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**Domain**

**Smart Agriculture**

**Course**

**Management of high-value cut-flowers**

**Project topic**

**Media preparation for Dendrobium**



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## Growing Conditions

- Dendrobiums are normally grown in shade houses (shade cloth covered structures) or poly houses with cross ventilation.
- Side wall of greenhouse should be covered with shade cloth. The basic function of this structure is to provide a protective environment for crop production. They reduce the intensity of bright sunlight and provide some protection from strong winds, heavy rains and pests.
- A rigid framework of posts and cables to support panels of shade cloth is recommended for Dendrobium cultivation.





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## Temperature

Night: 15-18 degree C;

Day: 23-29 degree C.

## Aeration

Good aeration is required.

## Light

Dendrobiums needs an abundance of light, with the light intensity of 25 to 30 Kilo lux. They require shading between 11am to 3pm where the light intensity is too high.





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## Bench

Dendrobium pots can be kept in the benches for proper aeration. It prevents soil borne diseases and pests. Benches can be made up of iron meshes, concrete and split bamboo. Height of the benches should not be more than 2 feet and 6 inches and breadth not more than 3 feet.

## Containers

Plastic pots, earthen pots, wooden baskets, coconut husks, tree fern rafts, wood pieces etc. It can be grown even in coconut shell can be used as container. Commercial cultivation can be feasible in different sizes of plastic or earthen pots. Polythene bags can also be used for the cultivation of Dendrobiums.





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## Media

Dendrobiums can be grown in wide range of porous media. Selection of media also largely depends on growing conditions.

It can be prepared from the locally available materials like coconut husk, brick bits, pieces of tree bark, stone chips and charcoal pieces.

The media should consist of low salt concentration especially of sodium, chlorine, calcium and optimum pH of 5.0 and EC of 0.6 mS/cm.

The coconut husk needs to be washed 4 to 5 times to leach out the excess sodium.

Media should be sterilized by chemical, preferably by 4% formaldehyde solution.

