TRAINING IN MANGO AND POMEGRANATE

Exercise

Training in mango and pomegranate.

Objectives

• To learn how to train a mango and pomegranate tress in the initial years of establishment

Delivery schedule: 01 period

Student expectations/learning objectives

- To know how to train a mango tree for the development of a strong framework
- To learn how to train a pomegranate tree for the development of a strong framework

Handouts/material/equipment's & tools required: Paper sheet and pen to note down the different training systems in mango and pomegranate, if any, and some equipments and other material required for training of trees.

Pre-learning required: Pre-requisite knowledge about training of fruits, and its importance in fruit production.

Introduction

Training is an operation done to a plant by which it is made to develop a sound frame work or structure that facilitates free air movement, and ease in cultural practices. It is necessary to pay sufficient attention for training of plants during the first few years of planting. During this period, the pre-planned frame work as decided by the grower should be allowed to develop. The main points to be kept in view while training are:

- To admit adequate sun light and air to the center of the tree and to expose maximum leaf area to the sun.
- To limit the growth and spread of the tree so that various cultural operation such as spraying and harvesting are performed at a minimum cost.
- To build the frame work and arrangement of scaffold branches.
- To build the structure of the tree in such height at which the trees are less exposed for sunscald and wind damage.

Before thinking of training of any tree, one should decide the height of the head or crown. Depending upon the height of the crown from ground level, the plants can be grouped in two: high head and low head.

Training of mango trees

Mango being evergreen, plant requires very little training and pruning. However, training of young plants is

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necessary, which should be done in early years of planting by removing side branches upto the height of one metre from the ground level and side branches are allowed to grow beyond one metre height. Such type of initial training provides good architecture of the plant and it is helpful in good fruit production. Most of the cultivars of mango grow erect, from a natural dome shape canopy and having symmetrical branching need only occasional pruning. However, in general, dead, diseased or criss-cross branches are pruned but severe pruning is needed only in high density of Dushehari mango. This pruning is done just after crop harvest and it is also called as summer pruning. In this pruning, every shoot is cut back 2-3cm from growing point followed by spray of 1% urea and 0.1% copper oxychloride on pruned mango trees.



A sketch for training of mango in the initial years of establishment

For teachers...

- Make students to understand the difference between training and pruning and is the importance of these two terms in the fruitful production of fruits.
- Practically, show the students, the different activities or practices required during training of mango and pomegranate.



Well trained pomegranate trees / bushes

For high density planting of Amrapali, special training tips have been recommended. In this, it is advisable to train the plant to a bush. This is done by 'pinching off' the terminal vegetative growth in the first and 2^{nd} year of planting to encourage formation of branches. Afterwards, the tree is maintained dwarf by regular bearing habit of the variety.

Training in pomegranate

Because pomegranate suckers profusely from the crown, frequent sucker removal will be necessary to train the plant into a tree form. The process must be started soon after planting to maintain a single trunk, otherwise too many suckers will be developed and later it will be difficult to change. Unless there is a strong desire for a tree-form, the bushy, free-growing shrub develops naturally.

Hence, at planting, reduce each plant to a single stem and shorten this to about 50 cm above ground level. A short stake may be needed for support until the stem becomes rigid and sufficiently strong. Subsequently, select three to five shoots arising from the



A view of excellent bearing in pomegranate tree

upper halfof the stem to provide the main framework. These will be shortened at each winter pruning to produce a strong compact frame. Several secondary limbs should be allowed to develop from each main limb, but excessive numbers which would lead to over crowding should be removed, as should any suckers which develop from the base of the tree. Pruning of the fruiting pomegranate tree consists of mainly removal of excessive over crowded growth, dead wood and suckers. Adequate fruit-bearing wood should be retained. This will be mature growth 2 to 3 years old from which short flower-producing spurs arise.

Students Activities

- 1. Go to a mango and pomegranate orchards which have been in their initial year of establishment and attempt training of the plants with the help of a trained personnel. Make a list of operations required for training of fruit plants.
- 2. Make attempt to train other fruit plants of your locality.
- 3. Learn pruning and prune the fruit plants which are in your locality.

Study Material

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