



# Rice Cultivation in Kashmir during Dogra Period – *Methods, Extend and Production*

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## *Abstract*

Agriculture is the source of perpetual creation on which civilization depends. It has a significant role in the economy of a region or a country. The 19<sup>th</sup> century agriculture was dominated by the cultivation of food crops all over the world and India was in no way an exception. Likewise, the agriculture in Kashmir was dominated by cultivation of food crops, supplemented by the cultivation of few commercial crops. Agriculture in Kashmir has always been a significant aspect of people's lives and principle source of food and wealth. More than 75% population of Kashmir valley was engaged in Agriculture and its allied activities during the second half of the 19<sup>th</sup> Century and the first half of the 20<sup>th</sup> Century. Even those who were engaged in the secondary occupations i.e. Shawl making, Silk rearing Carpet making etc. greatly depended on agricultural sector for food and raw-materials. Thus, the agrarian economy has been a matter of interest affecting all the sections of Kashmiri society in a variety of ways. During the Dogra regime subsistence agriculture was practiced in Kashmir characterized by the cultivation of food and commercial crops to satisfy largely the local requirements, with divergent patterns. The main purpose of the Dogra Maharaja's agrarian policy was to fill the coffers of Government Treasury and changes were made in it from time to time keeping this in mind.

**Key Words:** Thajwan, Kenalu, Nihali, Waater, Khushaba, Dol-i-Jinsi, ankut jug.

## **Methods of Rice Cultivation:**

The agricultural operations in Kashmir are divergent to the rest of the country. The obvious reason for this was the geography and climate of the region which was totally different from other parts of the country. Generally, the agricultural operations in Kashmir begin after the *Nauroz* which coincided with 21<sup>st</sup> March of the Christian calendar. (Lawrence, 2012) The dawn of this new agricultural season begins with ploughing of the fields for rice crop.

Rice, *Daniye* in Kashmiri, about which we first heard in China was cultivated in Kashmir since ancient times. It has a vital significance as it was the staple food for Kashmir populace and also the main source of revenue to the state. (Crooke, 2015).

Various varieties of rice were grown in Kashmir during the Dogra Period. *Hassan Khuihami, Har Gopal Khasta* and *Dewan Kripa* mentions ninety-six varieties of rice that were being cultivated in Kashmir during that period. (Ram 1870) Lawrence during his settlement operation in Lal Tehsil noted that 53 varieties of rice were grown in that tehsil. On the basis of colour, rice generally has two varieties i.e. white rice and red rice. Among the two, the white one, basmati, was considered the best for food. This and another white variety, *Kanyun*, germinated very quickly and ripened more rapidly than any other but these varieties were also very delicate and could not stand the cold winds. Therefore, the white rice was less popular with the cultivator than the red rice which was harder and gave a larger out-put.

Cultivated as a Kharif crop, the ground for sowing *Shali* was prepared by ploughing which started from the middle of March and lingered till the end of April or even to the middle of May at a few places. Manure, *pah* in Kashmiri, which has always been essential in establishing and maintaining contact between the soil and the plant, consisting mainly of cow dung, grass and ashes collected in heaps during the winters, was taken to fields from the middle of March. Sowing rice seeds (*Daniye*) commenced in May and reaping started in October and in some cases lingered till November. (Thorp, 1870) Lawrence mentioned two methods of preparing the soil for rice cultivation namely *Tao* and *Kenalu*. Under the *Tao* system the soil was ploughed dry and when the clods were perfectly free from moisture, irrigation was arranged and seeds were sown. This method yielded best results. Whereas under the *Kenalu* (Wet) method, the soil was ploughed wet and after two – three ploughings, when the soil was ready, the seeds are sown. (Lawrence, 2005)

Agriculture in the valley depended largely on the timely arrival of the monsoon and due to the uncertainty of the weather there was a considerable variation in the production levels. In April and May, occasional thunderstorms occurred in the valley, resulting in light-to-moderate showers. This hot season rainfall was of considerable importance for cultivation in the valley. (Lawrence 1909)

During the period of our study, two methods of rice cultivation – *Nihali* and *Waater* – were in existence in Kashmir. (Lawrence, 2005) Under the *Nihali* method, sprouted seeds were sown densely in a small patch of land called '*thajwan*' (Nursery). Before sowing the seeds, *Thajwan* was prepared after two or three ploughings and clod breaking. It was carefully leveled, well manured and properly irrigated. When the seedlings attained a height of one feet or after forty days, they were plucked out and transplanted to the rest of the fields which

were prepared well. Planted at the intervals of about eight inches, they struck fresh roots in a few days and the subsequent operation consisted of weeding, twice or thrice if necessary, and regulating the supply of irrigation water. (Singh, 1922)

Under *Wateer system*, a later development, the broadcast system involved much labour because it was sown earlier and required more watering, more weeding and was labour intensive. It needed more ploughing than the nursery system and was fairly unproductive. Under this system, wet seeds were sparsely broadcasted over the entire field, carefully ploughed and irrigated. The *Wateer* method was widely used during the Dogra period but the *Nihali* method was the most common. The *Wateer* system was found in the seven-eighths of the tehsils of Kashmir while *Nihali* was found in one-eighth only. In the areas with ample water-supply in the beginning of the spring season *Wateer* method was preferred over the *Nihali* method, which was undertaken in the places where water for irrigation reached late in the season from the hills. (Singh, 1922)

Weeding, known by a generic term *Khushaba*, (Lawrence, 2005) was undertaken stage by stage for good harvest. It commenced soon after sowing in order to protect the tender plants from deterioration and to ensure their smooth growth. In that respect, the *Wateer* system was more labour intensive as it required weeding four or five times while in the *Nihali* system the weeding was undertaken only twice. (Saheb, 1920)

Lawrence pointed out that for the *Nihali* rice cultivation method two *khushaba*'s were undertaken and for *Wateer* method the peasants undertook four *khushaba*. The first stage was known as *Watai* was done in rough way, weeds were plucked out and worms and snails (*hangi*) were removed. After fifteen days of the completion of the first *khushaba*, second *khushaba* known as *sroad* was undertaken. Under this weeds were again taken out, the soil is worked and where the plants are deficient or superfluous, the necessary remedy called *trapu* was applied. It included to plant at those places where the plants had been damaged and to remove the plant where it was dense. Then after fifteen or twenty days the cultivator undertook another *khushaba* known as *motnind*. Under *motnind*, the main task was to extract *hama*, a weed similar to that of the rice plant. The last stage of *khushaba* known as *trowanind* was undertaken one and half month before the crop ripens and consisted of weeding and working the soil. (Lawrence, 2005) Weeding of rice crop was very painful and required intensive labour. There were no special implements used for weeding as it was done with the hands and feet. While carrying out weeding in rice fields, the peasants had to remain constantly postured on their knees with their backs bent with one foot backward and one foot forward in the wet fields till the end of the operation with the brief intervals of rest.

Two diseases known as *Handur* and *Rai* usually damaged the crop. *Handur* referred to a variety of paddy which failed to mature in time. It was a disease which usually occurred when there was an early snowfall resulting in cold winds which prevented the ripening of the grain on the plant. As a result, the grain with the husk remained by and large unripe. *Rai* on the contrary was a disease which ate up the substance of the grain. (Hangloo, 1995) The husk cover of the grain would indeed ripen but there would be no grain in it. The disease usually occurred due to failed rains. Once these diseases attacked the crop it fastly spreads to adjoining fields. The only remedy known to control this was to cut the affected plants. (Saheb, 1920)

The rice fields were renovated by farmyard manure, carried to the fields in the wicker baskets. In the *nambal* (swampy) areas decaying vegetation and the silt from rivers enriched the soil. (Lawrence, 1909) The manure was put on the land after the second ploughing and was either ploughed in while the land was still wet or was scattered by the women over the entire land and was then soaked in by the water. After all this process, the soil was leveled with a kind of harrow (*matela*) and when the land is a consistency of liquid mud the rice plants were dribbled out or the *waater* see was sown. The *khushaba* consists of the water weeding and working the soil and the roots.

The sickle, a very important and integral implement in Kashmiri agriculture, was used at the time of harvesting the crop. No special arrangements for threshing paddy, which could have saved a great amount of labour, was made. For the threshing of paddy, bundles of rice straw were tied against a wooden log on the threshing ground. Then commenced the beating of sheaves of paddy on this wooden log. That was how the grains were detached from the stalk. (Hangloo, 2008)

### **Extent of Cultivation and Production:**

At the time of harvest, the maharaja organized a feast called *ankut jug* (Bates, 2005) to celebrate the harvest of crop. The cultivator on the other hand devoted most of his energy and time to rice cultivation. Lawrence, the settlement commissioner in Kashmir, recorded, “*for the rice cultivation, the cultivator spend his days in terracing the fields, expand great labour in digging out irrigation channels and spend his nights out in the fields in watching the flow of water and passed laborious days morning till evening like an amphibious animals in the wet and deep mud.*” (Lawrence, 2005, p. 330)

During the 19<sup>th</sup> century and first half of 20<sup>th</sup> century, the geographical distribution of rice cultivation in Kashmir ranged from plain valley to an altitude of 6000 to 8000 feet. (Saheb, 1920) In the mountainous region where the water usually remained cold, rice was cultivated at a small portion whereas *tromba* (buck wheat) and maize formed the major crop for cultivation. (Lawrence, 1909) Here it was sown earlier than the normal sowing period because of the relatively colder climate. (Lawrence, 2005) In Kashmir certain areas produced a particular variety of rice only. Telbal situated on the eastern bank of Dal Lake was famous for *chughat* variety which was very soft. Kasba Lal was known for *anzan*, Salora for *gudh-krikum* and Nirpur in Anantnag wazarat produced good rice. (Lawrence, 2005)

The yield of rice varied throughout the valley and it was greatly determined by the type of soil and supply of water. Weeding also influenced the yield. The wazarat of Islamabad had the highest yield per acre of land. River Jhelum, which originated in Shahabad pargana of this wazarat near Verinag, flows through the region enriched the soil every year and facilitated adequate and regular irrigation to the agricultural lands through its tributaries. It was supplemented by other small rivers and rivulets. The yield in valley varied between ten and sixty *maunds* per acre but twenty to forty *maunds* featured generally in most of the rice lands. In the hilly areas, the yield of rice was very low. It was because the soils in these areas were deficient in fertility, climate was cold and irrigation facilities were insufficient. According to an estimate, 1235,358 kharwars or

about 2500,000 maunds of rice were annually produced in Kashmir during the Dogra rule. (Gazetter of Kashmir and Ladakh, 1974)

Rice was the state monopoly and its export outside the Valley required permission of the concerned authorities. (Ram 1922) In 1846, Maharaja Gulab Singh, the founder of the Dogra Dynasty, abolished the private sale of rice and made it a state monopoly along with the maize. The export of rice outside the valley, now, required permission of concerned authorities and its price of *shali* was regulated by the state authorities. During Maharaja Gulab Singh's reign the price of *shali* was fixed at two rupees per *kharwar* which varied between one to three rupees per *kharwar* during the preceding Sikh period. (Sharma, 1986) A series of Shali stores, called *Kotas or Zakhiras*, were erected in Srinagar and in the headquarters of other *Parganas* to store grain and sell it at the price fixed by the state authorities. Maharaja Gulab Singh also established the department of *Dol-i-Jinsi* (the grain office) for the transaction of rice business in a proper way. (Koul, 1971) Thus, the rationing of rice commenced in Kashmir for the first time in its history during the Dogra period. (Panikar, 1989) This hit hard peasantry who on account of the elimination of competition, had to sell it to only one customer i.e. the state at the price fixed by the state. According to an estimate 12,35,358 (2500,000 maunds) were stored per annum in *Kotas* during Ranbir Singh's period and about four lakh of *Kharwars* were sold to shawl weavers at the rate of two *Chilki rupee per Kharwar*. (Gazetter of Kashmir and Ladakh, 1974) The rice was sold at the rate  $1\frac{1}{4}$  *chilki rupees per kharwar* with minor fluctuation like in 1879 when one *Kharwar* was sold in  $1\frac{1}{2}$  *chilki rupees*. (Wingate, 1887)

In the 1890's the prices rose and during the World War First the prices of rice rose to highest. One *kharwar* of *shali* was sold at the rate of Rs 18 and even R. G. Wreford, manager State Grainaries of Jammu and Kashmir, recorded evidence of Rs 24 were paid per *kharwar* of *shali*. (Wreford, 1928)

The export of rice, however, was prohibited since Gulab Singh's time. (Ram 1922) It might have been done to suffice the local needs as on account of poor communication, it was difficult to impose the rice from the plains as to stop the scarcity of food supply in the valley.

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