

# 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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## NEW TRENDS IN LANDSCAPING

Dr. C. Gustav Hard  
Extension Horticulturist

The rapid acceptance by the public of the one-level contemporary home has created some changes in demand for landscape materials. The trim lines of modern architecture have raised the demands for dwarf-like, low-growing materials.

Acceptance of new materials to provide this effect is slow. The home owner needs to become educated to these materials so that he is better able to make his selections. The problem is more acute when we consider the small number of low-growing shrubs which are available. Therefore, it is becoming increasingly important that the home owner understand proper pruning techniques for shrubbery that he may manage his ornamentals properly.

Nurserymen should share in the responsibility of educating the public in the use of low-growing plants and the proper training of existing ornamentals.

Outdoor living is becoming more significant in Minnesota. The idea of family picnics on the lawn and barbecues in the open air is rapidly becoming a family tradition. This is even apparent in the social columns of the newspapers. For this purpose, design is very important. A private area should be provided creating a natural setting for outdoor living. Seclusion is not necessary, but privacy is often sought. Screening shrubs provide a living enclosure for outdoor family feasting.

As in many other trade fields, the "do it yourself" movement has become a new concept in landscaping. Where the customer asks for such services, they should be made available. It makes the sale of complete landscape design possible when the customer is made to feel that he is exacting a large saving by doing the planting himself. When the customer is sold a quality product, and he plants it himself according to specific instructions, then the responsibility of mortality of the plants is shifted to the customer. Nurserymen have the opportunity of capitalizing on the "do it yourself" technique of selling.

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## THE PRESENT STATUS OF CYCLAMEN MITE CONTROL IN MINNESOTA

Walter P. Trampe  
Supervisor of Nursery Inspection  
State Dept. of Agriculture

In the 1954 September - October issue of the *Minnesota Nurserymen's Newsletter* the writer mentioned the work that was being done on cyclamen mite control in Minnesota. We wish to present what additional information we have at this time for the benefit of any nurserymen who may be interested.

We have known that this mite has long been troublesome in greenhouses, attacking such plants as cyclamen, begonias, and African violets. Outside, it was generally believed that the host range was somewhat more limited. Cyclamen mites were known to infest delphiniums and strawberry plants. Because they are difficult to detect, they have probably escaped notice on other species. However, it is difficult to determine what plants are harmed by the presence of this uninvited guest.

### Control on Strawberry Plants

The effect of the controls which were used in the field last summer, plus the results of experiments carried out by members of the staff of the Department of Entomology and Economic Zoology, prompted growers of susceptible plants to apply various methods of treatment in order to control these mites.

The Red Rich variety was especially susceptible to injury. This variety had been accepted previously in a very enthusiastic manner. During the past two or three years growers were in general agreement that the variety was not performing as it did when it was first released. It had been quite clearly demonstrated that cyclamen mites were generally present on Red Rich. Also, these mites appeared to be responsible for the difficulty.

All growers of this variety were required to treat any plants before they were sold. This requirement and the common desire of the berry growers to treat for cyclamen mite control have resulted in a phenomenal change in the over-all appearance of the Red Rich variety in fields of Minnesota plant and berry producers. The fields of growers located at Becker, Enfield and Forest Lake might provide an interesting sight for anyone who may wish to make a personal observation. The fall crop of Red

8-2-55

Rich strawberries should be at its peak in August.

Two methods of treatment were used in Minnesota:

1. Methyl bromide fumigation of dormant plants. This treatment is hazardous and requires special equipment. It is not recommended unless large quantities of plants are to be treated. At least seven of our growers have used this method. Favorable results were reported.
2. Field treatment of plants, using a spray of endrin. This treatment is also hazardous to use because of the danger to the operator who applies it. However, it can be adapted to a small-scale operation. Endrin should never be applied after the fruit appears on the plants. Two teaspoonfuls of the 20% concentrate of endrin may be mixed with one gallon of water and applied to the plants.

#### Control on delphinium plants

The beauty of the newer hybrid varieties of this perennial is distinctive. However, growers consistently have trouble in getting the flowers to develop as they expect them to. A peculiar distortion of the leaves and the presence of a dark, sooty substance on the underside of the leaves are the symptoms of cyclamen mite injury on delphiniums. This condition was found to be present on the plants belonging to one of our nurserymen. It was suggested that he apply endrin to control the trouble.

Two applications of this chemical were applied as suggested above for control of mites on strawberry plants. The flowers that developed in this field were described by several experienced florists as the best that they had ever seen during their many years of floral experience.

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#### DESIRABLE TYPES OF RESPIRATORS (tested by U. S. Dept. of Agriculture)

Dr. L. K. Cutkomp  
Department of Entomology and Economic Zoology  
University of Minnesota

Respirators give protection in open or partly open areas but do not give sufficient protection in rooms or areas where no fresh air is circulating. Under such circumstances use full-face masks.

Respirators that will give adequate protection against dusts, mists, and low-vapor concentrations of parathion, DDT, aldrin, dieldrin, chlordane, EPN, and nicotine are:

Respirator No. 5055 equipped with R-55 filter and cartridge unit. Two units attached to each facepiece. American Optical Co., Southbridge, Mass.

Agrisol Dust and Vapor Respirator equipped with R-414 filter and 11-A Agrisol cartridge. Two units attached to facepiece. Available is a monogoggle for eye protection. This will fit over glasses.

Willson Products, Inc., Reading, Pa.

DC 5100 Aluminum Body Respirator equipped with DMA cartridge and P-7 filter. Two units attached to facepiece. Pulmosan Supply Equipment Corp., Brooklyn 17, N. Y.

Farm Spray Respirator equipped with filter and cartridge unit. Two units attached to facepiece. Mine Safety Appliances Co., Pittsburgh, Pa.

Healthguard Respirator, style 95, equipped with code B cartridge and filter 1000 or 1001. One unit attached to facepiece. Chicago Eye Shield Co., Chicago, Ill.

Note: These respirators do not give protection from mists, vapors or dusts containing tetraethyl pyrophosphate.

The Agri-Tepp Respirator equipped with R-434 filters, Willson Products, Inc. Reading, Pa., will give adequate protection against TEPP. Distributors of Willson Products, Inc. - Farwell, Ozmun, and Kirk, St. Paul.

Mine Safety Appliances Co. local address, Wesley Temple, Minneapolis.

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Editor's note: We have just recently read that a prominent Michigan fruit grower died from parathion poisoning. Be careful. We would hate to lose you.

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#### RAPID TEST FOR OVER-EXPOSURE TO CERTAIN INSECTIDES\* (From Dupont Agricultural News Letter, July-August, 1954.)

Cholinesterase is a vital body enzyme which must be kept in balance to insure normal activities of the organs and nervous system. Cerorganic phosphorus insecticides inhibit the activity of this enzyme in insects and it has been found that over-exposure to these materials may produce similar effects in humans.

Symptoms of a lowered cholinesterase level in the body may manifest themselves in nausea, diarrhea, headache, a feeling of weakness, or muscular twitching. However, such symptoms are non-specific and may indicate a slight case of sunstroke, or digestive disturbance, as well as the insidious action of the insecticide.

Serious illnesses and a few fatalities have resulted from careless handling of the more potent organic phosphates. Anyone applying these materials who experiences the above symptoms should immediately undergo medical examination. Since cholinesterase appears in the blood stream, a blood test designed to measure the amount of the enzyme present can be used to establish the diagnosis.

In the past, such an examination could only be conducted with complicated laboratory equipment and ordinarily a day or more was required for a report

on such a test. Now, however, a new test kit to check cholinesterase activity is available for on-the-spot checking by doctors, nurses, or laboratory technicians. This enables the farmer, or members of his spray crew, to know within minutes after the blood sample is taken whether insecticide-exposure is the cause of his discomfort.

This test was developed by George Limperos and K. E. Ranta, two biological research scientists in the DuPont Company's Haskell Laboratory for Industrial Medicine and Toxicology. The method was published in "Science Magazine" (April 24-1953 pp. 453-455) and made available to medical circles as another step in safeguarding users of these important new insecticidal compounds. Since the test kit employing this method, now offered for sale by a private manufacturer, provides both quick and inexpensive tests, it is hoped that routine, frequent blood testing of all personnel working with such compounds will become an established practice wherever such materials are manufactured or applied.

\* Taken from Minnesota Fruit Growers' Association Newsletter (7) :2 June 8, 1955.

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**NEW SLOW-ACTING FERTILIZER ANNOUNCED**  
(From Dupont Agr. News Letter 23(4): 62-64 July-August, 1955.)

Uramite, an urea formaldehyde formulation, the trade name of a new slow-acting fertilizer recently announced by the Du Pont Company. This fertilizer contains 38% nitrogen in a form that is insoluble in water. When it is applied to the soil, moisture and warm temperatures break it down slowly and a continuous supply of usable nitrogen is available to the plants. Thus, one application of this fertilizer in spring will supply the necessary amount of nitrogen to the plants if sufficient amounts are applied.

In reports of the use of uramite, it is highly recommended for lawns and ornamentals. Lawns treated with this fertilizer were reported to be much thicker with fewer weeds and less disease than other lawns. Ornamentals responded very favorably with increased and more-compact growth.

From present reports this product should be excellent for lawns and could prove to be invaluable for fertilizing potted nursery stock. An application of 10 pounds to every 1000 sq. ft. is recommended for lawns. For ornamentals, 3 pounds per 100 sq. ft. is recommended for field-grown plants. Only a single application is necessary, thus operational costs could be reduced.

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#### ROSE DUSTS\*

Multipurpose dusts that protect roses from most insects, mites, and diseases have been developed by United States Department of Agriculture scientists.

Tests carried forward at the department's agricultural research center at Beltsville, Md., since 1950 have turned up six combinations of insecticides and fungicides of almost equal effectiveness. Each prevents damage by such common rose insects as aphids, leafhoppers, and spider mites and by black spot and mildew disease organisms. All are experimental formulations and are not now available on the market. However, many dust formulations are being sold for home garden use, and any that contain combinations listed here at approximately the same concentrations should be effective.

All six of the superior mixes contain 5 per cent DDT and 1 per cent lindane as insecticides, plus one of the following fungicide-miticide combinations: (1) 3.4 per cent copper, 25 per cent sulphur and 1.5 per cent aramite; (2) 3.4 per cent copper, 25 per cent sulphur and 4 per cent malathion; (3) 7.6 per cent ferbam, 25 per cent sulphur and 1.5 per cent aramite; (4) 7.6 per cent ferbam, 1.0 per cent Karathane and 1.5 per cent aramite; (5) 6 per cent zineb and 1.5 per cent aramite, and (6) 6 per cent zineb, 1 per cent Karathane and 1.5 per cent aramite.

In their tests, entomologists and plant pathologists of U. S. D. A.'s Agricultural Research Service found that some miticides and fungicides are incompatible. For this reason, the miticide malathion could be teamed only with the fungicide copper oxy-sulphate. Mixed with the other fungicides, it failed to control mites. The scientists also learned that some of the inert materials of the dust combinations are detrimental to the miticides. For example, when attapulgite clay was used as the diluent or carrier, neither malathion nor aramite would control spider mites.

Used as recommended, all of these mixtures are harmless to the roses and the gardener. However, they must not be swallowed or inhaled and must be stored out of reach of children and pets.

\*Taken from Florists' Review. 116 (3002): 62 June 9, 1955.

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#### EDITORS COMMENTS

RICHARD STADTHERR

#### NURSERIES BUILD

Nice to see the building and remodeling going on among our nurseries. We wish to congratulate Halla and Homedale Nurseries for such work.

Halla Nursery has a beautiful new garden center just off Highway 100 in Edina. Of particular interest in this super-market styled center was the Alysenite glass roof over the lath house. Light penetrates through this material but it keeps out the rain. Customer convenience is stressed in selection, packing and announcing orders ready to go.

Homedale Nursery completed remodeling their center last April. This center looks like a modern ranch-styled home from Highway 7. Truly it is very attractive especially in the evening when floodlights help advertize the firm. Here the customer can select plants from nearby fields. He can view slides to learn how to choose and use materials. It appears that perennials are becoming more popular again. Locating the beds near the center will permit the customer to see and select their plants.

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#### IRIS PLANTING NOW

Now is the time to plant German Iris. Here is a list of the top 20 iris varieties selected by the American Iris Society in 1954.

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|-------------------|----------------------|
| 1. OLA KALA       | 11. SNOW FLURRY      |
| 2. BLUE RHYTHM    | 12. SABLE            |
| 3. CHIVALRY       | 13. GREAT LAKES      |
| 4. ARGUS PHEASANT | 14. AMANDINE         |
| 5. TRULY YOURS    | 15. HELEN MAC GREGOR |
| 6. NEW SHOW       | 16. PIERRE MENARD    |
| 7. LADY MOHR      | 17. DESERT SONG      |
| 8. ELMOHR         | 18. MINNIE COLQUITT  |
| 9. BLUE SHIMMER   | 19. SOLID MAHOGANY   |
| 10. PINNACLE      | 20. MARY RANDALL     |

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#### CONVENTIONS

We're looking for a report of the 80th AAN Convention which was held at TORONTO, ONTARIO, CANADA JULY 10-14, from some of our members. We have heard of many who planned to attend.

Greg Lucking, Horticulturist of the Minneapolis Park Board, plans to attend the 31st National Shade Tree Conference at Santa Barbara August 1-5. Greg has agreed to prepare a report for the next newsletter.

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#### PLANT PROPAGATOR SOCIETY

Again I'd like to urge Minnesota propagators to join this society. Their objective is the free exchange of ideas and methods to mutually help all in the society. The annual meeting has been held in early December, at Cleveland for the first four meetings. Generally the technical methods are described for a particular crop and then practical methods are discussed by members. Both technical and practical sides of any propagation question are discussed fully.

Another nice feature is the publication of the complete proceedings which is sent to all members.

Here the propagator has all the information which was given. He doesn't have to rely on sketchy notes or memory. Minnesota ranks sixth nationally, having 13 members.

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#### CUSTOMERS PROBLEMS

Gardeners depend on nurserymen who solve many problems in pruning, landscape design, selection of materials, and controlling insects and diseases. Thus we are reporting some of the common problems we encountered in some of our recent tours. We have made several tours to view gardens recently and noticed many beautiful plants and well-constructed designs.

Red Spider mite injury was prevalent on many different ornamentals.

Malathion still gives us the best control. Aro-mite and Ovatron are also good.

On annual asters, root aphids were extremely bad. Chlordane, sprayed or dusted, on the soil early in the season will control ants which carry aphid eggs to the roots of the plants. If the roots are infested, a solution of lindane or nicotine sulphate poured around each plant will kill the aphids.

The columbines that looked sickly almost always had a borer in their roots. Dusting the ground with DDT at weekly intervals from late May to early July will help control this pest.

Metaldehyde baits give best control of garden slugs.

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#### NURSERYMEN TOUR

The Twin Cities Nurserymen's Association will hold its next meeting August 3, 1955, at 2 p. m. at the Fruit Breeding Farm near Excelsior.

A tour is planned for the afternoon with dinner scheduled at Excelsior.

All Minnesota nurserymen are invited to attend. Remember you're welcome to see the projects at the Fruit Breeding Farm. Dr. Leon Snyder or I will be happy to show you around.

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#### CONVENTION EXTRA

Vincent Bailey, J. V. Bailey Nurseries, was elected a member of the executive committee of the American Nurserymen's Association Convention at Toronto. The Convention was very well attended. About 10 Minnesota nurseries were represented.

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J. V. Bailey Nurseries and Summit Nurseries have made arrangements to propagate and distribute the Connel's red sport of Fireside. This will be a patented variety.