

Shri Jayant Shamrao Patil

Recipient of Jamnalal Bajaj Award for Application of Science and Technology for Rural Development-1979

Born on 28th March 1927 in a family of farmers at Bordi in Thane district (Maharashtra), Shri Jayant Shamrao Patil received his early education in his native village under the guidance of the late Acharya Bhise, a great Sarvodaya worker. His father the late Shri Shamrao Patil was a freedom fighter and constructive worker.

Soon after receiving his B.Sc. degree in Agriculture from the College of Agriculture, Pune, Shri Jayant Patil inspired by Acharya Bhise and Swami Anand, a close associate of Mahatma Gandhi, decided to devote himself to the uplift of the Adivasis in Thane district. He became a life-member of the Gokhale Education Society and joined as a teacher in the Agricultural Institute, Kosbad Hill (Thane) just then started by Acharya Bhise.

He was awarded the M.Sc. (Agriculture) degree of Pune University in First Class in 1960 for his research thesis on improving rice cultivation. Shri Jayant Patil is presently working as the Director of the Agricultural Institute. He has developed it into a full-fledged organisation with three wings : Education, Research and Extension.

Under a Fulbright Travel Grant, he took the M.S. degree in Programme Planning in Extension from Kansas State University (U.S.A.) in 1964. On his return he strengthened the extension wing of the Kosbad Institute. He visited the U.S.A. again in 1967 on an invitation from the American Peace Corps to Vermont State. These volunteers came to India to serve weaker sections of the people in the applied nutrition programme. During his visit to Australia in 1971, on a lecture tour, he took time off to study the problems of fodder development at the University of Brisbane and the Division of Tropical Pastures of the Council of Scientific and Industrial Research. This enabled him to introduce new leguminous fodders, which had made a fodder revolution in tropical Australia, in our country. In 1976, the Indian Council of Agricultural Research (ICAR) selected him as a Colombo Plan scholar to study the British agriculture education system. After his return he introduced many innovations such as rotational grazing, silage and tree surgery through the Krishi Vigyan Kendra, a training Institute started at Kosbad Hill under the auspices of the ICAR. Thus he utilized all these opportunities which he got for going abroad to learn something which could be applied with some modifications to suit local conditions for the benefit of his countrymen.

The research projects successfully undertaken by Shri Patil have a relevance to the conditions prevailing in our country, especially in the backward Adivasi areas, where a large majority of the people are poor, ignorant and illiterate landless labourers or small farmers, living and working in primitive conditions. Natural resources are aplenty in these areas but were not being fully utilized. A single crop of rice grown in the area during the rains was dependent on the vagaries of the monsoon and much rain water was running to waste. Shri Patil devised a simple cone-shaped surface well, 18 metres in diameter at the top and 5 metres in depth, in which the rain water can be collected and conserved to be utilized during the gaps in the rains. The construction of this type of well at a cost of about Rs 1,200 without any outside materials like cement and bricks was labour-intensive and did not need any skilled labour. Moreover, the silt, animal droppings and dry leaves carried by the rain water into the well formed a deposit of natural manure at the bottom, which could be reclaimed when the well ran dry after the monsoon. This 'Kosbad type well' has been adopted by the Maharashtra Government to be constructed through Zilla Parishads, Panchayat Samities and Tribal Development Blocks.

In order to provide a rich green manure to enrich the soil, Shri Patil has introduced the cultivation of Glyricidia, a legume which grows fast without any irrigation in rain-fed areas. This legume is now widely grown in the area and Shri Patil has established a plantation for supplying seeds and seedlings to the farmers.

Shri Patil demonstrated for the first time in 1966 after experimenting for several years that wheat could be grown in Thane district. The cultivation of wheat as a winter crop has now been widely adopted in the region, increasing the earnings of the people as well as enriching their diet.

Another non-traditional crop brought to this region by Shri Patil is cotton. Cultivation of cotton on a fairly wide scale as a Kharif crop has now been taken up in the districts of Thane, Kolaba and Ratnagiri.

During the summer months, although some of the people could find employment in felling and billeting trees in the forests, the majority of them had no employment. Summer crops could not be grown on a wide scale for lack of adequate irrigation facilities. Shri Patil has launched a project with the assistance of Tribal Development Blocks and aid from agencies like Oxfam (U.K.), Community Aid Abroad and Freedom From Hunger (Australia) for tapping the underground water resources by constructing wells and using electric or diesel pumping sets for irrigation. Over 150 wells including ten community wells for the benefit of small and marginal farmers have been sunk. Shri Patil has evolved a three-crop pattern for growing rice, wheat, moong (green gram) and other pulses, vegetables and fruits round the year with the help of well irrigation. He has organized the supply of inputs like seeds, fertilizers and pesticides through co-operatives.

The west coast districts of Thane and Kolaba in Maharashtra and Bulsar in Gujarat have over half a million hectares of grasslands for growing fodder for a lakh of milch cattle concentrated in the Bombay region as also for their local needs. As the traditionally grown grasses were poor in nutritive value, Shri Patil had been experimenting for several years in this much neglected field to find a better substitute.

After his return from Australia in 1971, he intensified his experiments and identified some strains eminently suited to be grown in these high rainfall regions. The animal husbandry and forest departments have taken up their cultivation on a large scale.

During 1979, the International Year of the Child, Shri Patil has undertaken a programme to set up nutrition gardens. Large numbers of women are being trained in production and utilization of protective foods. Saplings of drought-tolerant fruit and vegetable plants like mango, amla, guava, drumsticks and sesbania are raised on a large scale at the Institute for distribution to weaker sections of the people to help them establish nutrition gardens on their lands.

Shri Patil has developed the Agricultural Institute into a research centre by converting the land of the Institute into a well laid-out experimental farm. A laboratory building has recently been constructed. A West German organization MISEREOR has provided valuable equipment as a gift. The Indian Council of Agricultural Research has recognised the Institute for carrying out research schemes for emeritus and retired scientists. The Konkan Agricultural University has approved the Institute as a Post-Graduate Research Centre.

For the overall improvement of the lot of the tribals, with a literacy level of hardly six percent, Shri Patil has set up three residential primary schools for boy and girls, known as Ashram schools, for imparting education to them through subjects relevant to their life such as growing vegetables, poultry keeping, fish culture and calf-rearing. The children are taught how to turn waste into wealth. In that direction their latrines have been connected to gas plants to utilize night soil to prepare gas for cooking, and slurry as manure.

In order to take science and technology among the tribals, Shri Patil believes that constructive leadership will have to be created from their own ranks. For this purpose he set up a residential secondary school in 1965. His wife, Smt. Meena Patil who holds a Master's degree in Sociology and Bachelor's degree in Education is conducting this school. Apart from pursuing their own studies, the students helped by their teachers take an active interest in community welfare through non-formal education. They have set up such non-formal education centres in four tribal villages.

Under the auspices of the Indian Council of Agricultural Research, Shri Patil has established the Krishi Vigyan Kendra at Kosbad Hill with the object of upgrading the skills of the tribals for bringing about agricultural development. The method adopted is 'learning by doing'. This is a novel type of centre where practising farmers, school dropouts, teachers and extension workers, both men and women, receive training in skills such as grafting of fruit trees and cultivation of nutritive fodder, as well as animal husbandry, poultry, bee-keeping, fish culture and piggery.

Shri Patil has published several research papers in scientific journals as well as hundreds of articles in newspapers like *Loksatta*, *Navshakti* and *Gavkari*.

To sum up, the main thrust of Shri Jayant Patil's endeavours during the last three decades has been to improve the socio-economic condition n of the tribals who have been living a miserable life for centuries. Above all, he has been able to instill a sense of self-reliance and self-respect among these tribals and to create the conditions which would enable them to provide the leadership from among their own ranks for helping themselves to improve their own lot and stand on an equal footing with the rest of the people.

