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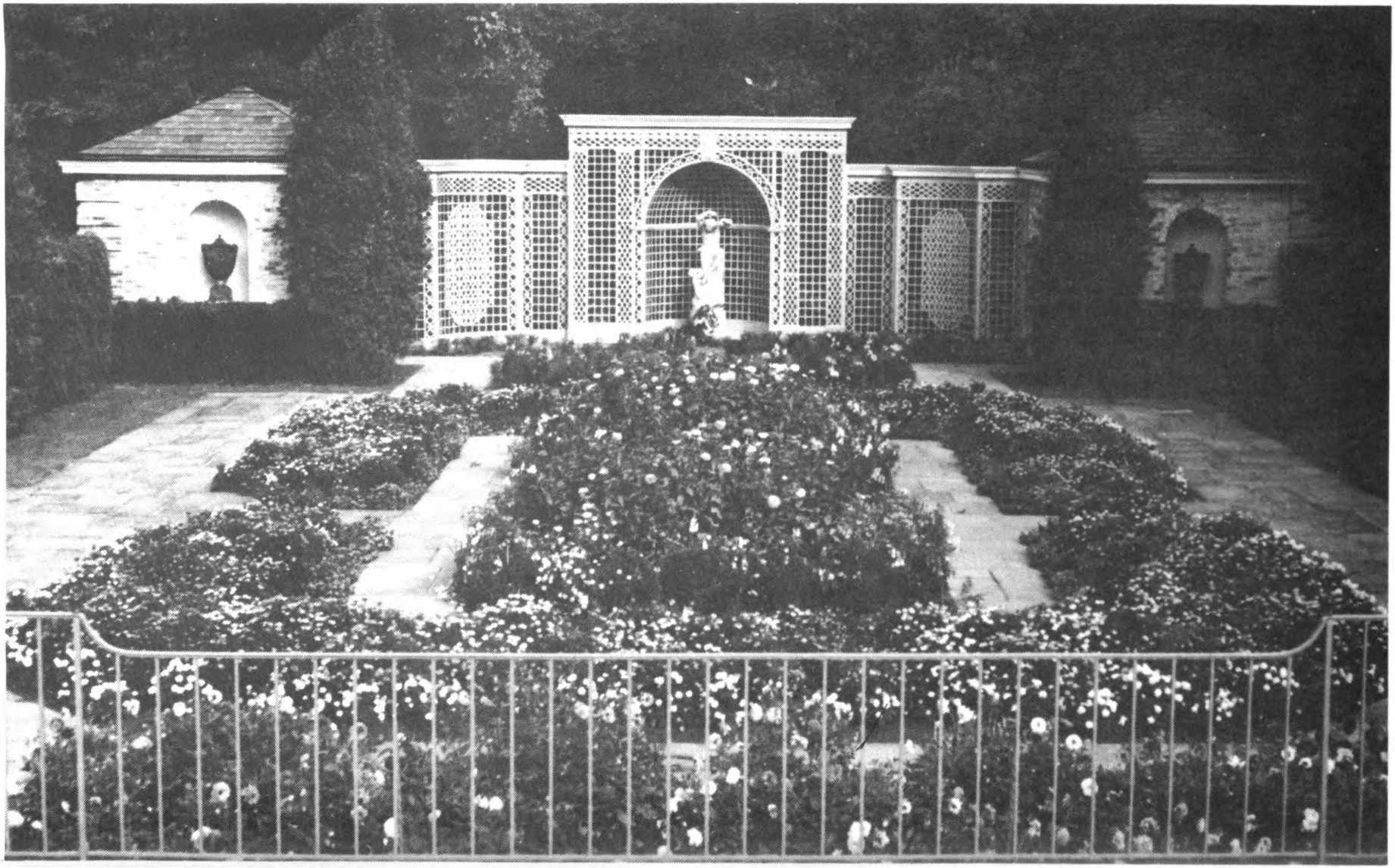
The American Peony Society Bulletin



NATIONAL CONVENTION OF THE AMERICAN PEONY SOCIETY

June 9 - 10 - 11, 1978

The 75th Annual Meeting and The 73rd Annual Peony Exhibition

Kingwood Center, 900 West Park Ave.
Mansfield, Ohio

EDITORIAL

Seventy-five years ago, the American Peony Society was organized in New York. A decision was made to correct the nomenclature and increase the general interest in the use of the peony. Also to stimulate the growing and introduction of seedlings and crosses of the flower. It was not easy. It took years and patience. The Society grew slowly. While the membership dues were small, money was not plentiful. Exhibitions were held, and the Society gradually began to move westward, and more people became interested in the peony.

These dedicated men gave to this generation a Society formed, Incorporated, with By-Laws to follow, a corrected nomenclature, and a Peony Bulletin. Continuing on, there has been some faltering footsteps; but the Society prevailed because of men in the present day that are, too, giants of the time.

Who were these dedicated men of the past? All of us should know something about these peony greats. In this Bulletin, you will read of their work, their interest, and their love of the peony. Some articles are written by them and some about them. No doubt you will compare. Can we do what they have done? Can we leave this organization for another generation on such a solid foundation as these great men of the past have done? Can we contribute as much?

We will try, and as our generation passes, we would hope that another Editor will be writing about you and summing up your contributions, not forgetting the loyal support that you have given so that they might profit from our work accomplished.

But now we stand in salute of the Peony Giants of the past.

AMERICAN PEONY SOCIETY

250 Interlachen Road **(612) 938-4706** Hopkins, Minn. 55343

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Vice President ..... Dr. Carl H. Klehm
Secretary-Treasurer ..... Greta M. Kessenic
Bulletin Editor ..... Greta M. Kessenic

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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 of member family	2.50
Single Triennial	20.00	Life	150.00
Family Annual	10.00	Commercial membership	25.00
Family Triennial	27.50		

Family membership, any two related members in same household — One Bulletin.
Junior membership, any age through completion of High School — Separate Bulletin.

For those who wish to further support the Society, the following special memberships are available.

Contributing	$ 25.00	Supporting	$100.00
Sustaining	50.00	Patron	250.00

AMERICAN Peony Society Bulletin

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FROM YOUR PRESIDENT

It is hard to bring into proper focus until one dwells on it but our Society is truly one of great vintage! This year marks its 75th Anniversary. Despite two major wars, several major and minor depressions and recessions, our Society has continued to give peony fanciers an outlet for expression year by year.

As I thumbed through several old Bulletins and John Wister's book, **The Peonies,** I am overwhelmed by references to so many 'GREATS' in the peony world who have made outstanding contributions to the Society. Such names come to mind as Bertrand Farr, A. P. Saunders, Dr. Hyde, A. M. Brand, W. F. Christman, Charles Klehm, who was instrumental in helping to found the Society in 1903, with Mr. Chas. Ward, the first President.

Today, our Society certainly bears a most enviable stature. I feel certain it will continue to grow as long as we remain determined to promote it through our Bulletin and shows and continue to expand our list of registered varieties of peonies which the general public find so impressively significant.

Within a few weeks we will be exhibiting the world's finest peonies at the National Convention, Kingwood Center, Mansfield, Ohio. In the meantime, while the north central states remain buried in snow, as of this writing, our peonies rest beneath, awaiting spring's first burst of warmth.

Great days are coming for our peonies. We look forward to them with exciting anticipation.

Best regards,

Joe Glocka

PLANTING AN IDEA

By Anthony J. DeBlasi, E. Wakefield, New Hampshire 03830

For a gardener, spring is hardly a time for daydreaming. There is too much to do! Ground to prepare, seeds to sow, plants to set or move, feeding, repotting, pruning. Everything all at once, coming every which way! Muscles grown lazy through the winter months are suddenly called to stretch in peculiar ways. Amid the blur of activity, a Mourning Cloak alights on the path, spreading its gilt-edged brown wings to catch the sun. They flap a few times to settle the difference between flight and rest, then hold still as the butterfly slips into secret trance. It seems to invite us to tarry a spell and allow a daydream or two of our own while we give our muscles a chance to recuperate.

Close your eyes, if you like, and let the warm sun stream over your face. If you enjoy meditating, let your mind go blank. Chances are, though, that your mind, agitated and restless from the business of spring, will choose this excuse to picture what you would like to see in your garden. (As a peony fancier, I assume that your favorite plant is the peg upon which you hang your gardening schemes.)

Do you see a row of peonies widely spaced along a wall, in the company of spires of delphinium or hollyhock, edged and filled with ageratum and petunias? Do you see a sundial surrounded by a slightly oval brick walk flanked by a roundish border featuring several specimen tree peonies and dressed up and finished off with spring-flowering bulbs followed by herbs and geraniums? Do you picture a corner of your house dominated by a tree peony, accompanied by daffodils, bleeding hearts, coral bells, shasta daisies, iris, daylilies . . . ?

Stop with the first picture that spurs your desire and walk over to the very spot you have been daydreaming about. Is there enough sunshine here (at least half a day)? Is this spot far enough away (at least 12 feet) from a tree or (at least 8 feet) from large shrubs? Does the top layer of soil periodically dry out or is it always moist, even in long stretches of dry weather (ground too wet for peonies—find another spot)?

Is the ground clear, or are there plants, trees, stumps, in the way? If there are perennials popping up, or about to, that are not part of your picture, now is a good time to move them. If there are woody plants to move, do it now. If there is anything at the chosen site that you do not care to save, make a note to remove it **before** the fall planting. You will have enough to do then. The sooner the better, since you can then lay out your design and prepare the planting holes. It is better to be the one waiting for your stock than have the stock waiting for you.

If your plan includes perennials, you may move them into place, marking your future peony positions with a heavy stone or firm stake. Do not plant anything closer than 6 feet away from these markers unless they are to be low edging plants. In that case, it would be good to hold off planting them until the peonies are in place, since these little plants may get buried or trampled in the shuffle.

If you have imagined a wall, a fence, a hedge, a statue, a bench, or any other landscaping accessory in your design, are they actually present at the site? If not, you will have to make provisions to get them in place sometime during the summer if you would like your picture to take shape next year.

If you have not decided what varieties to order, plan trips to nurseries, gardens, public or private, where peonies are grown. Consult past Bulletins for recommended varieties, if you are hesitant. Pick your favorites; then place your order. Putting this pleasant task off may mean ordering too late and having to plant second- or third-choice varieties in late November.

Finally, and most important, prepare the ground where this dream is to come true. Loosen the soil to the depth of a foot. Till or spade in a generous supply of organic matter (compost, peat moss, aged manure) plus bonemeal. The holes where the peonies are to go should be deeper and all poor soil discarded and replaced with your best. Now I am not suggesting that you do this hard work now. Certainly your vegetable patch, spring pruning (not of tree peonies!) or whatever you were engaged in before the butterfly interrupted you, has priority. Get back back to it, but as you plant the carrots or prune the roses, remember your new assignment and keep that beautiful picture in mind. You will want to keep it for future reference.

Your spring garden chores are likely to proceed rather more smoothly after this refreshing pause. After you have put in a good day's work, filled your lungs with the invigorating springtime air, washed up and had supper, you may want to fetch paper and pencil to record your thoughts before they slip too far to the back of your mind.

WINTER HARDINESS FOR TREE PEONIES

By William J. Radler, Asst. Director
Boerner Botanical Gardens, Milwaukee, Wisconsin

The hardiness of tree peonies has been a controversial subject. My experience of last season's tree peony performance made me believe that tree peonies definitely differ in winter hardiness. During the last four years I have been collecting data on tree peonies' performance at the Boerner Botanical Garden. The purpose of the

study is to determine which tree peonies are most dependable for their bloom. We have ninety-one tree peonies planted in various parts of the garden from positions of full sun to partial shade. Fall preparation for data collection is begun by cutting off the tip of each cane to the top most swollen bud. Since the wood above this bud dies anyway, its removal leaves a plant for which winter dieback is easily assessed.

In the spring of 1977 nearly all the lutea hybrid peonies had died to the ground. Some of these injured plants bloomed on new basal canes while others produced no bloom at all. The Japanese and European tree peonies suffered greatly with loss of bloom on many, but none died to the ground. No bloom was experienced on new basal canes for these types, even when injury was extensive. The last four years of data colection on these tree peonies have given me a tentative list of dependable plants which bloom well even after a severe winter and a severe late spring frost.

Alice Harding — bloom hidden in foliage
Anya-no-hikare
Beikoku
Cho-jyraku
Duchesse de Morny
Golden Hind
Hakuo-jishi
Hana-daigin
Hinode-sekai — probably misnamed since the bloom is a glowing deep pink
Hira-no-yuki
Magenta Japanese — unidentified, very similar to **Hana-daigin**
Mine d'Or — blooms well from basal canes
Okina-jishi
Red Japanese — unidentified
Renoun — blooms well from basal canes
Taisho-no-hokori
Tsukie-Moi-tiske — identity questionable, a Japanese white

PRESERVATION OF PEONY VARIETIES

by David A. Ringle, Spring Hill, Kansas

A brief article that I wrote on this topic of peony variety preservation appeared in the March 1976 issue of the American Peony Society Bulletin. Other peony enthusiasts have also expressed an interest in this subject (for example, Keith Goldsmith and Chris Laning in the March 1977 issue of PAEONIA). Apart from planting some additional peonies, I have done virtually nothing since March of 1976 to promote the preservation of "endangered" peony varieties, although I still think it would be a worth-

while activity from several viewpoints. From a strictly historical point of view, it would seem valuable to maintain stocks of at least some of the earliest peony varieties known (such as **Fragrans, Humei** and **Whitleyi,** if they can be found), as well as many of the superior introductions of both the early and the contemporary notable peony breeders. From the point of view of their usefulness in continuing efforts to develop new varieties and hybrids, one could also hope to retain as many of the better varieties as possible. For breeding peonies, as well as for breeding all other plants and animals, superior and varied genetic stocks are an invaluable asset. Finally, from an aesthetic viewpoint, we would hope never to lose these beautiful creations, and especially not the superior ones, acquired over so many generations and with so much dedicated effort.

Of course, it is easy to want to have peony varieties preserved and to personally have access to these varieties, but it is far more difficult to establish a functional and enduring mechanism for their preservation. I discussed briefly in my earlier A.P.S. Bulletin article some of the problems associated with peony variety preservation, and, as I pointed out in that article, probably the most difficult problem would be creating a mechanism for maintaining and allowing access to varieties selected for preservation. Perhaps the only practical way to achieve this mechanism would be through one or more of the commercial peony growers or nurserymen working in collaboration with the A.P.S., since the commercial enterprises already have the knowledge and facilities required for efficiently maintaining and distributing peonies. Without speculating about the bureaucratic restrictions and paperwork that might be imposed on individuals growing peonies in the future, and without debating the possible merits of present and future governmental regulations, existing regulations might well cause some difficulties in the distribution of peony divisions by individuals participating in a preservation program. For example, would certificates of inspection be needed for shipment of peonies, and would elaborate cost records be needed to avoid adding the full value of peony exchanges to one's income tax tally?

Nevertheless, ignoring the aforesaid problems, it might be possible to achieve some sort of practical peony preservation mechanism entirely through non-commercial efforts of dedicated individuals working in conjunction with the A.P.S., as suggested in my earlier communication. For example, volunteers could elect to propagate a number of different peony varieties (selected from a preservation list drawn up by the A.P.S.) and provide the A.P.S. with a list of the varieties being grown and potentially available to interested peony enthusiasts. Presumably central records could be maintained by the A.P.S., so that locations of all the listed varieties

would be readily accessible and made known on request (perhaps for a nominal service fee). Modern computer technology would make such record keeping and retrieval entirely feasible, although even a relatively simple index card system would be sufficient if the number of varieties and preservation locations did not become too large. In any case, I, for one, would gladly volunteer to grow a number of varieties (e.g., 20 or 30) in duplicate and specifically for occasional distribution to individuals desiring them—particularly if the varieties are not readily available commercially. If others would join me in this endeavor, perhaps a significant number of historically important varieties (which may now be in danger of being lost) could be maintained.

As a first step toward establishing a functional peony preservation mechanism, it would be useful, perhaps at the next A.P.S. National Convention, to appoint either a committee or an individual to the task of planning and instituting a practical peony preservation program. Along with considering ways to preserve peony varieties, some group or individual should be thinking about how to select the varieties which are to be designated for preservation. Of course, an integral part of the overall program would be procuring these varieties and, in addition, verifying their authenticity. Procurement and verification is certain, for some of the older varieties and even for some of the relatively newer ones, to be difficult or even nearly impossible. In passing, it occurs to me that one of the most useful things that the A. P. S. could do, either apart from or as a facet of the variety preservation program, would be to compile a directory (as complete as possible, and periodically updated) of all active peony growers and sellers as well as individual peony enthusiasts known to be willing to sell, exchange, or otherwise make available some of their peony varieties. Annual publication of such a list would, I believe, greatly facilitate efforts to find specimens of the rare varieties as well as stimulate interest in growing peonies.

Maybe, as a simple beginning for the project of peony variety preservation, all interested individuals could send in a brief note to the A.P.S. to indicate their degree of enthusiasm for the idea, to offer any suggestions about how it could be effected, and (hopefully) to volunteer to help in the project.

THE PEONY PATCH IN '77

Ben Gilbertson, Kindred, North Dakota

The summer of '77 had its surprises as well as its disappointments. First, I was really surprised to see every peony plant both established and newly planted ones make their appearance after a whole year of severe drought with a bare two inches of rainfall for

the entire growing season and no snow to speak of in the winter.

We really had no spring, but cold and windy weather prevailed until around April 10, when we came into full summer all at once. Had our last freeze just prior to that, then summer temperatures and some very good rains which got everything going in good shape.

Everything in the peony patch grew well this year, but good flowers were mostly non-existent; as I understand, much of the energy that goes into the making of a good flower is stored up in the plant's roots the preceding season, and that being as it was, very poor, we did not expect much in the way of bloom. The early varieties showed the most adverse effect, but the late ones also were poor.

Then when I was digging out a row of new seedlings which had finished their first blooming period so that I knew what they were like, I came upon one dwarfish plant that did not show itself from above where its companion plants were 24-30 inches tall. I found one plant that had leaves patterned like tree peonies on short wiry stems about 8-10 inches tall with color and texture like Lacti., no terminal buds but with two of its 4 short stems each having a well developed bud about one inch above the ground level and a good number of buds on the crown so that I made four good divisions from it for replanting. My records show that the parentage is **Alice Harding** tree peony, pollen parent, and **Plainsman,** the seed parent. Since this plant has never bloomed, we shall have to wait and see what it will give us.

One other than the above mentioned hybrid which seemed good enough to keep and replant was a very husky growing dark plum red double that divided beautifully, and I have made eleven good divisions from it that were replanted, truly a record number of divisions from a first plant, in my book, at least.

Possibly also worth mentioning are two plants due to be dug out next year. In a section of a row that my records show to be planted to seed from **Claire de Lune**—open pollinated as the seed source, there are two plants. One is a quite tall single stem plant which looks very much like **Claire de Lune** itself and seems ready to bloom next year. The other one is very much smaller and has the typical grey-green foliage of **Mlokosewitschi,** one of its grandparents, only one stem about four inches tall. I do not know how old it is as I had never seen it before. The row was planted in the fall of '72 but the small one may not have come up for a couple of years later. Here, too, we must wait.

A six or seven-year-old **Mlokosewitschi** graft which had refused to establish any roots of its own, but was growing on an immensely enlarged Lacti root which was some 2-3 inches in diameter one and one-half inches below the graft, was dug up and the root

cut through at the graft union. The crown with buds was then cut into four equal parts and replanted as they were, just to see what they would do. This variety, which I have worked with some twenty-five years without any worthwhile result, has been the most disappointing peony that I have worked with.

All new material planted last fall came on very well. The five roots received from Lithuania, U.S.S.R., fall of '76, all produced very nice plants, and most of them should bloom next summer. The eight we received from Don Hollingsworth all did well, and nearly all are expected to bloom in the coming season. The plant of **Roy's Best Yellow,** received from Roy Pehrson, gave me, through grafting, the original plant, which had one nice bloom, plus four new grafts that stayed green all summer.

The four plants received from Leningrad, U.S.S.R. in the fall of '73 have now all bloomed. **Poceda** is a very tall hybrid, single purplish pink. **Novestj** is a good double dark pink with no pollen or carpels; the bloom is too heavy for the stem, so they go down rather easily. The third plant, **Anomala L.,** has had trouble surviving, but still had one stem, but no bloom, this fourth year. It did bloom the second year I had it—one single, nodding, purple bloom. The fourth plant, the **Tenuifolia 'Pall,'** finally came through with one small single purple bloom which had opened one morning when we had a very heavy rainstorm early in the day, so that when I got to see it, it looked like a drowned rat. It seemed to have good carpels, but all pollen had been washed out by the heavy rain, so I pollinated it with common **Tenuifolia** single pollen, but with no result.

Going back to the **Anomala L.** root plant, I also had received seeds of this variety which had been picked in the wild by my contact there in the Altai Mountains in eastern Siberia. These plants look quite similar to the first mentioned, but have a much finer leaf division and so far have survived four winters with no apparent difficulty. I do not expect any bloom for at least two more years.

I first began hybridizing peonies in 1955 when I found a single bloom on the variety **Phillippe Rivoire,** a variety that had never had anything but full double flowers in the ten or more years that I had been growing it commercially, and I never saw another bloom with pollen after that either. Although I had carefully marked the plant that produced the pollen bearing flower and divided and replanted it, it never again provided me with another pollen bloom in the many years thereafter that I continued growing that plant's line.

This, then, makes 1977 the twenty-second year that I have been doing this kind of work. I have enjoyed it immensely, with many very pleasant surprises and some disappointments. As I men-

tioned before, **Mlokosewitschi** probably was my most disappointing species or variety, with **Oriental Gold** a close second.

Since I have had surgery on both of my knees, I can get around almost as well as I ever did, and I am looking forward to many more pleasant surprises in the years to come in the Peony Patch.

A HOME NURSERY FOR PROPAGATING PEONIES

By Don Hollingsworth, 5831 *N. Colrain Ave., Kansas City, Missouri*

Mail order nurseries have long known truths about what to say in catalog copy that today are basic to the success of America's booming direct mail marketing industry. One is not to try to fool the client. Another is that the copy must instruct the prospective customer in how the potential benefits can be made to come true.

Over the years I have come to regard some nursery catalogs as being especially valuable and stimulating sources of information. One of the best to be found in my little hoard of such references is "A Short Guide to the Best Varieties," the catalog of Kelsey Nursery Service, Highlands, New Jersey—now defunct, in so far as I know. The best thing about this catalog is that it treats the reader as a serious student of landscape horticulture. In keeping with that, it presents a great deal of pertinent information in a concise manner. This nursery typically offered by mail selected cultivars of trees and shrubs that even today can rarely be found at local outlets. They also offered many items in a nursery liner size, enabling them to ship economically with small root ball for long distances. Liner grade materials are not only too small for landscape appearance, they often need survival protection until they get established. In keeping with the character of this nursery's promotion style, they described a home nursery set-up that might occupy a corner of the garden and went on to advocate its adoption. The following is an excerpt taken from one of their catalogs.

Start a

HOME NURSERY

Wise old gardeners, you will notice, always have a few rows of trees and shrubs growing for future plantings. They do not depend upon buying everything as they need it. Now that we are coming out of the age of jazz and impatience, we should remember the quiet wisdom of older days. Do not wait until you need trees—large ones and in a hurry—but look over your grounds and plant what you may need 3, 5, or even 10 years hence.

1. Save money and labor
2. Save disappointments
3. Save delays
4. Increase your enjoyment
5. Rare and interesting
6. Culture not difficult

Increase Your Enjoyment. There is very real enjoyment in watching young trees develop and mature.

This is one of the few luxuries which not only costs nothing but actually saves you money.

Lath Screen is important for young plants the first summer. Simply build of ordinary lath and a few nails. Screen is rested on posts.

Heel-in Area. Even a tiny spot kept free for this purpose, enables one to temporarily plant a shipment of plants the day received. They can safely remain for weeks if need be before permanent planting. Water well.

Soil Preparation. The lath-house soil should be sandy loam with an original dressing of three inches of manure worked on to a spade depth. The nursery itself can be heavier soil, but requires manure as well. Avoid lime.

For several reasons, it appears the time has come to advocate the adoption of home nursery plots by members of the American Peony Society. Many, no doubt, will already have them. A nursery plot makes possible a level of gardening activity that is much needed just now for propagation and development of rare peony plants for distribution. The number of nursery growers who specialize in peonies is currently declining.

The old peonies and the rare peonies that are of special value only for hybridizing simply do not compete for nursery space. Commercial production patterns are moving unrelentingly in the direction of high volume production of fewer varieties. If the "other" peonies are to remain in existence as known kinds, it will be through the efforts of persons such as the individual members of the American Peony Society.

Being a Society member on a "spectator" basis is enjoyable but not nearly so much as being a participant. Making available a few plants of unusual kinds from one's own garden is one way of making a "participant sport" of one's Society membership.

Kelsey's home nursery plan is not offered as a model for peony propagation, though it may be adequate to the need. My own experience with scrappy divisions of herbaceous peonies and tree peony grafts in the midwest suggests some ideas. Shading is often helpful. I use aluminum fly screening in long pieces, supported by a framework of rods and stakes. Soil should be bulked up in a manner to preserve good aeration for six inches to a foot deep. Lightweight container mixes that are commercially produced are very satisfactory for this purpose. Raised beds will assure drainage and help maintain the desired aeration. Good aeration is especially important for rapid root production. Good use can be made of seven-inch or larger plastic containers, provided protection from severe cold temperatures can be given.

Containers allow closest spacing of the plants and preclude disturbance of adjacent roots when a plant is removed. Each person

will evolve a combination of techniques that suits the situation. Once action is taken on the idea of a home nursery, the techniques follow, as need is found.

There are some references in former issues of the Bulletin that especially merit re-study in the above connection. Some examples of these are:

Helmling, Fred C. "Peony Root Diseases" and especially "Winter '77 and Micro-Foam." A.P.S. Bulletin #222. June 1977.

Reath, David, "Root Grafting of Tree Peonies." A.P.S. Bulletin #213. March 1975. Also in **Handbook of the Peony**, 3rd edition, 1977.

Lienau, Clarence, "Digging and Dividing Old Peony Roots," A.P.S. Bulletin #210. June 1974.

Gale, Roy C., "Roots, The Hidden Key to Peony Success." Submitted by Karrels, Marvin and reprinted in Bulletin #209. March 1974.

FIFTH DISTRICT PEONY DAY

The Fifth District had their annual meeting Sunday, November 20th at The Abbey in Fontana, Wisconsin. This is a beautiful resort on the shores of scenic Lake Geneva.

A very extensive and delicious brunch was enjoyed by all including the seven children in attendance. Also at the meeting was Eldred Green and his wife, Elizabeth, Garden editor of the Chicago Sun Times and Art Kozelka and his wife, Jean, Garden Editor of the **Chicago Tribune.** Officers and directors also present were: Joseph Glocka, President of the American Peony Society, Dr. Carl H. Klehm, Vice President of the American Peony Society, and directors Marvin Karrels and Ted Mysyk.

Fifth District President, Robert Rose and his lovely wife, Fifth District Secretary, Judith Rose did a fine job on preparations and meeting program. A root auction was held to raise money for the district, and a memorial was voted to remember and respect an outstanding member, Leonard Jugle, who passed away suddenly in late October. Marvin Karrels gave an interesting commentary on the past National Show variety winners. It was mentioned that Marvin was a founder of the Fifth District some thirty-one years ago and has not missed a single meeting. Everyone complimented Mr. Karrels. Joe Glocka nominated him to serve as the next District President. Needless to say, the vote was unanimous.

The Fifth District would like to recognize and thank the officers and directors of the National Society, and especially would like to thank Greta Kessenich for all her unselfish help and efforts

which she daily expends for her friends in the American Peony Society.

Respectfully submitted,
By ROY KLEHM

Over the thirty-one years of existence of the 5th District, we have been saddened from time to time by the passing of some of our members. This year, we observed a moment of silent meditation for Mr. Leonard Jugle. Leonard was looked on as our official photographer for many years. He often showed his colored slides and movies of his own and other peony plantings. We will miss him.

As usual the tables were beautiful. Fall colors of yellow, brown and orange chrysanthemums predominated in the arrangements that were on each table. A huge centerpiece of the football mums with pom poms intermingled, graced the speakers' table.

As President of this organization that is so close to my heart, I want to thank the members, both old and new, for their steadfast loyalty and help to perpetuate this segment of the American Peony Society. This organization constitutes some of the finest people that I have ever known. I plan on some interesting features for our next fall meeting and invite all to be with us again. My daughter, Elaine Risch, will be the Secretary and Treasurer.

Marvin Karrels

IN MEMORIAM

John F. Gordon, Royal Oaks, Michigan, retired President of General Motors, died Jan. 6, 1978. In the early years he designed engines for the Cadillac Division and was named Vice President and General Manager to the corporation in 1946. Later he was in charge of the GM engineering staff and group executive in charge of the body and assembly division. He was elected president and chief operating officer in 1958 and held that position until his retirement, 1965.

"General Motors and the entire automobile industry lost a real friend, outstanding leader and great engineer with the death of John F. Gordon," said Thomas Murphy, GM Chairman and Chief Executive Officer. —Miami Herald

Mr. Gordon was an ardent peony grower, loved the big bloom of the peony. He was a frequent visitor to the Lienau Peony Gardens during blooming season. He always planted more peonies every fall and had just recently made a large planting of the cutting varieties. Cut flowers were always given to his many friends. He was a member of the American Peony Society, always reading the Bulletin, especially interested in the flowers that were placed on the Court of Honor.

REGISTRATION

DAKOTA PRINCESS (6414) Ben Gilbertson, Kindred, North Dakota 58051. Dec. 19, 1977. Parentage. **Laura Dessert,** seed parent x **Seedling 5908,** pollen parent. First bloomed 1970. Light pink, double lactiflora. Good substance, no stamens, pollen or seeds. No fragrance. 28" height, late bloom. Stem strength good. Sometimes blooms are very large and need staking. No disease problems, good grower, average rate of increase. Medium green foliage.

HOUSE GUEST (K 605) William H. Krekler. December, 1977. Double pink lactiflora.

RAPID PROPAGATION OF HORSERADISH BY *IN VITRO* TECHNIQUES AND POSSIBLE RELATIONSHIP TO THE PEONY

by Martin M. Meyer, Jr., and G. M. Milbrath[1], University of Illinois at Urbana-Champaign

Dr. Martin M. Meyer, Jr.

The purpose of this article is to explore the possible relationship between an easily propagated, herbaceous perennial (horseradish) and a more difficult one (peony). This work was carried out in cooperation with Dr. G. M. Milbrath, a virologist. This work is also reported in HortScience, Vol. 12, No. 6.

Horseradish is a favorite condiment for meat sauces of many people in the world and one of the few vegetable crops propagated very easily as true root cuttings of cultivated varieties. This tends to perpetuate viruses and virus complexes or any other root borne diseases which cause a yield reduction. Virus-free plants can be obtained by heat therapy and meristem explants, but the introduction of new and virus-free cultivars takes time for building stock for release. The stock is subject to reinfection from existing varieties and other members of the Cruciferae family during the stock building period. We decided to try leaf cuttings of a virus-free plant of the Big Top Eastern variety of horseradish.

We found whole leaf cuttings would root under a mist propa-

[1] *Present address*: *USDA-ARS, P.O. Box* 5098, *Salina, CA* 93901

gation system and give two or three plants per leaf. When the leaf was cut into smaller pieces, similar to Rex begonia propagation, these pieces died before any plant production. However, smaller pieces of leaves could be made to produce many plants on an agar medium under sterile conditions by **in vitro** or test tube techniques.

Recently mature leave 6-8 in. (15-20 cm..) were carefully rolled and immersed for 15 min. in a solution of 0.5% sodium hypochlorite (10% Chlorox) with detergent added. The leaves were then rinsed with sterile distilled water several times and sectioned on filter paper moistened with 0.1% citric-0.1% ascorbic acid. Experience has shown that easily cut pieces of a rough triangular shape ½" across works better than a 1" leaf disc for horseradish. Smaller pieces of leave, ¼" dics or triangles, proliferate with difficulty.

The leaf pieces were pressed slightly into the surface of a modified Linsmaier-Skoog medium routinely employed for other herbaceous perennials (See this Bulletin No. 217:32-35). The leaf pieces were grown under cool white fluorescent lights at approximately 300 ft. candles at 60°F. The growth regulator combination of 1.0 mg/liter napthalene acetic acid (NAA) and kinetin of 0.1-0.5 mg/liter gave the best plantlet production. (See Fig. 1.)

The plants proliferate from the leaf segments and are well rooted and easily transferred to a sterile soil medium in about 6 weeks. These potted plantlets are treated with a dilute fertilizer solution and shaded for a few days in the greenhouse. Plants can be produced in the one stage described or the plantlets can be removed from the tubes, excised extensively and re-transferred to the above medium to give considerable plant production. However, the plants produced this way are considerably smaller and take longer to transfer. If the original one-stage plantlets are forced in a greenhouse, they will make leaves 10 cm. or longer in four months which can then be treated as the original leaf. The original leaf can be excised into 60-100 pieces each giving 8-10 plants on average. If these had several leaves to re-initiate culture in four months, a million plants could be obtained in a year depending on adequate facilities. Several hundred plants have been grown from a single leaf and all appear uniform and true-to-type.

Will this technique be applicable to the rapid production of peony plants? We tried to answer this question with the variety **Moon River** a year ago. The leaf pieces made a little callus, but no roots or plants. Perhaps we asked the question on the wrong variety. There are reports (See this Bulletin No. 222:11, 31) of peony varieties of certain crosses that make plants easily from root cuttings although probably not as easily as horseradish. The first author of this paper would like to hear of these or perhaps obtain some

small divisions from other members of the society more familiar with conventional techniques of propagation of the peony.

These would be forced for leaves to try with similar techniques to the horseradish and perhaps would work better than the variety picked at random. An experiment with six or eight of the above varieties is contemplated.

Ed. note: Please send the information to Dr. Martin M. Meyer, Jr., Room 4A, Ornamental Horticulture Bldg., University of Illinois, Urbana, IL 61801

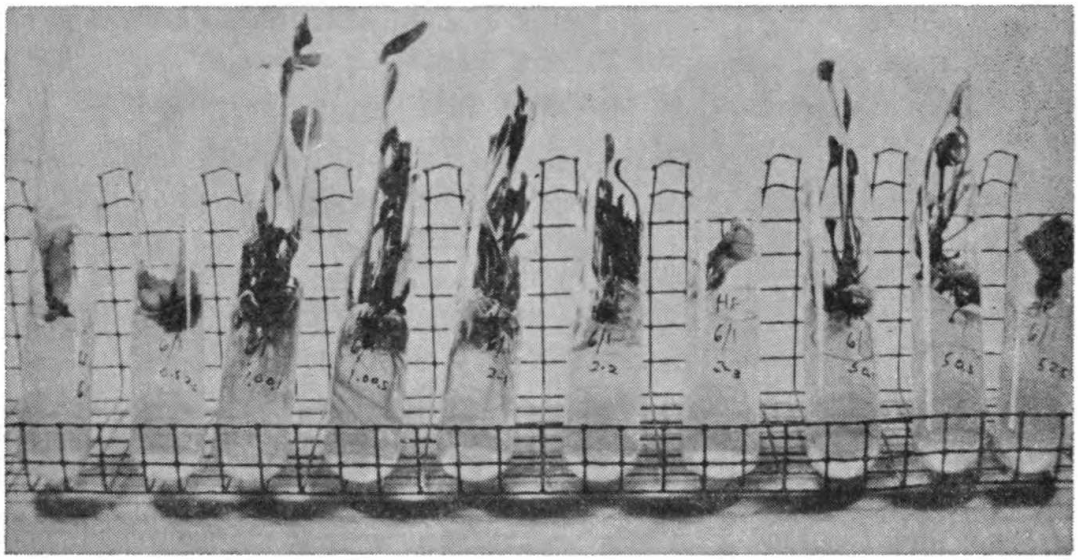


Fig. 1. *The influence of growth regulator on plantlet production of horseradish leaf segments; NAA/kinetin ratio mg/liter from left to right* 0/0.0.5/2.5,1.0/0.1, 1.0/0.5,2.5/0.1,2.5/0.5,2.5/2.5. 5.0/0.1,5.0/0.5,5.0/2.5.

TREE PEONY TOPICS

Louis Smirnow, 85 *Linden Lane, Brookville, L.I., New York*

A sensible thing to do is to spray tree peonies as well as other types with a Bordeaux Mixture several times during the growing season. Experience has proven this practice as beneficial to the health of the plant. Occasionally you may notice that a healthy branch on a large tree peony plant will suddenly wilt and appear to be dying. It is like hardening of the arteries in a human being. Just cut off the affected branch and destroy it. The rest of the plant will thrive.

It is a pleasure to note the ever increasing interest in grafting, so vital in propagating. Various methods of grafting have been received from England, China, Japan and other European countries so that eventually greater success will have been achieved.

Too much emphasis cannot be placed on the importance of proper feeding of tree peonies. If not properly fed, they will constantly bear very few flowers and will seldom branch out. The Society Bulletins constantly mention feeding methods; super phosphate is an essential ingredient.

* * * *

Care should be taken to avoid planting tree peonies or any other peonies too close to a hedge. This past year, letters were received complaining about tree peonies doing poorly despite years of proper spraying and feeding.

On visiting one garden, I noticed several peonies planted four feet from a privet hedge. We then dug around the tree peonies and noticed the roots of the privet hedges had wound themselves around the roots of the peonies, thus interfering with their growth.

Moving and planting of tree peonies can safely be done in the spring during March and April. This has been tried in almost every section of the country. Less advisable to plant hybrids or herbaceous in the spring.

The ITOH-SMIRNOW hybrids are being offered in Japan by two nurserymen at high prices. The four varieties have been grouped as one variety and are being sold as ORIENTAL GOLD, thereby creating confusion here with ORIENTAL GOLD available in this country. The variety in commerce here is a pure yellow herbaceous species entirely different from the ORIENTAL GOLD being offered in Japan. Protests to the Japanese nurserymen have been of no avail.

Tree peonies bloom at the same time as Iris, Rhododendrons, Azaleas and some Magnolias. This applies to the Japanese and European varieties. The Lutea hybrids bloom two weeks later when most of those mentioned above are practically through blooming.

* * * *

BECOME INVOLVED!

WANTED. Peony roots donation for the auction at the Convention. Send the name of the peony roots or root to the Secretary and it will be put up for sale. The name of the purchaser will be sent to you. At planting time, mail the root to the buyer. Thank you.

* * * *

To keep your peonies from bowing to the rain when in full bloom and your beautiful bush from separating, tie a soft rope or lengths of nylon hose around the bush, while still in bud. Anchor the support to a stake driven in the ground at the edge of the foliage.

CONVENTION OF THE AMERICAN PEONY SOCIETY THE 75th ANNUAL MEETING AND THE 73rd NATIONAL EXHIBITION

KINGWOOD CENTER — MANSFIELD, OHIO

June 9, 10, *and* 11*th,* 1978

MANSFIELD WELCOMES YOU

For the benefit of those wishing to attend the Convention, Mansfield, Ohio is located on U.S. Highway 42, *about half way between Cleveland and Columbus. It lies just west of Interstate* 71 *and just south of U.S.* 30. *By air, Mansfield is served by Allegheny Airlines, with connections to other major airlines at Cleveland.*

SCHEDULE OF EVENTS

Friday, June 9—Center opens at 8:00 A.M.—prepare show entries.
Work area will be opened as needed Friday evening.
Limited refrigerated storage space.
8:00 P. M.—Board of Directors meeting.

Saturday, June 10—Exhibition open to the public.
1:00 P. M. Closes 7:00 P. M.
7:00 A.M.—11:30 A. M. Set up and enter exhibits.
8:00 A. M.—Registration.
11:30 A. M.—1:30 P. M. Judging.
1:30 P. M.—Luncheon at main house.
3:00 P. M.—Seminar—Kingwood Hall. See Chris Laning.
5:30 P. M.—Cocktails, Assembly Room, Kingwood Hall.
7:00 P. M.—Buffet banquet, Main drawing room—Kingwood Hall.
Welcome address—Mr. Frederick Roberts.
Annual meeting.
Root auction.

Sunday, June 11
9:30 A. M.—Board of Directors meeting, Kingwood.
10:00 A.M.—Show opens to the public.
5:00 P. M.—Show closes to the public.

Advance registration is urged. Fee will be $12.00 per person. This includes registration, Saturday luncheon and banquet. Taxes, gratuities and incidentals included. Children, ½ price.

Separate reservations may be made for the luncheon at $4.00 and the banquet, $8.00.

Send reservations directly to Greta M. Kessenich, Secretary, 250 Interlachen Road, Hopkins, Minnesota 55343.

RESERVATIONS NOT LATER THAN MAY 26th. ALL ROOMS ARE IN DEMAND, as there is now a very popular attraction in Mansfield—A NEW RACE TRACK. When making reservations, state that you are a member of the American Peony Society.

Park Place Motel — 191 Park Ave. West, Mansfield, Ohio 44902 Telephone (419) 522-3662.

Authentic prices of room submitted by Debbie Anderson, Pk. Place.
Single—$18 Double—$22 - $25 Triple—$29 Quads—$33
$4 for extra guest in a room.

Travelodge Motel — 137 Park Ave. West, Mansfield, Ohio 44902 Telephone (419) 522-5142.

Authentic prices submitted by Jeanette C. Burton, Manager.
Single—$17 Double—$20 Twins—$23

RULES FOR SPECIMEN EXHIBITS

1. All entries must be completed and in place by 11 A.M. on opening day.
2. All entries must have been grown by exhibitors.
3. Entry tags supplied by the Society must be filled out completely as to class, variety, and name and address of exhibitor. In addition, each variety must be identified with a small wood or plastic tag with the variety name legibly printed thereon. Entry tags may be obtained in advance from the secretary of the American Peony Society. The exhibitor or his agent shall be responsible for proper completion of the entry tags.
4. Stems should be approximately 12" long. (tree peonies excepted)
5. Exhibitors are limited to one entry each in classes 101, 102, 103, 104, 105, 106, 201, and 301. In all other classes up to two entries of each variety are permitted; however, any number of different varieties may be entered.
6. The show committee may combine or divide classes if the number of entries warrants it.
7. Correct varietal labeling is mandatory in the Open and the Amateur classes. It is recommended on the Novice classes, but no entry shall be disqualified for failure to identify.
8. Standard containers will be furnished by the show committee and must be in all classes.
9. The American Peony Society Handbook will govern bloom types and color.
10. Anemone type such as Gay Paree shall be shown as Japanese.
11. Awards need not be given to unworthy exhibits.
12. The decision of the judges is final.

DIVISION 1. Open to all Exhibitors.

Class 101 American Peony Society Award
Twenty-five varieties, any color or type.
One bloom each in separate containers.

102 American Peony Society Award
Fifteen varieties, herbaceous only, any type or color
One bloom each in separate containers.

103 American Peony Society Award
Ten varieties, herbaceous hybrid only, any type or color
One bloom each in separate containers.

104 American Peony Society Award
Ten varieties, Tree peonies only, any type or color
One bloom each in separate containers.

105 Five varieties, Japanese Type lactiflora only, any color
One bloom each in separate containers.

106 Five varieties, single type lactiflora only, any color
One bloom each in separate containers.

Three Blooms, one variety lactiflora only, in one container.

Class

110 Double white
111 Double blush
112 Double light pink
113 Double dark pink
114 Double red
115 Semi-double white or blush
116 Semi-double pink
117 Semi-double red
118 Bomb any color
119 Japanese white or blush
120 Japanese pink
121 Japanese red
122 Single white or blush
123 Single pink
124 Single red

One Bloom Lactiflora Only

Class

130 Double white
131 Double blush
132 Double light pink
133 Double dark pink
134 Double red
135 Semi-double white or blush
136 Semi-double pink
137 Semi-double red
138 Bomb white or blush
139 Bomb pink
140 Bomb red
141 Japanese white or blush
142 Japanese pink
143 Japanese red
144 Single white or blush
145 Single pink
146 Single red

Three blooms one variety Herbaceous Hybrids or Species in one container.

Class

150 Double or semi-double white, blush or yellow

151 Double or semi-double pink

152 Double or semi-double red

153 Single yellow

154 Single white or blush

155 Single pink

156 Single red

157 Itoh hybrid any color

One bloom Herbaceous Hybrid or Species.

Class

160 Double or semi-double yellow

161 Double or semi-double white or blush

162 Double or semi-double pink

163 Double or semi-double red

164 Single yellow

165 Single white or blush

166 Single pink

167 Single red

168 Itoh hybrid, any color.

Three blooms, one variety, tree peonies only, in one container.

Class

170a Japanese (Moutan) White, Single **170b** semi-double **170c** double

171a Japanese (Moutan) Pink, Single **171b** semi-double **171c** double

172a Japanese (Moutan) Red, single **172b** semi-double **172c** double

173a Japanese (Moutan) Violet single (Really purple lavenders) **173b** semi-double **173c** double

174a Japanese (Moutan) Maroon single **174b** semi-double **174c** double

175a Lutea Hybrid, white to cream, single **175b** semi-double **175c** double

176a Lutea Hybrid, yellow, single **176b** semi-double **176c** double

177a Lutea Hybrid, blend, single **177b** semi-double **177c** double

178a Lutea Hybrid, pink, single **178b** semi-double **178c** double

179a Lutea Hybrid, red, single **179b** semi-double **179c** double

180a Lutea Hybrid, dark red, single **180b** semi-double **180c** double

One bloom tree peony only.

Class

185a Japanese (Moutan) white, single **185b** semi-double **185c** double

186a	Japanese (Moutan) pink, single	186b	semi-double	186c	double
187a	Japanese (Moutan) red, single	187b	semi-double	187c	double
188a	Japanese (Moutan) violet, single	188b	semi-double	188c	double
189a	Japanese (Moutan) maroon, single	189b	semi-double	189c	double
190a	Lutea Hybrid, white to cream, single	190b	semi-double	190c	double
191a	Lutea Hybrid, yellow, single	191b	semi-double	191c	double
192a	Lutea Hybrid, blend, single	192b	semi-double	192c	double
193a	Lutea Hybrid, pink, single	193b	semi-double	193c	double
194a	Lutea Hybrid, red, single	194b	semi-double	194c	double
195a	Lutea Hybrid, dark red, single	195b	semi-double	195c	double

DIVISION II AMATEUR: Open to exhibitors who raise peonies chiefly for pleasure, sell plants or cut flowers only casually, and do not grow more than 200 plants.

Class 201 American Peony Society Award
Ten varieties, any type or color
One bloom each in separate containers.

Three blooms, one variety lactiflora only, unless otherwise stated, in one container.

Class 205	Double white or blush		
206	Double pink	210	Japanese any color
207	Double red	211	Single any color
208	Semi-double any color	212	Hybrid any color
209	Bomb any color	213	Tree any type or color

One bloom lactiflora unless stated otherwise.

Class
220 Double white
221 Double blush
222 Double light pink
223 Double dark pink
224 Double red
225 Semi-double any color
226 Bomb any color
227 Japanese any color
228 Single any color

229 Hybrid any type or color
230 Tree, any type or color

DIVISION III NOVICE: Open to all amateur gardeners who exhibit peonies only at local shows.

Class 301 American Peony Society Award
Five varieties any type or color in separate containers.

Three blooms one variety lactiflora, unless otherwise stated, in one container.

Class 305 Double any color
306 Semi-double, any color
307 Japanese, any color
308 Single, any color
309 Hybrid, any color

One bloom lactiflora, unless otherwise stated.

Class 315 Double white or blush
316 Double pink
317 Double red
318 Semi-double any color
319 Bomb any color
320 Japanese any color
321 Single any color
322 Hybrid any color
323 Tree any color

DIVISION IV: Seedlings and New Varieties.

Class 401 Seedlings.
Three blooms, one variety in one container, not currently introduced.
Variety must have been divided at least once.
Must be shown under name or seedling number.

402 New Varieties:
Three blooms, one variety in one container. Limited to varieties named and registered with the American Peony Society and introduced no earlier than five years prior to show date.
Awards given in the two preceding classes may be Certificates of Merit or Honorable Mention at the discretion of the judges, but no ribbon awards. Varieties having won either award in previous competition may not be shown again in that class, except that varieties shown in class 401 may be shown again in class 402 regardless of awards.

403 Seedlings:
One bloom. This class is for display only.

No awards will be given and any seedling entered in class 401 is ineligible.

DIVISION V: Special Entries.

Class 501 Commercial Exhibit.
Collection by commercial grower of 25 to 50 varieties in separate containers. A placard approximately 9"x14" may be furnished by the exhibitor to identify his display.

502 Visitor from greatest distance.
Five different varieties any type. Mileage verified on entry tag.

503 Multiple bloom.
Single stalk not disbudded. Must show at least three open blooms.

Court of Honor. All blooms in Division I, II and III eligible.

Best Double white
blush
light pink
dark pink
red
Semi-Double white
pink
red
Bomb white
pink
red
Japanese white
pink
red
Single white
pink
red
Hybrid yellow, white or blush
pink
red
Tree white
pink
red
yellow
violet
blend
maroon

Also best bloom from Division II and Division III

All blooms in Court of Honor to receive Rosettes printed COURT OF HONOR.

Best Double, semi-double, Japanese, single, Hybrid and tree to receive larger rosettes.

Division II printed: **BEST AMATEUR**; Division III printed: **BEST NOVICE.**

Best in show purple Rosette printed: **"GRAND CHAMPION."**

* * * *

DIVISION VI — ARTISTIC ARRANGEMENTS

PEONIES "LIGHT UP YOUR LIFE"

Class A — **Aspiration**
Desire to attain something high!

Class B — **Hope**
To give promise for the future! (A hanging arrangement)

Class C — **Companionship**
Fellowship with others! (Peonies with other flowers)

Class D — **Imagination**
Fancy a mental picture! (Using a picture frame)

Class E — **Simplicity**
Quality of being simple! (Using one peony)

Class F — **Memories**
Power of remembering! (Using an old container)

Class G — **Reflections**
Image produced by a mirror!

Class H — **It's Not Easy!**
(For exhibitors who have not won a blue ribbon with an artistic entry in a Kingwood flower show)

ARTISTIC DIVISION RULES

1. An exhibitor may make only one entry per class. All must be the work of the exhibitor.
2. Peonies should be featured in all arrangements. Peonies need not be grown by the exhibitor, and some will be available from the committee.
3. Accessories and/or bases may be used in all classes.
4. No artificial flowers or foliage are permitted.
5. A minimum of treated plant material is permissable.
6. Entries must be placed from 1:00 p.m., Friday, June 9, until 11:00 a.m., Saturday, June 10.
7. While the show management will exercise due caution in safeguarding exhibits, it cannot assume responsibility for injury or loss.
8. Personally owned properties must be claimed immediately after the show closes at 5:00 p.m., Sunday, June 11.

For information— Greta M. Kessenich, Secretary
250 Interlachen Road, Hopkins, Minn. 55343

SOME MEMORIES OF GROWING UP WITH PEONIES

by

SOPHIA KLEHM FEDDLER — Daughter of
Charles Klehm 1867-1957 *and*
Emma Klehm 1879-1962

Oh, what a pleasure it was each spring when Mom and Dad saw the first peony buds, and how much fun we children had when dis-budding and throwing the buds at each other when Mom and Dad weren't looking.

Charles and Emma Klehm
1947
Mr. Charles Klehm was a charter member of t American Peony Society 19

And when the field was in bloom, Mom and Dad would go out each day looking for unusual blooms to hybridize, and Uncle Bill Kehe couldn't wait to hitch up the old horse onto the single row plow to cultivate between the rows. He did this with so much pride. They were his flowers, too.

The flowers were picked in the field and put on hayracks and brought into the "bunching shed" where local housewives would put them in baker's dozens according to length. The women looked forward to this and would call weeks ahead to be sure Mom would not forget them. They wanted the chance to earn a little pin money and, of course, discuss the local situation. At lunchtime they would gather on the front lawn with their brown lunch bags, and Mom would supply the coffee. She would also bring rolls each morning and afternoon for a break.

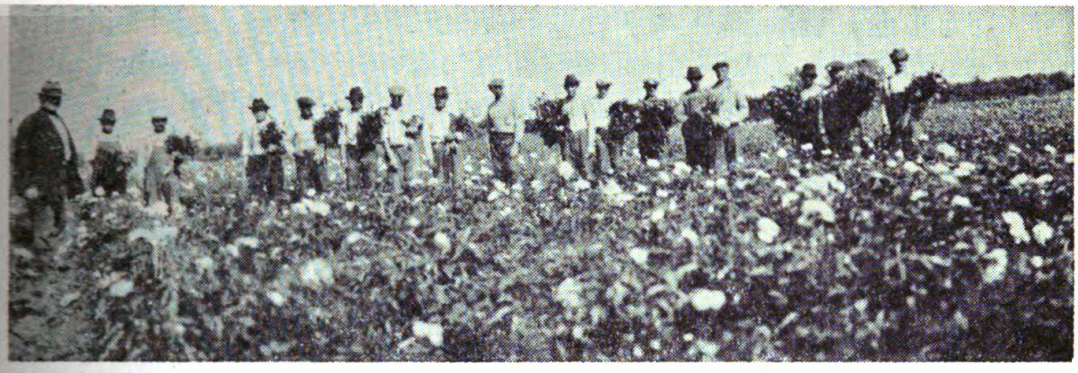
In 1937, when Dad was 70 years old, he was honored by the Chicago area peony growers, at which time about 25-30 people gathered on our front lawn for a never-to-be-forgotten gala event. Already at that time, there were great peony enthusiasts. When he was 90 years old, in 1957, a reunion again was held on his birthday. Was he surprised and pleased when over fifty of his peony friends gathered to honor him and discuss their favorite flower.

My father, Charles Klehm, was the first person to put peonies in the cold storage on the South Market Street in Chicago where Wholesale Houses such as Joseph Forrester, Kennicott Bros., Eric

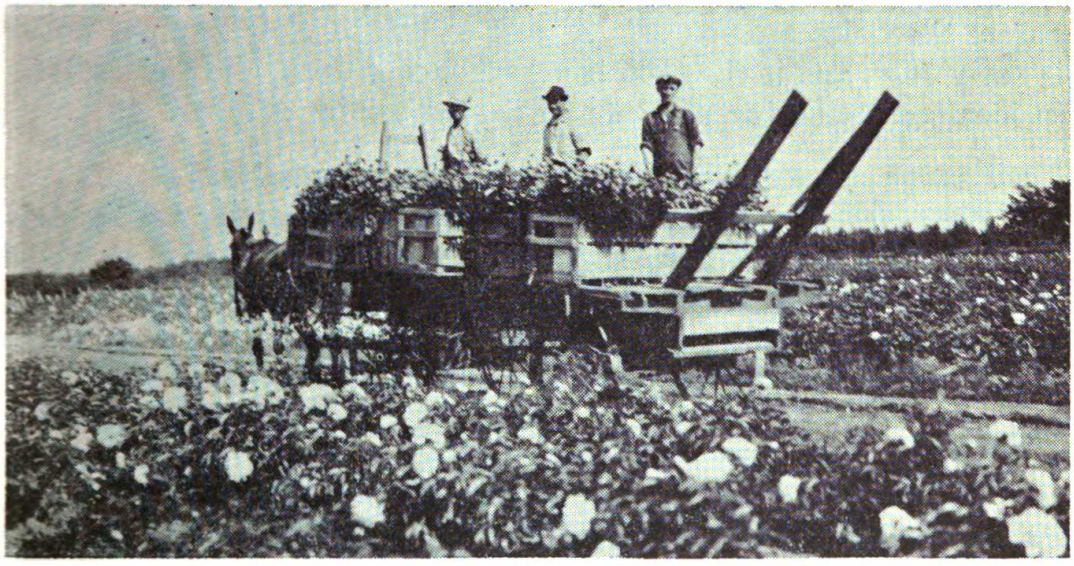
Johnson and Koehler and Dramm would pick these up as needed for their supply. For many years peonies were available in the Chicago Market as late as August.

The variety **Charlie's White** was my Dad's favorite cut flower. He had acres and acres of this variety for the wholesale flower market. My Mom' favorite was also named after her—**Emma Klehm.** A lively vivid pink. This variety is a good landscape type.

I am fortunate to have grown up with beautiful peonies, and my fine parents who showed me the love of flowers and plants.



Peony picking crew in the fields at Arlington Heights, about 1930
Mr. Charles Klehm, far left, in the dark coat.



Mule used in pulling the peony wagon.
Arlington Heights, Ill. 1930

* * * *

To prevent disease, start spraying just as the plants break through the ground; repeat again when they are half grown, then again before they bloom.

GROWING OF CUT FLOWER PEONIES

By Carl G. Klehm 1973

Arlington Heights, Ill., Sept., 1952, *Bulletin* #126

Planting a field of peonies for production of flowers is a long-range program of approximately 15 years. The first three years the field will cost the grower money and effort for cultivation, weeding, and other overhead. The next ten to twelve years have to be profitable enough to cover the cost involved in the first three years.

Preparation of Land

It usually takes two or three years to prepare a field ideally for peonies. The first objective is to provide very good drainage. This cannot be over-emphasized. Many troubles like Botrytis, etc., are eliminated with proper drainage. The peony will just not thrive if its feet are wet.

It pays to have the soil analyzed and apply any elements that might be deficient. Peonies are very tolerant to acidity, but it would be to the grower's advantage to have a P.H. of approximately 6. If the acidity is higher than this, it would be very valuable to apply limestone. Rock phosphate applied before plants are put in would pay off over a period of years. The next procedure would be to put the field in legumes of some kind and plow these legumes under the second year. In this way the organic matter is built up before the fields are planted. A good month to plow legumes under is early July, and if the field is disced once a week, the field will be in ideal condition for planting in September or October.

Planting

We space our peonies 4 ft. x 4 ft. In this manner we are able to cultivate our rows both ways, thus eliminating a good share of the hand weeding. We have found the AV Farmall to be the most ideal tractor for cultivation because it has high clearance and the operator can see the plants well.

Cultivating

Our first cultivating is done as soon as the ground is dry enough to work with a tractor. This time we use disc blades, staying far away from the bushes, merely loosening the soil. During this operation we also side dress with approximately one-half ton of a commercial fertilizer per acre. After a week or so we cultivate again with sweeps—this time as close to the plant as possible—to kill the weeds that are close to the bush. In our latitude we use clean cultivation all summer. In the southern half of Indiana and Illinois the peonies are not cultivated after July and the grass and weeds are left to grow to help lessen winter erosion and heaving.

Maintenance

Hilling the peonies for winter is necessary for at least one or two years; otherwise there is too much loss due to heaving. After this time, hilling is not necessary in sections where the winters are not open (ground stays frozen). Where there is much freezing and thawing, the peonies should be hilled each fall.

After the plants are two years old, the foliage should be cut late each fall, raked and burned. This will practically eliminate the stem rusts.

Harvesting

There is nothing special to dis-budding. However, after dis-budding the peonies, some growers make sure that the plants will not be damaged by cutting too many flowers and therefore take ⅓ to ⅔ of the weakest flowers off of each plant. This insures protection for the plant from overpicking by inexperienced labor and also improves the quality because the stronger flowers only are being picked.

Do not cut from the plants until they are three years old. Never cut your plants to death. Whether to cut the flowers to the ground or leave one or two leaves will be decided by what the grower's market demands. Most flowers sold wholesale will command a better price with a longer stem. As quickly as possible after cutting, the flowers should be cooled. We feel that every hour that elapses before it is cooled is like taking a day's life away from the flower. The ideal temperature for storage is 32-33 degrees. Dry storage has proven superior provided the flower is not wilted when put into storage.

Varieties

These are some of the varieties that are proven successes:

Pinks: **Mons. Jules Elie** (E), **Sarah Bernhardt** (L), **Lady Kate** (VL).

Whites: **Festiva Maxima** (E), **Avalanche** (M), **Baroness Schroeder** (L), **La Lorraine** (M).

Reds: **Richard Carvel** (E), **Felix Crousse** (M), **Augustin d'Hour** (M).

Among the newer varieties that have cut flower possibilities are **Charlie's White** (we believe, in our opinion, the best commercial white peony); **Emma Klehm, Cathie Ann, Renato, Big Ben, Dixie, Kansas, Mrs. F. D. Roosevelt, Victory, Alice Reed Bates, Moonstone, Plymouth, James Pillow, Mother's Day, Elsa Sass, Minuet** and **Auten's Pride.**

Most varieties that have stamens do not have a good fragrance after coming out of storage, and therefore we try to shy away from these as much as possible.

We have many favorite varieties that are beautiful for the garden but do not qualify for cut flowers for various reasons.

A DAY WITH CHARLIE KLEHM

By Earle B. White. Bulletin #141. *June* 1956.

I was in Chicago to help judge the peony show at the World's Fair. Charlie took me under his wing for one of my most interesting days.

First we went to the Florists Wholesale line where he showed me his lovely peony blooms in the cooler of one of the florists. He told me that he tried to sell **Martha Bullock** and **Mons. Jules Elie** to the florists, and they said that those huge blooms would never sell. He found one wholesaler who was willing to stock his blooms.

All of you know the two peony varieties, and of course they were a sensation, and this one wholesaler had the entire sale of them at that time. He said that all other dealers had to deal through this one wholesaler, to their sorrow.

Our next move was to an area near the stock yards where the large cold storage plants were located. We went into the large building and before me stretched what looked like an acre of peony blooms on each of the three floors. They were all in buckets of water and he had crews of workers cutting stems to keep the blooms fresh.

Then out in the building, the fragrance of which I can never forget, we went to a restaurant upstairs in a place where you would never expect one to be, for the most delicious steak I ever ate.

Charley, I am happy to have known you! It was a happy day.

PROFESSOR SAUNDERS 1869-1953

Professor Saunders began growing seedlings about 1905 *and systematic work on species hybrids* 1917.

He became a member of the American Peony Society in 1906. *Served as a Director* 1909-1923 *and again* 1925-1928. *Secretary* 1911-1923. *Editor of the Bulletin the* 12 *years. Elected Vice President* 1928 *and President* 1930-1932.

It was partly through his initiative that the publication of the Bulletin was undertaken in 1915.

His articles for the Bulletin and other periodicals gave an account of his work in peony breeding.

He received honors, medals and recognition for his success in peony breeding of both herbaceous and trees.

Reprints of his articles are continually requested. The following is a reprint from Bulletin #34. *June* 1928.

NEW STRAIN OF HYBRID PEONIES

Prof. A. P. Saunders, Clinton, New York
Reprinted from Bulletin No. 34. *June* 1928

It is now eleven years since I began to work on the production of hybrids between the ordinary Chinese peonies and the varieties

of **P. Officinalis.** The first blooms were produced in 1924, and since then each year has brought a new group to maturity. This strain is now sufficiently well established so that it may be of interest to discuss some of its characters.

The seedlings which have so far come into bloom with me are these:

Four hybrids using pollen of a single officinalis variety on the single white Chinese peony **The Bride.** These are all single crimsons.

Thirty-one hybrids using pollen of a single officinalis variety on double white or yellowish Chinese peonies (**Primevere, Fuji Mine,** a White Jap., and a third plant, a seedling of the type of **Primevere**). These are also without exception single crimsons.

Seven hybrids using sinensis pollen (probably mixed pollen from double and single sorts), on Officinalis rubra plena. All these seven are full doubles, six of them double crimsons and the seventh a double pink.

One hybrid using pollen of sinensis on a single officinalis. This proved to be a very small almost black flowered single.

Officinalis Parent Controls Doubleness

It is a curious fact that the character of doubleness or singleness is apparently determined by the officinalis parent in every case. Also, that except for the one case of a double pink in the third group, the officinalis parent determines the color.

With respect to the general habit of the plants, the female parent seems to have most to say. All of the 35 hybrids in the first and second groups are tall plants, quite as tall as the average Chinese peony and much taller than their officinalis parent. Two of them, of which I happen to have measurements, showed a height of 33 and 40 inches respectively, while the two officinalis varieties **rosea plena** and **striata elegans** measured on the same day, had only 26-inch stems, and the effective difference is much larger than these figures indicate, since the officinalis varieties have a sprawling habit, and the actual stature of the plants was not by any means equal to the length of the stem, whereas the hybrids, having thick, stiff, straight stems have an effective height as great as the actual stem length.

Blooming Time Same As Officinalis

In the third group the plants are variable in stature, some being quite dwarf, others very tall.

The foliage is in general intermediate, but includes rather to the officinalis than to the sinensis parentage; it is usually coarser than that of the officinalis varieties.

In blooming time these plants come with officinalis, but they

have a longer duration and the height of their season laps over into the beginning of the sinensis season. Some, indeed, go on longer, for in 1927 I cut a bloom of one of the double hybrids on July 12. The year 1927 was, it is true, a very late year; but the Chinese peonies were in full bloom here before July 1, and very few of them were still hanging on as late as the 12th. This hybrid strain in that year had a total season of more than a month, for the first recorded bloom was on June 10.

The real question, however, for the peony fancier is as to the actual beauty and value of these hybrids. My opinion is that for the garden they will certainly prove an important addition. As cut flowers for the house, the singles have great beauty, but whether they would have any commercial value in that way, I am not so sure. It may well be that some of the double form would better meet the exacting demands of the cut flower trade.

Singles Are The Most Striking

The striking individuals so far in this race are the singles on account of their stature, size, and color. At their best, they are immense, upstanding, cup-shaped blooms of the most intense glowing and vivid crimson color with a very effective group of stamens sometimes striped with red. A measurement gave eight inches for the diameter of one of the larger blooms, and for the largest of all, nine and one-half inches; but many are smaller. The best of them, and especially those which lean towards the dark mahogany shades, hold their color extremely well until the petals fall, but some unfortunately show a tendency to go off towards the end into inferior purplish tints.

The entire strain is sterile both as to its pollen and also as to its ability to set seed, although most of the singles form immense furry seedpods capacious enough to hold a heavy crop of seeds if there were such. This sterility no doubt adds to the length of life of the individual blooms and it is true that they last extremely well.

It is strange that this cross was not made long ago, for it is not one that offers any particular difficulty, although the yield of seeds is always small. I have been told that hybrids of this strain have been produced in Holland, but I cannot vouch for the truth of this.

In this country there have been several growers who have worked on it besides myself during recent years, and the beginnings must have been made at almost the same date by all, and quite independently. The first to stage any blooms at an exhibition was Lyman D. Glasscock of Joliet, Ill., who showed a bloom of such a hybrid at the peony show in Des Moines in 1924. Since then they have appeared at several of the Peony Society's exhibitions.

JUDGING SHOW EXHIBITS

ROY G. GAYLE, Rockford, Ill.

Bulletin #109, *June* 1948

ROY G. GAYLE, ROCKFORD, ILL. DIED 1966

Authority on appraisal of the peony and plant anatomy. Authored Bulletin articles.

"Roy was an astute, discerning student of the peony. Through constant observation and careful discernment he became familiar with the minutest characteristic of a variety. I've personally seen him correctly name 45 *out of* 50 *varieties in an unlabeled collection. He was without a doubt one of the greatest authorities on the peony in the American Peony Society.*

He was a strong supporter of our National and Regional organization. When the 5*th District was organized in* 1938, *Roy was the principal mover together with Will Christmas, Francis Tikalski, Al Volz, Jerome Host and myself (Marvin Karrels). He rarely missed a national meeting. Much of our present constitution and By-Laws were the result of his effort."*

—Marvin Karrels, Bulletin #184. *March* 1967.

All competitive exhibitions, whether they be livestock, flowers, dogs, vegetables, or what not, require judges to select the winner of awards. Regardless of the type of product being judged, the result is of considerable consequence, and a well-qualified judge requires a temperament possessed of fairness, sincerity, knowledge of subtle qualities and, above all, an unbiased and unprejudiced mind.

Quick, hurried, and impulsive judging is detrimental and destructive. Such methods result in overlooking many fine qualities that only careful, deliberate, and penetrative study will reveal. Take time to see the subtle charms each flower possesses.

Judging can be too severe in connection with superficial minor defects. It does not seem to be equitable that a minor defect such as an insignificant water-spot on an otherwise perfect flower should disqualify it. Utmost care can be exercised by the exhibitor, but a thoughtless act of carelessness by others can cause a minor defect. To disqualify an exhibit for insignificant reasons would be discouraging to an earnest exhibitor who has worked diligently to make a Show a success. A reasonable and liberal attitude should prevail rather than hard-shelled orthodox adherence to the letter.

It is a self-imposed duty of a judge to automatically disqualify himself from judging in a class where he has an entry. He should withdraw to an unobtrusive distance. After the two remaining judges have made their selections, they shall each select another candidate—making four candidates in all. Provided none of the

four are entries of the judge so disqualified, he shall re-enter the judging and select one of the two additional entries as one he sponsors. Provided two judges of a group are eliminated, a clerk shall notify the Chairman of Judges who will designate judges to make the awards in that particular class. The Seedling Committee would be an ideal reserve group for this purpose. (This procedure is subject to the Show Committee adopting this method of judging.)

Judging by size comparison is evident lack of judging ability. While size is impressive, it is not the factor that should determine the final result. Oversize in itself is an abnormal condition and possibly should be regarded as a disqualifying element. However, no judge would dare disqualify a flower that combines both size and perfection. After all, we are not judging commercial meat hogs, and a six-foot-two "Miss America" would be quite out of consideration.

Color is a vital factor, and clarity of tone is a valuable quality. It is unfortunate that judging is not done under natural outdoor daylight. Exquisite and delicate colors, when subjected to artificial light often lose their refinement. By the same token we find harsh colors softened, subdued, and quite pleasing. Red is the color most affected by the amber rays of artificial light as these rays dissolve the purple shades so objectionable in many flowers. Color purity is a quality not to be overlooked. Keen judges rate it high in their appraisement.

The physical condition of a flower at the time it is being judged is vitally important. A flower which has not arrived at, or has passed, its prime period of perfection MUST be disqualified. No judge can redeem its past nor predict its future. Flowers must be judged by comparison of appearance at the exact time they are being compared and judged.

Judges and connoisseurs are disposed to permit newer varieties to monopolize their attention and indifferently pass up the older and more familiar varieties. A perfect specimen of **Edulis Superba** is superior to an imperfect **Mrs. Livingston Farrand.**

In judging an exhibition flower, a good judge differentiates between flower beauty and plant quality. Show judging must necessarily be based on perfection of attractiveness of flower alone; it must by-pass biological elements of its composition and accept only its visual beauty.

Inexperienced judges are inclined to apply rating points in appraising a show flower. In show judging we are NOT rating a peony. Rating lies within the province of our symposium system for that purpose. Inherent qualities, of which odor is one, are not to be considered.

Hypothetically our objective is to exhibit the result of our feeble efforts in developing, to the fullest measure of its possibili-

ties, the most beautiful of God's expressions of floral loveliness, and as a judge you are trusted to be fair and to put forth the best you have in you. Each exhibitor is your client and is at your mercy. Do not betray his trust in you.

PLANT METABOLISM

(Growth Processes)

Bulletin #123, *December* 1951

Roy G. Gayle, Rockford, Illinois

NOTE: The word "metabolism" (also "metabolisis") as used in this article is defined in Webster's Dictionary as: "the act or process by which living tissues or cells take up and convert into their own proper substance the nutritive material brought to them."

The metabolic activities of a plant produces its continuous process of growth. As long as a plant is feeding, it will continue to grow, and the rate of growth is limited only by its species type, available food supply, and seasonable climatic control.

The ANNUAL plant grows in length along its principal axis until it achieves its destiny—sex maturity—then dies. Maturity is evidenced in seed production, by which it is annually reproduced.

The PERENNIAL plant continues to live throughout repeated growing seasons by root development, and it is not dependent on seed production. The roots become food reservoirs and annually develop by root expansion.

Plant species are normally male, female, or bi-sexual. Cross or inbreeding often results in varieties being sterile through complete loss of normal sex elements, so propagation of sterile varieties is only possible by root division, stem or leaf cuttings.

Any plant, whether annual, biennial, or perennial, spends the greater part of its life cycle in various processes of growth. Throughout this early period of growth there is a very close analogy between plant and animal life as, in infancy, both require the supply of nourishment to be made available in liquified form. While animal life later adopts solid food, all plant life continues with a basic liquid diet throughout its existence. Mineral food cannot be absorbed until the digestive action of root hairs dissolves them into so-called soluble salts, as no food element can enter the root hair unless it is in solution.

Root hairs also act as a respiratory organ, and they obtain oxygen needed for metabolism directly from the soil. They also excrete a small amount of carbon-dioxide which, when united with water, forms carbonic acid, which in turn aids in dissolving some of the minerals in the soil and enabling the roots to absorb the food.

Plant growth simultaneously proceeds in two directions—stems grow above ground, while roots advance in their subterranean environment. With root hairs acquiring sufficient nourishment, the upper plant growth will proceed at a regular and normal rate, and a healthy condition is reflected in the stem, foliage and flower.

Root Anatomy

A general understanding of root composition adds interest to the pleasure of plant production, and the following is a list of the physical components. The root of a growing plant consists of regions, or zones, and starting with the outermost tip they are:

1. ROOT CAP. This is made up of hard, thick-walled cells whose rugged exteriors form a penetrating point to press forward in the soil in search for food. No ingestion (food intake) occurs in this part.

2. GROWING POINT. Immediately back of the root cap is the region known as the Growing Point. In this region the root cells are small and tender and are so closely packed together that individual cells are hardly distinguishable. No ingestion occurs in this region.

3. REGION OF ELONGATION. In this zone are cells which are left behind as the former parts proceed through the soil. These cells expand and push the growing point and root cap forward through the soil. This region is characterized by the distribution of nutritive tubes which bring foods down that have been manufactured by leaves to stimulate root growth. The true root growth takes place in this region.

4. ROOT HAIRS. It is in this zone that problems of plant nutrition are involved. Root-hairs are the structures by which assimilation is carried on. They are individual cells of the epidermis (outer skin) which elongate and reach out into the surrounding soil and absorb nutrition. This zone is interesting. Unlike twigs or branches, the root-hairs are tiny single cells which are born, grow, and die within the matter of a few weeks. In certain species of plants, the root-hairs survive only a few days, but regardless of the duration of their life, new root-hairs are constantly being formed; however, as the older root-hairs die, the zone of Elongation becomes the zone of the Root-hairs, and in this way the root gains access to new stores of nutritive elements in the soil.

5. MATURE SECTION. The principal functions of this division are to provide anchorage for the plant and to provide channels to send water and nutritive elements upward to the stem and leaves and to return food materials to the growing roots. In this section are channels for returning waste products from the plant to the soil. Reserve food supplies are herein stored for future use of perennial plants.

A normal healthy plant receiving an ample supply of balanced food will naturally develop sturdier growth which is characterized by strong stems, clean foliage, larger blooms, and purer color. Weak plant are usually the result of undernourishment or lack of certain vital mineral elements in the soil. Such plants are susceptible to disease and the attacks of insect enemies. Corrective measures can be adopted through the administration of proper feeding, but as in medicine, an overdose can prove fatal. The proper amount of corrective feeding is the solution, and that is the problem each individual must solve for himself. Humus is necessary, as it not only provides food but also enables the root to breathe. Peonies are very sensitive to over-feeding and are said to be very susceptible to "indigestion." The application of strong chemicals forces tender roots into digestive evolutions, due to over stimulation, which is productive of violent reactions. Such treatment seriously affects the vitality of the plant. The result of this year's treatment will be reflected in next year's product.

Character of soil, light hours, air circulation, sunshine and drainage are all factors related to metabolism, and each and all have much to do with the ultimate result sought by the grower. While climatic conditions do not rest within the province of control by mankind, the judicious selection of an agreeable environment cannot be ignored, as it will have a major effect upon the ultimate result.

PREPARATION & STORAGE OF SHOW PEONIES

By Harry F. Little

Reprinted from Bulletin No. 23, Feb. 1925

So much has been written about the preparation and holding of peonies in cold storage for show purposes that possibly many otherwise experienced gardeners have been led to believe that the showing of peony blooms in competition is a deep and mysterious art only to be acquired by wide experience, and only to be attempted by the most skilled horticulturists.

As a matter of fact, the successful showing of peonies is very simple, and may be undertaken by any amateur gardener, of even limited experience, without fear of disastrous results. Probably no other flower can be as easily grown, as successfully held in cold storage, or as easily transported as the peony. No special laborious preparation or treatment of the plants is required to grow fine show flowers, and no extensive experience is required to handle the blooms in storage. Neither is any skill required to develop the flowers into form for the show table after they are taken from the cold storage room.

Experience has shown that peonies can be successfully held in

storage for days, or even weeks, and then developed for exhibition purposes as successfully as though freshly cut from the plants. In fact, peony blooms, cut in the bud and opened indoors away from the sun, show far more delicate and beautiful colorings than the flowers which open on the plants; and many of the finest varieties only show their real quality when handled in this way. Some growers, of wide experience in handling show flowers, go so far as to contend that peonies placed in cold storage and then developed for the show table will hold up longer and better than freshly cut blooms. While the question may yet be held as debatable, it has been clearly demonstrated that it is possible to place the different varieties of peonies in storage as they come into bloom throughout the season, beginning with the earliest Officinalis varieties and ending with the very latest varieties, such as **Loveliness** and **Galathee,** and then develop them for show all at the same time a week or more after the close of the blooming season. Some varieties hold up in storage better than others and can be held with proper care for a much longer time. In the cut flower trade, certain good storage kinds are kept for eight or ten weeks.

The first thing to be remembered in the staging of fine show flowers is that only well-established plants of any variety will produce the best blooms. It is not possible to say how old a peony must be to be at its best, for that depends on the variety itself, the size and vigor of the root from which it is grown, and the soil conditions and cultivation with which it is favored. Certain varieties, under most favorable conditions, are slow to establish, and do not reach their best short of four, or sometimes five years, while other kinds, happily situated, will put forth as fine blooms on two-year plants as they will ever produce. It is safe to say, however, that flowers must be cut from at least three-year-old plants, if a typical exhibit is to be staged covering any great number of varieties. Even then, the exhibitor must have very well-grown plants if he can successfully show fifty or one hundred varieties in competition with the man who can select his blooms from five- or six-year-old plants.

At the National Peony Shows, where one expects to find all the new and rare peonies shown in perfect form, it is not an uncommon thing to hear the remark, "Why, I have grown finer flowers than these myself." No doubt but that is true with all of us. It is not very difficult, even with but a few plants, to grow one, or even a number of varieties, to perfection. But it is quite a different thing to stage an exhibit of one hundred, or even fifty varieties, and have all of them near perfection. It requires an extensive planting, indeed, to be able to show such a number of varieties all from well established plants. The desire to show the new and rare things, of which there are but a few old and established plants in

existence, often leads to the cutting of blooms from young plants, and so cuts down the average quality of the exhibits.

Having good, healthy, well-established peony plants to begin with, cultivation and moisture are the principal requisites in growing fine show flowers. As soon as the new growth is above ground in the spring, and the soil in workable condition, the earth about the plants should be forked over several inches deep for at least two feet from the crown. Throughout the growing season, this soil should be frequently stirred to maintain a perfect earth mulch to draw and hold moisture to the plant. If the season is dry, water should be supplied in sufficient quantity to thoroughly soak the ground to a depth of at least eighteen inches each ten days until the blooms begin to open. Water is best supplied by letting it run slowly from the open end of a hose into a small trench dug about the plant. Before the top soil has time to dry out, the trench should be filled in, and the earth mulch again stirred to retain the moisture.

With good, ordinary garden soil, no special fertilization is necessary, although a light top dressing of bone meal or wood ashes early in the spring in sufficient quantity to maintain the normal state of fertility in the soil may be beneficial. Thoroughly rotted stable manure may be used to advantage, if properly handled. This is best applied as a top dressing in the fall, and forked over at the first working of the soil in the spring. Fresh stable manure should never to be used on peonies under any condition, as the free ammonia therefrom is absolutely harmful to the plants.

Much has been said about force feeding and special fertilization to obtain extra fine blossoms, but it is doubtful if any such treatment of plants is beneficial or desirable. Peony plants clearly resent over-fertilization, and far more plants have been injured by forcing than have ever been helped. By the use of liquid manures, commercial fertilizers, nitrate of soda, and other things, strong plant growth can be stimulated, and undoubtedly abnormal flowers produced; but experience has shown that such treatment of a plant one year almost invariably results in a sick plant the following season. It often requires several years for the plant to recover, if indeed it ever comes back, from the seeming indigestion caused by the over-feeding. As well-established peony plants represent no small investment in time and money, it is hardly worth the risk of sacrifice for the results to be obtained. Then, the abnormal blooms, which are developed by the feeding beyond their typical form and size, are not the most desirable show blooms. The fine texture of the petals, and the delicate color tints in the flowers are sacrificed to a great extent for size alone. Such blooms are not typical flowers, and to the true judge of peonies, they are not the finest. Good, normal blooms, typical in form, size, and coloring of

the variety, are the ideal show peonies; and these are only obtained from healthy, well-established plants grown in a normal soil under normal conditions.

As soon as the growth is sufficiently advanced, all laterals, or side buds, should be pinched off close to the stems, and any weak or defective terminal buds removed. Some growers advocate pinching off all but three or four of the strongest terminal buds on each plant, and even cutting out some of the stems close to the ground to force the growth of the remaining plant. As nature takes care of the relationship, or balance, between the root system and the top growth of the plant, is it not reasonable to suppose that, to a strong and thrifty plant, the natural foliage produced is as necessary to the welfare of the plant system as is the root growth, and that by cutting away stems we are throwing this natural relationship out of balance rather than strengthening the growth?

A few days before the early varieties are ready to bloom, the plants should be carefully gone over, and the strongest and most promising buds of the varieties wanted for show selected. A small paper bag—the grocer's common half-pound size is best—should be slipped over each bud, and secured in place by a small rubber band, twisted about the mouth of the bag below the bud, just tight enough to prevent the bag from being blown away by the wind. After the rubber band is in place, care should be taken to pull the bag well up against the understide of the bud; otherwise the subsequent growth of the stem, especially of the later varieties, will force the bud up against the bottom of the bag and result in a warped or crooked stem. The purpose of sacking the buds is twofold. First, the bags protect the maturing buds from damage from rain or sun; and second, they furnish an ideal wrapping for the flowers later on when, in a partly developed state, they must be packed for shipping.

After all the bags are in place, a wired wooden tree label, with the name of the variety plainly written thereon, should be attached to the stem under each bud well above the foliage. By thus permanently labeling each bud before it is cut from the plant, much labor and confusion later on, when time becomes valuable, will be saved. The wooden tree labels are the most satisfactory labels to use, because they are substantial enough to withstand possible damage in shipping, and are not affected by water.

As the first flowers begin to open, close attention must be given to the sacked buds, for the whole secret of the successful storage of the blooms is in cutting the blooms at just the right stage. Both the length of time the blooms are to be held, and the type of flower or the variety, must be taken into consideration. Assuming that flowers are wanted for showing, say two or three days after the close of the blooming season, it would be necessary

to hold the earlier varieties in the cold storage about three weeks, and the mid-season kinds for a week or ten days. By watching the exposed buds on the plants, and by feeling the buds under the bags, one will quickly learn the **feel** of the buds ready to cut. Early varieties, such as **Umbellata Rosea, Grandiflora Nivea Plena,** and **Edulis Superba,** should be cut just as the buds show marked color and begin to feel the first indication of softening. Mid-season varieties, such as **Frances Willard** and **Lady Alexandra Duff,** and in fact most of the varieties except the very latest should be cut at the stage just when the petals in the buds begin to grow and loosen and before the first petals begin to unfold. Late varieties, such as **Marie Lemoine, Milton Hill,** and **Enchanteresse,** must be left on the plants until almost at the half-open stage. Single Japanese and semi-double varieties of scant petalage should be cut in tighter bud than the full rose types, such as **Therese** or **Jubilee.** Very compact, full-petaled varieties, as **L'Indispensable** and **Marie Lemoine,** must be allowed to develop proportionately longer on the plants.

As the buds reach the proper stage, they should be cut with stems fifteen or eighteen inches long, and all foliage stripped off. Longer stems on show flowers, unless they are able to be shown in large bunches or in bouquets, are superfluous; and the extra foliage can well be left on the plants. All buds of a variety, even on the same plant, do not develop evenly; so it may be necessary to make cuttings of the same variety at two or three different times. As fast as cut the buds should be placed in jars of water in a cool basement where the varieties can be sorted and tied together for convenience in handling. Each evening the day's cutting should be taken to the cold storage room, and placed, with stems well submerged, in jars of water to remain undisturbed until time for shipment.

Probably the best storage temperature is an average of forty degrees, although lower temperature has seemed to give equally good results. At forty degrees, most varieties, and especially those cut in tight bud, will remain almost dormant, while other kinds will slowly develop until the immense blooms fill the half-pound bags almost to the bursting point.

If the flowers in storage are to be packed for shipment, the trunks or whatever containers are to be used, should be taken into the storage room, if possible, and heavily lined with paper. After blooms have been removed from water long enough to allow their stems to dry off, they should be packed in layers tight enough to prevent any shaking about in transit. If thus packed cold in the storage room, and properly insulated with the paper linings, the containers will withstand a journey of 24 to 36 hours, even in hot weather, without becoming heated through to injure the flowers.

A least twenty-four hours will be required for the storage

blooms to develop to their best after being opened up, so plans should be made to have exhibits set up well before the judging of the flowers begins. On reaching the show room, sufficient jars or bottles of water should be set up to receive all the blooms. As the shipping containers are opened, the ends of all stems should be clipped, and the flowers placed in water as fast as possible. Then, and not until then, the paper bags should be removed, and the flowers given ample room and opportunity to open.

Thrills, indeed, await the exhibitor who has yet his first time to watch with anxious anticipation the development of his first show blooms. The already half-opened blooms unfold so fast that one can actually see the immense flowers grow in size and beauty, while those in seemingly tight bud when unsacked will open within twenty-four hours time into fully developed flowers, often larger and more beautiful than the finest blooms opened naturally on the plants.

Where a cold storage plant is not accessible, peonies can be successfully held for a week or longer in the family ice box, or in a cool, dark cellar, if the buds are prepared and handled in the same manner as has been described for the storage room.

When it is necessary to ship buds to a storage plant at a distance, they should be prepared in exactly the same manner. After cutting, they should be given a few hours to fill with water in a basement, and then packed dry in well-ventilated containers, such as orange or lemon boxes, for shipment by express. At the storage room, the stems should be clipped and the blooms placed in jars of water as before described.

HARRY F. LITTLE 1878-1947

Director from 1924 *to June* 1947 *continuous. Chairman of the standing seedling committee, office of which he held until his death.*

At the Des Moines, Iowa, exhibit, he made 13 *entries, winning eleven firsts. This included the GOLD MEDAL CLASS of* 100 *varieties; the class for new varieties since* 1905, 76 *varieties; and the class for the largest and best collection of named varieties with not more than* 3 *blooms of a kind to a vase with* 247 *varieties. This was the beginning of a career as showman which made him famous as the greatest one we have ever known, and which made him the one whose opinion as the the merits of a new peony is more respected than that of any one. He continued exhibiting, winning GOLD MEDALS, and in* 1941 *at Syracuse, N.Y., he staged the greatest exhibit ever shown by one man. That exhibition contained* 6000 *blooms with about* 600 *different varieties. He showed* 189 *different varieties in two entries in class No.* 1, *a feat few could ever equal.*

His knowledge of the exact time at which a bloom should be cut

for storage enabled him to have few spoiled blooms when taken to the show room. His contribution was always unselfish, with very little personal gain.

From his seedlings, one of his introductions, Mrs. Harry F. Little, *is now considered one of the finest blush peonies in existence.*

Bulletin #107. 1947 *Paragraph, page* 30, *by George W. Peyton.*

WHAT ARE YOU DOING FOR THE CAUSE OF THE PEONY?

**From Bulletin* #1. *"A Bulletin of Peony News"* 1914-1915
Written by A. H. Fawkes, first Secretary of the Am. Peony Society

Often when the prospective member is approached with regard to becoming a member of the Society, the question is asked, "What will the Society do for me?", and a similar question is often asked by those who are already members, "What is the Society doing for me?" These are very natural questions, but they may be met by another equally pertinent, "What are you, a lover of the peony, doing for the cause of our chosen flower?" If you can answer the last question by showing that you are actually helping the cause along either with your money or your appreciation and encouragement, or by all together, then the other questions will in time answer themselves.

Members who do not see immediate personal returns are too apt to look upon the Society—and this applies to other societies as well as ours—as a combination of a few men, forming a little circle for the exploitation of the flower for their own benefit, at the expense of the other members; or else as a circle on whom has fallen in some way the duty of providing others with everything that can be learned about the special flower for which the society stands.

It is true that a few have been chosen to do this sort of work in the Peony Society, and they are doing it conscientiously and well, although unremunerated. But it is a tremendous task, and their efforts would have been futile but for the cooperation of the faithful; and future success depends largely on whether you will join the ranks of the faithful and help to hold up the hands of those who are striving to bring forth results creditable to themselves and to the Society. There is much still left to do, and they need your help both materially and morally.

To appreciate what has been done by the Society, one must look backward to the time of its organization and call to mind the condition under which peony growers were struggling. Then no man could be sure of the name of any variety. Now the one who is careless, or worse, with his names, is apt to be severely let alone, while

trade goes to the man who has been willing to make some sacrifices for plants true to name. Then there were but few really good varieties in commerce in this country, and the standard of quality was comparatively low. Now, through the efforts of enthusiasts both in and out of the Society, the most choice varieties have been introduced, and the standard of quality has risen to an astonishing degree. This in all probability would never have been brought about by individual effort alone. The combined efforts of many lovers of the peony were necessary to secure such results.

When we stop to compare the condition and appreciation of the peony even twelve or fifteen years ago with what it is today, we are almost ready to say that if nothing more were to be accomplished, and the Society were to be dissolved, its life would not have been in vain. But the Society is not to be dissolved; its work is far from finished, and it intends to keep right on. But nomenclature work is by no means all that is to be accomplished by the Society. Popularization is an equally important matter both from the commercial standpoint and the aesthetic. The flower must be placed before the public in all possible places, and in the most attractive manner. More amateurs must be encouraged to take up its cultivation and to make it a hobby. To this end the Society must encourage exhibitions of the flower all over the land, for there is no better way of showing its possibilities than by placing it on the exhibition table. In ways like these, the Society will find abundant work to do in the years to come, and the greater the number who are willing to help, the greater will be the benefits both to the public and to those who are helping.

Although the man with his shoulder to the wheel is doing the hard work, this work is made much easier and is gladly done if those who are standing by will only speak words of encouragement to him, and do their best to help him out. This is no place for the pessimist, the growler, or the knocker. If you feel you are not financially able to become, or to continue, as a member, then speak good words for us and encourage those who are to join and help the good work along.

NEWSLETTER: PAEONIA

Editors: The Lanings, Summarized by Bill Seidl

JUNE 1977, Volume 8, No. 2. In two letters to Chris Laning, Al Rogers (Sherwood, Oregon) tells of his success with germination of seeds received from Chris in November, 1976. In mid December, after five weeks in moist moss at warm temperatures, many were rooting and then transferred to cold conditions. Those with tiny roots or none at all were refrigerated for twelve weeks after which most had good roots. (Chris says this supports his

own findings that peony seed dormancy can be broken at most any time.) The rooted seeds were planted outdoors (25° to 40° F. night temperatures) and by May 10 the earlier-rooting seeds were up, most with two leaves; the later batch were just peeking out of the ground. Al got the last of the Walter Marx lactifloras, including twenty lots of seedlings—1968 selections from four acres of seedlings planted as seed about 1962. Al also grows daylilies and has bred amaryllis.

Rev. Joseph Syrovy (Vining, Iowa) reports on damage to his peonies and other plants the past two years by drouth, severe winter, botrytis, and borer infestation. His two Itoh-Smirnow hybrids, **Yellow Dream** and **Yellow Heaven,** have thrived, however, and are being propagated by his layering method. Lutea hybrids, frozen and cut down to the ground, were sending up new growth from below, as of early May.

Chris describes seedlings derived from **Nosegay** and **Gwenda,** both of **Mloko-Tenui** parentage. All had cream or pale yellow flowers on plants of short stature (20-26 inches) with the broader foliage of **Mloko,**; no **Tenui** characteristics were evident. He points out that **Davstar,** derived from **Gwenda,** is similar. No good unfading yellows had appeared. The Saunders' Quads produce similar yellow seedlings but on tall, robust plants. Chris entertains some doubts as to whether the goal of deeper yellows is possible through these lines of breeding.

Some of the crosses planned for 1977 are described by Don Hollingsworth (Kansas City, Mo.). Double flowers of hybrid origin is one of his goals, to be pursued by backcrossing the hybrids having lacti blood back to lacti pod parents. He already has young plants from **Lacti x Cytherea, Red Red Rose, Claire de Lune, Prairie Moon, Laddie,** and **Echo.** Some other goals are to recover the yellow color of **Oriental Gold** in a more reliable growing plant by intercrossing the offspring of **O.G.** Another color-goal, lavender, is being undertaken by assembling different clones of the **Lavender strain (Lacti x Coriacea)** and by establishing **Eclipse (Officinalis Rubra Plena x Coriacea)** for interbreeding.

Don relates his experiences to date with the Itoh cross. Prior to 1975 he had seven second-year survivors of all Itoh crosses made in the six previous year. But his 1975 Itoh crosses produced 28 true hybrids in 1976, with 16 surviving in 1977. He attributes this dramatic increase to the greater availability of fresh Lutea Hybrid pollen. Besides using **Alice Harding** pollen, Don has used the following F1's for both pollen and pod parent: **Banquet, Demetra, Gauguin, Renown,** and **Tria.** Also available were two Daphnis F2's, D105 and D106, both from **Amber Moon x Saunders F2A.** These two produced eight of the sixteen survivors. For comparable F2's,

Don recommends Reath's A197 (pod fertile), A198, and A199, the latter two fertile both ways.

In a lengthy article, Don proposes a breeding plan to develop a garden strain of **P. Mlokosewitschi** that would grow reliably and have a desirable yellow color. This was in response to Chris's complaint that many **Mloko** clones bear off-white blooms, the best yellow clones seeming to be the least vigorous and reliable. Although Don does encourage a controlled program of matings using different clones of the species, most of the article outlines the development of a tetraploid strain whose yellow color is derived from **Mloko** and whose reliable growth derives from heterosis (hybrid vigor) through the introduction of other species. A starting point would be **Nova** and Don's own seedling, 7329-10, from **Roselette's Child F2 x Cream Delight.** He thought one, perhaps two, generations would be sufficient to cause the dominant red pigment gene of **Tenui** and the dominant white pigment gene of **Macrophylla** to "drop out," allowing maximum expression of the recessive yellow pigment genes.

Chris was proud of the performance of **Cytherea, Laura Magnusen,** and **Paula Fay** in his garden, whose uncut flowers were pollinated by **Roy's Best Yellow.** But the real highlight was the first-time bloom on two hundred five-year-old **Suffruticosa** tree peony seedlings raised from Mr. Domoto's (California) seed.

SEPTEMBER 1977, Volume 8, No. 3. Silvia Saunders reports that her father's Big Notebooks, detailing his herbaceous crosses, are in the Library of Hamilton College (Clinton, N.Y.), but she had two copies made of Book I and Book III. One set is in Chris Laning's hands and can be borrowed by paying the mailing costs both ways. Don Hollingsworth had duplicated his own copies from the originals, so three copies are now in existence.

Many cultivar notes were made by Don during the 1977 season. Among the lactis: **Miss America,** early, good carpels sometimes found on smaller flowers, accepts hybrid pollen comparatively well; **Spring Beauty** and **Mildred May,** double or semi-double with pollen and carpels; **Gertrude Allen,** Don's best podparent for Itoh hybrids; **Arcturus,** single red, long lasting as cutflower; **Kickapoo,** fine parent; **Dawn Pink,** extremely vigorous, extraordinary parent; **Kelway's Glorious,** fine double, occasional small carpels, has some pollen; **Garden Glory,** dark red double recommended by Roy Pehrson for breeding; **Lady Alexandra Duff,** good reputation as parent, usable carpels on laterals, has given a very double yellow by **Claire de Lune; Snow Mountain, Charlie's White,** and **Jayhawker,** all derived from **Mons. Jules Elie,** the standard of the cutflower trade for storage qualities; **Polar Star,** pod parent of **Mother's Choice,** makes big pods; **Moon of Nippon** and **Shaylor's Sunburst,** promising Jap

whites, the former makes the biggest lacti seeds, along with **Jayhawker** and **Spellbinder.** Don favors white and light pink lacti pod-parents, believing the warm colorations of the hybrid pollen parents are more likely to express themselves. Mentioned also are **Karl Rosenfield, Sword Dance, Westerner, Christine,** herb; **Alice Harding, La Lorraine, Bowl of Cream, Rico, LeJour, Big Ben, Avalanche, Golden Dawn, Primevere.**

Among the hybrids: **Nova,** clear yellow flowers, tetraploid; **Laddie,** good fertility for an F1 interspecies hybrid; **P. Tenuifolia Rubra Plena,** pollinate in bud before stigma dries out; **Winged Victory,** dusky yellow quad, usually makes some seeds; **Cream Delight,** very fertile pollen, source of genes for yellow, sets seed also; **Arch-Angel,** very fertile with tets, a double resulted for Roy Pehrson from **Archangel x Nancy; Moonrise,** produced some fine yellows for Chris Laning and, for Don, a fine red single from **Legion of Honor; Red Red Rose,** some fertility both ways with **Moonrise** and others; **Paula Fay,** pollen is good on **Moonrise,** both are good pollinators for F1 hybrids of similar parentage; **Lovely Rose,** a good seeder from the F1 SLP hybrids; **Cytherea, Ludovica, Paladin,** all have usable pollen; **Paladin** often sets a seed.

Both Don H. and Roy Pehrson report on seed and pollen production on F1 and F2 lutea hybrids. Of particular interest is Don's report of 9 seeds for 14 pollinations on **Age of Gold,** 5 for 15 on **High Noon,** 2 for 3 on **Demetra,** and that both Reath and Michau report seed by **Alice Harding** as the pod parent. In all cases the pollinators were fertile lutea F2 hybrids.

Supposedly well-controlled Itoh crosses, and other hybrid crosses, often yield seedlings not of hybrid origin. Are there earlier indicators of hybridity than the appearance of foliage? Don thinks so and proposes three ways: (1) many firm seeds when experience dictates few seeds will be produced, a negative indicator, (2) a high proportion of incomplete (hollow, soft, . . .) seeds, a positive indicator, (3) cracked or seamed seed, a positive indicator. Don thinks this is a form of genetic incompatibility and only partly lethal.

An article from the Kalamazoo Gazette is reprinted and recounts the discovery of triacontanol as the active ingredient in alfalfa hay that caused plants to grow larger, faster, and to continue even in the dark. Dr. Stanley Ries, professor of horticulture at Michigan State University, and his colleagues are doing further testing of the substance, an obscure chemical in the alcohol family, also found in beeswax and leaf cuticles. Chris Laning is interested in using triacontanol in the form of alfalfa pellets, spreading a thin layer on his seedling beds to spur them to greater growth and ear-

lier first-time bloom. Dr. Ries's discovery is written up in the August 1977 HORTICULTURE.

Robert Geller called Chris's attention to a source of species peony seed. When Chris investigated, he subsequently received 75 catalogs (distributed to PAEONIA subscribers) from Mr. Goplerud (Livonia, Mich.) listing peony seed, many other rare flower seeds, and seed and plants of primroses.

DECEMBER 1977, Vol. 8, No. 4. In his report from N. Dak., Ben Gilbertson blames the dry 1976 season for poor bloom this year. Five roots from Lithuania, USSR in fall, 1976, have survived; four from Leningrad in fall, 1973, have bloomed: **Poceda,** tall robust hybrid, single purple flowers; **Novestj,** a heavy flower, double dark pink; **Anomala L.,** a single purple nodding bloom was produced two years ago, poor grower, and **Tenuifolia 'Pall,'** a small purple bloom. Seed of **Anomala L.** from Ben's contact in the Altai Mts. of E. Siberia have produced plants with a much finer leaf division than the root plant of **Anomala.** Noteworthy new seedlings: a very husky-growing dark red double; an Itoh-type hybrid from **Plainsman x Alice Harding,** unbloomed, that was dug and divided into four good-sized plants; two plants from **Claire de Lune** x open, neither one had bloomed. One is very short, has the typical blue-green foliage of **P. Mlokosewitschi.** Ben states that **Mloko** is the most disappointing species he has worked with, having no worthwhile results after more than twenty-five years.

In one of his hybridizing goals, Don Hollingsworth envisions a classic double peony such as **Dolorodel,** but in the warm pastels and reds or cool pinks of early and midseason hybrids. His approach, crossing double lactis with appropriate hybrids, has taught him several ways to overcome suppoed infertility in the double lactis. The natural single flower form has been transformed by selective breeding to Jap, semi-double, and double forms at increasing expense of the reproductive parts. To improve fertility of the double forms, one must therefore **reduce** the degree of transformation. Two methods are explained.

(1) Divide an established clone into smaller plants. Typically double clones may produce some functional reproductive parts when growing as young immature plants. (Normal-appearing carpels may, however, have internal barriers to fertility.) (2) Prune some primary stems at ground level on established plants; secondary stems may develop with reduced flower form. This technique worked well with **Big Ben.** Some vigorous hybrids and lactis (**Miss America**) may produce secondary stems along with the primaries. Some reduced doubles (**Phillippe Revoire**) may produce pollen, but not usable carpels.

Other ways to use doubles. Lateral flowers may be reduced

and have usable parts whereas the terminal flowers are useless. On the other hand, some clones (**Kansas, Kelway's Glorious**) may produce big double flowers on established plants but still have small carpels deep in the flower center. These carpels often have normal stigmas (as opposed to the flagged, feathered and useless stigmas of the less transformed Jap and anemones) and may produce a few seeds. Ben Gilbertson's cross of **Kansas x Phillippe Revoire** illustrates how two highly double flowers can be mated.

P. Wittmanniana, tetraploid, and its hybrids have captured the interest of Harley Briscoe (White Hall, Ill.). He thinks **Witt.** offers breaks in green and yellow. Chris Laning tells him that the species is difficult to grow and doesn't hybridize easily but admits one descendant, **Ballerina,** has grown well for him. There follow four pages from Dr. Saunders' Big Notebooks, detailing his **Wittmanniana** crosses. In all, about 160 hybrids were produced, four of them named. (Lemoine, about 1890, made similar crosses and introduced four varieties: **Avant Garde, Le Printeps, Mai Fleuri,** and **Messagere.**) Most crosses were of **Lactiflora (Albiflora x Wittmanniana.** Every seedling is numbered, often followed by the comment: "dead," "no notes," or "all albis, out." Most seedlings were infertile. Some of the more interesting notes, in the order given, are as follows:

4913 **1796 x Wittmann.** 1931: yellowish, carpels later are almost black; sent to Mrs. W. duPont.

4919 **Gaiety x Wittmann.** 1931: very yellow, as yellow as a pale **Mloko.** 1932: very nice yellow. 1934: very yellow; divide; really good. 1935: divided.

4924 **Green Ivory. 1091 x Wittman.** 1931: much like #4923. 1933: better; cream yellow; divide; tall, 36 inches. (Later notes indicate this variety produced offspring.)

4928 Sib. to above. 1931: too near **Mai Fleuri**; pods blackish green; sent to Mrs. W. duPont.

4931 **Elizabeth Cahn. 741 x Wittmann.** 1931: May 29, pollen v. few 5-7%. 1932: June 1, small deformed white single. 1933: May 22, much green in it; crinkled, amusing not unpromising. 1938: divided.

4935 Sib. to above. 1931: very yellow stained pink, interesting but small; good stamens; best of this group; pollen few—some 40-50% good. 1932: fine buff yellow, large, a beauty; divided. 1941: rather unconvincing.

5521 **Primevere x 3979.** 1931: too near **Avant Garde.** 1934: magnolia type; divide.

5536 Si. to above. 1931: pollen v. few, 10%. 1932: very pretty **Wittmann hybrid.** 1939: tall magnolia like. Divide (Beauty).

7137 **Duff x 3979.** 1933: Pink, not good color but semi-double.

8308 **3481 x Wittmann.** 1933: May 29. 1934: May 30, 1937: beautiful pink cup; very symmetrical, very firm; rescue and divide (not done).

8388 **Magnolia (Flower?). 837 x Wittmann.** 1941: divided.

8891 **Ballerina. Wittmann x Lady Duff.** 1934: June 1, semi-double, only one small bloom; no pollen. 1937: nearly full double, very good; divide; cream yellow; really grand as it matures. 1938: divided. 1941: (Coded numbers indicating, I assume, locations in peony plots. There were two siblings, both with "no notes".)

Five Itoh seedlings, four of which have bloomed, are described by Bill Seidl. The first three come from mixed seed of lacti seedlings **61L5 x Chinese Dragon** and **Mystery, 61L6** and **61L7 x Thunderbolt.** HT-1 is a single, dusky medium rose with darker flares and lighter edges on a vigorous plant.

From the

HISTORY OF THE AMERICAN PEONY SOCIETY

37 Charter Members — All names have been requested.

F. A. Blake, Rochdale, Mass.
Jackson & Perkins Co., Newark, N.Y.
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Philip Breitmeyer, Detroit, Mich.
James McKissock, W. Newton, Mass.
J. Woodward Manning, Reading, Mass.

At the first annual meeting, in Detroit, in 1903, it was voted that the Society be incorporated under the laws of the State of New York. Mr. Frank B. Lown, one of the charter members of the Society, offered his services as attorney in the matter, and the Certificate of Incorporation was filed in Albany on June 2, 1904.

FROM BULLETIN #136, March 1955

Written by Dr. J. Eloit Coit, March 9,1880 — *June* 4, 1976

One of the important early activities of the Society was the effort to bring some degree of order out of the very much confused nomenclature of the Chinese herbaceous peonies. Arrangement was made with Cornell University in 1904 to plant in one good-sized field, specimen plants of as many varieties as possible for comparison and study. It was my job to receive, label and plant the thousands of roots donated for this purpose by some twenty-two nurseries all over North America as well as eight nurseries in Europe. I was responsible for the records and culture of the field, and later on assisted with the staging of the Society show at Cornell University in 1907.

Of the hundreds of varieties grown, only a comparatively few produced blooms sufficiently typical for detailed description and publication in Cornell bulletin 259. At the same time, with the cooperation and assistance of several members of the Society, a checklist was prepared and published. A serious effort was made to use the earliest published spelling of names, and also to give place and date of all published illustrations of blooms. After I left Cornell in the late summer of 1907, the study of varieties was continued by L. D. Batchelor.

With respect to the species **P. Brownii,** it grows wild in the brush lands all along the foothills of southern California. It shoots up and blooms in very early spring, dies down and remains dormant during our hot dry summers. The flowers are inconspicuous with purplish red petals scarcely one inch long. This plant has no ornamental value. It occurs only here and there in the brush and does not grow in colonies as is the case with most of our other wild flowers. It should not be difficult to gather a few seeds as soon as mature.

COLOR SLIDE COLLECTION

Color Slide Collection: The American Peony Society maintains several groups of excellent sets of peony sides for rental. Each set contains 80 slides. A complete set can be requested of all tree peonies, herbaceous hybrids or lactifloras or a combination of these three types.

Slides should be ordered three weeks in advance of date to be shown. Return slides promptly. Return postage, including insurance must be paid by the renter. Insurance $50.00. A charge of $2.00 is made for every missing slide. Count slides when received and again before sealing for return. A duplicate of any slide is not accepted, when returned. Rental fee, $7.50.

Send request and check to: Richard Edblom, 6917 45th Ave. N., Minneapolis, Minn. 55428

The History of Peonies and their Originations, compiled and edited by Greta M. Kessenich, is an authoritative reference book that every peony grower should have for information. Over 5000 peonies are recorded, the name of the hybridizer, description of each flower, plant, also the year it was introduced. Price $10.00

Peonies Outdoors and In by Arno and Irene Nehrling (1960) 288 pages containing information in all phases on the herbaceous and tree peony. Society members $4.95.

Send check or money order for the above literature to American Peony Society, 250 Interlachen Road, Hopkins, Minnesota 55343.

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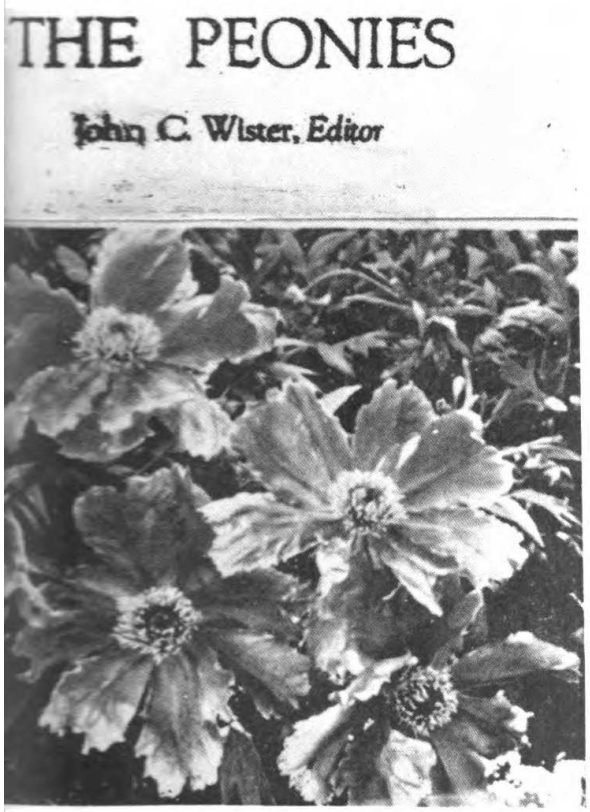

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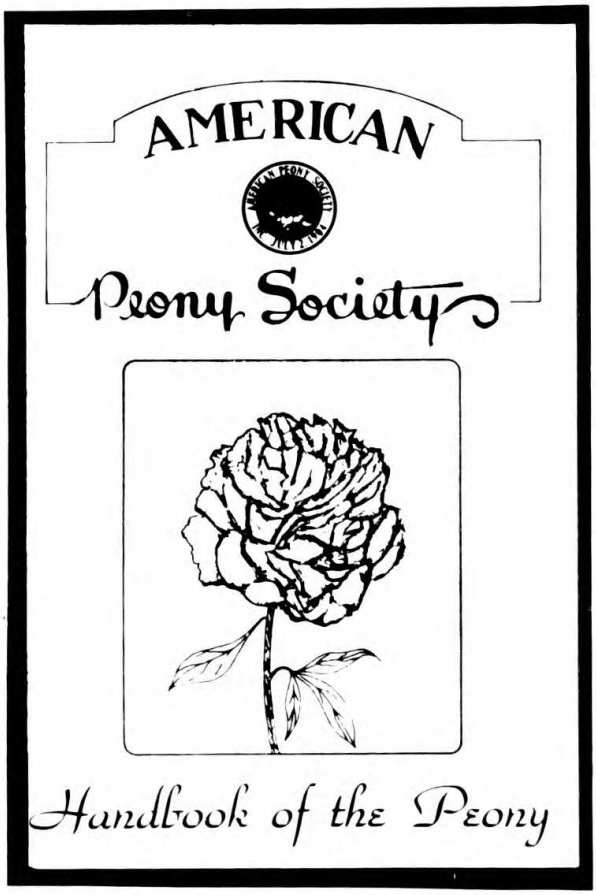

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TREE PEONY IN WINTER

Garden of Takahiri Somei
Taima, Japan