

Discussion

The initial wound closure stimulation of 2,4-D in Study 1 is essentially what was reported by Crowdy (1) in his work with apple trees. 2,4-D yielded better callus than the control for Lagerstedt (7) at 200 ppm and for Samish et al. (10) at 10,000 ppm. Since in past studies investigations used a variety of carriers (including lanolin, paint, talc, shellac, and wax mixture), it is often impossible to estimate the true concentrations of growth regulator to which the tissue is exposed or the time it is available. It seems clear from our second study that 10,000 mg/l 2,4-D in an aqueous solution is phytotoxic for 'Bowhall' red maple.

Closure was delayed in Study 2 as compared to Study 1 due to an decreased growth rate later in the season. We did realize an effect due to taping, but the level of significance was not as high as previously experienced.

The greenhouse study with the poplars demonstrated a similar effect for all auxins except picloram, which is obviously several times more active than the others. There was initial boost in closure rate with 1,000 mg/L of IAA, IBA, NAA, 2,4-D and of dicamba, whereas the initial boost was apparent at 10 mg/L with picloram. The higher rates of Picloram (100 and 1,000 mg/L were phytotoxic.

Literature Cited

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Department of Horticulture
OARDC
Ohio State University
Wooster, Ohio 44691

ABSTRACT

NICHOLS, L.P. 1982. **Eleven excellent crabapples.** Am. Nurseryman 156(7): 90-95.

What are the best crabapples? I have looked at thousands of them for disease resistance over a 20-year period, and people keep asking that question. I submit the following list of my favorites. Of course, being a plant pathologist, I may be slightly in favor of crabapples that have disease resistance. But I am enough of a horticulturist and plant lover to concede that one might put up with a slight amount of disease, especially in the case of trees of outstanding beauty. With all crabapples, one must look further than the beauty presented at bloom time. One must consider the foliage characteristics during summer and the often neglected beauty of a show of red, orange, or yellow fruit in fall and into winter.