

PAEONIA

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Editors: Chris and Lois Laning 553 West F Avenue Kalamazoo, MI.	To Keep Records or to Not Keep Records, Chris Laning page 1
Suggested yearly contribution: \$2.50 in the U.S. and Canada \$4.00 in Europe and Australia.	Correspondence from Don Jenkins with reply from Chris . . . page 2 Seed Distribution Information page 2 Difficulties vs. Opportunities, Chris Laning . . . page 3 Letter from M. M. McFarlane page 4 Letter from Jackie Janson page 5 Letter from Father Syrový page 6 Some Comments on Growing Tree Peonies, Don Hollingsworth page 7

TO KEEP RECORDS OR TO NOT KEEP RECORDS

1. The keeping of records in the early stages of hybridizing affords a sense of direction and formulating goals.
2. Keeping records makes for a logical approach to hybridizing in the early stages of this hobby.

BUT-

3. The thought of the time and skill required in keeping records may scare off or eliminate what could be a potential hybridizer. Don't let that happen.
4. Advanced stages of development of breeding lines with their mixed parentages leads to confusion and soon gets out of hand if numerous seedlings are involved, e.g. - Quads have four species in their ancestry so further crossing and segregating makes recording burdensome and difficult of interpretation.
5. Such a grand collection of variables is wrapped up in the advanced generation of hybrids that just raising a batch of seedlings from them offers an array of phenotypes.
6. No cross can be repeated that will result in an identical phenotype — not even an identical genetic makeup.
7. Seedlings keep changing in form and color from year to year as they proceed toward maturity so roguing out and selecting is not feasible in early stages of seedling growth.
8. There is no acceptable standard for beauty that can be suitable for all beholders.
9. Probably not more than 3% of any group of seedlings is good enough to warrant further propagating work to include in a hybridizing program.
10. Flowers for "Show" are not the only standard for judging the worth of a clone.
11. America is known as a melting pot for humanity; let's have a melting pot of peonies too.

— Chris

P.S. Advanced Generation Peony Seed can be had for the asking.

Brevard Lumber Co.
P.O. Box 192
Brevard, N.C. 28712
March 17, 1988

Dear Chris:

Thanks for the March Paeonia, I have read with interest the Wister "cutting" article. I guess I am dumb as well as confused. Please explain the meaning of "the left stalk was left on and the leaf was cut about in half." This after the buds were cut off with a shallow cut, only about half the depth of the stem. I have tried many times to root stems with IBA, and under plastic and mist, but never struck. Maybe this will work if I can do properly. Thank you.

Don M. Jenkins

May 24, 1988



Dear Don:

At a time when the buds are formed (maybe in July), bring branches in from tree peonies — *P. suffruticosa*; remove each bud along with the petiole (leaf stalk) and leaf. Reducing the area of the leaf by cutting some of it away is optional. It seems that none of the present day peony gardeners has been successful with rooting buds or cuttings but we must keep on trying!

- Chris

SEED DISTRIBUTION

Lactiflora, advanced generation hybrid, and tree peony seed will be available for distribution about the first of September. Maybe \$1.50 will cover packaging and postage for about 100 to 200 seeds. The *P. suffruticosa* supply will be limited and none of the *lutea* and *Delavayi* will be offered. There has been no source of seeds from species (wild) so none can be offered.

The American Peony Society seed distribution will be in conjunction with the distribution but will be scheduled for a later date since seed contributors through the Society generally send them later in the season; also a greater selection then can be offered.

- Chris

DIFFICULTIES vs. OPPORTUNITIES

Chris Laning

Father Fiala once said when things go wrong or don't seem to work, change the matrix (the mix). Things did go wrong and now it's time to change the matrix.

Princep, a spray that should keep weeds from germinating contaminated the soil to such an extent that peony seedlings after developing during the first year failed to grow well the second and third years. Investigation showed that the little roots had turned brown!

Moles, voles, and shrews were, and still are, a real challenge. When tree peony seeds were planted and protected from freezing by being covered with Styrofoam or other plastic, the rodents would (will) go right down the line eating the expanding embryos.

Changing the matrix, thinking to outmaneuver the rodents and circumventing the regularly occurring problems, much to my chagrin, some of the same old problems persisted. Here is the procedure used: a cold frame made of 2 x 10's, twelve feet long, placed on hard packed ground on the south side of the garage at a location where rodents would need power equipment to tunnel through that stuff — surely that would stop them! That's what I thought. Wrong!

By the end of December the four legged pests had eaten enough germinating seedlings to convince me that nothing would be left come spring. So the Styrofoam insulation was removed and the ground promptly froze solid. That ended the freeloading but also left the tree peony seeds subject to freezing, but surprise!, about 100 or more T.P.'s came up and are now growing and a new goal has presented itself. I will work on a race of hardy tree peonies, disregarding flower form and beauty. *P. suffruticosa* seeds will be sown in open ground just as with herbaceous kinds. Maybe we may yet see the day when there will be tree peonies available for everybody.

P.S. DON'T USE PRINCEP SPRAY!!

Dear Mr. Laning,

5-6-88

I'm writing you on the advice of Ms. Greta Kessenich of the American Peony Society. I'd written her asking if she knew of a commercial source for *Paeonia obovata* 'alba' or *P. mlokosewitschii* or other species peonies and she directed me to you. Do you have these or other species available for sale? If you do, or if you have a price list available, please send it to me. Thank you and I hope to hear from you soon.

- Steve Whitesell, 4836 44th St. IB, Woodside, N.Y. 11377

ED: Who of us can help the fellow?

- Chris

ANOTHER LETTER FROM MARION M. McFARLANE OF NEW ZEALAND

May 8, 1988

Dear Paeonia Growers,

I should have had this note away to you some time back — but I expect time has a habit of passing with you just as quickly as it does with us — and now we're into our first month of Winter after a very dry Autumn which is not so good for the farmers. Those with irrigation are fortunate especially if the water supply is off the larger snow-fed rivers. We have had frosts of 6-9 °C this last week — but they seem to follow the clear sunny days and give us those fiery tinted autumn leaves on liquid ambers, etc.

My main reason in writing this note to you is to thank you both very much for sending me your own shorter bulletin or newsletter which I much appreciated and also find most interesting and informative on the various methods of propagation. I was specially interested in the taking of eye-cuttings by John C. Wister from "The Peonies."

I'm sorry to say that my efforts in T.P. seed raising are rather patchy to say the least. To my sorrow I let the seed containers have too much early Summer sun and that was too intense for the tender little roots — warmth by all means — but no sun — as you mention in your notes — experience teaches us.

I am enclosing my subscription for your "Paeonia News and Views" and thank you both for my first issue. I hope you will find the cheque in order — my bank here in Timoru assured me that your bank in Kalamazoo would arrange that for you.

With the approach of Winter here in New Zealand and not so very far from the Antarctica, I am always thinking of the Spring not too far away and also how busy all you peony enthusiasts will be preparing your prize blooms for the A.P.S. Show in May-June. Good Wishes.

Thanking you both once again.

Marion M. McFarlane

November 19, 1987

Mr. Chris Laning
553 West F Avenue
Kalamazoo, MI 49007

8612 N. Harrison
Kansas City, MO 64155

Dear Chris:

I'm enclosing my yearly dues for PAEONIA.

Here's a brief update on my 1987 hybridizing endeavors.

	<u>Crosses Made</u>	<u>Seeds Produced</u>
<u>Itoh Cross.</u>		
Stardust x Golden Era	12	1
<u>Lutea Hybrid Cross.</u>		
Exotic Era x C-252-81*	1	0
Golden Era x C-252-81	2	0
Age of Gold x C-252-81	3	0
Leo's Pink Lut. x C252-81	3	1
High Noon x Golden Era	3	0
<u>Jap. TP.</u>		
Yaso No Mine x Leo's White	3	19
White Swan x Leo's White	6	0
Mixed TP (Selfed)	-	10

* 1986 frozen pollen supplied by L. J. Dewey.

Has anyone experimented with the breeding technique of Peter Hughes set out in the March, 1986 issue, p. 4? He thought it should be tried on difficult crosses, such as Itoh crosses and lutea hybrid crosses, especially backcrosses to suffruticosa parents. That is, sometime after pollination apply to stigmas a chemical to dilate the pollen tubes, allowing the male gamete to travel down the tube for fertilization. Any input on this would be helpful.

Sincerely,

Jackie Janson

Villa Raphael
Dubuque, IA 52001
March 26, 1988

Dear Chris and Lois:

I don't know if you are aware of my new address. I am no longer at St. Mary's, Vining, Iowa. My superior made me resign my pastorate and to retire here in a home for retired priests. I have a living room, bedroom and a bath, and two windows to look out of. I came here October 31, 1987 and it's been taking me all this time to adjust myself to this sort of life. It is comfortable and everything is taken care of for me. The food is excellent. I'm glad I was here all winter and didn't have to go out!

I'll miss my peonies, especially the Tree peonies. No doubt there are some of the old herbaceous around here on the grounds. I haven't explored the grounds outside yet. They were quite spacious being a large sister's convent who abandoned it and left for more room in another building and place.

I had hoped to get back to Vining at blooming time for the Tree peonies. I may not be able to do this as it takes three hours to drive from Vining to Dubuque.

There is no use planting anything here at my age. I'm going to be 85 this coming November. I guess I'll have to find places close enough to visit and enjoy what I find. Who knows, I might even order a couple of Tree peonies next fall to plant here. We have a retiree of the age of 96 here but he doesn't know whether he is coming or going sometime so that's not for me! Seventy is the length of our days and if we are strong, 80, and these are filled with pain and misery! (My arthritis!)

If one would only foresee how and where his old age or retirement would be and prepare for it. I first discovered Tree peonies over 50 years ago on Bro. Charles Mission Gardens and most of my good stuff are the old reliables which are still the most beautiful and hardy. So it will pay me to go to Vining this spring no matter how I make it. Wish that I could spend a couple of days there at least. The house is still there and empty so I kind of dream about going to Vining and plan how to get there.

I enjoyed the copy I got of Paeonia. I'll welcome it here at this Dubuque address. I might sit down and write something for you as I have Greta. I owe her a letter too. So just these few lines to let you know that I'm still kickin' — but don't know how long! Happy Easter!

Bless you both,

Father Joe Syrový

Some Comments on Growing Tree Peonies
Don Hollingsworth

Now that the American Peony Society has published a book featuring tree peonies, and, in color, I am again prompted to comment on some of the lore of tree peony growing in America and what may be wrong with this lore.

Despite the ready availability of tree peony plants in the North American nursery trade, in Missouri we rarely run into gardeners who are having success in bringing them to their full flowering prime. When we do see prime tree peonies it seems the plants are likely to be found on a high and dry site or next to a house foundation, where there is gravel backfilled against a basement wall not far away.

After 27 years, since I planted my first tree peony, and trying to grow them under a great range of conditions (much of the time for lack of design rather than by careful preparation) I feel fairly confident of my conclusions, as far as these conclusions go, that is.

One of the revelations I came up against is that the prevalent commentary in peony literature about deep planting is not generally applicable in Missouri. It has taken a good deal of time for me to come to a reconciliation of this observation with my inherent respect for the statements of knowledgeable elders.

Eventually, as some readers may remember (if they haven't quit reading my comments) from previous offerings, I have concluded that most of the persons who have written for the American Peony Society and done so influentially, have had the good fortune to be growing tree peonies on glacial moraine soils that are more prevalent in the more northern states. Our Missouri soils which are of glacial origin are either the wind placed loess soils which have a very limited distribution or heavier depositions of glacial outwash. This in contrast to gravelly, sandy deposits which are more prevalent farther "back" in the glaciated regions.

My philosophy now, if not always my practice, is that preparation of the planting site for the tree peonies may be far more important than it is for the commonly grown *Lactiflora* peonies.

Tree peonies apparently will not thrive in the absence of good aeration of the root zone — that is what "good drainage" is about, avoiding the blockage of air passage by presence of free water in the voids between soil particles. When this condition is not naturally present, modifications that **1)** increase the size of voids between the particles, **2)** prevent standing water which feeds the voids, and, **3)** increases the ease with which surplus water drains through and out of the root zone are indicated.

Pre-occupation with getting tree peony grafts off the nurse root and onto their own has perhaps been a luxury that is affordable only by growers who either purposefully or by good fortune have had deeply aerated sites upon which to grow the plants.

In support of these statements, I want to direct your attention to accounts of what others have said about this.

My first indication came from the late Leo Armatys, long an effective advocate of tree peonies, who gardened at Central City in East-Central Nebraska. Fifteen years or more ago Leo wrote in our peony robin letter, as I recall, that he was seeing better results from plants set with the graft only 2-3 inches deep, not the 4-6 inches commonly recommended. About the same time, I was seeing some plants acquired as specimens get smaller every year where I had planted them deeply, and this was in a raised bed on a slope!

Several years ago I came by a copy of a special issue of a gardening magazine from Japan which had some intriguing diagrams associated with articles concerning tree peonies. I didn't make heads or tails of it at the time. Then, a couple of years ago when the late Peter Hughes was visiting in the United States and gathering tree peony information, he gave me some books obtained in Japan written by Takahiro Somei and others. It was some of the same information I had seen in the magazine.

You will recognize the Somei name if you have been reading the American Peony Society Bulletin in recent years. He is a person of great stature as an authority on tree peonies and all peonies. Most notable for our purposes, his writings on caring for tree peonies through the year was translated for the American Peony Society by Ron Ringdahl and appeared in four issues of the Bulletin during the period December 1983 through September 1984.

Below are reproduced copies of diagrams from two of the booklets, matched with the Ringdahl translation of related material. While I cannot be sure that the matching is correct, since I do not have a translator to verify the part selected from the sources published in Japanese, I feel the probable relevance is worth taking up space and time to examine.

Another account which I feel is relevant and validates my impressions, comes from Europe. I have a couple of times supplied peony plants to Dr. Andreas Klose who is agricultural chemicals research director for Bayer, AG of Germany, the parent corporation of our Mobay Chemicals Co. Dr. Klose is a plant pathologist. Last fall while in Kansas City, he visited me with a mutual friend. The conversation turned to what goes wrong with peonies — rot, for example. Two contributions from Dr. Klose: He wanted to know what precautions I take, the most important of which is site preparation. I related that what I am chiefly able to do, given my volume and available time, is use raised beds where the soil is heavy, and not very raised, at that. He asked if we ever use the practice of planting the roots in soil, then covering the crowns to desired depth with river sand, a practice apparently common among old gardeners in his area. He then took occasion to mention how much impressed he is with the skills and insights reflected in old gardening literature with respect to preventing diseases which we now try to take care of with chemical treatment — this from the research head of a company which depends upon profits from the sale of chemicals!

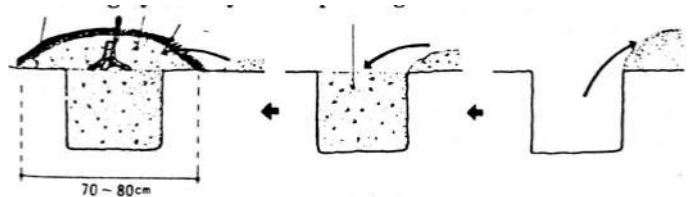
Patched together following is my selection of material from Mr. Somei. The English text is clipped from June 1984 APS Bulletin starting at the bottom of page 18. The copy from Japanese text is from two of the books given to me by Peter Hughes.

Note the striking similarity of Dr. Klose's description of using sand to cover the crowns, and the above ground level placement of variety wood in Somei's diagram. Also note the seeming unconcern for deep planting and own-root development in Somei's portrayals. For some further pondering on this question read further of Somei's with respect the mechanics of placing tree peonies to be grown in pots — graft above the surface. If anyone is interested, I will be glad to furnish photocopies of some of diagrams on that subject.

E. Planting, Transplanting: Generally speaking, from the end of September through October can be considered the ideal time for this activity.

- a. **Planting Location:** A location should be chosen which provides both exposure to the sun and good passage of air. Moreover, in hot regions, locations that cut off the direct rays of the afternoon sun and, in cold regions, locations that provide shelter, such as in the shadow of trees, buildings, etc., in order to stave off icy winter winds are ideal.
- b. **Soil Improvement:** Since drainage must be extremely good, it is incomparably more important to keep this in mind when preparing the soil for tree peonies than for most other trees and shrubs.

In order to improve drainage, several methods can be used, such as; 1.) mounding up the soil. There are variations in this method depending on whether the garden originally had sandy soil and good drainage or a high percentage of clay and poor drainage; but generally this calls for planting the tree peony at a level higher than the original level of the soil. Preparation of the soil should begin as early as possible. After the soil is prepared and then rained upon a couple of times to settle it, planting can proceed. If it does not rain, the soil can be watered down thoroughly the day before planting.

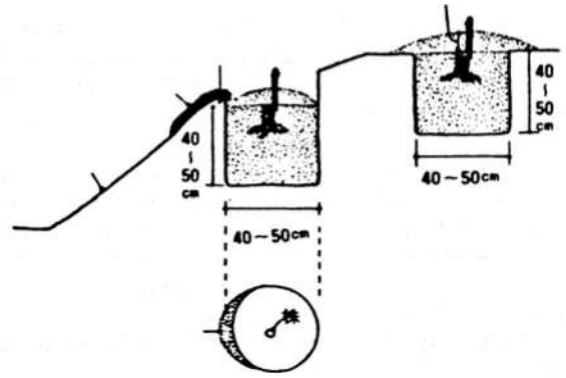


In more detail, first a hole is dug where the tree peony is to be planted. In soil with good drainage characteristics, the depth and diameter of the hole can both be perhaps 16" to 20", in gardens of average drainage, 20" to 24", and in gardens of poor drainage, more than two feet.

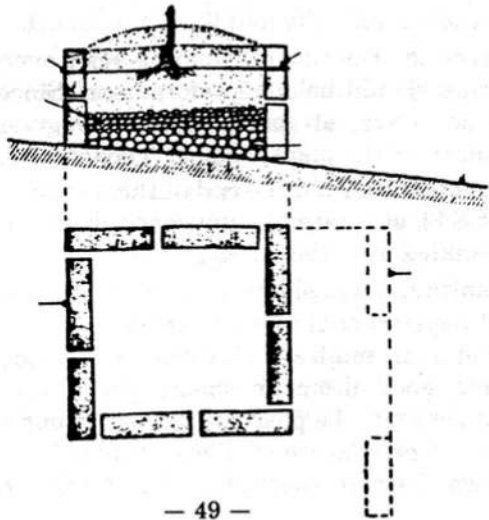
To four or five bucketsful of garden soil are added and mixed in four bucketsful of well-rotten manure or leaf mold and two handfuls of superphosphate of lime or a chemical fertilizer (e.g., 6-40-6). Depending on conditions, quantities of sand may also be necessary. The hole is then completely filled in with as much of this mixture as necessary. At planting time, the plant is set into the soil at the original level of the ground and the remainder of the soil is heaped up around the plant, to such a height that the graft union is covered to a depth of about two inches, to form a gentle-sloping mound about three feet in diameter. An inch or so of mulch is then applied.

The second method is 2.) using an artificial or natural slope. Generally this means planting at or near the top of an artificial or natural "hill" or slope. If the inclined portion is wide enough, planting can be done on the slope itself.

Preparation of the soil and planting method is the same as in the mounding-up method, except that the graft union is approximately level with the original ground level and soil is mounded up so that the union is covered by about two inches of soil.



The last method we will treat here is 3.) using a raised bed. This method can be used regardless of the quality of drainage characteristics. The essence of this method is, of course, providing a means of drainage.



As an external framework, any kind of long-lasting material can be used. Concrete blocks will probably prove an easy solution. The blocks should be placed on the ground surface without burying the bottom edges into the ground at all, and they should not be mortared together but simply set into place. Since the top layer of block will have a tendency to loosen and fall off, it can be secured with a metal strap or other similar means. The framework can be built up to a height of 16 inches or so. Inside on the bottom is placed a layer of small stones, etc., to a depth of two inches, followed by a two-inch layer of coarse sand. Above this, the framework is filled with soil prepared as explained above. Planting can then proceed as detailed above.

- c. **Transplanting:** Regeneration of hair roots in the tree peony is on the poor side and damage to the fleshy main roots easily lead to rot, therefore, as a rule, transplanting should be avoided.

After planting, one finds now and then that the quality of the soil on the chosen location is not good after all or that perhaps after a period of rainfall one becomes aware for the first time that drainage is less than ideal. In cases such as these, leaving the tree peony as is can lead to worse consequences than transplanting it.

When removing the plant, first the leaves are removed and the plant is pruned so as to reduce the loss of water from the plant through transpiration. When digging out the plant, the ground should not be disturbed any closer than about one foot from the trunk of the plant or for about two feet deep, to avoid damaging the delicate root system as much as possible.

When transplanting, the method is the same as that given previously for planting.

Possibly the best thing that might come of the foregoing is to stimulate someone to go back to the translation of Somei's writing and re-read it. It is probably an advantage to read through the four articles all at one sitting in order to, pick up some of the emphasis.

Don Hollingsworth