

**RAMA UNIVERSITY, KANPUR, UTTAR
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Course: Hi- tech Horticulture (UGE-321)

Lecture- 8

High Density Orchard

High density aims at increasing the productivity per unit area by increasing plant population/unit area by closer spacing. This has been successfully done in several temperate fruit crops like apple, pear, peach etc. where there is availability of dwarfing rootstocks and plant response for training and pruning and chemical regulation of size.

Eg : Apple 3X3 ---1111 plants.

3X2 ---1666 plants.

Limited success of high density is noticed in tropical and subtropical fruit crops because of

- Non availability of dwarfing rootstocks.
- Vigorous growth throughout the year.
- Poor response for training and pruning.

High density orchard was tried in mango with dwarfing variety like Amrapali and with the use of dwarfing rootstock like Olur, Vellaikollamban.

Different types of high density planting followed in fruit crops:

Bush orchard, Pyramid orchard, Tatura trellies, Meadow orchard, Hedge row system etc.

Advantages:

- High returns per unit area.
- Maximum use of resources.
- Possibility of adopting mechanization.

Disadvantages:

- Competition in later years.
- Pest and disease problems.
- Cultural operation is difficult.