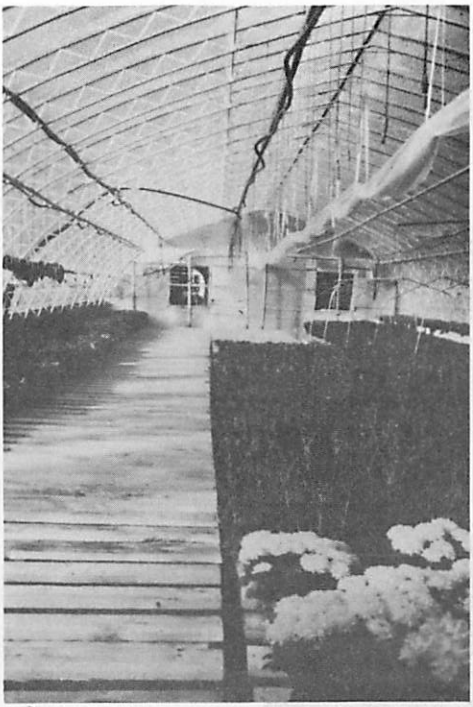

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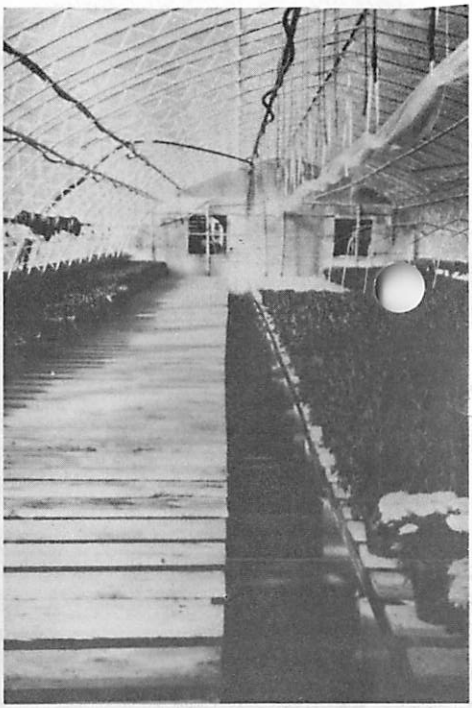

5

Molybdenum deficiency on poinsettias

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Several Connecticut growers experienced molybdenum deficiency on poinsettias grown in soilless root media this past season.

Deficiency symptoms usually appear on the plant after floral initiation (about mid October) when bracts begin to develop and mature. Symptoms appear on the upper maturing leaves which turn yellow. If the deficiency is not promptly corrected, leaf margins may turn brown and in severe cases die.

It has been reported that acid root media (pH 4.5-5.5) accentuated the symptoms. Thus, testing the mix and

adjusting it with dolomitic limestone to a pH range of 6.0-6.5 should reduce this problem.

If the symptoms are observed, corrective measures should be taken immediately. A foliar spray applied early in the morning or late afternoon with a spreader-sticker using either sodium or ammonium molybdate at the rate of 1 gram /gal. should work. If a soil drench is preferred, make one application of molybdate at the rate of 1 gram (0.038 oz.)/100 gals. of water. For constant feed, 1 gram/1000 gals. may be used.

As with any problem, prevention is much more desirable than correction. A soluble fertilizer formulated for soil-less root media contains molybdenum. If used starting with the stock plants and continuing throughout the poinsettia crop, molybdenum deficiency should be avoided according to a recent conversation with Dr. Ray Sheldrake. If, however, other soluble fertilizers are used, convenient premeasured packets of molybdenum are available from your favorite jobber.

As you know, UConn suggests that 10-15% by volume of disinfested soil be incorporated into any soil-less root medium. This soil addition provides some buffering capacity and likewise may avoid the molybdenum deficiency problem. No molybdenum deficiency problems were reported when some soil was incorporated into soil-less root media last year.

Since most poinsettias are grown with calcium and potassium nitrates (15-0-18), be certain to apply molybdenum as specified in paragraph 4.

REFERENCES

Larson, R. A. et al. 1978. Commercial poinsettia production. N.C. Agric. Ext. Ser. AG 108:19.

Tjia, B. O. et al. 1984. Commercial poinsettia production in Florida. Univ. of Florida, Dept. of Hort. SP 27:58.

Addendum

The 1 gram/100 gal. rate given in paragraph 4 is for correction of symptoms. It is 2.6 ppm molybdate.

For preventive application, the rate is about 0.6 ppm and applied once or twice during the season. In other

words, a one gram packet will treat 300 gallons of irrigation water or, for continual fertilization, 1 gram will treat 3000 gallons of irrigation water.

A rate of 0.6 ppm may also be obtained by dissolving two ounces of molybdate per gallon of water to make a stock solution, then add one tablespoon (1/2 ounce) to each 100 gallons of irrigation water.