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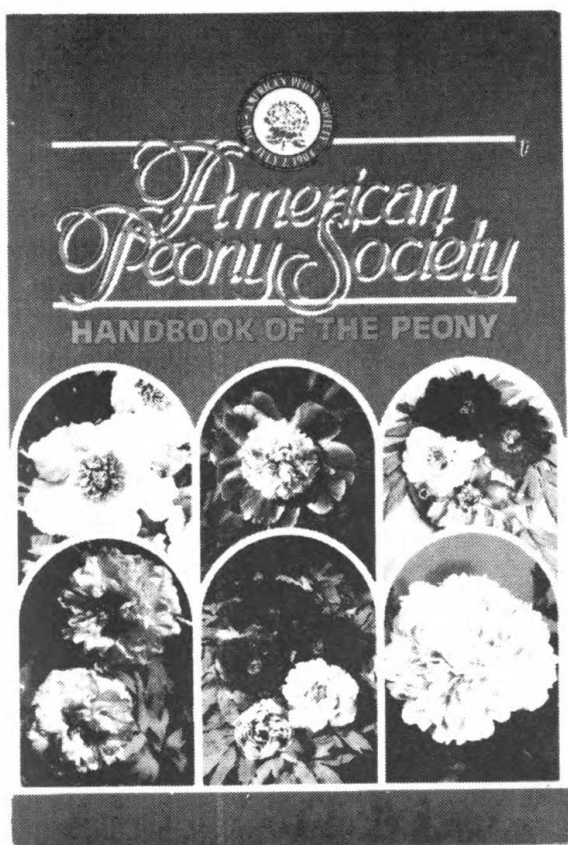


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The American Peony Society Bulletin



Gardening, February 26, 1887



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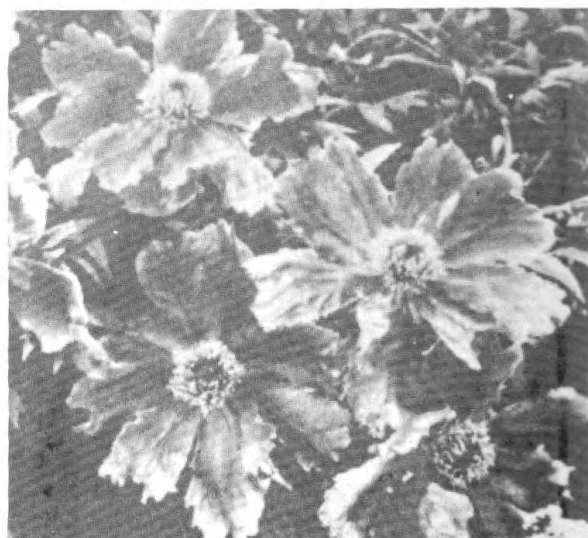
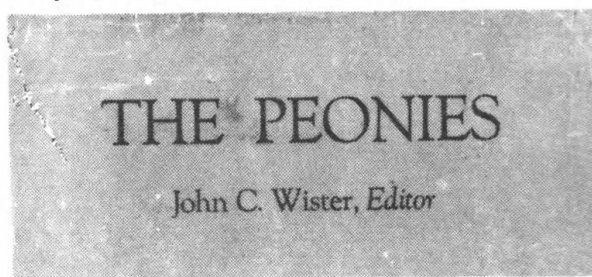
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DEPT. OF REGISTRATION

The department was formed to properly supervise the nomenclature of the different varieties and kinds of peonies. All new varieties should be registered to avoid duplication of names.

Greta M. Kessenich, Secretary

OBJECTIVES

The Articles of Incorporation state: Section (2) That the particular objects for which the corporation is to be formed are as follows: To increase the general interest in the cultivation and use of the Peony; to improve the methods of its cultivation and methods of placing it upon the market; to increase its use as a decorative flower; to bring about a more thorough understanding between those interested in its culture; to properly supervise the nomenclature of the different varieties and kinds of peonies; to stimulate the growing and introduction of improved seedlings and crosses of such flower; and to promote any kind of the general objects herein specified by holding or causing to be held exhibitions, and awarding or causing or procuring to be awarded, prizes therefor or in any other manner.

The AMERICAN PEONY SOCIETY BULLETIN is the official Society publication. It is mailed postpaid quarterly to all members in good standing.

MEMBERSHIP

The By-Laws state: All reputable persons, professional or amateur, who are interested in the Peony; its propagation, culture, sale and development are eligible for membership. Dues are as follows:

Single Annual	\$ 7.50	Junior or member family	\$ 2.50
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Contributing	\$25.00	Supporting	\$100.00
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AMERICAN Peony Society Bulletin



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*"The Lord bless and keep thee
The Lord make his face shine upon thee,
And be gracious unto thee"*

(Num. 6:24-25)

Christ is essentially the Star of hope. Hope is one of the chief elements of a joyous life. "Hopeless" is one of the saddest words we know. Man is made to hope. This place of his abode is the place of hope. Christ is the hope of man. In his sin He bids him hope for triumph and victory. In affliction and sorrow He bids him hope for joy and blessing. From little childhood which He gathers in His arms and teaches love, and teaches to hope for His bright heaven, to old age He is the hope of men, creating in the hearts of those who love Him a sure hope of immortality.

—Dr. P. F. Bresee

*And so, "through all thy days
May shadows touch you never";
But this alone—God bless you good—
Then you have joy forever.*

—Unknown



FROM YOUR PRESIDENT

DON HOLLINGSWORTH

Dear Friends:

As I write, the colors of autumn are browning off a bit. Yet the color—it has been the finest in recent memory—is still pleasing enough to ease the stress of hard labor on an aging body. Pressure of time to get the peony patch moved weight heavily, and the work proceeds part-time. (To you kind folks who asked for the promised distribution list, I apologize, there is no new list; priority goes to salvaging the varieties). The anticipation of once again having an orderly planting for study and discovery spurs the effort. The process seems to be going reasonably well, and there will be plants to share in future seasons.

While pursuing my gainful employment, I travel across the countryside a great deal. This has been a super autumn for spotting outstanding groves and special clones of our finest native species. Seeds have been collected and locations recorded for scion wood (in case I want to graft when the seedlings are ready). Several oaks, black cherry and sugar maple are among my favorites. Viburnums, too, (some of which are domestic) will be an important item in seedling beds.

Yesterday I obtained seeds of a heavily fruiting Wahoo tree (*Euonymus atropurpureus*) spotted earlier in super red fall color. Also discovered a bittersweet vine with fruits of a deep red-orange rather than the conventional yellow-orange. With plenty of “nursery” space, I am looking forward to having some classier species ready to replace the weedy kinds now prevalent around the farm. Hope I have the timing right for doing the heavy work during retirement!

The seasons march on. By the time this is read we will, perhaps, be reminiscing about events of last summer and thoughts of changes and enhancements for the next. Getting back to cultivating, fertilizing, and grooming in anticipation of the next display of beauty, will be welcome after a winter’s respite.

Best Wishes, Don Hollingsworth

PEONIES OBSERVED FOR FRAGRANCE

Bill Uhde, Great Ring Road, Sandy Hook, Connecticut

At this time of year, the seeds on the peonies are ready for gathering.

A few unusual things happened this year in the garden. **Bright Knight**, which had bloomed well its first year and produced a seed did not come up at all last year. This year it was back and had three blossoms and formed pods. No seeds were present.

Archangel, a new plant in the garden, lost its one shoot to a frost last year and did not send up any more shoots. This year the plant sent up three stems.

Last year one plant of **Princess Margaret** came up very late and bloomed in July. This year it had four blossoms and was normal in growth and flowering habit.

I have three plants of **Martha Bulloch**, in three different locations in the garden. Last year, all plants had deformed flowers with a whitish pink color. This year only one plant bloomed, but the color was normal. This is the first incidence of strange behavior of this variety in my garden.

Janice produced a very large seed this year.

Postilion has developed further this year and showed four blossoms. The blooms are bigger than **Scarlet O'Hara** and **Diana Parks**, which grow next to it. I can see why some people call it a multi-row single and others call it a semi-double. It is a very close call with the larger stems giving flowers with an extra row.

The following is a list of peonies in which strong fragrance has been noted. All are lactifloras:

Lois Kelsey, Moonstone, Edulis Superba, Isani Gidui, Bute, Cora Stubbs, Miss America, Pink Lemonade, Winchells White Cap, Krinkled White.

The following have a light odor:

LACTIFLORAS — Bowl of Cream, Dorothy J, Festiva Maxima, Kelways Glorious, Sylver, Norma Volz, Doris Cooper, Mrs. FDR, Pillow Talk, Martha Bulloch, Princess Margaret, Raspberry Sundae, Philippe Revoire, Do Tell, Gay Paree, Pico.

HYBRIDS — Moonrise, Prairie Moon, Coral Charm, Coral Supreme, Friendship, Red Charm, Chocolate Soldier, Scarlet O Hara, Diana Parks, Postilion, Bright Knight, Angelo Cobb Freeborn, Burma Ruby. The last of these is the only variety with a fragrance I would call pleasant.

The following have no odor that can be discerned:

LACTIFLORAS — Dinner Plate, Lottie Dawson Rea, Nick Shaylor, Mary Brand.

HYBRIDS — Janice, Salmon Glow, Victoria Lincoln, Flame, R.W.

Auten, Walter Mains, Heritage.

There are several others in the garden, and I have not been able to ascertain whether they have a fragrance or not, since I prefer to wait a few years before ruling out fragrance.

I have also noticed in my garden that blooming period is accurately determined only after the plants have blossomed for three years or longer. Every year after first bloom, the blooming date comes earlier than the past year, up to the three year mark, unless the plant is subject to stress.



"I remember this peony and where it was planted when I was a child, and lived in the country, on a mill property which was owned by five generations. I do not know who planted it, or when, but we think it must be nearly a hundred years old. When we moved away, my sister and I took it with us and almost lost it, but we revived it, and after ten years, moved it again to the retirement home. Here it is planted on the east side of the house and it has grown about five times as large as it ever was. Last year, we counted 100 blooms as beautiful as you see in the picture."

—Ella H. Snavely, Lancaster, Pennsylvania

REGISTRATIONS

NIKE (the goddess of victory), Nassos Daphnis, New York, September 25, 1987.

Seedling # D-368, single hybrid tree peony.

Parentage BC2 x Guardian of the Monastery (Moutan). First bloomed 1976.

This coral peach flower with two rows of well-formed round petals has a golden glow. It has red flares and yellow anthers. The flower stands well above the foliage on very strong stems. An excellent bloomer. A ten-year-old plant is about five feet in height. The flower has pollen, seeds and stamens. Fragrant. It blooms in late May.

PLUTO (God of the Underworld), Nassos Daphnis, New York, September 25, 1987.

Seedling # D-363—double hybrid tree Peony.

Parentage, self-pollinated. First year bloomed 1976.

Very dark red, good stem strength, nice foliage. It is reliable with good amount of bloom. The flower is the best of the very dark hybrids that has ever been produced. The color is so rich that when a ray of light is cast on it, the glow is the color of a stained glass window. It is fragrant, has stamens, seeds and pollen. It blooms in late May. Height, five feet.

LANCASTER IMP (Dr. in PA, record lost)—registered by Roy Klehm, August 14, 1987

Smaller bomb type lactiflora, slightly red, early streaking. Many smooth buds, nice guard petals, very floriferous, 26 inches tall. It has good substance, and fragrant.

SNOW SWAN (Roy G. Klehm)—August 14, 1987

Seedling Number 130d.

Ivory white single lactiflora, good clean foliage, 38" in height. Large rounded, smooth guard petals. Good substance with pollen and stamens.

Re-registration—The name of peony, **VIVID SALMON GLOW** has been changed to **VIVID GLOW** because of near-name duplication. A very early hybrid, single cup-shaped of vivid salmon pink. First bloomed in 1974, 32" in height. Super stem strength. Pollen, seeds, stamens and good substance.

Roy Klehm, August 14, 1987.

SUMMER SNOW (Lyman D. Glasscock)—registered by Elizabeth Falk, August 14, 1987.

Seedling # A1A59.

First bloomed unknown. Parentage unknown. A white single hybrid with pollen, seeds and stamens. Reliable, 30" in height, with excellent stem strength, midseason bloom, large leaf of medium green.

ALICIA KUNKEL (R. W. Tischler, Faribault, Minnesota), June 17, 1987

Parentage unknown.

Lavender-rose Japanese type, center a rose-yellow. Green carpels. 30-inch plant with medium green foliage, well-formed, hedge type and a free bloomer. 6-inch flowers set low to foliage on strong, stiff stems. Blooms mid-season.

BOUQUET PERFECT (R. W. Tischler, Faribault, Minnesota), June 17, 1987

Parentage unknown.

Small, bright pink, solid color, anemone type blooms. 4 to 5 inches in size. Red tipped stamens. Strong stems and straight. Excellent foliage, 24-inches tall. Slightly fragrant. Wonderful arrangement flower. Blooms mid-season.

SPECIES IN THE MEDITERRANEAN AREA

By Gian Lupo Osti, Rome, Italy

I never was disappointed from long walks and tours in the wild around the Mediterranean. The scenery is beautiful, the climate (apart from the extremes in winter and summer) mild, the flora of incomparable variety so that you may find, at few miles of distance, a palm and a fir. Last, but not least, everywhere you may find a sanctuary, a castle, an artifact with memories of our history and culture—and with some good luck you may also find some peonies! You may then understand that I didn't lose the opportunity to participate in the Turkish Tour organized by the International Dendrology Society, a London-based organization, to bring together dendrologists from all countries. The Tour itinerary was carefully planned with the help of the Turkish Forestry Services, and foresaw to cross the Anatolian plateau from South to North, that is from Antalya, on the Egean coast, straight to the Black Sea coast. I also took advantage of the courtesy extended from a Turkish fellow dendrologist, Mr. Hayrettin Karaca, and went from Istanbul to Antalya by car with his 4-wheel drive, visiting some forests and places of outstanding botanical interest.

The Turkish flora has many endemic species that are restricted just to this area. The variety of plants is also noticeable. As a matter of fact, Turkey takes part in three botanical regions (in scientific language: phytogeographical areas) that is: the Euro-Siberian, the Mediterranean, and the Irano-Turanic. The latest book on the Turkish Flora, published by the Edinburgh University Press, under the supervision of Professor Davis, lists 9600 species. In looking at this book, I noticed that its authors are, more or less, of the splitting-the-hair-in-4-parts type, that is, they like to split every genus in as many species as they can. Anyway, I am not in a position to give a scientific judgment. My attitude is based just on the good sense and experience of a plantsman. The book is in 6 volumes, and a further one is announced. About peonies, 6 species are listed: *P. mascula*, *peregrina*, *daurica*, *rhodia*, *kesrouanensis* and *turcica*. It is the first time that I heard of the existence of a *P. turcica*.

But the scope of this note is to inform you just of the peonies that we found in our Tour which started on June 7 and ended two weeks later on June 21. We saw peonies, large number of plants, in three locations: the first was on the Manisa Dag, the mountain which raises just near the town of Manisa (the ancient Magnesia) approx. 100 km NE from Izmir. Turkish botanists say that in this mountain you may find both *Paeonia mascula* and *P. peregrina*. I saw just the latter one in two locations: at 1000 m of height - few plants, and at 1200 m, on the Atalani field [where you may see some semi-wild horses owned by the village of this area] - in large quantities.

The second station of peonies we found south of the town of Elmali, on the Kohu Dag, at the height of approx. 1800 m, near the



Species on the border of the Atalani field



Pergrina in full bloom

Photo 1: Peonies on the border of the Atalani field. The bushes are *Juniperus communis* and *oxicedrus* both in the prostrated and erected form and young plants of *Pinus nigra ssp. pallasiana*; **Photo 2:** Some plants of *P. Pergrina* in full flower; **Photo 3:** Insects assembled at banquet.



Best specimen found on the tour



Mr. Gian Lupo Osti with the same plant
showing terrane

locality called Dokuzgol (which means nine lakes). As you may see in photo 4, some plants were located just in-between some rocks, apparently calcareous. The vegetation was mostly of cedars (*C. libani*), *Sorbus* and *Juniperus*. The plants were, in my opinion, *P. mascula*. The third location in which we found many peonies was in the mountains near Isparta, at the height of approx. 1300 m, in the National Park of Kovada. I don't have any photo of real interest of this station as all the plants were out of flowers. They were located in the openings of a *Quercus* wood. Along with the latest Turkish Flora, already quoted, these oaks are a new species, that is: *Q. vulcanica Yaltirik*, distinguished by *Quercus frainetto*, just by its longer petioles. The peonies we saw in the Kovada National Park were, in my opinion, *P. mascula*. The only observation I find in my notes about the peonies of this location is that the soil was apparently acid or neutral which confirms the fact that peonies apparently don't care about acidity or alkalinity. I noticed also a plant with large yellow speckles on the leaves. Was this a temporary phenomenon (as is often the case), or was it a real new variety "*aureomarginata*?" Let's leave the question open!

A FLOWER NAMED "GRETA"

It must be a very pretty flower 'cause Greta says so! Its name, given by Krekler, is "Greta," and you can't beat that—(not even with a stick!). Being interested in developing a deep, deep pansy purple strain of peonies, I'd like a picture of this unusual flower. Greta, do you have a photo you can give me? If not, please send a piece of your treasured purple dress!

As I see it, we will have to develop peonies with purple flowers before undertaking a program of, or taking the path to, blue flowered clones.

The list of choice peonies and the grouping of them in such an excellent manner by Roy Klehm, makes this issue [Bulletin #263] the outstanding Bulletin of the year. I'll keep it handy—not file it upstairs with the others, at least not for a while. I think that the selections he chose shows his insight into beauty!

The National Peony Show was entirely satisfying this year; beautiful, and well organized also. Without this yearly get-together, the peony association would lose much of its meaning. Meeting people with like interests is stimulating, and the congenial atmosphere lets you know that you are among friends.

The peony seed production this year was fabulous. Maybe the dry, dry Spring had something to do with it—and the flowers put on a show that would stop passersby. Rains came along in the middle of July and continued the rest of the Summer. Could it be that each and every rain-drop contained a weed seed?

—Chris Laning

IRRIGATING PEONIES WITH "LEAKY HOSE"

By Don Meyer, Science Instructor, Kimball, Nebraska

The 77-foot-long bed of mixed perennials has a row of 13 peonies down the center spaced five feet apart—Phillipe Revoire, Sweet Sixteen, Felix Crousse, Harry Richardson, Sarah Napier, Red Charm, Tourangelle, Karl Rosenfeld, Renate, Helen Hayes, Elsa Sass, Autens Red, and Cherry Hill. This bed was prepared for digging a three-foot trench, lining it with a root barrier of landscape fabric, as elm trees and a crab apple tree is within 20 feet of this bed. It was then filled with prepared soil. The leaky hose system is used on all our flower beds supplying them with the water required in a season.

Peony at the right, Diana Parks. Lower left, Kansas. Lower right, Glory Hallelujah. Photographs — Don Meyer, Kimball, Nebraska.

* * * *

One of the main factors that makes horticulture difficult and different in much of the Western United States is the insufficiency of natural precipitation. We gardeners in the semi-arid Rocky Mountain region can expect only about 15 inches of rainfall annually. For luxuriant growth and blooming, most large perennial flowering plants—especially the peony bush—generally require about two inches of natural or artificial "rainfall" each week. In western Nebraska, we avid gardeners have to artificially furnish about 25 inches of water to our thirsty herbaceous "pets" during a typical twenty-week (five-month) growing season.

Until five years ago, the Meyer's principal watering method involved the arduous, frustrating, time-consuming ritual of dragging several-hundred-feet of ordinary garden hose throughout our flower beds, and watering for hour-long durations at each location, with hose-end rotary sprinklers mounted and elevated on three-foot high metal rod "stakes." Overhead sprinkling does have a few special advantages such as increasing atmospheric humidity, decreasing air temperature, rinsing dust off leaves, and inhibiting certain plant pests—such as spider mites. Frequent sprinkling is often a desirable watering technique for moisture-loving or shade-loving plant species, and particularly good for newly-transplanted plants or newly-sown seeds.

To us peony lovers, the major drawback of artificial (or natural) rainfall during our April-June peony bloom season is the bending and possible breaking of the large blooms heavily laden with moisture. Whether by Mother Nature's natural precipitation or by the gardener's own spraying, it is very discouraging to witness beautiful peony blooms "kissing the mud."

In our experience, even the use of peony hoops or cages doesn't guarantee that certain weak-stemmed peonies will not bend and "bite the dust" from aerial irrigation, especially when combined with stiff winds. This negative aspect of overhead sprinkling is what initially



Photograph — Don Meyer

prompted the Meyer's five years ago to begin watering their peony borders, and eventually, all their perennial gardens by subsurface irrigation. And are we GLAD we made the change!! Our water usage is down by at least 25%. Wind no longer carries water into our neighbors' yards or onto pavement or bare ground. Water wastage by evaporation and run-off is eliminated. Soil compaction and aeration deficiency is reduced by "stoppage of puddling." Underground irrigation has greatly reduced the incidence of foliage disease such as botrytis, mildew, rust, and blackspot—our peony, rose, phlox, and delphinium plants have especially benefited. Probably the greatest advantage is that we don't have to spend a lot of time and effort lugging around unsightly, heavy, "kinky" hoses.

There are hundreds of different kinds of subsurface drip-trickle irrigation systems on the market. Since our peonies are intensively interplanted with other perennials such as spring bulbs, daylilies, phlox, and mums, we chose the porous pipe system. This method allows us to irrigate the soil of a bed completely and thoroughly—not just in isolated areas as is true of poly pipe-emitter systems. Porous pipe is also known by such commercial names as "Leaky Hose," "Leaky Pipe," "Super-Soaker Hose," "Hydro-Grow Hose," "Root Quencher Hose," "Wet-Flex Hose," and "Aquapore Hose." Porous pipe is relatively tough, but flexible—being made from recycled automobile tires. Every inch of "leaky hose" has thousands of "micropores" that ooze or "sweats" water along its entire surface.

Most companies guarantee leaky hose for at least ten years since it is decay resistant and mechanically very strong. Since the hose seeps along its entire length, it is self draining and presents no freeze-up problems during the winter. Like plastic or rubber material, it will eventually deteriorate if exposed continually to the ultraviolet radiation of sunlight. Exposed porous pipe will also tend to eventually "clog" with mineral deposits if the irrigation water is "hard" or contains relatively high concentrations of dissolved salts. Just an inch or two layer of organic mulch is sufficient to hide and protect the porous pipe. Many gardeners prefer to bury the hose 3 to 4 inches deep. We space parallel rows of this soaker hose only about 15 to 18 inches apart since it has been found that in the specially-prepared, friable soil of our garden beds, the lateral spread of water, as it moves downward from the hose, is no more than 1½ feet in width—at a maximum. In heavy clay soils, the sideways spread of soil moisture could be from two to three feet in width.

The most important factor in proper uniform water distribution by drip/trickle irrigation is to use a low flow rate and/or pressure. City water systems have a pressure of at least 50 psi (pounds per square inch), and experience has shown that leaky hose works best at a pressure of 5 to 10 psi. You can buy fixed set point water pressure regulators or more expensive adjustable regulators from many irrigation equipment suppliers. From five years of experience, I have found

SOME POSSIBLE SUB-SURFACE IRRIGATION
PATTERNS USING LEAKY HOSE

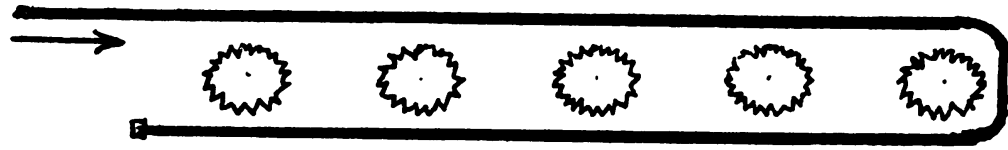


FIG. A

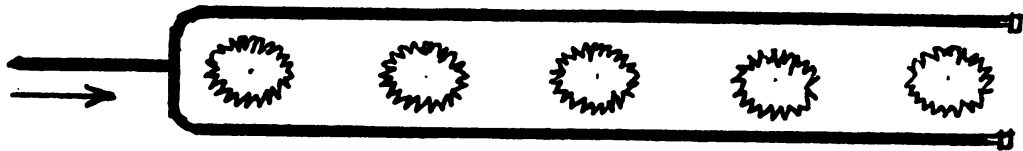


FIG. B

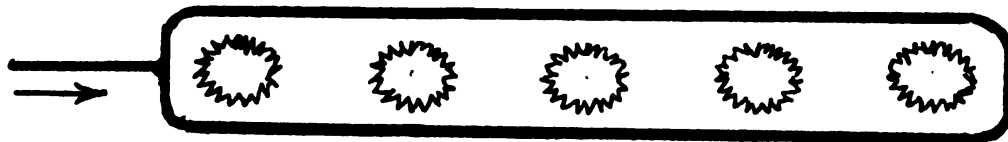


FIG. C

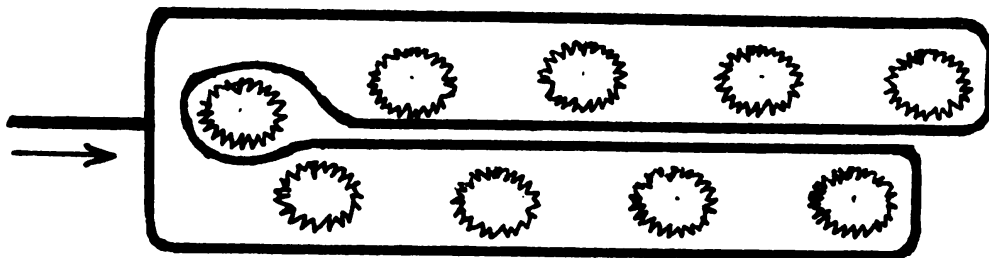


FIG. D

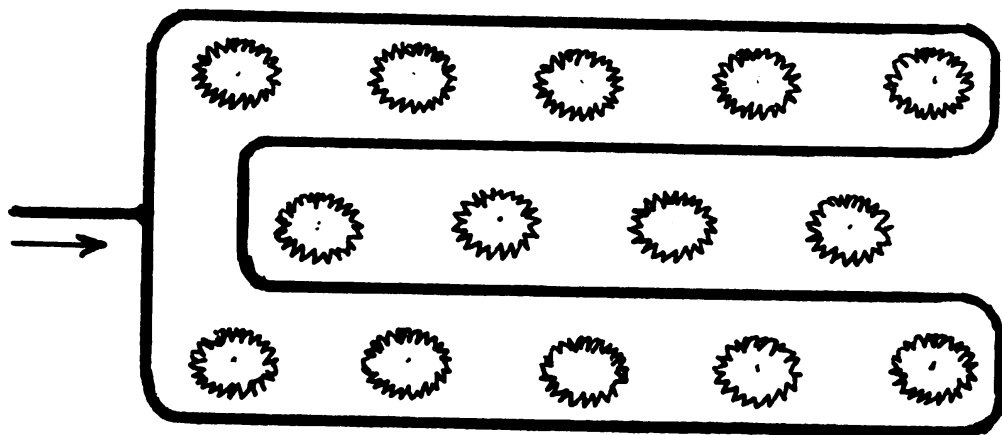


FIG. E

that a more economical method is to use a "cheap" plastic hose valve for each irrigation system. This valve is marked or calibrated so that the water flow rate through it delivers one quart of water per minute for every 100 feet of leaky hose in the system. Our largest irrigation system contains almost 1000 feet of leaky hose, so we have the in-line valve adjusted for a flow rate of 10 quarts (or 2½ gallons) per minute.

Even with a low flow rate and the use of a pressure regulator, there is some drop-off in pressure as you go away from the faucet or water source. Therefore, there will be less oozing of water from the terminal end of the system than from the intake end. This is especially true of the two simple "dead-end" systems illustrated in Figures A & B. By experiment, we have found that various "closed-loop" irrigation systems, as illustrated in Figures C, D, & E, will produce more even pressure along the entire length of hose and, hence, a more uniform "sweating" of water.

One drawback of any drip system is that the water used be very clean—free from dirt or sediment, that might eventually clog the micropores of the leaky hose. If your well water is "dirty," it would be wise to purchase an in-line 200-mesh filter or strainer in order to prevent the plugging of pores.

If you have an established peony bed, it is an easy task to "snake" the hose up and down in roughly parallel rows—even if your bushes are irregularly spaced. The rows of leaky hose can vary in distance from each other and even double-up, as indicated in the central two adjacent rows of leaky hose in Figure D. If you desire a more formal, regular arrangement of plants, it is more efficient to put in your designed irrigation system first, and then do your planting. It would be very smart to make a detailed "map" or plat of the perennial bed after completion, showing not only the exact position of each cultivar, but also the "anatomy" of the irrigation systems. If you keep your spade razor sharp, it would be wise to consult your map as to leaky-hose distribution before you do any major, forceful digging. (An absent-minded gardener is writing from experience!)

Any good hardware store carries all the 5/8" straight- and T-connectors, and compression clamps needed to repair or install leaky-hose irrigation systems.

The key rule in irrigation is to work toward the goal of watering less often and more thoroughly. Watering thoroughly—and infrequently—will promote deep-rooting of plants, making them less susceptible to dry spells, and more efficient in extracting other nutrients (besides water) from the soil. In Western Nebraska, our hot, dry winds of July and August will cause plants to use water so quickly that any shallow-rooted ones often can't take up water from the soil fast enough to prevent dehydration and wilting. To maintain a good soil air-to-water ratio for plant roots, to encourage deep-root penetration, and to prevent plant drought and drowning, a successful gardener waters deeply but not too often. We do not have our leaky-

hose irrigation system on automatic-timer control since the frequency of watering depends upon complex, numerous soil and climactic factors that affect water usage and rate of soil dessication. Such factors include the water needs or drought tolerance of particular plants, size and age of plants, presence or absence of greedy shallow tree or shrub roots, type of root system, the season, temperature, wind intensity and duration, humidity, day length, solar intensity, plant location and exposure, the method of water application or irrigation, type and thickness of mulch, and the nature of the soil—especially its slope, friability, texture, depth, porosity, clay, sand or humus content, and water-holding capacity. To ignore these interrelated factors and irrigate automatically by clock scheduling may produce unhealthy plant growth. There is no one watering-frequency rule that can be applied adequately to all types of climate and soil. During the growing season, a gardener can dig small test holes with a trowel to determine soil-moisture content. Typically with subsurface irrigation the top few inches of soil or mulch will be relatively dry. This has two very important benefits—a reduction in water loss by evaporation from the soil surface, and a reduction in weeds due to inhibition of weed-seed germination by the soil-surface aridity. A gardener should turn on his irrigation system if the top three to four inches are dry. With our porous-pipe drip system we will leave the water on for about six hours at a time. During a typical hot July, the water may have to be turned on again 3 days later. If it's a normally cool September, there might be at least a week-long interval between waterings.

If you spend a good part of each growing season watering your beloved peony plants, and other plant “pets,” install some “leaky hose” in at least one of your flower beds this early spring. Give it a try! You will have less hose moving, less water wastage, less plant disease, less soil erosion, fewer weeds, and most importantly (to me), fewer peony blooms destroyed prematurely by water-logging. Your gardening experience will become more simple and easier. You will have more time to stop and smell the peonies—and later, the roses!

1987 SEED COUNTER

Bill Seidl, 732 S. 19 St., Manitowoc, Wisconsin 54220

The seed counter is conducted by the APS, not to be monetarily profitable but in the hope that it will draw more people into a deeper and long-term relationship with peonies. To cover expenses, seed recipients should send \$1 plus postage after receipt of seeds. Folding money preferred; checks or postal money orders to “William J. Seidl.” I expect to mail all seeds by year's end. Late orders will be held over for the 1988 crop. Unless requested otherwise, orders to southern hemisphere will go airmail—others overseas by surface mail. You can order any and all kinds of seed; quantity dependent on supply and demand.

I wish to thank all seed donors. Perhaps you will be pleasantly sur-

prised one year to read of a new introduction raised from seed originating in your garden. Donations have been received (as of Oct. 16) from Toichi Domoto—Hayward, Calif., Al Rogers—Sherwood, Ore., Mrs. S. H. DeReamer—Merrillville, Ind., John Cote—Brooklyn, Conn., and Robert Geller—Fremont, Ohio. Thanks also to Don Hollingsworth for pollen sent from some of his and Chris Laning's selected seedlings growing in his garden. It was used in some hand pollinations and appear in my donation under mixed herbaceous hybrids.

Available seeds are grouped by type. You can order just by type and color, and I'll send appropriate seed from the available seed, including from donations yet to come. If the seedparent's name (or seedling designation) stands alone, it means the pollen parent is not known. Hand pollinations (but not bagged) are indicated by the "x" notation: seedparent x pollen parent.

MOUTAN SHRUB PEONY (MSP), or *suffruticosa*, or JAPANESE TREE PEONY, whichever name you prefer. Domoto: mixed. Rogers: mixed. Seidl: Rock's Variety x mixed cultivars, TP-1 (lavendar Rock's seedling) x mixed cvs, TP-2 (white Rock's seedling) x mixed cvs.

HYBRID SHRUB PEONY (HSP). None available at the Seed Counter.

HERBACEOUS x SHRUB HYBRIDS (Ito's). Ditto.

LACTIFLORA (syn. ALBIFLORA), the commonly grown Chinese peony. DeReamer: Bo-Peep, Bu-te, Gay Paree, Lotus Queen, a LQ single pink seedling, Minnie Shaylor, Miss America, Primevere, Walter Marx, also a fuschia-colored single variety, and mixed seedlings about 50% doubles, 25% Japs, and 25% singles showing promise. Cote: Bonanza, Bu-te, Kelway's Glorious, Mary Stewart and seedlings x MS, Miss America, Sarah Bernhardt, Westerner, lacti mixed from 75% doubles, and mixed seedlings. Seidl: Mikado, Miss America, Rivida, and others, also Gold Standard x Rose Shaylor, Vesper x Rose Shaylor, and two Jap seedlings x RS. RS is a double light pink, chosen as a pollinator for its erectly held flowers, a quality first admired in seeing a row of them at the Reath Nursery.

HERBACEOUS HYBRIDS (HH), presumably tetraploids mostly out of the Saunders' quadruple hybrids. DeReamer: mixed, from pink and cream parents. Seidl: mixed; some have been kept separate by color, esp. creams x Sunny Boy (Chris Laning's double light yellow, see p. 26 of the 1976-86 Checklist). I also have saved seed from two groups of NEAR-SPECIES hybrids: *tenuifolia* hybrids and *peregrina* (*lobata*) hybrids. The *tenui* hybrid seed is from intercrossing Laddie and/or Laddie seedlings. Expect progeny to bear single red flowers with finely divided foliage but not as lacy as the fernleaf species. The *peregrina* hybrid seed is from several *peregrina* clones x (mostly) Good Cheer, which is a Saunders' cultivar from *officinalis* alba plena x Perry's *lobata* (Wister, *The Peonies*, p. 54). The progeny should be nearly

100% *lobata* in appearance, with orange-red single flowers. These should be tets; the tenui hybrids . . . possibly diploids (?).

LACTIFLORA AND HERB'S HYBRIDS MIXED. Mr. Geller sent a couple of pounds of this mixture.

Care of Seed. The one main requirement to keep in mind is that a warm, moist period (about three months) must precede a cool, moist period. While it does no harm to plant dormant seed in cold soil just before the onset of winter, do not expect growth the following Spring—since the requisite warm period has not been provided. Germination takes place in two stages. Root-germination may begin during the warm period or near the end of it as the temperature gradually drops and the cool period begins. The stem-leaf germination begins during or near the end of the cool period. In outdoor plantings, unbeknownst to you the seeds may be root-germinating while weeds are flourishing in your parched seedbed, so do not let either condition occur. If weeds do get a foothold, spraying with herbicide may be better than yanking them out and disturbing the seeds' root growth. Round-Up or similar herbicide will not injure the germinating seed-roots as long as there is no peony foliage to absorb the spray. Good luck!

THE 85TH ANNUAL MEETING 83RD ANNUAL EXHIBITION OF THE AMERICAN PEONY SOCIETY

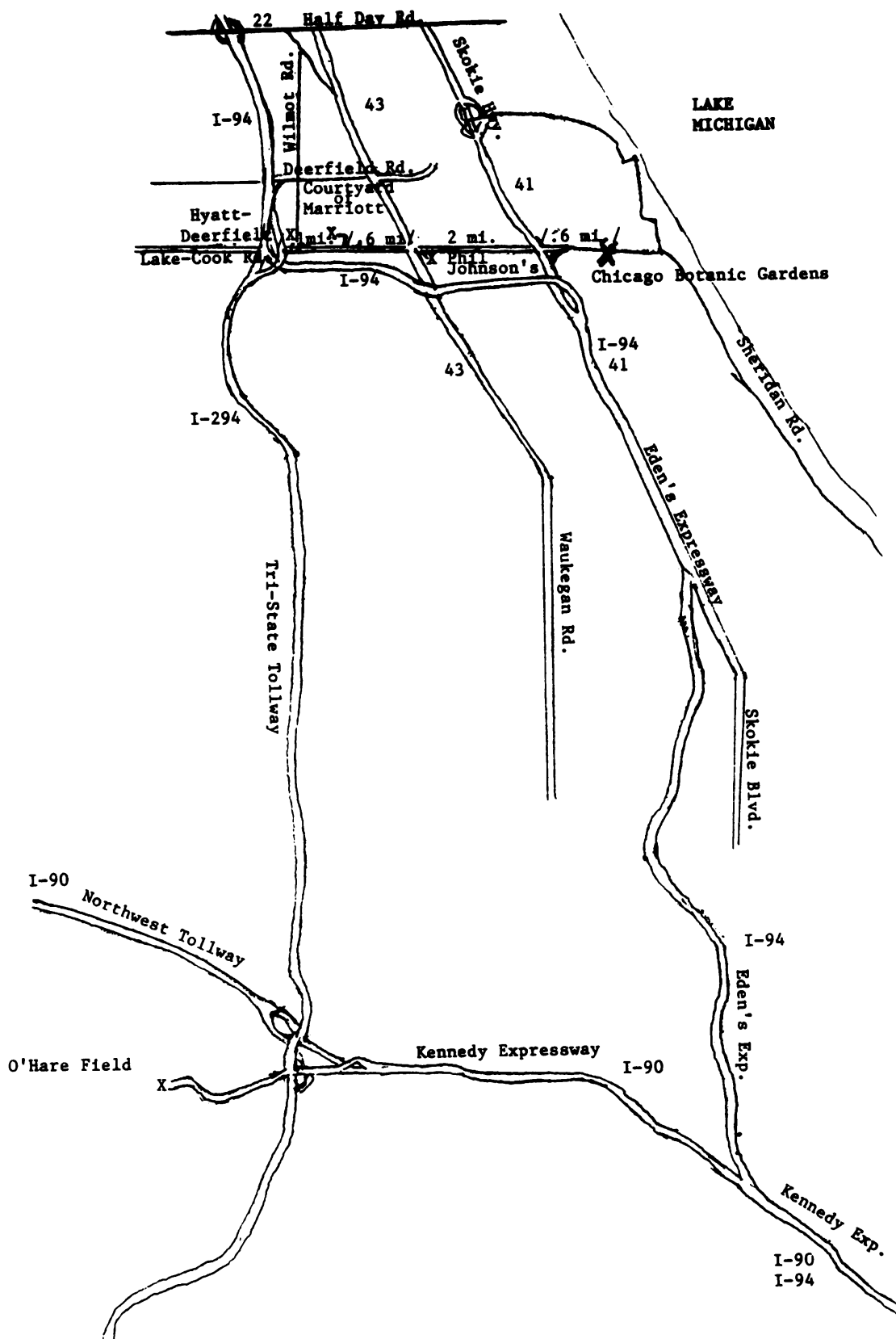
June 3, 4, 5, 1988

CHICAGO BOTANIC GARDENS, GLENCOE, ILLINOIS

For the benefit of those wishing to attend the Convention, Chicago Botanic Gardens are located on Lake-Cook Road (a.k.a. County Line Road), just east of Edens Expressway. From the north, take I-94 south to Rte. 22 (Half Day Road), east to Rte. 43 (Waukegan Road), south to Lake-Cook Road, east about 2.5 miles to entrance. From O'Hare Field, take I-294 north till it joins with and becomes I-94, continue to Deerfield Road, east to Rt. 43, (Waukegan Road), south to Lake-Cook Road. From south around Lake Michigan, to by-pass downtown Chicago, continue on I-80 to I-294, north, past O'Hare Field and continue as above. To go through Chicago, follow I-90 as it becomes the Skyway, then Dan Ryan Expressway, then joins up with I-94 and becomes the Kennedy Expressway, then continue north to where they separate, and take I-94 (Edens Expressway) north as it joins up with Rte. 41, follow Rte. 41 north to Lake-Cook Road and get off eastbound to entrance, about one-half mile (see Map, pg. 20). Note: There is no exit to, nor entrance from, Lake-Cook Road and the tollway.

A detailed schedule of events and map will be in the March Bulletin.

**Make plans for your Spring-Summer vacation.
COME TO THE PEONY EXHIBITION.**



-----PRESS RELEASE-----

THE NICHOLS ARBORETUM PEONY SALE

An unexpectedly large turnout for the peony sale, gathering an hour before the doors were opened, gave an indication of the popularity that peonies enjoy in Ann Arbor. On Sunday, September 13, 1987, surplus peony roots from the Nichols Arboretum (the Arb), in Ann Arbor, owned and operated by the University of Michigan School of Natural Resources, were placed on sale. Crowding of the 265 varieties in the Arboretum's Peony Garden necessitated removal of the extra roots. Seventy peony varieties were available at the sale, and within fifty minutes all materials were sold.

The Peony Garden, a popular spring and summer attraction at the Arb, is unique to Ann Arbor. In 1922, Dr. W.L. Upjohn, of pharmaceutical renown, presented the Arboretum with the necessary funds to purchase the collection. Since then, the Garden has annually offered a showcase of vibrant colors. Age is the characteristic that sets this garden apart from other peony collections. On the average, the Arb peonies are 65 years old. Varieties of this age are rare, having been replaced by newer cultivars developed by the industry.

Future plans are to enhance the Peony Garden with funds acquired from the sale put back into developments. Planned improvements include a permanent display board detailing the variety locations within the garden, information brochures outlining characteristics of the peony varieties displayed, and general repairs to the garden's 27 beds. In an effort to increase the diversity of varieties in the Garden, a 'swap' with other growers of old peonies is anticipated.

Currently, the Arb is hoping to enlist the support of local individuals interested in promoting and developing this unique Ann Arbor attraction. Those interested in learning more about the peony collection, or who wish to help in its maintenance may leave their name at 764-9318.

Additional information concerning the history, development, and care of peonies is available through the American Peony Society, Hopkins, MN., (616) 938-4706. A quarterly bulletin, published by the Society, is available to its members.

**cc: Ann Arbor News
American Peony Society
SNR Alumni News**

**Theresa J. Callery
973-7658**

BRONZE MEDAL AWARDED TO GRETA KESSENICH

The Minnesota State Horticultural Society awarded its bronze medal to Greta Kessenich at the Awards Banquet held on the campus of the University of Minnesota-Duluth on August 22, 1987. This was one of two bronze medals awarded for the year 1987. The presentation was made by Gus Sindt, Past President of the Minnesota State Horticultural Society, and the American Peony Society. Following are his comments:

“The Bronze Medal is presented to an individual for an outstanding contribution to Horticulture. This may be a person from Minnesota for contributions to Minnesota Horticulture, but is not limited to this.

“The recipient of the Medal I present tonight is from Hopkins, Minnesota, but her contributions reach far beyond the confines of our state. Too often, things we do today are forgotten tomorrow because no records are made or kept. Greta has attempted to remedy this situation for the American Peony Society. She has edited several books about the Peony. In 1976, *HISTORY OF THE PEONIES AND THEIR ORIGINATIONS* was published, the first comprehensive listing of peony varieties ever compiled. Ten years later, *PEONIES 1976-1986* was published. These books record and describe the herbaceous peonies that have been in commerce. *AMERICAN PEONY SOCIETY 75 YEARS 1904-1979* chronicles the beginning of the American Peony Society. *HANDBOOK OF THE PEONY* has been updated and published in 1969, 1977, and 1983.

“In addition to being the Editor of these books, Greta is also Secretary-Treasurer of the American Peony Society, Editor of the American Peony Society Bulletin [the official publication of the Society], and responds promptly to all correspondence.

“It is a great privilege to present to you, GRETA KESSENICH, the BRONZE MEDAL of the Minnesota State Horticultural Society for your outstanding work with the American Peony Society, and for peonies throughout the world.

“We are proud you are from Minnesota!”

* * * *

**If you cut a tree, plant a tree.
It is nature's replaceable energy.**

HARDY PEONY REQUIRES LITTLE CARE

By Delilah Smittle, June 4, 1987, Kansas City Star

Peonies flourish in Kansas City's unpredictable climate, are not fussy about soil conditions and live for decades with little attention. Even so, steps can be taken to help establish new plants and get them off to a good start.

Don Hollingsworth, a Parkville grower-hybridizer and member of the American Peony Society, recommends using the deepest topsoil available and double digging with organic matter. Good drainage is important, and he suggests using soluble fertilizer with plenty of potash. Organic gardeners can apply wood ash to the soil. The extra potash strengthens the plants, enabling them to withstand freezing weather.

To keep invasive tree roots out of beds, Hollingsworth recommends edging beds with plastic carpet runners. Young plants will mature more quickly if cultivated.

Scott Reiter, groundskeeper at the Kinda Hall Library reminds gardeners of the adage, "You get what you pay for." He says the rewards of investing in healthy stock are faster establishment and earlier bloom.

Depth of planting is the most important point in planting both kinds of peonies. Herbaceous, or garden peonies, should be planted with the tips of the crown 2 inches below the soil line. Planting too deep will keep the plants from blooming. Most tree peonies are grafted and should be planted with the graft about 3 inches below the soil so roots will form above the graft.

Seed-grown tree peonies will have buds near the roots; the buds should be covered with soil when planting. The area's heavy soil can choke out a plant that is planted too deep.

Allow the foliage of herbaceous peonies to grow until frost, or as long as it is green, and water to keep the plants from wilting. The woody stems of tree peonies should be allowed to remain through the winter.

Peonies need sun to bloom, but planting them out of the wind will keep the blooms from being battered. Hollingsworth observed that among his plants this spring, the ones sheltered from the early morning sun sustained little of the frost damage to buds from the late freeze.

Plants are available in pots now, and by August bare roots will be in area nurseries. Potted plants will establish well if planted now and watered through the summer. Any buds on newly planted bushes should be trimmed off. Bare roots can be planted after August if enough time is allowed for some growth before the first freeze.



Garden — Mr. and Mrs. Stanley DeReamer

MR. A. P. S

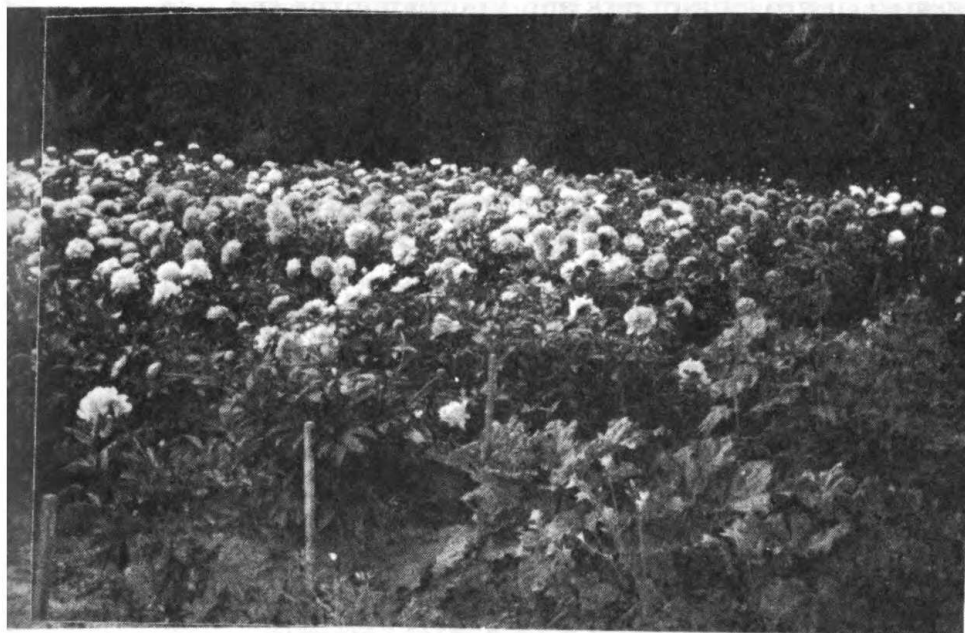
Marion DeReamer

Everyone that grows peonies can usually look back to at least one person in their background who was always there to instruct and give them encouragement. My chief supporter was a neighbor, a retired farmer, who had divided a field into garden plots for whoever wanted to plant a garden.

Due to poor health, he never was far away from home. After the death of his wife, one of the gardeners introduced him to a gardening magazine that carried ads for catalogs. This is how he found the Klehm Nursery. He ordered their catalog, of which a folded sheet of colored peonies was sent to him. He ordered several plants and received a complimentary membership in the American Peony Society, in 1974.

With the arrival of the quarterly Bulletins came the awakening of an old interest. He had loved peonies all his life. He had helped his father plant peonies in 1916, which are still blooming in the original rows. He had other beds of them that were the talk of the area people. He was always eager to talk about peonies and stressed plenty of water and cultivation to all that would listen. Now, he had new information to share from the Bulletins. To those who knew and loved him, he was known as 'Mr. Peony' and especially so to those that did not know his name.

The A.P.S. stands for Mr. Anonymous Peony Spokesman, known only to the Secretary at membership renewal time. He never wrote an article, never attended a meeting, never attended a peony show, but he certainly was active in promoting the peony and peony culture. He was my neighbor, my friend, my father — **Leslie Phillips.**



“BLOOM WHERE YOU ARE PLANTED”

Marion DeReamer, Merrillville, Indiana

It does not take much effort to make someone else happy. All my life, my father believed that flowers were for the living, and he cultivated flowers to give away. I still carry on that tradition and in so doing, my life has been enriched far more than I can enumerate.

With the building of a new home over 20 years ago, came the opportunity to plant all kinds of flowers, iris, and about 20 peony plants and many annuals. For several years, this is all I had. The neighborhood children needed a baseball field so space was reserved for them. Children grow up and their needs change; my grandfather died and I received several rows of peonies from his estate. Next, my father joined the American Peony Society and began sending for catalogs. This is when the addiction started. When I ordered peonies that he wanted, I would get a few for myself. With the newer catalogs and new varieties, my garden grew. This led me to seek the names of those peonies that came from my grandfather's estate. To date, I have found the names to all but about six.

Now, we have bloom from early Spring to the late Fall. Between the peonies are planted spring bulbs, tulips, daffodils, hyacinths, and interspersed throughout the garden are iris, roses, lemon lilies, other daylilies, delphinium, liatris, hardy gloxinia, filipenduli, chrysanthemums and other perennials. Each year, fewer things are planted that must be dug up every year; although I still have cannas, dahlias and gladioli blooming in season. There is a place set aside for my effort in trying to grow peony seedling.

What do I do with all these flowers? Many are given to churches, hospitals and friends, and to the nursing home where I work.

We have a heavy clay soil, so we decided to try a few ideas that

others have suggested in growing plants and improving the soil. We tried a few rows of each of the following and the results were:

- sewage sludge; could not see any difference.
- horse manure; good between rows, but caused some mold and toadstools.
- grass clippings; compost first, or a good crop of grass will grow.
- compost of wood products mainly; needs added nitrogen, as it depletes the nitrogen. Watch out for termites.
- compost of green material, manure, some wood—good!.

We live and learn, and are still learning.

1. Water well when eyes are forming for next year's plants.
2. Water when in buds (often get good rains then).
3. Plant 3-4 feet apart. Many that are planted too close for good ventilation become diseased.
4. Keep grass away from plants, and ground aerated—this allows water to penetrate.

GARDEN TRANSFORMATIONS

*Mary Hirshfeld, Assistant Director of Horticulture
Cornell Plantations, Ithaca, New York*

The America Peony Society Garden at Cornell Plantations has undergone fundamental changes in both structural and planting design. The 1984 addition of the International Crops Garden adjacent to the Peony Garden created a need for a visually clear and inviting connection between the two gardens. As a result, the fence which had perviously enclosed the garden from the surrounding field used by the Department of Plant Breeding was partially removed, and the bed design altered to allow improved pedestrian circulation between the two gardens. The unused sections of fence were moved to the east side of the garden, where they now screen the garden from the greenhouse which borders it.

In conjunction with the design changes, the Plantations' staff took, a critical look at the peony garden's plantings and at the amount of visitor use these plantings generated. Our conclusion was that the garden received very little use once the peony display had finished. To extend the season of garden interest, we decided to develop a more integrated planting design that would allow peonies to remain the dominant theme, yet provide for the addition of herbaceous and woody plants that would either compliment the peonies in bloom or offer colors and textures of interest after the peonies had finished flowering. A second objective in developing a new planting plan was to reduce the amount of peony staking required of the gardening staff in May, a time of year that at Plantations, places innumerable demands upon a numerically limited gardening staff. Our solution was to emphasize peonies that normally weather the May and June Ithaca thunderstorms with minimal damage to floral display. Most of the forty herbaceous peony cultivars in the garden are single-flowered, or like Zuzu, Miss America, and Imperial Divinity, are semi-double or Japanese types that are normally weather durable. Heavy-flowered

and weak-stemmed doubles, no matter how lovely the flowers, were reduced in numbers. A few that we could not bear to part with, such as *Myrtle Gentry*, *Moonstone*, and *Pink Lemonade* remain, and in their reduced numbers can be well fussed over for optimal display. The garden's twenty-six cultivars of tree peonies require little maintenance during the busiest gardening months, so the only change in these plantings involved rearranging them within the garden into groups of related colors, and in some instances, creating masses of one cultivar for a striking display during flowering season. A final design consideration was to provide overhead shade to protect visitors during the brilliant days of July and August. A river birch (*Betula nigra*), and a Japanese zelkova (*Zelkova serrata*) were selected for the dappled shade their high, delicate canopies provide.

The new design was implemented during the autumn of 1984 and the spring of 1985. Since then, the plants have filled out, and the varied colors and textures of the peonies and their companion plantings have proven successful in drawing visitors into the garden throughout the summer and autumn. The herbaceous perennials that were selected to complement the peonies had to meet several additional cultural and aesthetic requirements. First, they had to be durable and low-maintenance, requiring minimal division, staking, and deadheading. Secondly, they had to be vigorous growers, since they were to be used as groundcovers, planted in large sweeps to reduce weeding while providing bold masses of color. Plants such as threadleaf coreopsis (*Coreopsis verticillata*, *Moonbeam*), bear's breech (*Acanthus spinosissimus*), *Boltonia* (*Boltonia asteroides*, *Snowbank*), and sedum (*Sedum*, *Autumn Joy*) have proven successful in meeting these requirements. Ornamental grasses have been used in quantity, serving to extend the season of garden interest into the early months of winter, when their sear-brown foliage and sculptural flowers rustle above the first snowfall of the season. Woody plants in the garden provide backdrops for the peonies as well as early season bloom and attractive fruit and fall color. *Viburnum dilatatum*, *Erie* and *Viburnum dilatatum*, *Iriquois* provide brilliant displays of red fruit in the autumn that combine nicely with the yellow-banded arching foliage of nearby groups of zebra grass (*Miscanthus sinensis*, *Zebrinus*). Vines such as *Clematis texensis*, *Duchess of Albany* and the sweet autumn clematis *Clematis dioscoreifolia* var. *robusta* soften the fenceline with billows of delicate flowers from mid-summer through autumn.

The addition of peony companion plants to the garden has served to amplify the depth and complexity of the overall planting design. This change in direction has proven successful in stimulating visitor interest throughout the entire growing season. However, gardens by their very nature are never completed, and room for improvement can always be found. As a result, the peony garden continues to experience subtle changes as plants move from one location to another within the garden, or new cultivars are experimented with. I expect it will never become static, but will remain a catalyst for creativity and experimentation for both the staff and visitors.

PEONY HARDINESS

Brian Porter, Regina, Canada

[Horticulturist Specialist, Saskatchewan Agriculture]

Here in Saskatchewan, herbaceous peonies have always been regarded as among the hardiest, and long-lived of all perennials. In contrast, tree peonies have been considered too tender for our climate. Recent experiences, however, suggest that the above statements are not always true.

The herbaceous peony in most North American gardens is usually a descendent of *Paeonia lactiflora*, the Chinese peony, long since improved by centuries of breeding and selection. As the common name suggests, it originated in China, particularly the Manchurian or northern region, and according to Stern's map of 1946 (Bulletin 234), probably reached into the southern parts of eastern Siberia, at about 50° latitude. If it extends further northward there, it is not well-documented. Certainly, cultivated varieties have been grown much further North in Europe, although mainly in coastal countries around the Baltic Sea, and in Great Britain, and even Iceland. These are all influenced by the warm Gulf Stream which moderates their climate to some extent.

Nearly all other herbaceous species (and tree species also) originate further South in Europe, Asia, or Northern Africa. The one other species attributed to northern climes is *P. anomala*, which reaches the Arctic Circle in Siberia, according to some authors. This species is not very showy, and is therefore rarely grown and rarely used in breeding work. As well, other cultivars or species have been sold under this name.

Native peony distribution in North America is very restricted. *P. californica* is found, as the name suggests, in California, along with *P. brownii*. The latter is found in California, Oregon, Washington, Nevada, and Wyoming in the USA. In Canada, it has been reported in British Columbia, where it is likely quite rare. Unlike Asia and Europe, the interior of North America is devoid of native peonies. When it comes to cultivated peonies, however, they are widely grown and loved.

In Canada, reports of peonies being grown successfully come from as far North as Fort Simpson, Northwest Territories. At one time, an Agriculture Canada Experimental Farm was located there, at a latitude of 61.5° N. This is about 925 miles, by air, from the border between Canada and the USA. This sub-arctic area has a growing season of only 85 to 90 days, and is subject to severe winters. In summertime, however, day length is long—as much as 19½ hours in mid June. It is at this latitude that permafrost begins. *Lactiflora* peonies which have grown well at this location include *Reine Hortense*, *Felix Crousse*, *Sarah Bernhardt*, *Marie Lemoine*, *Monsieur Jules Elie*, *Festiva Maxima* and *Karl Rosenfield*. These are typical varieties which have been grown across Canada for years, and so it is likely that countless others

would be equally at home at Fort Simpson.

Somewhat further North and East, on the north shore of Great Slave Lake, is Yellowknife, at 62.29° N. Here topsoil is scarce, for the land is quite rocky, and where it is found the layer is quite thin, and usually very sandy. As at Fort Simpson, the summer days are long, winters are very cold (-60° F has been recorded) and summers are rarely hot. Surprisingly, the growing season averages 113 days. Yellowknife gardeners have found that peonies do well only when grown against a house for protection. Out in the open, they have survived, but have not bloomed well.

Further west, adjacent to Alaska is Yukon Territory, famous for its gold rush days just prior to the turn of the century. At that time, Dawson City was the largest city in the territory, but it has now dwindled to a small town. It is likely that peonies were tried at that location (64° N), but I haven't found any records to support this. In the southern part, near the 60° N latitude, lactiflora peonies are recommended. The varieties *Duchesse de Nemours*, *Festiva Maxima*, *Inspecteur Lavergne*, *Reine Hortense* and *Sarah Bernhardt* are those that have done well in this region.

Here in southern Saskatchewan, lactiflora peonies are considered fully hardy, but an occasional Winter may injure them. Temperatures rarely exceed -40° F. Strangely enough, the Winter of 1986-87 was one of the mildest on record, yet at Indian Head, Sask., some hybrid peonies were lost. Several others (lactifloras included) grew with poor vigor, especially *Requiem*. In recent years, several acquaintances have reported Winter losses of hybrid peonies, particularly of *Coral Charm*. Others have reported losses of *Cytharea*, *Prairie Moon*, *Ellen Cowley*, *Flame* and *Avant Garde*. It seems that the planting location may have some bearing on survival. For this area, it may be wise to give a Winter mulch for all hybrid peonies. At Indian Head this year, I noted that three plants of *Coral Supreme* wintered perfectly well, compared to *Coral Charm*, only a few feet away. Only two of the three *Coral Charm* plants survived, and even these were very weak, with only one or two stunted sprouts. One of the clumps seems to be growing from adventitious buds. There were actually two sprouts, but one was so far out of line with the row that it was rototilled under and lost.

In my own yard, most of my losses in hybrids have been on varieties just planted or on fairly young divisions (*Carina* and *Smouthi*). A curious observation has been late emergence and coarse-textured foliage on some plants of *Smouthi*. This year, what had been my strongest plant of *Smouthi* (replanted 1984), did not emerge until well into June, produced only a few shoots with mostly rather coarse foliage and bloomed about July 28, long after all other hybrids and lactifloras were through. Whether this is a form of Winter injury or some other problem, remains to be seen.

Regarding the hardiness of tree peonies in this area, very few people have tried them. Wrapping the stems with fibreglas insulation bats

has worked well, and dry leaves have also been used successfully as covering. My experiences with a few lutea tree peonies indicated that **High Noon** was somewhat easier to winter than **Age of Gold**. **Coronal** was somewhat weaker in all aspects. **Rock's** variety proved hardiest of all, but still needed considerable protection. Unfortunately, I had to move my peony collection in September 1984. An untimely snowfall in mid-October, which turned out to be the beginning of Winter, prevented me from giving these plants any winter covering. In the Spring, only **Age of Gold**, planted on the west side of my house, was alive. It grew from below ground level and bloomed. None of the others made any attempt to grow from below ground. I should add that this did not include **High Noon**, which I lost to disease the previous Summer. This past Fall, I planted **Vesuvian**, in an open location, so I will be anxious to see how it fares.

I have not tried any Itoh hybrids, but hope to do so soon. A friend of mine in Regina has had two years of bloom (total of 3 flowers) on an Itoh, **Yellow Emperor**, I believe. He has given it some winter protection.

In summary, the herbaceous peony is indeed a hardy plant, and with a bit of pampering, even the tree peony can be grown in many temperate regions. Herbaceous hybrids may need a more sheltered or favored location in the most northerly regions, or may benefit from an annual Winter mulch. We are fortunate that such lovely flowers are so easy to grow with a minimum of Winter protection.

HYBRID HERBACEOUS PEONIES

Excerpts from the writings of Mr. George Peyton. He was a commercial grower of peonies in Rapidan Virginia, was Secretary, Treasurer and Editor of the American Peony Society from 1951 to 1964. In the 13 years he issued 52 Bulletins.

The earliest hybrid peony to be introduced that is still well-known, was originated in France about 1845. It is a cross between **albiflora** and **tenuifolia**. For many years it has been listed under several different names, such as **anomala**, which is the name of a species very different from this hybrid; **anomala Smouthi**, which errs in making it a variety of **anomala**; **laciniata**, on account of its deeply cut foliage; and **Smouthi**, which is probably the name by which it should be known. It is a very early, good, red single and what is quite remarkable for a single it has very pleasant fragrance. It is distinctly a valuable peony in the garden.

Two other varieties, **Alpha** and **Reine de Mai**, flesh pink singles and crosses between **peregrina** and **Wittmanniana**, are little known today. Early in this century Lemoine sent out four varieties, crosses between **albiflora** and **Wittmanniana**, **Avant Garde**, light pink and **Le Printemps**, **Mai Fleuri** and **Messagere**, white singles with yellow and greenish tints. There may be other hybrids of foreign origin with which

I am not familiar. Those that have really created a sensation in the Peony World, have been produced by a few of our members who have given the last twenty or more years of their lives to this work. These men are Prof. A. P. Saunders of Clinton, New York and Lyman D. Glasscock of Elwood, Illinois, both of whom began this work about the same time. Edward Auten, Jr., of Princeville, Illinois, W. S. Bockstoce of Pittsburgh, Pennsylvania, Mrs. Mary E. G. Freeborn of Proctor, Vermont, and Dr. Earle B. White of Kensington, Maryland, have also done notable work along these lines with a few others who have been responsible for one or more additions to the list.

The work of most of these has been confined to crosses between various varieties of *albiflora* and *officinalis* but Prof. Saunders and Dr. White have ventured far afield and used a great number of species with marvellous results. Now second and third generation plants are being produced by many and they give promise of even more surprising results in the near future.

Nearly all of these hybrids are early, blooming before the *albiflora* varieties begin. They have a very wide range of colors. The whites are remarkable for their size and purity, the pinks and reds cover every conceivable shade from palest blush to deepest blood red with corals, salmons, cherries, scarlets and crimsons of unbelievable brilliancy and purity of color. They far exceed their parents in this respect.

The real yellow specie peony is *Mlokozewitschi*, a single from the Caucasus region. It is a clear bright yellow with a beautiful plant and distinctive foliage. Unfortunately it does not do well everywhere. Maybe if we knew more about its needs some of us would be more successful with it. Its hybrids are very few as it does not easily cross with many other species. Some of them are yellow and it is hoped that full double yellows will eventually result.

Purples and near approaches to blue are possibilities that may be realized sooner than we think.

For those who desire adventure in peonies, these hybrids offer the greatest opportunity. As garden subjects for all they are not surpassed by any flower that grows.

Likewise the many herbaceous hybrids that we now have available embrace peonies of almost every color, form and size. They have lovely miniatures of exquisite delicacy, and gorgeous giants of a magnificence of coloring and charm that literally takes your breath away. Everyone who grows peonies should give careful attention to the possibilities of these flowers. They are garden subjects unsurpassed.

A peony may be outstanding in many ways. Beauty of coloring, artistic blending of tones, sharp contrast of harmonizing colors, beauty of form, or foliage or plant and for historical reasons and long life and floriferousness. Some deservedly outstanding for one or all of these reasons will be mentioned.

For historical reasons there are three that come to my mind at

once. Maybe they are not outstanding for any other. These are the first three peonies ever brought to Europe from China and from which we may assume most of our present day celebrities had their origin.

They are: **Frangrans**, a very small reddish pink flower that stands up well, makes a good cut flower and has a delicious rose fragrance, evidently the forerunner of the many delightfully fragrant peonies of today; **Whitleyi**, a large flower of maybe a bomb type. Its guards open a flesh and fade white and its collar is of smaller petals likewise tinged pink and some yellow. It has been put out under a dozen or more names as has also **Fragrans**, but the one by which most of us know it best is **Queen Victoria**, given this name many years after its first importation. These two are more widely grown in old gardens than any others and plants may be found in dozens of places that have stood undisturbed for more than a half century and are still blooming as well as ever, year after year, with unfailing regularity. The third one is **Humei**. This one is not found quite as frequently, but it is prevalent in hundreds of old gardens. It has very large broad foliage, bending stems and a very large flower of a color that may be best described by a name by which it is well-known in Virginia, **Watermelon Pink**. It has a very strong spicy odor and is often very hard to open.

The next outstanding peonies came along in 1824 when quite a number were introduced in France. One of them still ranks very high in our affections, **Edulis Superba**, an early medium deep pink still largely grown for cut flowers and in gardens for its earliness and exquisite fragrance. It is one of the grand old flowers.

The first grand white was **Festiva Maxima** and it is still one of the greatest flowers we have. No one would deny its claims if he had seen it as I did last May. A row of six plants, thirty-five years old, standing four feet tall and laden with a wealth of blooms of seven to eight or more inches in diameter, made a sight I shall long remember. While nearly a thousand or maybe even more peonies were presented to gardeners in the Nineteenth century, only a handful have retained their popularity. The opening of the present century saw outstanding peonies come along in floods and they still continue. They first came from France and England with a few from other countries, now the tide comes rolling in from North America in ever-increasing volume and long may it continue.

There are many ways in which lists of outstanding peonies might be given. They might be listed by type, color, form, garden possibilities, cut flower varieties, and so on.

The delightful singles that come to mind are of the single type. These depend on their broad flaring guard petals for their charm enhanced by the always present center of yellow stamens and anthers and also the carpels or seed pods tipped by various colors. Many hundreds of varieties have come on the market, but many of them are very similar and the really great varieties are comparatively few.

The lovely semi-doubles number in their family some of the

loveliest peonies we have as well as some of the largest and most spectacularly beautiful. When I use the term lovely I mean a flower that by its quiet beauty and exquisite color and form takes immediate possession of your heart and enthrones itself in your affections for all time.

The glamorous Japs. The name symbolizes the beauty of form and that the type numbers among its members many of the most beautiful and glorious of all peonies.

Possessing a charm and dignity that make it the loveliest peony that grows, is one with the most hideous name. *Isami-jishi* which means Smiling or Cheerful Lion. It is immaculately white with a center of pale yellow staminodes and a graceful plant with very distinctive foliage.

Undoubtedly the grandest members of the Peony family are found in the full double white, blush and light pink sections.

Still unequalled in beauty of form and perfection of flower is that grandest flower of them all, *Le Cygne*. It is a pity that it does not always bloom well in every section. One that possesses almost equal perfection of flower and is always a good performer in all climates and sections and that has the most delicious rose fragrance is *Kelway's Glorious*. Few white peonies are really pure white. Most of them will often show traces of pink. It is almost impossible to separate them for this pink often crops out in unexpected places. So do not be surprised if your supposedly pure white peony sometimes blooms quite pink.

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EASY-TO-GROW PEONIES WILL BLOOM FOR YEARS TO COME

By Art Kozelka, Chicago Tribune, Chicago, IL

Peonies are among the most rewarding perennials in the home garden. Their lavish Springtime blooms, produced unfailingly on plants that endure for generations, may be only a memory now, but they remain an incentive to set out new plants in Autumn, the traditional peony-planting time.

Given a place favored by the sun, peonies can become a permanent asset in the landscape, flaunting their immense, exquisite flowers from mid-May to early June. It is not unusual to find them flowering faithfully where they were planted 25 or more years ago. No wonder they frequently are referred to as "lifetime" plants.

Peonies will provide showy accents in mixed beds and borders and are breathtaking in massed plantings. Even when blooms are gone, their bold foliage can serve as an attractive summer hedge or as a background for other perennials and annuals.

Once properly planted and established, moreover, they require minimal care. Most other perennials must be dug and divided every few years, but not peonies. Ordinarily the only time they need be taken up is when trees and shrubs begin encroaching on their share of sunlight and when one wants to share some roots with friends.

With so much going for them, it is understandable why peonies top any list of preferred perennials. New-home owners would be remiss not to include

them in their Fall planting plans. Confirmed peony buffs, of course, need no prompting to enhance their collections with some of the newer creations offered each season.

Fall is ideal for planting, just as it is for commercial growers to dig and divide their field-grown plants for the market. By this time, the plants have produced plump eyes (or buds) below the ground, from which will emerge new growth in Spring.

Inasmuch as peonies will flourish indefinitely in the same location, they deserve the best planting site on the premises—a place where they will get full sunlight, where the soil drains well and where the dramatic blooms will be highly visible to garden visitors.

If plantings are made to create a temporary hedge, such as along a walk or driveway, make sure they are far enough from the pavement to allow for their robust growth. Such plantings, incidentally, will leave room for accumulations of shoveled snow, which can be piled over the dormant plants after the foliage is cut back to the ground.

Dig the planting hole deep enough to comfortably accommodate the plant's entire fleshy root system, but do not set the eyes deeper than 1½ to 2 inches below ground level. The latter is a critical point in planting because deeper placement of eyes is a common reason for plants failing to bloom. Space the plants 3 to 4 feet apart.

When the holes are dug, mix some compost, peat moss, or other organic material into the subsoil, then add humusy topsoil to complete the planting. Water thoroughly, and if the soil settles add more to bring it to ground level, making sure the eyes remain at the proper depth.

Although planting can continue throughout the Fall as long as the ground can be worked, the earlier the roots go into the ground, the more time they will have to become established before a hard freeze. Late-season plantings will benefit from a coarse mulch the first Winter.

Blooms of all peonies are captivating, particularly those of modern hybrids such as those in the Estate Series, featured in many Fall nursery catalogs. Developed by Charles Klehm & Son Nursery of South Barrington, these are noted for their improved form and exceptional flowers, which may measure 6 to 10 inches across.

Here are a few to tempt peony lovers: Vivid Rose, shimmering pink; Dinner Plate, huge shell pink; Honey Gold, pure white with tufted golden tints; Top Brass, pink and ivory bicolor; Raspberry Ice, red highlighted with silver; Bowl of Cream, creamy white; Pillow Talk, glossy pink with a touch of rose; and Fairy's Petticoat, ruffled pink blooms.

Coral Supreme, a newcomer offered exclusively by Wayside Gardens of Hodges, SC, has cup-shaped coral-salmon blooms that are borne in profusion on vigorous plants 32-inches high.

Peony foliage continues to be attractive all through the Summer and should not be cut down until blackened by frost. The foliage of some plant varieties assumes colorful Autumn hues as the season advances.

IN MEMORIAM

A notice was received of the death of Mrs. Earl B. White, Daytona Beach, Florida, on September 14, 1987.

Her husband, Dr. Earl B. White, has been referred to in the article in this Bulletin, "*Excerpts of Mr. George Peyton.*"

A SHORT COURSE IN PEONY CULTURE

By W. F. Christman — 1923

I have been requested by Mr. Saunders to prepare a bulletin for beginners. This, to my mind, covers a wide field, for if progressive even the professional grower of several years' experience often finds he is lacking information that should be known by the amateur. This article, however, is written chiefly for the amateur, the one who cultivates the peony purely from love or attachment and without reference to gain or emolument.

In this class may be found the following—those who have planted the peony because of its hardiness and ease of culture and are satisfied with a few plants. Secondly—fanciers who have admired the peony from childhood and who with maturing years have watched its progress and development and have made considerable progress in accumulating a collection of worthwhile varieties, and lastly, the peony enthusiast or hobbist, who is content with nothing but the best and who is ever on the lookout for new acquisitions of merit and in whose gardens may be found the aristocrats of the peony kingdom.

To the first class I would ask that you make the acquaintance of the second group and with them seek to know the peony enthusiasts, for it is in their company you will experience the greatest delight. The hobby of the enthusiast is not a handicap, for hobbies, if we know their limitations, are the sparks that ignite the oil of endeavor. They sharpen the perception, quicken the pulse and renew the mind.

It is indeed surprising the number of men of big affairs and accomplishments who have made the raising of peonies a hobby. Business cares and anxieties are forgotten or cast aside, tensed nerves are relaxed, and after a strenuous workout in the garden they can enjoy a refreshing sleep and are better prepared for a vigorous day on the morrow.

We, as amateurs, have many advantages over the professional grower, chief among which is our ability to give more individual attention to our plants, and further, our plants can remain undisturbed for any period of time we may see fit, where the commercial grower, to be successful, must transplant and divide frequently. Furthermore, the amateur can let the professional grower experiment with new varieties of unknown quality and profit thereby without any financial obligation. At the peony exhibitions it has been my pleasure to attend, a large number of most desirable prizes have been awarded to amateurs.

Some of the finest peony gardens I have ever seen were owned by amateurs and while this bulletin is written chiefly for the beginner or amateur, I trust there may be some things that the professional grower may find of interest. If progressive and well-informed, the professional grower feels that he has but slightly advanced the beginners' class, as there is always something new to learn and new varieties to

acquire.

LOCATION AND SOIL—This is naturally the first question that arises when we are contemplating any planting, and it is quite essential to know a few important facts concerning the peony to get the best results.

Drainage is very necessary as peonies will resent wet, soggy soil. **Good drainage is imperative.** Select a position where they will have full access to the sun a greater portion of the day. They should not be planted near trees or large growing shrubbery that will impoverish the soil, thus robbing the plant of essential plant food. It is safe to figure that the roots extend from a tree or shrub, a distance equal to the height. If necessary to plant nearer than this, some provision should be made for extra fertilization. The writer was called upon not long since to advise why certain plants of vigorous growth failed to bloom, and if they did bloom, why only meager results were obtained. The variety in question was **Festiva Maxima**, one of the most dependable of all peonies for satisfactory blooming qualities under adverse conditions. Plantings in question were made close to a south wall of a basement that was heated to a temperature of 75 to 80 degrees. The heat from this basement induced early growth before other plants showed signs of life and heavy frosts or freezing completed the work of damage complained of.

Have just received some photographs of the variety **Madam Forel** grown at Mine Centre, Ont., a town located 40 miles west of Fort Francis, Ont., where the temperature reaches 40 to 48 degrees below zero. They show splendid growth and are literally covered with magnificent bloom. There is no perennial flower to my knowledge, unless it be the iris, that will withstand the vigors of extreme cold and produce such wonderful bloom and still thrive and give satisfactory results in warmer latitudes. There is not a state in the union where peonies cannot be grown, but they unquestionably do better where they have a long rest with cold temperatures. Canada is now realizing the possibilities of the peony and they are being planted there in large numbers.

TIME TO PLANT—The month of September is perhaps the ideal month in which to plant peonies. The earlier in the fall they can be set the better, as this will give them a chance to become established before winter weather prevents further growth. However, peonies may be planted later in the fall up to heavy freezing weather or even in the spring and give very good results. Late planted peonies should be lightly mulched the first season. Spring planted peonies are best from divisions made the previous fall. If necessary to resort to spring planting, complete the work as soon as the frost is out of the ground or before the divisions have started any appreciable growth. The writer staged a vase of the variety **Mons. Dupont** at the June show of the Northwestern Peony & Iris Society that had been cut from plants planted the same spring and carried off first prize for the best six whites in competition with several other good whites. This, perhaps,

was rather unusual but simply shows the possibilities of spring planting where it is impossible to plant them in the fall. In this case, the divisions were made the previous fall and "heeled in," a sudden drop in temperature which resulted in real winter having stopped our fall planting activities. After growth has started in the spring it is not good policy to disturb the plants and divide them. This should be avoided. Plants taken up in the spring with sufficient earth adhering to them can be moved to another location without any appreciable damage. It is not our desire to recommend spring planting if it can be accomplished in the fall, but experience and observations covering a period of several years have taught us that spring planting can be done if properly handled, and most satisfactory results obtained.

HOW TO PLANT—All peony catalogues contain instructions as to method of planting, but some of these instructions are rather brief. Planting of peonies is an important operation and there is no ONE way to accomplish the work. Before planting operations are commenced the soil in which they are to be placed should have been thoroughly prepared some time in advance. If the ground is well enriched several months before planting time, so much the better. Dig the hole sufficiently large to permit the root to be placed in position without crowding. This is so often overlooked by beginners, and by crowding the roots they are apt to be broken from the crown or otherwise damaged so the best results will not be obtained. The next important step is to see that the crown is not placed too deep (two inches being sufficient), and that the dirt is thoroughly firmed about the roots. Some advocate using a hose or otherwise washing the soil about the roots and avoiding the packing of earth. If your ground has been thoroughly prepared and not too large quantities of dirt placed over the roots at first, pressure of the foot will force the mellow soil firmly about the roots and will also prevent any appreciable settling. Common sense must be used not to tramp on the crown of the plants as this would surely result in injury. In ordinary soil there is sufficient moisture to firm the roots without heavy applications of water which may result in baking if followed by hot weather, especially in heavy soil. If the soil is dry, water freely after the roots have been planted. Later in this article I have explained a method of rapid planting where a large quantity of roots are to be taken care of. In large nurseries they are often plowed in, a still more rapid manner of planting but as this will not be of particular interest to the amateur, raising a limited number, I will not describe it at this time. Many advocate digging a trench at least two feet in depth, placing in a quantity of manure, another layer of earth followed by another layer of manure, continuing the operation until the trench is filled to the depth of actual planting, being careful to see that the last layer applied is earth to at least 6 inches in depth. The root is then placed in position and the balance of the trench filled with earth. By the time the plant has thrown roots down deep enough to reach the manure it will have been thoroughly incorporated with the soil and fine bloom will be produced in this manner. However, to my mind this is

too laborious a task (and I am not adverse to hard work) for the results obtained. I am fully convinced that as good blooms can be secured from the commonly employed method of planting, if watered freely before blooming time and given liberal surface applications of liquid manure, wood ashes, bone meal or other fertilizing elements. The deeper the earth is disturbed the greater it will settle and where trenching is resorted to, care must be exercised to see that the buds are not placed too deep below the surface of the ground, as it may be necessary to apply more earth in the trench after it has thoroughly settled to prevent an accumulation of water which would bring disastrous results to your plants.

FERTILIZATION—The fact that many cultural directions emphasize strongly that the peony is a gross feeder and must be supplied with an abundance of well-rotted manure has led many an amateur, as well as professional, to greatly overdo the fertilization of their soil. I think it would be a safe assertion to make, that one out of ten who have grown peonies to any extent have found to their sorrow that they have over-fertilized their plants at some time in their career. It would be better for the plants to have too little nourishment in the way of enriching the soil than an overabundance of manure or other fertilizing elements. Too much manure will result in diseased plants as their constitutions will resent it. It is one of the serious temptations that beset the amateur in his zeal to attain perfection in bloom, and a word of caution, if adhered to on this subject, may save the inexperienced grower considerable disappointment.

Bone meal is safe to use, and well-decayed manure, not applied too generously and worked in between the rows or around the plants, exercising caution not to let it come in direct contact with the roots or over the crown of the plant, will be found very beneficial. Wood ashes are also very desirable.

DEEP PLANTING—The important thing in planting is not to plant too deep. If the buds are placed two or three inches below the surface of the ground it will be found they are planted to a sufficient depth. Some advocate planting an inch below the surface, but after the ground has settled you will find that the buds may actually be only a half inch or less below the surface. There is danger of plants being disturbed by heaving in heavy soil during a period of alternate thawing and freezing and injury or loss of plants results. This is why a light mulch the first year is advocated. After a plant has become established, the danger of heaving is greatly lessened. On light soil there is not so much danger of heaving. See that the ground is thoroughly firmed about the roots when planted. This can be done by a light pressure of the foot after fine earth has been placed over and around the root to prevent injury.

VARIATION IN COLOR—Plants grown on heavy soil will have deeper or more marked coloring than the same variety grown on light soil. Climatic conditions are also a factor to be reckoned with. Varia-

tion caused by these conditions is sometimes misleading. A delicate colored variety will rapidly fade in the sun and be deprived of its natural color entirely. This can be avoided by cutting the bloom as it is about to unfold, taking it in the house and keeping in a cool, dark place, until fully developed. During the blooming period if it happens to be cool and cloudy, you will have much better flowers although their development will be somewhat retarded.

HANDLING ROOTS—When roots are received from your nurseryman, if they have been delayed in transit and appear shriveled, or dried, they can be greatly benefited by being immersed in water for six or eight hours. This will revive them and much better results will be obtained than by planting the dried roots.

Some amateurs object to receiving roots that have been trimmed or cut back, in other words they want the entire length of root. A division with a root six inches long is ample. A division of this kind will throw out from the crown numerous little rootlets that will soon develop into substantial roots, giving added vitality to the plant that will mature into a splendid blooming specimen. There is no advantage in the long root, as it simply lies practically dormant in the ground without the marked development of new root growth that is so desirable and which results from trimmed roots. Proper pruning of roots before planting has the equivalent result of trimming your fruit trees. Much less labor can be expended in planting the shorter roots, which is an added advantage.

All peony plantings should be charted in such a manner that if a stake or label is removed it will be an easy and accurate matter to replace the same. An accurate diagram of your planting will be found useful many times and will amply repay you for the time and trouble expended in securing the same. It is well to have the chart or diagram made in duplicate thus providing a safeguard in case one is lost or inadvertently destroyed.

WATERING PEONIES—Where watering systems have been installed or city water is available, see that it is used generously, especially during May and early June, as your peonies are forming buds. This will be found a tremendous aid in producing fine show flowers. As a usual thing nature is rather lavish in her offering of rain during that period, and it may not be necessary to employ artificial means of water application. Another very important time for watering is during the period the next season's buds are being formed, shortly after blooming time. This feature is often lost sight of, and if a very dry summer prevails and no water is applied, smaller buds will develop with a corresponding weakness of stem the following season, although fall rains, if experienced, will counteract this to some extent. A personal acquaintance of mine who is able to grow the most glorious peonies I have ever had the privilege of examining, tells me he uses no manure of any kind but simply waters copiously. He certainly gets very gratifying results worthy of emulation. With surface fertilization

water readily transmits the fertilizing properties to the roots where they are readily absorbed.

SIZE OF DIVISIONS—This has been a much discussed question during the past few years and a definite solution has not yet been reached, each side producing very convincing arguments to champion their cause. I think it is quite generally acknowledged that the small, one-eye divisions will require more careful handling to insure success than the larger, commonly known standard divisions of from three to five eyes. The small divisions will produce beautiful plants if left undisturbed for two or three years as they will have developed an entire new root growth, but they must be given careful cultural care the first season to insure good results.

Large divisions are recommended for planting in the south. This is due to prevailing hot weather that has a tendency to reduce the vitality of the plant by absorbing the moisture content of the root.

Considerable loss has been noted where late fall planting has been done during a very dry season which was followed by a winter with scanty snowfall. If the ground is thoroughly dry it will absorb the moisture from the root, leaving it in a withered and devitalized condition that easily succumbs to a protracted period of drought. If such a condition prevails at planting time, water should be applied generously to each root planted, this process to be repeated at fortnightly intervals or oftener if deemed necessary or occasion demands.

REMOVING TOPS—I would urge the removal of tops late in the fall after the plant has attained its growth for the season. This obviates the possibility of spreading disease if plants are affected. Several forms of disease can be entirely eliminated by this procedure. The stems or tops removed should be burned. After the ground is thoroughly frozen, a well-sharpened hoe is the best instrument for cutting off the tops. If the ground is not frozen and one has but a few plants, a good, sharp knife will be found very satisfactory. Cut as near the surface of the ground as possible. If a hoe is used it must be kept well-sharpened and it is much more preferable to wait until the ground is frozen as there is less danger of disturbing the buds which are near the surface.

PLANTING IN QUANTITY—Where one has a large number of peonies to plant he is naturally interested in getting the work done as quickly as possible and as thoroughly as though slower and more tedious methods were employed. The method I am about to explain will no doubt be very familiar to commercial growers who grow in large quantities, but it can be adopted by amateurs with equally gratifying results. It is not necessary to set roots in a vertical position to insure success, although this is the most natural thing to do. Roots can be planted at a 45 degree angle as described below and prove equally desirable.

The ground should be thoroughly plowed or spaded to a depth of 8

or 10 inches and sufficiently cultivated until the soil is mellow and perfectly friable. A five-tine spading fork is the best instrument to employ for the purpose. The fork is thrust vertically into the earth the depth of the tines. This can be done without pressure of the foot if the soil has been thoroughly worked. Pull the handle of the fork slightly backwards, throwing the dirt forward. After a few holes are dug it will surprise you how near the proper angle you can get. The second operation is to reverse the spading fork, setting it vertically, as in the first instance, and with the same movement as employed in the first case you will find that the hole has been neatly cleaned and ready for the placing of plant which should be laid with the eyes or buds a distance of two inches, or possibly $2\frac{1}{2}$, from the surface of the ground. By a quick twist of the fork from either side of the opening, sufficient dirt will be thrown over the root to slightly cover it. The foot is then placed over the root below the crown so that the instep will come directly over the root, being careful not to damage the buds, and sufficient pressure brought to bear to thoroughly firm the root. The next step is to fill the hole and complete planting. This is accomplished when the next hole is dug, throwing the dirt from the second hole into the first, as described above. Of course we assume that you have previously marked out the ground as you wish it. In planting in this manner you work with your back to the mark so that your work is always before you. The depth of the hole to be dug depends upon the length of the root planted. Be sure the bottom end of the root is placed as low as possible at this angle so that it will rest in moist earth. With a little experience you will find planting can be accomplished quite rapidly in this manner and at the same time not plant too deep. The writer planted 219 divisions in 45 minutes, and has nearly kept up this average in a day's planting. This included the dropping or distribution of the roots before planting operations were commenced. With the exception of plowing in, this is as rapid a method of planting as I know of.

DISEASE—The peony, while practically free from disease, is not immune, and to be insured of plants free from disease, it is well to be conversant with a few of the indications that are prevalent in diseased plants. It is my intention to touch but lightly on this subject as the Nurseryman is the fellow who must be on his guard and know how to combat these various maladies and should have his stock healthy before disseminating it. The amateur may receive perfectly healthy plants and they may become diseased. Too much fertilization is one of the prevailing and primary causes of disease.

Leaf blotch is quite prevalent in large peony plantings. It is not a serious ailment and does not materially affect the plant. This is more prevalent late in the season as the plants are about to mature. It is a fungus disease and can best be eradicated by cutting and burning the tops before the leaves have dried up and fallen late in the season.

Botrytis blight is one of the most common diseases easily discovered in a peony planting. It affects the stems, buds and leaves.

Stems diseased by this blight are discernible in the early spring after they have attained a height of a few inches, even before the leaves have expanded. These young shoots may appear perfectly healthy upon first inspection but a few days later will be found wilted and lying on the ground. Sometimes the stalks will attain maturity and be about ready to throw a blossom when they are stricken down. A second stage of the disease is shown in the buds, which will turn black and wither. If the stalk is examined it will be found dead several inches below the bud. In very wet seasons this disease is more prevalent and often exceedingly destructive. The leaves are usually the last to show symptoms of the disease by becoming brown and dry due to the tissues being killed. Plants affected must be carefully watched and as soon as a stem shows wilt, dig down an inch or two below the surface of the ground, being cautious to carefully remove the earth directly about the plant, and place it in some container that it may later be removed to the ash can or otherwise destroyed. You will note after the earth is removed that directly below the surface of the ground the stem of the plant will invariably be rotted off or consist of a decayed mass. With a sharp knife remove the stem below the decayed portion, which will be found to extend but a short distance below the surface. In handling this diseased portion exercise caution to see that you do not touch the balance of the unaffected plant, as the disease is readily transmittable. Burn the diseased portion of the plants. This is also a fungus disease and very similar to Sclerotinia Stem Rot. If the plants are badly affected they should be dug up, all tops removed carefully as low as possible without disturbing the bud, and removed to another location. Of course this planting should be deferred to the proper season. This disease, while one of the most destructive, does not affect the root of the plant, and can be entirely eradicated if the above measures are resorted to.

There is no plant that has fewer ailments than the peony that is so entirely satisfying as a flower and general all-round perennial. Reliable growers will not knowingly disseminate diseased plants upon the unsuspecting and uninformed public. Those guilty of such procedure are not worthy of patronage, as the popularity the peony has already attained will suffer in consequence.

MULCHING—Have already referred to the mulching of plants the first season after planting. Mulching heavily to retard spring growth and extend the season of bloom is another feature well worth consideration where one has a number of plants. After the ground is deeply frozen, a mulch several inches deep should be applied to the plants that are to be held back. This can be left on in the spring until after growth starts, in fact can remain until after flowering if desired. When the plants start growth in the spring they can be assisted through the mulch with but little trouble. The earlier this is done after growth starts the better, as the stems will be more firm. Mulching interferes with cultivation but is a splendid medium for the conservation

of moisture. Repeated heavy mulching has a tendency to lessen vitality. Millet cut before maturity, ensilage corn, marsh hay or any coarse material free from weed seeds will make a good mulch.

SELECTION OF VARIETIES—Visiting nurseries where peonies are grown, trial grounds and exhibitions where peonies are displayed, is the very best way to become acquainted with the most desirable varieties. This in connection with a careful study should enable you to make a selection that will be satisfying and in every way fulfill your expectations.

In making your selections bear in mind that a flower of delicate texture and coloring is easily affected by exposure to the sun. Sensitive colors will readily fade and even colors more pronounced are diminished in intensity. Selection generally resolves itself into one of personal taste. Some prefer the singles, others the Japanese types or the loosely built flowers; still others are only satisfied with the fully developed double blooms. As the double blooms usually have more substance they are more often chosen than any other type. Varieties producing large blooms are usually selected, although the smaller blooming varieties should not be overlooked. Quality should be given first consideration. This refers both to the flower and the productivity of the plant. Free blooming varieties are the most desirable. A well balanced selection will compose early midseason, and late blooming varieties in the various shades and colors. If to be planted in a border, dwarf, medium and tall growing species should be selected according to requirements. Period of bloom may be extended several weeks by securing a well-balanced collection of the earliest blooming sorts, continuing through the midseason and comprising the very latest blooming varieties. Where tree peonies can be grown with success, they will add greatly to any collection.

DIVIDING—If for any reason it becomes necessary to divide your plants due to crowding or wishing to make an exchange or contribution to some friend's garden, do not attempt to divide without first digging up the entire plant. If you do, you will not do a satisfactory job and will likely do a great deal of damage to the remaining portion of plant. As soon as the plant is dug the tops can be removed. Dividing should be done in the early fall months as the plants at that period have formed their buds for the following year. If the plants are brittle, let them stand for two or three hours and they will admit of handling without as much breakage resulting. If the plants are old, division is much more difficult. Any earth that adheres to the plant should be removed before attempting to divide. Examine the clump carefully to determine where the weak places exist. These are the places where you should make your initial effort to divide the plant. Use a heavy knife that will admit of considerable prying as you will find necessary in making divisions. Make good, strong divisions. By this I mean divisions consisting of at least three to five eyes. Sometimes it will be found necessary to cut through the fleshy portion of the plant in order

to make your divisions. Do not hesitate to do this. After you have your first division, the remaining ones are usually more easy to make. Dividing plants properly is an artistic accomplishment and takes considerable practice. This is especially true with very rare varieties where one cannot afford to lose a single division. The main object is to see that each division is supplied with three or more eyes with sufficient root to balance. In dividing I use three knives. One with a heavy, stiff long blade to pry the roots apart when necessary, one with a shorter blade of rather heavy material, and a still shorter knife with a flexible or pliable blade that is used in the final work of completing and trimming the divisions. Of the three, the one with the flexible blade is the most used.

FAILURE TO BLOOM—Some of the outstanding reasons for failure of peonies to bloom may be summed up as follows:

Too deep planting.

Over-fertilization causing diseased roots.

Sour or acid soil.

Insufficient moisture.

Lack of fertility.

Damaging eyes in early spring with rake or fork.

Unseasonable frosts or freezing in late spring.

Numerous eyes without sufficient root support.

Too deep planting will cause the plant to form buds nearer the surface in an effort to right the wrong. These buds will be formed along the stem at intervals and result in a large number of weak stems with insufficient strength to hold or develop bloom. If a choice variety it can be dug up and cut back to one bud on each main stem and replanted in a new location, or the earth replaced with fresh fertile soil, being careful to plant so the buds will not be deeper than 2 or 2½ inches below the surface of the ground. By careful cultivation a plant may be revived and in time regain its former vigor. With an inexpensive plant I would recommend discarding it.

I have spoken of **over-fertilization** earlier in this article. Heavy and continued applications of manure or other fertilizers will cause your plants to become dyspeptic in resenting the rich diet, and the roots are likely to rot. Especially is this true when manure has been placed directly over the plants. The alternate thawing and freezing during the spring months will allow the liquid fertilizer to enter the crown of the root through the hollow stems of the plant and come in direct contact with the root. Damage will surely follow in such cases.

* * * *

"This article is in reality a fine small handbook for peony growers and most of it is as applicable today as it was then."—Mr. Peyton. Dec. 1955, Manuscript written 1923.

According to the records, Mr. Christman was elected (not appointed) as Secretary and Editor in 1924 and held these offices until he resigned June 1951. He prepared and published 103 Bulletins.

He was a member of the Society from 1919 until his death — 36 years.

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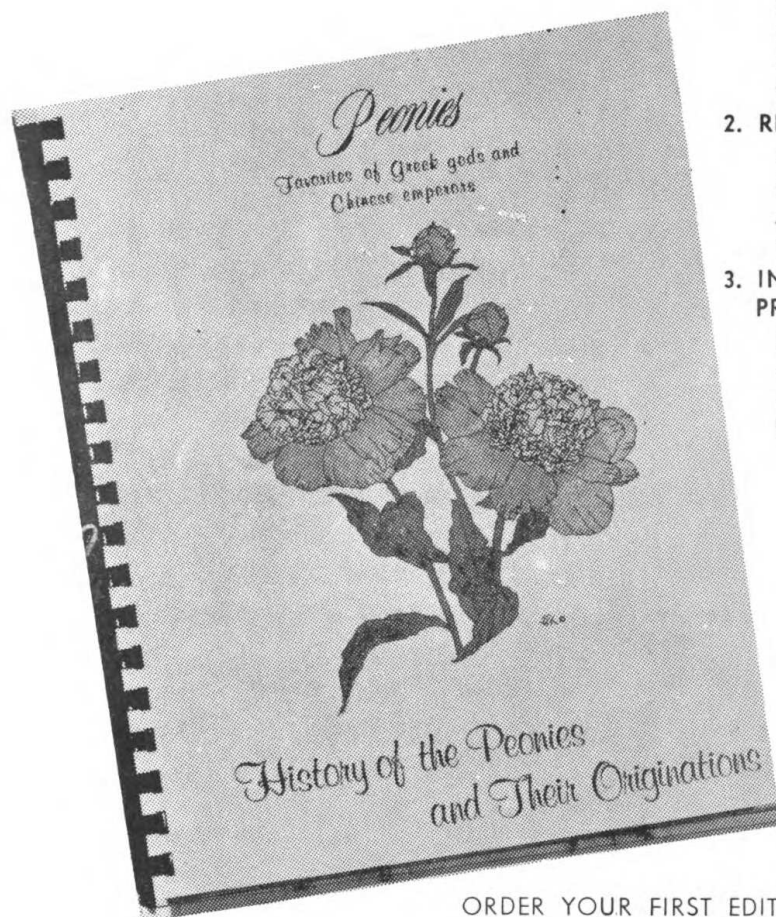
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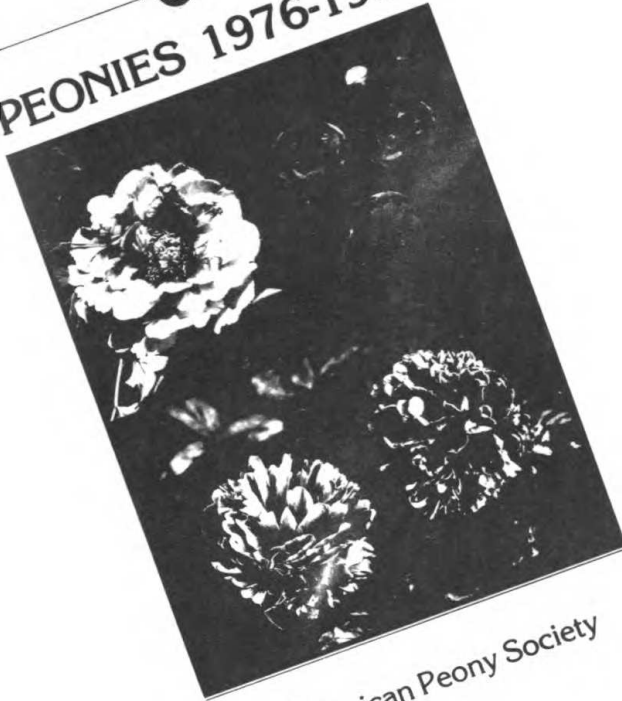
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