 157-160.

7 Agro-Joint file, No. 52a, The American Jewish Joint Distribution Committee [JDC] Archives; *The Universal Jewish Encyclopedia* 9 (1943), pp. 202-203. Viktor Viktorovich Talanov was born in 1871. He was a crop specialist and held important posts in the 1920s. Talanov was arrested and executed in 1936. Nikolai Ivanovich Vavilov (1887-1943) was a famous botanist and the first director of the Lenin All-Union Academy of Agricultural Sciences. He was arrested in 1940 and died in prison. Recently published documents show that as early as in 1932 the OGPU suspected both Talanov and Vavilov of counter-revolutionary activities because of their close relations with “Anglo-American circle” including Rosen (*Sud palacha: Nikolai Vavilov v zastenkakh NKVD*, M., 1999). Moisei Mikhailovich Vol'f was born in 1880. He entered the Communist party in 1920 and became a member of the collegium of the Ukrainian Narkomzem, and the All Ukrainian Society of Breed Improvement. From the late 1920s through early 1930s, he was head of the agricultural section of Gosplan and the vice commissar of the Narkomzem USSR. He was arrested and executed in 1933. The document, in which Vol'f explained in December 1924 his relations with Rosen to the Central Control Committee of CPSU, supports the fact that the close relations between Vol'f and Rosen was questioned in the party (Rossiiskii gosudarstvennyi arkhiv sotsial'no-politicheskoi istorii, f. 151, op. 1, d. 43, l. 26).

8 V.V. Talanov, *Nailuchshchie sorta kukuruzy i ploshchadi pitaniia dlia nikh* (Khar'kov, 1923), pp. 4-5.

devoted himself to researching the prevention of famine, and proposed to the ARA that five million acres of corn should be planted in the Volga region. On Rosen's initiative the corn seeds were sown in 2.7 million acres in the Volga region in 1922.⁹ From Soviet sources, the total sown area of corn including the Volga region in 1922 was about two million dessiatines, which was about three times as much as in 1920.¹⁰

In the autumn of 1922, after the Soviet government officially acknowledged the South Ukraine as a famine area, Rosen concluded an agreement with the government to reconstruct Jewish agricultural colonies located in the region.

3. A CONTRASTING ENCOUNTER

The Jewish colonies, 38 in total, were established at the beginning of the 19th century, when Tsarist policy encouraged Jews to settle in New Russia, namely in Kherson and Ekaterinoslav guberniias. After the 1880s, New Russia became the largest place of grain production in Russia. Its grain production was focused on wheat and barley for foreign markets. According to the materials worked out by the Jewish Colonization Association (ICA) in the early 20th century regarding the Jewish colonies in New Russia, extensive agriculture, and heavy dependence on grain production in Jewish colonies were all problematic in terms of maintenance of soil fertility.¹¹

New Russia, which had been Tsarist Russia's largest grain producing area for exports, became a famine region in 1922. The famine was partly attributed to many years of exploitative farming, which made it vulnerable to drought damage. Of course, other factors such as the Great War, civil wars and war communism also contributed to the famine. The harvests in 1921 were only four percent of the average year in Nikolaev okrug, and 14 percent in Odessa okrug.¹²

The population in Jewish colonies, which reached 39,025 in 1916, decreased to 29,612 in 1922, after they had experienced pogroms and famines. Cattle and

9 *The American Jewish Joint Distribution Committee in Russia* (New York, 1924), pp. 9-10.

10 Rossiiskii gosudarstvennyi arkhiv ekonomiki [RGAE], f. 478, op. 5, d. 2894, l. 81. In December 1921, Narkomzem requested experimental stations in the South East region, Middle and Lower Volga regions, and the Central Blackearth region to strengthen their activities to increase corn production, and V. Talanov, who then was at the West Siberian Institute of Breed Improvement, was sent to Moscow for this purpose (RGAE, f. 478, op. 5, d. 1088).

11 *Sbornik materialov ob ekonomicheskom polozhenii evreev v Rossii* 1 (SPb., 1904), pp. 28-33. ICA is a philanthropic organization founded in 1891 in London by Baron Maurice de Hirsch to promote productivization of the Jews. ICA began to help the Jewish colonies in Russia at the end of 19th century.

12 *Der Emes*, April 3, 1923. The agricultural regions of Ukraine were roughly divided into three zones, i.e., poles'e, forest steppe, and steppe zone, the last of which is an arid region with less than 500 millimeters of average annual rainfall. In particular, the southern part of the steppe zone was most frequently damaged by drought. All the Jewish colonies where the Joint introduced tractor columns were located in the southern part of the steppe zone.

farming tools were significantly decreased. During the same period, the number of horses decreased by 33 percent in the Soviet Union as a whole. In Jewish colonies, however, the number of horses decreased by more than 70 percent, that of cattle by 51 percent, and harrows by 73 percent respectively.¹³

According to Rosen, however, no matter how many statistics and figures are shown in tables and diagrams, they can give “only an inkling of the depth of human misery.” He recalled and described the famine that he witnessed in Ukraine in the summer of 1922 as follows:

“... the houses that remained were dilapidated, the people who remained were emaciated, the horses that remained were reduced to skeletons, the cows that remained were drying up. A hundred tables and diagrams could not begin to tell the story.... Houses without roofs ... Fields without a single blade of green, finely pulverized baked soil raising clouds of dust penetrating the very marrow of your bones. Good Lord! Is this the country we used to call the granary of Europe? ... the soil was hard and dry, the greater part of it has not been plowed for several years prior to the famine, on account of the revolution and civil war. The best lands were overgrown with quack-grass...”¹⁴

Steppe Ukraine lost most of its draft animals and farm equipment, and was devastated by war and famine. Railroads were ruined, and peasants were starved and exhausted. How should it be reconstructed? How could it be possible to overcome the crop failures repeated due to frequent droughts? These were the tasks that Rosen, as the representative of the Joint, and his staff were faced with in Ukraine. The great contrast between the ruined colonies that had almost no horses and the sophisticated technology of the United States gave rise to a peculiar system.

Tractors were introduced in Russia for the first time in 1908. Even in 1913, Russia as a whole had only 165 tractors. During World War I, the Russian government imported several hundred crawler tractors for military use. After the war, the Soviet government planned to use these tractors for agricultural purpose, and in the spring of 1922, performed an experiment of state-run tractor columns, calling for the all-out mobilization of various types of tractors possessed by the Soviets. According to Danilov, the plan was difficult to carry out because there were too many different kinds of old military tractors.¹⁵ However, it seems that the experiment’s failure was really due to the sloppy management of tractor columns, which were distributed chaotically and isolated in remote places.¹⁶

13 Joseph Rosen file, No. 139, Yidisher Visnshaftlekher Institut [YIVO] Archives.

14 Agro-Joint file, No. 536, JDC Archives. This is a part of the report, in which Rosen described his 1923 project of reconstruction of the Jewish colonies. This report was written in 1934.

15 Danilov, *op. cit.*, p. 290.

16 Inspectors who investigated the activities of state-run tractor columns in 1922 noted the incompetent management of the columns (RGAE, f. 3110, op. 1, d. 19, l. 10-11).

In the summer of 1922, the reconstruction of agriculture in the Volga region required 30,000 tractors, 12 million puds of fuel, and 30,000 tractor drivers. However, the Soviets had only 177 tractors then, which could cover only 0.02% of the total area of plowed land.¹⁷

In September 1922, the New York headquarters of the Joint approved the South Ukraine reconstruction project proposed by Rosen, which he called a “fantastic plan.” In a letter dated September 21, 1922, Herbert Lehman, a member of the Reconstruction Committee of the Joint, told Rosen that some \$1.24 million was budgeted for the South Ukraine reconstruction, and the Joint approved a non-sectarian policy, under which their assistance would not be limited to Jews.¹⁸ Meanwhile, it was Kh. Rakovskii, the chairman of Ukrainian Sovnarkom, who supported Rosen’s plan in the Soviet government. In July 1922, Rakovskii gave his approval to Rosen to organize tractor columns under a non-sectarian policy in the areas where Jewish colonies existed, and to distribute American corn through the All Ukrainian Society for Breed Improvement (*Vseukrainskoe Obshchestvo Semenovodstva* – the VOS), a Ukrainian government agency. Reminiscing about those days, Rosen said that Rakovskii’s cooperation was a powerful weapon to promote the smooth implementation of the project in Ukraine.¹⁹ In December 1922, an agreement was concluded between Rosen and the Soviet plenipotentiary, Karl Lander. The agreement guaranteed that so long as the Joint worked consistently with the “general program” adapted by the Soviet government, they would be allowed to select the districts where they would provide assistance, to have their necessary personnel enter Russia, and freely to choose the necessary staff in Ukraine.

Rosen ordered eighty-one “Waterloo Boy” tractors from Deere & Co., and five “Cletrak” crawler tractors from Cleveland Co. A total of 86 tractors were shipped from New York from November through December 1922.²⁰ This was the first large-scale import of tractors into the Soviet Union. In the following section, we describe the Joint’s tractor project in detail.

4. THE RECONSTRUCTION OF JEWISH COLONIES IN UKRAINE: THE ORIGIN OF THE MTS

4-1 The Organization of Tractor Columns

Of the 86 tractors introduced by the Joint, four were transferred to the Ukrainian government, seven were distributed separately to various places such as Crimea, and the remaining 75 tractors were used to organize seven tractor columns.²¹

17 *Vosstanovlenie khoziaistva i razvitie proizvoditel'nykh sil iugo-vostoka RSFSR postradavshego ot neurozhaia 1921g.* (M., 1921), p. 91.

18 Agro-Joint file, No. 482, JDC Archives.

19 Agro-Joint file, No. 536, JDC Archives.

20 Agro-Joint file, No. 483, JDC Archives.

21 Joseph Rosen file, No. 139, YIVO Archives.

Rosen requested that the New York headquarters of the Joint send seven American tractor drivers, who spoke Russian fluently, as the drivers to lead the tractor columns. After a couple of weeks of lectures about Deere & Co.'s tractors, they left New York for Odessa in January 1923.²²

All seven tractor column bases were built in colonies located near railroad stations. The service zone of each tractor column included not only Jewish agricultural colonies but also nearby Ukrainian villages and German colonies that were located up to 17 versts away from the tractor bases. The seven tractor columns helped 38 Jewish colonies and 72 non-Jewish villages, for a total of 29,485 peasant households.

A mobile repair shop was created for each tractor column, and a central repair shop was set up at the colony in Novo Poltavka. The entire organization was integrated into the central technology base in Novo Poltavka, where a repair shop and a short-term tractor driving school were organized, in addition to offices and warehouses.²³ Fuel depots were built at railroad stations located near the tractor bases. The seven American instructors to the tractor columns provided tractor-driving instructions. In order to teach local peasants how to drive tractors, more than 100 local Jewish and non-Jewish peasants were employed as assistant drivers. The training of peasant tractor drivers made it possible for the local peasants to plow their land with tractors even after the Joint's withdrawal, and had the effect of lowering the price of tractor work.²⁴ The tractor columns started cultivation on 26th March and the total area cultivated by these tractors was 17,392 dessiatines, or 292 dessiatines per tractor.

Although local peasants were employed as tractor drivers, the cost required to organize the tractor columns was not small at all. The most costly expenditures for the tractor activities in 1923 was the wages for drivers, mechanics, and instructors. The cost for the tractor personnel alone amounted to US\$400,000 during the period from March through December 1923, or US\$1.8 per dessiatine. Moreover, the cost of tractor repairs during this period amounted to US\$15,000 (or US\$0.68 per dessiatine). Together with the fuel cost (US\$1.1 per dessiatine) and the initial outlay for the tractors (US\$1 per dessiatine, which was calculated on the assumption that the service life of the tractor was four years), the actual price of tractor work amounted to US\$4.58 per dessiatine.²⁵

Regardless of actual cost, however, the tractor work price was converted to five puds of rye in kind per dessiatine, and collected from peasants through their cooperatives. As the Joint's project was not aimed at making profits but mainly at reconstruction of the colonies, cost was not taken into consideration at all. The rye received from the cooperatives was to be used for emergency

22 Agro-Joint file, No. 452, JDC Archives.

23 Joseph Rosen file, No. 172, YIVO Archives.

24 Gosudarstvennyi arkhiv Rossiiskoi Federatsii [GARF], f. 7746, op. 1, d. 10, l. 24-25.

25 GARF, f. 7746, op. 1, d. 3, l. 17-21; *The American Jewish Joint distribution committee in Russia*, pp. 74-77; Joseph Rosen file, No. 139, YIVO Archives.

food supplies to the colonies in the Krivoy Rog district, where the food shortage was particularly serious, as well as in such major cities as Odessa, Kherson and Nikolaevskaya.²⁶

4-2 The Organization of Peasant Cooperatives

Under war communism many cooperatives were dissolved. After the introduction of the New Economic Policy, however, the Soviet government began recognizing the significance of cooperatives as voluntary activities of the general public, and the number of cooperatives started increasing again. In Southern Ukraine, the assistance provided by the Joint through cooperatives gave rise to the further organization of cooperatives. The movement for formation of cooperatives expanded also among Ukrainian peasants, whom the Joint assisted together with the Jewish colonies. Based on an agreement, not only the tractor columns but also the Joint's other aids, such as decisions on cultivation points, rationing of fuel, provisioning of selected seeds, and accommodation of funds, were offered only through those cooperatives that signed contracts with the Joint. This was the major factor of formation of cooperatives.

According to Rosen, because of the Joint's limited staff, it was impossible to deal with individual peasants, and "it was necessary to devise a net of local farmers' organizations, which would be able to handle the distribution of supplies and equipment within the communities and cooperate with us in organizing the work properly." As for the roles played by the Joint in organizing cooperatives, Rosen stated as follows.

"There were a number of agricultural cooperatives in the Jewish colonies before the revolution, but they had all been liquidated during the upheaval together with the general system of cooperatives [...] Fragments of the cooperatives could still be put together, threads picked up and tied up again into a semblance of the former organizations, thereby enabling them to carry on the work under the new order. It was necessary to legalize the new cooperatives. Through our close connection with the Department of Agriculture [Narko-mzem], we were instrumental in having a decree promulgated to this effect, affecting not only the Jewish colonies, but the entire farming population."²⁷

The tractor columns served 18 agricultural credit cooperative societies in the Jewish colonies in 1923. Of these, however, only eight societies registered their statutes by 1922. The remaining ten registered their statutes in and after 1923, when the Joint began its operations in Ukraine.²⁸ Small villages and khutors were incorporated into the service areas of colonist societies, and assistance was provided through existing or newly formed credit cooperative societies.²⁹

26 Agro-Joint file, No. 483, JDC Archives.

27 Agro-Joint file, No. 536, JDC Archives.

28 A. Zak, "Sel'sko-khoziaistvennaia kooperatsiia," *Evreiskii Krest'ianin* 1 (1926), p. 42.

29 Joseph Rosen file, No. 139, YIVO Archives.

The 2 June 1923 issue of *Izvestiia* published an article on the need for agricultural mechanization. The article stressed the fact that the tractors lent by the Joint only through agricultural cooperatives were encouraging the formation of cooperatives, as a practical example to prove that tractors could stimulate the shift from small, individual peasant farms to joint cultivation.

This article also reported on the meeting held on May 25, 1923 in Moscow concerning various issues related to tractors. V.Z. Esin, the chairman of Gosplan's tractor committee, chaired the meeting and he drew the following conclusion.

“It is necessary to increase the productivity of peasants in order to make agriculture a profitable business. This is possible only through the mechanization of agriculture. Moreover, tractors create the stimulation that changes small peasant farms into large-scale collective farms. This is why the Joint stimulated formation of agricultural cooperative systems in Ukraine. In other words, this is because the Joint provided tractors only to cooperatives. Immediately after the introduction of machines, Soviet agriculture will start developing.”³⁰

In May 1923, soon after the tractor columns started operations, the increase in cooperatives attracted much attention in Moscow. As we will discuss later, when the Narkomzem of the RSFSR began its tractor campaign in 1924, Esin proposed a plan that was remarkably similar to the Joint's tractor project.

4-3 The Introduction of Selected Seeds from the U.S.A.

Tractors were not the only items that were introduced into Ukraine in large quantities from the United States in 1923. On Rosen's initiative, the Joint introduced, mainly from Minnesota, corn seeds, Sudan grass, and various vegetables, all of which were selected seeds for breeding.³¹ As Rakovskii had instructed, these seeds were bred by the All Ukrainian Society for Breed Improvement (the VOS). The VOS distributed these selected seeds to agricultural experimental stations and large farms in various places in Ukraine. Then, “all Jewish colonies and villages assisted by the Joint became testing grounds for the reproduction of American pure bred seeds.”³²

The breeding project in Ukraine was only a part of the whole. In the spring of 1923, the Narkomzem of the RSFSR also concluded an agreement with the Joint and imported from the United States more than 10,000 puds of selected corn seeds, wheat, feed crops and other varieties for breeding. Using the Joint's funds, the breeding project was carried out on a scale to further develop the agricultural experimental station network that had been suspended before the revolution. In addition to the VOS, the agricultural experimental stations in Samara, Voronezh, Rostov, Donetsk, Kuban, Tifris, and Turkestan were engaged

30 *Izvestiia*, June 2, 1923.

31 Agro-Joint file, No. 483, JDC Archives.

32 Joseph Rosen file, No. 139, YIVO Archives.

in breeding corn, Sudan grass, and other seeds introduced from the United States. The sown area at these stations amounted to 2,100 dessiatines in 1923.

On the Soviet side, the person in charge of the breeding project was V.V. Talanov, who had been promoting feed crop breeding projects since the pre-revolution period in cooperation with Rosen. According to Talanov,

“In cooperation with the Narkomzem, the Joint organized a special bureau (*Biuro razmnozheniia semian*) to introduce and breed new varieties, and the Narkomzem and the Joint provided the seeds imported from the United States to the bureau. The Joint provided seeds free of charge, paid the maintenance cost of the bureau, and provided funds to introduce additional equipment to the agricultural experimental stations.”³³

Talanov was placed in charge of the bureau that was first attached to the Joint. In 1924, the bureau was handed over to the Narkomzem of the RSFSR. Rosen recalled later that the Narkomzem began showing an active interest in the work of the bureau, and the bureau was eventually taken over completely by the Soviet government.³⁴

The seed-breeding project seems to have been an experiment based on an idea that Rosen had had since the pre-revolution period. As already mentioned, almost no grass, no vegetables and no corn had been cultivated in the grain-oriented colonies, so these kinds of seeds were aimed at introducing crop rotation, then not popular in this region.

4-4 The Introduction of Six-Field Crop Rotation System

In May 1923, S.Y. Liubarskii, one of the Joint's local staff and a member of the Planning Division of Ukrainian Narkomzem, sent a circular on behalf of both the Joint and the Jewish Colonization Association to the agricultural cooperatives' executives regarding the cultivation of idle lands. This circular proposed weeding and the introduction of joint crop rotation (*obshchestvennyi sevooborot*) as the condition for the cooperatives to receive aid from the Joint. Liubarskii stressed that loans, from now on, would be granted only to those communities, where rotation systems were introduced, and to those where the land in fallow and row crops were in good condition.³⁵

Since Liubarskii “threatened” to apply collective responsibility to those cooperatives that were reluctant to introduce crop rotation, and to halt aid to

33 V.V. Talanov, “Rezultaty rabot po ispytaniu i vvedeniui novykh sortov s.-kh. rastenii ‘Set’iu opytnykh uchastkov iuga i iugo-vostoka Rossii’ i ‘Biuro razmnozheniia semian NKZ i Dzhointa,” Talanov, ed., *Selektsiia i semenovodstvo v SSSR* (M. 1924), p. 254.

34 Joseph Rosen file, No. 139, YIVO Archives.

35 GARF, f. 7746, op. 1, d. 3, l. 178-179. Before the revolution Liubarskii worked as an agronomist of ICA, and was the director of the Novo-Poltavka agriculture school. After the revolution he became a member of planning division of the Ukrainian Narkomzem, and a local staff member of the Joint; and from 1924 on the vice-President of Agro-Joint (see note 39). He was arrested immediately after the withdrawal of Agro-Joint in 1938.

them, it can be assumed that some peasants strongly resisted the introduction of joint crop rotation. The Joint insisted on the introduction of crop rotation because long large fields were essential to improve the efficiency of tractor cultivation. For this purpose, the establishment of a joint crop rotation system was necessary, instead of small pieces of land scattered among various peasant households.

Interestingly, the Joint compelled peasants themselves to decide on the introduction of crop rotation, so as to make the introduction of joint rotation enforceable by law. Liubarskii sent "forms for a resolution on joint rotation" to land associations (*zemel'noe obshchestvo*), and asked them to "sign the forms and return their copies."³⁶ The form was designed to compel a general meeting attended by the effective number of land association members to decide "unanimously or by majority" on joint crop rotation, shift to multi-field rotation system, obligatory weeding, etc., "in compliance with the proposal made by the chairman of executive committee of each village and agronomists." In other words, it asked the peasants to introduce, on their "own will," a series of agricultural improvement measures proposed by the Joint, while dangling the aid "carrot" in front of them.

The resolution form, first, dealt with the introduction of multi-field crop rotation system that involved obligatory fallowing and the fields for row crop, mainly corn, stipulating that "one of the specified plots of land must be excluded in turn every year from the plots for grain seeding, and kept as plowed and weeded land in fallow, or else row crop must be planted there." Second, it required that the plowed land in fallow must be "completely weeded," and peasants must "weed the respective area of land assigned to them in fallow land and row crop fields, including weeds on the borders of their plots." Moreover, if a member of an association committed "the disturbance of order" as to land utilization and crop rotation, he or she had to be "punished with a fine, special labor, and divestiture of the right to receive aid from the state, societies, and social institutions." To ensure the execution of the resolution, an executor was selected at the general meeting, and the executor was obligated to complete "allocation of land in compliance with the established procedures" within a certain period of time.

According to Liubarskii's report, worked out at the end of 1923, almost all of the Jewish colonies and surrounding villages served by the Joint established the joint six-field rotation system that involved obligatory fallowing and row crop fields.³⁷

36 GARF, f. 7746, op. 1, d. 3, l. 175-177.

37 GARF, f. 7746, op. 1, d. 3, l. 42.

5. THE IMMEDIATE IMPACT: “THE TRACTOR CAMPAIGN” OF 1924

By providing tractors, seeds and other implements to peasants through the cooperatives, the Joint exerted a strong influence on local peasants. According to *Der Emes*, the Yiddish language organ of the Jewish section (Yevsektsiia) of the Russian Communist Party, in the Jewish colonies and nearby villages where the Joint operated, the Joint had stronger influence upon peasants than the *raispolkoms* and communists. Indeed, *Der Emes* published a series of articles attacking the Joint’s supposedly “reactionary activities” in 1923.³⁸ Although the agreement between the Joint and the Soviet government in 1922 had made it clear that the Joint would give aid through peasant cooperatives, local party activists continued to criticize the Joint for directly providing aid to cooperatives, bypassing the Soviet apparatus.

In contrast, the Soviet government began to show an active interest in the tractor project of the Joint, as the deadline for the Joint’s retreat was approaching. As mentioned above, the Joint was created as a temporary organization to provide aid to those Jews suffering as a result of the war in Europe. The American Relief Administration (ARA), in which the Joint was participating as a cooperative organization, withdrew from the Soviet Union on June 20, 1923. As the Joint’s independent agreement with the Soviet government was also to expire on November 1, 1923, the New York headquarters of the Joint ordered Rosen in Moscow to prepare for withdrawal. Disagreeing with this order, Rosen prepared close operations in the colonies in Ukraine.³⁹

On September 22, 1923, the Chairman of the Soviet Central Executive Committee Mikhail Kalinin sent a letter of appreciation to Rosen and made reference to the activities of the tractor columns as follows:

“What deserves attention, in particular, were the jobs in the area of productive agricultural assistance, which were advocated and directly led by you in the vanguard. Your tractor activities in Ukraine were a very successful, large-scale attempt, which we believe provides us with a practical lesson of the best method of land cultivation.”⁴⁰

38 Moshe Litvakov, a member of Yevsektsiia, attacked Liubarskii for ignoring local Soviet apparatus and concluding contracts with cooperatives. *Der Emes*, May 16, 1923. See also the articles in *Der Emes*, March 15, 1923; March 21, 1923; April 26, 1923; April 27, 1923.

39 Rosen presented to the New York headquarters his plan to transfer the tractors to the Planning Division of Narkomzem, to which Liubarskii belonged. The Joint headquarters, however, was reluctant to transfer its assets to the Soviet Union. With the enthusiasm of Rosen, who insisted on the continuation of relations with the Soviet government, the Joint formed the Agro-Joint in the summer of 1924 as a new organization specializing in aid to the Soviet Union. From 1924 to its withdrawal from the Soviet Union in 1938, Agro-Joint (headed by Rosen) cooperated with KOMZET, the Soviet government committee for Jewish agricultural settlement, on the Jewish settlement project in southern Ukraine and Crimea.

40 Joseph Rosen file, No. 16, YIVO Archives.

In the Soviet government, there were discussions about whether or not to take over the operation of the Joint, which was expected to withdraw. In October, Aleksandr Fabrikant, who was a professor at Timiriachev Agricultural Academy and a local Joint staff member, reported on its activities in Ukraine at a meeting of the Narkomzem of the RSFSR.⁴¹ The Narkomzem expressed interest in the large-scale cultivation that the tractors had carried out “under the Russian conditions.” According to I.F. Bolkhovitinov, a member of Narkomzem’s mechanization section, “these tractor operations showed that the introduction of tractors in South Russia was possible, and necessary as well.” Based on the proposal made by Agricultural Policy Department Director A.F. Galchilin, the meeting’s attendees recognized that it was important to continue the Joint’s operations under the initiative of the Soviet government, and decided to work out the necessary measures towards this purpose. The resolution of the meeting was as follows:

“The Joint’s activities, which were based on the principle to give credit [to peasants] through agricultural cooperative societies, were reasonable, and such a principle gave peasants incentives to go for intensive farming. As a result, not only the economy of the said areas was reconstructed, but also intensification of agriculture was further promoted, and even changes in the entire agricultural systems were seen there. The attendants of the meeting acknowledge that it is fully appropriate not only to take over the operations in the areas served by the Joint but also to extend the operations to other areas damaged by a poor harvest.”⁴²

In December 1923, the Narkomzem of the RSFSR decided to send an investigator to Ukraine to investigate the Joint’s tractor column operations. Following this decision, in February 1924, Bolkhovitinov visited Novo Poltavka,

41 Ibid. Aleksandr Osipovich Fabrikant was born in Mogilev in 1881. He became a professor at Timiriachev Agricultural Academy and the chief editor of *Agronom*, monthly organ of the Central Committee of *Vserabotzemles* (Agriculture and Forestry Labor Union) until 1929. He published numerous books and articles on agricultural improvement measures in the 1920s. Fabrikant argued for the necessity of introducing a new tractor utilization system into Soviet agriculture and stressed the advantages of the Joint’s tractor columns in his book published in 1925. In contrast to the United States, where relatively large-scale farms used tractors, he wrote, in the Soviet Union those who desperately needed mechanical draft power were poor peasants with small parcel of land. “By incorporating tractors into kolkhozy and cooperatives in an organic manner, the tractor utilization system of the Joint provided the possibility of using all the advantages of tractors on large-scale farms” (A. Fabrikant, *Kniga uchastkovogo agronoma*, M., 1925, p. 280). At the same time, he opposed the hasty introduction of collectivization. In an article published in *Agronom* in 1928, he lamented the wide gap between the scientific method of agricultural experimental stations and the agriculture of peasants’ lands, and stressed the necessity of peasants’ cultural improvement instead of collectivization (*Agronom*, 1928, No.10, pp.15-18.). In 1930, he was arrested together with other economists including A.V. Chaianov and N.D. Kondrat’ev.

42 Joseph Rosen file, No. 16, YIVO Archives.

the Jewish colony where the central base of tractor columns was located, and investigated “in detail the tractors and the Joint’s tractor management.”⁴³

On February 27, 1924, A. Galchilin and A.M. Dmitriev, who was then Agricultural Bureau Director, sent a letter to the Council of Labor and Defense and proposed to introduce tractor columns, “taking it into consideration that the Joint succeeded in the experiment of tractor column operations in Ukraine.”⁴⁴

In October 1924, the Soviet government started its first attempt to organize large-scale tractor operations, under which 500 newly imported tractors (Fordson) were introduced in Saratov, Samara, Stalingrad, Voronezh, Stavropol, the Don, the German Autonomous Republic and the Northern Caucasus. This tractor project was called the “Tractor Campaign.”

Looking into the process that led to the Tractor Campaign, the project had the following characteristics: First, under the original plan, the campaign was aimed at not only supplying tractors to peasants but also organizing tractor columns. Tractor columns were not organized, however, because of the opposition by *Gossel’sklad* [State Agricultural Stores], the organization in charge of the campaign.⁴⁵ The Narkomzem requested *Gossel’sklad* to work out a draft of the project, including the organization of tractor columns. However, in its plan, titled “The Plan to Organize the Introduction and Utilization of Tractors” and submitted to Narkomzem in July 1924, *Gossel’sklad* refused to take charge of organization of tractor columns.⁴⁶

Second, although the organization of tractor columns was given up, the campaign placed its focus on a centralized tractor distribution system that was called “*gnezdovaia sistema*” or “*gnezdovanie*.” A central base of tractors was founded first, and then tractor instructors, mechanics, fuel depots, parts depots and repair shops were concentrated within a certain distance, envisioning the establishment of a support system that would allow the peasants themselves to drive the tractors.

In November 1924, one month after the campaign’s commencement, V.Z. Esin reported on the progress of the campaign at a meeting of the Ukrainian Narkomzem. The original plan of the Tractor Campaign was, according to Esin, “not only to deliver tractors to peasants, but also give them organized technical support”:

“We worked out the following plan: Each guberniia is provided with 100 tractors and one engineer who organizes the tractor campaign. Then, the 100 trac-

43 RGAE, f. 478, op. 5, d. 2912, l. 25.

44 RGAE, f. 478, op. 5, d. 2912, l. 22. The letter recommended to import inexpensive tractors for economic reasons.

45 *Gossel’sklad* was formed in 1922 as a self-supported accounting organization under the Russian Narkomzem. It had local branches and warehouses in various places of Russia, and had direct contact with local peasants through its business of selling and supplying agricultural implements to them.

46 RGAE, f. 478, op. 5, d. 2912, l. 298.

tors are redistributed to four to five *uezd/raion*-level bases, i.e., tractor depots equipped with parts warehouses, fuel depots and repair shops. Each base is provided with 25 tractors, one skilled instructor, and two or three assistant instructors. Each assistant instructor takes charge of an area within a radius of 15 versts from his base. According to our plan, one assistant instructor was to attend 12 tractors, provide all technical support to peasants, teach them how to plow land with tractors, and arrange necessary parts, fuel, oil and means of repairs. But ... we realized that it was impossible to completely carry out our plan."⁴⁷

Contrary to the original aim of *gnezdovanie*, according to Esin, tractors were assigned equally to each guberniia and each volost, they were dispersed over wide areas, spread too thin. As a result, one instructor could attend only one tractor a day on his instruction tours. Because peasants could not even find the cause of a trivial problem, such as a plug smudged with oil, they could not but stop driving the tractors and wait for the arrival of assistant instructors. Sometimes they rode on cows over 40 versts to consult with instructors, during which time tractors were left unmended and not used due to "this ridiculous problem."⁴⁸

Nevertheless, Narkomzem did not give up the tractor project. Smirnov, the Commissar of the Narkomzem of the RSFSR, evaluated the campaign as a "great success," and proposed in late 1924 to Gosplan that an additional 6,000 tractors should be introduced.⁴⁹ Narkomzem then discussed ways to improve the organization of the tractor project and the "firm maintenance" of the *gnezdovanie*. Esin reported on the tractor campaign at a meeting, attended by Smirnov, of the collegium of the Narkomzem on December 23. As a result of these deliberations, it was decided that the training of peasant tractor drivers and the distribution of tractors should be integrated into the organizational and technical support plans for peasants, and that "the principle of *gnezdovanie* should be maintained as much as possible" to provide effective aid to peasants.⁵⁰

The studies carried out to date have assumed that the Soviet government started organizing tractors only after 1927, because the operating efficiency of tractors changed for the worse due to a rapid increase in the number of tractors introduced.⁵¹ However, the Russian government, under the influence of the Joint, already in the autumn of 1924 planned to organize tractors based on the principle of the *gnezdovanie*. The training of peasant tractor drivers in Russia started in this year.⁵²

47 GARF, f. 7746, op. 1, d. 10, l. 1-2.

48 Ibid.

49 RGAE, f. 478, op. 5, d. 2912, l. 201.

50 RGAE, f. 478, op. 5, d. 2912, l. 303-304.

51 Danilov, op. cit., p. 342; Miller, op. cit., vi; p. 71.

52 From 1924 to 1928, 21,835 peasant tractor drivers were trained (Iu. Arutiunian, "Formirovanie mekhanizatorskikh kadrov MTS v 1930-1940 gg.," *Istoricheskie zapiski*, 1963, p. 3).

The support system that had been originally intended under the tractor campaign obviously collapsed immediately after it was introduced. Nevertheless, the Soviet government introduced a large number of additional tractors in and after 1925. The support system could not catch up with the rapid increase in the number of tractors. When the Soviet Union drastically changed its course to collectivization, a large number of the tractors that were introduced in the middle of the 1920s were old, and most of them had to be replaced. The Russian attempt that had failed was then tested next in Ukraine in the “original form,” now called the MTS, and later expanded all over the Soviet Union.

6. THE SHEVCHENKO SOVKHOZ

The origins of the tractor columns of the Shevchenko sovkhoz go back to the spring of 1927, when the Collegium of the Ukrainian Narkomzem approved the report worked out by the Ukrainian Sovkhoz Trust which had decided to begin a tractor service experiment for colonists. This mission was taken on by Shevchenko sovkhoz in Odessa Okrug. In the autumn of 1927, the Shevchenko sovkhoz signed contracts with three colonist villages, sowed seeds that autumn and carried out autumn plowing for spring seeding. At that point, the tractor column was small, equipped with only ten tractors, which served 250 households and cultivated 902 dessiatines.⁵³

At the 15th Party Congress held in late 1927, Stalin discussed the way in which small peasant households were to move voluntarily to collective farming through “the introduction of agricultural implements and machinery, tractors, and scientific, intensive farming.” In this context, he mentioned the tractor column of Shevchenko sovkhoz as a good example which should be modeled. At the congress, Stalin read aloud a letter from a group of peasants, which stated that the poor peasants, who had no horses and no farm tools and could not help but rent out their land, were freed from the yoke of kulaks, thanks to the cultivation by the tractor column organized by Shevchenko sovkhoz. Moreover, they learned to stop small-scale farming and organize joint management.

After reading aloud the letter, Stalin stated, “if such cases are increased, we could go farther forward,” and he defined as an immediate task of his party that “Cooperative societies and government agencies should have control of sales and supply in the countryside, and shift the fragmented agriculture to large-scale agriculture and further to collective land cultivation through intensively mechanized farming.”⁵⁴

After the 15th Party Congress, 20 villages closed contracts with the tractor columns of The Shevchenko sovkhoz in the spring of 1928; the number increased to 25 by the autumn of the same year, leading to a large-scale project, in which

53 Danilov, op. cit., pp. 346-348; “Traktorizatsiia kresti'ianskogo khoziaistva sovkhozom imeni T. Shevchenko,” *Agronom*, 1928, No. 6.

54 *Piatnadsatyi s'ezd VKP(b). Dekabr' 1927 goda. Stenograficheskii otchet* 1 (M., 1961), pp. 62-65.

the tractor columns cultivated a total area of about 18,000 hectares. In November 1928, the tractor columns of the Shevchenko sovkhos were reorganized into the Soviet's first state-run MTS. Amid a growing discussion about the expansion of the MTS experiments all over the Soviet Union, the Ukrainian Narkomzem submitted a report entitled "The Activities of Machine Tractor Station in Ukraine" to Gosplan, Sovnarkom, and the Central Committee of CPSU in March 1929. According to the report:

"In the coming spring, the tractor columns are expected to close contracts with 18 more land associations, and the area to be cultivated by the columns is expected to reach 31,400 hectares, and the number of tractors at the station to reach 172. This overall project ...was given the name of 'Machine Tractor Station.' This name is different from the widely known term 'tractor columns' because the essence of the project is not to organize large-scale tractor columns, but to stress the point that the project was aimed at establishing a permanent inter-village system that acts on agriculture to develop into mechanized and socialized agricultural enterprises through large-scale technical and organizational agriculture bases."⁵⁵

The Shevchenko sovkhos's tractor columns were dramatically transformed over the period from the autumn of 1927 through the autumn of 1928. They were changed into an "energy machine center toward socialistically remodelled agriculture,"⁵⁶ which had repair shops, fuel and parts depots, and provided villages with various skills by trained tractor drivers, mechanics and agronomists.

These tractor columns provided the basis for contracts with peasant land associations. Such contracts required the land societies to properly rotate crops and sow the selected seeds supplied by the Shevchenko sovkhos, while the sovkhos was required to carry out all works with its tractors and plowing tools, and to provide agronomists and technical personnel. The land associations selected some peasant members as tractor driving trainees, and the Shevchenko sovkhos taught them how to drive tractors at its own expense. In return, the land associations paid in kind one-fourth of their autumn harvests and one-third of their spring harvests.⁵⁷

According to the report, the greatest significance of the MTS was that they were "a strong energy center introduced highly sophisticated modern technology into agriculture, and provided obvious technical and economic effects," and thereby "poor peasants and middle peasants in general voluntarily fol-

55 GARF, f. 5446, op. 10, d. 491, l. 25. The report was published by the Ukrainian Narkomzem, entitled *O rabote mashinno-traktornykh stantsii na Ukraine* (Khar'kov, 1929).

56 F. Tsyl'ko, "Mashinotraktornye stantsii i kolonny," *Na agrarnom fronte*, 1929, No. 11-12, pp. 151-152.

57 For an example of the contracts that the Shevchenko sovkhos concluded with nearby villages in autumn 1928, see Markevich, op. cit., pp. 298-300.

lowed the path to the joint land cultivation organized by the MTS, and land associations as a whole adopted the Statute [*ustav*] of TOZ on their own initiative.”

The political impact that the MTS had on peasants was emphasized, while the costs required in introducing and maintaining the equipment were not taken into consideration. The MTS in the Shevchenko sovkhos needed as much as 83,000 rubles for tractors, fuel, repairs, and wages to pay its instructors. The depreciation cost of the tractors was calculated on the assumption that they would remain fully operational for seven years.⁵⁸ The cultivation cost, including seeds, was 25 rubles per dessiatine for autumn wheat, and 18 rubles and 23 kopeks for spring wheat. If the autumn wheat price was one ruble and 30 kopeks, the station could not in theory recover its cost unless it received 19.2 puds (in other words, unless the harvest was larger than 76.8 puds per dessiatine). The report stated that “such a harvest of autumn wheat is not excessive under the condition that selected seeds were sowed in fallow land,” but the station suffered a loss as the autumn wheat crop completely failed in 1928.⁵⁹

The report pointed out that the activities of the MTS “obviously had some faults,” but concluded that “such faults were not significant compared with the positive roles that the station played from political and productive points of view, and thus these faults could be ignored.”⁶⁰

7. COMPREHENSIVE COLLECTIVIZATION AND THE MTS: THE ROSEN MEMORANDUM OF 1929

Many proponents of the mechanization of Soviet agriculture in the late 1920s had some relations with Rosen. M. Vol’f, the Chief agronomist of Gosplan, who called for in 1930 “the gigantic, simply frantic rate of mechanization,”⁶¹ was Rosen’s old friend and involved in the Joint’s breeding project in Ukraine in 1923. Grigorii Kaminskii, the Chairman of Kolkhoztsestr who advocated the mechanization of large scale kolkhozy, was Rosen’s brother-in-law. Ivan Klimenko cooperated with Rosen in 1923 as the Commissar of the Ukrainian Narkomzem, assumed the office of chairman of the newly organized Traktortsestr (The All Union Center of Mashine-Tractor Stations) in 1929. M. Kalinin, who had praised Rosen’s 1923 project, highly evaluated the MTS at the 16th Party Conference in 1929, as the “latest experiment to introduce science and technology into small and primitive agriculture.”⁶²

Yuri Larin, an economy theorist, publicly pointed out the relations between the Joint and the MTS in his work published in 1929:

58 According to a party document dated October 1928, tractors (Fordson) run their service life in four years. See *Tragediia sovetskoi derevni: Kollektivizatsiia i raskulachivanie – Dokumenty i materialy* 1 (M., 1999), p. 423.

59 O rabote... p. 38.

60 Ibid.

61 R.W. Davies, *The Socialist Offensive: The Collectivization of Soviet Agriculture, 1929-1930* (London, 1980), p. 393.

62 *Shestnadtsataia konferentsiia VKP(b). April' 1929 goda. Stenograficheskii otchet* (M., 1962), p. 291.

“With almost the same cost of 1,800 rubles per household, the new Jewish agriculture achieved far many more improvements than primitive extensive agriculture by non-Jewish colonists in the same region, and created farms and harvests of much higher levels. The reason was that the colonist farms of Russians, Ukrainians and Tatars were built, with few exceptions, purely by individuals. The farms of Jewish peasants were centralized, and constructed from above in a sense as a ‘colonist sovkhov,’ and then the farms were transferred to individual households with a series of undertakings packaged together, such as a machine association, a joint processing business, compulsory joint crop rotation, joint use of plows and harrows, etc. The centralized preparation of pure bred seeds and the formation of tractor columns were achieved much earlier by the Agro-Joint than the famous experiment of the Shevchenko sovkhov.”⁶³

Mechanization of agriculture, such as the introduction of tractors, was to be the prerequisite for collectivization. In and after 1927, however, the number of tractors imported drastically declined. The Ukrainian Sovnarkom complained to the Council of Labor and Defense in September 1928 that the allocation of new tractors for the next spring sowing campaign was not enough even to replace the old tractors.⁶⁴

From the summer of 1929 on, collectivization was hastily introduced without the material and technical prerequisites. According to a report at the plenum of the Central Committee of the CPSU in November 1929, large-scale kolkhozy were organized without tractors, pointing out the problems of collectivizing without tractors. Such questions were suppressed, however. The idea of adapting the rate of collectivization to the number of tractors available was flatly refused as “right-wing opportunism.”⁶⁵ From the summer of 1929 through 1930, comprehensive collectivization went ahead without the material prerequisites, leading to intensified confrontation with “kulaks.”

On December 29, 1929, immediately after the declaration of the “Extermination of kulaks as a class,” Rosen sent a memorandum to Petr Smidovich, then the Deputy Chairman of the Central Executive Committee of the USSR, pointing out the fact that the MTS was derived originally from the Joint’s tractor project in 1923.

“Our organization has made some contributions to the development of the tractor work in the Soviet Union. The Joint carried out the first large-scale introduction of tractors already in 1923, organized tractor columns and central tractor repair shops, and with the aid of the tractor, created a massive scale pure-quality seed plantings in colonists and peasants’ fields for the first time in the Soviet Union. The Soviet’s first Machine-Tractor Station in the Shevchen-

63 Iu. Larin, *Evrei i antisemitizm v SSSR* (M., 1929), p. 206.

64 GARF, f. 5446, op. 9a, d. 51, l. 3.

65 *Tragediia sovetskoi derevni* 1, pp. 762-764; Davies, op. cit., p. 390.

ko sovkhoz in the Odessa Okrug was built based on the experiments performed by the Joint in the South of Ukraine.”⁶⁶

Rosen warned that the MTSs were causing harmful effects instead of improving the labor productivity of peasants, because peasants were being forced to live in the service zones of poorly equipped MTSs. Rosen warned Smidovich as follows:

“[The Joint] does not oppose further development of the mechanization of agriculture. On the contrary, it was the initiator and the very entity that introduced the new form in this field. These activities done by the Joint are based on the idea that the development of tractor works and Machine Tractor Stations must aim at reducing the labor of peasants, improving cultivation technology, and increasing the labor force and labor productivity per unit of land area. If these purposes are not achieved, poorly organized Machine-Tractor Stations are good-for-nothing, and money-consuming and even harmful.”

According to Rosen, as a result of the failures of these poor quality MTSs, “the very idea of a central energy base could lose its prestige.” Rosen emphasized the significance of the MTS, and stated that “the activities of the MTS can develop well, only if peasants themselves understand the advantage of the MTS facilities, feel that their labor is reduced, and know that their earnings increase in reality.”⁶⁷

This “memorandum” is the only document in which Rosen clearly expressed that the MTS was the Joint’s invention. Rosen never published this fact. In the Joint’s archives, there are documents that point out the similarity between the Joint’s tractor project in 1923 and the MTS.⁶⁸ As is the case with many other secrets, however, Rosen consistently remained silent on the MTS. The reason is obvious. The MTS was far different from his original ideal, i.e., to provide effective service to the peasants. Moreover, the fact that the MTS originated in a Jewish organization could provoke anti-Semitism in the worst case.

66 GARF, f. 7541, op. 2, d. 53, l. 68-69.

67 Ibid., l. 70.

68 Agro-Joint file, No. 537, JDC Archives.