

PAEONIA

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LANING GARDENS MAY 1991

by Don Hollingsworth

When one has lived in Northwest Missouri through the various weather trials of the 1980s, lower Michigan in late May can be very impressive. And, I can testify that this year it was. A five-day visit with Chris and Lois Laning began May 22 with their rhododendrons and azaleas in full glory, lilacs and southern dogwood passing and early hybrid peonies blooming all over the place. Three places, really - the home site, the nearby field called "Unk's" and "the farm."

The point is, as Paeonia readers may have already surmised; Chris' horticultural endeavors are substantial. He doesn't just grow peonies. But I'm getting ahead of the story here. This is meant to be remarks concerning impressions gained during the visit. To put a little order on this I will proceed from the general to the specific.

The area around Kalamazoo and westward to Lake Michigan is lush with luxuriant foliage. Both the native and exotic species are in super condition. And right there the contrast with Northwest Missouri begins. There's lots of dead wood in our trees. Besides our recent drought damage, we have had some record cold temperatures in the last two years. The soil and climate at the Laning's apparently suits rhododendrons just fine. Some of them are 8-10 feet tall. In Kansas City we can get them to 4 feet in certain places, usually with the addition of considerable site preparation.

Chris grows seeds of seemingly everything that strikes his fancy. And, they do grow, many of them anyway. Magnolias of several kinds, Amur maple, dogwoods -- both florida and kousa, hostas, lilacs, tulip tree and rhododendrons that I remember. Not all at once. Some of them are big bushes and trees now.

One of the very intriguing prospects is his magnolia seedlings which may be genuine hybrids of bigleaf magnolia and sweet bay. The seed parent is a homegrown seedling of *Magnolia macrophylla*, the deciduous big tree native of Southern Appalachian valleys, which can give flowers 16 inches across and leaves 30 inches long. Chris feels it isn't entirely hardy in his garden, but it flowers and he has from time to time used on it pollen of the evergreen sweet bay magnolia. This year some of the seedlings look different enough to hope they may really be the hybrid.

Just coming into its glory as the visit ended was a group of *Cornus kousa*. Chinese dogwoods, right across from the guest room window where I could follow their progress from an eye level perspective. None too much has been said about the spectacular show of which this species is capable. However, we need some selection for additional winter hardiness in order for me to use these successfully where I grow peonies at Maryville, Missouri, almost into USDA hardiness zone 4 on the new scheme. There are some fine specimens in Kansas City, however, about 90 miles to the south but almost into zone 6.

So much for the general, now to the specific - peonies. This trip was for me to see and evaluate seedling peonies for their breeding potential, as well as to simply have the opportunity of enjoying a section out of the Lanings' flowering season. The trip was timed especially for the early flowering hybrids – Chris' "tets."

All-in-all there are hundreds of peonies (maybe thousands), in the three plantings, with plenty of room for more. Temperatures were fairly warm and flowers were coming out fast. '**Red Charm**' was just beginning to open the first day and three days later we helped the grandchildren cut early lactiflora seedlings to sell on Memorial Day weekend. I did get to see a great range of Chris' tetraploid seedlings and other peonies in flower with them.

We marked perhaps 40 seedlings that I felt have something extra to offer a breeding program. For the most part this means they had to show doubling of some form, although a few singles of especially good petal form and color made the "cut." Of course Laning's '**Sunny Girl**' and '**Sunny Boy**' lead the group, along with others that are just as double flowered, or more so. Chris has a great deal of appealing color among these seedlings and a good many are ones he had already increased. Presumably those to be divided this fall will go into a planting together where chance pollination (bees) will more reliably intercross among them. Of course, hand pollination can be done just as well in the new planting and perhaps more conveniently.

Chris has long blocks of Itoh Hybrids which he gleans each autumn in order to not miss any chance seeds. Like my own experiences in this respect, the results have not been very rewarding. The question arises whether this is the best we can expect? I suggest the trial has not been sufficient to give a useful answer. Since most of the flowers so gleaned have not been deliberately pollinated, we don't know what pollens may have gotten to the stigmas of these Itohs, nor just how reliably the bees have been at getting any pollen to them. It seems to me that bees prefer peony flowers which contain copious amounts of pollen. Sometimes it seems they find other species to work on when the poor pollen producers and non-pollen-bearing peony flower types are prevalent.

Perhaps there are some "right" pollens which if used on the relatively large numbers of Itoh Hybrid flowers that this garden is producing would result in some seeds. The question arises, to what might we look for possible "right" pollens? My inclination would be to look to the parents of Itoh Hybrids for a trial -- Lutea Hybrids and Chinese peonies -- also any Itoh Hybrid that produces pollen, although I cannot now name any particular one.

One of Chris' own originations in the Itoh Hybrid group has a nice rose colored flower. The plant and flower are of modest size but quite vigorous, giving an impression of good health and great refinement over all. It should be introduced. The question of name came up. The field stake says "Rose Itoh". This seemed to condense nicely to "Rosy Toe". (He didn't take to the suggestion.)

There was a robust red double (no stamens) hybrid of uncertain parentage that should be showing up at exhibitions some day. And there is much more. I've probably overlooked several things deserving of special mention. However, my notes are on the plant tags in the field. Suffice to say, there are a lot of very interesting peonies in the Laning gardens. I am grateful to Chris and Lois for having the opportunity of viewing them.

To top it off, the Lanings are gracious and charming hosts and made my stay very pleasant.

We also had a side trip to Leila Bradfield's garden. In addition to being a peony enthusiast, Leila operates a small nursery which is mostly permanent display gardens at this point in time. The plantings are extensive, all beautifully landscaped, nestled in a small valley, replete with pond and residence overlooking, the whole surrounded by woods. You can probably wrangle a visit if you will buy a few hostas, etc, to take home with you!

Ojala 30.3.1991

Chris and Lois Laning
553 West F Avenue
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Dear Mr. and Mrs. Laning,

Thank you for the new "Paeonia" and your kind replies. No doubt your garden is a "yellow heaven" at peony time.

I like peonies quite a lot. Until now I have succeeded to get seed of about a dozen different species peonies and now they are germinating in the seed bed. Last autumn we got a load of peony roots from Germany, both European lactiflora classics and American hybrids like '**John Harvard**', '**Claire de Lune**', '**White Innocence**' etc.

I have also been thinking of breeding and we are presently planning what to do. The yellow peony has been in my mind, too, but as I see that the problem has already been solved, I'm quite willing to just enjoy the existing delicacies. Are your yellow herbaceous peonies already in commerce? I would be interested in buying a few. Your '**Sunny Girl**' looks very charming in the picture of "The American Hybrid Peony". Also the Itohs sound promising. Which nursery might have the best Itoh selection?

Maybe we could also breed a hybrid of our own, for example one with flowers like *Trollius europaeus*. I am also dreaming of a vigorous, upright peony with velvety dark flowers, in fashion of Tulipa "Queen of Night". Or maybe you do have some suggestions about promising breeding paths worth examining? I think that we have got from you through APS seed exchange a few "advanced generation" hybrid peony seeds. Is there a list of available fertile hybrids? Such a list could be helpful when one is planning their own breeding programs.

In winter there is much time to think and make plans for summer. It is almost spring here already, sun is shining and the days are getting warm. We have already started to prune apple trees, but we are still having half a meter snow and more is snowing today.

I wish you a nice spring with the flowers!

Yours,

Rea Peltola

Dear Rea Peltola:

Your welcome letter will be of interest to our PAEONIA readers and my reply will answer questions you have in mind and advice on direction in hybridizing that you may want to take.

Itohs were first successfully developed by a Japanese hybridizer named Itoh. These clones are a cross using pollen from a lutea hybrid, a tree peony '**Alice Harding**' on a lactiflora plant. Though we American hybridizers had tried it for more than 50 years, we were unsuccessful. Now that we know this cross is possible, other varieties are being used with some success. Itohs are first-rate plants that look great even when not in bloom, but when in bloom they are lovely almost beyond belief. BUT THESE PLANTS DO NOT SET SEED!!

Herbaceous peonies with yellow flowers now exist but supply is so limited that they are expensive. There are maybe a dozen cultivars in my garden that must be propagated for sale and distribution, '**Sunny Girl**' being one of them. I am satisfied that my goal has been reached so am now turning to a new color goal.

For the 1990's, pansy purple color is what I'll be focusing on considering that this is the first step in developing a DARK BLUE PEONY, which may be many many years down the line.

What quarantine and plant instructions does Finland have? I am willing to sell any of my tetraploid yellow clones for \$50.00 per division. Also '**Yellow Dream**' and '**Yellow Heaven**' Itohs are to be \$50.00 per division. Postage is to be paid by the purchaser.

Peonies are raised to please people and new colors are for new peony lovers.
Sincerely,

Chris

PLANT SEEDS NOW FOR PEONY SEEDLINGS NEXT SPRING

Don Hollingsworth

Germination of most peony seeds is helped by a summer of warm, moist "incubation". The seeds are said to have immature embryos at the time they reach maturity in the pods. Whether or not "immature" is technically correct, we know that failure to allow a sufficient time under warm, moist conditions after planting will result in germination strung out over two or more years.

Peony seeds planted by June first will have 90-120 days of warm, moist development time before autumn onset of the cooler temperatures which permit root germination. Seeds which have not met their full requirement for warm, moist development will not be able to root-germinate.

Peony seeds planted by early May can have 150 days of warm, moist development time before the onset of rooting temperatures in autumn. The length of time required varies by seed, as does their rooting temperature. The seeds have internal controls with respect to the level of coolness required for germination. This may vary by individual seed especially among the hybrids of mixed ancestry. It is more constant within a species. Most germination-ready seeds (warm, moist development completed) of tree peonies will root upon 60-65°F, some higher, while other species may not respond until a lower range of temperature is obtained. Roy Pehrson found that hybrid seeds of *lactiflora*, *peregrina* (*lobata*) or *officinalis* wanted temperatures down to 50°F before most could root-germinate.

Failure to meet the full requirement for warm, moist development will account for part of "indoors" germination losses. One demonstration of the effect of not giving sufficient warm, moist development time involved a quantity of '**Moon of Nippon**' seeds. Under indoor conditions - temperature controlled at 75°F - two large lots of seeds were held in plastic bags of moist vermiculite for 90 and 120 days, respectively. When moved afterward to rooting temperatures - maybe 60°F - the 90-day group rooted approximately 55% while the 120-day group reached 90% germination. The results quoted here were not looked up again but are from memory. However, the observations were reported fully in this newsletter several years ago and can be confirmed. Numerous other observations from controlled germination trials support these conclusions.

Donald Wyman wrote in one of his books that the seeds of many genera will benefit from a substantial period of warm, moist environment at the beginning of the germination period, bringing together the germination of the seeds. In peonies, which require warm then cold to germinate, the warm period is, generally, obligatory.

The adoption of strategies for making sure peony seeds have a high probability of getting sufficient warm, moist development protects against one major pitfall in seedling production. There are others.

Meeting the variations of rooting temperature requirements has already been mentioned. To determine what a given seed lot needs, one may use declining outdoor temperatures of autumn. If they don't get the needed stimulus upon early temperature drops, it will get cooler soon.

Another area of concern is getting bud dormancy reduced in the germinated seeds. Some observations suggest that some Mediterranean species of peony may require a longer time at dormancy reduction temperatures. If, as has been conjectured, dormancy reduction may go forward fastest at around 40°F, then milder winter climates might lead to evolution of a longer dormancy reduction period, delaying seedling emergence until winter frosts are past.

The bud dormancy reduction phase of seedling development is at best dimly understood. However, observations have led to the guideline that seedlings wintered in a household refrigerator should not be planted out until the plumules (shoots) are well extended, maybe one inch.

Outdoor germination may predict second year seedling emergence, but it has some significant advantages when seeds are timely planted.

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April 20, 1991

Mr. Chris Laning
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Dear Fellow Peony Fancier,

I have enjoyed reading of you and your articles in the PEONY BULLETIN. When you were President of the Society in one issue of the BULLETIN on the President's page you wrote of a man at the Peony Show who was so fascinated by and so enjoyed the specimen of '**Halcyon**'. It interested me and it was pleasant to reflect on the man's evident pleasure as I, too, grow and enjoy '**Halcyon**'. This year it is going to put on quite a show for me as evidenced by the many buds it has. I am looking forward to it.

Our daily newspaper on the comics page carries a strip "WORD FOR WORD" in which various words are featured giving the background and the roots from which they have come. This one enclosed especially rang a bell and my thoughts went back to the page in the BULLETIN and to my plant in the garden so I secured an extra one (I keep a Peony scrap book) to send for your enjoyment. We will be forced to admit that it is an ugly bird but the thought is sweet and applicable. ENJOY!

From information in the BULLETIN I gather you have quite an extensive collection of Tree Peonies and I also recall an article dealing with a trip you made collecting scions so I assume you also do some grafting. I do hope it has been a successful venture for you. I have never tried it but I must admit that every now and then the thought does cross my mind. Very few in this area grow Tree Peonies. I have quite a nice collection. I have 78 with labels, 2 which are named varieties but somehow the labels have been lost (that was early; I now keep a planting chart) and 1 seedling which I managed to raise from a seed. I have 1 European - '**Reine Elizabeth**' (a poor bloomer), 1 Chinese (Doll of China - gift from Louis Smirnow), Japanese, and Saunders, Gratwick, Daphnis and Reath hybrids. I also have many named herbaceous including hybrids and Japanese and several of the tenuifolia rubra plena plants. Right now the Tree Peonies are starting to bloom and '**Moonrise**', Tenuifolia was in bloom and so "The Greatest Show the Garden Will Present" is well under way. This has been a good year for them. In this area we sometimes have an unseasonably warm spell followed by a drastic cold spell which takes a toll. This year though all has gone well and it is a very exciting and happy time.

I have thought of writing you to ask whether you ever have any plants that you would consider selling. It would seem as many as I have that I would not be wanting any more. Believe me, I am not greedy but there are some I would like very much to be growing in my planting. I started in 1948 and ordered from Mr. Smirnow over the years. Now I wish I had ordered more as he had such an extensive list. I also ordered from Mr. Gratwick and have ordered from Klehms and from the Reaths. But now I have reached the place where some of the ones I have read about and particularly want are not on the lists available to me.

So prompted by three things; namely, (1) it is raining today and I cannot be outside enjoying (2) the item on the comic page concerning HALCYON, and (3) the beginning of the bloom season of the Tree Peonies, I yield to writing to ask. I do hope you will not be offended. If I had a plant that I had painstakingly prepared and grafted and it had "taken" and was flourishing I undoubtedly would be reluctant to part with it. Of course, on the other hand, if I had a surplus or was running out of planting space I might be inclined to be a bit more flexible!

The five most wanted on my list are all aristocrats, I realize. Also it seems red predominates. I do have many lovely white varieties though but Suisho Haku is not one of them. The ones I would like most to add are:

ABOUKIN (or sometimes I find spelled ABOWKIN) (Name of Old Palace

D-255 - Gratwick's red one

HINO TSUKASA (Vermilion Leader) (Ashes of the Setting Sun)

KINKADEN (Hall of Golden Flower)

SUISHO HAKU (Clear Crystal White) or (Crystal Place)

Do you by chance have any plants of any of these that you would be willing to sell? Or, do you know of any sources where I might possibly find them? This is probably a very busy time for you but I would enjoy hearing from you some time when it is convenient. Hope your Peony Season is a SUPER good one.

Sincerely,

Gertrude Goddard



Dear Mrs. Goddard:

It is interesting to note that some readers remember a lot of what they read! It is several years ago that I wrote about a fascinating peony, a seedling of '**Halcyon**' therefore a '**Halcyon**' F₂. This plant has the general appearance of '**Halcyon**' but with an added feature of small miniature side blooms. These darlings bloom after the main flower is spent. For the lover of BIG BEAUTIFUL BLOOMS, it isn't at all impressive but for me it's a honey! But say, did your Halcyon perform this year as expected?

Plants, including peonies, must have a potential of being a parent or else they have little interest for me. Therefore, I have very few named varieties of suffruticosa, lutea hybrids, and delavayi hybrids, and none on your preferred list. So sorry!

Readers of our PAEONIA newsletter may be of some help so I'll list the ones you request to locate.

Hybridizing is my main interest and raising peonies from seed is a hobby though obsession may be more descriptive than hobby in my case. The new things coming from seeds, each being unique, far outweighs collecting named varieties I call it pure joy.

Maybe sometime you will write and let me know just how great your '**Halcyon**' performed.

Sincerely,

Chris