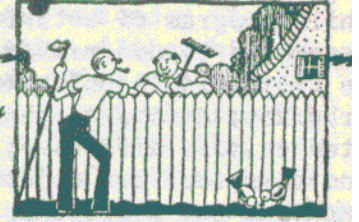




The Garden Spray

BULLETIN OF THE MEN'S GARDEN CLUB OF MINNEAPOLIS



Member--Men's Garden Clubs of America • Minnesota State Horticultural Society

March 1965
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G. Victor Lowrie, Editor

Associate Editors
Wm. H. Hull, Otto Nelson
Neil Barry

March Meeting

Date: March 9, 1965
Places: Mount Olivet Lutheran Church
50th Street & Knox Ave. So.
Time: 5:45 P.M.
Price: \$1.75

Officers

Charles Proctor	President
R. E. Smith (Bob)	Vice-President
G. R. Christenson (Bud)	Secretary
S. F. Pinkham (Sherm)	Treasurer

SPECIAL INTEREST PROGRAM

Short talks by

Carl Holst - "Roses - Selection and Varieties"
 Bruce Johnstone - "New Annuals"
 Les Johnson - "Perennials"
 Joe Witmer - "Hemerocallis - Hostas"
 Archie Flack - "Garden Landscape Tips"

Followed by Special Interest Group Discussions

Free Seed - Note Deadline

Friends in the industry have supplied these seeds. If you wish any, I must have a note by March 15. From Royal Hort. Society, England: four varieties of rhododendron, oriental poppy. From Sakata of Japan: three varieties of coleus, two celosia, impatiens, amaranthus, two shades of phlox Twinkles, two of balsam, a new F-1 melon, two of watermelon, a new F-1 pepper, a new F-1 cabbage. The following from Burpee: three of asters, a mixed pastel zinnia, cress. From England: a F-1 fibrous begonia.

Also, would anyone like eight flower prints from Addisonia, a publication of the N.Y. Botanical Garden; size 7 x 10½ inches, unframed, of course.

Bill Hull

MGCA PRESIDENT'S MESSAGE

Dear Men Gardeners:

We are now entering on the activities of the thirty-third year of our efforts as an organization for better gardening. The Men's Garden Clubs of America have a most worthwhile program of activities that we can be proud to present to our members and to recommend to non members and prospective new clubs. At the January board meeting here in St. Louis, a bold program for advancement was approved: good service to clubs for programs; encourage good club projects for the good of our communities; make the plant studies more effective; continue The Gardener, Newsletter, on same progressive basis; and carry out our objectives in national projects. In order to do this we need to increase our membership, bring in more new clubs, promote advertising and Powerama, and encourage member participation all along the line. As your President, I depend on every member to assume the responsibility of helping M.G.C.A. promotion. The Bureau of Internal Revenue has approved our status as a Tax Exempt Organization under Section 501 (C) of Internal Revenue Code. This puts the obligation squarely up to us to make, "For Better Gardening" our first objective.

Original signed Phil A. Conrath

BULLETIN BOARD

Connoisseur's Kindling

Fire-gazing in city or suburbs is one of the cheeriest of winter pastimes. But essential to enjoyment is a knowledge of the proper woods for the fireplace. Species vary greatly in their usefulness as fuel, and since most of us have to rely on someone else for our woodpile, we should be sure to order - and get - firewood with the best burning qualities.

Here are some woods and their qualifications for the fireplace:

Apple and pear - best of all, loaded with B.T.U.'s and delightfully fragrant.

Hard maple - burns long and brightly; red or soft maple is slightly inferior.

Yellow Birch - aromatic and produces fine heat; white birch is also good, but oily bark burns with explosive violence.

Oak - prime quality, second only to apple and pear.

Ash - good, but be careful of popping sparks and shooting embers.

Elm - plentiful because of Dutch elm disease, but produces very little heat.

Alder, poplar, willow, softwoods in general - all poor, burning quickly and explosively.

A cord of wood is 128 cubic feet. Beware of bargain-priced "stove" or "two-foot" cords, which consist of considerably less than a standard cord. Don't accept rotten or soggy wood, only sound, bright hardwood. In general, any wood weighing 45 pounds or more per cubic foot is suitable for your fireplace.

New York Horticultural Society Bulletin Board

DAMPING OFF OR DUMPING OFF

By Phillip H. Smith

To many of us, the pleasures of gardening are considerably enhanced by growing our own plants from seed. In recent years, many summer gardeners have extended their growing season by growing under fluorescent lights in the basement. Although a fluorescent light set-up admittedly has shortcomings as compared with a greenhouse or the great outdoors, quite satisfactory results are obtainable, particularly with the seeding of annuals. My own facility consists of four 2 ft. x 5 ft. tables, each having four 4-foot tubes. This provides approximately 40 sq. feet of growing space, enough for approximately three-hundred dozen plants, plus 10 sq. feet for propagating approximately twelve-dozen cuttings.

There is one difficulty which plagues many of us who annually produce our own seedlings and that is damping off. Perhaps I have been lucky, but in my seeding experience damping off has generally not been a problem. I hope I have not spoken too soon; however, my belief is that good cultural practices are the best insurance against damping-off troubles.

Damp-off is caused by a soil fungus which is believed to feed upon decaying organic matter until conditions are favorable for attacking the seedlings or cuttings and causing them to rot, normally just above the soil surface. Since damp-off is a fungus, we should automatically suspect high temperatures, high humidity and stale air as conditions favorable to the growth of damp-off fungi, and should therefore be avoided. These conditions often impart a soft-growth or weakened condition to the seedlings, thereby enabling the damp-off fungi to enter the plant stems. The stems quickly rot and turn brown, and the whole seed pan or flat may be infested overnight.

There are products available, such as Semesan or Panodrench, for use in the prevention of damping off. However, I would vote a preference for improvement of cultural practices, rather than using the commercial medicines, since better management will also increase the over-all vigor of the plants. It helps to start with sterilized soil, although it is believed that the factors of circulation and watering are of greater importance.

The conditions favorable to good seed germination for annual seeds - heat and humidity are unfavorable as tending to produce damping off. Perhaps this is because air stales often goes along with high temperatures and humidity. Therefore, the few days, or hours with some seeds, immediately following germination, are very critical in preventing damping off. Prompt circulation is the answer. Many people use a germinating chamber or seeding containers covered with plastic or glass. This is fine, but, as soon as the seeds have sprouted, the seed pans or flats must be promptly uncovered to permit good air circulation. A quick change from high humidity to extreme dryness is, of course, not good and it is best to lift the glass or plastic covering in stages. However, it is important that the first lifting or uncovering be sufficient to permit air to circulate within the flat.

Another factor is watering. The seed pans or flats should never be permitted to dry out since this inhibits growth and weakens the seedlings, permitting entrance of the fungi. The best practice is to keep the seedlings or cuttings growing steadily and strongly. (continued bottom of page 4)

GROWING GERANIUMS UNDER LIGHTS

By Bill Cowcill

Now that I have retired I am at liberty to devote a lot more time to my plants and everything to do with the preparation for spring gardening. If any member of the garden club wishes to fully occupy his time during the winter months, he should take up the hobby of indoor gardening and include the cultivation of a few geraniums.

I got interested in geraniums about three years ago, working with a collection of thirteen varieties. Now I have about two-hundred plants from cuttings of the original thirteen. Have had to use space in the recreation room to accomodate them under the fluorescent lights.

It only takes about three weeks to get the cuttings rooted. The best rooting medium seems to be made up of 50% Peat moss and 50% sand. Wet the media down well and allow the excess water to drain off before inserting the cuttings. You can eliminate the risk of stem rot by letting the cuttings stand for a day or so to form a callous at the base.

Dip them in rootone before inserting in the rooting medium, then firm them in securely to eliminate air pockets. In three weeks you should have rooted plants ready for potting.

Do not water them too much as this will cause the foliage to turn brown. You will be surprised to find how long a geranium plant will go without water. I think a better name for them would be the "Camel" plant.

When they are fully established they will bloom all summer long with very little attention. When in the border I would advise watering the roots rather than on the foliage as this, too, will cause the leaves to discolor.

Geraniums can also be grown from seed, but I prefer to grow them from cuttings for then I am sure of getting the same type of plant and color of bloom.

I have a catalog with 263 varieties listed - anyone interested?

Damping Off or Dumping Off - continued

It has been stated that a thorough drenching may wash the fungus spores down through the soil and away from the seedlings; however, I always prefer to avoid overwatering because it may cause the soil to sour, particularly if the drainage is poor. For good watering without drenching from the top, it is better to water by setting the seed flats into a pan of water or the wife's laundry tubs, with the water about half as deep as the flat height. I have found that an early use of fish emulsion fertilizer before the seedlings have gained a root system will sometimes promote damping off, perhaps because the fungi are thereby fed and increased.

In short, my experience has been that good circulation at the critical time after germination, along with frequent and thorough watering, will go a long way towards preventing any serious problem of damping off. With poor cultural practices, the result is dumping off, not damping off.

SUGGESTIONS FOR HOME LANDSCAPERS

- 1) Grow as many plants as you need for your yard to look appropriately planted; but, concentrate on just a few kinds of plants. Limit yourself to one or two colors in flowers.
- 2) Keep defining lines simple and uncomplicated. By doing so they are easier to maintain -- and lawnmowing will go much faster. Fussy lines and serenity don't go together!
- 3) Display a few choice plants stylishly -- as if rare jewels. Give them a good background - in a color which enhances their own colors. Use a shady spot for delicate colorings; full sunlight to show off flowers or foliage in hot colors.
- 4) Secure useable shade in a hurry by planting your saplings in groups of three's. Buy "balled and burlapped" plants. Set them as close together as possible, or use larger specimens planted five to twelve feet apart, but "clustered."
- 5) Prune older trees and shrubs into interesting "living sculpture." Many non-descript plants can be saved in this way and make an important contribution to the landscape scheme.
- 6) Better the micro-climate of your yard by the way you use plants. Shut out unwanted noises, winds, or dusts with screens of plants; and funnel the welcome summer breezes across the terrace. Two properly located shade trees can cut your air-conditioner load by 30%.
- 7) Keep the "floor" of your garden simple -- big, clear sheets of grass, and paving in simple patterns to fade into an all-over look. Keep each area of the garden floor confined and defined.
- 8) Use shadows imaginatively! They are free - and ever changing. Much depends upon a seeing eye locating extraneous branches to be pruned. You always need good shadow-catching, plain surfaces - whether underfoot or elevated as fence or wall.
- 9) "Own" all the view you can see. Everything to the horizon can be yours if you plan your garden, not allowing a break in the view as you look outward across the land you don't own. Cutting off part of your yard with only a small vista open, leads the imagination to believe the yard is much larger than it really is.
- 10) Use paints for permanent garden color. Too many people shy away from paints as "artificial." They needn't be, not if you choose colors from nature's palette. (Think of the brilliant autumn colors and the shining flowers!) Use them freely on fences, walls, and for garden structures.

A DATE TO REMEMBER

Our Plant Auction - May 11 - Park Board Greenhouse

FLORISTS AND FARMERS SHUN SUNLIGHT TO USE MORE ARTIFICIAL LIGHT

Utilities and Lamp Makers See
Big Market; Lights Hasten
Plant Growth, Reduce Costs

The sun, source of life-sustaining light for plants, is beginning to get some serious competition from electric lamps.

Farmers in increasing numbers focus special lights on tomato and melon plants to get an earlier crop. Florists light up chrysanthemums and poinsettias to synchronize blooming with seasonal demand. Hobbyists are blooming brighter-hued African violets under artificial light than they ever did with sunlight.

These applications have worked so well that commercial growers are beginning to raise plants in windowless greenhouses without any help from the sun. The latest development is a series of new lamps designed to produce more light of wave lengths which experiments indicate can speed growth of some plants.

"This thing is still in its infancy but the potential is enormous," asserts a spokesman for Sylvania Electric Products, Inc., a subsidiary of General Telephone & Electronics Corp., producer of Gro-Lux lamps for plant growing.

While exact statistics aren't available, one major greenhouse maker estimates that already 15% to 20% of the nation's 220 million square feet of greenhouse space has electric lighting for growing plants, a "substantial increase" over a few years ago.

Better Lights, More Plant Knowledge

While the use of artificial light to grow plants is not new, it is now assuming broader economic significance. Manufacturers are building better lights; plant experts have learned more about how light affects plant growth; housewives have more money to spend on plant-growing hobbies; and lamp makers and power companies are giving plant lighting more promotional attention.

Plants use the energy of light to convert carbon dioxide, water and minerals into leaves, seed and fruit by the process called photosynthesis. Sunlight and white light from ordinary fluorescent lamps, both of which contain light of all wave lengths, will do the job. But researchers are beginning to pay closer attention to the effects of different light colors. Red light, for instance, seems to speed plant growth and produce taller plants while blue light produces short, stocky plants.

Sylvania claims its Gro-Lux lamps produce up to 20% faster growth plus healthier plants because they provide more red and blue light. Westinghouse Electric Corp. also introduced plant growing lamps designed to provide extra amounts of these colors. Some researchers, however, side with General Electric Co., the nation's biggest light maker, and contend that for most applications regular white fluorescent lamps, when supplemented by a few incandescent bulbs, do just as well as special lights. Ordinary incandescent bulbs give off many red rays.

Hobbyists have been even quicker than commercial growers to employ electric lighting. General Electric estimates 75,000 homeowners have set up fairly

Florists and Farmers - continued

elaborate lighted plant growing areas in their basements, up 50% from five years ago. If housewives with only a casual rigging of a single bulb over a couple of African violets are included, more than 750,000 families grow plants with artificial light, another General Electric survey shows.

Trend Gladdens Utility

"The number of people in our service area with a green thumb who have set up lighted window units, basement growing areas or a little greenhouse out in back is amazing," says Arthur G. Fox, rural sales manager for Massachusetts Electric Co., a subsidiary of New England Electric System. "It's really good business for us; a hobby greenhouse often uses more power than the owner's home."

Commercial growers can cite substantial advantages from use of lamps to give a fast start to seeds or cuttings. Warren Gove, a Leominster, Mass., farmer, starts 5,000 to 5,000 tomato plants each spring in a fluorescent-lighted box in his basement. "I get better germination in the box than I used to in the greenhouse, and that's important because the seed costs up to \$28 an ounce."

By giving his plants a good early start, Mr. Gove has his first tomatoes on the market by July 4, weeks ahead of the main crop in his area, and thus collects premium prices. Ohio cantaloupe growers use much the same procedure to get their fruit to market before field-planted melons are ripe, sometimes doubling the price they get.

On a larger scale, Lake Erie Canning Co., Sandusky, Ohio, starts more than a million tomato plants yearly for its contract growers in lamp-equipped greenhouses. F. I. Carter & Sons, Tewksbury, Mass., propagates entirely under artificial light the 1.5 million house plants of 150 different varieties that the firm sells annually.

Growers also control development of larger plants with lights. Some simply add a few hours of light each evening to supplement the weak winter sun. Once Carter's plants are rooted, for instance, they are put in a light-equipped greenhouse. "Lengthening the day with artificial light speeds up their growth tremendously," the company says.

Corazzini Bros., Lexington, Mass., carnation grower, lights some of its plants from 10 p.m. to 3 a.m. with Sylvania lamps. In a test between Jan. 15 and March 30 last year, a plot of 36 square feet of lighted plants produced 666 blooms, worth \$79.92 wholesale, compared with only 350 blossoms worth \$42 for an identical area that got only natural light.

Deducting power cost of \$7.78, the company calculates its added profit in the lighted area was \$30.14. Based on this, use of lights for Corazzini's 40,000 square-foot greenhouse could increase profits by \$7,264 a year. Corazzini is continuing its tests before deciding whether to use lamps to help its entire 800,000-bloom-a-year operation.

Some growers regulate maturity of plants by controlling the length of the dark period. Plants that normally bloom in the fall, for example, blossom when the nights become longer than the days. By shortening the night with electric lights, blooming can be delayed.

Christmas Blooming

"If we didn't light up our poinsettias for two hours in the middle of the night between September 20 and October 10, they would be over the hump by Christmas," says Curtis G. Keyes, an ex-college professor turned florist in Pittsfield, Mass. "We regulate them so they have saleable blooms by December 15, but they continue to grow up to Christmas and last through most of January."

More spectacular agricultural uses of artificial light are being proposed. R. S. Gregoire, a Pennsylvania inventor, is among those who foresee a time when cities may raise food in loft buildings downtown, using lamps and soilless chambers. He has designed one such chamber to raise tomatoes, using a sand and gravel bed in which plants are nourished with a liquid fertilizer sprayed onto their leaves and fruit. Fluorescent lights would supplement sunlight.

Some dairymen, poultrymen and horse breeders grow green feed the year around in similar artificially lighted units that sprout oats to an 8-inch or 10-inch height in six or seven days.

The U. S. Government is interested in growing plants under lights for space and military uses. Space planners are experimenting with growing such plants as simple algae under lights; algae could provide food for space crews while also removing carbon dioxide from the spaceship and returning oxygen to it.

Research Grows

Partly because of Government interest, universities and research institutions throughout the nation are building electrically lighted growing chambers. Researchers have 250,000 to 500,000 lamps shining on plants ranging from algae to trees, G. E. estimates. Windowless growth chambers are a valuable tool in studying plant behavior because the environment can be closely controlled.

Windowless greenhouses are being studied closely by growers. Present all-glass greenhouses are expensive to build and to heat and maintain. Some growers think the economics of a windowless building, added to the economies of controlled growth with artificial light, would more than offset the cost of electricity.

Jesse Murray, Pennacook, N.H., is converting an old chick hatchery into a windowless growing room for flower plants. He installed about 100 fluorescent lamps above a half-dozen tables where the plants will grow. Instead of turning out 60,000 chicks a year, which he says is no longer profitable in his area, he expects to sell an equal number of little marigolds and other plants to homeowners who want their gardens to bloom soon after the snow leaves.

by Ralph E. Winter, Staff Reporter of
The Wall Street Journal

OVER THE GARDEN GATE

by Bill Hull

I've just returned from a rather long business trip and didn't have a chance to write this column this month. Knowing this might happen, we asked Bill Cowcill and Phil Smith to write the special articles appearing elsewhere and, as a result, we're all better off. Thanks, Phil and Bill for those good articles.