## 1984 CORNELL POINSETTIA GUIDELINES FOR NEW YORK STATE Prepared by the Cornell University Faculty and County Cooperative Extension Agents Part 1 of a 3-part Series

PROPAGATION GUIDELINES AND DIRECT ROOTING PROCEDURES Management points for poinsettia propagation: 1. Pay careful attention to all handling practices to insure freedom from disease; 2. Take cuttings in early morning to prevent excessive moisture stress (wilting) after removal from the stock plants; 3. Use bottom heat, minimum of 70-72 degrees F during propagation; 4. Provide good light, coordinated with mist to prevent wilting.

SANITATION: Follow rigid sanitation procedures throughout the propagation operations. Spray stock plants with benomyl (Benlate 50W) at label rates. Add 1 fl. oz. of wetting agent (DuPont Spreader-Sticker, Ortho X-77, Orvus, Triton B1956, or other type used in pesticide spraying) per 100 gal. of water. Spray stock plants once a week, timing spray applications so cuttings are taken one or two days following spraying. Use plastic bags to carry the cuttings from the stock plants to the propagation benches. Do not use dirty flats. Thoroughly steam sterilize the propagation benches and medium before each crop is stuck. Do not rely on chemical bench disinfectants. Use new pots for propagation. Do not drench the propagation medium with Lesan or Lesan-Terraclor, or other fungicides as they may reduce the rooting of the cuttings.

PROPAGATION PROCEDURE: To avoid moisture stress, take cuttings in the very early morning. Remove cuttings from stock plants using a sharp, clean knife. Do not refrigerate cuttings. Use terminal cuttings 3-4 inches long. Dust the lower inch of the cuttings with a root-promoting hormone powder. A puff duster is handy. Do not dip the ends of the cuttings in a powder. Any disease- and insect-free, well-drained, well-aerated propagation medium is satisfactory for rooting. Cuttings may be stuck into propagation bench media; medium filled 2 1/4" or 3" peat, plastic or clay pots; blocks; or directly into finishing pots. Use a bright, medium-shade propagation area. Start the



misting system as soon as the cuttings are stuck. Cycle the mist to insure the leaves are always moist but not overwet. The first 24 hours are the most critical; if hot weather prevails, it may be necessary to mist the cuttings throughout the night; otherwise misting from sunrise to sunset is sufficient. Reduce the frequency of mist application as the cuttings root. No mist should be applied the last 2-3 days of propagation to harden off the cuttings somewhat for the potting operation. Bottom heat at 72-75 degrees F is essential for rapid rooting and must be provided even for August propagation dates. Place a thermometer in the rooting medium to insure optimum temperature is maintained. Begin fertilizing the crop in the propagation bench. Mist-fertilization with 2 oz. potassium nitrate plus 3 oz. calcium nitrate per 100 gallons of water gets the plants off to a fast, healthy start. If mist-fertilization is not used, begin

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BALL SEED COMPANY WEST CHICAGO, IL 60185, 800 323 3677 IN CANADA, BALL SUPERIOR, LTD: 416 278 5201 fertilizing with 150 ppm N from 15-16-17, 5 to 7 days following sticking of the cuttings, or when roots are first visible. Use 13.5 oz. of 100 gallons of water and apply every 3-5 days. Many producers spray Cycocel onto cuttings in the propagation bench to minimize stem elongation. A spray at 2 fl. oz./gallon (approx. 2000 ppm) Cycocel may be applied to cuttings 10-15 days after sticking. Apply the spray after the mist system has been turned off for the night and after the leaves have dried.

<u>DIRECT ROOTING IN FINISH POT</u>: Direct sticking of unrooted cuttings in the finishing pot has become standard practice with many growers. Less labor and production time are required; however, a more extensive bottom heated mist area is needed.

1. All cultivars, especially for single pinched plants, are readily adapted to the method.

2. Use new pots, spaced pot to pot. Use a moistened, well-drained, well-aerated medium. Peat-lite mixes work well.

3. Cuttings in a given pot must be uniform in length, stem diameter, leaf number and general appearance. This is one the most important factors for achieving a symmetrical finished plant using the direct stick method.

4. Stick cuttings directly in pre-formed holes in the moist medium. With peat-lite mixes, pre-formed holes are not needed. Do not force cuttings into medium. Stick all cuttings to the same depth in a pot. Cuttings should not touch pot rim.

5. To maintain a highly aerated growing medium, do not water in the cuttings. Place them under mist immediately.

6. Use automatic mist, as described for propagation. Good mist coverage is important, to insure uniform rooting and development. Make certain that pots in the outside bench rows are receiving adequate mist. Avoid over-misting.

7. Use air temperature of 72 degrees F nights, 80 degrees F days. Just warm air is not enough. Bottom heat is essential to keep the root medium at 72-75 degrees F. Check by inserting a thermometer in the pot.

8. Moderate shade of the plants is recommended. Too much light on new cultivars causes a fading of leaf color.

9. Seven days after sticking, water with a fertilizer solution of 8 oz. of potassium nitrate per 100 gallons of water.

10. Reduce mist gradually as cuttings start to root. Grower judgement is required.

11. Spray with Cycocel as needed.

12. Begin a regular fertilization program about 15 days after sticking cuttings.

13. Increase pot spacing as required by the growth of the plants.

<u>CULTIVARS</u>: A number of cultivar series are available from hybridizers and propagators and are produced as either pinched or unpinched (single-stem) plants. <u>Multiflowered</u> <u>pinched plants</u>—The Annette Hegg, Mikkelsen, and Gutbier series are best grown as multiflowered (pinched) plants.<u>Un-</u> <u>pinched single-stem-plants</u>— The Eckespoint and Gutbier V-14 series are excellent. The Mikkelsen, Annette Hegg, and Gutbier V 10 series also are good for this purpose.

<u>PRODUCTION SCHEDULES</u>: Several final product and scheduling options are available to growers and are governed by type of plant (pinched or unpinched), method of propagation, subsequent growing temperatures, and daylength control.

HANGING BASKETS. TREES: Schedules and procedures for the production of hanging baskets, trees and other unique products are given in the Ecke Poinsettia Manual and recent press releases and are available through your extension agent.

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July, 1984

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