THE PEONY NEWSLETTER
For Beginning Hybridists and Advancing Hybridists

Volume 1, No. 2. August 1970

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.)

TABLE OF CONTENTS

THE PEONY NEWSLETTER

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. There is much basic information all of us should have contained in this book. It is a "must to begin with."

TO OUR READERS:

Our first publication of the Peony Newsletter was received well. We have 19 interested people on our mailing list. Your warm letters of interest and encouragement are certain to make this a successful venture.

The suggested names for the Newsletter will be included in our next publication.

One of our readers writes that he is taking steps to file the newsletter in a hard cover for easy reference.

Another reader writes he has been doing experiments with forcing peony seeds as well as observing different species and hybrids to characteristics and comparing them to articles be has read about them.

Please feel free to write us about your work or discoveries involving the peony. If you have a special question about. The peony or would like a particular subject covered please let us know.

We would like to thank all of you for your support. THANK YOU – Lois Kozack

MLOKOSEWITCHI x MACROPHYLLA

I have a very strong hunch that the “Mloko x Macro” may have another special property. They may be what is known as Amphi-diploids, and so, in effect, a new species. They are 4n; and I believe have the full complement of Mloko genes in double dosage. While it is going to be a slow process obtaining truly yellow hybrids from the two species, Mloko and lobata, I do believe that these Mloko x Macros may be better for this purpose than Mloko itself. A.P. Saunders had 4710 and 9037 from this breeding. He also introduced '**Nova**', which is a strain consisting of the better selections from this cross. I believe a serious breeder should try to get at least one of these if possible.

LACTIFLORAS FOR SEED

The June Bulletin listed some good lactiflora seed makers. I am not in complete agreement with all on the list. '**Shaylor’s Sunburst**', '**Gay Paree**', and '**Nippon Brilliant**' are really not extra good seed setters for me, and I have had them for some time. '**Primevere**' is exceptionally good but has a sprawly plant you might not like in your garden. I have composted three big clumps of it for this reason.

I am now recommending '**Vesper**', and '**Golden Dawn**'. The first of these is exceptionally well behaved and makes seed pods of fair size. The second is a fairly good plant and seed maker too. I am suggesting these two because I got some baby seedlings that are unmistakably true hybrids of Lacti x Lutea Hybrid tree peonies. Most of them come from these two varieties. Maybe this was just a happenstance, maybe not.

'**Marie Crousse**' is a very pretty pink double lactiflora with good carpels. It is a real weak grower and increaser -- keep it free from weeds. It is very prone to throw nice, fluffy, full doubles in its hybrid seedlings. Many of these have the poorest and thinnest stems you ever saw. If you have room for a good number of “Breeder Lactifloras” you may want to try it. It may give a good strong seedling sometime.

HYBRIDS FOR BREEDER PLANTS

If buying hybrids for breeder plants this fall, remember the big three of species bloodlines; Mlokosewitschi, Lobata, and Lutea. Concentrate on those hybrids which contain them. If possible, try to obtain Lobata, Lobata hybrids, Mloko x macro seedlings, one of the Saunders ‘Little Reds’, and '**Moonrise**'. The latter two plants mentioned are a must.

If you are interested in yellow tree peonies, '**Alice Harding**' is proven to be a good parent. '**Golden Age**' and '**Amber Moon**' apparently have quite a bit of pollen too.

In the red class, '**Thunderbolt**' and '**Corsair**' have pollen, The yellow '**Mystery**' seems to have a little.

If you wish to acquire more plants of Mloko blood, try Quads F2, '**Roselette's Child**' and other F2s, '**Rushlight**' F2s, and possibly '**Gwenda**' and '**Nosegay**' F2s.

LACTIFLORA x LUTEA

You have, no doubt, heard hybridizers who have been successful in obtaining seeds from the lactiflora x Lutea cross. Unfortunately, no details have been given. I can tell only of my own crosses. They may not be at all typical, as the others may have used different pollens.

This is not tree peony country, as they tolerate our winters only if given careful protection. Any crossing I have done previous to 1969, involved the use of pollens others had sent to me. This was not extensive. The few three year old plants and the fewer two year old plants (mostly '**Thunderbolt**' x Lacti), do not look like tree peonies in leaf. I am quite sure they are not really hybrids. The crosses must have been contaminated.

In 1969, I attended the show in Mansfield. Gary Seaman mounted a display of hybrid tree peonies for Mr. Gratwick. He permitted me to take anthers from spare blooms not placed in the exhibit. Then at the very close of the show, I took more pollen from the exhibited blooms. All of the pollen was mixed in one envelope. The envelope contained pollen from one of the two F2 hybrids which Saunders had grown originally, as well as some of Gratwick's own back crosses and F2's. This is mentioned, as there is a rather good chance, I think, that these pollens would be more viable than those from the other named clones.

After I got home, I used this pollen on the lateral blooms of my tree peonies. I pollinated 582 blooms. Many were not stripped and bagged as time did not permit. Many of the blooms were already open. This is a poor time to pollinate.

I have a row of about 10 mature plants each of '**Vista**' and '**Petite Rene**', both fairly good seed makers. Many of the blooms pollinated were from this row. Then disaster struck. Due to close spacing, poor sanitation, and unfavorable weather, this row of plants was badly blackened by fungus. Almost all the potential seed heads dried off. I have only one baby plant which is '**Vista**' x '**Corsair**', without any doubt. I have one other plant from this row which is probably '**Petite Rene**' x '**Thunderbolt**'.

The rest, about 18, come from 3 plants of '**Vesper**' and 1 plant of '**Golden Dawn**'. These 18 plants show the tree peony character in a very unmistakeable way. There can be no doubt that they are genuine. I have some color slides of these plants.

Mr. Ito apparently made 1200 crosses from which he harvested 36 seeds. Nine of the seedlings which grew showed this tree peony foliage. From the nine he selected six yellow hybrids, which Mr. Smirnow is _____? My 18 are double the number _____ ___ _____ _____ is not too terribly difficult. I must admit, I am in the dark as to the best pollen in that mixture of very many.

Diploid (2n) species, in general, are much more difficult to inter-cross than are tetraploid species. This is not quite true where closely related species are involved. For example, *anomala*, *beresowskii*, *woodwardii*, and *emodi* will inter-cross with some facility as will several tree peony species. Now that we are learning that the Ito cross between Lactiflora (2n) and hybrid tree peonies can be reproduced with some difficulty, why do we not try to find some crosses which may be actually easier. Why not use tree peony pollens on any or all tetraploid species or hybrids we have? Somewhere along the line we may be pleasantly surprised. One of you wrote me to say you have crossed lobata x tree peonies.

Would some of you tell us about your own results on this cross? It would add to our bank of knowledge.

HYBRID FOLIAGE

Someone at Chicago asked whether it is possible to recognize or identify hybrid seedlings by the appearance of the first year's leaf. In most cases this is not possible. Most of them look very much alike --- especially if the seed parent is Lactiflora. There are two very distinctive exceptions. In the Lacti x Lobata cross the general appearance of a batch of seedlings is different. They are much more "notched" or "lobed' than usual. They vary to some extent in the expression of this character, but are quickly recognizable as a group. The Lacti x Little Reds seedlings are like this too. The Lacti x Lutea Hybrid tree peonies are also distinctive. In my small batches of seedlings, I find two very different types. Those which must be unmistakeably hybrid will usually show a cut leaf pattern somewhat similar to that of the lobata hybrids. Whether this notching is very slight or very pronounced, the color is clearly different.

It is a pale shade of green, with a less glossy finish than is typical. The doubtful ones in the group don't show this notching, and are dark green and glossy. I don't know whether these are hybrids or not.

As you progress in peony hybridization, you will recognize small differences between groups of seedlings. Some will not be very distinctive. Thus, you will have to wait to see the peony in bloom.

I had no sensational new seedlings this year. Almost all were four year old plants—too young to have typical blooms. Some were “interesting”. My only seedling of '**Archangel**' x '**Moonrise**' had a very round heavy textured bloom. It is a single with ten petals. The color is a warm pink with some hints of yellow. I used some of its pollen.

GRAFTING

With September not too far away, we begin thinking and preparing for our grafting season. Grafting is an economical., an interesting way to increase one’s peony stock.

We prefer to use herbaceous roots from older lactiflora plants as grafting rootstock. However, tree peony roots may also be used. We do not have that many tree peonies to use them as rootstock. The roots of the hybrids tend to send up shoots or buds, thus, we do not use them.

We gather our scions or grafting slips first. Fresh young scions work best. The scions are put in plastic to keep them from drying out. We usually graft tree peonies on our herbaceous rootstock. We prefer to use scions with two buds, but have grafted one bud scions with success.

We dig our herbaceous root and cut off the rootstock. We use roots 4 to 6 inches long and a thickness 3/4 inch for rootstock. The roots are brittle when first dug. After about an hour they become more pliable and easier to work with. We wash the roots well in water. Then cut to rootstock and wash it again in water. Later, the rootstock is placed in a disinfecting solution. We use one tablespoon of household bleach to one gallon of water. The rootstock stays in this solution from 15 minutes to a half hour.

We usually graft outside on a picnic table. Our grafting supplies include: several sharp knives, beeswax when available, or grafting wax, disinfecting solution, a candle to melt the wax (A candle at the bottom of a coffee can works well. The wax is placed in a smaller can and put on a rack in the coffee can), electrician's tape, rubber bands, a small paint brush for applying the wax, and some band-aids for cut fingers. Grafting takes time and patience.

We prefer to use the cleft type graft. We start at the crown end of the root and split the root down the center to a depth of 1 to 1-¼ inch. The scion is then tapered on two aides to form a point. Thus, the cambium layer in exposed. We start the taper just below the bottom bud. The scion is then gently inserted into the split rootstock. The cambium or growing layers of the scion and rootstock should be touching each other. We then start taping the rootstock from slightly below the cut to the top of the rootstock. We

tape it tightly to ensure a tight union. We also use large rubber bands to get the same effect as the tape. After the graft is made tight, we wax all exposed parts of the rootstock and scion. Special attention is given to the split in the rootstock. All air spaces are filled with wax.

After the grafting is done, if time allows, we plant them in rows in a well drained area. Grafts will rot if too wet. We plant them vertically with the top bud 2 inches below the surface. We have planted some horizontally but have had more success with the ones planted vertically. We usually mulch our grafts the first winter. After they are planted we do not disturb them until the following spring when we remove the mulch.

If we are unable to plant them the same day as grafted, we put them in the refrigerator until we can plant them properly. Poor planting will undo all the work we have done.

After two to three years they are moved to their permanent location. The scion is now rooted on its own root. If you wish to remove the old rootstock, you may do so at this time.

Grafting can be fun as well as interesting. Trade scions with your friends to get better selections, or graft some for a friend in exchange for some scions he gave you. HAPPY GRAFTING! !