

PAEONIA

Volume 4, No. 4

December, 1973

REQUIRED READING –

TABLE OF CONTENTS

- 1. "The Peonies" by John C. Wister, \$3.50 from American Peony Society.
- 2. The Bulletins of the American Peony Society.

Letter from Leslie Anderson _____ pg 1

The Best Peony Species and their Hybrids, F. C. Stern _____ pg 2

Who Can Tell Me?, Roy Pehrson _____ pg 4

Saunders Memorial Medals _____ pg 5

Peony Problems, Chris Laning _____ pg 6

Mloko (etc.), Roy Pehrson _____ pg 7

Suggestions from Silvia Saunders _____ pg 9

Recommended List of Peonies (Result of APS survey) _____ pg 1

The PAEONIA is authorized by Miss Silvia Saunders.

Our leader and teacher in hybridizing is Roy Pehrson.

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

Miss Silvia Saunders writes to tell us of the death of Mr. Oscar W. B. Anderson of Christchurch, New Zealand. Mr. Anderson was the outstanding grower of herbaceous peonies in New Zealand and was on Miss Saunders' list of "actual or potential hybridizers". The following letter was received from his daughter, Lesley Anderson.

* * * * *

Dear Mr. Laning,

November 4, 1973

I have just returned from a trip to England and found the June copy of "Paeonia" among accumulated mail addressed to my father, Mr. O. W. B. Anderson. He had accompanied me to England (or vice versa!) to visit my sisters who are married and living in England. Ten days after our arrival in April he was taken ill, and he died on May 31st.

As you may know he was an avid gardener and a paeony enthusiast, and was a member of the American Paeony Society and in correspondence with several of your famous growers and breeders, Miss Saunders and Mr. Smirnow and Mr. Krekler of California among others. He was 87 when he died (would have been 88 next week actually) and though heavy or prolonged work in the garden was beyond him, he still tended his peonies, which are in bloom at the moment. As I write I have **'Helen Mathews'**, **'Ellen Cowley'**, **'Rose Marie'**, **'Kelway's Glorious'**, **'Moonrise'**, **'Flame'** and **'Red Charm'** all "smiling" at me.

I suppose I must have imbibed his adoration of the paeony, for although my knowledge is nil, I am determined to learn and carry on caring for his lovely collection.

I see you give "The Peonies" by John C. Wister as required reading. I cannot find the address of the American Peony Society, so would be grateful if you would send me their address so that I can write for the book, provided the Reserve Bank will grant me the necessary funds!

With regards, Yours sincerely, Lesley Anderson

This Material Was Supplied By Miss Silvia Saunders -
Taken From The November, 1954, Issue Of "GARDENING ILLUSTRATED"

The Best Peony Species and Their Hybrids

by F. C. Stern, V.M.H.

The peonies usually grown in gardens are all derived from the wild *P. lactiflora* (syn. *albiflora*) from Manchuria and Northern China. These lovely sweet-smelling peonies have been cultivated for generations by the Chinese and Japanese and in recent years by the western nations, and especially lately in the U.S.A. The seedlings vary very much both in colour and in form, some single and some double.

The other "Paeonia" species, and first crosses between species, have been much neglected in the garden. These usually flower earlier than the lactiflora forms and many of them are most attractive, and easy to grow. They are accommodating as to soil; any good loam with or without lime suits them perfectly. Many of them like the half-shade and in this position the flowers last longer. Some people say they are difficult to move but I find that if they are moved as early as possible in October they will usually flower the following year.

The earliest species to flower in the garden is *P. cambessedesii*. It comes out at the end of April or early May. The pink flowers are very beautiful, especially in contrast with the foliage, which is a deep silvery green and red beneath. It is hardy in the south, of England, but as it comes from the Balearic Islands it might want a south wall in gardens farther north. *P. emodi* from Kashmir is the next to flower. It grows into a large bush about 3½ feet high and is very lovely when covered with white flowers. This plant does best in the open border in full sun; it is such a fine plant that it is worthy of a good place in any garden.

In May and June many species come into flower. The well-known European *P. mascula*, which used to be called *P. corallina*, with its red flowers, will grow anywhere and is useful in the garden to cover rough places. This peony was grown by the monks in the Middle Ages. Although it is indigenous to central Europe it is found in many parts of Europe and Asia Minor: in these outlying places it is usually found near the remains of a monastery, as for instance on the Island of Steep Holme in the Bristol Channel.

The yellow herbaceous species make delightful plants with their gay flowers; they are quite hardy as they come from the Caucasian mountains. The best is *P. mlokosewitschii*, which has deep yellow flowers. It is a charming plant in spite of its unpronounceable name and is quite easy to grow. It does extremely well in half shade and the flowers last much longer in this position; in fact, it grows better there than in full sun. Another delightful Caucasian species with light yellow flowers is *P. wittmanniana*. It enjoys the same treatment as *P. mlokosewitschii*. All these species that do not grow too tall are very useful as ground cover for lilies.

The low-growing *P. tenuifolia* is excellent in the rock garden. Its narrow dissected foliage is always pretty and shows off the deep red flowers to perfection. The late Professor Saunders, of Clinton, New York, made many crosses between species, some of which he sent me. The one I liked best was a cross between *P. veitchii woodwardii* and *P. tenuifolia*, which received an Award of Merit under the name of 'Redwood'. The dark green leaves are finely divided as in *P. tenuifolia*. It is an attractive hardy plant, taller than *P. tenuifolia* with larger red flowers. Another peony with narrow leaves is *P. anomala intermedia*. It grows taller than *P. tenuifolia* and has much larger flowers, very large for a species, the colour a deep red. It is one of the finest flowers of all the species and there is a plate of it by Miss Snelling in my book "A Study of the Genus Paeonia".

The white-flowered *P. obovata alba* comes out later, usually at the beginning of June; it has a delightful cup-shaped flower and obovate leaves of a brown-green colour. It does not grow tall and likes a half-shady place. The variety "Willmottiae" is a larger form which is not so easy to grow as the type.

One of the finest wild species is what Clusius called the "great red Peony of Constantinople," *P. peregrina*; this peony grows wild in the northern Balkans. It is sometimes referred to as Fire King in nurserymen's catalogues. The flower is a very bright red, cup-shaped, the leaves green shining and much divided. It is one of the latest, to flower, at the end of June or early July; it does extremely well in half shade and the bright, red flowers light up the shadows under the trees.

There are several fine forms of this peony in cultivation, but it is not possible to say whether they are hybrids or just variants that have appeared. The two best that I have grown are Defender and Sultan. Defender, which has received an Award of Merit at the R.H.S., was introduced by Professor Saunders. It is a very strong-growing plant with the same cup-shaped flower as the species but of a deeper red and somewhat larger. It is easy to grow and is a first class plant. Sultan, whose history is unknown to me, appears also to be closely related to *peregrina*; it has even deeper red flowers which are larger than those of Defender. It is also a good garden plant but does not seem to be so strong as Defender. There is another form of this species found wild in the vicinity of Smyrna. It has the same cup-shaped flower and the same leaves as the Balkan form but the colour of the flowers is a salmon red; it is often known in gardens as '**Sunbeam**' or *P. peregrina lobata*.

The last of the herbaceous species to flower is *P. veitchii* and its variety *woodwardii*; a lower-growing plant. *P. veitchii* only grows about 18 inches high. It has several reddish, maroon-coloured flowers on each stem and is an accommodating plant, growing well in sun or shade.

The tree-peonies are favourites of mine; these stately plants are not seen often enough in our gardens. They are not difficult to grow; a good loam, with or without lime, suits them admirably. They are perfectly hardy but have an annoying habit of making their new growth early in April. These new shoots, on which the flower eventually comes, start into growth suddenly and grow very fast; they are soft and tender at first and apt to be cut by frost or the cold east winds we sometimes get in April. I have seen *Paeonia suffruticosa*, the wild form, growing on top of the rock garden in Stockholm, which shows how hardy these plants are, though, no doubt, the young shoots do not start until after the frost is over. Therefore, one must try to place these plants in some part of the garden where they will be protected from the east wind and where they will not start too early into growth. I plant them in a half-shady place among shrubs or facing north where the young growth will be delayed. In this garden a number of them grow well in these positions, and all of them are well protected from the east wind.

There are three wild tree peonies that are magnificent garden plants, all extremely hardy. *P. suffruticosa*, known as Rock's Variety, which I have already mentioned, has large, white flowers, with deep red markings at the base of the petals. It grows into a big shrub. The plant in this garden is about 8 ft. high and about 10 ft. in diameter. It received a F.C.C. in 1943. The seed of the wild species was sent from China, by Dr. J. F. Rock, to the Arnold Arboretum in Boston, U.S.A., about 1930, and distributed by them. These plants, when they flowered, tallied with Farrer's description of the wild plant which he found on his expedition to Kansu and describes so vividly in this book, "On the Eaves of the World". Farrer, however, did not send back seed. The wild form of the beautiful Chinese and Japanese tree peonies, the Moutan peonies as they call them, was always rather a mystery

It would seem that all the different beautiful forms which have been evolved by generations of Chinese and Japanese gardeners have come from this wild plant.

The new yellow tree peony, *P. lutea Ludlowii*, is a very fine plant, growing up to 6½ feet high. The flowers are a butter yellow, large and held well up above the foliage, and open in May. It was collected in 1937 by Messrs. Ludlow and Sherriff, in south-eastern Tibet. It is quite hardy and will grow in any soil, even on the rubble of the chalk cliff at Highdown. Seeds are freely produced and germinate well. This variety is a much better plant than *P. lutea* itself. The latter is a low-growing shrub with smaller flowers which are half-hidden by the foliage. Though *P. lutea* is a poor plant for the garden, it has been used very successfully by French and American hybridists to produce some fine hybrids which I will mention later. The other wild species is *P. delavayi*, also from China. This plant, growing up to 4 ft. or 5 ft. has large, deep maroon-red flowers; the size and shades of colour vary very much when the plant is raised from seed. The best forms with large flowers are decorative in the garden and useful as they will grow and flower under trees.

Besides the Japanese and Chinese garden forms of these tree peonies, there are a number of good hybrids, raised by French growers and by the late Professor Saunders. The two I like best were raised by Saunders. '**Argosy**', with large, single yellow flowers, grows into a large bush and is a fine garden plant when covered with flowers at the end of May; '**Black Pirate**' has large, dark mahogany-red, single flowers and is very striking when in flower. The single forms appeal to me more than those with large double flowers, as in the French hybrid '**Souvenir de Maxime Cornu**'. The flowers in these double forms are too heavy for their stems and in the garden hang down in any bad weather. Several of the single forms have been raised here; '**Mrs. George Warre**' and '**Cassandra**' are two of the best, but the trouble is to propagate them. It is difficult to strike them from cuttings; they will layer but this takes a considerable time. The best way is to graft them onto herbaceous peony roots, but this is a matter for the expert propagator. Many of the hybrids and the garden forms come well from seed, though germination is sometimes slow, and it is always exciting to see what the flowers will be like, as there is always much variation in their colour and form.

WHO CAN TELL ME?

Roy Pehrson

I have a small start of a plant of the lactiflora '**Petite Rene**' which I have thought to be a tetraploid. This came about when, several years ago, I sprayed the foliage of a few clumps with naphthalene acetamide and a few others with acenaphthene. In both cases these hormone type materials had been dissolved in dimethyl-sulfoxide.

Now I have a problem. Thinking about this plant I have got to wondering if it is really a complete tetraploid or just a sectoral chimera. It would take quite a while to prove it out by breeding experiments. I don't really understand the mechanism involved very well. If someone knows of a book which treats on the subject of chimeras pretty well, I should like to obtain a copy for myself.

I have another question in this connection too. Sometimes in digging a clump of peonies I may find one which has one or more buds not up in the crown of the plant, but well down below, seemingly right on one of the big storage roots. Are these adventitious buds? Are they derived from outer tissues of the plant? If so, should such a bud develop on a sectoral chimera would a stem arising from it then be completely tetraploid? I would very much like to know or to read some opinions.

SAUNDERS MEMORIAL MEDALS

At the Peony Show in Milwaukee this past June, two Saunders' Memorial Medals were presented for outstanding work in the advancement of the peony. One of these medals was given to "The House of Gratwick" for their great work with tree peonies, especially lutea hybrids. House of Gratwick is made up of three men — the glamour boys and Gary Seaman. Gary is a very likable fellow. In joining them (Gratwick and Daphnis) he is in a position of starting at the top and working up. Gary is now offering lutea hybrids on his own — we all should wish him success.

The other medal was presented to Roy Pehrson. The September 1973 issue of The Peony Bulletin gave an account of the Gratwick presentation and this issue of Paeonia will let our readers know about the other medal. This, in part, is what Miss Saunders had in mind when thinking of reasons for presenting this medal to Roy Pehrson _ _ _

Our Roy Pehrson, from Mankato, Minnesota, 27 years ago (1946) began working with hybrid glads. But as he himself has remarked, "Too many diseases!" So he switched to daylilies. And there, there were soon "too many day lilies". So in 1959 he moved over to a quieter, more leisurely plant; a plant that wouldn't push him so fast; a plant that gives you time to think. Yes, ladies and gentlemen, I refer to that most neglected of all perennials — the Peony.

At just about that time, several other men popped up, seemingly out of the cracks, and in 1963 the Peony Robin was formed. Very soon it numbered ten, then twelve. From the first, Roy Pehrson was assigned a leading role. If anyone did not know a chromosome when he saw one, he had only to write: "Dear Mr. Pehrson, just what is a chromosome?", and then began what was to end finally as a whole college course in genetics, by correspondence. Any questions at all, whether it was to do with bagging or breeding, crossing or chromosomes, hybridizing or harvesting, could be brought to Teacher Roy who was willing to give unstintingly of his time, his energies, and his knowledge, towards helping new young enthusiasts get started on his own favorite avocation.

His knowledge was deep. (He will deny this, it is so much less than he wishes it were.) But it was a mere splash compared to the depth of his patience. He seemed born for the role of Teacher. While incomprehensible books continued to be written and published, lucid explanations continued to flow from Roy's pen, seemingly inexhaustible. He has the knack of putting very complex ideas into very simple language, and there must be few of us indeed who can say that they have not learned at Roy's knee.

Then the Newsletter came into being, and for three and a half years Roy has been its "leader and teacher in hybridizing,," Until recently he has written most of its pages. Now some of his pupils are trying their wings, so that every issue of the Newsletter (now named PAEONIA), is 10, 12, or 14 pages of loud active discussion.

He coaxes, urges, stimulates, yes, even bribes us with offers of seeds (sprouted seeds, mind you) and roots of fancy bred hybrids designed to save you 5, 10, or 15 years of work; he bribes us into hybridizing and then writing about our accomplishments, if any.

And as if that weren't enough, he has made several very beautiful and worthwhile hybrids himself. 'Lullaby' we all saw at a recent show, and a beauty it is. He has pushed several first or second generation hybrids on, into an additional generation or even two, or he has crossed them in such a way as to give the first real QUINTUPLE hybrids — having five species bloods in one plant. Here again he is unstintingly generous and gives away these very fancy hybrids to those who care and will use them.

But after all's said and done, it is as a Teacher that Roy's influence has been widest and greatest. And I speak for the Peony Society in saying that we are all deeply happy and proud to be able to present the Saunders Medal for "Outstanding contribution to the Peony" to our Beloved Teacher, Roy Pehrson.

PEONY PROBLEM

Chris Laning

'**Silver Dawn**' (willmottiae x macrophylla) is one of the earliest of hybrids to bloom. Two years ago, in April, it sent up ten stout stems with buds on the tips that were about the size of a small walnut. It promised to put on a good show but a mighty cold night changed its plans and froze it solid. Two days later these foot long stems were flat on the ground. Second growth provided no blooms; in fact, I have never seen a bloom on it — freezes back every year.

'**Angelica**', a plant Miss Saunders gave me just two years ago (and this one is a sibling of '**Silver Dawn**'), managed to get through the cold, spell in shape to produce two deformed blooms. Even though they were far from perfect, their beauty was great enough to keep me in a high state of expectation. If ever you have an opportunity to buy this plant — never mind the cost — get it !!!!

Along with these two plants, '**Roselette**', '**Roselette's Child**', '**Rushlight**', '**Starlight**', and all the other very early, early and even early midseason hybrids were badly damaged again this year. What to do? Well, these plants have been transplanted this fall onto higher ground. I admit, I knew they had been growing in a frost pocket, but the lactiflora and officinalis thrive in this location so they could be expected to perform in a reasonable way — but they didn't! Now! — they had better start performing or else get demoted to the plastic A-frame (an unheated plastic tent). "Shape up" or forever live in the nursing home, I say.

Now, ladies and gentlemen, if you have a problem similar to mine, read the enclosed reprint from the American Horticulturist on microclimates. Yes, I know it's about rhododendrons but this information applies equally to our peonies. If you don't have a problem such as this, read it anyway. Study it. It will do you good !

MLOKO

(Continuation of - or rather conclusion to - Mloko article of the September issue of
"Paeonia" Volume 04, No. 3, pages 3 & 4)

Chris, you should re-read the description of *daurica* "*triternata*" on page 21 and again on page 29 of THE PEONIES, If Stebbins considered mloko only a form of *daurica* it follows that in plant characteristics they must be almost identical. If your own plant of *P. daurica* is markedly different than your mloko, then you really don't have *daurica*, do you? Could it be *P. decora*? One has to have a streak of suspicion in order to question the accuracy of identification of ones' purchases, but some plants ARE wrongly labelled. Prove it to yourself. Use pollen of your *daurica* on your mloko. You should get a real good crop of small bright seeds. If you don't then you have something else. In reality, Stebbins calls mloko a yellow *daurica*. If Silvia then calls the plant I got from her a pink mloko the two things are not real contradictory. I can properly call it *daurica* since this is proved by the fine seed crop resulting from using its pollen on my plant of mloko. It's too bad that Stebbins did not record what the hybrids are like.

Obviously the author of that "mossy whiskers" article did not know the breeding history of the plant or plants from which he grew those non-yellow seedlings. Can one be certain of the origins of those seeds from the U.S.S.R. which you now have ?

I have four little seedlings grown from seeds once sent to me by the late Sam Wissing. I should think that he would have had only one plant, but I do notice some differences in foliage form and in vigor. They are four years old but still pretty small.

The botanical description gives the color of mloko as yellow. Logically, I suppose that we must accept a yellow flowered plant as mloko, and then wonder whether plants with other colors are hybrids or possibly pure *daurica*. Yellow ones might also be hybrids in some instances. I now think it improbable that the yellow of herbaceous peonies results from a simple recessive factor.

Roy -- Does fresh pollen give better results?

No, I was not able to detect any difference in results from the use of my own freshly gathered pollen over that of the same kind sent to me by others. The trouble is that in the use of these lutea hybrid pollens it is not possible to know which seed is a hybrid and which is not. Another thing; after only a few days ones own pollen is no fresher than any other pollen was when first received. The record keeping which would be needed to assemble any meaningful data is just more formidable than I care to undertake. It would require keeping separate far too many batches of seeds. Do it yourself if you wish to, but as for me, I don't think extreme freshness is all that important anyway. This past season was a disastrous one for the Ito cross. The very day when the lactis first started to open in force the temperature went to 100 degrees, the following day 98, and it stayed hot for a whole week. The lactis literally exploded into bloom. In order to make as many crosses as possible, I was forced to pollinate very many opened blooms. This cut way down on the number of properly protected crosses that I could do. There are 53 batches of seeds from the unprotected crosses, some with a cupful or more. There are only 14 bags with seeds of the protected crosses and the number of seeds in them is small. Several ideas have been advanced to explain the reason for my good success in obtaining Ito hybrids from the 1969 crop of seeds and my very poor results since then. I appreciate these suggestions and think each of them may be responsible to some degree. Lately, though, I have begun to wonder if the reason may not be something different. Maybe temperature control is a little more critical than for pure lactiflora seeds in bringing about the hypocotyl germination of these hybrids. Unwittingly I may have done something more nearly right in germinating those 1969 seeds than I have done since then. Possibly the proportion of hybrid seeds has been about the same in each crop of seeds, but I have just failed to get them to sprout. It could very well be true. Nature

sets up better conditions for germination than we can contrive to simulate indoors for quicker germination. If I had planted the dormant seeds outdoors I may have had better luck overall. Well, anyway, the plants I do have are a strong incentive to me to keep trying: I do wish they would hurry it up a bit though.

In moving some Itos into permanent roomy spots in the front part of the garden this fall, I noticed another point of similarity with the tree peonies. Most of these had very nice buds on the underground parts. On a few of these one or more of these buds had already expanded into white sprouts. One of these was about two inches long. Twenty-nine plants have now been moved to these more favorable spots, I have not moved the five or six biggest plants. I want to see them bloom where they are before disturbing them.

Right from the very start we have been referring to those hybrids of Mr. Toichi Ito as the "Ito hybrids". It has just seemed perfectly natural to do this. Then as others have produced more of these plants and plants of the cross between lacti and the delavayi-suffruticosa hybrids as well we have broadened the term to include these as well. Again, since these latter seem indistinguishable from the others in plant habit, it seems perfectly natural to do this.

In his article in the September, 1973, Bulletin under the title "Classifying the New Peonies", Mr. Franklin Styer writes the following: "It would appear that the membership would be well served by a division into grexes of the peony hybrids now being produced. The Society can allow the breeders to do this, being of itself only a recording party. If the grouping should later be found in some way impractical or illogical, the Society could step in to legislate a correction."

Without consciously intending it, we may have given a little start toward the acceptance of this grex name for these plants. We may have been influenced by the following: the name is short, easily remembered, easily spoken and easily written. The name is obviously Japanese, so its use continually gives recognition to the originator and the place of origin. Mr. Ito produced no other hybrids so there can be no confusion through the use of his name. From now on I intend to write of these hybrids as the Itos without also apologizing for doing so by enclosing the name with quotation marks. If you two feel as I do, that the timing is now appropriate, I think it would be just fine if you, Silvia, were to write this up for the Bulletin. On several counts it would be better for you to do it than for me. Will, you? It fits nicely into your self-acknowledged role as organizer and spokesman for our group. There's nothing scientific about it so you can't go wrong. If you should have any doubts you could send me a draft for comment. It could be a nice touch to ask for Mr. Styer's comments too.

A mild complaint has been noted, charging that PAEONIA concerns itself entirely with the herbaceous peonies, with never a mention of the tree peonies. Well, it may certainly seem that way but there is no deliberate plan about this. If those who live in the tree peony belt and are active in the improvement of these plants do not write to share their successes and failures, how can it be otherwise? But remember, this is not a medium for further extolling the virtues of these plants. We'd dearly love to learn what is being ACHIEVED, How about it? Is it true that the only difference between an "organically grown" apple and the usual kind is that the "organic" one is wormy?

Chris, I think your decision to do some experimenting with the development of foliage bronzing is going to involve you in a real baffling challenge. I'm beginning to think that there are no less than three, and possibly more, kinds of bronzing in peonies; each of which could be under different genetic control. This could turn out to be a real tough nut to crack.

Slowly, but increasingly, some nagging doubt has been growing on me. It's real gratifying to have so many people receiving our letter, but I commence to wonder if many of them will ever do any actual work at hybridising. Do we have them with us only because of a past lack of news of this kind in the Bulletin? The extra two dollars or so per year would represent no hardship to most Society members. It's sobering to realize that we may be making very little progress after all.

The other day (Nov. 7) I set the last of the rose cones over the tree peonies. Instead of using soil, this time I stuffed them with compost. I gave no protection to the Ito's last winter, but one of these looks so much like a tree peony that I put a small size cone over it too.

There are two plants of the cross ('Petite Rene' x 'Thunderbolt'). By some coincidence the one of these seems to be the most "woody" in habit of all these hybrids and the other the most convincingly herbaceous. The one I protected had a real big, fat dormant bud at the tip of its longest stem which is about 5 inches tall. This stem is very hard, looking to me as woody as any tree peony. I hope to have this bud survive the winter. This plant took on a very deep brownish bronzing in late fall. This makes the plant even more interesting.

The other plant of this cross is one of only two which is entirely herbaceous in habit. The stems are no harder than those of lactiflora. Both of these have grown into bigger plants at their age than any of the others. This one has a foliage form with very little suggestion of the tree foliage form.

Both of these have foliage which seems thinner and less "leathery" in texture than the others. I suspect that these two have an entirely different chromosomal complement than the others, I wonder what the flowers will be like?

Yes, Chris, I agree with you completely. The advanced generation hybrids from Gratwicks will not remove the challenge from the Ito cross. I do believe that there may be among these a few plants whose pollen might increase the effectiveness of the cross several fold. If my theory concerning the role played by ploidy in this cross is correct then results could be as much as six times better. I doubt very much that the improvement is likely to be this great. There are obviously other factors which play an important part in the difficulties of this cross. Even with a six-fold improvement this would still be a very difficult cross. It might even be difficult to notice the improvement.

Chromosome counts should be made. One of the original Ito's should be tested, and so should all of the fertile advanced generation plants, including also F²A and F²B. With these known it might be unnecessary to test the F₁ lutea hybrids since it might very well be possible to infer their counts from the results obtained for the others. It is certain that the understanding gained would be of some help to hybridizers.

SUGGESTION FROM SILVIA SAUNDERS

I am wondering if it would be worth our while to put an advertisement into Horticulture Magazine, saying that your chances of producing something NEW and WORTHWHILE in the peony world are 100, or 1000, or 10,000 times as great as in the worlds that have so long been exploited and over-exploited (roses, glads, iris, day-lilies, etc.) because the doors to many different untapped gene pools have been unlocked — but all in words of one syllable, and mighty few words.

What about running a contest to see who can come up with the best ad — I think we can only have about three or four lines and it might cost something around \$70 for a year — but wouldn't we get ten new members per year? What would be all we'd need, to cover our costs!

Furthermore, the long road from seed harvest to bloom on your new hybrid is now more like 3 years rather than 5 or 7 as it used to be. THE PEONY -- OUR MOST NEGLECTED PERENNIAL!

RECOMMENDED LIST OF PEONIES

American Peony Society Survey

Singles

WHITE

'Pico'
'Spellbinder'
'Krinkled White'
'Le Jour'

PINK

'Sea Shell'
'Sparkling Star'
'Dawn Pink'
'Mr. Thim'

RED

'Imperial Red'
'President Lincoln'
'Man o' War'
'Arcturus'

Japs

'Bu-Te'
'Polar Star'
'Lotus Queen'
'Carrara'
'Moon of Nippon'

'Westerner'
'Gay Parse'
'Largo'
'Kay Tischler'
'Ama-no-sode'
'Neon'

'Dignity'
'Charm'
'Nippon Brilliant'
'Hari-ai-min'
'Onahama'
'White Cap'

Semi-Doubles

'Miss America'
'Minnie Shaylor'
'Margaret Lough'

'Spring Beauty'
'Silvia Saunders'
'Prairie Belle'

'The Mighty Mo'
'Chippewa'
'Harry L. Smith'

Bomb Type Double

'Snow Mountain'

'M. Jules Elie'

'Dixie'

Doubles

BLUSH

'Moonstone'
'Nancy Nicholls'
'La Lorraine'

WHITE

'Mother's Choice'
'Bowl of Cream'
'Dr. J.H. Neely'
'Ann Cousins'
'Gardenia'
'Amelia Olson'
'Marcella'

LIGHT PINK

'Mrs. Franklin D. Roosevelt'
'Dolorodell'
'Frances Mains'
'Nick Shaylor'
'Westhill'
'Reine Hortense'

DARK PINK

'Emma Klehm'
'Ensign Moriarty'
'M. Jules Elie'
'Sarah Bernhardt'
'Edulis Supreme'
'Wilford Johnson'
'Rose Glory'

RED

'Kansas'
'Ruth Elizabeth'
'Tempest'
'Rubio'
'Felix Supreme'
'Highlight'
'Sir John Franklin'

WE WISH ALL OF OUR READERS A BLESSED CHRISTMAS AND HAPPY NEW YEAR
Chris and Lots Laning