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

Vol. 10 No. 3 and 4 May and June 1962

NURSERYMEN'S TOUR ON AUGUST 6-8, 1962

An opportunity to visit outstanding nurserymen in the Chicago area is being provided by the Minnesota Nurserymen's Association. This educational tour will include Hills' Dundee Nursery, the Charles Fiore Nurseries, and the Morton Arboretum.

Minnesota Nurserymen have done business with the Hill Nursery for many years. You will see one of the largest container-grown nursery stock layouts in the industry. You will see mass marketing and accounting in action. You will have an opportunity to visit with the staff concerning production and marketing problems.

The Charles Fiore Nursery will provide an unusual opportunity to see finished nursery stock. Many unusual plants will be displayed. The technique for making topiary plants out of Japanese Yews will be demonstrated. Weather permitting, the Charles Fiore Nursery will hoist the group for an outdoor barbecue with all the trimmings.

Following the Nurserymen's Conference in December, many nurserymen expressed the desire to visit the Morton Arboretum at Lisle, Illinois. The Arboretum includes 1,375 acres of land. Approximately 4,800 species, varieties and hybrids of the woody plants of the world are included in the living plant collection.

Plantings are arranged according to three classifications: Systematic groups defined by botanical relationships, geographical groups according to native habitat, and ornamental plantings to create landscape effect.

A hedge collection consisting of 196 examples of formal and informal type hedges will be of special interest. A ground cover collection is also featured.

Mr. Tyznik (featured speaker on conference program) will conduct a tour of the Arbordale development of home demonstration plantings.

Travel for the tour will be provided by air-conditioned Greyhound buses. The trip will include 3 days of good fellowship and education. Each bus will carry 39 passengers. Registration for the trip will be recorded in the order of payment of fees.

Trip costs including transportation and lodging will be $30.00 per person. Checks should be made payable to the Minnesota Nurserymen's Association. Send your reservation slip and $30.00 for each reservation to: Mr. Keith Law, Secretary and Treasurer, Minnesota Nurserymen's Association, Laws Valley View Nursery, Hastings, Minnesota.

When the first bus is filled arrangements will be made for a second. Be prompt and help make this summer tour a success.

ALUMNI SERVICE AWARD

UPON THE RECOMMENDATION OF THE MINNESOTA ALUMNI ASSOCIATION THE REGENTS OF THE UNIVERSITY OF MINNESOTA IN GRATEFUL ACKNOWLEDGEMENT OF DEVOTED SERVICE PRESENT THIS

Alumni Service Award

TO

Vincent K. Bailey

AN OUTSTANDING member of the Minnesota Alumni Association, he has been an active supporter of the Association, and a diligent member and vice president of the Board of Directors of the Alumni Association of the School of Agriculture;

A NATIONALLY RECOGNIZED nurseryman and past president of the American Nurserymen's Association, he has instigated and organized many horticultural projects; he has given unstintingly of his time and energy to make possible the University of Minnesota Landscape Arboretum; his wise assistance has been sought for numerous alumni-sponsored activities; he has willingly and competently chaired alumni committees which contributed much to the success of many School of Agriculture programs; and his knowledgeable advice has proved highly valuable in fund raising for these enterprises.

PRESENTED this Fifth Day of May, in the Year of Our Lord, the One Thousand Nine Hundred and Sixty-second, and of the University of Minnesota, the One Hundred and Eleventh.

ARBORETUM NOTES

NEW ROSE--VIKING QUEEN

A large, very full, double pink floribunda-type climbing or pillar rose has been developed by the University of Minnesota.

Called Viking Queen, the new rose is a seedling resulting from a cross of White Dawn and L. E. Longley, both University of Minnesota introductions. It is the sixth rose developed by the University's horticulture department.

Plants of Viking Queen will be available in Minnesota nurseries in 1963.

The new rose produces clusters of fragant flowers 3 to 4 inches in diameter from late June until mid-October. Blooms are borne in clusters of five or more flowers. Flower color is a clear, medium to deep pink that does not fade for the normal life of the bloom. Petals remain on the blossom even after it has passed its prime.

Foliage of the Viking Queen is a rich, glossy, deep green that appears to be highly resistant to black spot and mildew diseases. However, plants should be sprayed or dusted periodically with an all-purpose rose dust or spray recommended for roses, according to Robert A. Phillips, in charge of the rose breeding program.

New plants of Viking Queen will make 6 feet of growth in one season and numerous canes develop during the season. The canes require a supporting pillar or trellis. Flowers are borne on both lateral and terminal growth.

Although the plant has demonstrated unusual hardiness, some protection is advisable during winter. Phillips recommends trimming down the canes at the end of the growing season and covering them with tree leaves or hay to a depth of 2 feet.

Rose breeding was started at the University of Minnesota in 1939 by L. E. Longley and continued by Phillips. Principal objectives of the rose breeding program are winter hardiness and disease resistance.

Further information on the new rose is given in Miscellaneous Report 49, Viking Queen, available from the Bulletin Room, University of Minnesota, St. Paul 1, Minnesota.

NOTES TO THE NURSERYMEN

Walter Trampe

MID TO LATE JUNE

Host	Pest	Material
Evergreens	Mites sawflies	Tedion-Ovex-Kelthane DDT - 2 lbs. 50% W.P. per 100 gals. water
Alpine currant	Leaf spot	Phaltan - 50% W.P. - 2 lbs. per 100 gals. water or Zineb - 65% W.P. - 2 lbs. per 100 gals. water
Birch	Bronze birch borer	DDT - 4 lbs. 50% W.P. per 100 gals. water
Maples - others	Leafhoppers	DDT - 2 lbs. 50% W.P. per 100 gals. water

EARLY JULY

Birch	Bronze birch borer	DDT - 4 lbs. 50% W.P. per 100 gals. water
Birch	Check for 2nd generation birch leaf miner	Malathion or Lindane - 1 lb. 25% W.P. per 100 gals. water
Elm - others	Brown elm scale	Malathion - 1 qt. 57% per 100 gals. water
Evergreens	Check for mites	Tedion-Ovex-Kelthane

MID JULY

Arborvitae-Taxus	Fletchers scale	Malathion - 1 qt. 57% E. per 100 gals. water
Evergreens	Check for mites Pine tortoise scale	Tedion-Ovex-Kelthane (crawlers) Malathion
General stock	Check for aphids	Malathion
Evergreens	Introduced pine sawfly	DDT - 2 lbs. 50% W.P. per 100 gals. water

Use any chemical according to previous rate given unless otherwise noted.

Continue checking stock through summer for mites, aphids and any other special problems. If they are not covered in this calendar, we shall be glad to help you if we can. If spruce needle miner is a problem in your nursery, fall treatment may be applied between September 1-15.

Timing the application of pest control chemicals is very important. It can vary from year to year on account of changes in climatic conditions. It is better to relate this factor to a stage of plant development than to calendar dates. The MIRS, weekly bulletin of the Division of Plant Industry, carries current timing information.

Timing given in this calendar is for the Minneapolis-St. Paul area. Ordinarily, times of application are approximately a week earlier at the southern border of Minnesota and two weeks later in Duluth and northern areas of the state.

NEW TELEPHONE LISTINGS

Horticulture Office	647-3464
Dr. L. C. Synder - Department Head	647-3464
Dr. C. G. Hard - Extension Horticulturist (ornamentals)	647-3647
Dr. O. C. Turnquist - Extension Horticulturist (vegetables and greenhouse tomatoes)	647-3467
Dr. R. E. Widmer - Floriculture	647-3470
Entomology Office	647-3511, 3412, 3713
Professor J. A. Lofgren - Extension Entomologist	647-3511
Dr. L. K. Cutkomp - Insecticides	647-3376
Plant Pathology Office	647-3277
Dr. H. G. Johnson - Extension Plant Pathologist	647-3367
Dr. N. A. Anderson - Plant Pathologist	647-3360

RECENT RESEARCH FINDINGS IN HORTICULTURE

The chrysanthemum breeding project continues to be highly productive. The introduction of Wayzata (yellow) in 1961 and Minn-Autumn (bright bronze cushion) in 1962 brings the number of University of Minnesota introductions to 41. R. A. Phillips, R. E. Widmer.

Poinsettias which are shorter, stockier, and more attractive may be obtained by applying the growth regulator CCC to the soil during the forcing season. R. E. Widmer.

The introduction of the Trumpeter strawberry in 1960 brought the total number of fruit varieties introduced by the Department of Horticulture to 65. Other recent introductions are the Earlimore strawberry (1959), Welcome gooseberry (1958), and the Centennial and Northland apple-crabs (1958). A. N. Wilcox, T. S. Weir.

The most recent hybrid tomato, Hybrid EE, was introduced in 1960. Seed of the parent lines (Bounty by Earliana) has been furnished to three seed companies. T. Currence.

Other hybrid vegetables include Hybrid R and G. Squash and Hybrid C and D cucumber. A number of male sterile squash lines have been developed and are being tested for the development of superior F_1 hybrids. These have been distributed to seedsmen and other breeders. A. R. Hutchins.

Tests using various materials for covering plastic greenhouses suggest the use of 4 mil polyethylene where a "cheap" temporary cover is desired. For a more durable cover 5 mil Mylar or Scotch Pak are recommended. R. E. Widmer.

Many varieties of garden chrysanthemums make excellent flowering pot plants in the spring when grown in the green house. Some of our University of Minnesota introductions that are especially suitable for this purpose are Glacier, Harvest Bronze, Wanda, Minnpink, Princess, and Minnehaha. Such plants are cut back after flowering and planted in the garden (by June 15) where they will produce satisfactory fall bloom. R. E. Widmer.

Hybrid tea roses protected with at least a 2-foot covering of mixed tree leaves survived very well after winters which were most severe. Conventional covering methods with about a foot of soil mounded around the base in the fall before the ground freezes, plus a foot-deep covering of coarse hay, gave much poorer survival. Plants should be covered at least 2 feet beyond the center of each plant. D. B. White.

Effective weed control in garden chrysanthemums has been obtained, using CIPC at the rate of 8 pounds per acre. Evergreen and shade tree plantings treated with simazin at 2 pounds per acre of active ingredient gave seasonal weed control. R. E. Widmer.

In the pre-emergent control of crabgrass and other lawn weeds, Dacthal and Zytron continue to be highly effective. The arsenicals also control crabgrass when used as pre-emergent applications. Post-emergent control is realized by the use of methyl arsenate, although repeated applications are required. D. B. White

Mouse-eared and common chickweed were effectively controlled by both Pax and Neburon. No regrowth of chickweed has occurred a year after treatment. Silvex is also a good contact spray for the control of chickweed. D. B. White.

Boyne, a new variety of red raspberry from Morden, Manitoba, has shown real promise over the past two years. It has medium-large, firm, attractive berries and has been extremely productive in trials. It merits trial as a commercial variety in the area. E. A. Andersen.

The iron chelate FeEDDHA (Sequestrene 138 Fe Iron Chelate) has been very effective as an iron source for strawberry plants growing in high lime soil likely to induce iron chlorosis in many woody ornamentals and fruit crop plants. Andersen.

Trials with dwarf apple trees have shown that the commonly used East Malling stocks are not sufficiently hardy unless mulched with straw, sawdust, or some similar material in winter, or have the benefit of sod culture. Apple trees growing on these dwarfing roots at the Fruit Breeding Farm near Excelsior have survived several winters, including the unusually severe conditions of the winter of 1958-59 where they were mulched or growing in sod. E. A. Andersen.

Annual weeds in canning peas have been effectively controlled by pre-emergence applications of 4 pounds of Randox per acre. Broadleaved weeds and Canada thistle can be controlled after pea emergence by the application of 6 ounces of MCPA per acre. To minimize pea injury, apply MCPA in the early morning after the foliage is dry. R. E. Nylund.

A wilt-resistant muskmelon, Minnesota Honey, is now available for Minnesota gardens. Another wilt-resistant muskmelon having only male and female flowers has been developed. It is expected to be very useful as the female parent in producing hybrid muskmelons with wilt resistance. A new hybrid having this line as the female parent is going to be introduced as Muskmelon Hybrid 16. T. Currence.

A number of promising woody ornamentals have been tested at the Arboretum, the Fruit Breeding Farm, on the St. Paul Campus, and at the branch stations. Some of these are being propagated by commercial nurserymen. These include the Mollis azaleas, the Korean boxwood, the many-flowered cotoneaster, Toba hawthorn, Lemoine deutzia, Canby's pachystima, and Summer glow tamarix. A. Johnson, L. C. Snyder.

The Radiant flowering crab apple, introduced in 1958, has become one of the most popular varieties in this area. Another selection with upright form is being propagated by our nurserymen and will be introduced in 1963. A. Johnson, L. C. Snyder.

Quackgrass can be controlled in potatoes by the application of dalapon at the rate of 10 pounds per acre. The method of treatment is to allow the quackgrass to grow 6 to 8 inches tall, then apply the dalapon in a sufficient volume of water to give uniform coverage. After 7 to 10 days the field can be plowed and planted to white varieties of potatoes. Red-skinned varieties are lighter in color when grown on treated soils. R. E. Nylund.

Early yields in tomatoes have been increased by growing an early hybrid variety such as Hybrid EE, by using transparent plastic mulch, by using a starter solution when setting plants in the field, by applying a hormone blossom-spray to the first and second flower clusters when three to five flowers are open in the cluster, and by growing seedlings in peat, clay or plastic pots rather than in flats or bands. Nylund, Ayres.

Hollow heart in Irish Cobbler potatoes increases as the number of tubers per plant decreases. Also any practice that increases the rate of tuber growth after the tuber initiation may increase hollow heart. A close association exists between internal browning and hollow heart of potatoes. Nylund.

Muskmelon yields, particularly early yields, can be greatly increased by growing in peat pots and transplanting seedlings through slits cut in black polyethylene mulch which has been laid down in the field or garden. Nylund.

CLEMATIS PROPAGATION

Wayne Handlos and Conrad J. Weiser
Assistant Professors, Department of Horticulture
University of Minnesota

Some growers have suggested that clematis cuttings should be rooted upside down. This study was conducted to see what advantages could be obtained from different methods of rooting cuttings. Treatments included placing the cuttings upside down, removing foliage, and centrifuging. Centrifuging was done in an effort to change the natural polarity and to concentrate natural substances such as auxins and carbohydrates in an area of the plant where they could be used for root initiation and growth.

Semi-hardwood cuttings of the variety Madame Baron-Veillard were prepared May 5, 1962. These cuttings were single node with two to three inches of stem remaining below the leaves. The lower inch of stem was dipped in a rooting powder composed of two parts Hormodin 2 (0.3% indolebutyric acid) and one part Rootone (0.067% naphthylacetamide, 0.033% 2 methyl 1 naphthylacetic acid, 0.013% 2 methyl 1 naphthylacetamide, 0.057% indolebutyric acid). Intermittent mist kept the leaves continuously moist while heating cables kept the rooting medium of coarse sand at 77° F. The air temperature during rooting averaged 66° F. with a maximum of 75° F. and a minimum of 60° F.