

OHIO RECOMMENDATIONS FOR TEMPERATURE AND SUPPLEMENTAL LIGHT  
ON POINSETTIAS

D. C. Kiplinger,\* Robert O. Miller,\* and James L. Caldwell\*\*

Poinsettia growers are interested in the economical production of the highest quality plants. Important factors in this respect are the manipulation of temperature and light. The loss of plants from root rot at cooler temperatures has forced the growers to raise the greenhouse temperature which in turn has hastened maturity. Lighting to delay flower bud initiation is a practical solution to this problem, and the use of intermittent mist plus rooting direct in pots has greatly reduced the time required for propagation and ultimate growth of the plants. Consequently, it is important to bring together the results of several years work on temperature and light to help growers produce better quality plants for the consumer.

The following recommendations for the variety Barbara Ecke Supreme are for Ohio or other areas where conditions are similar.

Stock Plants

1. If cuttings are taken up to September 25, the stock plants need not be lighted.
2. If cuttings are taken after September 25, the stock plants should be lighted for 1 hour per night (11 P.M. to 12M or 12 M to 1 A.M.) beginning September 25 until the last cuttings are taken. If cuttings are taken after September 25 from unlighted stock plants, buds are forming and slow or uneven rooting may be experienced as well as failure of many of the plants to become established in pots.

Cuttings

The following statements apply to cuttings rooted in a propagation bench in any satisfactory medium where rooting takes place in approximately 21 days or less. Intermittent mist is helpful in promoting rooting but bottom heat may have to be provided earlier to prevent cooling of the medium from the water. Recommended rooting mediums are coarse well-drained sand, equal parts of sand and peat, Perl-lome Special, equal parts of Perl-lome Special and peat, or a mixture of equal parts of soil, coarse sand, and peat.

1. Cuttings taken up to September 10 should be lighted for 1 hour per night from September 25 to October 5 to prevent early maturity. Plants from these cuttings should be kept at 60° to 62°F in October, November, and December.
2. Cuttings taken from September 10 to September 25 need not be lighted because they will flower at Christmas if grown at 60° to 62°F.

---

\* Professor and Assistant Professor of Horticulture, respectively, Ohio Agricultural Experiment Station, Wooster, Ohio.

\*\* Extension Floriculturist, The Ohio State University, Columbus.

OHIO RECOMMENDATIONS FOR TEMPERATURE AND SUPPLEMENTAL LIGHT  
ON POINSETTIA

D. O. Kitchinger,\* Robert O. Miller,\* and James L. Caldwell†

Poinsettia growers are interested in the economical production of the high-quality plants. Important factors in this respect are the manipulation of temperature and light. The loss of plants from root rot at cooler temperatures has forced the growers to raise the greenhouse temperature which in turn has hastened maturity. Lighting to delay flower bud initiation is a practical solution to this problem, and the use of intermittent mist plus rooting direct in pots has greatly reduced the time required for propagation and ultimate growth of the plants. Consequently, it is important to bring together the results of several years work on temperature and light to help growers produce better quality plants for the consumer.

The following recommendations for the variety Barbara's Hope Supreme are for Ohio or other areas where conditions are similar.

Stock Plants

1. If cuttings are taken up to September 25, the stock plants need not be lighted.
2. If cuttings are taken after September 25, the stock plants should be lighted for 1 hour per night (1 P.M. to 2 A.M. or 12 M. to 1 A.M.) beginning September 25. Cuttings taken after September 25 from unlighted stock plants, buds and flowering and slow or uneven rooting may be experienced as well as failure of many of the plants to become established in pots.

Cuttings

The following statements apply to cuttings rooted in a propagation bench in any satisfactory medium where rooting takes place in approximately 21 days or less. Intermittent mist is helpful in promoting rooting but bottom heat may have to be provided earlier to prevent cooling of the medium from the water. Recommended rooting mediums are coarse well-drained sand, equal parts of sand and peat, Perl-lite Special, equal parts of Perl-lite Special and peat, or a mixture of equal parts of soil, coarse sand, and peat.

1. Cuttings taken up to September 10 should be lighted for 1 hour per night from September 25 to October 5 to prevent early maturity. Plants from these cuttings should be kept at 60° to 62° F. in October, November, and December.
2. Cuttings taken from September 10 to September 25 need not be lighted because they will flower at Christmas if grown at 60° to 62° F.

\* Professor and Assistant Professor of Horticulture, respectively, Ohio Agricultural Experiment Station, Wooster, Ohio.  
† Extension Floriculturist, The Ohio State University, Columbus.

3. Cuttings taken after September 25 should be lighted in the propagation bench until rooted (see stock plant lighting) or until October 15 whichever is first. Some evidence exists that black cloth applied for 3 weeks after lights are turned out will hasten flowering and improve bract form. The minimum night temperature for growing the plants should be 65°F. Lighting the stock plants and the cuttings will prevent flower bud formation which interferes with subsequent growth, and the high temperature insures rapid development.

The following statements apply to cuttings rooted either in peat or clay pots under intermittent mist. These cuttings develop faster because there is no check in growth from lifting, potting, or getting established.

1. Cuttings taken before September 1 should not be rooted in pots since they will grow too tall, unless you intend to use them for stock, pinched plants, or large specimen pans.
2. Cuttings taken September 1 to September 20 should be lighted from September 25 to October 5 and grown at 60° to 62°F. If not lighted, many will flower too early.
3. Cuttings taken from September 20 to October 1 should be lighted from September 25 in either the propagation or growing-on bench until October 15 and grown at a minimum night temperature of 65°F. Lighting during the rooting period prevents flower bud formation which interferes with subsequent growth, and the high temperature insures rapid development. Some evidence exists that black cloth applied for 3 weeks after lights are turned out will hasten flowering and improve bract form.
4. Cuttings taken after October 1 should be lighted until October 15 and grown at a minimum night temperature of 70°F. Black cloth treatment as previously indicated should be used here. Don't be surprised if this group of plants doesn't make it because of lack of time to develop.

3. Cuttings taken after September 22 should be lighted in the propagation bench until rooted (see stock plant lighting) or until October 12 whichever is first. Some evidence exists that black cloth applied for 3 weeks after lights are turned out will hasten flowering and improve tract form. The minimum night temperature for growing the plants should be 62°F. Lighting the stock plants and the cuttings will prevent flower bud formation which interferes with subsequent growth, and the high temperature insures rapid development.

The following statements apply to cuttings rooted either in peat or clay pots under intermittent mist. These cuttings develop faster because there is no check in growth from lighting, peeling, or setting established.

1. Cuttings taken before September 1 should not be rooted in pots since they will grow too tall, unless you intend to use them for stock, pinched plants, or large specimen pans.

2. Cuttings taken September 1 to September 20 should be lighted from September 22 to October 2 and grown at 60° to 62°F. If not lighted, many will flower too early.

3. Cuttings taken from September 20 to October 1 should be lighted from September 22 in either the propagation or growing-on bench until October 12 and grown at a minimum night temperature of 62°F. Lighting during the root stage will hasten flowering and improve tract form. Some evidence exists that black cloth applied for 3 weeks after lights are turned out will hasten flowering and improve tract form.

4. Cuttings taken after October 1 should be lighted until October 12 and grown at a minimum night temperature of 70°F. Black cloth treatment as previously indicated should be used here. Don't be surprised if this group of plants doesn't make it because of lack of time to develop.