

Minnesota Nurserymen's newsletter



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Prepared by
UNIVERSITY OF MINNESOTA
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- Agricultural Extension Service
- Horticulture Department

In Cooperation with

- Minnesota Nurserymen's Association
- Minnesota State Horticultural Society

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TREE CONFERENCE

Gregory J. Lucking
Horticulturist

Minneapolis Board of Park Commissioners

The 31st National Shade Tree Conference held August 1-5 at Santa Barbara, California, was a success in all respects. This is the first time the conference was held west of the Rocky Mountains.

There were 587 members registered at the convention. The members of the National Shade Tree consist of arborists, nurserymen, educators and representatives of other organizations interested in the care and preservation of trees. The programs consisted of lectures, demonstrations, and tours of various estates.

The conference was officially opened by President Carl Fenner, Assistant Superintendent of Parks and Forestor, Lansing, Michigan. The new president-elect was Perrie Miller, Professor and Plant Pathologist at the Agricultural Experimental Station, University of California, Los Angeles. Professor L. C. Chadwick of Ohio State University, was re-elected secretary, the office he has held many years.

Professor Miller is a graduate of Oregon State College with a Bachelor of Science degree and also a Master of Science degree from Kansas State College. He was president of the Western Chapter National Shade Tree Conference 1942-1944. He has served on the Board of Governors of the National Shade Tree Conference.

One of the entertainment highlights was a barbecue held in the mountains, with wonderful entertainment following. Leo Carrillo, famous as Poncho in western movies and the television program "The Cisco Kid", a member of the California Park Commission, gave a very fine talk on California parks and trees, and some highly appreciated readings. He attended all of the tours and some of the lectures. The members enjoyed his association very much as his interest in the area was most profound. It was learned with great interest that his ancestors had received a land grant near Santa Barbara, from the Spanish Government. Another point of interest was a tour of the estate of Madame Walska. Her estate contains thousands of varieties of cacti collected all the world, which we found most unusual.

The conference will be held in Toronto, Canada next year.

NIGHT CLASS FOR GROWERS

Dr. Richard E. Widmer, Horticulture Department
University of Minnesota

Commercial flower growers have approached the Department of Horticulture with the request that we organize an evening class dealing with the principles involved in growing flowers commercially in greenhouses. The Department of Horticulture is happy to comply with the request, and classes will begin on October 5, 1955.

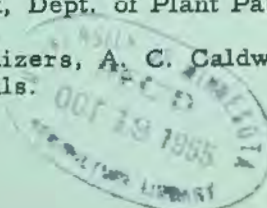
The production of commercial florist crops in greenhouses is no longer a hit-or-miss proposition, but rather a scientific procedure coupled with common sense and a practical viewpoint. Knowledge of the fundamentals of plant growth is essential to the production of good quality crops. If a grower understands the fundamentals, the solution of the more complex problems becomes much simpler in many instances.

This class is designed to bring the fundamentals to you in a relatively simple form. You need not be a college graduate or an experienced grower to understand the information as it will be presented. You will need an interest in plants and a desire to learn something about your everyday work in and about the greenhouse.

Classes will be held in Room 102 in the Horticulture Building on the St. Paul Campus from 7:00 to 8:45 p. m. on Wednesday evenings. The registration fee of \$9 may be paid on the evening of October 5 prior to the start of the first class. Payment, previous to that date, may be made directly to Richard Widmer or to the Horticulture Office. Checks should be made payable to the University of Minnesota.

Program

- Oct. 5-- Introduction to the florist business, R. E. Widmer, Dept. of Hort.
Structure of plants, L. C. Snyder, Dept. of Hort.
- Oct. 12-- Effect of temperature on plant growth, R. E. Widmer, Dept. of Hort.
- Oct. 19-- Effect of light on plant growth, A. A. Piringier, Dept. of Hort.
- Oct. 26-- Effect of gases on plant growth, A. J. Linck, Dept. of Plant Pathology and Botany.
- Nov. 2-- Soils and fertilizers, A. C. Caldwell, Dept. of Soils.



- Nov. 9-- Greenhouse soils and fertilizers, R. E. Widmer, Dept. of Hort.
- Nov. 16-- Water supplies and application, E. R. Allred, Dept. of Agr. Engineering. Greenhouse watering, R. E. Widmer, Dept. of Hort.
- Nov. 23-- Thanksgiving week (no class)
- Nov. 30-- Propagation of florists' crops, R. E. Widmer, Dept. of Hort.
- Dec. 7-- Diseases of florists' crops, L. Dossdall, Dept. of Plant Pathology and Botany. Insects on florists' crops, L. K. Cutkomp, Dept. of Entomology.

Editors Note:

Since fundamentals will be stressed and not particular crops, nurserymen who have a greenhouse would learn much from this course. You will benefit if you send your greenhouse foreman.

Even though the class has started you still can register. I'd suggest you come early next Wednesday if you plan to register at that time.

THE VALUE OF A DORMANT SPRAY

Walter P. Trampe, Supervisor
Section of Nursery Inspection
Minnesota Department of Agriculture

Uses: It may be used in controlling a variety of plant diseases and injurious insects, some of which are listed below: 1 - scale insects on evergreens and deciduous stock; 2 - mites; 3 - aphids; 4 - gall mites; 5 - mildew (dinitro sprays); 6 - raspberry anthracnose (lime sulfur) and overwintering forms of apple scab (dinitro sprays).

Time of Application: Dormant sprays should be applied in the spring before new growth appears. Timing is less specific for overwintering forms of insects than it is for other stages of an insect's life, such as the crawlers in scale insects. A better distribution of a nurseryman's work-load is often possible through the use of a dormant spray which, in many cases, would decrease or possibly eliminate the necessity of a later application. These chemicals should be applied while temperatures are above 40° F. The mixtures must not freeze before they have had sufficient time to dry.

Convenience: There is a strong demand among nurserymen for a general purpose treatment. Dormant sprays, properly selected and applied, can often fulfill this requirement for the insects listed above. Various species of scale insects may be present on a single block of stock. These pests may be treated in one operation with the same material. As another example of the flexibility of this treatment, it is possible to select a single dormant treatment which can be used on deciduous stock as well as on evergreens. Space does not permit a detailed discussion of this subject here. Additional information may be had by writing the State Entomologist's Office.

THE STRAWBERRY ROOT WEEVIL

This insect, known as *Brachyrhinus ovatus*, seems to have been growing in numbers in Minnesota during the past summer. The adult is a brownish-black beetle about $\frac{1}{4}$ -inch long with a blunt snout protruding from its head. The wing covers are grown

together so that the adult cannot fly. The larva is about $\frac{1}{4}$ -inch long, white, legless, with a dark brown head. The larval body is usually held in a curved position.

The host range of this pest is very large. It is of special interest to the grower, that the adult attacks the foliage and stems of arborvitae. The larva attacks the roots of various evergreens. The pest has not been known to do serious damage to strawberry plants in Minnesota.

Control: Aldrin, dieldrin or heptachlor may be used as a soil treatment before lining out evergreens. 3 to 4 lbs. per acre of the actual materials worked lightly into the soil have given good results in controlling the insect. Either of these chemicals may be used on established stock if a high gallonage of water is used in application. Sufficient water is required to bring the chemical down to where the insect is attacking the roots.

VETERANS MEMORIAL ROSE GARDEN

Robert A. Phillips
Horticulture Dept. U. of Minnesota

Undoubtedly the publicity concerning the Veterans Memorial Rose Garden located in the Court of Honor Section of the State Capitol Approach has come to the attention of all Minnesota nurserymen, just as it has reached the readers of newspapers throughout the state. Nurserymen should take a vital interest in this unique and outstanding horticultural project because it not only will bring beauty to the Capitol Grounds, but also will stimulate public interest in rose growing.

The idea of Veterans Memorial Gardens, which does not have to be restricted to roses, should be promoted throughout the country. Minnesota can be proud of the only Memorial Rose Garden on a State Capitol grounds and will be the leader in the movement to get other states to do the same. This, as well as the success of the garden, is among the major aims of the Veterans Memorial Rose Garden Committee.

Mr. Thomas Walsh of St. Paul conceived the idea of this rose garden, presented it to Governor Orville Freeman, the Minnesota Rose Society, the Veterans organizations, the State Capitol Approach Commission, Mr. B. H. Ridder, president of the Dispatch Pioneer Press Co., and civic officials, as well as leaders of industry, professions and plain dirt gardeners. The Minnesota Rose Society became the sponsoring organization, appointing Mr. Walsh chairman of a committee which he will select to promote and establish a Veterans Memorial Rose Garden.

The very enthusiastic support of volunteer workers, the city of St. Paul and Minneapolis Park Departments, the Capitol Approach Commission, business, professional and veterans organizations, rose growers and others too numerous to mention has resulted in the installation of the rose beds this fall.

I have had the singular privilege of developing the design of the garden. Also, I don't see any reason for hiding the fact that Mr. Walsh's interest in

gardening started when he enrolled in my extension class in home gardening at the University after returning from service in World War II. Mr. Walsh soon became an ardent gardener and a rose hobbyist. It is very gratifying to me personally, as well as to the University of Minnesota, to know that the interest in gardening came to Mr. Walsh through the University and that this new rose garden is one of the significant results of this interest.

Funds are now being raised to finance the purchase of plants, equipment, materials and the securing of a rosarian and rose gardener to maintain the garden in the best of condition at all times.

There can be no doubt that the new Veterans Memorial Rose Garden will be an important show-place and that it will have an uplifting effect upon society. It will be a most appropriate memorial, a living memorial, to all veterans.

Treated Lumber for Greenhouse use.*

F. H. Kaufert and K. A. Loerch
Professor and director, and former graduate student respectively
University of Minnesota School of Forestry

Summary and Recommendations:

Of the preservatives tested, only copper naphthenate and Erdalith (which is not readily available) appeared to be sufficiently free from injurious effects on the test plant to permit their use for treating wood for greenhouse flats or benches. Pine sapwood treated with copper naphthenate appeared to have about the same service life as cypress heartwood. Consequently, when the heartwoods of cypress, redwood, or western red cedar are available their use for this purpose would be preferred unless there was a large price differential.

If low cost supplies of nondurable woods are available locally, treatment by soaking for 10 to 20 minutes in a 10 to 15 per cent solution of copper naphthenate in Stoddard solvent or mineral spirits will impart considerable decay resistance. Lumber should be cut to correct length for flats prior to treatment and should be loosely stacked in a well ventilated heated room in winter or outdoors in summer for a month or so before using. Since petroleum solvents are toxic to plants their elimination by evaporation prior to use of treated wood is important.

*Taken from Minnesota Forestry Notes 36
January 15, 1955.

Editors Comments
R. J. Stadtherr

Summer Trips South Dakota

The regional meetings of the American Society of Horticultural Sciences was held August 15 to 17 at South Dakota State College, Brookings.

Many interesting experiments are in progress which would interest nurserymen. Of great interest to me was the large area devoted to testing trees

and shrubs. Many plants which we have in our trials have been growing in this rugged area for many years. Excellent specimens of *Rhus aromatica*, *Tamarix pentandra*, *Tamarix odessana*, *Tamarix tetrandra*, *Hypericum kalmianum*, *Hypericum henryi*, *Hypericum prolificum*, *Cotoneaster multiflora calocarpa*, *Cotoneaster integerrima*, *Cotoneaster racemiflora soongorica*, *Acer campestre* and *Halimodendron halodendron* were observed.

Rhus aromatica, Fragrant Sumac, is a very handsome shrub with its glossy green trifoliate leaves. The leaves become scarlet and yellow, making it very attractive in the fall.

The *Tamarix* species are valuable where a fine, delicate textured plant is wanted in the landscape planting.

The *Hypericum*s or St. Johnsworts are low woody shrubs with bright yellow flowers which appear on current seasons wood. They bloom throughout the summer. I prefer the showy Henry St. Johnswort, for the bright golden flowers are much larger than the other species listed above.

The Sungary Rockspray *Cotoneaster* is one of the best *cotoneaster*s. For many years it has been virtually loaded with red berries in our old nursery area. It is a tall shrub which seems to be resistant against the scale insects which are so prevalent on the Peking *Cotoneaster*.

The *Multiflora Cotoneaster* is attractive in flower as well as in fruit. The berries are brighter red than the Sungary *Cotoneaster*. Both are similar in plant habit, being wide-spreading large shrubs.

The Hedge Maple, *Acer campestre*, recently has been used as a small tree. Formerly it was used more as a tall clipped hedge. It has an interesting small leaf, different from the more common maples.

The specimen of salt-tree was the best I've ever seen. It was a very compact plant and was covered with brown seed pods. I'm sure it was beautiful when it was in bloom with its pealike purple flowers.

Considerable work is being done on the use of chemical weedicides in shelterbelts. CMU at 20 lbs. per acre using 217 gallons of water proved to effectively control all annual weeds. The area treated with this weedicide had $4\frac{1}{2}$ " more growth than the control. No particular effort was made to keep the solution off the foliage. It was directed, however, to the ground. Red cedars, cottonwood, elm and others were included in the planting. Applications were made May 24 to trees planted in April.

The flour-water solution which was used to shade the greenhouses during the summer stuck tightly to the glass. The shading was applied just once. Waste flour from warehouses was used. Water was added to make a mixture which had the consistency of thin cream. This inexpensive yet effective way of shading certainly cut down on labor costs.

Michigan

From September 4 to September 11, I was in Michigan attending the American Institute of Biological Sciences Meeting at Michigan State University, East

Lansing. Undoubtedly this is one of the most beautiful campuses in America.

The Landscape Department does the planning, planting and maintaining of all the trees and shrubs on campus. The use of many different materials makes this practically an arboretum. The large Beal and Horticultural Gardens contain thousands of different plants. A large area is devoted to evergreen plants; both the narrow and broad-leaved types are included.

Many interesting papers were presented. The work of Ray Taylorson, and Dr. L. Holm of the University of Wisconsin, on the use of growth inhibitors should be of great interest to nurserymen. They used maleic hydrazide to delay opening of buds in the spring. Deciduous materials, such as forsythia and rugosa rose, were treated in October using 1% solution in oil. In other experiments Japanese Yew, Eastern red cedar and arborvitae were treated successfully. Root growth progresses before bud break, making transplanting easier. Dr. Holm cautioned against recommending the material until further experimentation can determine the effect of treatment over a longer period of time. When the paper is published, I'll give you more information on their interesting results.

Thomas S. Pinney, Jr., and Dr. L. C. Chadwick presented a paper on the use of maleic hydrazide on prolonging dormancy of nursery stock in the field. Application of a 1 or 5% level of maleic hydrazide close to the normal breaking of dormancy was effective in prolonging the period. There was great difference between various plant materials which were treated. In general, treated plants tended to be more compact.

Dr. Chadwick and several of his students presented papers on weed control in the nursery. Alana and CIPC gave good weed control. CIPC and NIX were successful in controlling purslane.

The tour of the huge greenhouse range was most interesting and educational. Must be wonderful having all that space available for experiments. Of great interest were studies of various soil mixtures and watering methods for potted stock, the effect of garden lighting on plants, use of growth inhibitors to dwarf and to make a more compact plant, photoperiodic response of woody plants and mist propagation under a plastic tent.

The final two days were spent touring greenhouses, nurseries and gardens in southern Michigan. The Westcroft Gardens, Grosse Ile, contains many ericaceous plants growing in a prepared soil of sawdust, peat and sand. Sulfur and ammonium sulfate are used to keep the soil acid. A dwarf mulberry plant caught my eye and since then I've had a very interesting letter from Professor F. L. O'Rourke on the background of this plant. He believes it would be excellent as a dwarf plant or as a dwarfing stock. No blooms or fruits have been seen on this dwarf compact plant. Its species is not known.

Mr. James Ilgenfritz, Ilgenfritz Nurseries, Monroe, Michigan, showed us his nursery. His "portable" outdoor propagating frame was in operation. After the plants have rooted, they remain there

and the mist equipment and burlap are moved to a new location. He reported high rooting percentages.

The Hidden Lake Gardens was a wonderful setting for an arboretum which will be developed. Present plans include the building of accommodations for the two-year students in nurseryculture who will be trained here. Michigan State University received this farm as a gift from a Michigan philanthropist.

Indiana

On September 20 and 21, I was fortunate to attend the Midwest Turf Association Field Days at Purdue University. Mr. Howard Kaerwer, Northrup-King, provided the transportation.

Dr. Bill Daniels has an excellent research program on grasses for lawns and golf courses. His program consisted of three major divisions; management, breeding and disease control.

Merion Bluegrass is very susceptible to rust and curvularia. In order to prevent rust, he suggested more nitrogen and water so that the turf was more vigorous. Merion, he said, was not a better grass with ordinary care.

Delta Bluegrass grows much quicker than Merion. It germinates quickly and seems to be resistant to leaf spot and rust.

He showed the value of good mixtures for good grasses are always present. With poor mixtures it takes about 2 months before they look their best. The permanent grasses are few and it takes them a while to become dominant. The use of the cheaper mixtures was recommended for late fall sowing, temporary lawns or during very adverse weather.

Incorporation of organic matter in the form of corn cobs, peat and other waste products with cyanamid was tested. Best results were obtained using 50 lb. cyanamid and 3 bales of peat per 1,000 sq. ft. of area. Planting was undertaken about 3 weeks after the materials were incorporated with the soil.

The use of disodium methyl arsonate at 4 oz. per 1,000 sq. ft. was recommended. Applications were made late in the season in late August and early September. Excellent control was reported. He used 3 applications applied at 5-day intervals. Excellent results were obtained with chlordane applied in April and June. Chlordane was applied at the rate of 60 lb. per acre using 60 gallons of water. Best results were obtained using a chlordane-oil mixture, an experimental product made by Standard Oil Company.

Control of diseases, fertilization studies, testing various genera, species, and selections and breeding new grasses were all very important phases in the excellent work they have undertaken.

Illinois

I'll report on my trip to the Morton Arboretum which will be October 13 and 14, in the next newsletter. I'm looking forward to my visit with E. L. Kammerer and Roy Nordine.