Agricultural land use in the northern provinces of Russia: rural self-governments and local societies in the creation of pastures and public grass cultivation, late 19th – early 20th centuries

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Abstract. Within environmental history of Russia it seems important to touch upon the stages of mainstreaming sustainable use of agricultural land, one of which was associated with the stimulation of rangelands. A study focuses on the non-chernozem provinces of central and northern Russia, where the climate and soils did not allow for high grain yields, while the development of animal husbandry called for an expansion of fodder resources. An important tool to improve forage supply, proposed by agricultural science, is meadow and field grass cultivation. Rural self-governments and social agronomy, along with the state, turned out to be a conductor of this method in a peasant environment. An insight is given as to how complex green manuring rotations was “instilled” in the peasant economy. The paper analyzes peasants’ reflections towards grass sowing, establishes the reasons that hamper its assimilation, critically evaluates the mythologeme of “silence” of the peasantry. The paper traces back circumstances to cause a shift from intensive land cultivation and a changing structure of the peasant economy in the 1910s.

1. Introduction
In the Russian Empire, whose economy depended on grain exports, rationalization of land use constituted an important part of the solution to “agrarian issue” [1]. The growing needs to provide a source of feed for animal husbandry in the middle of the 19th century given a low efficiency of natural pastures stimulated a transition to intensive methods – improvement of meadows, promotion of field grass cultivation [2]. An important component of land reclamation was also developed, namely, marshes were drained, peat bogs were plowed and turned into fodder lands [3]. Pastures were more widely and rationally used for grazing and cutting, when the best in composition grass stands, located closer to the farm, were used as hayfields, whereas the worst and more distant ones – as pastures. The most difficult and, though, effective method of improving animal feed was multi-field green manuring rotations enforced for use on peasant farms.

Of particular interest is the history of grass cultivation in non-chernozem provinces. Poor podzolic soils, prolonged continental winters did not allow for high grain yields in the region; farming systems basically relied on a primitive three-field rotation; among cereals, rye and oats prevailed. This was accompanied by a plague of central Russia – land scarcity and overlapping. Low-profitable grain farms put on the agenda a need to revise the structure of agricultural production with an emphasis on
the development of animal husbandry and the creation of a supplementary source of feed for livestock. Rural self-governments and public authorities turned out to be the key conductor of measures to mainstream the forage areas in the region [4]. Along with the central government, they played a decisive role both in the establishment of experimental stations for meadow cultivation and in the creation of a pool of qualified agronomists who “worked the land” with peasants [5]. The agronomists were not only involved in the measures developed to improve natural and create seeded hayfields and pastures. They were also tasked to establish contacts with peasants, to overcome passive resistance to innovations from the “inconvenient class” [6]. Six provinces were chosen as reference points, including Moscow, Tver, Yaroslavl and Kostroma provinces of the Central region, as well as Vologda and Olonetsky of the Northern region. Taken together, they provide the most complete insight into the progress of forage lands in the region during the target period.

2. Materials and methods
Since the study was mainly focused on the attitude of peasants to the promotion of grass cultivation, their interaction with local experts, the paper rests on a wide range of sources.

Among the published sources, materials of local self-governments and public periodicals are important, reflecting the way the peasantry accepted grass growing. These sources made it possible to explore the opinions of qualified agronomists about peasant-like grass growing, interest in adopting it among advanced peasantry, difficulties in adapting it for everyday field practice by large groups of the peasantry. Of particular interest are materials containing memoirs, notes, letters, and comments from peasants. Valuable peasant documents were identified and examined stored in the Central State Archives of Moscow.

The paper is one of other interdisciplinary studies at the intersection of ecological history, history of science, peasant studies, historical sociology and socio-economic history of Russia. Many tools and methods of these fields were used, namely, a problem-based and historical approach, a regional and economic approach, a microhistorical analysis, methods of deconstruction, including peasant materials and mythologemes, etc.

3. Rationalizing Forage Lands: Grass Seeding from a Historical Perspective
A source of feed for ruminant livestock was traditionally associated with cultivating pasture meadows and haymaking. Farming techniques, practiced for centuries, were at hand to provide fodder, for a later time. However, low production of natural lands, a need to expand forage reserves to meet the demands of commercial livestock, in particular, a dynamically developing meat and dairy cattle breeding in the post-reform period, required a targeted improvement of meadows, promotion of field grass cultivation.

Grass planting is referred to as the cultivation of annual and perennial grasses in fields during crop rotations or in natural hayfields and pastures. Herbs, especially meadow clover (Trifolium pratense L.), timothy, vetch, alfalfa, foxtail, etc., are valuable nitrogen-fixing crops that accumulate nitrogen reserves in the soil, and do not consume it like other plants.

What was the reason for grass cultivation to become so important for Russian agriculture? First of all, it can be attributed to its regional character [7]. In the black earth provinces of the south and southeast of Russia, otherwise known as a breadbasket of nation, the structure of agrarian land use was tailored for grain production. For more northern provinces of the Non-Black Earth Region with different soil and climatic conditions, the development of cattle breeding was recognized as a key instrument of agrarian rationalization. Given the limited land resources, a sustainable forage base had to be provided by improved meadows, land reclamation and, most importantly, green manuring rotations.

Interest in grass growing in Russia arose back in Catherine’s times, when Western European practices were increasingly adopted, particularly, the contribution of the German agronomist and agrochemist Albrecht Thayer (1752–1828) to the humus theory of soil fertility and the follow-up practices of seed crop rotation. “Fine landlords” at the turn of the 18th – 19th centuries, not only promoted multifield rotation on their farms, but sought to get peasants accustomed to the technique [7,
p. 154]. Thus, the Moscow Society of Agriculture awarded a Yaroslavl landowner I.I. Samarin (1774–1847) a silver medal “for a four-field economy strengthened with grass-sowing among the peasants in the province and success in improving their state” [8]. However, after Samarin’s death, the peasants rejected grass rotations that they did not understand. Indeed, the transition to grass sowing required cutting back the fields with grain crops for the sake of possible, but not guaranteed, profits from sowing grasses. It was not easy for the peasants to take this decision. Hence, a characteristic historical discourse developed in the definition of peasant grass cultivation: the landowner, having tested the “European model”, “enforced”, “adopted” it on peasant lands [7, p. 155].

From the middle of the 19th century, low production of grain farms in the Non-Black Earth Region highlighted the necessity to revise the structure of agricultural production on a broad public agenda. In 1879, the Moscow provincial government organized a special commission, instructing it to explore the reasons for a decline in the peasant farms. The commission came to the conclusion that low yields mainly resulted from an “uneven division of peasant land into arable land and meadows, an insufficient area for foodstuff land with crops of grasses.” The government decreed: “The major agronomic measures should involve proper planting on allotment land, as well as spreading advanced machinery and tools to improve soil cultivation” [9, f. 1781, ser. 1, d. 1 p. 98].

4. Land, Peasants and Clover: the Role of Agronomists

The provinces selected are indicative to evaluate grass growing in the region, where it was a priority modernization project of the Department of Agriculture and the local agrarian community. Thus, Kostroma, Yaroslavl and Vologda were among the seven provinces in European Russia, in which maximal national and local funds were allocated to support grass rotations. For example, in 1911, these provinces received about 45% out of 190 thousand rubles allocated for grass sowing by the Department of Agriculture of the Central Directorate of Land Management and Agriculture (CDLMA). Similar expenditures from rural self-governments and agrarian societies, generally, exceeded those of the national government. Kostroma province took an exceptional position – about 20% of all government appropriations were channeled there annually (in 1911 – about 36 thousand), which were supplemented by even larger sums allocated from local self-governments and agrarian societies [10, p. 54]. In Yaroslavl province, on the contrary, insignificant government expenditures were lost against the background of many times prevailing local funds [10, p. 55]. Tver and Olonets provinces, on the contrary, were distinguished by rather modest expenditures allocated on grass cultivation both from the state and from local governments and societies. Moscow always held a special position – here the influence of both state bodies (Petrovskaya Agricultural Academy, CDLMA experimental stations) and public agronomy represented by the Moscow Society of Agriculture and local governments was traditionally strong.

What was happening in the provinces “on the land”, was there a solid response from the peasants to the innovation? What relationships did the peasants establish with local experts who taught them how to grow grass? Let us consider these issues, bearing in mind that the discourse of “instilment” when describing peasant grass cultivation implied not only inertia, but also resistance of the peasants.

The transition to grass cultivation was hard because a positive effect was visible when it was applied for a large area – either by the entire village commune, or on lotted farms (farmsteads) that were still very rare in the central provinces even following the law on lotting out as part of the Stolypin agrarian reforms of 1906.

The materials left by local experts are the most accessible source, “mediating” the voices of the peasants. Information about the attitude of peasants to grass sowing was reflected in their publications by local agronomists, government advisors on meadow cultivation, teachers, and local historians. For example, V. Zaritsky, a senior advisor on meadow farming in the Kostroma province, examines the reasons for the “miserable state of our mowing areas” – their “grazing” by livestock, compaction, waterlogging, etc. and, inspired by the peasants Tormin (village of Mikhailovskoye), Melnikov (village of B. Makarovo), Kopylov (village of Vasilievskoye), discusses reclamation and agrotechnical procedures to improve them like drainage, harrowing with improved tools, fertilization, sowing of
meadow grasses [11]. In conclusion, the expert emphasizes the complexity, novelty and interest of individual peasants in the “novel start-up”: “We will not bother the reader by giving such examples, since these are enough to perceive all the profitability of this, still being new in our country, business” [11, p. 28]. In 1911. A. Palkin, an agronomist of the Vetluzhsky self-government of the same province reports on the results of collective experiments on sowing clover and lectures with transparencies to be displayed. According to him, “the majority of population is extremely inert, dependent, motionless and generally non-educated; grass sowing was promoted with difficulty – we could provoke interest among the peasants of six villages, but only two of them took the final decision during the village meetings. However, the villages that switched to multi-field clover rotations changed in a short time – several cows appeared in each yard [12]. G.I. Kulikovsky, an ethnographer and local historian, a researcher of the peasant life of the Olonets province, vividly describes long-standing “folk” origins and promotion of grass growing. [13]. S.P. Fridolin from the Moscow self-government in his work “Agronomist’s Confessions”, assessing the project on grass cultivation as generally successful, notes: “At first, the peasants were very suspicious of the need to cut back arable land. However, after two or three years of grass cultivation recognized its benefits for their own economy” [14, p. 13].

5. Peasants’ opinion

When applied to everyday life of the lower classes, one authentic document “from below” can be much more eloquent than many other sources describing the observation of peasants as objects [15]. The peasantry is believed to have been “mute” and did not leave behind a sufficient array of documents. Therefore, letters, memoirs, journal publications of peasants as subjects of grass cultivation are the most important source of research.

Attempts to plant grass in 1877, undertaken by the department of agriculture through the provincial administration, are evidenced by I. Vasiliev, a native of Poshekhonevsky district of Yaroslavl province: “Sowing clover: maybe it would have been better if the district administration would have got it started in a smarter manner and dared to disobey the instruction of the ministry, in which, as bad luck would have it, along with clover, the peasants were also recommended to plant potato. The peasants, like me, had not yet heard of clover, but potatoes had been known for a long time and were widely planted in gardens. So on this the experience of sowing clover burst” [16, p. 427].

The earliest documents, already associated with local agronomy, are appeals from the inhabitants of the village of Simonka of Zvenigorodsky district of Moscow province to the provincial council in the spring of 1880. In the first letter, the peasants declare their desire to engage in grass sowing “in the amount of 34 people who have the right to vote ... consent to seeds in the invitation of clover, the whole society wishing to take measures in sowing” [9, f. 148, ser. 4, d. 146 p. 1-1 turnover]. The next letter contains “gratitude from the peasants of the village of Simonka” for the clover seeds and a request “not to leave aside our future demands for clover seeds” [ibid, p. 3]. The letters suggest that the peasants succeeded in clover sowing for some time, they knew the basic agrotechnical features of the culture. The language of the letters is so specific that it is difficult to imagine an expert’s “guiding hand” behind it.

Since the mid-1900s, rural periodicals actively published peasant materials on grass growing under the headings “Based on Rural Life”, “Letters from the Village”, “Correspondence”, “Farming notes”, etc. For example, N. Dmitriev, a peasant from Kostroma province, reports: “The clover-based hay is very fatty and nutritious for all livestock, clover provides excellent mowing in comparison even with our best meadows. I want to say not only what I have read, but also tested in practice. The correct order of fields will prove to us that agronomy teaches us good things” [17, p. 20-21]. N. Sokolov, a peasant of the same province, describing the results of the introduction of 8-field grass rotation combined with Vicia lot-out fallow land, concludes: “I think next year I will practice Vicia fallow and I don’t think to leave this practice in the future” [18, p. 6].

N. Chekalin, a Yaroslavl peasant describes a successful “improvement experience” that consisted in harrowing and fertilizing a mossy clover meadow with kainite. However, he further criticizes the
self-government and federal agronomists for their sluggishness and inconsistency in helping the peasants [19, p. 45].

I. Lovtsov, a peasant from the Vologda province says that he has been sowing herbs for more than 10 years as “the most profitable business” and concludes: “With a skillful handling of clover and vetch, no one can say that these plants are marginal. If others do it in a different way, they need to learn from those who do better” [20, p. 45]. N. Gladyshev echoes him: “Experiencing all the benefits of grass sowing, I will annually increase an area for clover sowing and I fervently advise everyone to sow clover” [21, p. 28].

The situation is more complicated among the peasants of Tver. The peasant I. Zalivalov complains about the lack of fodder and the neighbors’ lack of interest in improvements, but notes that after the crop failure, they began “to gather in camps, where only speeches, that about hay, about the land and about the swampy place that now they agree to drain” [22, p. 246]. A. Soloviev, a peasant from another district, tells about the difficulties he faced when being transformed to individual land ownership, he talks with pleasure about the established 8-field clover and flax rotation: “The inn no longer beckons me as it used to be, and I am thinking whether spring will come soon, and I will arrange various experiments on my own plot, following an agronomist’s advice” [23, p. 209].

The First World War changed the priorities of the regional periodicals, emphasizing materials on food aid to the army, requisitions for livestock; peasant authors went to the front, agronomists were subject to special mobilization [24]. And yet, Kostroma peasant S. Konstantinov, complaining about the crop failure of the first warfare years and the subsequent increase in forage prices, urges: “It’s time to stop counting on the grass growing by itself. Grass must be provided with good growing conditions, just as they are provided for bread cereals” [25, p. 26]. The war radically changed the food system in Russia, affecting primarily agriculture [26]: the massive requisition of peasant livestock entailed a spontaneous restructuring of field cultivation, the loss of many of the achievements of pre-war intensification, including grass sowing.

6. Conclusion

As shown in the paper, in the early 20th century, grass growing was winning a stable position in the structure of Russian agrarian land use. Before the start of the war in the Russian Empire, the total area for sowing grasses and forage crops reached 3.3 million hectares. The paper asserts that the peasantry, from a passive object of transformations initiated by the elites who “enforced” innovations, was turning into a subject, an activist of improvements, capable of reflection. This is evidenced by various statements made by peasants regarding grass growing – from gratitude to expressing their interests and evaluating the pressing problems of the local economy. Despite a traditional distrust, the peasants were willing to get in touch with agronomists, experimented with sowing grasses and crop rotations, especially in land allotments. These data destroy the mythologeme of “muteness” of the peasantry, which for a long time remained the central position of Russian peasant studies. The “inconsistent class” spoke, albeit through the mouth of its competent representatives.

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