Late XIX - Early XX Centuries Traditional Forms of Agricultural Technology
(On the Example of the Population of Southern Uzbekistan)

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Annotation: This article scientifically reveals the forms of traditional agriculture of the population of Southern Uzbekistan in the late XIX - early XX centuries on the basis of available sources and literature, as well as field data.

Keywords: Southern Uzbekistan, Kashkadarya, Surkhandarya, oasis, peasant, winter (white), spring (blue), plow, seeder, harrow.

In the late 19th and early 20th centuries, difficulties in water supply in southern Uzbekistan led to land shortages. The efficient use of available land depended in many respects, first of all, on agricultural techniques. In Central Asia, crops are divided into two depending on the time of sowing: autumn crop (white), spring crop (blue).

Information on the terms "white" and "blue" in agriculture P. It is also reflected in Ivanov's research [1: 750-751]. A. N. According to Sobolev, white crops include wheat, barley, flax, that is, all autumn crops or tiramisu crops. Spring and summer crops: rice, millet, mosh, peas and oats were considered green crops. Thus, “white” and “blue” crops consisted only of cereals [2: 9].

The region has long had a tradition of paying wages with agricultural products (in kind) instead of money. In particular, during the reign of the Emir of Bukhara Amir Haydar (1800-1826) for the services of the Bukhara army received twice a year with grain, that is, after the harvest, safid bari (white) and kabud bari (blue). In the Bukhara khanate, before the arrival of the Russians, the service fee was paid in kind. A. I. As the day points out: “Rewards for employees are in kind twice a year: the first is in the middle of summer, which is called safid bari. Barley and wheat were given. At the end of autumn, rice and oats were given for the second time and it was called kabud bari” [3:].

The division of agricultural crops into autumn and spring-summer varieties belongs to the whole of Central Asia. [3:]. In Khorezm, wheat and barley were considered autumn crops, and green crops included all other cereals. In the Bukhara oasis, white and blue crops include only cereals, and in Zarafshan and Kashkadarya, only vegetables and greens (carrots, onions, turnips, etc.) [4: 233]. In the Surkhandarya oasis, autumn crops are called "white crops" and spring crops are called "blue crops" [5:73].

According to historical data, farmers divided their lands into three acres and planted wheat, barley, millet, sesame, moss, and flax on a larger area [6:60] because these crops required less water. Limited to watering 2–3 times, does not require much labor, ripens early, the harvest is over in May-June. After they were harvested, corn, evening melons and other crops were planted in their place.

The third plot of land is in many farms, and a certain part of the land is left to rest to increase productivity, such plots are called "plow" or "plow" [7:]. In mountainous areas, fallow lands served as pastures before plowing and prepared the ground for next year's harvest [8:50]. In particular, it can be observed in the villages of Kul, Gilan, Beshbegi, Hisorak, Avlod, Posurkhi, Kurgancha, Bibishirin, Shayit, Chinor, Gaza, Kyzylkoriz, Kokchi, Shursay [9:].
Farmers have used the methods used by their ancestors for centuries. Cultivation required a farmer to know a lot, first of all, how the weather will come, how much water there will be, how to choose the right seeds to be sown. In addition, it is important to know the muchal, the types and varieties of crops are selected depending on the year. For example, the year of the snake was very dry in the region, there was almost no precipitation, the wind was constantly warm, the Afghan wind was blowing, and the year of the sheep was very rainy [10:89].

All farmers in the region planted crops year-round. The agricultural calendar required for agriculture consists of 90 cycles, each season divided into 90 days: spring ninety (hamal, savr, javzo; summer ninety (cancer, asad, sunbula); autumn ninety (mezon, aqrab, qavs) and winter ninety (jaddiy, dalv, hut) [11:112]. In turn, the hot summer and cold winter days were divided into large and small chillas. planted, watered, cultivated, harvested. Especially with the advent of the month of Hut (February 19-March 20), the work in the fields became heated.

In the twentieth century, transformational processes, changes and modernization began to be observed in the field of tools used in agriculture. New types of crops and non-traditional agrotechniques related to them began to enter agriculture [13:80-89]. From the 1920s, the population of the region began to use new types of agricultural tools.

Russian and Tatar farmers began to bring with them modern equipment used in agriculture. They mainly tried to import machinery produced in factories and mills. The government has also begun to organize exhibitions showcasing various agricultural techniques in order to replace the plow, one of the main tools of the local population, with plows [13:80-81]. The main purpose of this was to increase the interest of the local population in new agricultural equipment [14:].

Local farmers gradually began to use wheeled plows, seeders and fertilizer spreaders [15:260-265]. However, such techniques were initially purchased and used mainly by immigrant Russians. Later, the locals also used these farming tools.

It was the most popular plug among farming techniques. The Russians and Tatars, who moved to the oasis, first plowed the newly developed land with a "Russian plow" made of two-wheeled iron, attached to a horse, using modern equipment.

The plow is a technical tool designed for basic tillage, ie plowing, in terms of its function it is designed for general work and is divided into two special groups.

While single-toothed and double-toothed plugs have a service life of 7 to 10 years, a hammer has a service life of 10-12 years. However, the difference in their price was 8-9 times [16:].

It was not easy for the Russians to replace the "wooden plow" that had served the peasants for thousands of years with a two-wheeled "horse-drawn iron plow" attached to a horse, and to switch to mowing with a sickle. First, such labor weapons also entered the market and were quickly sold. Second, the financial capacity of farmers was not always sufficient to purchase machinery [17:105].

Plows, seeders, harrows, and sickles used in agriculture in Russian settlements first entered the local, self-sufficient peasant farms. Along with grain plows, the farms have Ekker and Sakko (Germany) plows. Sources have argued that the need to squeeze out Ekker plugs through mass production of Don plugs [18:32].

In conclusion, first of all, traditional farming in Southern Uzbekistan has had its own peculiarities in certain periods, when farmers sought to improve the tools of labor, but the transition from simple tools to complex tools was very difficult.

Secondly, it should be noted that the system of public administration in the region has not paid serious attention to the improvement of tools, the creation of new tools. Despite being the raw material needed to upgrade the tools of labor, the necessary funds for engineering have not been allocated, and the ordinary working people have achieved certain creative achievements on their own for centuries.
Third, in the field of agro-technology, it can be observed that the local farming culture has generalized knowledge and experience related to the creation of new varieties, planting and harvesting crops, depending on their capabilities and conditions.

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