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Center for Smart Agriculture

Protected floriculture



Module 3: Production technologies followed for
Protected cultivation of different flowers
Session 22: Protected cultivation of anthurium



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INTRODUCTION

Common name: Anthurium

Scientific name: *Anthurium spp.*

Family: Araceae

Chromosome no: $2n=2x=30$

C.O: Colombia





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Important species



Anthurium andreanum



Anthurium browni



UP
FLOWERS



UP
FLOWERS

Anthurium schesianum



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FOLIAGE SPECIES



Anthurium corrugatum



Anthurium crystalenelum



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Climate

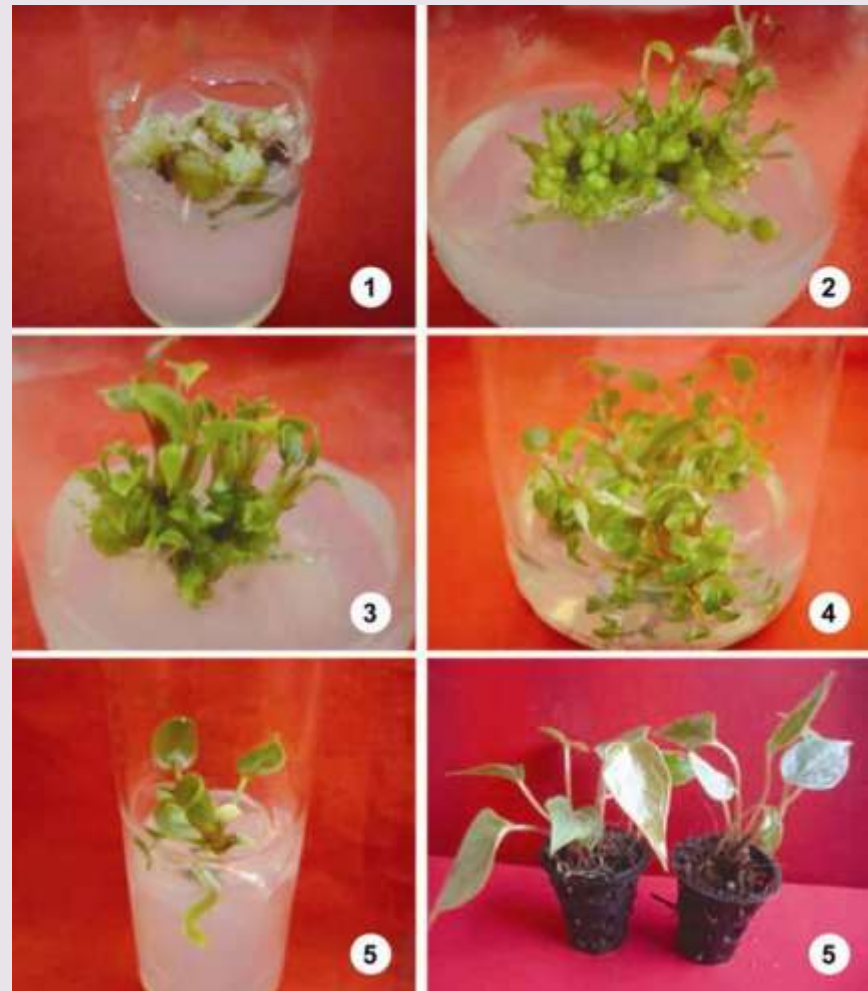
- Ideal temperature is 19-22°C
- Ideal relative humidity (RH) of between 60% and 80%.
- Intensity: 18,000-25,000 lux (155-215 W)



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Planting material

- Tissue culture
- Micro-cuttings





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Growing media

- The growth medium can be prepared by using mixture of leaf mould and coco peat in a ratio of 1:1 with a pH of 5.5 - 6.5.
- The old and chopped coconut husk with charcoal and brick can also be used as growing media.
- Properly cleaned coconut husk is being used and treated with fungicides and pesticides like chlorophyripous@1.5 ml/liter of water and carbandazim@1 gm/liter of water.



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Bed preparation

Length: up to 30 meter depending on the length of the poly house

Width: 1.20 meter

Gap between two beds: 30-45 cm





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Planting density and after care

- The beds should be irrigated two days before planting.

Spacing: 30 cm × 25 cm

- Holes depth 5-6 cm
- Plants are sprinkled with water immediately after planting .
- Planting is mostly done during evening time.

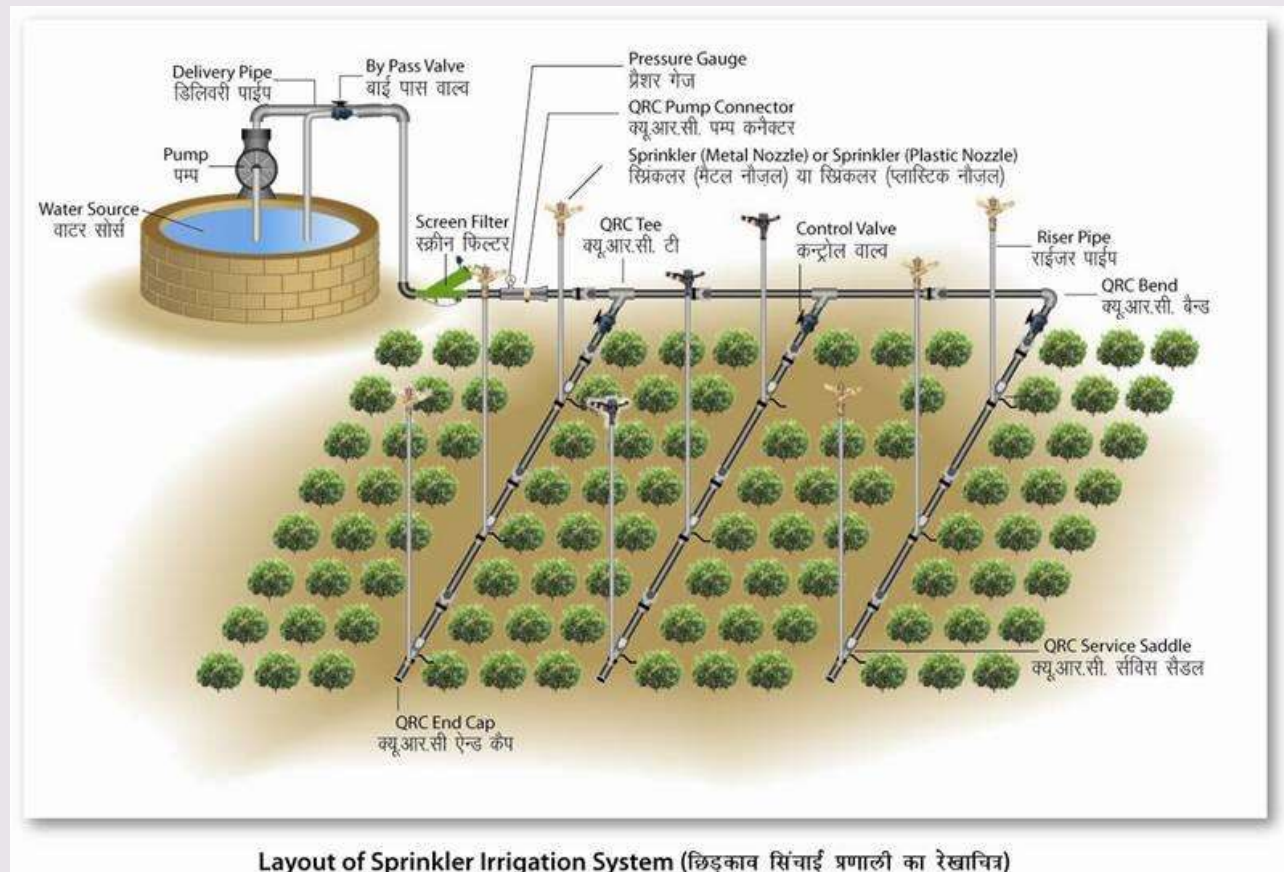




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Irrigation

Mostly the irrigation practiced is sprinkler irrigation through which fertilizers is also given and the water used for.



Layout of Sprinkler Irrigation System (छिड़काव सिंचाई प्रणाली का रेखाचित्र)



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Fertigation

- The major nutrients nitrogen, phosphorus, and potassium is supplied in the form of complex fertilizer grade 19:19:19. Entire dosage (3:1:1) @ 2 g/lit, twice a week during vegetative period and 1:2:2 NPK mixture @ 2-3 g /lit, twice a week are applied during the flowering period.
- The final solution must have the required pH of 5.75-5.80 and EC of 1.25 for fertigation purpose.



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Harvesting and yield

- The flowers are harvested when the spathe and spadix is fully developed.
- Harvesting done in duration of 3-6 month of planting with an average yield of 5-7 flowers per plant in the initial year and the yield increases upto 10-12 flower as the year of planting increases.
- 3 cm stem should be left from the lower part of the mother plant during harvesting.



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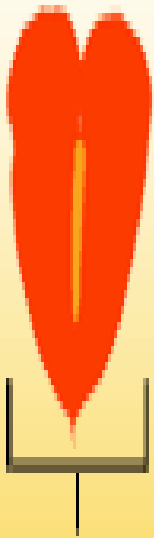
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Different grades of anthurium

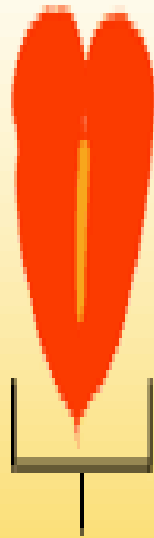
ANTHURIUM GRADING CHART >>

DEBINGER



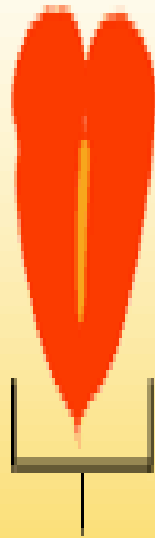
2.5" INCHES

SMALL



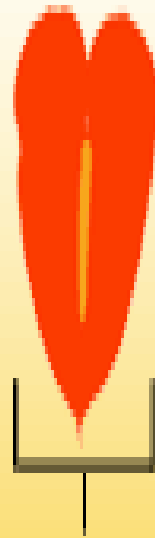
3" INCHES

MEDIUM



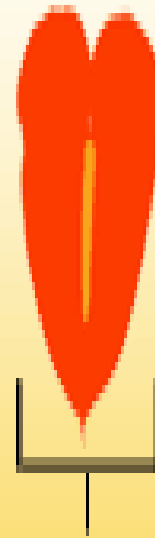
4" INCHES

LARGE



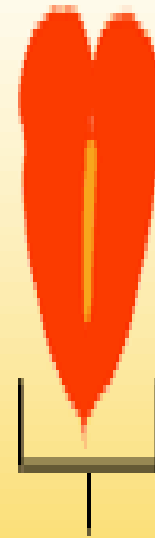
4.75" INCHES

X-LARGE



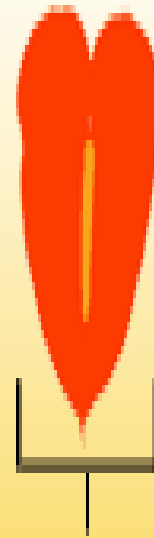
5.5" INCHES

XX-LARGE



6.5" INCHES

EXHIBITION



7.5" + INCHES



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Post-Harvest Handling

- The basal portion of the stalk of the flower should be kept in water to prevent drying out after harvest.
- Flowers must be cleaned with clean water to remove the adhering particles of dust, pesticides or fungicides for shining effect.
- For long distance transport, a piece of cotton soaked with water is placed at the cut end.
- The cut end should be tied with a rubber band and the open end of the bag is stapled to prevent the desiccation.



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Insect pests



Aphid



Thrips



White fly



Red spider mite



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Diseases



Bacterial blight



Root rot



Anthracnose



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Thank you