

Quadrant II – Notes

Programme: B. Sc. (Hons.) Agri.

Subject: Horticulture

Course Code: HORT- 243

Course Title: Production Technology of Fruits and Plantation crops

Module Name: Production technologies for the cultivation of major fruits:
Pear

Module No: 12

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Notes :

Production technologies for the cultivation of major fruits: Pear

Botanical name: *Pyrus communis*, Fa.: Rosaceae

Introduction: Pear is temperate fruit crop. Vavilov (1951) proposed three centres of origin of pear

1. Chinese centre
2. Central Asiatic centre
3. Near Eastern centre

In India it is grown on area 40,000 ha with annual production of 3,12,000 MT (NHB 2017).

Soil and Climate

- ✓ Pear requires Chilling temperature of 1200 hour below 7oC
- ✓ Requires well-drained, fertile medium textured loamy soil, pH range of 6.0 to 7.5 is desirable because Fe deficiency appears in alkaline soils.

Varieties

1) European Pears: Bartlett, Clapp's Favourite, Anjou, Conference, Winter Nelis, Flamish Beauty, Doyenne du Comice, Max Red Bartlett, Red Bartlett, Starkrimson, Laxton's Superb.

(2) Asian Pears: Shinseiki, Chojuro, Kosui, Nijisseiki, Kikisu, Yali

Planting:

Propagation: commercial propagation by T-Budding

Planting: done during December- January by Pits of 1x1x1 m size, incorporated 50-60kg FYM and one kg of single super phosphate

After care:

Irrigation: regular irrigation

Training and pruning: central or modified centre leader system

Weeding: herbicides

PGRs: NAA 200 pm for flowering , Paclobutrazole @ 1000 ppm to check vegetative growth, NAA 5-10 ppm control fruit drop

M&F: RDF is 700:350:700g N: P: K per tree

Harvesting: fruit mature in 110 to 135 days from fruiting

Pests management

- San Jose Scale (*Quadraspidiotus perniciosus*): Spread on twigs and fruits, management: spray neem oils, Chloropyriphos (0.02%), Dimethoate
- White scale (*Pseudoulacaspis* sp.): Spread on twigs and fruits; management: spray neem oils, Chloropyriphos (0.02%), Dimethoate

- Woolly apple aphid (*Eriosoma lanigerum*): lives in colony on roots and aerial parts and suck sap management: Carbofuron, Bordeaux Mixture

Diseases

Collar rot (*Phytophthora cactorum*): Near ground turns brown, soft and spongy and ultimately dies. Mainly severe in poor drained soils. **Management:**

Mancozeb 0.3%, Resistant rootstocks: M2, M4, M9, M26, M113, M114

Crown gall (*Agrobacterium tumefaciens*): Globular, elongated galls on the graft union affecting growth. Management: Biocontrol with the strain