

THE PEONY NEWSLETTER
For Beginning Hybridists and Advancing Hybridists

Volume 2, No. 2.

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REQUIRED READING

THE PEONIES. ed. by J. Wister, available from the American Peony Society. Price \$3.50. This book is a must for every hybridiser --- our "Bible."

The Bulletins of the American Peony Society. 107 1/2 W. Main Street, Van Wert, Ohio, 45891 (many articles for all and an enrichment of thought.)

THE PEONY, ...ed. by J. Boyd (available only at libraries but still contains a lot of worthwhile readings.)

SRB, OWEN, AND EDGAR
(advanced reading on genetics.)

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Is under the auspices of the Peony Society with APS President Silvia Saunders and, as a Reference Person: Roy Pehrson, who will help guide the hybridists. Send all materials and questions to Roy Pehrson, Lafayette, Minnesota, 56054

Send all contributions to Secretaries: Mr. & Mrs. Don Kozak, 3901 Harvard Drive, Willoughby, Ohio, 44094.

Suggested contribution is \$2.00 to cover expense of printing and mailing.

We will try to divide the Newsletter into items of concern to the hybridists; beginners, more advanced members and some general information on improving the Peony through hybridizing. We ask you to read and reread The Peonies by Wister.

TO OUR READERS:

The Peony Newsletter has been coming out for one year. We are well pleased with the acceptance and encouragement of our readers.

The Newsletter will be passed on to Mr. P. Chris Laning, 553 West "P" Ave, Kalamazoo, MI 49001. He will take on the task of reference person and secretary. We wish him the best of luck in his new endeavour.

We would like to thank Roy Pehrson for the excellent job of Reference Person he has done this past year. We are sure his articles have been of benefit to all our readers.

We would like to thank Silvia Saunders for her support and initiation of the Newsletter.

We would also like to thank our readers for their moral and financial support. Please send your \$2.00 contribution for this year's expenses for the Newsletter to Mr. Laning.

THE LACTIFLORA X TREE PEONY CROSS

I have only poor information about what results other hybridizers may have obtained. Interest in this cross is, or should be, very high. It may be useful at this point to record what has happened in my own garden up to now. Hopefully, some other workers will contribute their own bits to our store of knowledge. Here are my year by year efforts.

1968

In 1968, I am pretty sure, I made less than 100 peony crosses. I had some pollens from Suffruticosa (Moutan tree peony species) as well as some Lutea hybrids. The crosses were not protected in all cases. I have a few plants now in their third year. Now that plants resulting from my 1969 work have been seen, it is clear that none of those from 1968 are true hybrids.

1969

I tried harder. I made 582 pollinations before I ran out of lacti blooms. Something less than 100 of these were protected crosses. A good many of these supposedly hybrid seeds germinated during the winter and were planted out in the spring of 1970. From this planting 13 undoubtedly hybrid plants appeared in 1970. There were 5 other possibles. There were a considerable number of non-genuine seedlings also. These came mostly in batches where no true hybrids were seen. There may be several hundred of these.

The situation has changed since the summer of 1970. Quite a few of the 1969 seeds from many different types of crosses did not germinate the following winter. A few others germinated, but so late in the winter that only a very short cold period could be given before planting them out. Seeds of this kind, from the most interesting crosses, were all thrown together and planted very thickly in a short section of row.

A few of these came up in 1970. None of them were from crosses with tree peonies.

This summer there were a lot of new plants underneath those few germinated in 1970. When those older plants were weeded out, there remained almost all genuine lacti x tree peony plants among these delayed germinators. These are growing so thickly that I can't count them accurately. Since some of them could have two leaves you can understand this problem. The summary of true lacti x tree peonies which follows is therefore somewhat tentative.

'Petite Rene' x 'Thunderbolt'	1 plant in 3 inches of row.
'Vista' x 'Corsair'	1 plant in 10 inches of row.
'Gay Paree' x Tree peony mixed.	1 plant in 4 inches of row.
'Nippon Gold' x Tree peony mixed.	2 plants in 8 inches of row.
'Vesper' x Tree peony mixed.	9 plants in 22 inches of row.
'Golden Dawn' x Tree peony mixed.	12 plants in 14 inches of row.
Miscellaneous	30 to 45 plants in 22 inches of row.

The total is therefore somewhere between 56 and 71 plants.

1970

I made a considerably smaller number of the crosses in 1970. Most of the crosses were unprotected. There are many seedlings. I see no true hybrids at all among them. Germination during the winter was less successful than normal. I am hopeful that some true hybrids will appear next spring. Again I planted out the ungerminated seeds -- there were many.

1971

Was the good result of 1969 due to the presence in my pollen mixture of some especially effective pollen? I wish I knew. This season I have had quite a varied spectrum of pollens to use. I am hoping I can learn something significant to report. It should not be necessary to wait for seedlings from the seeds I may gather, since I have protected all crosses as perfectly as I could.

Four of you have now seen my seedling patch. One of you was asked to walk slowly along the seedling rows and point to the lacti x tree peony seedlings. He found them all! So please don't report any which do not provide this positive visual assurance.

Since the tree peony is so preponderant in impressing its foliage character on these seedlings, may it also be reasonable to suppose that some of them may also have the woody habit? I guess we will just have to wait and see what happens.

MISCELLANEOUS

Don't carry containers of pollen' out into the garden in a tray or a basket. You may absent-mindedly set it down in the sun. Even a few minutes of this may destroy the pollens. A big paper bag is safer. You could also carry two or three cans in your pocket.

Make only bud pollination if at all possible. Strip the anthers completely, leaving only the stigmas for pollinating. Enclose the pollinated bud in a paper bag fastened with a paper clip or staple. Then tag the bud. I buy No. 1 bags from the grocer for about \$1.35 a bundle of 500. Tags cost about 75¢ per 100.

"You have to have population" is an axiom which applies to whatever plant is being worked with. A very high degree of discrimination is necessary when making selections from an easy cross. A population, once started, must be kept five years before plowing it up. It is my contention, therefore, that those who have limited resources in physical energy or real estate should concentrate on the very difficult crosses. The standard of excellence will not yet have been raised unreachably high. Not everyone agrees with this idea.

Have you completely digested all the information contained in Fred Cooper's article? We should keep it in mind for every single cross we attempt. Many of the herbaceous species contain no factor for any color than the usual. The hybrids produced from their use may be a bit different in habit or foliage form. They will, however, incite no buying frenzy in the ordinary gardener. Use those hybrids containing Mloko. and or lobata, either of which have yellow flavone in their makeup. Macrophylla blooms, apparently, have no yellow in them, but this bloodline can produce it too. We must try to get the three other colors available in various tree peony into the herbaceous peony. They are the plastid yellow from *P. lutea*, the chalcone yellow of *P. potanini*, and the pelargonium in some suffruticosas.

The following comments refer only to crossings of species which are not close species-wise.

1. Diploid x diploid crosses are the most difficult to make usually.
2. Diploid x tetraploid crosses are somewhat easier. The one known exception is the lactiflora (diploid) x lobata (tetraploid) cross which is extremely easy.
3. Tetraploid x tetraploid are the easiest of the three, except for the single exception noted.

My yellowest hybrid to bloom to date came from a cross of Quad F2 x '**Moonrise**' F2 (pink). It is about as yellow as my own rather pale clone of Mloko. The flower is large.

Intercrossing the '**Moonrise**', '**Archangel**', Quad, '**Rushlight**', '**Roselette**' strains has produced some japs and one creamy double with brilliant red petal bases. The possibilities for these types are definitely present. There is not enough evidence yet to say what sort of cross is best.

How many of you have the plant called *P. potanini* - tall yellow) which David Reath imported from Sir Frederick Stern? If you are using tree peonies in your work, I think you ought to buy a plant. I received one from him last fall and it is growing much better than any other tree peony I have planted. It spreads readily from stolons so maybe it will compete with your quack grass. Cooper tells us this species has the soluble chalcone yellow. Maybe we could get a brilliant orange, if we can cross it with lacti. It is certainly worth trying.

How hard-nosed shall we be in making selections from our seedling rows? I think most of us will be less discriminating than we should be.

Bob Tischler, proprietor of Brand Peony Farms, tells us about walking through the rows of seedlings with Douglas Brand. Douglas pointed to a rather unimposing red double about 4 inches in diameter, and said "That is my peony." This peony '**Douglas Brand**', is a really tremendous competitor in the show room. When it is finally marketed, growers will find that it is just as tremendous in the field.

I have grown far too many seedlings which are only pure lactifloras, the result of contaminated crosses. I resolved that this year, I would be very careful, even if it should mean that would get far fewer crosses made.

I have succeeded pretty well in this. A few open blooms have been pollinated. I used lobata and also '**Little Dorritt**'. These crosses will make distinctive looking seedlings. I can discard any rogues when I transplant them out. In the last few days of pollinating, some of the last laterals I pollinated without using any bags. There was no longer any pollen anywhere in the garden.

I used 800 bags this year. I may have used more. I used about 1000 tags. I should estimate that I made nearly 1,100 crosses. Quite a few of these involve tree peony pollen. I should have had more of these. I had foolishly disbudded too many plants and ran out of laterals to work on.

Just yesterday, June 24, we had a heavy rain with some hail and high winds. I won't know for a while how much damage was done, I am a bit optimistic.

The page before gives a fair idea of how much work I do. I will plow up about 700 five year old discards this fall before transplanting the two year olds.

If anyone wants chance seed of tetraploids for growing breeder plants, please write me. I should have something usable.

Apparently the American Peony Society is in serious financial trouble. I should think it most unlikely that any "angel" will magically appear to bail us out.

I have been well satisfied with the APS Bulletin. I have liked the two latest issues especially. I can't speak for the others. I do think it is quite satisfactory with the small group of commercial growers, exhibitors, and avid fanciers who attend the annual events. I do not believe that the loyalty of this select group is enough to support a National Society in our present social and economic climate. Except, perhaps, for a minor resurgence in interest in the tree peony, the peony is not at all as popular as it could be.

In my own case, I have searched out and joined various plant societies solely for the purpose of learning what was new. I believe most flower lovers are much like me in this respect.

If our Bulletin has long failed to supply this need to the members, I don't think it is anyone's fault particularly. The news of new and exciting things to come could not be printed because there hasn't been any. I have been wondering, do you suppose that if the Society, as presently constituted, were to be forced to disband, that a fair share of the present membership might be interested in our little sheet? I suspect they would.

We must revert to the pushcart stage of merchandising before we can grow into a new giant. No amount of publicity will help. We can work diligently at improving the peony and sooner or later flower lovers will search us out.

We should be doing some preliminary thinking about our future course. In the meantime, we must keep in touch with one another.

A Few Planting Tips

Now that the peony blooming season is over, it is time to plan for next year's blooming season. If you wish to divide some peony stock or set out new plants, here are a few suggestions. Prepare your soil for your future peony beds well in advance. We plow our soil to a depth of two feet. We mix this soil with well rotted manure (any fertilizer will do). We also mix in some lime to keep our soil from becoming too acid. Be sure to pick an area with proper drainage. Do not plant too close to trees or shrubs. Do not use an area that has had peonies recently planted in it. Allow a lapse of 4 to 5 years before planting in an old peony bed. This will help to cut down on nematodes and other peony diseases.

Check your plants from leaves to roots for signs of disease. Cut off the diseased leaves and stems and burn them. Check the roots for nematodes, root galls etc. Cut off any diseased roots. If necessary destroy the whole plant to prevent spreading disease.

If you decide to divide a plant, dig it up carefully. Wash the dirt off the roots. You can usually see the best place to divide the roots. Be sure each divided section has a section of root with at least one eye. We prefer to use divisions with 3 to 5 eyes.

We usually remove all the stem of the divided root before planting the new division. We plant our new divisions slightly deeper than they were previously planted.

Try to allow enough growing room for your plants. We plant our peonies three to four feet apart in rows four feet apart. Label all your plants! Leave nothing to memory. Do keep a written plan of your peonies. Labels can become lost or ruined during the winter weather.

We usually do all of our planting, dividing and transplanting in the early fall. We trim all of our herbaceous peony tops to the ground in the early fall.

We wait until the ground freezes before we mulch for winter protection. We use hay as mulch. Grass clippings, corn cobs, etc. may also be used.. Do remove this mulch in the spring to prevent your plant from becoming too moist. If it is too wet for too long, it may rot or become a victim of a fungi infection.

We both hope you have much success in your peony gardens. Do feel free to write about your efforts and seedlings.

Don and Lois Kozak