

PLUM

(*Prunus salicina* Lindl.)

There is enormous scope for the cultivation of low chilling Japanese plum to high chilling European plum in the vast hilly tracts of all the north eastern states. The fruit constitutes an important source of minerals, vitamins, sugars and organic acid in addition to protein, fat and carbohydrates. Wine and brandy of good quality can be prepared from the fruits having high sugar.



Soil and Climate

When plums are to be grown on sloppy hilly surface, middle of the ridge would be ideal for plantation and it can be planted even on 40 % hill slope. It can be grown on wide range of soil except high alkaline and highly acidic soil. Plums can be grown in subtropical to temperate high hills from 1000 to 1600 msl.

Cultivars

Low elevation- Satluj Purple, Satsuma, Kala Amritsari
Mid elevation- Santa Rosa, Mariposa, Doris

Pollination

Plum varieties are mostly self-unfruitful. It is therefore, recommended to plant every third tree in every third row with pollinizer varieties. Fruit set in plum could be improved with the application of GA₃ (50-100 mg/litre) on the 10th day after full bloom.

Propagation

Raising of rootstocks: Peach seedlings are used for rootstock purpose in plum. Techniques of rootstocks raising is same as peach.

Grafting: Tongue grafting is very good method for multiplication of the true to type planting material. One-year-old plum or peach seedling is used as rootstock. Grafting is done during dormant season of winter (December-January).

Land preparation and planting

Pits are dug at 6 m apart on half moon terraces. The size of the pit is kept 0.60 x 0.60 x 0.60 m and filled with upper 30 cm soil. 15-20 kg FYM, 100g Urea, 100g MOP, 300g SSP and 50 g Chloropyrriphos dust or granule is applied in each pit. The pits are filled about 10 cm above the ground level. While planting, graft points should be at least 15-20 cm above the ground. Best time of planting is winter season when the plants are dormant, but low chilling varieties are planted in rainy season.

Training and pruning

Head back in first year, leaving 4-5 scaffolds branches. Lateral shoot and water sprouts should be removed. Bending of branches in initial years is very essential.

Plum trees should be pruned in such a way so as to make an annual extension growth of 25-30cm in each year. Pruning in bearing plum trees involve removal of upright branches and centre top to open out for better light.

Manure and Fertilizer

Fertilizer recommendation of plum trees is 10 kg FYM, 50g N, 25g P and 60g K for every year up to 10 years. Under Meghalaya condition for bearing plum trees of 10-13 years a dose of about 100g N, 200- 250g P and 80-100gK per tree per year is considered optimum for maximum yield with good quality fruits.

Irrigation

Watering to young plants in the early periods of their establishment is highly essential. The most critical period of irrigation for this region is December to March. Two to three irrigations at 15 days interval should be applied during this period.

Insect/Pests

Peach aphid: This insect suck the sap from growing buds. Leaf buds become weak and result in poor setting and fruits fall-off prematurely. It can be controlled by spraying with Dimethoate (Rogor) @ 1.5 ml/litre of water or Monocrotophos (Nuvacron) @ 2.5 ml/litre of water at 7-10 days before flowering (pink bud stage).

Stem borer: Boring into shoots, stem or roots, which weaken the plant, and in severe cases the plant dies. Holes should be cleared with flexible wire and plug the hole by inserting cotton soaked in Petrol or Kerosene oil followed by covering the hole with mud.

Diseases

Bacterial gummosis: Development of water soaked gumming lesion of circular to elongated on bark or sapwood and fruits. Clean the wounds and apply Mashobra paste (mixing of 225g Lanolin, 425g Steric acid 150g Morpholin and 25g Streptocycline in 55 litres water)

Leaf curl virus: Leaf curling, puckering and distortion turning to pink or red bronze colorations. At bud swell stage, spray of DithaneZ-78 or Capton@200g per 100 litre of water can reduce the intensity of the disease.

Harvesting and yield

For distant market, fruits are harvested when they attain good colour with hard skin for local consumption, ripe plums are harvested by twisting with hand. The peak harvesting period of plum is May to June. Under Meghalaya condition an average yield of 30-50 k) fruits per tree can be expected.