

# Minnesota Nurserymen's newsletter



Prepared by  
UNIVERSITY OF MINNESOTA  
Institute of Agriculture  
• Agricultural Extension Service  
• Horticulture Department

In Cooperation with  
• Minnesota Nurserymen's Association  
• Minnesota State Horticultural Society

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## MINNESOTA STATE NURSERYMEN'S ASSOCIATION CONVENTION DECEMBER 3 and 4, 1962 CURTIS HOTEL MINNEAPOLIS, MINNESOTA

### Monday, December 3, 1962

#### A. M.

- 8:30 Registration--Hotel Lobby  
Coffee hour--Cardinal Room
- 9:30 Invocation--Rev. Gilbert Kuyper, Knox  
Presbyterian Church, St. Paul  
Opening remarks--Don Wedge, Presi-  
dent  
Committee appointments
- 10:00 Industrial Landscaping--Paul M. Novak,  
Dean and Novak, Inc., Landscape Archi-  
tects and Land Planners, Chicago, Ill.
- 11:00 Analysis of Ornamental Crabs and Ar-  
boretum Report--Dr. Leon Snyder,  
head, Department of Horticulture,  
University of Minnesota

- 12:00 Luncheon  
Radio Free Europe and Communism--  
Clifford C. Sommer, president, Se-  
curity Bank and Trust Company,  
Owatonna, Minnesota

#### P. M.

- 2:00 Container-Grown Stock--Dr. L. C.  
Chadwick, head, Division of Floricul-  
ture and Ornamental Horticulture,  
Ohio State University
- 3:00 Report of Division of Plant Industry--  
Dr. Donald M. Coe, director, Division  
of Plant Industry, and Walter Trampe,  
supervisor, Nursery Inspection
- 3:30 Idea-Sharing Session--Jerry Arneson,  
Pine Cone Nursery, moderator
- 6:15 Hospitality--East Room  
Courtesy J. V. Bailey Nurseries

- 7:00 Banquet--East Room

- 8:00 Entertainment--East Room--Orchestra,  
comedians, singers, magicians

### Tuesday, December 4, 1962

#### A. M.

- 9:00 Auction Sale of Nursery Stock--Roy  
Simon, bonded and licensed auctioneer,  
Rosemount, Minnesota  
Proceeds will go to Arboretum Develop-  
ment Fund
- 9:30 The Best in Taxus--Dr. L. C. Chadwick,  
head, Division of Floriculture and Or-  
namental Horticulture, Ohio State Uni-  
versity

- 10:30 Business Meeting

- 12:00 Luncheon  
What's The Difference?--Richard L.  
Gilley, director of Dale Carnegie  
Courses in Twin Cities and southern  
Minnesota

#### P. M.

- 2:00 The Washington Scene--Robert Lederer,  
executive associate, American Assoc-  
iation of Nurserymen
- 2:30 Results of Research on Spending and  
Attitudes of Minnesota Gardeners--Dr.  
C. Gustav Hard, extension horticul-  
turist, University of Minnesota
- 2:45 Garden Center Management--John  
Pinney, Willis Nursery Company  
Ottawa, Kansas

## NOTES TO THE NURSERYMEN

Walter P. Trampe  
Bureau of Plant Industry

### Japanese Beetle

One specimen of Japanese Beetle was found in a trap near the Duluth railroad terminal, the first live adult beetle to be found in a trap in Minnesota. It was presumed that it came in as a hitchhiker on a train from an eastern infested area, although it is also possible that it came in on a boat, the port being near the rail terminal. The number of traps in that area was immediately increased. The Division of Plant Industry, in cooperation with the USDA Plant Pest Control Service, operated over a thousand traps throughout the state during the past summer. Approximately 50 acres of land area, using the pick-up point as the center, were treated with dieldrin in an attempt to eradicate any of the pests that may have infested the soil area in the larval stage.

### Dutch Elm Disease

Since our report in the July-August issue of the Newsletter, one case of Dutch elm disease was found in the Monticello area where five cases were found in 1961. The infected trees have all been removed and destroyed.

## THE EFFECT OF SOME CHEMICALS ON THE ROOTING OF HARDWOOD CUTTINGS

R. Van Huystee and  
C. J. Weiser  
Department of Horticulture  
University of Minnesota

There is a considerable amount of interest in enhancing the rooting of hardwood cuttings. Indole butyric acid (IBA) has been used extensively with good results. However, there is always interest in other less well known rooting agents.

In this study the rooting of cuttings treated with IBA, IBA plus boron (supplied as boric acid), catechol, or a water check, were compared.

Boron-stimulated rooting has been reported of softwood cuttings of geranium and black currant (1), common bean (2), and semi-hardwood cuttings of clematis (3), English holly (4), and Justica gendarussa (5). No reports have as yet been published about the effect of catechol on rooting. Preliminary trials, however, have indicated that the rooting of coleus cuttings is stimulated by an overnight basal soak in 50 parts per million (ppm) catechol. The stimulatory effects of IBA on rooting are well known. Boron and IBA were combined in one treatment to evaluate any possible

synergistic effects of these two rooting agents as have been reported for clematis (3) and English holly (4).

In this study hardwood cuttings were collected on December 15, 1961, from eight woody species growing outdoors: Dwarf arctic willow (Salix arctica), Forsythia suspensa (Weigela Wagneri Stolzneri), Redosier dogwood (Cornus stolonifera), Snowhill hydrangea (Hydrangea arborescens grandiflora), Virginal mock orange (X Philadelphus virginialis), Tatarian honeysuckle (Lonicera tatarica), and European euonymus (Euonymus europaea).

Forty-five subterminal cuttings were made from current season growth of each species. Prior to sticking the cuttings in the sand rooting medium, the basal inch of the cuttings was soaked for 21 hours in 50 ppm of IBA, IBA plus boric acid, 50 ppm catechol, or in a water check. The sand had been leached with captan, Fermate, and Terraclor 24 hours before sticking the cuttings to inhibit fungus infection. During the rooting period the approximate sand temperature was 56° F. while the air temperature in the greenhouse was 69° F.

The willow cuttings rooted in 14 days, dogwood cuttings rooted in 33 days, and the others in 50 days. Honeysuckle and euonymus did not root and therefore are not included in the results tabulated below.

Based on the tabulated results as analyzed by the multiple range test (5% level of significance), IBA increased both the number of cuttings rooted and the number of roots per rooted cutting, as compared to the water check, in willow, weigela, forsythia, dogwood. It did not increase the amount of rooted cuttings of hydrangea but greatly augmented the number of roots formed per rooted cutting. Mock orange cuttings were unaffected by IBA.

The addition of boron to IBA did not influence the rooting of willow, forsythia, and mock orange. The expected synergistic effect was absent. A depression was observed in the rooting of hydrangea, dogwood, and weigela.

Catechol alone did not stimulate rooting in comparison to the check except for dogwood where it increased the percentage rooting significantly. In most other cases it inhibited rooting rather than promoting it, e. g., in forsythia and hydrangea.

It may be concluded from this experiment that the different chemical compounds, at the concentrations used, have different effects on the different hardwood cuttings. Consequently it is impossible to give general recommendations. Until further work is done with varying concentrations of the compounds used here the following tentative conclusions may be drawn: IBA promotes the most pronounced overall increase in rooting. The addition of boron did not appear to improve rooting, while catechol, at the applied concentration, often seemed to have a deleterious effect on rooting.

The Effect of Chemical Rooting Treatments on Rooting Percentage and on the Number of Roots per Rooted Cutting

| Species            | Treatments |     |     |     |               |     |          |     |
|--------------------|------------|-----|-----|-----|---------------|-----|----------|-----|
|                    | Check      |     | IBA |     | IBA and boron |     | Catechol |     |
|                    | %*         | Nº# | %*  | Nº# | %*            | Nº# | %*       | Nº# |
| Willow             | 87         | 44  | 100 | 83  | 100           | 86  | 91       | 45  |
| Forsythia          | 22         | 14  | 47  | 54  | 48            | 67  | 7        | 2   |
| Weigela            | 9          | 5   | 84  | 304 | 58            | 217 | 13       | 3   |
| Dogwood            | 18         | 6   | 62  | 40  | 48            | 20  | 40       | 14  |
| Hydrangea          | 69         | 127 | 62  | 235 | 25            | 63  | 38       | 40  |
| Mock orange        | 51         | 43  | 64  | 35  | 67            | 42  | 44       | 20  |
| Treatment Averages | 43         | 40  | 70  | 125 | 58            | 82  | 39       | 21  |

\* Percentage of cuttings rooted

Nº# Number of roots per rooted cuttings

EDITOR'S COMMENTS

C. Gustav Hard  
Extension Horticulturist

Why a state convention for nurserymen?

The most important reason is to bring nurserymen with common problems together and to seek answers to these problems. The program committee has arranged for well trained and experienced personnel to deal with nurserymen's problems. To get the most out of your membership, you must participate in this program.

The second reason for a convention is to develop programs which will help promote the growth of the nursery industry throughout Minnesota. No one nursery has a monopoly on Minnesota trade. The industry is represented by nurserymen throughout the state. We must work toward a better image of the nursery in-

dustry. Do your customers depend on you for service and counsel or do they go to magazines for horticultural information?

Your presence at the state convention is needed. You stand to gain much and so does the industry.

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