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PRELIMINARY REPORT ON MLOKO X SUFFRUTICOSA HYBRIDS

by Don Smith

Back in the spring of 1998, I reported on some exciting new intersectional hybrids produced by a hybridizer in Germany by the name of Joseph Stinglhammer. Although I still do not have many of the details of this interesting cross, Walter Good has e-mailed me several color photos that clearly document this remarkable achievement in peony hybridizing. It appears that the successful cross was mlokosewitschi x suffruticosa. Walter is planning to visit Mr. Stinglhammer some time in May and has promised to send a full report of the story behind these new hybrids soon thereafter. In the meantime, I thought I would publish the photos of these new hybrids in this issue of the newsletter, rather than waiting for

the full account to come from Walter. Photographs of a hybrid seedling, flower bud, open flower and foliage are shown in Figure 1c, 1a, 1e and 1f respectively. For the purpose of comparison, photographs of a pure mloko seedling (1d) and flower bud (1d) are also shown. I assume that the hybrid shown in these photos is representative or typical of the progeny from this cross. Note the tree peony type flower bud and the red flower color of the hybrid; also note the mloko-type foliage. From these photos, it seems apparent to me that the hybrids resulting from this cross look much more like their herbaceous seed parent (mlokosewitschi) than their tree peony pollen parent (suffruticosa). However, this is not what we have come to expect of intersectional hybrids, based on our experience with the more familiar (lactiflora x lutea hybrid) intersectional cross. Based on what we know of these hybrids so far, I would venture a guess that they are triploids with two sets of mloko chromosomes to one set of suffruticosa.



Figure 1a. Hybrid flower bud



Figure 1b. Mloko flower bud



Figure 1c. Hybrid seedling



Figure 1d. Mloko seedling

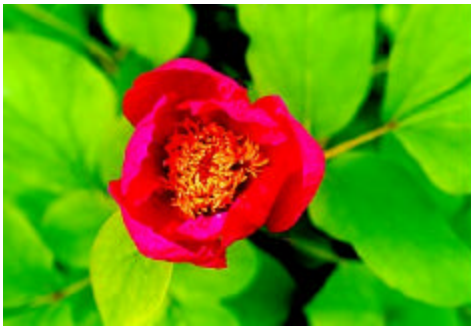


Figure 1e. Hybrid flower



Figure 1f. Hybrid foliage

A REVIEW OF THE LOST LACTIFLORA X SUFFRUTICOSA HYBRIDS

By Don Smith

In a recent article entitled "Fifty Years of Intersectional Breeding" (APS Bulletin, No. 312, Dec. 1999, p. 25-27), Bill Seidl reviewed the progress made in intersectional breeding over the past 50 years. Included in this review was a brief paragraph covering the lost lactiflora/moutan hybrids that were first announced by Louis Smirnow around 1966. Reference was made in this article to a color photo from an early Smirnow catalog showing one of these lost hybrids. Although these hybrids have been lost for at least 25 years, the photographic evidence of these plants still exists. I remember seeing at least one photo of these hybrids as well. When I looked back in my files, I discovered that I still have a copy of the Smirnow catalog in which this photo appeared. As it turns out, there are two such photos. One picture is of a large planting and the other is a close-up of a flower from a different variety. Enlarged versions of these two photos are shown on page 4. The original photos are approximately 1 x 1 1/2 inches in size. These were scanned at high resolution so they could be enlarged by a factor of 3-4.

Page 1 of Smirnow's catalog circa ~ 1970 highlighted two Japanese t.p.-Herbaceous hybrids. These were named Pink Harmony and Pink Symphony. These two hybrids were also mentioned in the September 1972 issue (in an article by Louis Smirnow entitled "Tree Peony Topics") of the APS Bulletin (No. 206, page 16). They are also mentioned in an article by the late Roy Pehrson in *Pæonia* in December 1974 (Vol. 5, No. 4, p. 9). Pink Symphony is pictured in color on page 34 of the same catalog. This photo shows only the flower, which is double and of good lactiflora form. Pink Harmony was not pictured, but another variety (Pink Overture) was shown on page 35. Here the photograph is of a large planting, which probably was taken in the garden of the originator in Japan. This photo shows many blooms, which are also of double lactiflora form. Unfortunately, this picture is much too small for us to tell much of anything regarding the foliage or plant habit of this plant. Two other varieties, Pink Purity and Pink Heaven, were reported (APS Bulletin No. 184, March - April 1967) to be growing in Smirnow's garden in Long Island. From these accounts it would appear that there were at least 5 separate

varieties from this cross and possibly others as well.

In my opinion, these photos do little to help answer the question as to whether these plants were indeed true intersectional hybrids. Nonetheless, I thought many of you would be interested in seeing these photos again after all these years (or maybe for the first time, for some of our younger readers).

LETTERS TO THE EDITOR:

Received 20 April 2000

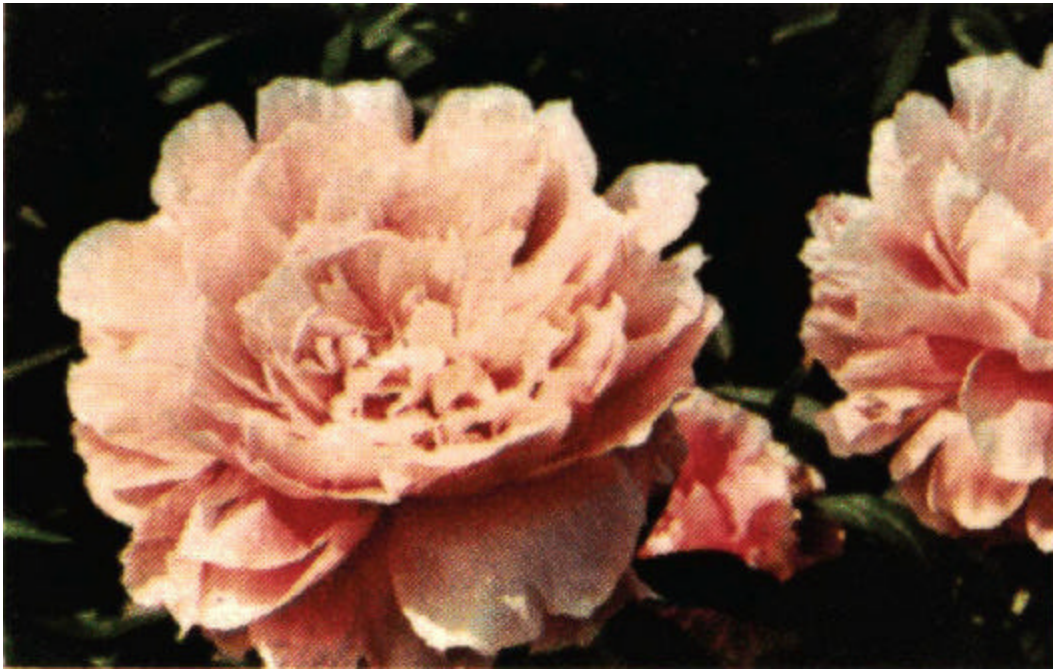
Dear Mr. Smith

After checking my records the plants D-73, D-74, D-75, D-78 and D-79 all have the same parentage, Goldfinch x F2A. The plant D-256 is a Tria seedling, pollen parent unknown. It was from an open flower. Therefore, it was either self-fertilized or pollen came from another plant.

I would like to clear the mystery concerning D-308 and D-309. When these two plants were registered, D-308 was registered as Zeus and D-309 as Leda. When Roy Klehm offered them for sale he put D-308 as Leda and D-309 as Zeus. And that's how they are known today. Hope this will help.

Sincerely,

N. Daphnis



Pink Symphony



Pink Overture

LETTERS TO THE EDITOR (CONT'D):

Excerpts from a letter by Zlatana Draskovich

I have a new question: I have a bloom - on new tree peony-like foliage - growing between Alice In Wonderland and Strawberry Delight. This bloom was on foliage that is medium green with reddish tint (typical of new tree peony growth) but she bloomed later than the other two (June 99 & 00) Photo enclosed. The bloom is pale red with yellow anthers & deep red flares - single to semi-double. To my knowledge, no seeds were ever planted in this bed and no seed pods, that I'm aware of, were on either of the other two plants. Any suggestions or ideas?

FIRST BLOOM AFTER TWO GROWING SEASONS

By Bernard Chow

Many hybridizers are eager to find out the result of their crossings as quickly as possible. But the first bloom usually appears after 5 to 7 years of sowing seed. By chance, I got a first bloom after 2 growing seasons. The arrangement was due to necessity, however in retrospect I found I had done most things right to obtain this result. I would like to report my experiences here so that I can share them with fellow hybridizers.

One summer, I received some advanced generation hybrid tree peony seeds from Mr. Seidl, but I already ran out of space to grow them. The only outdoor space I had was a concrete paving underneath some big tall trees. I put 2 layers of loose bricks as a retaining wall to form a square patch of 2 yards by 2 yards. Inside this patch, first I filled it with a layer of river sand of 1 inch thick, then 4 inches of rich compost soil, and

finally topped up with another 1 inch of river sand, to reduce weeding work. Germination is not a problem for me. There was plenty of warm weather from summer to autumn. An 8 oz disposable foam cup with holes at the bottom was filled up with new potting mix. A seed was pushed 1 inch deep into the potting mix. For some ruptured seeds, I did not use the method suggested by Don Smith for remedy (Vol. 25, No. 4, p.1). The only special attention I paid was to make sure that the crack was facing downward. Consequently the seed would not rot because the ruptured seed coat did not hold any excess water. All the cups were then buried in this nursery patch about half a foot apart, with their tops in level with the soil surface. From then on, the only work left is regular watering and weeding. At the third spring after sowing, i.e. after 2 growing seasons, a pleasant surprise shows up. A bud emerges from one of the young seedling plants! Then most of the seedling plants bloom in the following spring.

To sum up, the growing conditions I have offered are:

- ? Excellent drainage. No excess water can be kept by the loose retaining wall.
 - ? With the concrete flooring, no interference from big tree roots.
 - ? The surrounding big trees offer a cooler environment during hot summer days.
 - ? The brick wall offers good insulation to the extreme heat from the hot shining sun that often happened to a black plastic pot.
 - ? The opening of the big tall trees on the west side offers good half-day sun.
 - ? The root system never has any disturbance. It is not necessary to remove the cup because the roots eventually would go through the holes of the foam cup and break the cup.
 - ? Good nutrient from slowly released rich compost.
 - ? The vigorous growth of a hybrid tree peony seed.
-

(Martha Washington x Golden Era) Intersectional Hybrids

By Don Smith

In the summer 1996 issue of the newsletter (*Pæonia*, Vol. 26, No. 3, p. 3), Chris Lanning raised a question regarding the quality of the flowers from the Martha Washington x Golden Era intersectional cross. At the time I answered the question based on my knowledge of the results obtained by Roger Anderson, since none of my plants had yet reached blooming age.

At this point, I have now bloomed a sufficient number of M. Washington x Golden Era intersectional hybrids to draw some general conclusions about the progeny of this cross, based on my own experience and results. Consequently, I am now in a much better position to answer this question in greater detail.

Almost without exception, the foliage and plant habit of these hybrids is superb. Typically, the plants have a nice, symmetric, ball-shaped form with dimensions about 3 ft. tall and 3 ft. or more across. The foliage is intermediate between the two parents, but more closely resembles the tree peony side of the cross. The growth habit, however, is primarily herbaceous, although above ground buds are extremely common. The foliage of these hybrids is very disease resistant and stays healthy looking well into the fall season. The flower buds exhibit typical tree peony form (rosebud shape). The flowers are predominantly singles with 12-14 petals and are also of typical tree peony form. Most often (~60%), they are light yellow with red or pink flares and various degrees of pink suffusion, especially when first open. Of the remaining 40%, half of these are bright yellows and half are pinks. Many also exhibit some degree of red streaking. Nearly all of these hybrids have normal fully formed flowers and the occurrence of incomplete flowers with aborted petals is rare. All have normal looking carpels and most have a dense ring of normal

looking stamens with anthers. Quite a few also have an adequate amount of pollen, although the fertility of these pollens is generally untested.

A number of these hybrids undergo a remarkable color change, which creates an attractive two-tone color effect. For example, one plant has flowers, which are almost orange when first open, as the flowers mature they change to a clear bright yellow, so that the overall effect is a pretty combination of orange and yellow flowers. Another plant exhibits flowers that open dark pink and then fade to cream with dark cherry red flares. A third hybrid opens a beautiful light pink, changes to a light yellow that is heavily flushed with pink and then ends as a pure light yellow with small red flares. Big, dark, dramatic red or pink flares are common among these hybrids, as is heavy pink suffusion. Most hybrids are very floriferous and exhibit excellent flower presentation. Side buds vary in number from none to many depending on the particular plant. When they occur the quality of the flowers from these side buds is good to excellent.

Overall, this is a fairly satisfactory group of hybrids. My only real disappointment with this group is that so many of the hybrids are so similar and that so few have double or semi-double flowers. However, considering that both parents are singles, this result is hardly surprising.

Notice!

Pæonia readers can contact me by e-mail at

paeonianews@aol.com

Those who are on-line are highly encouraged to submit future articles, letters-to-the-editor and general correspondence by e-mail at the above address.