Minnesota Nurserymen's newsletter

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

In Cooperation with
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- Minnesota State Horticultural Society

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PRUNING DECIDOUS TREES AND SHRUBS

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Wherever trees or shrubs are grown, the subject of pruning arises. It is an old story but always kept young by certain differences of opinions. Such differences are actually slight.

It is not generally known that pruning tends to dwarf the plant. It is only when the operation is carried to extremes that it becomes obvious. Those leaves, yes, even young bark, are the food-elaborating part of the plant. If this factory is short-handed, less output will result. This heavy pruning of shrubs may stop flowering by throwing the plant into a vegetative condition. Similarly, over-fertilizing might do the same.

Also, certain of our shrubs grown for beauty of flowers have made preparations in advance of spring. The folly of pruning before flowering, then, is apparent. The lilacs are typical of such plants. Those flower buds have been there all winter; in fact, under proper conditions, they may be forced from cut branches. Honeysuckles flower indirectly from old wood but on new shoots. Such shrubs should be pruned immediately following bloom.

Certain shrubs, though, may be pruned before bloom. In fact, they may be cut back severely to stumps or to the ground. The resulting branches, foliage and flowers seem the better for this rejuvenation. The following is a partial list: Hydrangeas, Indian Currant, Snowberry, Tamarisk and summer-flowering spireas such as Anthony Waterer and Froebel. These plants should be cut back in the fall. If let go until spring, there is danger of growth starting before the job gets done.

One shrub comes to mind as needing rather careful pruning - the red-barked dogwoods. Their value, especially in winter and spring, is the attractive red bark of stems and branches. The old stems become somewhat dirty looking. Cutting out these old stems accomplishes two things. It removes the less attractive parts and stimulates the production of new, good-looking wood.

Some willow species, too, lend themselves to renewal of new wood pruning.

In all this material, deciduous shrubs or trees, there are three main practices: (1) Thinning, which is cutting the whole branch off a shrub or tree - not all of them, but a fraction - say a quarter or a third of the branches; (2) Heading back, that is, leaving all branches in place but cutting back a part of each, usually above a bud or side branch; (3) Renewal pruning for old shrubs as described above for the dogwoods. This cutting out of two or three main stems of an old shrub does two things. It stimulates new growth (from the crown) and it admits light so necessary for growth.

Orchardists prune regularly for form. One procedure often advanced to correct misdirected branches of young trees is to cut to an outside or inside bud. That is, if a branch tends to grow too upright, the pruning should be to an outside bud to direct the growth outward. If the branch is too horizontal, the growth might be directed upward by cutting to an inside one.

All of this sounds very interesting, but in Minnesota there is another factor to be reckoned with -- the winter -- that is, for fall or winter pruning. If the cut is made to the bud, the wood often dies back to the next bud which is in the wrong position. Or if the bud grows, it will grow weakly, the next bud below making the strong growth. Thus, for fall or winter pruning, the growth will actually be directed just opposite from the intended direction unless the cut is made well above the bud. Spring pruning behaves differently.

This raises the question of when to prune. Late spring, March or early April, is the best time. Wounds heal better and that die-back above mentioned does not occur.

Young, fast-growing trees should have some attention in summer. A well placed cut or two might head off a much worse situation later on.

This is true especially with young fruit trees when only one leader is wanted.

A certain kind of woody plant should be pruned in the fall, the kind sometimes known as bleeders. That is, in spring sap will drip from fresh wounds for days and weeks. In this group are the birches, grapes, maples and walnuts. This bleeding, or sap dripping, can make the unattractive patches on the trunk and it is annoying to some people. Actually, the resulting injury is more fancied than real.

REGIONAL PROGRAM FOR TESTING WOODY PLANTS

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On January 20, a committee of horticulturists and foresters from the state colleges and universities of North and South Dakota, Nebraska, Kansas, Missouri, Iowa and Minnesota met at Brookings, South Dakota, to lay plans for regional testing of trees and shrubs.

This project has been made possible by regional funds provided by the North Central Plant Introduction Station at Ames, Iowa.

The objectives of this project are four-fold:

1. To choose woody plant materials of potential value for testing.
2. To test and maintain adequate records of the performance of the various items on trial.
3. To develop an inventory of woody plants known to have certain superior qualities for farm and urban planting.
4. To preserve plants showing superior qualities as source material for propagating purposes.

In this testing program, the primary station at Ames will provide adequate planting stock of the desired materials either through propagation, purchase or other necessary arrangements. They will also develop zonal lists of recommended woody plants and provide for the maintenance of germplasm of superior plants. Each state will be responsible for testing and evaluating these materials that are included in the regional tests.

It is planned that seventeen varieties will be tested this year. These will be tested at our branch stations at Duluth, Grand Rapids, Morris, Crookston and Waseca as well as at the Fruit Breeding Farm. In addition, we will be testing a great many other ornamentals of possible value in this area. Results of these tests will be reported to you from time to time in this publication.

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SCALE INSECTS

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There are several different scale insects which can be found on ornamentals and shade trees. These different pests are rather small sucking insects present on the bark or leaves of certain perennial plants. They are stationary for a good part of their life.

The most commonly observed, and probably the most abundant scale insect at the present time is the pine needle scale. This pest is most frequently found on pine and spruce. It is not a pest of deciduous trees. The characteristic white "spotting" seen on the evergreen needles in the fall and winter is the covering of the scale insect. There are usually 20 to 40 eggs under each of these scales during the winter months. Hatching of the eggs occurs in the spring after the plant growth has started. The newly batched young are known as "crawlers" because they crawl all over the needles before settling down to feed. This active, crawling stage will be found to occur during the time lilacs are blooming, usually the last two weeks in May. At this crawling stage it is desirable to apply certain chemicals for control.

The most effective material appears to be dry lime sulfur mixed with water at the rate of one pound of the insecticide to 12 gallons of water, or two teaspoons per gallon of water. Since this material will produce a yellowish discoloration if accidentally sprayed on houses, you may prefer to use an alternative material. The new phosphate, malathion, can be used effectively at the rate of 2 teaspoons of the 50 per cent emulsifiable concentrate per gallon of water.

An alternative time to treat for the pine needle scale would be in the dormant season before plant growth has started in the spring. A treatment at this time is generally not as effective as the treatment in May. A different spray, one containing 1 part of liquid lime sulfur and 9 parts of water, can be used for the dormant season treatment. Spraying at this time should be limited to time when temperatures are well above freezing.

The oystershell scale is also common on many ornamental shrubs. It is a dark, rather inconspicuous scale, which is shaped much like an oyster shell. These insects are found on the bark of shrubs, sometimes in great numbers--for example, as many as a thousand or more on a branch. The crawler stage of this pest is also the most susceptible to insecticide treatment. The insect is in the egg stage in the winter and will begin to hatch out about a week to 10 days after the pine needle scales. For proper timing, treat the infested ornamentals 5 to 7 days after the petals fall off apple trees. Use a 50 per cent wettable

powder. This powder is applied at the rate of 2 pounds to 100gallons of water, or 4 teaspoons of the powder in 1 gallon of water.

Two other scale insects may be noticed. One, the Lecanium scale, is a brown scale which can be found on branches of many different shrubs and young trees. Another, the cottony maple scale, is a conspicuous white cottony appearing insect found on branches of maples, basswood, and boxelder, particularly. These scale insects do not seem to be nearly as abundant now as they were two years ago.

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The AAN Group Insurance Plan

Richard P. White
Executive Secretary, AAN

The American Association of Nurserymen's Group Insurance Plan was initiated January 1, 1953 and is now in its second year of operation

During the first year, claims of over $32,000 were paid to cover hospitalization and surgical benefits to employees of the 150-odd participating firms or to their beneficiaries in case of death. This $32,000 would not have been available to these employees of the participating firms if the AAN had not established its group insurance plan. Over 1000 lives are now covered. About 2¼ million dollars worth of life insurance is now being written under it, together with hospital and surgical benefits.

The life insurance portion of this group plan is written on a basis of three catagories of persons. The owners and operators and officers of a firm are covered for $5,000 worth of insurance, the superintendents, field foreman and supervisors at the rate of $2,000 each and all other regular and permanent employees at the rate of $1,000 worth of insurance Irrespective of the group into which an employee falls for life insurance, all persons covered have the same hospitalization and surgical benefits as follows: $8.00 per day for each day the covered employee is in the hospital, up to 31 days for any one continued period of disability. To cover additional hospital expense, up to $120 will be paid to each covered employee for each time he or she is in the hospital for incidental expenses, such as: doctor's charges for anesthetic, ambulance charges, laboratory expenses, etc. While benefits are limited to 31 days for any one period of disability, the number of such periods of disability in any year is not limited.

If surgery is necessary, up to $200 for disability is payable.

In case of accidental death and dismemberment, double indemnities will be paid, so that if an active officer, partner, or proprietor of a concern insured for $5,000 was killed in an accident, then the group plan would pay the beneficiary as name in the policy, $10,000.

Transient or temporary employees cannot be covered by this type of insurance. Only those employees that have been working for you for at least a period of six months regularly and whom you consider as permanent employees. The employee by law, is required to pay all of the expense of the life insurance and accidental and dismemberment cost, and at least 50% of the hospital and surgical benefit cost.

The total monthly rate per employee in the three classes mentioned above as follows:

Group A.	$9.00
Group B.	4.80
Group C.	3.50

AAN members application to participate in this Group Insurance Program should be made by writing to the AAN Group Insurance Trust, 635 Southern Building, Washington 5, D.C., requesting participation cards.

Plants for Testing

Leon C. Snyder
Head, Dept. of Horticulture
University of Minnesota

The following letter will accompany all plant materials sent out for testing. "Dear Sir: The plant material that we are sending you is for trial only and not for propagation. Usually only a few of the selections that are sent out for trial are found to be suitable for introduction. Your assistance in judging the value of this material will be appreciated.

All nurseries will he notified when a given selection is to be introduced in time to build up a stock before the date of official naming and introduction".

This policy should give all nurserymen an equal chance to build up stocks of new introduction and should prevent a build up of stocks of numbered selections that may never be named.

Price Schedule for Propagating Stock

Leon C. Snyder
Head, Dept. of Horticulture
University of Minnesota

The Fruit Breeding Farm announces a new price schedule for propagating stock furnished to nurserymen. It is expected that these prices will cover the costs of gathering the material and wrapping for shipment. Shipping costs will be additional.

Scionwood, Budwood, Softwood, and Hardwood cuttings	$15.00 for 1000
.....	2.00 for 100
.....	.05 each
Strawberry plants.....	5.00 for 100
.....	3.00 for 50
Raspberry plants	15.00 for 100

..... 10.00 for 50
..... 5.00 for 25
Currants and gooseberry plants.. 3.00 for 10
..... .50 each

NURSERY DONATES DOOR PRIZES

Interest in home yard improvement was evident from the large attendance at the extension meeting on home beautification at Albert Lea February 16. More than 130 home owners were present at the session.

A feature of the meeting was the donation by the Wedge Nursery of five certificates for nursery stock. They included a potted hybrid tea rose, Hopa crabapple, French lilac, Meteor cherry, and silver juniper.

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EDITOR EXPECTS TO VISIT MANY NURSERIES

Your editor had an opportunity of visiting with Clarence Wedge after the extension meeting on home beautification and toured the Wedge Nursery.

I am looking forward to meeting all of you and will endeavor on my extension trips to visit your nursery. If at anytime you have any problems with which we might help you, do not hesitate to write to me. If you wish me to visit your nursery, you should first contact your county agricultural agent who will notify me. Your university has specialists who will be able to help you with your problems.

A list of county agents is included with your newsletter.

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Aldermans Send Greetings

Professor and Mrs. W.H. Alderman sent greetings and thanks to the Minnesota Nurserymen's Association for the Christmas cards they received from members of the Association. The Aldermans are at Salonica, Greece, on a Fullbright Fellowship and will be there until June.

Professor Alderman is giving lectures at the University of Salonica and teaching Agricultural Extension workers in a horticultural short course.

Mrs. Alderman is teaching home economics to Extension workers at a school which is cooperatively operated by the Greek Ministry of Agriculture, the American Mission, the University of Salonica and the Near East Foundation.

The Aldermans will tour Europe before returning next September.

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WHAT ABOUT SOIL?

How about the chemical soil conditioners you see and hear advertised? Do they really get a job done economically?

These questions got an airing recently by a University of Minnesota soils specialist, J.M. MacGregor.

The first question, "Will it pay to use a soil conditioner on my soil?" is a hard to answer, MacGregor points out, because of the wide variation in soil types.

Soil conditioners do not add plant nutrients which may be lacking and thus they are not fertilizers. Their main benefit is in developing a healthy soil structure after good cultivation and care.

In University of Minnesota of Minnesota experiments on fields of grain crops up to 1,600 pounds of soil conditioner per acre gave no significant yield increases.

As an example of how the conditioners work, he cites a test in which 400 pounds per acre of conditioner mixed into the top three inches of soil in a greenhouse greatly increased the soil's water infiltration--important because a soil's health and plant-producing ability depends on how well it takes in water.

Average time for two inches of water to infiltrate the conditioner-tested soil was 101 seconds, just under two minutes. Untreated soil, however, took over seven minutes to absorb its two inches of water.

Thus, you can see how a soil conditioner can have a beneficial effect in soil erosion control.

For example, 400 to 800 pounds of conditioner applied to a sloping, newly seeded area will keep soil in shape by controlling erosion until grass becomes established.

Right now, however, use of soil conditioners is limited because of their cost. They are economically usable on flower beds, gardens, in greenhouses, and on newly seeded lawns, roadsides and other problem areas.

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NEW ROSE CLASS

The All-America Rose Selections Committee recently announced the creation of a new class of roses, "grandifloras". The first grandiflora will be introduced when the 1955 All-America Awards are announced late this spring.

The new class was decided upon because there were several meritorious selections tested which did not fit the specifications of either the hybrid tea or floribunda class.

According to the AARS, the grandiflora will create new and more varied uses for roses in the gardens of America.

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