

REQUIRED READING –

- 1. "The Peonies" by John C. Wister, \$3.50
from American Peony Society.
250 Interlachen Rd., Hopkins, MN 55343
- 2. The Bulletins of the American Peony Society.

The PAEONIA is authorized by Miss Silvia Saunders.

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PEONY GOALS

Old Paeonians drop out and new ones are regularly added to our hybridizers group. Some new ones want information which has been incorporated in earlier issues. Some of the old ideas will now be repeated.

Peony outline for some goals to strive for:

I. Blooming Season

- A. Earlier flowering
- B. Later flowering
- C. Reblooming
- D. Everblooming

II. Color Range

- A. New Colors
 - 1. Yellow
 - 2. Purple
 - 3. Blue
 - 4. Green
 - 5. Orange
- B. Bi-colors as in Picotee
- C. Flares — as in some of the hybrids, also in some tree peony (suffruticosa) types.

III. Flower size, style, and texture

- A. Very small, double, semi-double and single.
- B. One flower per stem, also many flowers per stem.

IV. The Plant

- A. Height - dwarf, short, medium, tall, and very tall.
- B. Foliage – texture, color of stems and leaves (such as variegated), crinkled, fern leaf, and size.
- C. Disease-resistance and stout stems.
- D. Hardiness - Improve weak growers such as P. willmottiae, P. mlokosewitschi and coriacea.

LETTER FROM: Harry M. Bloom DATE: June 24, 1979
3957 Oakmore Road
Oakland, California, 94602

A sincere thank you for sending me tree peony seeds. That was a kind friendly act on your part. I put the seed in the icebox for three days and am now going to plant in super sterile soil and take care of them. I also raise and hybridize camellias trying for yellow, blue and fragrance. I have plants from New Zealand, Australia and new varieties grown in our country. I raise begonias indoors at night for my ill wife to enjoy and send for plants, cuttings, seeds all over the United States to share with old people, senior citizen groups and garden clubs. I can't keep more than one so I share the rest I propagate with interested garden clubs in our area.

I bought plants from Toichi Domoto's dad, only camellia plants, 40 years ago. I saw his name on some peony seeds you gave me. He sold his land for subdivision condominiums and apartments. Another era in nurseries going down the drain.

Mr. Laning, you are a great humanitarian and kind person. Thanks again. May everything good you wish for your loved ones and yourself come true. I stay home and care for my wife and self, so have time to write just a sincere letter of appreciation. If I can do anything plant-wise to enrich your dedicated life, I would consider it a privilege to repay you for your many kindnesses.

Until next year, good luck and God bless

— Harry M. Bloom

Paeonians - Why not write a friendly letter to this friend. – Chris

EXCERPT FROM A LETTER FROM GRETA M. KESSENICH, American Peony Society Secretary

The Bulletins are a most important part of our Society. Every article is written by knowledgeable peony growers. No one knows more about the culture of the peony than the person that plants, digs, divides, observes the diseases, its causes and remedy. In addition, there is the hybridizer that gives to the world new and beautiful varieties, years have been spent, trying to achieve a certain dream. There is the exhibitor that takes the peony bloom hundreds of miles, year after year, to exhibit at a National Peony Show which is held in all parts of the country. The peony has this one time to extol its beauty and because of this program more people grow this beautiful flower. All of these activities are written and published in the Bulletin. As the years pass by, the old Bulletins are becoming even more scarce. We do not have a Historian. Even if we did, just how could this information be made available to everyone? All this has been a matter of concern for several years.

At the last Board of Directors meeting in Kingwood Center in 1978, it was decided that something should be done about these important records, so a book has been published. While the contents just touch the surface of 230 Bulletins, it does summarize very important phases of activities over the years of the American Peony Society. It begins with the organization of the society and continues with informative chapters. Although it is called "The Best of Seventy-Five Years", we know there is much more material that could have been included, but due to cost of publishing, some things had to be omitted. At that, the book is large, 8½ x 11 inches, over 200 pages. It is a bound volume with the authenticity of material taken from the bulletins that have been written by reliable people that grew and knew all aspects of the peony.

ED: "The Best of Seventy-Five Years" – This book will soon be available to peony lovers!
Since there is such a dearth of peony articles and books, any new production is eagerly sought after. Stand by, and wait for its appearing!

BREEDING RESULTS: F₁ Hybrid Paeonia 'Laddie'

Don Hollingsworth

'Laddie' is a very appealing early hybrid peony with red flowers. Presumably a triploid, therefore expected to have severely reduced fertility, this F₁ interspecies hybrid is a surprisingly successful breeder. 'Laddie' is reputedly of the cross 'Otto Froebel' x *Paeonia tenuifolia*. "Otto", as now known, is a seedling strain, not a clone, and appears to be simply a strain of *P. peregrina*, as may have been the case with the 'Perry Lobata' used by Saunders, and other named clones having "hot" red flower colors that were typically referred to as "Lobata" in earlier decades.

One year I harvested 30 or so seeds of 'Laddie' x 'Moonrise', from one plant, having used pollen stored from the previous year. The last time I took note there were 10 or so of these plants surviving.

In 1979 a string of plants came into flower that are from various named Lacti peonies by 'Laddie' pollen. There was scarcely a bad color in the bunch, the Lobata tones prevailing, and ranging from warm pink to black red. All of them were singles except that one from 'Moon of Nippon' had extra guard petals. They vary in stature, but tend to the good garden habit of 'Laddie' and have distinctively narrower foliage segments than the Lacti parents.

Our early flowering peonies are dominated by those having pale flower colors. 'Laddie' has a hot red color that is a welcome contrast in its season. The color is not crimson (a cooler tone) as is characteristic of other tenuifolia hybrids and of the tenuifolia species from which it gets its season of flowering. (In Kansas City, 'Nova' and 'Gwenda' open the season and 'Laddie' is only a couple of warm days later, while 'Archangel' followed 'Laddie' by ten days in 1979.)

Another early red that has sharp or hot red color is 'Herald'. While 'Herald' rejected my 1979 pollinations, it obligingly set seeds with whatever form of assistance given by Mother Nature.

Perhaps 'Herald' and 'Laddie' should be tried extensively with the creamy flowered early hybrids in an attempt to bring those hot reds into a strain of that very robust group.

PLANTING TREE PEONIES DEEPLY MAY BE DISASTROUS TO THEIR HEALTH

Don Hollingsworth

Most tree peony cultural instructions make a big thing of deep planting, especially so in the context of grafts that are still on the nurse root. Deep planting is also declared to favorably increase the number of underground buds, and lauded in other ways.

Well, my roughly ten years of experience at trying to grow a great many different tree peonies, starting mostly with small plants (either grafts or from seed) has disillusioned me of my earlier faith in the deep planting advice.

A good deal of my experience is with rather heavy "subsoil" as the primary planting medium. I can now say with confidence that very few tree peonies will tolerate their roots being submerged in heavy and poorly aerated soil. Happily, some can tolerate it long enough to construct new roots at a level which they find suitable even though originally set back by having their roots buried.

The term "heavy" is used here to mean soil that is poorly granulated, particles clinging together in sticky chunks when wet, and when dry, the water can be replaced only very slowly. This is characteristic of soils where the topsoil layer is largely eroded away or destroyed by construction activities.

Tree peonies, as I grow them, seem to require well aerated soil for their roots. If grown continuously, as from seed and never transplanted, or having become fully established from previous transplanting at a site which has heavy, non-granulated soil close to the surface, I expect upon digging them to find most of the roots quite close to the surface. When the roots can grow only in the surface layer, unless there is fertility, some mulch, freedom from mechanical injury (cultivation injury) and judicious supplementation of water in dry times, it will be very difficult to find a tree peony that will accumulate enough root system to do well.

In light of the above, it is not difficult for me to see why many of the tree peonies which I planted deeply have simply melted away over the years.

Very recently I saw an unintended demonstration of the contrast between tree peonies doing extraordinarily well in a well granulated top soil and others declining on a heavy, blocky soil. Although the latter had been well supplemented with compost, the tree peonies were planted immediately thereafter without further conditioning the soil. It turns out that a season or two of deep cultivation and mixing may have helped.

About five years ago, an order of specimen sized tree peonies was planted in what has later proved to be the poorer site of the comparison. A year later a second site, near by, but at higher elevation (now believed to retain more of the virgin soil structure), was planted with tree peonies of similar size, or smaller. These plantings are at the Linda Hall Library in Kansas City. Photographs of excellent tree peony flowers from the second planting have been published in the APS Bulletin during the past year. The plants are increasing in size every year, as expected.

The first plot has been broken up this fall, the plants having declined so badly, and all but the few largest remaining plants were removed to a nursery for an attempt at salvage. Fred Leimkuhler took me out to the plots to show me that the soil at the successful planting is loose and granular, while that where the plants were taken up is chunky and also shows very little earthworm activity. Fred commented that the whole project (in the poorer soil) would have been in a better state now "if a crop of sweet clover had been grown on it first". In other words, more preparation had been required. Now, four or five years later, this plot is starting at near zero again although with a clearer idea of what has to be done. How much better if an extra year or so had been taken at the outset. This plot could now have been at least a couple of years into successful development like the other nearby plot. I wonder how many people never have the "good experience" and give up tree peonies? Incidentally, Fred has almost tripled the area in tree peonies on the good soil this year, using both his own seedlings and named kinds, meanwhile he has already taken steps to prepare the older site for another tree peony planting.

LETTER FROM: Harry B. Kuesel, 4 Larkdale Drive, Littleton, Colorado, 80123

Dear Chris:

June 18, 1979

Sorry to be so late with this check for my annual subscription to PAEONIA. I have donated most of my established tree peonies and herbaceous hybrids to the Denver Botanic Garden where I serve as a trustee. The peony garden there is about three years old and needs further development to be fully representative. Any donations of species or named varieties of tree peonies or herbaceous hybrids would be welcomed this fall. Write to –

Mr. Merle Moore, Assistant Director,
Denver Botanic Gardens
909 York Street
Denver, Colorado 80206

I'm still planning to hybridize peonies when I retire two years from now. I keep all my copies of PAEONIA and often refer to them. My own peony collection is about 50 and includes '**Hana Kisoi**', '**Renkaku**', Suffruticosa (Rock's Variety), '**Godaihu**', Purple Delight (Smirnow), '**Halcyon**', '**Alexander Woolcott**', '**Lovely Rose**', '**Laura Magnuson**', '**Angelo Cobb Freeborn**', '**Scarlet Tanager**', '**Chocolate Soldier**', '**Roselette**', '**Diana Parks**', '**Red Charm**', '**Chalice**', '**Ellen Cowley**', '**Edward Steichen**', '**Moonstone**', '**Mrs. Franklin D. Roosevelt**', '**Arcturus**', '**Firelight**', '**Cytherea**', '**White Innocence**', '**Gay Patee**', and '**Kickapoo**'.

I would be willing to exchange pollen or new start on roots for any of those with other members if it will help them with their hybridizing goals.

- Harry B. Kuesel

EASY DOES IT

Chromosome breakage;
Linkage and cross-over;
Spontaneous meiotic chromosome breakage;
Sports and mutations;
Unreduced gametes;
Damaged and misaligned chromosomes ————— .

Chromosomes are made up of thread-like strings of genes, many, many genes! Ten chromosomes are found in each cell of a diploid peony. Twenty chromosomes are contained within each cell of a tetraploid peony. The genes (DNA) that make up a chromosome are the superintendents which instruct the production managers (RNA) to produce the type and quantity of enzymes and proteins that are to be utilized, also the sequence and, quantity.

Each gene (or group of genes) has a specific function. So you can easily imagine that any great or small change or damage to this governing body can have a marked effect on the plant and its descendants. Quite likely evolution of the species is an end result in certain cases.

All these processes present new and unusual possibilities, but, probably a more productive way of obtaining new patterns and colors — and a good deal less involved — is the raising of plants from hybrid seeds. The cross Quad F₃ x '**Silver Dawn**' F₃ is one that has great potential for variation, and beauty seems to be its main theme. Two rows in my garden — of this particular cross, Quad F₃ x '**Silver Dawn**' F₃, — commenced to blooming three years ago. Many nice blooms were noted that year, but last year and this year were years of surprises in those two rows. Blooms shown at the American Peony Society show at Champaign, Illinois, drew a lot of attention, convincing me that they were outstanding.

May I send you a few seeds from those plants?

- Chris

SEDDS FOR DISTRIBUTION: Write to Chris Laning

From Gus Sindt: '**Florence Bruss**' - single 9 dark red
'**Patricia Hanratty**' - dark red Jap
'**May Lilac**' - Macro Hybrid
'**Rose Bowl**' - light pink single
'**John Gardner**' - red Jap
'**Pico**' - white single
'**Owotonna**' - blush single
'**Spellbinder**' - white single
'**Krinkled White**' - white single
'**White Cap**' - white and red Jap
'**Moonrise**' - lobata hybrid

(continued)

(seeds for Distributions, continued)

From Gus Sindt: (cont.)

'Dignity' - red Jap
'Topeka Garnet' - red Jap
'Rivida' - hybrid - red single
'Gay Paree'
'Faribo Gold' - white Jap with big yellow center
'Miss America' - semi-double
'Walter Faxon' - pink double
'Bu-Te' - white Jap
'Terry Gordon' - red Jap

From Marvin Karrels ———

Hybrid seeds

'Liebschen'

Mixed

'Sparkling Star'

'Spellbinder'

'Rare China'

From Chris Laning ———

'Serenade' F2

Macro Hybrid

'Rushlight'

'Roselette's Child' F3

Saunders 12128 F2

'Vista' x **'Archangel'**

Quad F2 x **'Silver Dawn'** F₃

Quad F3 x **'Rushlight'**

Quad F3 x **'Moonrise'**

'Archangel' x **'Nancy'**

'Sanctus' x **'Silver Dawn'** F₃

Quad F3

Advice to beginners:

Sow seeds in a cold frame next June or July. Most of the seeds should show green leaves the following year. Or, plant half of them now, and the other half next summer.

NEW SEEDLING EVALUATION

To begin, as background, Roy Pehrson's new seedling evaluation, page 8, September, 1973, PAEONIA, is reprinted here:

'Mikado' x 'Good Cheer'. This from the use of a smidgen of **'Good Cheer'** pollen sent me a few years ago by Silvia Saunders. There are about 20 seedlings; about half of them 4 years old, the rest only 3 years — delayed germination. The single stemmed plant, only four years old had a double bloom. It's hazardous to predict from so young and small a plant, but it could, go like this: the flower form seemed exactly like that of **'Red Charm'**, but it's hardly likely that it will be as big. The color is a trifle lighter and more sprightly. It may have a little lobata influence to account for this. The stem apparently will be quite heavy and very stiff. The foliage certainly will be much better than **'Red Charm'**. I'm very high on this one, but two more years will probably be needed to evaluate it. If it can not make a place for itself I think it will only be because of too great a similarity to **'Red Charm'**.

Last year Roy sent me a picture of a bloom from one of these plants and on the back side of this picture he typed:

'Mikado' x 'Good Cheer': One of two practically identical ones; both with **'Red Charm'** form and only slightly brighter color. One of them fades to light pink as it ages. I don't know which one this is. The white you see - and the pink - result from sun glare and bad overexposure. **'Mikado'** is an oldie and should be available somewhere even though perhaps not listed in a grower's catalog. Be sure to buy one or several plants and make this cross in the largest quantity possible to assure your fame as a hybridizer. I do not hesitate to declare that this is the most successful cross ever found.

We need a list of Paeonians who have **'Good Cheer'** and will be able and willing to give others pollen so that they also can make this cross.

I ordered five plants of **'Mikado'** from Busse Garden Center, 635 E. 7th Street, Cokato, MN 55321, which are to be sent to me this fall. I'm planning to follow Roy's instructions.

Several years ago Roy Pehrson sent me a plant of this cross marked "hasn't bloomed yet". Last year it bloomed and I described it as a great plant with two blooms the color of **'Red Red Rose'**. All its petals were of the guard petal type — each petal very large, so nice! But ——— this year its form was exactly like **'Red Charm'** — I could cry.

- Chris