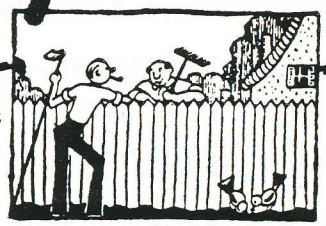
The Garden Spray

BULLETIN OF THE MEN'S GARDEN CLUB OF MINNEAPOLIS, INC.

Member--Mens Garden Clubs of America • Minnesota State Horticultural Society

October 1981, Volume 39, Number 10



NEXT MGCM MEETING

Tuesday Evening, October 13, 1981
Richfield American Legion Club
6501 Portland Avenue South 6:00 P.M.
Dinner $5.50

Major Business: Voting on the proposed additions to our BY-LAWS. (See your September GARDEN SPRAY for details.)

Program: MERVIN EISEL will talk on BOTTLE TERRARIUMS. Mr. Eisel has been at the Minnesota Landscape Arboretum for 23 years. Involved, also, with the horticultural division of the Agricultural Extension Service he studies plants adapted to our area. In this connection in 1978 he travelled around the world, including Russia, seeking possible material.

GET YOUR RESERVATION CARD BACK TO ARCHIE CAPLE AT ONCE! (AND, Come or cancel in time. There were 9 "no shows" on the September reservations list for whose dinners the club had to pay. That's a lot of money out of the treasury with nothing to show for it.)

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AT THE SEPTEMBER MEETING Roger Koopmans using slides of his own garden as an example demonstrated the value of long range planning. Some comments scribbled down during his rapid fire presentation:

- Every person should put his own feelings into the garden.
- Anticipate what will be the picture some years down the line.
- The simpler your landscaping the more effective it is.
- When pruning follow the natural form of the tree. (shrub)
- Have a background to show up whatever you plant towards the front of the border. Use elevated pots to add variety. Do things in a mass. It will be easier to maintain.
- Bring the border close to the house but don't wallpaper it against the house.
- Water regularly; fertilize heavily; vary your spray materials weekly.
- "I don't mulch. I cultivate. I like the black soil."

NEW MEMBER

Albert J. Rahlenbeck 866-3928
6933 Oakland Av., Richfield, 55423

FLOWER AND VEGETABLE SHOW RESULTS ANNOUNCED

Despite just a so-so summer, we did put on a fairly creditable show. We had 33 exhibiters, five of them non-club members, who entered a total of 511 exhibits which was slightly more than shown the last two years. However, the number of exhibiters was down from the previous years with six individuals accounting for 49% of the entries. The winners were as follows:

NATIONAL AWARDS - FLOWERS (Zinnias)...Dave Johnson
- VEGETABLES (Cucumbers)...Vern Carlson

GRAND CHAMPION - VEGETABLES (Potatoes)...Bob Smith

GRAND CHAMPION and QUEEN OF SHOW - FLOWERS (Potted Hibiscus)...Jerry Shannon

SWEEPSTAKES - FLOWERS (Blackbourn Memorial Trophy)...Jerry Shannon
- VEGETABLES (Tom Foley Memorial Award)...Bob Smith
(Dave Johnson and Dwight Stone gave Jerry a real run -- Bob Smith had no competition, scoring more than the next three combined.)

OTHER COURT OF HONOR WINNERS

Carl Johnson - Rose	Dale Durst - African Violet
Jerry Shannon - Dahlia	Dale Durst - Miniature Rose
Vern Carlson - Clematis	Jerry Shannon - Achimenes hanging basket
Dave Johnson - Delphinium	Leon Snyder - Raspberries & Grapes
Bob Smith - Potatoes (another variety) & Peppers	

Sincere thanks to all of the committee who worked so hard to insure success. Special thanks to Dale Durst who put in countless hours prior to and on the day of the show; and to Andy Marlow who took over late in the proceedings, when Bud Christenson was hospitalized, and did a grand job of tallying for the sweepstakes winners.

With this show behind us, let's all vow to participate in a bigger and better one next year.

-- Charles Proctor, Show Chairman

BEAUTIFUL 1982 CALENDAR

The Men's Garden Clubs of America 1982 Calendar sounds like a "must", not only for every member, but for friends and business acquaintances. It will feature twelve beautiful color photos in a format that will make keeping track of your dates a joy to behold. The calendar sells for $2, which is expected to yield a modest profit to be divided between the local club and the national association.

At the September meeting, Chet Groger who is MGCM calendar sales director and is, also, a member of the national calendar committee briefed us on the calendar and circulated sample copies. He then called on Sherm Pinkham who had already sold 310 MGCA calendars.

Sherm regaled us with a pep talk. Saying, "It's the women who buy the calendars", he demonstrated how he put his arms around "the girls at church" and sold half a dozen. "You can have fun selling", said he.

* * * * *

Prune heavily half the apple, half the apricot each year to promote new growth on one side and fruiting on the other side. -- Albert Wilson

THE AUGUST TOUR AS VIEWED BY ED CULBERT

I'm told someone the August tour committee planned to visit sold his home and moved away. Nate Siegel, on the other hand, volunteered his garden a day in advance of the tour. The row of double pink impatiens bordering the hydrangeas under his front window gave no hint of his little gem of a back yard against which we would measure all else that afternoon.

There in perhaps a 10 x 20 foot space was a little pool, with pink and white waterlilies, encircled by annuals and perennials galore--marigolds, lythrum, rudbeckia, geraniums, cosmos, petunias, monarda, yellow yarrow, clematis, chrysanthemums--tastefully arranged, closely packed so no weed could survive. Elsewhere were roses and hidden away back of everything tomatoes.

Non member Al Corcoran's garden demonstrated what an expert gardener can accomplish in a year after moving into a place vacated by a non-gardener: Big tomatoes at the side of the house; huge rhubarb the like of which I've never seen save adjacent to a farm privy and pigpen; a wide border--cannas, lythrum, tall marigolds, snapdragons, petunias, begonias, alyssum in descending order; a sunken patio with wood-chipped beds of varigated hosta and sedum spectabile above its rock walled sides. "He doesn't have time to belong to a garden club", quipped Leon Snyder.

Non-member Roy Oelschlaeger may specialize in roses--beds, beds, beds of them, 200 of them; but he had vegetables also--tomatoes, beans, lettuce, big cabbages. And, he had China asters, snapdragons, petunias, lantana, marigolds, beautiful tuberous begonias as well as double flowered fibrous rooted ones, even hanging baskets.

Russel Smith has found a good use for a deck. He built a greenhouse on it. His terraced yard goes steeply up revealing tier after tier of zinnias, petunias, short squatty calendulas, geraniums, clarkia and ageratum with fibrous rooted begonias in the shady areas, ivy on the rock walls.

Above it all towards the top of the hill lay a vegetable garden protected by an all too lifelike plastic snake. Raised beds were contained by boards. Chips covered paths. In the beds were cabbage, cauliflower, onions, squash, asparagus, strawberries in pine needle mulch, raspberries in straw, grapes on fencing, tomatoes in cages, cucumbers on black plastic.

Glenn Ray has a lot of fruit trees: plums--some almost ready to eat--apricots, apples, grapes. He obviously has a problem with marauding wildlife for his vegetable garden was protected by chicken-wire fencing within which hardware cloth tents further protected young bean, cabbage and other plants. The sweet rocket, the goldenrod, the wild cucumber vines were in line with his often expressed interest in parental favorites and wildflowers, but it was "tame" cucumbers which were invading the strawberry patch.

We were near Don Wilson's so made an impromptu stop to see the new rear fence background of viburnum, potentilla, etc. and also the colorful circular bed of tall zinnias, petunias, and alyssum. Don disclaimed all responsibility, "I was hospitalized all year. The women did all the work."

While backing into his driveway our buses almost wrecked Jim Mielke's celosia border. His home bisects a rise so after passing the marigolds in front we went up the railway timber steps past ageratum, poinsettias, plume flower to a spot on top where we found a gorgeous mound of impatiens under a birch. From there we could see stretched before us a long bed of Peruvian daffodils and another of tree roses. Slightly downhill was a row of

(over)

several varieties of table grapes on fencing. (Jim trenches them under in fall, trims them in spring.) Daylilies, dahlias, salvia completed the picture. Jim's vegetable garden lay at the bottom of the hill. The corn field wasn't his.

At Bob Gage's seemingly everyone rushed through the house out to the rear and refreshments. I stayed behind admiring the plantings especially the creeping juniper draped over the timbered planters. Bob says it had to be cut back last winter because it interfered with snow shoveling and that it was small when planted in 1980. The creeping cotoneaster was almost equally profuse. So interesting was it I almost forgot to seek out the refreshments.

Then I'd have missed the lower level rear garden sheltered from the road by tall redwood fencing and facing a pond shared with four other families. I'd have missed the tall planter with marigolds, coreopsis, ageratum, yellow petunias, Gloriosa and Shasta daisies, dianthus, dahlias and lilies below the fence. I'd have missed the granite boulders leading up from the pond, the baskets of thunbergia over the deck, even the greenhouse built 2/3 below ground and designed so as to help heat and cool the house.

It was an inviting spot to end our tour so we lingered well past the time we should have left for home.

THIRTY-NINE YEARS OF "THE GARDEN SPRAY"

The first issue of "THE GARDEN SPRAY" was published in November, 1942, with the editor being F. A. Upsher Smith. The club had just been chartered the previous month by the Men's Garden Clubs of America, Fred Rockwell, president.

The club's first meeting had been on May 18, 1942 at the Oak room of the Athletic club, with a letter from four originators going to another ten potential members. By September 10 there was a mailing list of sixty members but a membership list of charter members of only eighteen men.

We don't know how many issues of the bulletin was published after that November, 1942 issue because we have no copies and no records of that activity. The next issue I have on hand is Volume 2, Number 2, dated June 1944 and was edited by Jack (Jacob G.) Cohen. We have no way of knowing exactly when Jack took over as editor; he continued until Volume 6, Number 2, February 1948, when Vic (G. Victor) Lowrie became editor. Vic continued through the December 1965 issue.

Bill (William H.) Hull had assisted Vic for many years and became Editor starting with the January 1966 issue, continuing through the December 1970 issue. At the December 1970 meeting President Phil Smith gave Bill a special award for eighteen years of serving as editor and/or assistant editor.

At that time, effective with the January 1971 issue, Ed (Edwin C.) Culbert became editor and remains so today.

-- Bill Hull, historian

Speaking of Upsher Smith, how many remember the famous debate, "To Spray or Not to Spray", between Upsher and Archie Flack at an early meeting? Upsher waxed eloquently vehement in his advocacy of spraying. Archie, equally vehement and opposed, got sidetracked and ended up defending dusting.

-- Ed.

PLANT PROPAGATION FROM CUTTINGS, Installment 8

D. Cameron Smith, Minneapolis MGC

A Practical Automatic Mist System

It has been a long time since we started identifying those factors which affect the rooting of cuttings. Now let us specify a practical setup to produce intermittent mist. Four principal elements are required:

- water at normal household pressure (30 to 80 psi),
- one or more mist nozzles,
- a valve to control water flow,
- an automatic means of controlling the valve.

A clean dependable water supply is usually no problem. Domestic water softeners remove lime but add sodium salts to water. Because of this and the fact that some of them allow fibers from their internal filter materials to get into the water, softened water should be avoided.

Both municipal supplies and most private wells produce occasional bits of sand, pipe scale or other solid debris. These should be trapped with a sediment filter installed between the water supply and control valve. Two characteristics should be checked before a filter is selected. First, the maximum particle size which the filter will pass should be smaller than half the diameter of the mist nozzle opening. Commercially offered filters have their screen size specified as mesh (wires per inch). The maximum particle size such a filter will pass is one half of the mesh size. Typical screen and excluded particle sizes are:

mesh	maximum particle size passed
20	1/40 inch = .025 inch
50	1/100 inch = .010 inch
80	1/160 inch = .006 inch
100	1/200 inch = .005 inch

Fine mesh tends to stop more particles, foul faster and be more fragile than coarse mesh filters. For most mist nozzles 50 mesh is adequate but this should be confirmed. Plastic, bronze and stainless steel are preferable materials to cast iron or mild steel which may, themselves, put troublesome rust into the water stream. Regardless of the materials selected, a filter should be durable and easily disassembled for inspection and cleaning.

The second filter characteristic which needs attention is its pressure drop. While water runs through the filter turbulance and friction cause some pressure loss. Pressure loss data available from filter manufacturers is usually quite good. They often have a chart comparing flow in gpm (gallons per minute) with pressure loss. Once required flow is known, pressure drop can be determined. Less than 5 psi (pounds per square inch) is a good target figure for filter pressure drop.

Selection of mist nozzles depends on the area to be misted, and personal preference. Plastic and brass nozzles of several designs are readily available. Those which produce fog fine droplets are hard to manage in moving air currents. Nozzles producing coarser sprays may produce uneven distribution patterns and distribute more water than is desirable.

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Placement of nozzles should assure that every part of the propagation area is uniformly covered by the mist patterns of at least two nozzles. Mist should cover space around the propagation area to assure no dry spots develop when breezes move the mist pattern. Because of the low volume of water passed by these nozzles they are often rated in gph (gallons per hour). Be sure to convert to gallons per minute for selection calculations for valves and filters.

Electrically operated solenoid valves are by far the most convenient for water control. Both bronze and plastic are used. Direct acting normally closed valves are preferable to pilot operated ones. Metal ones are more durable while plastic tends to be less expensive. They are available from automatic lawn irrigation equipment dealers, plumbing supply houses and a national hardware discounting firm.

As with any electrical device the solenoid valve selected should be listed by Underwriter's Laboratories and should be used in accordance with its NEMA class rating. NEMA 1 requires that it be located in a dry location and NEMA 3R means that it is raintight, not watertight. Valve manufacturers publish pressure drop data for their products but use a measurement cV. This is the flow through the valve (in gpm) which is just enough to create one psi of pressure drop. Valves selected for misting applications should have higher cV numbers than the combined flow (in gpm) through all the mist nozzles in use. This assures that pressure loss through the selected solenoid valve will be less than 1 psi.

Because solenoid valves snap shut water hammer can cause potentially damaging pressure surges. The working pressure of filters, solenoid valves and piping should be at least 125 psi. A manual valve in parallel (around the) solenoid valve will allow emergency manual operation if electrical power fails. Because of their extreme reliability square head steam cocks, gas cocks or ball valves are the preferred valve types for this application.

The remaining required element is a device which operates a solenoid valve. This can either be a timer, something which will sense the need for water or a combination of the two. Simple programmable timers can be installed in minutes. More exotic time programmers give much finer control capability but tend to be expensive. A variety of sensors are available which are designed to detect how much moisture is on the exposed stems and leaves of cuttings or in the atmosphere around them. The earliest of these was a carefully balanced horizontal vane which tips down under the weight of accumulating water. The vane is attached to a switch which closes the solenoid valve; the device calls for more water when the water on its vane has evaporated. A commercial version of this device is sold today. Practical problems such as routinely removing the weight of accumulated lime and adjusting the device to have its drying characteristics match those of cuttings make it somewhat troublesome. Another system, the electronic leaf, is a strip of plastic separating low voltage electrodes which depend on water to close an electrical control circuit. While more dependable than the balanced vane, the electronic leaf suffers from short circuiting by lime accumulations and the other balanced vane problem, rate of evaporation. Recently developed electronic humidity and temperature sensors have overcome these problems.

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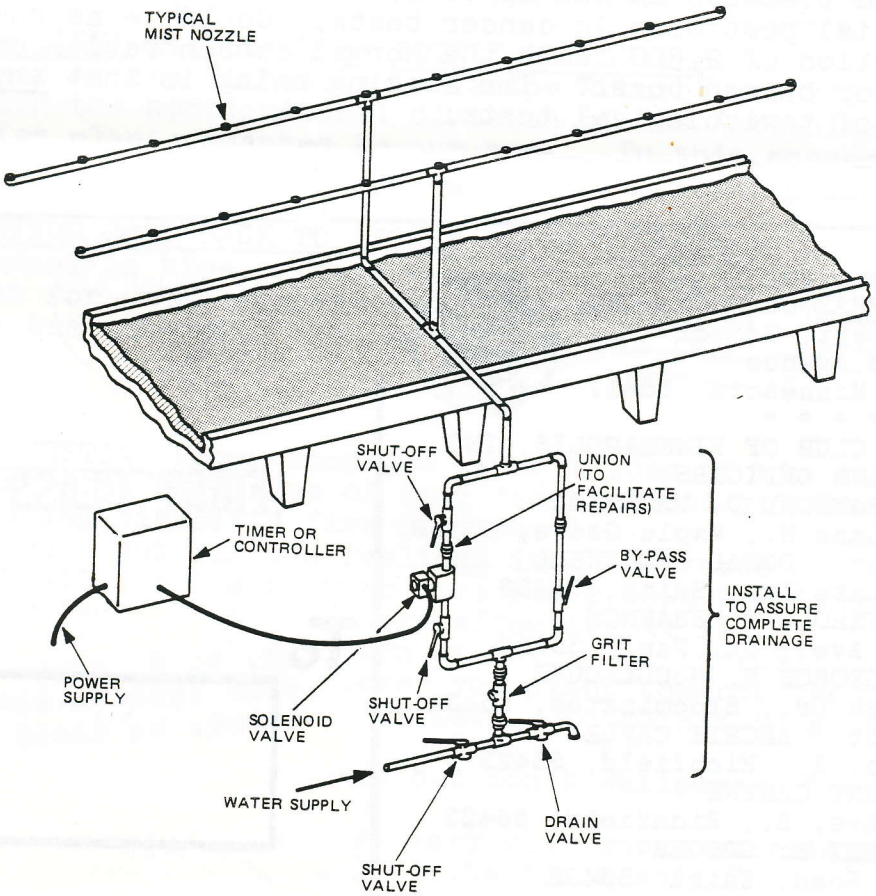
Microprocessors (miniature computers) with electronic sensors can be programmed to sense conditions and change environments as crops of cuttings root. These devices depend on light, humidity, and temperature sensors along with stored instructions and outputs to devices e.g. solenoid valves. To assure that cuttings will dry before evening they calculate time of sunrise and sunset, they satisfy the water demand of cuttings based on the time that they have been in the medium and environmental conditions. Programmable controllers are finding their way into kitchen appliances and all types of industrial machines. Their use in horticulture is now just beginning.

An amateur gardner could probably buy components for an elementary mist control timer for $20.00 or build one from salvage at a cost of less than $5.00. Solenoid valves start at $20.00 while one brand of nozzles is offered at 78 cents each. Other plumbing items are standard hardware store fare. The requirements for these vary with size and layout of the propagation system.

One last word of warning, even the most elementary kind of machinery can break. There is no substitute for periodic human supervision of an intermittent mist propagation system. No commercial propagator would leave his system unattended for more than a day. One of our country's best propagators who works in Lakeville, Minnesota checks his cuttings several times a day.



CONNECTION OF A PRACTICAL INTERMITTENT MIST PROPAGATION SYSTEM

WAY BACK WHEN

(From the February 1964 issue of CLIPPER CHATTER - MGC San Diego County, California)

"Local gardeners were privileged to welcome the top man in our national organization to our city this month when President William H. Hull of Minneapolis, Minnesota paid a surprise visit to our club. Geared to a tremendously busy schedule, Bill was here and gone about as fast as a California rainstorm--and that's moving! But the officers and directors of our men's club were able to plan an informal dinner meeting at which their ladies were included to hear Mr. Hull speak about garden clubbing at the national level--a most interesting and thought-provoking discussion of M.G.C.A.'s current and planned future efforts.

"President Bill found a red carpet in place upon his arrival at the La Jolla home of Al Blackbourn, his former neighbor from Minneapolis and the two gardeners lost little time in getting around to inspecting Al's fine flower gardens.....

"The National President brought the meeting to a close with the presentation of the M.G.C.A. Certificate of Recognition to our local club for its recently completed civic horticultural projects."

It is accepted practice to use up to 2,500 times the normal concentration of the potential pesticide in cancer tests. Could we as human beings survive an injection of 2,500 times the normal concentration of water, milk, sugar, salt, or burned toast? The amazing thing is that any products pass this battery of toxicological tests.

Return to
THE GARDEN SPRAY of MGCM, INC.
Edwin C. Culbert, Editor
5315 Portland Avenue
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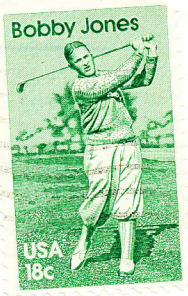

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