

## Poinsettia Tips 1995

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**Fertilization** - Poinsettias require relatively high applications of nitrate nitrogen and potassium. We have recommend 300 ppm N and K at each watering. However with the new cultivars (Freedom, Supjibi, etc), our research indicate these rates should be reduced to the 200 ppm range for these cultivars. Be sure to use a high nitrate to ammonia nitrogen formulation. Your fertilizer should also contain a phosphorus source. If you are using phosphoric acid for pH control, that addition will supply adequate phosphorus. We generally do not recommend calcium nitrate in Indiana unless you are using pond water because it just adds to your pH problem. Many water supplies contain in excess of 100 ppm of calcium which must be considered in your fertilizer program. A water analysis is essential for your fertilizer program. If you are using pond water, calcium nitrate is generally recommended. Add Epsom salt (1 lb./100 gal. water) drench every 4 to 6 weeks to supply magnesium. Do not add to your normal fertilizer solution. If you are using one of the poinsettia fertilizers with added magnesium, do not use epsom salt because too much magnesium can create calcium deficiency. Several have asked about molybdenum additions. I personally feel that the "peat-lite special" fertilizers or a soluble trace element mix has adequate molybdenum. However, it will not cause harm to add additional molybdenum at the rate of 0.1 ppm.

Add molybdenum at the rate of 0.1 ppm Mo

### Stock Solution

-1 oz. (28.4 g) of ammonium or sodium molybdate  
2-1/2 pt. (40 f. oz.) (1200 ml) of water

### For Application

-0.15 fl. oz. (4.5 ml) of stock solution/100 gal. of water

**Pinching** - a hard pinch leaving 5 to 6 nodes is recommended. Our research indicates a more attractive plant (form) and much greater uniformity in shoot growth is possible when only 5 to 6 nodes are left on the pinched plant.

**Height Control** - Most of the newer poinsettia cultivars need much less chemical height control than the older taller growing cultivars. There are also many more choices of chemical growth regulators available today than in previous years. The addition of Bonzi, Sumagic, and Cycocel/B-Nine combination has been a welcome addition to poinsettia production. Our research indicates that 1 or 2 applications of Bonzi at 15 ppm or Sumagic at 8 ppm may be adequate for the Hegg types and 1 or 2 applications of Bonzi at 30 ppm or Sumagic at 4 ppm may be adequate for V-14 types. Bonzi or Sumagic should not be applied after the start of short days. For natural season flowering we do not even recommend cycocel addition after mid-October unless you have a severe height problem. Our concentrations are based on 1/2 gallon of spray material/100 square feet of bench area. Your results will be very different if you vary from this rate of application. If you have not used Bonzi or Sumagic, I would try it on a trial basis. A trial is only a small part of your crop. Cycocel/B-Nine combination sprays have also been used effectively. One application at 1500 ppm Cycocel/2500 ppm B-Nine can be used. I also do not recommend this combination after short days start or more than once. Note that some

of the new cultivars are very short and may need little or no growth regulator chemicals. For example we recommend very little growth retardant chemical for Supjibi, Freedom, and Celebrate 2 when grown in Indiana.

Time of first application is generally:

- 1) Pinched plants - when the new shoots following pinching are  
1-1/2 to 2 inches long.
- 2) Single stemmed plants - when 1-1/2 to 2 inches of new growth occurs after pinning.

**Schedules** - Lighting (long days) should be used on the 9 week or early flowering cultivars.

We recommend using incandescent lamps as in your chrysanthemum program from 10:00 p.m. to 2:00 a.m. Timing is much easier when lighting is used. Once the crop is in flower, night temperatures can be reduced to save fuel in December and enhance bract color. Night temperature can be reduced by 2 degrees every 3 days to 60°F. The following schedules are guidelines to help in your planning. Everyone will need to make adjustments for your own greenhouse and production methods. Give me a call if you have questions. Note we have separated the cultivars into two groups. We have allowed 9 weeks from short days to flowering for the first group and 11 weeks for the second group.