

PAEONIA

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Suggested yearly contribution: \$2.50 in the U.S. \$3.00 in Canada \$4.00 in Europe, New Zealand, and Australia.	Reply to Rea Peltola's Letter and Chris Laning's breeding program, . . page 2
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Chris and Lois Laning
553 West F Avenue
Kalamazoo, MI 49007, USA

Ojala 25.1.1991

Dear Mr. and Mrs. Laning,

Many thanks for the 'Paeonia'! I enclose the contribution of \$4.00 in notes; if they didn't arrive, please, tell me so I shall send a check.

It was very interesting to hear that you have in your garden many fertile yellow paeonies, both single and double. It would be very nice to read about your breeding program, Mr. Laning, in the 'Paeonia'; could you write about it, or maybe you would like to publish some old article again?

I have seen many inspired notes of Itoh-hybrids. I would like to hear more about them in the 'Paeonia', too. What it is all about and how they are bred? Are Itoh's possibly hardier than tree paeonies, for example?

With best wishes,

Rea Peltola
Ojala
19920 Pappinen
Finland

IN REPLY TO REA PELTOLA'S LETTER:

(by Chris Laning)

The original Itoh introductions developed by a Japanese plantsman were '**Yellow Heaven**', '**Yellow Dream**', '**Yellow Crown**', and '**Yellow Emperor**'. These were introduced into the U.S. by Mr. Smirnow.

Mr. Itoh used pollen obtained from a lutea hybrid named '**Alice Harding**', placed it on a semi-double lactiflora, thereby successfully making the cross that had eluded other hybridists for many years! Quite likely this was made possible only by the maturing of the lutea hybrid '**Alice Harding**'. Hybridists in the U.S.A. have successfully duplicated this difficult cross, even expanding on it by using other lutea hybrids such as '**Age of Gold**', '**Thunderbolt**', '**Tria**', and Dr. David Reath's lutea hybrid introductions. Pollen from these being placed on lactiflora cultivars (named varieties) produced new colors along with the yellows that are so much sought after. Don Hollingsworth and Roger Anderson are the only two Americans that have registered their Itohs with the American Peony Society.

While this Itoh cross is very difficult, a nick has been found that makes it somewhat easier. The plant was registered by Roger Anderson and named '**Martha W.**' It is a lactiflora having red single flowers and is healthy - of good green color.

As to the hardiness of the Itoh, its range of hardiness has not yet been tested but is probably as hardy as its lactiflora pod parent. Also, the stems do not survive for more than one growing season. They can be cut down to the ground in autumn along with the herbaceous peonies. Their foliage looks like that of the tree peony but the plant is not tall (about 30 inches), a beautiful bush! The dark green foliage and it's generally good health helps to make it an excellent plant indeed!

The Itoh is sterile and as yet nobody has succeeded in getting a seed from it. Maybe as it ages and matures, by having a large number of plants, fertility eventually may be established. I have over one hundred plants of '**Yellow Heaven**' and '**Yellow Dream**' (introduced by Mr. Smirnow). These Itohs have produced hundreds of flowers which I pollinated over and over again but results are zero.

The American Peony Society has "The American Tree Peony" book which shows some beautiful pictures of Itoh hybrids. This is really a table-top book, a collector's item, for \$25.00.

Now as to my breeding program, what follows may be boring reading but can be used as reference material in lieu of any published record since keeping records is beyond my capabilities. Also, this can give its readers some idea of what is the make-up and value of the "advanced generation" peony seeds that are being distributed by our American Peony Society seed distribution program.

MISS SILVIA SAUNDERS
A. P. Saunders Hybrid Peonies
Clinton, New York 13323

Dear Mr. Laning:

September 13, 1969

Here is a list of the peonies that were mailed to you yesterday, Special Handling parcel post.
I trust they will arrive in good time and good condition.

6 you ordered by name:

Garden Peace	\$10	
Northern Lights	\$10	
Picotee	\$10	
Starlight	\$ 5	
White Innocence	\$15	
Prairie Moon	\$15	_____ \$65-00

2 Lutea Hybrids

Age of Gold	\$15	
Thunderbolt	\$15	_____ \$30.00

3 herbaceous species:

P. Daurica	\$ 2.50	
P. lobata	\$ 2.50	
P. tenuifolia small, no charge		_____ \$5.00

Total \$100.00

And the following from my Breeders' List, that set seed:

Albi-Corsica II	\$ 2.50 - Albi x P. russi
Moonrise	\$ 5.00
Moonrise F ₂	small, no charge
Serenade	\$ 2.50
May Lilac F ₂	\$ 2.50
Mlo-mac F ₂ or F ₃	\$ 2.50
Mlo-mac No. 9037 F ₂	\$ 2.50 (the best one after Nova, in my opinion)
Nosegay	\$ 5.00
Veitchi x Mlo F ₂	\$ 2.50
Silver Dawn F ₃	\$ 5.00 (One of the macro-Willmottiae strain)
Roselette's Child - a bud only - no charge	
Roselette's Child F ₂	\$ 2.50 (blush)
Rushlight F ₂	\$ 2.50 (Heavy seed in this poor seed-year)
16350 F ₃ - red?	\$ 2.50
14400	\$ 2.50 albi x (Moloko. x Macro.)
12128	\$ 2.50 (albi x macro) x officinalis
Quad F ₂	\$ 2.50
Red in L8	(I presume this red to be a descendant of the "Little Reds" - it is to me a spectacular color. I put a bud of it in, for you)

12 at \$2.50	\$ 30.00	
3 at \$5.00	15.00	
above	100.00	_____ \$145.00

GILBERT H. WILD AND SON, INC.
Sarcoxie, MO. 64862

Order for: Peter C. Laning
553 West F Ave.
Kalamazoo, MI 49001

Date: 7-27-71

Quantity	Name of Variety	Price	
1	Archangel	4.00	
1	Nancy	5.00	
2	Halcyon	6.00	
1	Red Charm	<u>7.50</u>	
		22.50	for \$15.00
1	Carolina Moon	2.00	
1	Chocolate Soldier	2.00	
1	Rosedale	2.00	
1	Snow Mountain	2.00	
1	Peggy	2.00	
1	Vincennes	<u>2.00</u>	
		12.00	for 8.00
Extra:	1 Red Signal		
	1 Red Ensign		
		Total	<u>\$23.00</u>

FALL OF 1974

Seedlings transplanted to upper garden in fall of '75, and Mloko., also Emodi, put in their place.

1. Lacti x T.P. mix - 8 ft. of row
2. Battle Flag x Red Red Rose
3. Mauve Bomb
4. Nippon Brilliant x Fire Flame
5. Lacti x F₂A
6. Albi - out
7. Primevere x F₂A
8. Nosegay
9. tenui
10. Scarlet Tanager
11. Albi x Lobata
12. Rusty
13. Moonrise x Archangel
14. Battle Flag x R. R. Rose
15. Rushlight x Quad

- 16-17- 18. Cluster flower
19. Roy's Best Yellow
20. Roy's Second Best Yellow
21. Mloko
22. Officinalis
23. (Quad F₂ x Moonrise F₂) x Husky
24. Best tet x Husky
25. L.T.W.J. x Husky (7 rows)
26. Otto Froebel
27. Picotee - Silvia Saunders
28. Westener x Diantha - Daurica
29. Windflower F₂ & Laura
Dessert x emodi - & Big Ben,
Mons. Jules Elie, etc.
30. Novel Pink x S.D. F₃ & Best tet x Silver Dawn
31. Roy's Best Yellow
32. Roy's Second Best Yellow
33. T.P.
34. P. emodi
35. T.P. seeds from Smirnow

FALL OF 1975

1. Rusty
2. Little Silvia
3. Albi - out
4. Roy's Best Yellow
5. Roy's 2nd Best Yellow
6. (Archangel x Moonrise) x best Tet
7. Big pink x Archangel
8. Silvia Saunders Gift plant #1
9. Primevere x F₂A
10. Primevere x Californica 14 seeds
11. Albi x Lobata
12. Otto Froebel
13. Mix - A - 1 - 75
14. T.P. (seeds Kamada Fuji)

Plants set at end of seed planted row:

1. Fantan
2. Tiny Tim
3. Kelways Glorious
4. Kelways Glorious
5. Le Cygne
6. J. C. Legg
7. Lotti Dawson Rea
8. 9, 10, 11 - FanTan

1976 - TWO YEAR OLD SEEDLINGS

Serenade F₂ - 22 plants
Quad x Roselette F₂ - 64 plants
Quad F₂ x Moonrise F₂ - 50 plants
Quad F₃ - 8 plants
Petite Rene x 8969 - 4 plants
Sable x Super D - 4 plants
Horizon F₂ x Super D - 2 plants
Chalice x lobata - 14 plants
Name lost - 30 plants
Mauve Bomb F₂ - 8 plants
Lacti x Lobata - 34 plants
Vesper x Archangel - 25 plants
Roselette's Child F₃ - 31 plants
S.S. Mix - 28 plants
Archangel - 25 plants
Sable x Lobata - 9 plants
Rushlight - 42 plants
Archangel x Nancy - 7 plants
Quad F₃ - 33 plants
12128 - 18 plants
Battle Flag x R.R. Rose F₂ - 13 plants
Nosegay F₂ - 21 plants
T.P. - 86 - 74 - 65

One blooming size plant of Moonrise x Archangel
One hundred+ year-old seedlings of Quad F₃ x Silver Dawn F₃

1980

Sable - 5 or 6 plants - Glasscock - fertile hybrid - single, almost black
Water Soaked (Roy's) - 3 plants - dark red single - very good hybrid
Lord Cavin - 1 plant - lactiflora double fertile - white with red streaks
Miss America x Good Cheer (Don Hollingsworth) - nice red but not fertile
Moonrise x Paula Fay (Don H.) - beautiful flower but not very fertile
Westerner x Good Cheer (Don H.) - bright red
Miss America x Good Cheer (Don H.) - etc. - no seeds following
Tow Head - at end of Row (Don H.) - one of Don's introductions. He changed its name - ask him
Don's #206 - Don Hollingsworth 's Named Itoh
Don's Yellow Emperor - 1 plant Itoh (one of Smirnow's introductions)
101 - Bicolor - Sanctus x Silver Dawn F₃ (great for hybridizing)
102 - Pink and Cream - a Quad F₃
103 - Double Yellow - Quad F₃ x Silver Dawn F₃
104 - Quad F₃ x Silver Dawn F₃
105 - White Double Moonrise x Archangel - flowers almost yellow - very fertile
106 - Quad F₃ x Moonrise F₂ - 3 plants - cream, fertile, and excellent plant habit
107 - White Double (semi single) not too fertile - early

- 108 - Archangel x Nancy (cardboard)
- 109 - Cactus single lactiflora
- 110 - and 111 - Red Jap lactiflora (few seeds)
- 112 - Quad F₃ x Moonrise - tall plant with large white flowers - good
- 113 - Sable x Super D - Clone #1 - row of plants from this clone - tall -single red flowers
- 114 - Sable x Super D - Clone #2 - same as above but more fertile - tetraploid
- 115 - Roy P's Itoh - no good - measles - lactiflora x T.P. mix - a suffruticosa Itoh
- 116 - Roy's Itoh - incomplete flowers - lacti x T.P. mix - so a suffruticosa Itoh
- 117 - Roy's Itoh - no good - measles and incomplete flower - no seed
- 118 - Roy's lobata (sent for an Itoh) dark red single but not fertile
- 119 - Windflower F₂ (Roy Pehrson's) sets seed but pollen no good
- 120 - Quad F₃ x Moonrise - a row of semi-double peach flowers - should be introduced –
fertile - should be used for hybridizing
- 121 - Petite Rene x #8969 - very early - heavy flower - sets seed - poor red color
- 122 - Quad F₃ x Moonrise F₂ - a row of seedlings - tall - mixed colors
- 123 - Quad F₃ x Moonrise - same as above - dandy full double yellow - small flowers on
excellent plant - don't know if fertile.

Dear Chris:

5831 N. Colrain, Kansas City, MO 64151
February 7, 1991

Subject: Book, The American Hybrid Peony

I am pleased to note by the reader correspondence in December Paeonia the keen interest in peony breeding on the part of persons not getting the American Peony Society Bulletin.

Some readers may not yet be aware of the book on hybrid peonies, peony breeding and species recently published by the Society (September 1990). The book is hardbound, 208 pages and contains more than 180 color photographic reproductions, 32 of which illustrate species and 14 illustrate factors of selection in peony breeding. Most of the remainder illustrate herbaceous hybrid varieties already named, some recent and many already introduced.

The price is \$25.00 (US Dollars, includes shipping). Order from the American Peony Society, 250 Interlachen Road, Hopkins, Minnesota 55343.

Incidentally, non-members may be interested to know that the annual membership fee remains at \$7.50 per year, as it has for the more than 22 years that I have known the Society, during which inflation has reduced the value of the US dollar by about 70%. This makes membership in the APS one of the best bargains in North American horticulture!

Am enclosing separately some remarks concerning the deliberate search for desirable qualities in peony seedlings.

Best regards,
Don Hollingsworth

THE QUEST FOR QUALITY IN PEONY SEEDLINGS

Don Hollingsworth

Some old correspondence was recently shared with the American Peony Society by William H. (Bill) Krekler, whose name will be recognized by many peony enthusiasts. Bill introduced a great many peonies beginning in the early 1950's, first from seedlings acquired upon termination of breeding by others (including A. P. Saunders seedlings), then from those of his own production.

The letters which I have seen were two which came from the late Harold E. Wolfe, another familiar name. He was one of the major authors of the American Horticulture Society book, *The Peonies*, edited by John C. Wister, a well-known basic reference for peony breeding. Mr. Krekler had saved the letters because they contained instructions for preserving peony pollen, apparently written for his assistance when he was embarking upon the hybridization of peonies as we currently know it - crossing between species or hybrids.

The pollen drying and storage procedures are the same as those described by the late Roy Pehrson and long used by many readers of *Paeonia*. What captured my attention was remarks by Wolfe concerning the numbers of seedlings he was raising. I quote,

" . . . I probably now have in existence in one- and two-year seedlings more hybrid herbaceous seedlings than have been grown by all the others put together. Most conservatively between 20 and 25 thousand, and I will add at least 20 thousand to that next spring from crosses made here and elsewhere this spring. Some of them are crosses, to my knowledge, never made before. Bill, there will have to be a few good ones in all these..."

(From correspondence dated May 26, 1957. Emphasis as in the original.)

That comes to potentially something in excess of 40,000 plants forecast by Harold Wolfe. To contemplate such a project is boggling. For starters, they had to be planted somewhere. The way I figure it, with rows spaced for machine cultivation, it might take the most of ten acres to bring that many seedlings to mature flowering. What a formidable prospect!

So, what happened afterwards? We don't know much about it, except that Wolfe is identified as the originator of the total of two introduced peonies; '**Apache**' (1966) and '**May Apple**' (1977). What happened to the rest of them? It is not my purpose here to engage in such speculation. I will say that I had the opportunity of visiting with him upon a few occasions and the subject did not come up. I did find him to be a very bright and knowledgeable person, very helpful to me.

The trouble with peony breeding is that it constantly leads to bigger numbers and, in turn, to the consumption of more space. And, in turn, to the consumption of greater and greater chunks of the human resources.

In my own case, the past 20-odd years have seen not only four moves of the collection, to ever larger quarters, but also considerable periods of benign neglect as other demands on life have had their sway. Now nearing retirement and working as a private consultant, it begins to seem the peonies may get a better cut out of my time.

So, how is it going for the future breeding prospects? Well; I can report that of the space initially envisioned for the peony project, there is not a whole lot left unplanted. And this includes no new seedlings since those of the 1983 seed crop. (There will be some additions in the upcoming season, if all goes well from here on in.)

This gets me around to the point of these remarks. When we're deciding whether to germinate seeds, we better have a good reason or else a whole lot of space and time! Often there is an opposition between large numbers and quality. This seems to be the case in peony hybridizing. I can recall that some of my best originations have been from only one to three seedlings raised from the cross. In other instances I got thirty or more generally good quality singles and maybe one or two with enough petals for a keeper.

A classic example from that most fertile of hybrid crosses — *lacti* x *peregrina* — some A. P. Saunders data is instructive. He used the famous *Lobata* of Perry, undoubtedly a *peregrina* because of its high fertility on the Chinese peonies, of which he assigned accession numbers to nearly 1600 hybrid seedlings from the cross. A summary of these crosses was published in the peony Bulletin No. 217, March, 1976.

Of six double-flowered Chinese peony parents which are known to be two-stage doubles, he numbered 136 seedlings. Of these, 15 were named, more than one for every ten progeny raised!

The rest of the *Lobata* of Perry Hybrids parents were either undescribed seedlings or plants known to have bomb, Japanese, anemone or single type flowers, these types being all single-stage flowers. These crosses produced 1450 numbered seedlings, of which 19 were introduced, a ratio of one for 76! Compare to one for ten. How much better were the crosses on seed parents having flower genetics which offset the missing qualities of the wild type flowers!

Well, this gets too long. Hopefully it will suffice to remind us that there is more to peony breeding than getting seeds. We need to strive for the best quality genetics we can obtain in the hybrid seeds. This is not only a strategy for success, but also a strategy for conserving our limited time and space. It is something of which I must continually remind myself!

Note: I am seeking information on the location of existing plants of peony varieties '**James Kelway**', '**Queen Victoria**', '**Marie Jacquin**', '**Adolphe Rousseau**', '**Marie Lemoine**', '**Marie Crousse**', '**Venus**', and '**Kickapoo**' with possibility of negotiating the acquisition of plants.

- Don

PAEONIA READER SURVEY OF BREEDING STRATEGIES USED,- March 1790.

Dear Friends:

While your letters give us some idea of what you are thinking about at the time they are written, they often emphasize questions and seldom do they concern how you go about working with your plants. In an effort to obtain some broadly based information, I have the following questions, May we please have your assistance on this?

I hope all readers will help. Your responses should be anonymous, and the survey page unsigned. The individual responses will be kept confidential. (On the other hand, we hope you will have some experiences or observations you want to share, both now and in the future. Please send those separately and signed, of course.) Please return your survey, right away. Thank you,
Chris Laning

SURVEY—

1. Do you now grow peonies? Yes___ No___
2. In what ways do you use your peonies? Check as many as apply.
 - a) Enjoy in the LANDSCAPE ___.
 - b) As CUT FLOWERS: For sale___; non-commercial ___; exhibition frequently ___; occasionally ___.
 - c) For SEED and/or POLLEN production: Own use ___; for others for sale ___; occasionally ___; regularly ___.
3. Seedling production.

Are you now or have you previously grown peonies from seed? Yes___ No___

Do you expect to do so in the future? Yes___ No___

If yes, have you/will you produce your own seeds? Yes___ No___
4. Concerning deliberate ("hand") pollination, how much control has been intended? Check all that apply and estimate for each category the percent (Pct) of seeds you have obtained FOR YOUR OWN USE.
 - a) Pollination unknown or natural, no seed parent selection, including seeds received from others without pedigree? Yes__ Pct___
 - b) From selected seed parents, pollination unknown? Yes__ Pct___
 - c) Natural pollination, selected seed and pollen-bearing kinds planted apart from sources of unwanted pollen (as a pollination control strategy). Yes__ Pct___
 - d) Selected seed parents, hand pollinated with chosen pollen, but flowers allowed to also attract natural pollination? Yes__ Pct___
 - e) Same as d) but steps taken to control unwanted pollen? Yes__ Pct___

Total Percent 100
5. To what extent have you acquired certain varieties or seedlings of selected pedigree and other selection criteria in order to have them for making chosen crosses for your breeding goals? Please comment. (If in your answer you use quantities, please think in terms of different clones rather than number of different plants, excluding multiples of the same clone.) Are there some kinds you are still trying to locate? For additional space use the back.