

COVER STORY

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Preserving Ethnic Farming

Keeping the productivity in continuity is the challenging goal for Indian agriculture. Kerala can address this challenge confidently as it has proven records of homestead level sustainable food production. The glory of Kerala's homestead farms was widely known to the world till a few decades ago! Unfortunately, this tradition along with the on-farm diversity, people's knowledge and innovations being fast disappearing due to the obvious reasons of the changing cultural and developmental needs of the state.

Article, discusses the Wayanad Ethnic



High end rice varieties in Wayanad and adjoining regions

Veliyan (Mannu Veliyan): Drought and flood tolerant, source of high calorie energy, used in brewing home liquor and the burned husk is most preferred for homemade tooth powder

Chettuveliyan: Flood resistant, comparatively high yield, bold and red colored grain, nutritious and tasty rice, it gives a feeling of fullness when consumed, resistant to various biotic and abiotic stresses, high fodder yield as well as grain yield;

Palveliyan: Highly preferred for rice gruel ('Kanji'), white kernel;

Thondi: Tasty rice, red kernel;

Palthondi: Highly preferred for rice gruel, white kernel;

Marathondi: Red and stiff rice;

Chennellu: Holy and Medicinal rice, used as a cure for stomach ulcers, vomiting etc; considered as the king among traditional rices;

Kaima: Scented rice, preferred for preparing breakfast dishes and ghee rice;

Urunikaima: Scented, preferred for preparing breakfast dishes;

Mullankaima: Scented, used in the special occasions in the family;

Poothadikaima: Scented with strong aroma, preferred for preparing beaten rice; Gandhakasala: Scented, preferred for Biryani and Payasam in special occasions in the family;

Jeerakasala: Scented, preferred for Biryani and Payasam in special occasions in the family;

Mullanpuncha: Drought resistant;

Thonnuran Thondi: Short duration, traditionally treated as famine crop, harvested on emergency during the scarce periods;

Kalladiyaryan: Highly drought resistant. Suitable for valleys and terrains;

Onavattan: Tasty rice, introduced variety;

Chempathi: Scented rice;

Chomala: Highly tasty rice, white kernel, preferred to prepare break-fast dishes during special occasions;

Chenthadi: flood tolerant, tasty grains.

Food and Nutrition Security of the Vulnerable Communities of Kerala



Agriculture System of -the major grain rice - some suggestions to revitalize this Heritage Agricultural System, and hopeful that sharing of this learning would help to design a suitable agricultural system that ensure sustainable food and nutrition to the vulnerable communities of a global biodiversity hotspot like the Western Ghats.

Wayanad Ethnic Agriculture System

Wayanad is one of the very few locations of the Western Ghats region with rich agro-biodiversity conserved at on-farm by the ethnic communities like the scheduled tribes. MSSRF has documented over 400 such diversity comprising mostly landraces, cultivars, and in some cases distinct species in

diverse genera (MSSRF Report 2011). The farming takes place at both the steep mountain planes and on the valleys.

Tribal Communities

The tribal communities constitute 17.43% of the total population of the district, which is the highest share of Adivasi population (about 36%) in Kerala. The major communities that inhabit the district are Paniya (44.77%), Mullu Kuruma (17.51%), Kurichya (17.38%), Kattunaicka (9.93%), Adiya (7.10%) and Urali Kuruma (2.69%). These groups can broadly be categorized respectively into agricultural laborers, marginal farmers and forest dwellers.

Kurichya are one of the largest joint families of India, often holding large land areas and with more than 100 family members living together in one single house complex. The agrarian system of Kurichya have similarities

with that of the traditional agrarian society of Kerala existed before the Sangam period. (Suma 2014, Varma 2004).

Diversity of Rice

There are two crop seasons for rice cultivation in Wayanad, Nanja (monsoon crop) and Punja (summer crop). Earlier tribal farmers cultivated long duration traditional varieties like Veliyan and Chenthadi during Nanja and short duration traditional varieties like Kalladiaryan and Thonnooram thondi during Punja season. But now most of these farmers cultivate traditional varieties with long duration during the first crop season, Nanja and High Yielding Varieties like Athira, Uma, Kanchana, IR20 during Punja. In certain pockets short duration varieties like Kalladiaryan are still cultivated during Punja.

Valicha Krishi

A unique form of rice



The varieties used are also tolerant to pests and diseases. The benefit of Valicha krishi is that even if the stem breaks; it develops new tillers and can survive in adverse conditions.



cultivation of the tribal system is Valicha Krishi, which was widespread in earlier times owing to large landholding and reduced workload. Presently, it is done only in remote pockets in waterlogged/marshy fields that are unsuitable for other cultivation. By this method, long duration crops which can withstand water logged conditions (preferably with a span of 7-11 months) are selected, as minimum work is done after seed broadcasting. The varieties used are also tolerant to pests and diseases. The benefit of Valicha krishi is that even if the stem breaks; it develops new tillers and can survive in adverse conditions.

The land selected for Valicha krishi is usually marshy or water logged areas. The rice diversity and their uses in Wayanad is astonishing. It is based on the terrain, soil type, and climate, the community here selected the varieties for cultivation. The other factors that influenced in selection of varieties were type of wetland, water availability, taste etc. The selection of variety for the crop season was based on the crop duration.

A study by MSSRF in 2011 showed that there were more than 75 traditional rice varieties cultivated throughout the district. Some



of the varieties are believed to have evolved in this place and some were imported during the course of immigration of people from the plains. But this has reduced to 35 out of which only less than ten are now extensively cultivated here. If the situation goes on like this it will take only a few more years for the erosion of this vast genetic wealth. The cultivation of such specialty varieties is decreasing day by day, the major reason being low productivity of these varieties compared to the High Yielding Varieties (HYV).

When compared to other districts of Kerala, Wayanad is the only district having at

least 35-40 varieties of rice conserved through cultivation. This richness of genetic wealth of the district can be attributed to the ethnic culture of value "rice as food and wealth", and they believe that it is their responsibility to handover this divine wealth, "seeds" to the coming generations for its perpetuation.

The experiences of the people who cultivate and consume these varieties show that the traditional varieties provide more energy in comparison to improved varieties on a per unit basis and the consumption of traditional crops helps to meet the high-energy

requirements for carrying out heavy tasks in high elevation areas. Cooking quality, palatability, grain colour, aroma, calorie content, satiety, medicinal qualities, high fodder and grain yield and cultural attributes influence the choice of a variety among the tribal communities. Resistance to biotic and abiotic stresses of varieties too influences the choice. Traditional varieties are composed of unique traits and are better adapted to different conditions. As an adaptation option for farmers for the imminent climate change impacts, these varieties become extremely important.

Now conversion of paddy lands to banana cultivation is a common and threatening scene in the district, which questions the very existence of the people whose food, nutrition and livelihood security depends upon this crop. Unprecedented droughts and floods becoming common in the district that have reasons like this changed land use pattern. Fighting all the odds the tribal communities of Wayanad still produce traditional varieties as remnants of their rich tradition without any kind of support. ■

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