

Cultivation of Millets (Finger millet and Kodo millet)

Finger Millet or Ragi or Marua and Kodo Millet are the most commonly cultivated crop among the Millets in Arunachal Pradesh. It is mostly cultivated in Jhum field. April- May months is best for its cultivation in Jhum field.

Climate: Generally the Millets are grown in tropical as well as sub-tropical upto an altitude of 2,100m. It is a heat loving plant and for its germination the minimum temperature required is 8-10°C. A mean temperature range of 26-29°C during the growth is best for proper development and good crop yield. It is grown where rainfall ranges from 500-900mm. Kodo Millet has a heavy water requirement which grows well in moderate rainfall of 50-60cm.

Soil : Millet has wide adaptability to different soil from very poor to very fertile and can tolerate a certain degree of alkalinity. The best soils are alluvial, loamy and sandy soil with good drainage. Kodo millet can be grown in gravelly and stony soil such as in the hilly region.

Field preparation: The first ploughing should be done deep with a soil turning plough at the onset of monsoon. Fine tilth is imperative for proper germination and crop establishment.

Varieties: VL-124, VL-149, mostly developed for the hill states of the country.

Spacing : 20-25cm row-to-row, 8-10cm plant- to- plant

Seed Rate: 6-8 kg/ha.

Seed Treatment: The seed should be treated with Agrosan G.N. or Thiram @ 2.5g/Kg of seed.

Method of Sowing: Line sowing at 3-4cm deep.

Transplanted Crop: Seed should be sown in well prepared nursery beds during the month of May-July about 4 Kg of seed will give enough seedlings to transplant 1 ha of land. 3 to 4 week old seedlings should be transplanted two seedlings per hill at a distance of 25X8 cm or transplanted 2-3cm deep.

Manures and Fertilizers: FYM-5 to 10 tonnes/ha. FYM should be applied one month before sowing. N-60Kg/ha, P₂ O₅-30Kg/ha, K₂O-30Kg/ha

Cropping System: In hilly areas it is grown mixed with Soybean.

Cropping Sequence:

1. Finger millet-Potato-Maize,
2. Finger millet-Potato-Finger millet,
3. Finger millet-Rice

Weed Control: The inter-cultivation and weeding should be done with hand hoe, three hoeing would be sufficient to control the weeds in problem areas.

Disease Management:

Blast: Infection of this disease may occur in the seedling stage with gray green to yellow lesions on leaf blades. To control this disease, the seed should be treated before sowing with Agrosan GN or Cerasan @ 2.5 g/Kg of seed. Resistant variety should be cultivated.

Seedling blight: Serious disease and cause heavy damage. 0.02 % solution of Dithane U-45 should be sprayed.

Insect Pest: Stem Borer/ Hairy Caterpillar/Grass hopper/Caterpillar.

Control: Diazinon(5%) or Thiaden(4%) granules @ 20Kg/ha, to control Borer Hairy caterpillar & Grass hopper spray Carbaryl dust @ 20Kg/ha may be used.

Nutritional benefits of Finger Millets:

Ragi is a rich source of calcium, iron, protein, fiber and other minerals. The cereal has low fat content and contains mainly unsaturated fat. It is easy to digest and does not contain gluten. Finger millet is considered one of the most nutritious cereals which helps in keeping weight in control, maintaining bone health, lowering blood cholesterol, control anaemia and for diabetics because of lower glycemic response i.e lower ability to increase blood sugar level. Ragi is rich in amino acids which are vital in normal functioning of body and are essential for repairing body tissues. If consumed regularly, Ragi could help in keeping malnutrition, degenerative diseases and premature aging at bay. Green ragi is recommended for conditions of blood pressure, liver disorders, asthma, lactating mother and heart weakness. Its high intake could increase quantity of oxalic acid in the body. Therefore, it is not advised to patients having kidney stones. Finger Millet can be value added and prepare cakes, roti, dosa, porridge, upma, pitha, halwa, biscuits from the powder of Ragi.