

Title of the Training :Two Day Residential Training of Trainers on System of Millet Intensification

Programme : Special Program for Promotion of Millets in Tribal Areas of Odisha

Venue : Kuruguda, Chinasari, Gunupur

Date : From 14th to 15th September 2017

Finger Millet (Ragi) is an important millet crop and staple food of tribal people of the Rayagada District. Their food requirements are met primarily through local farm production on small lands, the hill slopes and the forest. They grew varieties of crops through mixed-cropping practices. This practice helped them in maintaining soil fertility. Seeds were stored after each harvest and exchanged, ensuring the local adaptability and availability of seeds to produce several varieties of foods. But his livelihood and income is low. The average productivity is around 230 kg/acre. As a part of the "Special Programme for Promotion of millets in Tribal area of Odisha" program a training program was organized on improved agronomic practice System of Millet intensification (SMI). 20 lead farmers, 4 Community Resource Person and 3 members from the facilitating agencies from Chinasari, Kulusing Grampanchayat of Gunupur block participated in the training.



In the training, Mr. Rabindranath Khuntia, DDA, Rayagada was chief guest, Mr. Soren, DAO of Gunupur as a resource person of the programme, Mr. Neerajan Gouda from WASSAN facilitating the programme, Mr. Gouri Sankar Mishra, President ASHA and Mr. Ramdas Sabar, Secretary of ASHA organization organized the training.

Objective of training

- To introduce System of Millet Intensification (SMI) of ragi cultivation, to enhance productivity in the region
- To convert farmers for adapting and growing ragi under SMI system
- To increase the capacities of CRPs on best agronomy practices to enhance millets productivity

Mr. Khuntia explained the objectives of millet mission. Benefit of millet and different type of millet cultivation in Rayagada district and why the programme launch in tribal area due to eradicate of child malnutrition percentage. In SMI method, farmers enhance their productivity in the tribal area. Mr. Soren also explained the concept of SMI method.

Seed Selection and Treatment

There is no specific preference for using any particular variety of millet seed, but it is always better to start with new seeds rather than using older ones. The quality and best suitable variety should be chosen and the quantity should be 300-500 gm per acre, whereas traditional cultivation required 4 kg per acre. The Seed treatment should be done with Bijamrita, a natural solution for effective protection against pest, diseases and fungi. The solution should be prepared with cow dung, cow urine and lime.

Nursery bed preparation:

Nursery bed required minimum 1 decimal land or 40 sq meter area for 8 beds specification of 5 m length and 1 m width and 9 to 12 inches rise bed above ground level will be sufficient for an acre of land. The bed prepare with mixture of sand, soil and compost at ratio 1:1:1.

Sowing of seeds:

Put the seeds into Ploughed soil at a depth of 1/2 inch, and keep the spacing about 2 to 3 inches between the rows then apply thin layer one inch of vermin-compost or fully decomposed FYM on the bed and, after seed sowing sprayed with *Jeevamrut* by adding water at 1:10 ratio on nursery bed (it can be prepare with 5kg cow dung, 5 litter cow urine, 250 gm jaggery, 250 of pulses flour and handful of termite soil mixed with 10 litters of water). Later, mulching with paddy straw for two to three days help the seed germination process through temperature maintaining.

Land Preparation :-Minimum six time ploughed land is ideal for SMI with bullock plough or four time in tractor. Add 2tons of fully decomposed FYM for one acre of land. Make the lines before furrow making at 12” spacing by wooden marker or rope. Preparation of ridge and furrow will be done by cycle wheel hoe. Put compost on side of ridge not inside furrow. Transplantation in main field collect seedlings without root damage at 15-25 days of age and plant it in the furrows one side where compost is placed at 12 inch mark. Rather cover by putting soil after placing seedling.

Weeding:Weeding should be done at 10-12 days interval by cycle wheel hoe. Apply Jeevamrtuahm / Vermicompost immediately after intercultural or weeding. Weeding should be done three times during the crop season. Do weeding at 12-15 days interval, when the soil is friable. Cycle wheel hoe and simple hand weeding tools can be used.Using a light rollinglog,press down the seedling bending them without damage.

Preparation of Organic manure:

Preparing Jiwamrita (organic manure): Put 10 liters of water in a barrel and add 5 kg of cow dung and 5 liters of cow urine to the water. Then add 250 gram of jaggery, 250 gram of pulse flour, and a handful of soil from the bund of the field or termite soil and stir the solution well. Let it ferment for 48 hours in the shade, and it will be ready for use after this. To use, add 1 liter of solution to 20 liters of water at the time of use. For every 1 acre of land, use 200 liters of this diluted solution. This solution can be used within 7 days.

Multi-Purpose Solution: For sucking pests, pod borers, fruit borers, etc. In a pot, add 10 liters of cow urine. Crush 3 kg of Neem leaves, making a pulp, and add this into the pot. Then add the following three or plant leaves, ground into a pulp, 2 kg of custard apple leaves, 2 kg of papaya leaves, 2 kg of guava leaves, 2 kg of Lantana camara leaves, and 2 Kg Daturastramoniumleaves. Boil the mixture until it is 1/5th of previous amount. When it is cooled, leave it for 24 hours. Filter the liquid through a clean cloth. Spray the filtered liquid (100 ml in 5 liters of water) for controlling the above pests.