

## Pruning, Training & Stacking of Vegetables

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## Pruning & Training

- The management of plant structure and fruiting branches is called pruning and training.
- It involves removal of branches from plants top or fruit system to increase its usefulness.
- Pruning is important for successful vegetative and reproductive growth.
- It also improves the fruit size, color, shape, quality of flowers and fruit.

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## Objectives of Pruning & Training

- Controlling the direction of growth
- Developing a strong frame work
- Controlling the amount of growth
- Improving the productiveness
- Improving the quality of product
- Utilizing the space efficiently
- Increasing the usefulness of plants

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## Advantages of Pruning & Training

- Increase the yield per unit area.
- Earlier maturity is ensured primarily due to a large no. of first clusters.
- Quality gets improved.
- Labor cost of picking or harvesting is reduced.
- Hoeing, spraying, dusting and irrigation operations can be performed conveniently.
- Elimination of pest and soil born diseases.
- More exposure to sunlight results in increased yield.

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## Disadvantages of Pruning & Training

- High cost of training and pruning.
- Over-exposure to direct sun in hot weather may have adverse effects i.e. sun-scald in tomato.
- More chances of spreading the virus disease without adequate precaution.

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## Stacking

- It is done to support the weak branches of the vegetables to grow and bear heavy fruiting without branch breaking.
- This is also done to get more sunlight at the soil level.
- This exposure to sunlight helps for more physiological and photosynthetic activities leading to more growth, flowering, pod/fruit formation and ultimate higher yields of better quality.
- Done in cucurbits and some varieties of peas etc.

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## Objectives of Stacking

- Vegetable plants exposed to more diffused light.
- Proper utilization of inputs like manures, fertilizers and irrigation water.
- Elimination of most pests (disease, insect pest and weeds).
- Makes harvesting/picking of ripe fruits/pods easy.
- Helps in maintaining clean produce from soiling etc and improves quality of vegetable crops.
- If stacks are used in dwarf and semi-dwarf vegetables, it helps in increasing quality yields.

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## Material for Stacking

- Normally stacking used are the house roofs, trees, bushes, big rocks particularly for cucurbits because in these the vine length varies from few meter to several meters.
- Tree branches
- Bamboo sticks
- Sticks rope
- Sticks + wire netting + wire trellis supported by strings
- Sticks + nylon threads.

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## Thinning of Vegetables

- It is an important operation for thick sowing of vegetable.
- It is done to permit enough space for proper development.
- In case of sugarbeet, more than one seedling emerge from each seed or seed ball, therefore thinning is very essential.
- In cucurbits, plants are thinned at 4 true leaf stage to maintain 2-3 plants.
- Timely thinning gives the better results whereas delay disturbs the plant growth and productivity.

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## Advantage & Disadvantage of Thinning

- Thinning is desirable in vine vegetables to ensure a good stand.
- Thinning offers an opportunity to weed out weak plants leaving only vigorously plants.
- **Disadvantage**
- Thinning is common in commercial practice but high cost of labour has forced measures to eliminate this tedious job.

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## Earthing-up

- It is an important operation needed to be done in most of the vegetables.
- The soil in between the rows and plants are loosened and shifted to near around the plant particularly at bolting stage e.i. cabbage, turnip, carrot, radish, cauliflower and in potato at tuberization and second earthing-up may done 20-25 days later to cover the developing tubers.
- **Objective**
- The main aim of earthing-up is to make the plant base strong/stable to avoid lodging of the plants even if there happen to be strong winds.

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