

REQUIRED READING –

1. "The Peonies" by John C. Wister, \$3.50 from American Peony Society.
250 Interlachen Rd., Hopkins, MN 55343
2. The Bulletins of the American Peony Society.

The PAEONIA is authorized by Miss Silvia Saunders.

Editors are Chris and Lois Laning,
553 West F Avenue, Kalamazoo,
Michigan, 49007.

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COMMENT ON INBREEDING ARTICLE

Don Hollingsworth

Dear Chris:

March 1, 1980

I have your article on inbreeding and am pleased that you are promoting this. The inbreeding I have been doing with F₁ hybrids as seed parents has been almost entirely using pollens of closely related plants. It is perhaps useful for me to again share the identity of some that have been seed producers. (All F₁, and triploid, except perhaps Claire de Lune.)

SLP Hybrids

Paladin
Red Red Rose *
Lustrous
Sophie
Laura Magnuson *
Cardinals Robe *
Bravura
Lovely Rose

Triples

Rushlight F₁
Roselette
(The Rushlight I have is especially responsive to pollen of things carrying yellow. This clone from Wild's several years ago.)

Quads

Rose Noble *
Winged Victory
May Music

Other

Claire de Lune *
(Lacti x Good Cheer) various with SLP group

For pollen parents I use related parents or F₂ of the same group; tetraploids when the pod parent is a triploid.

This is, of course, just one of the levels at which one might start an inbred line.

- Don

* means I have also had success with the pollen. In this connection not all have been tried.

Ed. Note:

S.L.P. - lobata hybrids
S. - Saunders
L. - lobata of
P. - Perry (Nursery in England)

AN UNUSUAL SEEDLING AND A MUTATION

Bill Seidl

AN UNUSUAL SEEDLING. Probably my most unusual seedling is "AL1", from 'Age of Gold' x D223. It has never bloomed in the six or seven years of its existence but its un-usualness derives from its variegated foliage, a characteristic I've never seen or heard of in any other peony. The base color is a light green with patches of much lighter chartreuse-green scattered in random patterns throughout the leaf, not confined to the edge as in some Hosta varieties and other variegated-leaf plants. All the leaves exhibit faint streaks or striations of lighter green and about a third have the larger solid areas of light green. Last year the first hot spell burnt the edges of the variegated leaves but these burnt areas dried up and were rubbed away. No further burning occurred. The lighter areas did not darken as the season progressed but became even lighter and by fall were almost white. At this time the green of the outer leaves turned to red and, where the red color bled into the lighter areas, a pink color appeared. Altogether, quite attractive.

For the first several years of its life only the light green striations appeared and, what with the base-green color itself being lighter than that seen in most lutea varieties, I thought the plant sickly and chlorotic. It's also growing in ground previously planted to peonies, a factor contributing, I thought, to its "sickly" condition. But several years of TLC did not change its condition and I came to appreciate it as a "break", all the more unusual in that this was the very first lutea seedling I've ever germinated out of a small total population of about a dozen. It has average vigor, with TLC, perhaps less than normal because of the shortage in chlorophyll. It might've bloomed earlier had not the terminal buds always been destroyed by some hungry animal. Last winter, with protection, the terminals were undamaged but still failed to bloom. However, since this occurred on most of my established TP's for some reason, I still have hopes this unusual plant has a normal blooming capacity.

The pollen parent is a Daphnis seedling whose foliage takes on autumn-type red variegations as early as June 1st (!!), then changes to overall bronzy-green in early fall and finally overall red in late fall. Its light yellow blossoms do not appear in great numbers as it seems to bloom only from terminal buds and these usually winterkill. It can set seed well, especially with 'Chinese Dragon' pollen. (I've not had much success though in germinating these and other lutea hybrid seed.) The fact that it takes on early red variegations leads me to believe this plant is responsible for the variegated foliage in AL1. If only AL1 would bloom, I should dearly love to backcross to D223. (I vaguely recall someone describing, in Paeonia or the Bulletin, their plant of D223 and it did not sound like the one I have under that number.)

A MUTATION. It was Saturday morning, early, June 18, 1977, that found me walking hurriedly along a row of Ito-Smirnow hybrids looking for something to exhibit that day at the National Show in Milwaukee. (The easiest way for me to win a ribbon, I had discovered, was to enter in a class with little or no competition.) When what to my searching eyes should I see but an awfully faded bloom of 'Yellow Emperor', or so I thought at first. On closer look I said to myself this was just too white to be a normal faded bloom; perhaps it was a one-time freak caused by the harsh growing conditions. (This was on my acre lot, clayey soil, no water supply except for rainfall, and no special care.) I cut the bloom and later that afternoon showed it to Dr. Reath at the exhibit and he advised marking the stalk that produced that blossom and isolating the root portion from which it had sprung. The next day I started to look for that particular bush, remembering its approximate position in the row and even where in the bush, the S.W. portion, that I'd cut the bloom. I was 90% certain I'd found the correct bush but a few days later all doubt was removed when an adjacent stem also bloomed white. That fall I dug the entire plant and found the two marked stems arising from a portion of root joined to the main root by only a thin root segment; it practically fell away from the main portion. The mutated portion was planted in my home garden. It was not allowed to bloom in 1978 but in 1979 it produced four white blossoms and that fall was divided into

two roots and replanted back onto the acre lot. It is similar to 'Yellow Emperor' except for the white color; it has small pale purple flares at the base of the petals, not noticeable (as I recall) unless one looks for them by spreading apart the petals.

If 'Yellow Emperor' could produce a white mutation, a throwback to its white pod parent ('Kakoden'), perhaps it would also mutate a darker yellow, a throwback to its yellow pollen parent (T.P. 'Alice Harding'). When this thought occurred to me in late 1977 I did indeed recall that an established plant of 'Yellow Emperor' growing at my home garden had -produced some deeper-than-normal yellow flowers that year but I had just assumed that they were very fresh blooms opening in cool weather and that the other blooms were older and faded. In 1978 I observed this plant more closely (I can see it from the kitchen window) and it did seem that some blooms opened a darker yellow than others and on maturing were less faded. I tagged these stems and also some that appeared more single with larger, darker flares. The whole plant was dug that fall (late, Nov. 18), the tagged stems of the darker yellow flowers arising from a central root mass that was difficult to isolate. I made 15 divisions, some with just an eye and a short stump. All grew in 1979 but no definite conclusions were drawn from the few blossoms that appeared.

Speaking of mutations, last season while looking for some blooms to pollinate on Reath's A199 (yellow), I discovered a small white blossom on a leafless stem, just 5 or 6 inches above the ground. The stem originated at about ground level from another woody stem which, as I recall, had not blossomed. Perhaps the whole stem is a mutation or perhaps only the one bud on that stem.

* * * * *

THIS LETTER FROM FATHER SYROVY (St. Mary's Church, Vining, Iowa, 52348), DATED JANUARY 10, 1980, WAS INADVERTANTLY OMITTED FROM THE MARCH "PAEONIA" —

Dear Chris:

During this cold and snowless but windy weather we've been having here in Iowa this winter, I've been rereading the back numbers of "Paeonia" which go back to 1972. Congratulations to you and Lois for the wonderful work you've done all these years. "Paeonia" is a veritable encyclopedia of information! Our successes and our failures and all the newest and best ways of hybridizing and growing and sprouting seeds, the generosity of most of the members in seed and root exchange, are most valuable.

Of special interest was the feverish interest in *californica*, the only wild peony found in America. How Mark Laning, your son, and his wife discovered it, and then your trip there to find it, Dara Emery's help in sending pollen and experiments, all were interesting reading. Back research also revealed that Prof. Saunders had worked with it and others besides you also.

It seemed strange to me that someone especially in northern California and Washington state where it grows and herbaceous peonies also can be grown, hasn't worked with it and hybridized it. 'Primevere' is such a good seed setter, 'Roselette' and others too numerous to mention could be used, especially the F₂'s. We'll leave that task up to them! We've got to get that unfading yellow or flavin into the present so-called yellow herbaceous which they don't have!

Perhaps some of us who have had success with the Itoh cross are weeding out seedlings which do not look like Itohs but might be herbaceous which will turn out to be yellow, using these plants then

to further hybridize or backcross. I've had some funny looking plants from my Itoh crosses and I'm holding on to them until they bloom. Who will be the first to give us a full petalled yellow or orange peony like **'Red Charm'**? Fragrant perhaps?

..... I would appreciate an article from you answering my question, "Did you have any success with your *californica* hybrids?" Is this *californica* the *Onaepia* mentioned on page 29 of Arno and Irene Nehrling in their book "Peonies Outdoors and In"?

You might also insert some place "Has anyone found a good way to get rid of moles?" There are two kinds, those that travel near the surface and those that travel deeper under the surface — impossible to trap, and causing damage to peonies and seedlings. Any chemical? They are useful as they eat grubs and worms, even the useful earthworm, but do a lot of damage by their tunnels and undermining plants.

- Father Syrový

LETTER FROM CHRIS TO REV. JOSEPH SYROVÝ -

April, 1980

Dear Father Syrový:

Your letter of January 10, 1980, was read and then laid aside. Not until this evening did I again run across it and realize I failed to make reply. Please forgive! Also, the March issue of PAEONIA is completed and your article will not be included: sorry! You must forgive — 70 times 7, Jesus says. *Onaepia* mentioned on page 29 of Arno and Irene Nehrling in their book, "Peonies Outdoors and In" is the *P. californica* and *P. brownii* that PAEONIA discussed in several articles. And in "The Peonies" by John C. Wister, a bit more information is given on page 15.

All of my *P. californica* plants eventually died, not producing a single bloom! Seeds produced plantlets that never survived more than two years. Pollen received from Dara Emery of Santa Barbara, California, appeared to successfully fertilize a number of *lactiflora* blooms but all plants from this cross turned out to be pure *lactiflora*. I consider a distant cross such as this a failure if the resulting plants produce a heavy crop of seeds — that's why I say this cross was a failure. No one to date has ever reported that a *californica* hybrid had been produced. .

The chromosomes of *P. californica* are reported to be circular, they form "O" rings. If this is true and this characteristic is unique, hybridizing will indeed be a difficult task! Also, being an aneuploid with a chromosome count varying from plant to plant and a count from 9 to 21, it is a difficult plant with which to work.

Browns, yellows and reds are colors of its flowers that give promise of increasing color range. Plants are tall, up to four feet when supported by chaparral, otherwise they fall over because of lax stems. The plants have 4 or 5 or more flowers per stem, a feature I need in my hybridizing. But now I have no plants, no pollen, and have had no success! Poor me!.

Spring will be here in just a few days and I enjoy the anticipation.

- Chris

SEED PRODUCTION AND DISTRIBUTION

Built-in frustrations are presented to the hybridizers when lactiflora cultivars are used as one parent of a planned cross. When crossed with other species, resulting seedlings are highly infertile. While it is true that such seedlings after ten to twenty years may produce an occasional seed, this procedure is much too slow to be of practical use. I don't use lactiflora clones any more.

Approximately 80% of Professor Saunders' species crosses had lactiflora (albiflora) as one parent, and generally it was the "pod" parent. These crosses are basic, and are the foundation upon which we will build. His (Professor Saunders') F₂'s of these species crosses were generally fairly fertile, thus giving us the extremely valuable materials for our continuing hybridizing. His successful efforts are completely adequate and need not be repeated.

A host of tetraploid plants are now available, plants that were developed by Professor Saunders or derived from his plants. Happily, seed production from these later generation kinds is abundant.

Albi x macro - '**Serenade**'

'**Archangel**'

Albi x lobata - the F₂'s and F₃'s of this group

'**Sable**' - 2nd generation '**Otto Froebel**' hybrid

Officinalis x lobata — all the "Little Reds"

'**Nosegay**' - mloko x tenui - this plant sets seeds readily and almost every one of its seedling children produces yellow flowers of varying intensity. The plants are unlike their parent, being only 20 to 25 inches high and resembling the P. mloko grandparent. Flowers bloom very early in the spring.

And now with the Quad F₂'s and F₃'s and F₄'s producing seeds like crazy, we should forge ahead rapidly. Then there are the crosses with Quads such as

Quad x '**Silver Dawn**'

Quad x '**Archangel**'

Quad x '**Moonrise**'

and Quad x almost anything. If space would permit the development of all these potentials, we would be at the "flood stage".

All of these materials are presently available but the collecting, packaging, and distributing of the seeds produced by the above strains is taking up too much of my time. I would like to set up a program that would permit ten volunteer hybridizers to take up the propagation of plants in each group. What you would get is one or more plants from me, and seeds of that strain. The seed production then would later be made available to fellow Paeonians, and this would be your job!

You will want to expand the potentials of your project for the benefit of Peony Lovers. De-hybridizing or in-breeding, making your own species, or anything else you might call it along with breeding into it new colors, this is the specializing that will give us direction and purpose. The shotgun approach has served its purpose and now we must move on to a more systematic procedure.

The thoughts here presented are based upon the successes that have already appeared in my garden and not on just a lot of wishful thinking. Let's all get the fun out of that which comes from serving others! Happiness is the by-product of service.

- Chris Laning

CHECK LIST

There is an uneven distribution of peony lovers on our good planet Earth. It is quite possible that you think you are the only one for miles around that raises peonies. Maybe you're right, and maybe not! A list of a few people in far-off lands (people that have asked for seeds or are "Paeonia" newsletter readers) is here given. Check the list and find your nearest peony loving neighbor —

AUSTRALIA

Gordon Bootes
4 Fishburn St., Red Hill
Canberra 2603, Australia.

W. J. Simpson
"Wayside", 602 Nepean Highway
Frankston, Victoria
Australia 3199

Gilda duPlessis
21 Vermont PRDE
Greensborough 3088
Victoria, Australia

CANADA

Stan Zubrowski
Box 26
Prairie River, SK S0E 1J0
Canada

Michael Kotyk
493 Niagara St.
St. Catherines, Ontario

F. P. Healey
Box 27
St. Norbert, MN R3V 1LS
Canada

John Simkins
1246 Donlea Crescent
Oakville, ON L6J 1V7

Ian C. Morgan
22 Holton Ave.
Westmount, QC
Canada

Judith Cross
Hornby Island, BC V0R 1Z0
Canada

ENGLAND

C. Graham Jones
"Redgarth" The Piece
Churchdown, Gloucester
England GL3 2EK

Elisabeth Georgiadou,
15, Oaklands
Bulmershe Rd.9 Reading
Berkshire, .RG1 5RW England

CHANNEL ISLANDS

T. Person
La Houquette, St. Lawrence
Jersey, C.I.

NETHERLANDS

Richard Sieperda
36 Midlumerlaan
Harlingen, Holland

Zelirair K. Tvrtkovic Sahin
4 Huys met de Beyen
Uiterweg 34
Aalsmeer 1210, Netherlands

SWEDEN

Allan Dahlbom
Sjohallstigen L5
S-16240 Vallinby, Sweden

Herman Krupke
Goldsmedsgardens Plankskola
520 30 Ljung
(Postgero 52 12 38)

WESTERN GERMANY

Foachin Langfeld
Franzidswef 27
D reve Berlin 49

FURTHER. CORRESPONDENCE BETWEEN ELISABETH GORGIADOU AND CHRIS LANING

Dear Mr. Laning,

March 25, 1930

Thank you so very much for your delightful letter of March 2nd, inst. that I have now at hand upon returning from Cyprus.

It is very interesting to learn about the tricky behaviour of *Paeonia californica*. Could you tell me what the botanical name is of Chaparral? I could try to get hold of seeds of it and then try to establish the peonies together. Also I wonder what sort of pH the *P. californica* would prefer.

Do you consider the *Paeonia brownii* to be just as difficult? I just received seeds, one from wild collections in Oregon and one from a garden in Oregon. I will be going to Cyprus again in April for a few days and will then try to have them sown. I assume that the *brownii* can stand more cold and more moisture. I wonder what sort of pH *brownii* would want. Is it similar in general appearance to the *californica*?

I am not a member of the American Peony Society, what is the address, what are the dues. I would like to join.

I would be very interested to obtain good modern Peonies in the late summer of this year. Could you recommend sources? I would be interested in the very earliest and the very latest lactifloras as well. Such varieties need not to be too outstanding as their out of season bloom will give extended pleasure anyway.

I understand reading old copies of Paeonia, that Mr. Gilbertson is offering some yellow or yellowish flowered Peony plants for sale. I would love to have his address and order some from him.

Do you think it is worthwhile to grow Tree Peonies from seed, if the seed is open pollinated from a good traditional Japanese collection? A friend in Japan tells me he can collect several pounds of seed for me annually. It would be a cheap way to get a nice plantation in Cyprus in the mountains. Do you think that Tree Peonies will take kindly to alkaline soil? pH 7.2 and sometimes a bit more? If not, I can plant them in some places where the pH is 6.5 to 6.8. However such more acid places are rather limited. Would you recommend North facing slopes or South facing slopes for the Tree Peonies. Full sun or shade?

Yours sincerely,

Elisabeth Georgiadou
15 Oaklands, Bulmershe Road, Reading
Berkshire RG1 5RW, United Kingdom

CHRIS' REPLY:

April 14, 1980

Dear Mrs. Georgiadou:

If there is something that we cannot have, that is all the more reason for wanting it. As of the present time, we can't have hybrids of *californica* parentage because no one has been successful in crossing it with any other species. Even the mere propagation of it seems to be a mystery. *P. californica* and *P. brownii* grow on the west coast of the United States (America) and if they grow elsewhere, I have no knowledge of it!

I'm sorry that I mentioned chaparral as possibly being a companion plant that could be needful in the growing of *P. californica*. This was just a wild guess on my part, borne out of frustration. But since you asked for its botanical name, I'll tell you what I know about it. Chaparral is a common name for small weed-trees or shrubs that grow in semi-arid locations. A good description might be "a thicket of dwarf evergreen oaks", though other plants are included. At any rate, you must not risk introducing any unwanted weed plants or shrubs to Cyprus!!

Success, with *P. californica* and *P. brownii*, has been zero. Getting these plants to bloom outside their natural range has been unsuccessful, so I guess it makes little difference which is the easier to propagate and hybridize. You are on your own! Good luck!

Professor Dr. A. P. Saunders in Bulletin 190, 1943, writes: "There is one thing that I would like to see done, though I do not want to do it myself. We have an American peony *P. brownii*, which refuses in spite of all I have been able to do, to so much as look at any other peony. I wish someone would make a few thousand crosses of *brownii* with some of the other species, just for the satisfaction of seeing what sort of offspring they might produce."

Peonies generally are plants that tolerate a fair range of pH soils though neutral or slightly alkaline situations are to their liking. It would seem to me that Cyprus should have some locations that are similar to our west coast environment.

To become a member of the American Peony Society, write to Mrs. Greta M. Kessenich, 250 Interlachen Road, Hopkins, Minnesota, 55343. Dues are \$7.50 per year.

I am sending you a collection of catalogs. They are not new 1980 editions, but if only the latest ones are wanted, write to the various nurseries and make your wishes known — or let me know of your wishes and I'll get them for you, but that may take a bit longer.

Here is the address you have requested; Mr. Ben Gilbertson, Gilbertson's Nursery, Kindred, North Dakota, 58051.

I'll enter your request for interesting varieties of peonies in the Paeonia newsletter.

Your dream of tree peonies growing on the slopes of the mountains and in gardens is beautiful! And the project should not be difficult. I have never seen an ugly tree peony flower even though I have several hundred (blooming age) seedlings. *Suffruticosa* likes alkaline soil and tolerates acid soil fairly well. Also, full sun is to their liking but the exquisite shades of coloring of blooms is prolonged if some shade is afforded, but maybe the Cyprus sun dictates a bit more shade. Try everything and let us know the eventual results.

Please come to our American Peony Society convention at Cornell University, Ithaca, New York, June 6, 7, and 8, 1980. But first stop at my place and study the advanced hybrids. Big full double yellows, and singles of yellow, peach, pink, white cerise, cherry, almost black, tan, and lavender will be blooming just before the convention. Kalamazoo is about 600 miles from Ithaca, New York.

Dear Paeonians:

Mrs. E Georgiadou of England is in need of a collection of outstanding peonies, also very early and very late sorts of lesser excellence. If you can help her out, we may all benefit from her efforts at a later date. Price lists along with descriptions may delight her. - Chris