

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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100 YEARS OF NURSERY BUSINESS IN MINNESOTA

Bj. Loss
Lake City Nurseries
Lake City, Minnesota

PART I

(See Minnesota Nurserymen's Newsletter 7 (1 & 2)
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PART II

CHANGES IN PLANT MATERIALS

Quoting Prof. W. H. Alderman, "After the colonies were well established, we found an intense desire for fruit expressing itself in an intense effort to grow and test native fruits. The more desirable were propagated for sale, thus starting the nursery business." Often criticized and sometimes maligned, nurserymen since that period have continued to be in the vanguard of horticultural progress. It is doubtful if any other industry has contributed so richly to the advancement of horticulture in North America.

When the early settlers talked about fruits, the apple was foremost in their mind. As you know, there were no native apples growing in America, and it is probably true that the first apples were exhibited in Minnesota in 1855 by Rev. Pond at Bloomington, Minnesota.

Our first apples undoubtedly were apples from Russia. Some of these varieties were imported by England as early as 1817 and thence to eastern America. In 1870 the United States Department of Agriculture imported several hundred varieties of Russian apples, such as Red Astrachan, Tetofsky, Charlamoff, Duchess, Hibernial, Lowland Raspberry, etc. The Duchess and Hibernial are the only two that have survived competition. Due to the tremendous demand for apples, the first material grown in the nursery was the apple.

I was really surprised to learn the age of the Wealthy apple. Wealthy was first introduced in 1868.

The lack of suitable winter varieties in apples is apparent. Malinda, a variety from Vermont, was high in quality.

From our native plums, many worthwhile selections have been made. With the introduction of the new Hybrid Plums, such as Ember, Underwood, Monitor, etc., from the Minnesota Fruit Breeding Farm,

the older varieties have been discarded. These new varieties are very superior and are quite equal to anything grown in the United States.

While the growing of fruit constituted a major portion of our sales, the demand for windbreak trees was very constant. During the early part of the 20th century, windbreak stock constituted one of the major portions of our sales. I can recall standing on a hill at one of the Minnesota nurseries and viewing a field of 100 acres of poplars and willow cuttings.

As the state and federal nurseries became active in distributing free trees, or at a price with which our salesmen could not compete, the market for the windbreak trees disappeared gradually. The nurserymen found themselves in the position where they had, at least to a large extent, to eliminate the growing of windbreak material such as seedlings, rooted cuttings and low-priced windbreak evergreens.

The demand for fruits also diminished. Thus, nurserymen devoted their energies and their land to the growing of ornamental trees, shrubs and evergreens. While formerly sales of fruits and windbreaks constituted 80-90% of the total nursery business, it has changed gradually so that today the windbreak and fruit business does not amount to over 10-15% of total nursery sales.

The introduction of the Haralson apple from the Minnesota Fruit Breeding Farm in 1922 was the first real Minnesota winter apple. In other fruits the Latham Raspberry, introduced in 1920, was almost as important. From then on the Minnesota Fruit Breeding Farm has given us many fruit varieties. Everyone of these has contributed immensely to home and commercial fruit growing in Minnesota. The nurseries have followed closely the demands of the public in growing desirable and popular varieties. They have cooperated in testing certain varieties to learn if they were sufficiently hardy to withstand the vicissitudes of the Minnesota climate.

At the present time we seem to be in a transition period. The tall house, two and three story, has given way to the low modern Rambler. Thus nurseries will have to meet the demand for low-growing accentuating evergreens instead of the tall pyramidal arborvitae and junipers that have been the standbys for so many years. I have no fear but that the nurseries will meet the challenge.



PART III

REVOLUTION IN DISTRIBUTION

The sale of nursery stock by the early nurseries, from 1860 and possibly up to 1880, was by the owners who went on foot or, more conveniently, by horse and buggy. Obviously, trade territory was limited. It was only in the late 19th century that agents were employed, thus enlarging the trade territory of a given nursery.

Sales methods used were crude and direct. Varieties grown by the nurseries were very limited. Salesmen had little preparation or training. Hiring of salesmen by the nurseries was a progressive movement. In 1916 a survey was made by the Northern Nurserymen's Association as to the number of salesmen employed by Minnesota nurseries and the acreage devoted to growing of nursery stock. There were about 1600 agents from Minnesota nurseries traveling over the northwestern territory and Canada. The total acreage of Minnesota nurseries was approximately 6000 acres. High pressure salesmen had their heyday in the years from 1908 until 1930 and many are the weird stories told of their prowess.

In the early days the salesmen were real pioneers. They contributed in a large measure to the planning of family orchards, beautifying of the home and planting of windbreaks.

With the advent of the Northern Nursery Association, many of the enmities between nurserymen were eliminated. I recall that when we first met, we considered each other certainly not as friends. Many harsh words and knotted fists were over the table in those days. As we came to know each other better, we realized that we all had the same ideals, aims, and troubles. The ethics of the profession improved gradually to the high standard of today, of which we are very proud.

Salesmen increased the trade territory greatly, the nurseries flourished, the general economy was good and quality of the stock improved, as did the demand. During the boom time of '29 we felt we could look forward to quite a rosy future, but by 1932 we were all gasping for breath. Our rosy future had disappeared, and we did not know what we were facing. Salesmen left the road because they could not sell enough to pay their expenses; most of the carefully built-up sales organizations disappeared. With the advent of social security, wage and hour law, high insurance costs and court's liberality in granting claims amounting to fabulous sums, the employment of salesmen was difficult and less satisfying than it had been previously. It was immediately after this catastrophic time that the greatest change in distribution occurred.

In 1945, there were 188 dealers. In 1957 there were 557, with a gradual increase almost every day. These independent dealers, over-the-counter sales organizations, garden centers, department store sales, and independent one-man stands on a city lot of an acre or two, appeared all over the state. Before 1930 nearly all nurseries in the state were employing salesmen, but today there are only four nurseries conducting agency business in Minnesota. Most of the

agency business has gone into wholesale trade. Exclusive landscape nurseries began to appear. While Holm and Olson was the earliest landscape nursery in Minnesota, many others appeared more recently.



NOTES FROM THE DIVISION OF PLANT INDUSTRY

Walter P. Trampe
Supervisor of Nursery Inspection

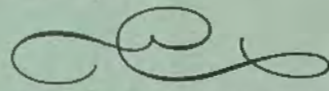
NEW DIRECTOR NAMED

Dr. Donald M. Coe has been named Director, Division of Plant Industry, Department of Agriculture, Dairy and Food.

Dr. Coe was born and attended schools in the state of Washington. He worked his way through Washington State College on a tulip and narcissus farm in that state. He spent two years in the graduate school at the University of Wisconsin and received his Ph. D. from Washington State College in 1943.

His work has taken him to all parts of the United States including Alaska, where he spent some time doing research work. He was a teacher for several years. He has worked as a nursery inspector with the Wisconsin Department of Agriculture, however, most of his working years were spent in extension work in Iowa, Wisconsin, California and Florida.

Early professional work was directed toward stone fruit virus disease control. In recent years greater emphasis has been placed on vegetable diseases. Dr. Coe came to the Minnesota Department of Agriculture as Supervisor of Seed Potato Certification in April, 1958, where he has done an outstanding job for the seed potato growers and has gained the respect of the entire industry.



CENTRAL PLANT BOARD MEETING

Omaha, Nebraska
February 17, 18, and 19, 1959

The Central Plant Board is an organization of plant quarantine officials of thirteen North Central states. These people gather once each year for a three-day session to discuss problems relating to plant protection. The writer was privileged to attend as Minnesota's representative.

JAPANESE BEETLE

This pest is as near our borders as Fort Madison, Iowa. Results of present control and trapping methods indicate the need for more research in that direction. Dr. W. L. Popham, Assistant Administrator of Regulatory Programs, USDA, exhibited confidence in regard to the development of widespread application of biological control methods against this pest. It appears at this time that this technique must become more effective if we are to hold the line against the Japanese beetle.

SOYBEAN CYST NEMATODE

USDA officials report 2,000,000 acres surveyed the United States last year. Research aimed at developing resistant varieties shows promise. The writer's impression is that this pest should be carefully watched at this time. There appears to be no imminent threat to Minnesota interests.

IMPORTED FIRE ANT

The infested areas extend from the Gulf Coast northward into Arkansas and Tennessee. Severe criticism from uninformed sources against the use of soil insecticides is hampering the eradication program. Control is meeting with good results, and 650,000 acres have been treated successfully to date. New approaches in application will probably lessen toxic dangers to fish and wildlife.

GYPSY MOTH

The infestation in Michigan is under control, but not eradicated. The USDA was vindicated by a recent far-reaching court decision in its use of chemicals for the control of gypsy moth in the northeastern states.

DUTCH ELM DISEASE

This is a serious problem wherever it is present. Consensus of opinion appears to be that large area control is impractical, whereas small area control is practical. Experience indicates that with thorough sanitation, vector spraying and good tree care, spread of the disease in infested areas can be kept down to one or two trees per 1,000.

REPORTS

Dr. Dewey Moore of the University of Wisconsin discussed the stone fruit virus program and its operation in the North Central area.

Dr. A. L. Taylor, USDA, Beltsville, Maryland, reviewed the nematode problem as it affects plant protection.

Dr. Hugh E. Thompson of Kansas State College, Manhattan, Kansas, gave a very informative paper on Dutch elm disease.

NURSERY DEALER INSPECTION

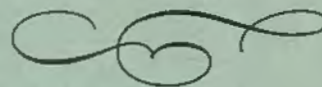
The states represented exchanged ideas in regard to the ever-increasing nursery dealer inspection problems. Michigan was probably the only state represented which indicated it was properly equipped to handle the situation. That state maintains a force of 35 inspectors to do the job. There are many economic aspects involved, and therefore it might be impractical as well as difficult for Minnesota to justify the expenditure of sufficient funds to maintain a staff large enough to eliminate the problem. However, it is felt that with the cooperation of the dealers and others interested in the sale of viable nursery stock, we can do a satisfactory job in keeping this situation under control.

BUSINESS MEETING

The last day was spent in transacting the business of the Board. Among the many items acted upon was the adoption of a set of uniform regulations for the certification of virus-free strawberry plants.

BULLETIN!

The new PLANT PEST ACT was signed by the Governor and has now become law.



CRITTENDEN DAMSON PLUM

T. S. Weir
Associate Professor Horticulture
University of Minnesota

Crittenden Damson, *Prunus insititia*, originated in the orchard of James Crittenden of East Farleigh, Kent, England. In Europe and parts of America it has also been known as Farleigh and Cluster.

This variety ranks high among Damsons. It is very productive and the dense clusters of fruit are very attractive. The fruit is covered with a heavy bloom. Crittenden does ripen quite late. The fruit is very tart and it will hang well, even thru the winter.

The tree of Crittenden is apparently hardy in Minnesota as far north as the Twin Cities. Both tree and fruit have a clean look about them. Pests do not bother this variety to any extent. Those who enjoy old-fashioned Damson jam should grow the Crittenden Damson.



Editors Comments
R. J. Stadtherr

CRABGRASS CONTROL *

There are three basic types of chemical herbicides, based on application time, which can be used to control crabgrass.

The first is applied during the dormant season in advance of the normal germination of crabgrass seeds. Lead arsenate at 20 lbs. per 1000 sq. ft. or calcium arsenate at 12 to 15 lbs. per 1000 sq. ft. have been used very successfully in greatly reducing crabgrass stands. PAX, a commercial arsenical formulation, has given almost complete control in tests we have conducted the past three years. Applications can be made in early spring after the soil has thawed up to mid-May or in fall. Control has been good for

* Taken from Paper No. 1002 Miscellaneous Journal Series, Minnesota Agriculture Experiment Station.

more than one season from a single application of 25 lbs. per 1000 sq. ft.

The arsenicals appear to be specific in preventing crabgrass and other weedy grasses from becoming established but not the good turf grasses such as Kentucky bluegrass and Creeping red fescue. Seeds of Highland bentgrass germinated very well, too. In greenhouse tests in which seeds of these lawn grasses were sown in flats treated with arsenicals just after treatment and at one, two, six and 12 week intervals, seed of these grasses germinated. Crabgrass control was excellent. Crabgrass seed was planted in some of these flats four months after application. These seeds germinated; however they became chlorotic and died before they reached the four-leaf stage. Applications made just after crabgrass seeds had germinated were very effective in killing the seedling plants in other tests.

The second type is applied just prior to the time that crabgrass seeds germinate usually from late May to mid June depending on weather conditions. Products containing naphthyl phthalamic acid have been the most effective; however not nearly as good as the arsenicals. These herbicides in this type are effective usually for three to five weeks, thus three or more applications are necessary to obtain good crabgrass control.

The last type of herbicide is used after the crabgrass plants have appeared and are called post-emergence chemicals. Generally these herbicides are most effective when applications are made when crabgrass plants are only one or two inches tall; however good control has been obtained up to the time the seed heads appear. In our trials, the methyl arsonates, phenyl mercuric acetates and potassium cyanates have been most effective. Liquid applications have given better control than the dry and granular types even though comparable amounts of active ingredients were used. There are many different trade names of products available commercially that contain one of these chemicals. To be successful with these herbicides closely follow the manufacturer's recommendations. The drawback in using this particular type is that repeated applications must be made every seven to ten days to obtain satisfactory seasonal control. They do not possess much, if any, residual effects. The plants are killed by contact or absorbed into the plant system. One must be very careful when using these chemicals when temperatures exceed 90° F. or excessive injury could occur to the good grasses. Injured turf opens more areas for crabgrass and weeds to take over. These chemicals are very effective in reducing the crabgrass population if applied repeatedly. This will mean four or more applications per season.

At the present time, the arsenicals which require a single application early in spring or in mid-August to early September appear to be the most promising. However, remember that when using compounds that contain an inorganic nitrogen fertilizer on actively growing turf that you make application when the grass blades are dry and water thoroughly after covering the lawn.

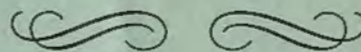
NEW PERENNIALS BULLETIN

Dr. C. G. Hard, University extension horticulturist is the author of a new Extension publication "Perennials for Minnesota", Extension Bulletin 295.

Fifty of the more popular and hardy perennials are covered in this bulletin which gives descriptions of these plants, blooming dates as well as recommendations for their culture.

Perennials can give zest to a dull landscape design, Hard says, when they are used to create mass effects and color accents. He recommends using perennials to add interest to the foundation planting. He stresses the importance of making a plan of the flower border on paper before planting to achieve the best combinations of colors, forms and texture as well as continuous bloom.

This bulletin is available from the Bulletin Room, Institute of Agriculture, University of Minnesota, St. Paul 1, Minnesota.



HORTICULTURE SHORT COURSE

The 38th Annual Horticulture Short Course will be held March 24 through March 26 on the St. Paul Campus of the University of Minnesota.

The first day will be devoted to commercial fruit growing and will include thinning sprays, insecticides, fungicides and other current problems. Wednesday morning sessions will be directed to the home fruit grower. The afternoon meetings will be devoted to vegetable gardening.

Thursday has been set aside for ornamental horticulture and will include discussions on roses, annual flowers, delphiniums, house plants, landscaping styles and other current problems on the care of plants. You and your customers are invited to attend this free program.

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