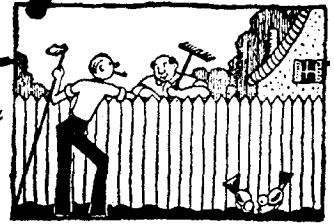




The Garden Spray

BULLETIN OF THE MEN'S GARDEN CLUB OF MINNEAPOLIS

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



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Treasurer: Nathan S. Siegel
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May 9 is Auction Date !!

This is our Annual Spring Fun Auction, the proceeds of which go for club operating expenses. The site is the Park Board Greenhouses at 38th and Bryant Ave. S. A country store of advance sale of some articles will start by five-thirty at this site. So in all instances, please park in the greenhouse area.

Dinner will be served at six o'clock on the lawn of the nearby home of new member, Robert W. Rhue. Bob is superintendent of the Minneapolis Park Board and lives at 3954 Bryant Ave. S., the "pale yellow house at the top of the hill at the Lyndale Farmstead." This is within walking distance of the greenhouses. Weather being inclement, we will eat inside in the greenhouse area.

Past President Bob Smith, who is in charge of the auction, stresses that visitors and potential members will be welcomed, potential members to be guests of the club.

8 Weeks & 5 Days

May 67

EIGHT WEEKS AND FIVE DAYS AWAY THAT'S YOUR PERSONAL'D'DAY

by Bill Hull

If we as individuals haven't yet realized that a national convention is upon us--not that "it's coming"--we should be shaken to realize that 61 days from our May meeting, we will have a hotel full of guests.

Are we ready for them? Probably not. It's easy to be complacent and to think of all the things we have done. Committees have been working hard and Chairman Dwight Stone has whipped us into greatly improved shape from what we were in last January.

The only answer to the question must be your personal one. Are you ready? If not, for the luvva Mike, fellow, get busy. Me, too.

So much has happened no one could summarize it all. You might already want to start thinking of the display of gourds being brought by our friend Perry Davis from Des Moines. This will surprise you. You will anticipate the table of the national story of the Big Pumpkin Contest, that table being set up by Ed Friedrich, national director from Milwaukee, and Dale Durst. You will want to help erect the signs inside and outside the hotel, to handle the flowers which we are arranging for through Bill Brooks, to help support the Richfield MGC national flower show in the NSP building during the convention. You should read up on John Nash Ott, one of our two speakers of national renown, to study his ideas. Get his "My Ivory Cellar" from the library. Bob Smith has my copy.

You should plan some time off, time away from your office, and volunteer to certain committees so we know you will be there at definite hours to help. One of the big problems is to have twenty people on hand when we need five, and five when we need twenty because no one bothered to say "I'll be there."

We still must have a grand general assembly of committee chairmen to assure each other we are ready. Are busses arranged for? Do we need megaphones and who is obtaining? Will each host plan for water or some drink at their garden or is this necessary? What about "facilities?" Will we be able to get all of our publicity goals achieved locally? We've done superbly nationally but you probably haven't seen one tenth of it. Will someone be so thoughtless--I started to use a harsher word--as to commit us to an expenditure he has no right to commit? Will the advertising brochure pay off for us? Will you fellows who are speakers forget to show up that morning? Will the men in charge of each room insist the program change at the precise minute it is supposed to?

I really don't know. But I do know we have a superb bunch of men, good friends and good gardeners. We will be good hosts and we will put on a fine convention. Is there any way we can polish it further so it is a smoothly running machine?

Well, we need an excellent humorist for one particular meeting? Any ideas? We need so many things--let's just say we are doing fine but we still need every single one of those eight weeks and five days until we start seeing all those unfinished jobs staring us in the face and thanking God for those we have completed.

M

YOUR PRESIDENT'S COLUMN

by Frank Vixo

Why not get on the phone now and invite that prospective member to the plant auction - our regular meeting this month. Your committee is getting a good supply of plants. Come and enjoy a relaxed evening with your gardening friends and go home with the plants you need. There is no more pleasant way to do your shopping! Remember, too, the club picks up the tab for the meal for prospective members.

Bring the plants which you have for sale at the plant auction as early as possible so the committee can arrange for them in their display and auction plans.

Plan now to take a spring tour of the Arboretum. It is at its "showiest" at this time of the year. And when you're there, you might want to give your annual financial support to this gardener's information center.

If you are wondering what you can do for the convention and enjoy yourself in the process, plan to enter the flower show being sponsored by the Richfield Men's Garden Club in the new N.S.P. building during the convention. Planting time is planning time for a flower show. More about this later.

We extend a most cordial welcome to the following new members and urge each of us to take the first opportunity to get acquainted with them. Add to your roster:

<u>Business</u>	<u>Home</u>	
228-7620	881-7934	Donald L. Peterson, 9915 Portland Ave. S., 55420 (sponsored by Vern Carlson)
330-2142	825-3644	Robert W. Ruhe, 3954 Bryant Ave. S., 55409

GARDEN IMPROVEMENT AWARD
"LEHMAN TROPHY"

Archie Flack, Phil Smith and Les Johnson remind all of us that it is time to register our gardens for this annual competition. Please contact one of these three members, who are the judges for the award, no later than the May 9 meeting which is the final deadline.

This competition is open to all active members and the gardens are judged several times during the season to select the most improved garden. Gardens are judged on the following points:

Landscape - including foundation planting and general design.

Selection - trees, shrubs, and all plants suitable for area and in proper location.

Lawn - freedom from weeds, general condition and maintenance.

Maintenance - including pest control except lawns.

Borders - design and proper depth.

ANNUAL ASTERS

by Frank Vixo

The plant which gives me the most satisfaction from growing it is the annual aster. Its perennial cousins add their bright spots or splashes of color, too, but serve a different purpose in the scheme of gardening and yard decor.

Location. The best success with growing asters has been mine when planting them along the west side of the house under a wide overhang. This space became available when the grass turned out to be too difficult to maintain in attractive color and vigor without extra watering and attention and it was decided to put this extra effort and water to producing more color and artistic foreground to the house. This selection of location started by happenstance but has been followed regularly being fully justified on the basis of results alone. It does, however, meet the one basic requirement for growing asters - adequate sunlight. The other conditions which are discussed hereafter can be provided at this location to the same degree as elsewhere in the garden. The lack of depth of area also assures adequate circulation of air with the resulting absence of mildew. While many asters growers believe that this plant should be moved around or rotated, I have found my present location suitable from year to year when utilized in the manner outlined and cultivating the soil deeply when supplementing it with compost.

Selection is no problem. In fact it is easy. The color range is rather wide with various shades of red, blue, purple, pink and pure white. The growing habit ranges from a narrow upright plant to the popular branching plants. The flowers may take the form of the unassuming open-faced single varieties; the ever-attractive large full petaled doubles with variations of petals including crested centers; and the powderpuffs which seem to add so much to the usefulness of this flower.

Soils. The aster will grow in almost any kind of soil provided there is adequate drainage. In fact, drainage is the key to the plants apparent indifference in regard to soil. To be sure, the best results will not follow with poor soil, as gardeners know, but much can be done with asters in any kind of soil. They do grow best in a sandy loam which has been enriched about every three years with compost consisting of about 3/4 leaves and 1/4 grass clippings. While working in 2 to 3 inches of the compost may require moving to another garden location a bit of the soil to provide room for the compost, it may overcome some of the claimed need for rotation to other spots. At least asters have grown well for me in the same spot for the last ten years under this soil treatment.

Planting is one of the easiest jobs of all. I start the seed where I want the plant to grow. After the soil has been prepared, as early in the spring as possible, by digging and raking in the usual manner, I scatter the selected seed over the bed in a separate area for each variety of plant. About 1/8 inch of soil is sprinkled over the seed and packed down with the flat side of a hoe. This is immediately sprinkled lightly with sufficient water to soak the seed and soil for germination and to establish the soil-to-air movement of the water which is not at its best for seed starting when the soil is packed. At the location which I use near the house I must watch to be certain that the soil remains moist because of the tendency of the glancing sun rays to heat the soil and dry up the seed bed. Conversely, the added heat speeds up seed germination.

Thinning. As the seedlings grow, the extent of germination is apparent, and I know then how good each variety which I have planted will be flowering. Some do better than others, but there are always enough plants of one kind or another to

.....continued

Annual Asters

(continued)

assure a full bed. When the plants are about one-inch tall I select those which are to be left to mature. The rest are thinned out to three to four inches apart and destroyed or removed to be given to gardening friends for their flower beds. It is not always best to leave only the largest plants as the rate of growth of varieties is different and, in the case of mixed colors, you may end up with only a few of the colors because of the differences in rates of growth. Only healthy looking plants should be left, however.

Where the seeding may have been uneven or the germination poor as to leave plants at distances greater than three to four inches apart, I move plants to fill in the open areas, being careful to take plants of the same variety as those in the area of the bed being filled in. The plant population is left at this density until they are about four inches tall at which time they are again thinned to about eight to twelve inches apart depending upon the growth characteristics of the plants in each area. This procedure provides adequate plants to allow for casualties due to cut worm, hoeing or other hazards in the early life of asters.

Care during growing season. As asters grow I have found that they need some support. This may be due to the richness of the soil, the extent of fertilization or perhaps to the nearness of the plants to the house. Whatever the reason, I loosely tie each plant when eight to ten inches tall to a stake which protrudes about eighteen inches from the ground. As the plant grows it is tied as frequently as needed to assure a straight plant which would permit characteristic plant growth.

Watering and feeding. With good drainage, watering asters is no problem. They should be watered heavily when watered but should not be watered daily or regularly too often. They can stand a short period of drought better than they can being watered too frequently. I think of watering asters as a supplement to the rains which come irregularly and often heavily and I have no problem. I feed asters a balanced fertilizer, 10-10-10, or similar, after the final thinning and again when they start to bloom. Before that I may give the small plants a leaf feeding as I feed other plants in the yard or garden.

Pests. The problem of cut worms, if there are any, is partially combatted by the two-part thinning program. However, if you discover one at work it would be well to "dig for it" and follow with the usual soil treatment for such pests. I use chlordane as recommended on the box in which it comes. Aphids sometimes appear but are no real problem. Any of the garden mixtures which I have tried intended for this pest gave adequate relief. I usually add a little "leaf feed" plant food to the spraying mixture to give the plant a boost. Aster yellows, a virus disease which causes the leaf veins to turn yellow and the new leaves to look yellow followed by a stunted plant, is transmitted by leaf hoppers. I have had little trouble with this problem. My spraying program for insect pests may help. I spray about three times during the early growing season and include the grass for about two to three feet out from the aster plants. Also, the bed is protected from the prevailing northwest winds which influence the movement of the leaf hopper and may have something to do with this. When a plant does become infected, as infrequently happens, I immediately dispose of it.

Cultivation. I find that no cultivation is required more than that which I do along with working in fertilizer and after each rain or heavy watering. Weeding is also taken care of at these times or when a weed may be noticed when tying up the plants.

FLUORESCENT LIGHTING

by Dale Durst

A gardener who wants more variety should resort to planting his garden from seed. In order to have the earliest bloom he must start his seed indoors, usually in March or early April. After the seed has germinated, care must be taken that growth is not slowed too much. Under average room light the seedlings become spindly striving to reach light. The nurseryman grows his seedlings in a greenhouse where they have the benefit of natural sunlight and protection from freezing weather.

The average gardener does not have room for a greenhouse so must use the next best thing - artificial light. The best is fluorescent. Why fluorescent? A 40-watt fluorescent tube will give five times more light than a 40-watt incandescent bulb and last seven times as long. A 150-watt incandescent bulb will give off about the same amount of light as a 40-watt fluorescent daylight tube. Also, fluorescent lights give off less heat. A popular lamp is the "Gro-Lux," a specially balanced light developed for growing flowers and plants but I have found that a daylight fluorescent bulb will do as good a job as "Gro-Lux," and is less expensive.

The layout of your lights depends upon the space allotted for your project and the number of plants you plan to grow. If you have a great deal of room, plan on bench lighting. If space is limited, I suggest a portable cart, lighted, with three adjustable shelves. Such three-shelf portable carts can be purchased at a cost of approximately \$75 to \$100, but you can build one for \$35 to \$50, depending on design. A two tube 40-watt industrial fixture will light an area 15 inches wide by 48 inches long. This will accommodate 36 average sized African violets, 70 or 80 plants in 3-inch pots, or 24 8x4 inch plant packs. However, as the plants develop and grow in size, one unit will only handle two-thirds of this number. You will run into trouble if you crowd your plants.

Lights should be placed from 6 to 12 inches above the plants for best results and kept on an automatic timer. It is best to keep the lights on 15 to 18 hours a day. Do not vary the time.

The best growing temperature is 65° Fahrenheit. Plants should not be crowded and the room should be well ventilated. Crowding and poor ventilation promote breeding places for spores, disease-producing organisms. Ventilation brings in a new supply of carbon dioxide necessary for photo-synthesis as well as supplying oxygen for respiration. A humidity of 50 to 60 per cent is recommended for normal growth.

For my own use I have made three-inch deep galvanized trays to fit under my lights, placed a ½ to one-inch layer of coarse gravel in the trays, and I keep this moist. The pots are placed on top of the gravel. I have a very warm, dry basement and find that even with this set-up I still have to top water my plants every other night. My three-shelf portable cart is 24 inches wide, 50 inches long, and 5 feet high, constructed of slotted angle iron. The shelves may be raised or lowered without much trouble. I have three 40-watt single light fixtures on the lower and middle shelves; on the top shelf I have a two-light industrial fixture with a reflector and a single unit for which I made an aluminum reflector. This unit is on rollers and is easily moved any place in the basement. The electrical wiring is grounded.

PROGRAM
1967 MGCA NATIONAL CONVENTION
July 12, 13, 14, 1967
July 11, National B/D Meeting

July 11 Tuesday

- 8:00 a.m. - 4:00 p.m. - National B/D Meeting
- 4:15 p.m. - 7:15 p.m. - Industrial Landscape Tour
(Available to all registered guests)
Light buffet and refreshments will be served.
- 12:00 noon - 6:00p.m. - Registration Desk Open

July 12-13 - National Flower Show. NSP building.

July 12 Wednesday

- 7:00 a.m. - 6:00 p.m. - Registration Desk Open
- 8:30 a.m. - 12:00 noon- MGCA General Assembly, Committee Reports, etc.
- 12:15 p.m. - Welcome to Minnesota Luncheon
Frank Vixo presiding.
- 2:00 p.m. - 5:00 p.m. - Tour of Home Gardens
- 8:00 p.m. - Informal Meetings - Hospitality
Minnesota made nature movie

July 13 Thursday

- 7:30 a.m. - 9:00 a.m. - Continental Breakfast
- 9:00 a.m. - 5:00 p.m. - Registration Desk Open
- 9:00 a.m. - 11:15a.m. - Speciality Forums - See Reverse Side
- 11:45 a.m. - 4:30p.m. - Richfield Luncheon and Tour
Gardner Miller presiding.
N/K Trial Gardens and Minnesota Landscape Arboretum.
- 6:00 p.m. - Board bus for Mount Olivet Lutheran Church
- 6:30 p.m. - Minnesota Dinner - Dwight Stone presiding.
- 8:30 p.m. - NightTour - Civic and Home Gardens

July 14 Friday

- 7:30 a.m. - 9:00 a.m. - Breakfast
- 9:00 a.m. -11:00 a.m. - Registration Desk Open
- 8:30 a.m. -10:00 a.m. - Final Business Session - Elections
- 10:00a.m. -12:00 noon - Open for your convenience
- 12:15 p.m. - Minnetonka Luncheon - Henry Reed presiding
- 2:00 p.m. - 4:30 p.m. - Tour of Home Gardens
- 6:30 p.m. - Banquet - Bill Hull presiding.

Optional tours available by private car at various times.- Special walking tours.

Ladies Activities:

July 13 Thursday

- 9:00 a.m. - 11:30 a.m. - Tour General Mills Kitchens

July 14 Friday

- 9:30 a.m. - 11:00 a.m. - Cooking School - NSP

Or, attend any of the men's events.

THE STORY OF HORTICULTURAL HEATING

by Colin Johnston Robb

The story of the application of artificial heat in the mechanics of horticulture begins in the mists of antiquity. The ancient Romans were familiar with the hotbed of fermenting vegetable matter and the hot-house, or specularium, which one sees at the Villa of Marcena, Pompeii, where there are tiers built with masonry for displaying the plants, the structure being heated by flues in the walls.

Martial refers to the heated grape-house and Columella recommends the use of glass for early cucumbers, produced by the hotbed and the sun's imprisoned rays, and when the Emperor Tiberius Claudius Nero (42 B.C.-A.D. 37) was ordered by his physician to eat cucumbers, he amazed his court by the fresh supply of these in winter due to his gardeners' skilled work in the hot-house. According to Pliny, stoves were the medium of heat.

Heat from the sun had been for long appreciated by the Roman gardeners, and slabs of talc or thin sheets of mica were used before glass to entrap the solar rays. When the Dominican Friar Albertus Magnus (1193-1280) described the ancient Roman method of forcing fruits and flowers in a "hothouse," he was condemned by many suspicious persons for the application of Satanic heat, and one scribe quoted the disapproval of Seneca (4 B.C.-A.D. 56) against his practice: "Live they not against Nature, that, in winter, long for the rose, and by the nourishment of warm waters and in a fit change of heat in winter cause a lily, a spring flower, to bloom?"

The hot-house was an established institution of the French garden in the Middle Ages and, back in 1385, we learn of flowers being grown in the sun's rays under glass in pavilions turned south.

Gervase Markham, in 1613, tells us of winter plants in deep boxes and calls for their removal into a warm atmosphere "where they may stand warm and safe from storms, winds, frosts, dews, blastings and other mischiefs, which ever happen in the sun's absence." He stated that growing in England then were "all manner of dainty out-landish flowers, but also pomegranate, cynamon-trees, olives, almond, orange and lemon," all in artificial heat.

The hot-house then was usually a brick building with a thatched, slated or tiled roof and great shuttered openings with, but more often without, glass which faced south. The heat was supplied within by a fireplace stoked from the outside, and its heat was transmitted to the building by wall-flues. In this connexion garden walls were also heated by an elaborate system of flues which conveyed the smoke and heat, throughout the walls from fireplaces at intervals.

In the past century wall-heating remained, but hot-air stoves became more popular. Gas was tried with bad results, due to its deleterious effect on plant life, and then ~~came~~ high-pressure hot water and steam, but the heat from this source was deemed too concentrated for horticultural purposes. Later, low-pressure hot-water heating, with its slow radiation, was found to be ideal for greenhouse heating, giving an even distribution of temperature throughout the building. So, the story of heating began and continued, and now we have electrical and other modern heating sources, with atomic heat in the future of horticultural engineering.