

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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CONVENTION ISSUE

Jan. - Feb. 1956

Woody Ornamentals for Minnesota

Leon C. Snyder, Head
Hort. Dept. Univ. of Minnesota

In the testing of the woody plant project, three hundred and fifty varieties have been planted in permanent locations and another two hundred and fifty varieties have been propagated and will be ready for planting this spring. Test plantings have been made at the Fruit Breeding Farm near Excelsior, at the Institute of Agriculture in St. Paul, and at the Branch Experiment Stations in Waseca, Morris, Crookston, Grand Rapids, and Duluth.

These varieties are new to this area. Materials for these tests have been secured from nurseries, botanical gardens, arboreta and experiment stations in the northern United States, Canada, northern Europe, and the British Isles.

Support for this project has come from University funds and from the Greater University Fund. The Greater University Fund contributed \$1000 to give this project a start. This has been spent in securing materials and in hiring help to maintain the plantings. Last spring the Minnesota State Horticultural Society appointed a Landscape Arboretum Committee to solicit funds for this research project and to build up a fund for the eventual establishment of a Landscape Arboretum.

To date this committee has received about \$3000 for these purposes. These donations have come largely from Garden Clubs, but a number of donations from private individuals also have been received. Checks are made out to the University of Minnesota and sent to the Minnesota State Horticultural Society in care of the Landscape Arboretum Fund. Nurserymen are urged to get behind this program for they stand to benefit greatly through the testing and breeding which will be carried on in this project. Nurserymen should tell others of this worthwhile program.

Plants that are showing promise and that should be tested more widely include the Idaho Locust, Globe Caragana, Shortleaf Caragana, Toba Hawthorn, Schubert Chokecherry, Canby Pachistima, Lemoine Deutzia, Kelsey Dwarf Dogwood, Henry's St. Johnswort (pericum), and the Claveys Dwarf Honeysuckle. A large planting of nearly fifty varieties of flowering crabapples has been made. These should start flowering this coming spring. Azaleas and Hollies are included in the test and plans are underway to try to develop hardy Azaleas for this area.

New 1956 Garden Chrysanthemums

Robert A. Phillips
Assistant Professor of Horticulture
University of Minnesota

In spite of the unusually late blooming season of garden chrysanthemums in 1955, two University of Minnesota selections that were scheduled to be named in 1956 gave an excellent performance and therefore justified proceeding with the plan to introduce them. These two selections came into flower about three weeks late, yet they bloomed for over four weeks, making a successful season. All previously introduced University of Minnesota varieties tended to bloom later than normal this year.

The two new varieties for 1956 have been named Mesabi (U. of M. #45-313-46) and Wanda (#49-197-12).

Mesabi

An outstanding variety that has been with us since 1945 but had not been introduced because in some seasons the foliage is susceptible to leaf spot. This, however, has not been too much to its discredit because the plant is always completely covered with bright rust-colored blooms that produce a brilliant effect and hide the foliage. Normally, Mesabi starts flowering during the last week of August and continues in good bloom until killing frosts, that come late in the fall. It is a medium sized plant, growing approximately 18 inches in height and two feet in diameter.

Wanda

Wanda is slightly lower-growing than Mesabi and flowers earlier, usually beginning early in August and remaining in good condition until killing frost. Flowers are large (2½ to 3 inches) and raspberry pink in color.

A bulletin, featuring these new University of Minnesota garden mums, can be obtained by writing to the Bulletin Room, Coffey Hall, University of Minnesota, St. Paul 1.

Catalogs Please

Please send us your 1956 catalog or price list. It is to your advantage to have it in our files. We recommend nurseries where we know the stock can be purchased. We would like to recommend you!

Report from the Fruit Breeding Farm

T. S. Weir
Assistant Superintendent
Fruit Breeding Farm
University of Minnesota

The present Fruit Breeding Farm is the third of such farms in Minnesota. It was established for the purpose of breeding and developing hardy fruits for the Northwest. The headquarters are located on highway 5 about three miles south and two miles east of Excelsior. It is a mile east of Victoria. The present farm was established in 1907 and now comprises some 224 acres.

In the breeding of apples one of the important characters sought is hardiness, but many other characters are very important. Hardiness can come only from hardy parents and for a start a quantity of seed was secured, from such varieties as Malinda. A great many seedlings were grown and a number of selections were made; eventually some were named. Haralson, a Malinda seedling, is one of these which become very popular locally. Fireside, Prairie Spy and Redwell are other popular varieties which were selected from crosses which were made.

Not many years ago it was decided to sell apples at the State Fair, but there were no good local varieties, except a small supply of Beacon. The quality and texture of this variety were not considered the best but Beacon caught on and the problem has been to find enough to supply the fair. Beacon is an attractive dark-red apple that has much eye appeal to customers. The demand for red apples is great.

At the Fruit Breeding Farm many kinds, colors and sizes of apples have been selected. Last fall at La Crosse the Minnesota-Wisconsin Fruit Growers met for 2 days. An exhibit of apples was prepared and the following tells something of the top Fruit Breeding Farm varieties selected there by the fruit growers.

Of twenty-four varieties rated on commercial merits, eight from the Fruit Breeding Farm rated in the top ten. In first place was a new selection #1630; #1430 was second; and third was #1425. #1330, an excellent fall variety maturing during Wealthy season, rated 7th.

In the best ten from the Fruit Breeding Farm, seven have excellent adherence to the tree, that is, under normal conditions, the fruit hangs until harvest. Premature dropping can be very costly to the grower. All of these selections produce good trees with well-formed strong crotches.

All but two of these top ten have proved to be hardy at the Fruit Breeding Farm. These two, #1425 and #1430, showed sun scald on the trunk on fifteen year old trees. These selections have beautiful red high-quality apples and thus they should be tried south of the Twin Cities.

These selections have been chosen from many thousands of seedlings. Some have been tested but a few years; for others, information is fairly complete. The record of these varieties is good but they

should be grown along with present commercial varieties before better comparisons can be made.

Below you will find a brief description of a few outstanding selections:

#1216 Jonathan x Duchess. Ripe after September 20. Tree apparently hardy. Fairly regular bearer. Bright attractive red, flesh yellowish, juicy and tender. Acid. Size medium, roundish, stem short. Hangs very well. Some resemblance to Redwell.

#1330 Duchess x Delicious. Tree apparently hardy. Upright when young, becoming rounded later. Fall, season of Wealthy; medium size. Fruit slightly flattened, nearly full red stripe with purple bloom, dots conspicuous, flesh color, greenish yellow. Hangs well to the tree. Mildly acid, strong rich flavor. Tends to cluster. Appearance and quality usually excellent.

#1425 Duchess x Delicious. Tree of doubtful hardiness. Tends to annual bearing. Fruit hangs well. Fruit roundish medium to large, stem medium long. Dark full red, flesh creamy, skin tough, quality excellent.

#1430 Daniel's Red Duchess x Golden Delicious. Tree of doubtful hardiness, medium size. Fruit a beautiful full red which hangs well to the tree. It also tends to cluster and is susceptible to scab. Flesh color creamy yellow, texture crisp, juicy. An excellent keeper of top quality.

#1630 #447 x Northern Spy. Tree apparently hardy. A winter apple - keeps well. Fruit roundish, color full bright to dark red over yellow, stem medium to long. Flesh creamy yellow, tender. Flavor sub-acid. Quality good.

KNOW YOUR MINNESOTA APPLES

J. D. Winter
Assoc. Prof. Horticulture
University of Minnesota

Variety	Season of Use	Uses (1)
Erickson	July-Aug.	P-S-(green).
Oriole	Aug.	E-P-S-F.
Duchess	Aug. -Sept.	P-S-J-F.
Beacon	Aug. -Sept.	E-P-S-F.
Wealthy	Sept. -Nov.	E-B-P-S-J-F.
Minjon	Sept. -Dec.	E-P-B-S-F.
Lakeland	Sept. -Dec.	E-P-S-F.
Patten Greening	Sept. -Jan.	P-S-F.
McIntosh	Oct. -Dec.	E-P-S-J-F.
Jewell Winter	Oct. -Jan.	B-P-S-F.

Variety	Season of Use	Uses (1)
Jonathan	Oct. - Jan.	E-P-B-S-J-F.
Tolman Sweet	Oct. - Jan.	E-P-B-S-Pk-F.
Cortland	Oct. - Jan.	E-P-B-S-J-Sl-F.
Victory	Oct. - Feb.	E-P-B-S-Sl-F.
Delicious	Oct. - March	E-Sl.
Redwell	Nov. - Jan.	E-B-S-F.
Golden Delicious	Nov. - March	E-P-B-S-Sl-F.
Fireside	Nov. - March	E-Sl.
Haralson	Nov. - April	E-P-B-S-J-F.
Prairie Spy	Nov. - April	E-P-B-S-J-F.
North- western	Nov. - April	P-S-F.

CRABAPPLES

Dolgo	Aug.	J-Pk.
Whitney	Aug.	Pk-E.
Hyslop	Sept.	J-Pk.
Whestnut	Sept. - Nov.	Pk-E-S.

(1) P. - Pie, S. - Sauce, B. - Baking, F. - Freezing,
E. - Eating, J. - Jelly, Sl. - Salad, Pk. - Pickles.

Tree Protection Short Course

March 6 and 7, 1956, have been chosen as the dates for a tree protection short course on the St. Paul Campus of the University of Minnesota.

Featured speaker will be Mr. R. R. Whitten, Chief, Division of Forest Insect Research, Central States Forest Experiment Station, Columbus, Ohio. He will discuss current information on Dutch Elm disease and phloem necrosis.

Tree problems and factors affecting tree growth will be discussed on March 6. Description and identification of important insects, diseases and physiological disorders will be covered in the morning sessions. In the afternoon, selection of varieties, tree maintenance and tree breeding will be discussed.

Specific diseases and insects threatening Minnesota trees will be the subject of the March 7 meetings. The use of insecticides and fungicides in controlling insects and diseases will be covered.

There will be ample opportunity for questions, for each day's program will conclude with a question and answer period. Come and bring your problems.

All nurserymen should attend this short course. You will be receiving a copy of the program very soon.

If you wish to register write to: Short Course Office, University of Minnesota, Institute of Agriculture, St. Paul Campus, St. Paul 1, Minnesota

Winter Protection Tests of Container-Grown Nursery Stock

L. C. Chadwick, and P. A. Barker
Ohio Nursery Notes 24 (9): 2-6 September 1955

Four methods of protecting canned nursery stock were compared against a control which received no protection. (1) Wood shavings or (2) broken corn cobs to cover the cans; (3) a wall of baled straw (2 high) on the south and west side or (4) a complete wall with a snow fence cover, were used.

Soil temperatures were consistently higher where mulch materials were applied around the cans. The broken corn cob and wood shaving treatments gave the best overall winter protection. Subsequent growth and flowering were influenced by the type of winter protection.

R. J. Stadtherr

Donors

Contributions for the research program have been received from the following individuals or firms since May, 1955:

J. V. Bailey Nurseries, St. Paul 6, Minnesota
Inter-State Nurseries Inc., Hamburg, Iowa
Regional Plant Intro. Station, Ames, Iowa
Morton Arboretum, Lisle, Illinois
South Dakota State College, Brookings, South Dakota
Michigan State University, East Lansing, Michigan
Bachman's Inc., 6010 Lyndale Ave. So., Mpls.
Eldred Buer, Canby, Minnesota
Lake City Nursery, Lake City, Minnesota
Arnold Arboretum, Jamaica Plain, Massachusetts
O. M. Scott and Sons Co., Marysville, Ohio
Dow Chemical Co., Midland, Michigan
Stauffer Chemical Co., 380 Madison Ave., New York City, N. Y.
Bemis Bro. Bag Co., 604 S. 4th St., Mpls.
Rock Park Department, Rochester, New York
The Willis Nursery Co., Ottawa, Kansas
Better Lawn and Turf Institute, 310 S. 3rd St., St. Joseph 5, Missouri
Turf Research Foundation, 208 S. LaSalle St., Chicago 4, Illinois

Sincere thanks for your help in our research program.

Fertilizer Cost

In purchasing fertilizers prime consideration should be in cost per actual pound of the three major essential elements usually obtained by plants from the soil. These three, nitrogen, phosphorous, and potassium, are commonly lacking in sufficient quantities in many agricultural soils.

Usually the greater the percentage of total nitrogen in a fertilizer, the greater the cost will be. Recently the new urea-formaldehyde fertilizers, which

release nitrogen slowly over a long period of time, have received much publicity. They contain about 38% actual nitrogen and cost about \$400 to \$500 per ton. Thus, in every ton there would be 760 pounds of nitrogen and, per pound, it would cost 50¢ at the \$400 per ton rate and slightly over 65¢ at the \$500 rate.

The cost per pound of nitrogen from ammonium nitrate or ammonium sulfate is about 15¢ per pound. Considering the increased expense of making several applications during the growing season, these fertilizers are still considerably cheaper than the urea-formaldehyde fertilizers. Until production costs are reduced, these new fertilizers will not be used extensively.

Continued Newsletter ?

Our mailing list for the Minnesota Nurserymen's Newsletter has grown very large and, as we have had very little comment on the publication, we wonder if you've been reading it. We would appreciate a card from each recipient of this free publication. Your criticisms and suggestions will help us to have a better newsletter.

If you wish to discontinue the newsletter, send a card to me.

Address your card to:

Richard J. Stadtherr
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Editors Comments R. J. Stadtherr

Convention News

Management Round Table

Seymour V. Pederson, of Graves and Associates, Minneapolis, spoke on the value of advertising to increase sales in the nursery. He stated that advertising doesn't compete with profits. Reduced advertising usually cuts profits. Using last years sales volume, the nurserymen should expend at least 3 to 5% for advertising. Telephone directories, newspapers, radio, television, direct mail and billboards are the best media to use.

The bulk of advertising should be in April and May, however, steady advertising is recommended. In February, landscape planning could be stressed. During the summer peat, stones, fertilizer, fences, and canned stock could be featured. Advertising should be more appealing and specific as to sizes, color and other pertinent features of the plants, to get customers to buy.

Gil Bakeberg, of Minneapolis-Moline Manufacturing Company, told how they go about choosing a new worker and the benefits they have given to keep workers with them. The man must be physically and mentally qualified to do the job. It will be necessary for nurserymen to iron out peaks and valleys of work in order to get year-around work for competent trained men. If that is impossible, certain benefits should be

introduced so that workers will come back during peak seasons.

Cullie Wiles, Minneapolis Retail Credit Association, stated that today credit is a necessity, not a convenience. There is mass production; thus a need for mass sales to unload products; thus mass finance is needed. Better customer lists are needed for credit ratings.

Cecil Shirk, Minneapolis Better Business Bureau, stated that the public has been very slow to complain about poor nursery stock. The time element and the relatively small-priced items make complaints rather few.

Nursery Research

Here's a brief report of research projects we have undertaken here at the University of Minnesota the past year:

- (1) Comparisons of nursery stock held under high humidity and ordinary storage were made.
- (2) Soaking of nursery stock prior to planting proved to be very beneficial with barberry, spirea and hybrid roses. Soaking rose roots in a nutrient solution did not give quicker starting plants nor more blooms than those soaked in plain water.
- (3) Soaking prior to packing for shipment proved beneficial for red-leaved barberry.
- (4) Use of various mulching materials for rose protection overwinter has been begun.
- (5) Preliminary tests were started to determine at what temperatures canned roses are injured. This project will be expanded.
- (6) Propagation studies have been undertaken with the new materials which will be tested here.
- (7) Time of transplanting, spring or fall, were begun. French lilacs and ornamental apples were used.
- (8) The use of iron carrying compounds on highly alkaline soils to prevent chlorosis on hybrid snapdragons was tried.
- (9) Weed control in chrysanthemums and seed beds was undertaken.
- (10) Lawn and turf studies include crabgrass control and establishment of a nursery of various individual grasses and mixtures commonly used in this area.

New Secretary-Treasurer

R. N. Ruedlinger, Ruedlinger Nursery, resigned as secretary-treasurer of the Minnesota Nurserymen's Association after 21 years of service. At the banquet he was presented with a glass fishing rod, a small token of appreciation for the many years of faithful service he gave to the Association.

Ed Reid, Park Nursery, was chosen by the board to succeed Rudy. Best wishes and success, Ed!

AAN Film

"Landscape for Living" is a new film produced by the American Nurserymen's Association. This film, which runs for 12½ minutes, tells the story of buying a new home in a barren, tree-less setting and improving the landscape by planting a lawn, trees and shrubs. It stresses the importance of buying good healthy stock from reputable nurserymen.