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Centre for Smart Agriculture

Production Technology of cut and loose flower



Module 1: Working demonstration of mist chamber

Session 6: Working demonstration



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Generally, mist has five control mechanisms:

- i) Timer ii) Electronic leaf iii) Thermostat and timer iv) Screen balance and photoelectric cell.



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i) Timer: Two types of timers are used in a mist unit one turn on in the morning and off at night and second operates during day hours to produce an intermittent mist, usually 60 seconds 'On' and 90 seconds 'Off'.

ii) Electronic leaf: A plastic with two terminals is placed under the mist along with cuttings, the alternate drying and wetting of the terminal breaks off the current, which in turn controls the solenoid valve.



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- iii) Thermostat: Controls the temperature of mist.
- iv) Screen balance: It consists of a stainless steel screen attached to a lever with mercury switch. When mist is on water is controlled on the screen and when weight is more, it trips the mercury switch.
- v) Photoelectric cell: It is based on the relationship between light intensity and transpiration rate.



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Hardening of plants in mist chamber:

- After rooting in the mist, hardening of the rooted cuttings is important for better field survival. When cuttings are rooted, misting should not cease abruptly because this may lead to drying of young plants as a result of scorching.
- The weaning off process should be adopted in which misting is continued but the number of sprays are gradually reduced. Lessening the 'On' period and increasing the 'Off' period can do it.



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- Another way is to shift the rooted cuttings to a greenhouse, fog chamber or frames, maintained at higher temperature and low relative humidity.
- Hardening should be done in phased manner so that rooted cuttings are planted at permanent locations.



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Precautions:

- i) There should be regular supply of water
- ii) The pH of water should be in the range of 5.5 to 6.5, avoid hard and alkaline water, as it blocks the nozzle.
- iii) Rooting media should have good aeration
- iv) Keep mist chamber free from the growth of blue green algae.



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Thank you.....