

American Peony Society Bulletin

JUNE, 1975

No. 214



POSTILLION

Double - hybrid (Saunders - 1941). Large, luminous flower, outstanding glowing fire-engine red.




FIELD OF PEONIES

This is a section of Klehm's 250 acre Sunburst Farm in Barrington, Illinois. In the foreground are some of Pillow Talk (Plant Patent 2953) a Klehm Estate Peony.



ELSA SASS

Double - late (Sass - 1930). Like a pure white Camelia, every petal has its place - a tailored work of art.



The Kiss of the Sun for PARDON
The Song of the Birds for MIRTH
One is nearer God's heart in a
GARDEN
Than anywhere else on EARTH

MY GARDEN AND I

by Leonard P. Condon

For more than a score of my years, my garden and I have been good friends... friends that never bore, never impose and never inflict any penalties upon one another. We understand each other... and as a result... both of us flourish. But my garden is different from the average... vastly different.

For instance, in the average garden when one plants petunias, petunias come up and bloom... and if one plants radishes, radishes grow! But I repeat, my garden is different... I plant petunias, asters, zinnias and harvest in bountiful return... contentment, satisfaction, relaxation and appreciativeness.

In short, my garden gives me solace and quietude from a world of turmoil and strife... It is the one spot in my life, where, after the world extracts eight, ten and even twelve hours of physical and mental energy, I can gather to me a feeling of contentment, and rest, that try as I may, I cannot duplicate it in any other manner, believe me.

To start with, my garden is no different than that patch of ground outside your own doorstep... It starts out exactly the same as that... with dirt... the stuff for which children are scolded when they become too familiar with it... and yet, did you ever see a healthy normal youngster that didn't like to dig in the soil?

There's something warm and intimate in working with good growing earth... and why not... does not life itself stem from the very earth? So, when I plant my garden I feel privileged indeed to stimulate to life the tiny live spark deep within each seed... I love seeds... small diminutive specks endowed by God with the power to bring forth living testimony of Nature's greatness... It makes me stop and think... when I plant a seed! And when I realize that that privilege is mine, something inside me swells with a feeling that wipes away all man-made cares and tribulations.

Yes, gardening brings a man to his knees, right down to earth... and for most of us that's good... for too often do we walk among our fellow men with our noses held just a bit too high! But on your knees in contact with the moist soil, gently warmed by Spring's early sunshine, ah! that's the time you have a moment to yourself in which to relax and think about the worth-while things in life.

Oh, yes, the world passes by my garden and admires its beauty of color... its fragility of blooms and its generosity of crisp, health-giving vegetables... Some of my friends and neighbors comment on the practical side of my gardening... even smack their lips in anticipation of preserved fruits and tasty vegetables, way out of season... and others perhaps envy my "savings." Yes, those things, the passing world sees and admires.

Perhaps that's why I smile to them and to myself when their words of praise ring in my ears, for little does the world know that the outward signs of my gardening are but the aftermath of the true harvest of gardening... the feeling inside, that you're glad that you're alive... that there's a God in Heaven... and that once again throughout the world shall re-echo the cry that "All's Well." —Reprint Bulletin #91

AMERICAN PEONY SOCIETY

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Secretary-Treasurer Greta M. Kessenich
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DEPT. OF REGISTRATION

The department was formed to properly supervise the nomenclature of the different varieties and kinds of peonies. All new varieties should be registered to avoid duplication of names.

Greta M. Kessenich, Secretary

OBJECTIVES

The Articles of Incorporation state: Section (2). That the particular objects for which the corporation is to be formed are as follows: To increase the general interest in the cultivation and use of the Peony; to improve the methods of its cultivation and methods of placing it upon the market; to increase its use as a decorative flower; to bring about a more thorough understanding between those interested in its culture; to properly supervise the nomenclature of the different varieties and kinds of peonies; to stimulate the growing and introduction of improved seedlings and crosses of such flower and to promote any kind of the general objects herein specified by holding or causing to be held exhibitions, and awarding or causing or procuring to be awarded, prizes therefor, or in any other manner.

The AMERICAN PEONY SOCIETY BULLETIN is the official Society publication. It is mailed postpaid quarterly to all members in good standing.

MEMBERSHIP

The By-Laws state: All reputable persons, professional or amateur who are interested in the Peony, its propagation, culture, sale and development are eligible for membership. Dues are as follows:

Single Annual	\$ 7.50	Junior of member family	2.50
Single Triennial	20.00	Junior non-member family	3.50
Family Annual	10.00	Life	150.00
Family Triennial	27.50	Commercial membership	25.00

Family membership, any two related members in same household — One Bulletin.

Junior membership, any age through completion of High School — Separate Bulletin.

For those who wish to further support the Society, the following special memberships are available.

Contributing	\$ 25.00	Supporting	\$100.00
Sustaining	50.00	Patron	250.00



AMERICAN Peony Society Bulletin



June, 1975 — No. 214

TABLE OF CONTENTS

My Garden and I — Leonard P. Condon	1
Officers and Directors	2
Table of Contents	3
From Your President	4
Beautiful Kingwood Center	5-6
Appreciation — Cutting Show Flowers	7
The Exhibitor — Clarence O. Lienau	8-9
Arranging Peonies — Alda Cullen	10
Why Peonies Do Not Bloom	11
Cutting and Storing Peonies — Myron D. Bigger	12-13
Joe's Bulletin	13
Letter to Wm. Krekler, 1959	14
Temperatures	15
Tree Peony Philosophy — Anthony De Blasi	16
Registrations	17
Colored Slides	17
Tree Peony Topics — Louis Smirnow	18
Ants on Your Peonies — Helen M. Titus	19
Tree Peony Propagation — C. Graham Jones	20-21
By Request — Greta M. Kessenich	22-23-24-25
The Landscape Gardener's Cross — Don Hollingsworth	26
Controlled Germination of Peony Seeds Indoors — Don Hollingsworth	27-28-29
Back to Nature — John E. Marquis	30
Hybridizing Is Easy — Edward Lee Michau	31
General Soil Husbandry — Excerpts from The Avant Gardener	32-33
Newsletter: Paeonia — Summarized by Bill Seidl	34-35-36
A Message from the Vice President — Gary Seaman	37
Peonies in Lithuania — Ona Skeiviene	38-39
Letter from Carlos Ambrosini — Argentina	40-41
Publications	42
Advertisers	42-43-44



FROM YOUR PRESIDENT

There is still ample time to make arrangements to come to the Annual Meeting and Exhibition, in Mansfield, June 20, 21, and 22nd. It is a beautiful setting with many other horticultural attractions in Kingwood Centre. The peony collection is relatively young, but the roses should be at their peak.

There are other reasons why we would like to see you there. It would be a pleasure to meet everyone of you; also you would enjoy the beautiful peony exhibit. The annual meeting is for the purpose of electing officers and directors, preferably from those members in attendance.

Why not take a more active role and come to this 72nd annual meeting, enjoy the banquet, the auction and meet other members that have the very same interest, the peony.

I have appointed our able and energetic secretary, treasurer and editor, Greta Kessenich to the Board of Directors. With the concurrence of the Board in June, Greta will serve out the term of the late Mr. P. B. Denlinger.

I am setting up a peony zone map which would show areas where similar classes of peonies bloom at the same time. Please join me in this project. This spring, record the date that each of your plants come into bloom. Send me this data, and I will plot it on the map. The data will be consolidated and in a few years there will be enough information to chart the zones. This will be published with luck, in the 1979 December issue of the Bulletin.

While you are admiring your peonies during blooming season, do not forget that we would appreciate a division or two for the auction.

John Simkins

NOTICE

Mansfield Leland-Motor Hotel not available for any reservation.
DOWNTOWN MOTOR LODGE will be the American Peony Society headquarters.

Reservations available, not later than June 1.

Banquet — Downtown Motor Lodge.

BEAUTIFUL KINGWOOD CENTER
SITE OF THE NATIONAL CONVENTION OF THE
AMERICAN PEONY SOCIETY

JUNE 20-21-22

Kingwood Center consists of 47 acres of rolling lawns and woodlands featuring expansive outdoor garden displays that attract nearly one-half million visitors annually. Several handsome buildings of French Provincial architecture, and a greenhouse range provide the facilities for a wide range of educational and recreational activities.

The main building on the grounds is Kingwood Hall. This 27-room mansion formerly Mr. King's residence has been adapted to accommodate a library, several meeting rooms and the administrative offices. It is not maintained as a museum but rather as a facility for a dynamic use. Two exhibit halls are located near the greenhouses. They are used for flower and art shows and meetings of up to 300 people.

The air-conditioned Meeting Hall, remodeled in 1968 from a garage, features modern, flexible lighting, a raised stage and display walls. This room is the main hall for public activities.

The Workshop Building, remodeled from a stable for both horses and cattle, at the north end of this courtyard is used for more or less permanent educational exhibits and is also available for small meetings. A new modern service building constructed in 1967 accommodates cold and warm plant storage rooms, a carpenter's shop, spray and chemical room, garage, and office for the Grounds Superintendent.

The gardens are one prominent phase of the educational program. Through these comprehensive displays, people are introduced to thousands of plants that can enhance the home landscape.

Flowering at Kingwood can begin as early as mid-February when the tiny bulbous iris break through the thawing soil. Winter aconite, crocus, chionodoxa, snowdrops, grape hyacinths, scillas, and anemones provide much early season interest.

By late March the Dutch crocus are flowering in whites, blues and golden yellows to produce the first really showy display. Thousands have been naturalized in the woodlands along the drive. From this time until killing frosts of fall, there will always be at least one display of comparable size and beauty to attract visitors. They demonstrate the possibilities for continuing interest in any home garden.

Soon after the crocuses fade, woodlands are filled with drifts of daffodils punctuated by bright 'Red Emperor' tulips. To many this is the loveliest time of the year as the soft greens of emerging leaves of trees blend with the flowers for an enchanting spring

vignette.

The first two weeks of May find the tulips at their best. With over 70,000 new bulbs planted each year, this constitutes one of Kingwood's most spectacular and publicized displays. On Mother's Day as many as 30,000 visitors may come to view the tulips at their peak. All types are represented in the collection from the very early species tulips to the late-flowering. Varieties are arranged to demonstrate pleasing combinations and the extent of the tulip rainbow of color.

As soon as the tulips begin to lose their beauty, they are dug and replaced with annuals. All these bedding plants are produced in the Kingwood greenhouses. In addition to the tried and true varieties which can be recommended to the public without reservation, are test and trial materials from many leading seed companies. Kingwood also serves as an official display garden for All America Selections.

Some of the other major plant collections at Kingwood are iris, peonies, daylilies, lilies, roses, gladiolus, dahlias, chrysanthemums, and an assortment of 400-500 varieties of herbaceous perennials.

Kingwood maintains the largest collection of peonies in any public garden in the mid-west. The planting is an official display garden of the American Peony Society and the organization is continually updating the variety list to insure that the latest and best varieties will be on display.

The Kingwood rose garden was redesigned in 1972 and contains about 2,000 plants in some 200 varieties. This year it was officially recognized by the All America Rose Selections organization as one of its display gardens. AARS each year provides plants of their new selections so that they can be displayed to the public.

The herbaceous perennial displays are one of the most popular displays at Kingwood because of its continuing interest throughout the growing season beginning in March and continuing well into the autumn. The dahlias are a great attraction and many visitors come to Kingwood yearly to see the dahlia planting.

During the twenty years past, approximately one million dollars has been spent for new construction and capital improvements and about three and one-half million for operating expenses. The estimated number of individuals served during this period probably exceeds fifteen million if we include the visitors, subscribers to "Kingwood Center Notes," those seeing the Kingwood movie or one of the slide sets, those asking questions by mail or telephone, those seeing and hearing television or radio broadcasts, those listening to lectures and reading articles prepared by staff members and by seeing frequent references to work at Kingwood in national periodicals and books.

**Our appreciation and thanks to the Director,
Mr. Roberts and staff of Kingwood Center
for the
many courtesies and generosity
extended the American Peony Society
for this
our 72nd Annual Meeting
and
70th Annual Peony Exhibition,
June 20-21-22, 1975**

* * * * *

The continued support of the membership, the exhibitors with their many varieties of peonies that will be on the show tables, the artistic designs—all together makes a show of unsurpassed success and beauty.

* * * * *

In cutting flowers for show purposes it takes experience to know just when the proper time for cutting arrives. A few points to remember, follow: Singles, semidoubles and Japanese type varieties can be cut in firmer bud formation than can the full doubles. The experienced exhibitor will place paper sacks over the buds he has selected for his exhibition bloom, well in advance of cutting them. This cutting should be done just before the calyx breaks, or when there is a slight feeling of softness under the touch. Bags should not be removed to determine this stage of development; in fact they are not removed until after they have been taken to the show room from the storage room, the stems freshly cut and they are ready to be placed in containers of fresh water. If the specimens are pretty well developed in the sack, it might be left on until ready to remove them to the various classes provided by the exhibition committee. It is most interesting to watch them unfold with all their loveliness, as though they were eager for competition and to display their beauty to the public. The sacking will retain all the delicate tints and shades that the sun would soon dissipate otherwise. It is like cutting a bud about to burst into blooms and removing it into the house for its final dress rehearsal.

* * * * *

All growth depends upon activity. There is no development physically or intellectually without effort, and effort means work. Work is not a curse; it is the prerogative of intelligence, the only means to manhood, and the measure of civilization.—Calvin Coolidge

THE EXHIBITOR

Clarence O. Lienau

For seventy years, a peony exhibition has been enjoyed by all members of the American Peony Society, as well as the general public. Many exhibitors over the years have displayed their flowers of varieties, both new and old.

Tables of the huge lactifloras, of many colors, placed so perfectly in showing the general public the real beauty of the peony. Tables of various kinds of peonies, the hybrids, seedlings and the tree peony, all together make an unsurpassed exhibition.

The exhibitors spend hours of work in the fields, working in the soil, inspecting the plants and selecting just the right flower so that the viewing public will see exactly what that named variety should be like in their own garden. It is with pride and satisfaction when he can show that superior and beautiful blossom.

The size of bloom, the strength of stem and above all, the name of the peony is boldly written for all to see.

Only on the show table can you see the peony to perfection. Peonies, unlike other flowers are groomed for the exhibition very early in the growing season. Disbudding is all important in the very early stages. First select a strong straight stem, then all side buds are removed leaving only the large terminal bud, then this potential flower is bagged so that the flower will retain its delicate color when it begins to open. The exhibitor knows the correct time to cut the flower stalk, having just the correct length of stem. It then goes in cold storage, awaiting the show date.

Some peonies are transported many miles, all of which are carefully packed so they will arrive in perfect condition. The stems are then cut again and the flower placed in water, the bag removed and then the critical work of the exhibitor begins.

He selects the best of the many he has transported, and it goes on the show table only after the flower has been perfectly groomed. This is a proud moment, for that one flower means as much to the exhibitor as a livestock show of cattle, horses, pigs and sheep to that showman in his particular field.

Nowhere can peonies be properly viewed and judged as to their comparative beauty, color and form but the show table.

A field of peonies in bloom is a sight to behold, one of great beauty, but to even try to have an exhibition for the viewing and judging would almost result in failure. Dates of our exhibition are set a year in advance and to visit a peony garden on those dates

could mean disappointment. The weather is so uncertain—rain, hail, dust storms, too much heat, etc. The plant could be heavy with bloom and not show to its best advantage. Only a limited number of varieties are grown in a garden or field; some fail to materialize as the season could be late. Many adverse things enter into this kind of meeting.

An exhibition has hundreds of flowers, many varieties and kinds under one roof, away from the elements of the weather. They are brought for viewing from many areas of the country.

Years ago the American Peony Society had a garden meeting. It was a failure.

One of the stipulations written in the Articles of Incorporation of the American Peony Society in 1904, Article VII. Quote: "The Society shall hold an annual exhibition at such time and place as may be determined by the Society, Board of Directors or show committee." It continues on saying just how the bloom should be displayed. Only at an exhibition of the kind we stage, can this be done.

The Articles of Incorporation were written by men of vision, men that grew peonies and were dedicated in seeing the peony advance. We, in the present must continue to follow the rules. To deviate from the regulations as set forth would be disregarding a very important activity that has been successful over the years.

It must be remembered that many of our fine varieties today would not have had the wide reputation they deserve if it were not for the exhibitor, as they have exhibited in many areas of the United States and Canada. To name a few of the peonies: RED CHARM, MOONSTONE, PRINCESS MARGARET, PINK CAMEO, NORMA VOLZ, DIGNITY, WESTERNER, COMMANCHE, EMMA KLEHM, PAUL WILD, ANN COUSINS, SPELLBINDER, PICO, GAY PAREE, BU-TE, CYTHEREA, BOWL OF CREAM, WALTER MAINS, DOUGLAS BRAND, KAY TISCHLER and many, many more.

* * * * *

The semi-doubles number in their family some of the loveliest peonies we have, as well as some of the largest and most spectacularly beautiful. When I use the term lovely, I mean a flower that by its quiet beauty and exquisite color and form, takes immediate possession of your heart and enthrones itself in its affections for all time. —George W. Peyton

* * * * *

Newly planted peony roots do need water if it is dry, especially if planted early.

ARRANGING PEONIES

Alda Cullen, Marietta, Ohio

Peony growers have at their disposal one of the outstanding flowers to be used in flower arranging. For arranging, as for landscape use, or for show purposes, the peonies which grow with the strongest stems are best. This means we want to grow the best varieties. Most catalogues tell us whether varieties need supports to keep them upright.

Nearly every color except true blue is to be found in peonies: White, pale pink to salmon, deep pink, red, dark red, cherry red, yellow, and lavender pink are to be found in peony flowers. This really does not leave much to wish for—colorwise.

Peonies and their foliage blend well with other flowers and foliages they are combined with in arrangements. They look well with weathered wood or driftwood. They are at home in glass, silver or pewter, as well as, in ceramic or wooden containers. What more could one ask for in seeking a perfect arrangers plant material?

Gardeners who raise peonies for traditional arranging; that is, mass, line mass, or massed line arrangements, usually disbud by taking out the lead bud and allowing the rest of the buds on the stem to mature. This gives a cluster of smaller flowers. These are in better proportion to the size of other flowers and to the containers used. This is very important in traditional arranging. Small flowering peonies, as the *tenufolias* lend themselves well to traditional arranging, without disbudding, as the plants and flowers are comparatively dwarf. Catalogues can be studied and small flowering varieties can be purchased by flower arrangers. The *tenufolias* bloom quite early and extend the arranging period. If you plant the *tenufolias*; the early, midseason, and late blooming herbaceous peonies; the hybrids; and tree peonies, the blooming season will last from six to eight weeks.

If your purpose is to grow flowers for modern flower arrangements the peony is perfect for your purpose. The plants should then be disbudded as for show specimens. The small side buds should be rolled off as early as they form, allowing the lead bud to flower. Then you will have large blooms. These are great for modern designs where large blooms are desired. Modern arrangers may speak of them as a large spot of color rather than a large flower. After they have been well conditioned they will hold, out of water, for several hours without wilting. If you are exhibiting in a two-day show you will want to place the blooms in a flower tube, in water, or put them in an oasis-type medium to keep water coming into the stem. In a one-day show this is not necessary with peonies. If you want to make a modern arrangement for a party that lasts only a few hours, a peony can be placed high in the design

or upside down, if desired, and the stem need not be in water. This allows arrangers to do new and startling designs. This is what modern arranging is all about and peonies help make it possible!

WHY PEONIES DO NOT BLOOM

Plants too young and immature. Let them develop.

Planted too deep. Examine and, if eyes are more than three inches under ground, raise to proper height, two inches.

Large clumps planted without proper division. Dig, divide into small or standard divisions and plant. Many failures due to this cause.

Buds killed by late frost. Hope for better luck next year.

Buds killed by disease. They turn black and die. Spray as directed.

Buds attacked by thrips. They open partially, turn brown and fall. Spray to prevent this.

Buds water logged, also turn brown and refuse to open. Bagging would help.

Plants undernourished. Buds show but do not develop. Fertilize to add strength to the plant.

Ground too dry. Water down to the bottom of the roots.

Roots infected with nematodes or root-knot or both. Destroy.

Plants undermined by moles.

Excessively hot weather. Late full doubles often fail from this cause. No remedy.

Planted too near trees and shrubs, or crowded by other plants.

Too much shade makes the plants tall and leafy. Move.

Moved and divided too often. When once planted, they should be left alone and never moved, unless absolutely necessary.

Too much nitrogen. Cut down on fertilizer rich in nitrogen.

* * * * *

This is the time to carefully select early, midseason and late variety of peonies for planting in the fall. Visit display gardens, shows and exhibitions to see the gorgeous varieties available. There is a fairy land of beauty in a large collection of peonies. The price of a peony root is very modest, taking into consideration that with care, the peony will last a lifetime. Follow planting directions closely and carefully. Transfer the name that is attached to the peony root to your marking on a permanent label. One that can be seen and then call that peony by its name. It is advisable to insert another label of lasting quality in the soil close to the peony root, having it level with the ground.

CUTTING AND STORING PEONIES

Myron D. Bigger

Growing peonies for cut flowers, compares to growing fruit trees. It takes time and care.

Your peony plants do best when planted three and one half to four feet apart, in each direction. This makes cultivation easier and gives free air circulation among the plants. It is better for the plant if they are not used for cut flowers until they are at least four years old.

If your plants are strong and healthy, you should be able to remove about one fourth of the stems the next year or two. Never remove over half the foliage from any plant, if you want good flowers the following year.

Some home markets will take very short stems. Then you can remove more flowers and still have one-half of the foliage on each plant.

In order to have nice flowers, they should be disbudded. In the spring watch your plants closely and remove all side buds from each stem leaving only one, on top. Take this terminal bud in one hand and stretch the stem taut. With the other hand give the side buds a quick break out, sideways. This takes a little practice. The younger the buds, the easier it is to do. It is also much easier after a rain, as the sticky syrup is washed from the buds.

Watch your buds closely. When they are about as soft as marshmallows, they are ready to cut. For the wholesale florist, they have to be cut much tighter than this stage. This will come with experience. As soon as possible after they are cut, get them in cold storage. Store them as near 34 degrees Fahrenheit as possible to do.

We wrap our peonies in 24" white butcher paper and leave top and bottom of the packages open for ventilation. The packaged peonies are then set in bushel baskets or boxes and store them dry. You may find some other way of storing, such as ventilated boxes, where you can lay them down and air can circulate around them. The buds must dry off before storing, or they will have a tendency to spoil.

I have had a running argument from year to year with some growers. They say to store in water, and I say dry! And you know we both come out allright.

I found that if they are stored in water the buds will not dry off enough to keep them from water spotting, should they be kept in storage very long.

When the flowers are taken out of storage for sale or use, the ends of the stems should be cut off and then placed in water at least 24 hours. Storing them dry, as we do, takes a little longer for them to fully open, than being stored in water.

Almost any variety of Lactiflora peonies will keep two weeks and open to a beautiful flower. Some varieties keep longer than others. Some of the very heavy petaled full rose type peonies will not take cold storage from the bud stage.

Bomb type, like SNOW MOUNTAIN, CHARLIES WHITE, MONS JULES ELIE, FELIX CROUSSE and many others will take longer storage and perform well when removed.

The less pollen a peony has in the bloom, the better it will perform. Mrs. Franklin D. Roosevelt is one peony that is not a bomb that does well. It also does not have any pollen to my knowledge. It also does not have so many tightly packed petals, as many of the other big flowers.

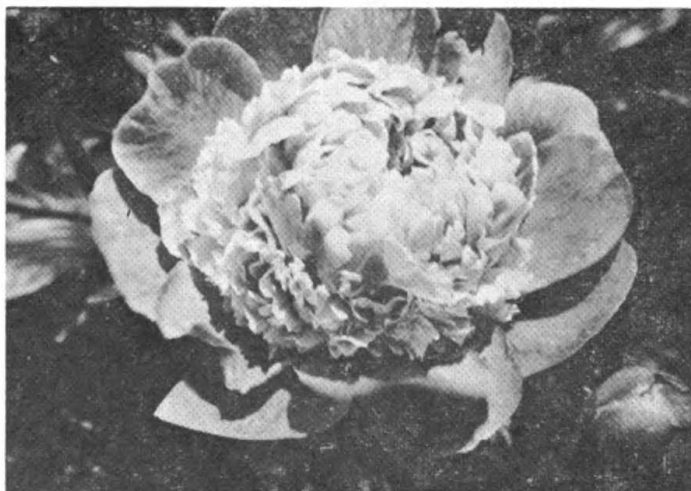
With experience you will find just what the trade wants. The wholesale florist will want longer stems and buds that will take longer storage.

Don't be afraid to handle your peonies. Few flowers can take the rough handling that peonies can endure.

Some growers never wrap them until they have wilted and then some always sprinkle them before they are wrapped. I must say the peony does not care very much. It will do well either way. They wrap easier if wilted and perhaps come out a little better if sprinkled. You be the judge!

FLOWER OF PINK DERBY

PINK DERBY is a bomb of medium dark pink, with guard petals the same dark pink. There is a touch of light pink to white at the base of the bomb. The plant has 24-inch stems with dark green foliage. This peony is excellent for stor-



age, for beauty in the home, one of great merit for the show table. you will praise it highly as one recognized for its quality and beauty in the garden.

* * * *

Every reader loves JOE'S BULLETIN, America's oldest national flower and garden magazine. Issued for the common growers. Economy seed-plant ad section has no equal. Resourceful. Buy, sell direct. Save! Sample copies only 10¢ postage. Write Iamoco, Inc., Box 144, Lamoni, Ia. 50140.

Mr. William Krekler was one of the Editorial Committee that obtained information for the book, THE PEONIES.

All the information was not used in the book and he has now given this important data to the Kingwood Center Library. Through his generosity and that of Kingwood Center, copies have been made and sent to the Secretary. Permission has been granted for its usage.

The following is a letter written to Mr. Krekler in 1959.

We have your letter in regard to Peony originators. Sometime in the 1880's my father, Thomas C. Thurlow (born 1832 died 1909) purchased some seedling peonies from a nearby garden and became much interested in their growth. I think he was one of the first to obtain some of the so-called "Richardson Seedlings," from *John Richardson of Dorchester, now a part of Boston. He imported from Kelway & Son and had a collection estimated at about 70,000 plants. These he sold to a Chicago firm in 1898.

Before digging the plants he told us boys that we could pick the seed and we harvested nearly a bushel. These were planted and as they came into bloom, the better ones were selected, probably about one out of a thousand. A few of these were named, Cherry Hill being one of the first. From time to time other seeds were planted so that we always had a batch of seedlings coming along. These were much more carefully selected as Thomas C. Thurlow had imported from Kelway and Barr in England and Dessert and Lemoine in France. After much discussion and trials such varieties as Pride of Essex, Betty Blossom and Winnikenni were chosen. About 1915 to 1925 we introduced another set which included Helen, Pres. Wilson, Edwin C. Shaw, A. P. Saunders, James Boyd, Nymphaea, Thomas C. Thurlow, and Rapture. We were fortunate in having the assistance of Mr. Arthur Fewkes in evaluating these seedlings. Mr. Fewkes was perhaps the best judge of Peonies which I have ever known—keen and inexorable and with a wonderful memory. To an originator all his crows are white but Mr. Fewkes did not hesitate to throw out a variety which he did not think equal to his standards.

Our last introductions are Amberglow, Annisquam and Magnolia and these were selected from plants which had been grown for many years study.

Associated at Cherry Hill Nurseries have been my brothers, George C. Thurlow who died in 1952, and Rev. Edward K. Thurlow who has always been interested in these flowers. The inspiration of the father was carried along to succeeding generations.

Times have changed a great deal since 1930. Olmsted Bros. and many other landscape architects do not have the clients who develop large estates as they did in the twenties. Forty years ago there were a number of Peony growers around Boston, Hollis, Shaylor,

McKissock, Fewkes and others and we used to have many contests at the Mass. Horticultural shows.

I hope that this may be of assistance to you and I am glad to hear from you.

Sincerely yours,

CHERRY HILL NURSERIES

(Signed) Winthrop H. Thurlow

*"John Richardson of Dorchester, Mass., an enthusiastic lover of ornamental plants, has done much to advance the interest of the peony in America. Records of peonies in his garden go back to 1857; but how much longer he had been growing them is not known.

From 1857 to the time of his death was thirty years, and in that period at least, he was actively growing seedlings."

Quote, from Cornell University Bulletin No. 259 by J. Eliot Coit. Nov. 1908. Page 91.

TEMPERATURES, CELSIUS AND FAHRENHEIT

Andres Celsius, a Swedish Astronomer is credited with the invention of the Centigrade thermometer. He was born in Upsala 1701, died 1744. He maintained the way to measure temperature between freezing and the boiling point of water, should be on a scale of 100 degrees, equally divided.

Boiling point Fahrenheit is 212 degrees, Celsius 100 degrees.

Other countries have adopted the Centigrade or Celsius scale while we in the United States read our temperatures in Fahrenheit degrees.

To convert Fahrenheit to Celsius or Centigrade, first subtract 32° and then multiply by 5 and divide by 9.

To convert Celsius to Fahrenheit, multiply by 9, divide by 5, and add 32°.

Example:

Fahrenheit to Celsius		Celsius to Fahrenheit	
0	-17.7	-20	-4
10	-12.2	-10	14
20	-6.67	0	32
30	-1.11	10	50
40	4.44	20	68
50	10	30	86
60	15.6	40	104
70	21.1	50	122
80	26.7		
95	35		

TREE PEONY PHILOSOPHY

Anthony J. DeBlasi

Route 109, Sanbornville, New Hampshire 03872

Experts in many fields are having a field day analyzing the trouble signs in our society. There are so many problems that confront us today that the world even ten years ago seemed simpler. One problem, however, remains perennially neglected—that of distinguishing between real problems and manufactured problems. I sometimes get the feeling the world itself changes but little, while the arts of communication are busily “transforming” it, in rhythm with the vicissitudes of editorial fashion. Ideas link with ideas and push one another on into eddies of “importance” that capture our attention and imagination. But we are too often not sufficiently critical of whose ideas and what ideas we are flooding our brains with. What is really disturbing is that in a society that revels in what is dire and sinister in the news, the world of events reaches us through a peculiarly distorted funnel that rarely focuses on what is positive, bridging, mending, and inspiring. Yet this side of the world is every bit as real and busy as the “dark” side! I could be easily tripped into believing that our principal debt to the news media is a headache—if only I could be convinced that we need such headaches. Such an excess of sourness calls for antidotes, I feel. Those of us not completely taken by it have a job to do! May I offer the following tiny contribution to this cause?

There are plants that are downright friendly. The tree peony is one of them. Without being the least obtrusive or demanding, it entertains you with its dance-like actions in the spring, smiles at you with its many beguiling faces when it flowers, and graces your garden with its restful presence the rest of the year. It did this yesterday. It does this today. It will do this tomorrow. Steadfast and unfussy, its “companionship” is yours to enjoy through the thick and the thin of weather and time. For a nonhuman—indeed non-animal—entity, the tree peony possesses a personality and displays habits that might well be emulated by humans to their improvement. The tree peony will never take the place of “man’s best friend,” to be sure, or substitute for your favorite pet, but few living, nonhuman creatures have so many desirable qualities wrapped in one package!

It is not difficult to see why the tree peony is such a welcome member of the garden. It has no thorns. Its foliage is neither rank nor rangy. It stays put, without invading or conquering other plants in the garden. It needs no special care once planted and established. It needs no dividing or replanting. It needs no pruning. It needs no staking. We could go on like this.

But enough of this negative description. Let’s turn to what the tree peony is and has. It is self-reliant, independent, enduring,

and **beautiful**. (One is tempted to speculate that the first three attributes imply that of being beautiful and that being beautiful implies the other attributes.) It is a shrub of artistic foliage and bearing. It is lavish in its performance and strong as an oak. Its blossoms rank among the most glorious and glamorous of flowers, offering keen competition to the orchid, the camellia, the regal geranium, the rhododendron, or any other flower prized for its large size and exhibition quality. To my mind, what places the blossom of the tree peony at the top of the list is that its beauty is **elusive and haunting**—a now-you-see-it-now-you-don't feast for the eyes that recalls the dazzling luxury of a tropical butterfly flitting in a Brazilian rain forest, the fleeting, restless iridescence of a hummingbird poised for a sip of nectar, or a rainbow hovering amidst the rising mists of a remote waterfall. Here is a beauty in the presence of which you may aptly fancy that you have clandestinely spied upon the most secret treasure of the innermost sanctum of the noblest royal abode. Should such superlatives appear immodest, it is because language falters in describing so noble a flower.

In spite of such regal refinements, which not even a modern camera will record, the tree peony offers itself over and over, easily, in a tireless stream of pleasure to those who are wise enough to invite it to their garden. From that moment on, a special friendship begins, to be cherished for a lifetime.

REGISTRATION

TOPEKA GARNET. (14-59) Parentage unknown. April 7, 1975
Myron D. Bigger, Topeka, Kansas.

Dark shiny red single. Light green seed pods with red tips. The wirey 36 inch stems are very adequate, with dark green clean foliage. It has a very small tuft of stamens. The flower fades very little.

TOPEKA CORAL. (2-67) Parentage unknown. April 7, 1975.
Myron D. Bigger, Topeka, Kansas.

Hybrid, coral pink full double bomb type flower 24 to 30 inch stem. There is no pollen but it has seed pods. I have never set seeds on it, but with the right pollen it might set seeds. The flower is one color.

EASTERN STAR. (26-55) (Snow Mountain x ?). April 7, 1975
Myron D. Bigger, Topeka, Kansas.

Pure white bomb type with very clean bright green foliage on a good 30 to 36 inch stem. The flower is very much like Snow Mountain, except it is pure white. It stands cold storage very well.

COLOR SLIDE COLLECTION

Color Slide Collection: The American Peony Society maintains several groups of excellent sets of peony slides for rental. Each set contains 80 slides. A list of names accompanies each set. Ideal for program and Garden Club meetings. Rental fee \$7.50.

Request for slides write to: Richard Edblom, 6917 45th Ave. N., Minneapolis, Minn. 55428.

TREE PEONY TOPICS

Louis Smirnow

We often have been asked about the plant habits of various tree peonies.

TALLEST GROWERS — Arcadia, Countess, Conquest, Canary, Black Pirate, Black Panther, Hanakiso, Renkaku, Gekkyuden, Flora, Duchess of Kent, an English tree peony and Spring Carnival.

WIDEST GROWERS — Aurore, Hakuo Jishi, Reine Elizabeth, Kuro Botan, Howdai, Kokko no Tsukasa, Shuiaku Mon, Shintenchu and Taiyo.

LOWEST GROWERS — Alice Harding, Vesuvian, Shin Shiun Ryu, Sakura Gasane and Saigyow Zakura.

MOST SYMMETRICAL — Yachiyo Tsubaki, Bijou De Chusan, Yoshina Gawa, Yae Zakura, Ubatama, Shima No Kagayaki, MME Louis Henry.

Plants most desirable which combine beauty of flower, shape of plant, all around appearance are, Santa Paula, Wings of Morning, Stolen Heaven, Red Moon, Satin Rouge, Golden Isle, Nishiki No Tsuga, and last but not least Star Dust, perfectly symmetrical loaded with medium sized flowers.

* * * * *

TREE PEONY SCIONS MAY BE GRAFTED on tree peony understock or on species DELAVAYI but herbaceous peonies are most often used.

* * * * *

DO NOT OVERLOOK THE IMPORTANCE of planting tree peonies properly. Be sure the hole is 18 inches deep and at least that wide. At the bottom of the hole spread two handfuls of super phosphate or a commercial organic fertilizer low in nitrogen but high in phosphoric acid and potash. If manure is used, it should be well rotted and kept away from the roots.

* * * * *

Tree Peony plants should be set comparatively deep, 2 to 6 inches, the greater depth is highly beneficial in colder climates, this refers to the union of the understock and the scion plainly visible on all young plants.

* * * * *

It is important to watch the new growth that comes from the root system. Be sure that the foliage is the same as that of the tree peony. If it resembles that of a herbaceous peony, cut the new growth down to the root. It is an indication that the new growth came from the understock. This occasionally occurs.

* * * * *

To get a longer blooming period: **Banksi** earliest bloomer, followed by **Tamafugo**, then most other European and Japanese vari-

eties and early Luteas. Latest bloomers are **Satin Rouge**, **Vesuvian**, and **Golden Vanitie**.

* * * * *

UNUSUAL PLANT HABITS. **Sang Loraine**, famous European early bright red because of two or three flowers on one stem. Fragrance delightful. **Vesuvian**, very low grower with full double deep maroon immense flower, also fragrant. **Alice Harding**, low grower, magnificent bright yellow will bloom from a very young plant. **Santa Paula**, midseason dark pink, extremely tall plant, almost as wide, covered with immense flowers. This variety practically extinct.

ANTS ON YOUR PEONIES?

Helen M. Titus, Derby Kansas

Consulting gardening books or peony experts to find an answer to the problem of ants on your peonies is, in many respects, like plucking the proverbial daisy to learn whether you are loved. If your question is, "Are they harmful?", your answer will be, "Yes, no, or maybe," depending on your source.

That ants do no direct harm to the flower or foliage of the peony plant is a generally accepted fact. Some gardening experts such as Helen Van Pelt Wilson tell us not to worry about them since they are only feeding on the sticky secretion or honey exuded by the growing buds. Those who cut peony blooms planning to use them in arrangements are sometimes plagued with a workspace of crawling ants when the blooms are brought indoors. In compiling information for this article I consulted many excellent books on flower arrangements. The authors seem to take it for granted that the blooms to be arranged will be insect-free, since they give no ideas, suggestions, or useful hints on how to handle this annoying complication.

In a letter to the *Nehrlings* published in "Peonies, Outdoors And In," R. W. Oliver from the Plant Research Institute in Ottawa, Canada, expresses concern that ants may carry viruses. Hybridizers may or may not be concerned by the possibility that ants enter the bud and deposit pollen on the stigma before the bud is bagged for pollination.

Whether ants carry the spores of the dreaded *Botrytis Bud Blight* or other diseases has long been a debatable question. P. P. Pirone writing in "The Peonies" states that there is little evidence to support this conclusion. But in the second section of the same book, John C. Wister and/or Harold E. Wolfe writing on tree peonies notes that there is some reason to believe that ants do carry the spores of the *Botrytis Blight*. Dr. Cynthia Wescott, professional plant pathologist and author of "The Gardener's Bug Book" is of the same opinion. Literature from the extension programs of the Universities of Minnesota and Wisconsin also agree that ants prob-

ably carry the Blight. The most authoritative and possibly the most up-to-date statement on the subject is found in "Culture and Disease of Peonies" from the United States Department of Agriculture, Agricultural Research Service, Crops Research Division, Beltsville, Md. 1962. It states, "Rain and insects, especially ants, spread these spores to the lower buds, where they germinate in the sugary exudate and penetrate the bud tissue causing them to die and turn brown." (This same article contains much valuable information on plant disease in peonies and may be found reprinted in the March 1975 APS Bulletin.)

Whether we grow peonies as beautiful additions to our gardens, as prize specimens for exhibitions, as hybridizers, or because we enjoy the beauty of their form, color, and fragrance in our homes, the rather prosaic conclusion to be drawn is that "an ounce of prevention is worth a pound of cure." At present the easiest methods of control are the use of 5% to 10% chlordane dust or a dilute spray of liquid chlordane. The Environmental Protection Agency is expected to limit the use of chlordane, and it may not be available after this year. Because of the ever stricter and changing government control of insecticides, it is difficult to suggest chemical remedies for any pest and the usual advice to consult your local agricultural representative is still the best.

TREE PEONY PROPAGATION

C. Graham-Jones, Churchdown, Gloucester, England.

On 30th November 1973 I wrote my experiences on Tree Peony Propagation in which the failure rate was 100%, so in August, 1974, the second attempt was carried out, with I hope greater success.

During the inactive period of the season I was fortunate in meeting a retired professional gardener who I found out was a propagator during his working life, for a large local Fruit Tree and Shrub Nursery. As August approached I contacted my friend and asked him if he had ever done any Tree Peony grafting and he said no, but he was willing to have a go. I explained I had root stock and quite a number of eyes on "P. Yachiyo-Tsubaki," so we arranged the next Saturday afternoon.

The Saturday came and as 2 p.m. approached I heard the "pop-pop" of his small motor-cycle coming down the lane and come into my drive and park outside the garage, and round the corner of the bungalow came my friend with a hold-all on his back and a smile on his face.

We went to the Greenhouse which I had previously prepared for him and off came his leather coat and jacket, he opened the hold-all which contained the articles of his profession and out came

his old blue apron, an assortment of old grafting knives which had through time worn very thin, grafting wax, raffia, etc., and we walked up the garden and lifted a root of *P. Lactiflora* and from this he obtained 12 roots for the grafting operation. From the Tree Peony stock he cut enough wood to complete 11 grafts. This was done not with secateurs as I would have used, but with an old knife as clean as a whistle.

Now came the discussion. He explained that the success of a graft relied on the root stock, and the quicker this stock started the more the chance of success we would have. We decided to use a medium of 50-50 peat and fine sand using 6 ins. flower pots and placing in a closed frame in the dark. He started his work with one two eye graft and the remainder single eye grafts using all sorts of grafts, many I had never seen before, the object being to examine the success/failure grafts to determine which type is the most successful. This day's work was completed, with my friend really enjoying himself being once again able to show his skills. I mentioned before he departed that I may be able to obtain a few more eyes for next Saturday, and his face beamed when invited to come back again.

On his second visit he had obviously been doing some homework with his old associates, for he decided with the second batch to use "sellotape" in place of wax and raffia. 25 more grafts were completed, using this method, with the results looking quite good. He decided results should be seen in three weeks, and after this period many eyes still looked quite green.

My friend came back within this period and suggested bottom heat would have been an advantage, and also the true results would be seen in the early part of the following year.

At the time of writing this article in mid-January, 1975, 14 grafts, some with the eyes elongating look as if they have taken. It appears this joint exercise has been well worthwhile, but I can only claim success for organizing the events. However, the amount I have learned from my craftsman friend will give me confidence for 1975 when I will attempt the work myself.

I will close this article with the thought that the 100% failure of 1973 has been turned into an estimated 39% success for 1974, any success being in the right direction.

* * *

Sometimes and most usually heard at any show, "I have blossoms in my garden that are far superior to anything you have here." JUST WHY DID YOU NOT BRING THEM? If you do have nice peonies in your garden, bring them to the show and let the judges decide if they possess that quality that merits a blue ribbon.

BY REQUEST

Greta M. Kessenich, Secretary



Winter at 250 Interlachen Road, Hopkins, Minnesota

It is a very difficult assignment to write about ones self, but over the time many members have written and asked the proverbial question: "How did we get a Secretary from the north country of Minnesota?" Recently a letter was received, insisting that I write this article.

It was four years ago that I was asked to assume this work. The American Peony Society National Convention was here, it being held in Southdale, which is located in Edina, Minnesota. All the work was done for the National Convention by the Minnesota Peony Society. I was show chairman, also President of the Minnesota organization. Southdale is a city in itself, located ten miles from Minneapolis. This very large and civic minded Corporation sponsored the exhibition in its entirety, from the printing of the show schedules through all the awards given.

To accept this complimentary request for Secretary was very difficult, because I was not able to walk without a crutch or cane. Unbeknown to anyone, I had an appointment with the Mayo Clinic in Rochester, Minnesota to be operated on in a month. This weighed heavily on my mind and conscience. However, I accepted with very deep concern for the future. This operation was among the first of the now very successful total hip operations. For nine months following, I walked with crutches.

This work is a very pleasurable assignment, especially in seeing this very fine organization steadily grow in membership and become financially solvent. This is due to all of you, your own desire to see this old loved organization progress, to go forward in every aspect, and it has done just that! There is no time to be complacent for there are many more things to be accomplished.

It has taken time, miles and many foot steps in leaving the place of my childhood, in southern Nebraska, to greeting you at

the Convention this June 20, 21 and 22nd in Kingwood Center, Mansfield, Ohio.

Being a farmer's daughter, the introduction to agriculture in every capacity is a natural part of all farm life. Those of you that live on a farm know that many of the family must help with all outside work. Such was my lot and that meant knowing cultivation and harvesting of crops, livestock and the machinery. The farmers work is never ending and he, perhaps is the biggest gambler in the world. He can practice crop rotation, soil conservation and correct soil analysis but he cannot control the weather. With farmers educational extension service from the University, my knowledge of plants and agriculture came from a very natural experience.

One of the pleasures that was so enjoyed in the spring of the year was the sweet scent of the lilacs that came from the huge old lilac bushes that were growing by the corner of the big frame house. Houses seemed so large then, six bedrooms, the rest of the house in comparison. Soon after the lilac bloom, came the peony blossoms. They were red, white and pink. We only enjoyed the gorgeous big blossoms, never realizing that peonies should or did have a name. They were just there for Memorial Day. They received little attention, but under the full sun, the cool spring, ample rainfall and the beautiful black loam which is so fertile, they never failed to burst forth in all their glory.

All country homes have peonies in that part of Nebraska.

Business has been my career, having an executive position with an international firm. There I remained until coming to Minnesota. I devoted all extra time to being in charge of an American Red Cross Unit at a large Naval Supply Depot.

For pleasure and the beauty of blossoms, I do enjoy the growing of many plants and flowers, belonging to the Minnesota Horticultural Society, Minnesota Rose Society, American Iris Society, and Minnesota Peony Society. I've received the Award of Merit from the Minnesota Horticultural Society in Horticulture, been past President of the Twin City Iris Society, been past President of the Minnesota Peony Society, and presently involved with the American Peony Society.

250 Interlachen Road, Hopkins, Minnesota, is located 10 miles from the center of Minneapolis and two miles from Hopkins. My garden borders the Interlachen golf course. I find many golf balls that are lost by people, when trying for the ninth hole.

There are many oak trees at 250, so I have ample leaves for compost, which goes back in the soil. With so many trees shading one side of the area, about 150 feet is planted in a collection of hostas and ferns.

In the semi-shaded area are the tree peonies. Tree peonies in Minnesota take special care. Sometimes temperatures hover around 25 to 30 degrees below zero and it is then that it is good to know that chicken wire is around all of them with a good insulation of oak leaves.

Peonies are my special joy. They are less work than roses,



Greta and her pet kitten.



Peonies at 250 Interlachen

chrysanthemums and iris. The blooms more vivid, vibrant and colorful. One side of my garden is bordered with a 225 foot hedge of spirea that is white with bloom when the iris and peonies begin to burst in full bloom.

After the iris and peonies are through blooming, then comes the lovely daylilies and phlox and all the while the roses continue to bloom.

In the fall there are chrysanthemums of countless varieties, with masses of colorful blooms that blend with the soft colors of the autumn sky before the first snow of our long winter.

No garden is complete without the spring flowers of tulips, daffodils, crocus, etc., and the new hybrid lilacs have panicles of tremendous beauty.

This is a hobby garden and visitors are here continually during the blooming season.

Yes, there is asparagus, rhubarb, beans, peas, lettuce, radishes, zucchini squash and competition is always keen as to whom can grow the largest tomatoes among my gardening friends.

This is my garden, this is my story. I take care of all the garden and plants myself.

The work for the American Peony Society is begun daily about 4:30 in the morning and continues until all mail is answered and all necessary work done on the Bulletin and books for the day. Sunrise is beautiful!



A corner of my garden

THE "LANDSCAPE GARDENERS CROSS"

A Progress Report

Don Hollingsworth

A few seasons ago, in the article "A Peony Cross for Non-Hybridizers" (Bulletin No. 202, June 1972), I advocated that peony gardeners undertake to hand pollinate all flowers left on hybrid peonies in the garden in an effort to produce seedlings from them. The technique is easy and promises the reward of significantly increasing the pool of advanced generation hybrids from which new varieties may be developed. PRAIRIE MOON, MOONRISE, PAULA FAY and some other named hybrids currently in the market are from seeds produced by hybrid varieties.

In 1972 I projected what now seems was a much too optimistic figure as to how many seeds one might expect to get—40 or 50 from a dozen mature plants. Subsequent experience suggests strongly that perhaps one seed for 10 flowers pollinated is a more realistic projection of production from first generation hybrids (F1), and it is with the named F1 hybrids that this effort is primarily advocated.

Although flowering age F1 hybrids in my collection are modest in number, I am pleased to report that the number of my home bred seedlings from the "landscape gardener's cross" has grown steadily until there are now twenty, ranging from one to three years old. In addition, there are twelve transplants ready to go into the seedbed from 1974 seeds. Some of these are weak and may not survive their 1st year, so that eight of one-year plants is a fair current projection of what to eventually expect from the 1974 seeds now germinated.

All of the above number are the product of F1 x F1, F1 x F2, and F2 x F1 matings, using garden worthy varieties as seed parent. The list of seed parents responsible for these seedlings has grown steadily. It now includes CARDINAL'S ROBE, SOPHIE, RED RED ROSE, LAURA MAGNUSON, ORANGE GLORY, WINGED VICTORY, ROSE NOBLE, MAY MUSIC, ROSELETTE, LADDIE and LEGION OF HONOR. For pollinators I have used MOONRISE most extensively, but also have seedlings from pollen of CARDINAL'S ROBE, RED RED ROSE, CYTHEREA, GOOD CHEER, PAULA FAY, an unnamed Saunders Quad Strain F2, CREAM DELIGHT, LADDIE and MOONRISE F2. BRAVURA (seed parent of PAULA FAY) was added last fall, and I have a few other F1 generation plants of the Saunders Lobata and Quad strains which are reported to have given seeds, but have not yet done so for me.

The rewards for this effort have so far been encouraging, and there is every reason to expect that additional cultivars comparable to PRAIRIE MOON, MOONRISE and PAULA FAY will be produced. Sooner or later, fully double flowers may appear among the offspring.

CONTROLLED GERMINATION OF PEONY SEEDS INDOORS

Don Hollingsworth

A peony seed germinates in response to the same sequence of environmental conditions whether it is out of doors where nature has full sway, or is kept indoors in contrived conditions. In either case the minimum requirements of a particular seed must be met or it will fail. Each peony seed has its own individual variations, among which may be its inherent germination timing. This may present an advantage in nature by increasing the probability that at least some of the seedlings are ready to grow at the best time in the spring. For the same reason however, others may not be sufficiently ready and are then lost.

The germination pattern of most peony species conforms to the same general sequence so that most viable seeds can be successfully germinated indoors through the use of one general procedure. Enough is now known about what must be done that an informed and attentive handler may proceed with a great deal of confidence.

Several specific benefits make indoor germination an attractive choice:

1. A larger percentage of seedlings can be brought into growth the spring following harvest, perhaps all viable seeds in most instances.
2. A greater percentage of surviving plants can be developed from some seed lots.
3. In hybrid crosses which use *PAEONIA LACTIFLORA* as seed parent there are numerous varieties to choose among. Some varieties will produce better germinating seeds from a particular pollinator than do others. The early germination process permits the hybridist to observe these results and plan appropriate adjustments prior to the next pollinating season.
4. Every peony grower may gain the satisfaction of knowing first hand how the germination process operates and become able to use this knowledge from which to provide instruction to others who may be intrigued with the possibility of creating new varieties.

As with any technique, practice sharpens the skill of the operator. Peony growers who have not already learned the process will probably enjoy a trial experience with it. The necessary materials are easily acquired. I use polyethelene plastic sandwich bags or small freezer bags, the paper-covered wire ties that come with the bags, and tags which are home cut from salvaged food packages. Lately, I have purchased Twist-Tags, a one-piece combination tie and tag. I now use horticultural grade vermiculite (**Terra-Lite**), exclusively, for keeping the seeds moist in the bags. In addition, I have access to a salvaged household refrigerator that

still refrigerates, which is a great help, making it possible to simulate the winter period any time of the year.

RECOMMENDED PROCEDURE

1. **Harvesting:** Collect each pod of seeds when the dark color of the maturing seed coats has developed, but preferably before the natural moisture has dried from them. In Missouri, this stage will be reached during mid-July to September, depending on the species involved. Drought will hasten ripening; humid weather will retard it.

2. **Cleaning and watersoak period:** Put the seeds to soak immediately in tap water and wash them clean. I usually allow them to soak for several days, especially if they had become dry, but the water should be changed daily so that it does not become foul. Remove any "mushy" or rotting seeds as their condition becomes evident.

3. **Packaging to retain moisture:** Any time after the seeds have become fully plump and are no longer taking up water, they should be transferred to a plastic bag containing a small amount of moistened sterile medium, such as horticultural grade vermiculite. Avoid prepared potting mixes that contain added fertilizer nutrients. It may be desirable to disinfect seeds before bagging by dipping them for several minutes in a solution made of one part Chlorox in nine parts water.

Tightly close the seed bag to preserve moisture, using a paper-covered wire closure that is durably made so that it will survive repeated openings. Attach a tag on which may be written the identification of the seed lot and inspection notes as germination progresses.

4. **Incubation period:** Place the bags of moist seeds in a warm area, preferably not less than 75 degrees Fahrenheit. Holding the seeds moist at this temperature will permit the necessary internal changes to go forward, yet permit the control of the date at which root development gets underway. If held in the 60's (degrees F.), the internal changes will still go forward but many seeds will initiate root growth at random times, confronting the handler with the necessity of repeated transfers of the rooted seeds to the cold period. Place a thermometer with the seed bags and read it regularly to be sure that the chosen area remains warm enough. I find the garage to be satisfactory during hot weather. Later, when outside temperatures are cooler, I move the bags to a shelf above the hot water heater. Allow the moist seeds to incubate as much as four months if time permits. When seeds fail to root at the next step it is probably due to the insufficient warm incubation.

Every two or three weeks during the incubation period, open the bags and inspect the seeds. Some seeds will be dead and will eventually rot, whereupon they should be promptly removed. If

mold appears on the coats of seemingly sound seeds, this may also signal that they are dead. Also, it may be that either the mold or I eventually destroyed their ability to germinate, for I've tried washing them carefully and treating them with Captan, but cannot specifically recall germination from any seeds that had become moldy.

5. **Rooting period:** Not later than four or five months ahead of the local time for spring planting, move the bagged seeds to a cooler temperature, ranging from 50 to 60 degrees. In Missouri, this should be no later than mid-November. After one week of the lower temperature, some seeds should be found swelled with growth at the hilum (the scar left by separation from the pod) and may have a tiny white root protruding. Some seeds will respond faster than others, and this perhaps is a sign of inherently greater vigor.

6. **Repackaging rooted seeds:** Leave the rooted seeds in the bag with their slower mates for up to another month. However, when rooted seeds have been inspected and are being repackaged, I prefer to place them so that there is three inches or more of medium under them in the bag so that the root has space to grow straight down. While experience does not show this to be necessary for the plant, it cuts down on root tangling and permits easier separation of the small plants when next handled.

7. **Cold period:** Most of the seeds which have become ready to root during the foregoing sequence will do so within a month after the first roots have appeared. It is now necessary to give the rooted seedlings a period of temperatures around 40 degrees which will overcome winter dormancy and release the ability to grow the above-ground portion of the plant, just as is necessary for mature peonies. A household electric refrigerator, cave, cold corner of the garage or possibly a covered window well may provide the desired temperature. Again, keep a thermometer with the seedling bags so that you know what the temperature is.

When the winter dormancy has been diminished for a particular seedling, it will signal its readiness by commencing the extension of its plumule or leaf, comparable to the late winter stretching of peony buds underground. A few seedlings will show this readiness within eight weeks after root growth started, in which case colder temperature down to near freezing may be given to hold them back. Others may take much longer, some requiring twelve weeks or more. If planted in warm soil before this readiness has developed, a seedling is likely to fail. While the soil remains cold, however, the reduction of dormancy can go forward and the seedling may eventually develop. Very slow seedlings may sometimes be brought into planthood by leaving them in a refrigerator until the plumule shows, after which they can be brought out and planted to grow.

8. **Planting out:** Germinated seedlings produced by the fore-

going method are properly thought of as transplants. When they are ready to grow they may be transferred to pots, greenhouse flats, cold frame or open ground in a well-lighted area. The soil should be free of grubs or other root-feeding soil insects and the area protected from animals by wire mesh or other guard. Squirrels will dig the seeds and pets may break off the shoots. In the Missouri climate some shading from intense sunlight is necessary to avoid sun-burning of the leaves in late June. A shade made of ordinary fly screen has served well for this purpose.

9. **Seeds remaining ungerminated:** Seeds that did not root during Step Five, above, may be returned to warm incubation and held for another attempt at rooting in early fall. Unless you are curious to see first hands whether germination takes place, these will be about as well provided for outdoors in a protected site where they are to grow as you can do for them indoors.

BACK TO NATURE

John E. Marquis, Nelson British Columbia, Jan. 21, 1975

Living on the lakeshore has its advantage. I do not have to buy fuel. There is a sawmill and plywood plant on my east border, and there is plenty of scrap wood that I can get just for the labor. I have a good chain saw and I must have about fifteen cords of wood all ready to burn. Probably twice that amount at my garden up the lake. We have gas for the furnace and electricity to cook with.

Our coldest to date this winter was just zero January 14. Have had plenty of snow. Yesterday a friend and I went up to my garden. We took snowshoes and two snow shovels. Had to clear the snow off the boat. I was able to get the outboard motor going without too much trouble. It only took us five minutes to cross the lake, then nine hundred feet of snowshoeing to the cabin. It took quite a while to get the wood fire to throw a good amount of heat. There was three feet of snow, and it took an hour to get the snow shoveled off. I got the fire going at ten thirty and at one-thirty the snow slid off one side of the roof and within two minutes the other side slid off. Made water by melting snow and we had lunch. We had just started to eat when my little apricot poodle started to bark. Two young ladies and a young gentleman came in, so we shared our lunch. They were visiting people we know, about 1½ mile away. Girls were from Jasper, Alta, and the man from near Toronto.

Had a great time with the bears last summer. There were at least six different bears. Three at one time. My wife would insist on feeding them. I am sure they would have come into the house. She had to throw hot water on one to keep it out. Two would eat from a fork. Of course, I never trusted them. One especially, after eating would lay on the ground and preen itself and very often it would get on a long table, scratch himself and often sleep for a few minutes. My little dog would run after him and he would run

about eighty feet to a large fir tree, climb up ten feet and then drop to the ground and chase the dog back to the cabin. One day he caught the little dog and turned him over. My wife said she could see the white of his eyes as he was being turned over; he must have been frightened as he ran towards the lake, and in an hour's time I went down and brought him back. I think the bear was playing. Before they disappeared the end of August they broke down branches from several apple and plum trees.

I dug up a quantity of daffodils in July and then in early fall, cut down a few cottonwood and birch trees and cleared a piece of land about 200'x80'. Had a friend assist me in transplanting over 40 large rhododendrons, set eight feet apart. My wife assisted me in planting 3683 daffodil bulbs. I also planted a few dozen peony roots and lily bulbs.

HYBRIDIZING IS EASY

by Edward Lee Michau

Making a peony cross is relatively simple and easy. Some of the writings and methods of hybridizers make it difficult, especially to those that have not made any crosses.

The simplicity of storing pollen for later use is no problem. Should you want to cross early bloomers on to later ones, then it is necessary to store the pollen. Many dry the pollen under a lamp until the little cases crack open, spilling out the powdery grains of pollen. Many transfer the pollen to a 35mm film can, closing the lid tightly for storage. Professor Saunders apparently stored his on watch crystals in an open dry room.

Personally I find these procedures cumbersome and also feel that drying the pollen under a lamp may overheat and thus kill it. However, thousands of seedlings are produced in this way.

I place the pollen, stamens and all in an ordinary letter-sized envelope on which the variety and date have been written. In alphabetical order, I place the envelopes in a half gallon plastic ice cream container which has an airtight snap on lip and which has about an inch of granular dessicant in the bottom. A few hours dries the pollen, and it is kept dry by being stored in this manner.

To make a few crosses among simultaneously blooming plants, use the pollen available and discard the excess.

In applying the pollen, each individual has their own method. Professor Saunders used a small camel hair brush. Many others, the same. Elroy Pehrson uses and advocates the finger tip. I use eyebrow tweezers. (I have about ten of them.) An adopted method of peony breeding should be one that is easy for you.

You really need only two things, a bloom with carpels large enough to set seed and some pollen to apply to its stigmas. All the rest is a matter of your desire and how far you want to go in achieving results.

GENERAL SOIL HUSBANDRY

Excerpts taken from the Special Issue of THE AVANT GARDENER. February 1, 1974.

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The number of commercial organic fertilizers stocked by garden supply outlets is growing steadily. And many organic wastes, of animal, vegetable, or mineral derivation, are locally or widely available, often just for the cost of hauling. The following are approximate average NPK percentages of some of these residues and commercial products:

Activated sludge, 5-3-0; alfalfa meal, 2.5-5-2; animal tankage, 7-12-0. antibiotic wastes, 3-3-1; apple pomace, 2-1-2; bloodmeal, 15-1-1; bonemeal, 3-16-0; cannery wastes, 3-1-2; castor pomace, 5-1.5-1; cattle manure, 2.5-5-1.5; cocoa shell dust, 2-1-3; coffee grounds, 2-5-5; cottonseed meal, 7-2.5-1.5; dried blood, 12-3-0; fish meal, 8-13-4; greensand, 0-1-5; hoof and horn, 12.5-1.5-0; incinerator ash, 0-5-2; poultry manure, 3.5-3-1.5; seaweed, 3-1-5; sewage sludge, 2-1.5-2; spent hops, 2-5-5; tea leaves, 4.5-5-0; tobacco stems, 2-5-8; wood ashes, 0-1.5-7; wool wastes, 5.5-1.5-1.

Some of these—cottonseed meal, dried blood, and fish meal—acidify the soil. while others, such as bonemeal, tankage, and tobacco stems, are alkaline in effect. Many have nutritional values beyond NPK. Sea products, from fish meals and emulsions to ground or liquified seaweed, are rich in vital trace elements like boron, magnesium, manganese and zinc, and Clemson University (Clemson, SC 29631) has found that seaweeds also produce or stimulate plant hormones that promote growth.

Some rarely considered wastes are extraordinarily valuable. Banana peels are very high in potassium, and eggshells are an excellent source of calcium, a “major minor” nutrient that not only “sweetens” the soil but also is important even for acid-loving plants and especially for fruits.

Excellent general purpose balanced fertilizers can be formulated by combining ingredients from the list above or from other locally obtainable materials, or the materials can be used singly to provide a specific nutrient where a soil test shows its need or plants with special requirements are grown. When in doubt as to the fertilizer value of any substance that becomes available, either test it sparingly on various plants or use it in the compost heap.

One product we would like to give special mention, because of enthusiastic reports from readers. SUPERthrive (Vitamin institute, 5409 Satsuma Avenue, North Hollywood, CA 91603) is not new, nor is it a fertilizer, but this formulation of more than 50 hormones and vitamins stimulates greatly increased vigor of plants

from African violets to trees and lawns, and is highly regarded by many horticulturists as an adjunct to fertilizer.

The good gardener, of course, is constantly practicing what might be called "general soil husbandry". This is simply following nature's recycling policies, returning to the soil all manner of organic wastes. These humus-forming materials are the life of the soil, regulators of and contributors to its structure and fertility.

Organic matter is the support of the soil's microbiological population. As these organisms break down organic materials, they produce humic substances which bind soil particles into relatively stable aggregates or "crumbs". Both clay and sandy soils are thus given a desirable spongy, granular structure, well aerated, draining easily but capable of storing a great deal of moisture in its pore spaces, and non-crusting and non-compacting.

Equally important, the organisms release the nutrients in organic matter added to the soil, and make available minerals already present or added as fertilizer, both by producing acids that dissolve them and by compounding substances active in ion exchange. These nutrients are held in forms not easily leached away, and release to the roots as needed. Mycorrhizal fungi, which live symbiotically on the roots of many plants and aid their absorption of nutrients, are maintained by organic matter. Finally, organic matter acts as a buffer against excess acidity or alkalinity, overdoses of fertilizers, and toxic amounts of pesticides.

The fertilizer shorage, choked landfill sites, and environmental considerations are spurring hundreds of communities to compost leaves, one of nature's finest fertilizers and soil conditioner sources. To mention just one outstanding project, Belmont, Mass., annually converts 100,000 cubic yards of leaves into 6,000 cubic yards of rich compost (details from Habitat School of the Environment, Box 136, Belmont, MA 02178).

Animal wastes have as yet barely been tapped. A growing number of firms are marketing composted and dehydrated manures nationally, but these utilize only a tiny fraction of the 1.6 billion tons generated each year by cattle feedlots alone. Garden centers report a great rise in demand for these products, which should stimulate increased production and the development of blends with other waste agricultural and industrial nutrient sources for higher fertilizer value.

A recipe for real "speed composting": grind up everything with a shredder or rotary mower, use a high proportion of green materials or liberally sprinkle in bloodmeal or other nitrogen fertilizer, and make a heap about 4'X8'X4' high. Keep the heap moist, and turn and mix it well on the 4th, 7th and 10th days. The result will be dark, crumbly, sweet-smelling compost, ready for use on the 14th day.

NEWSLETTER: PAEONIA

Editors: The Lanings

Summarized by Bill Seidl

SEPTEMBER, 1974, VOL. 5, NO. 3. Roy Pehrson's efforts at the Ito cross (lacti x lutea hybrid) have paid off once again with some gratifying results. He reports at least 17 true hybrids from his 1972 seedcrop and 43 from his 1973 crop. Of the 43, 29 are from ALICE HARDING pollen and 20 of these are from a single seed parent: Seedling LTKA. Roy believes this seedling is a "miracle" plant because of its amazing affinity for lutea hybrid pollen. Its parentage is lacti x BRIGHT KNIGHT or GOLDEN GLOW and it is a medium pink anemone with tall sturdy stems, worthy of introduction even without considering its breeding potential. Roy concedes there is an outside chance that the lobed leaf pattern—characteristic of true hybrids—may be inherited from the pod parent, stemming from the officinalis or lobata in its ancestry.

Had it not been for a late freeze, seven of the Itohs from Roy's 1969 crop might have bloomed this past season. As it was, three did bloom; the most complete flower, from PETITE RENE x THUNDERBOLT, was a deep red, with pollen. Roy brought this one to the Hamilton show. He expects about 20 to bloom next season.

Dr. David Reath writes that in 1974 most of his crosses were of F1 lutea hybrids x fertile advanced generation lutea hybrids. He has many of the latter from Gratwick's and reports very good results in the grafting of them. Two especially good ones are #255, strawberry red, plastic-like texture, perfect petal placement, and #240, similar, but dark red. Neither has pollen; their seed setting ability has yet to be determined. Dr. Reath suggests having the Hybridizers' Workshop held in the gardens of various hybridizers one weekend before or after the APS meeting. This would give everyone a chance to observe the projects and results of other hybridizers. He's willing to host the first one at Vulcan. P. Patanini var. trollioides has grown to a clump two feet across and six inches high in Dr. Reath's garden. This species came to him from England by way of Silvia Saunders. David describes the bloom as a pure deep yellow without flares, the plant as stoloniferous, and hopes to be able to supply stock in two years. Its lone bloom this year had shed its pollen before he had a chance to hybridize with it.

Embryo culture receives the attention of John Simkens. He believes that many of the hollow seeds that otherwise never germinate do have embryos which can be excised, planted under anti-septic conditions in nutrient agar, and caused to grow and to flower, eventually, in three years.

Chris Laning mentions some of the rare and/or expensive plants given to him by Paeonia readers in appreciation of his and Lois' efforts in keeping Paeonia alive and healthy. Some of these are HALCYON F2, ANGELICA, two WINDFLOWER F2's (incl. SPARKLING WINDFLOWER), three Itoh-Smirnow hybrids, FANTAN, and many named varieties and seedlings from Roy Pehrson including Best Yellow, Second-Best Yellow, and an unbloomed Itoh seedling.

Don Hollingsworth writes a long article on getting seeds to germinate. Hating to see a seed deteriorate after staying firm for up to three years, he has researched the subject and notes that our basic knowledge on seed germination stems from two sources: (1) the ancients, who preached that the ripening seeds not be allowed to dry out, and (2) Lela V. Barton, who in 1933 published a report on germination methods for tree peony seed. He further notes that in 1969 Roy Pehrson reported some new information regarding conditions necessary to stimulate root emergence in hybrid seed. Using this information and experimenting with many seeds every season since 1969, Don suggests, as the best course, a long period of warm temperature (75° or above) followed by a drop to 65° or colder, depending on the type of seed. He achieved 95.5° root emergence from about 200 seed of OPHA, held at 75° for 121 days, dropped to 65° on December 18, with all of the above percentage rooting by the 18th day after the drop to lower temperatures.

DECEMBER, 1974, VOL. 5, NO. 4. The latest news on meristem culture is that the Klehms have been investigating the meristemic propagation of iris and daylilies for the past two years and are thinking of expanding their activities to include peonies. The scientific research is being handled by Dr. Martin Meyer, Purdue University. Chris Laning hopes to have more definite information in the March issue.

Chris quotes from a catalog of P. Kohli and Co. (India) in describing the species *P. emodi*. Having acquired a root from L. Smirnow and seed from India, he hopes to hybridize with this species, noting that the only varieties derived from it thus far are White Innocence, the Windflowers, and a few unnamed Saunders seedlings.

Don Hollingsworth reviews his successes and failures in his Itoh crosses, lacti x lutea hybrid, and ends up believing more firmly that temperature at the time of pollination is the key factor affecting the outcome of the cross. His readings of scientific research on the subject revealed that relatively high temperatures were effective in overcoming incompatibility reactions in certain species

tested. Apparently Don had dated each Itoh cross and, by checking the weather records, discovered that his successful crosses with ALICE HARDING pollen, in 1969, 72, 73, occurred when the temperature averaged 75°F (10° above normal) on the day of pollination and was above normal on the following day. As more supportive evidence, Don notes that Roy Pehrson's 1973 crosses, now known to be very successful, were made during very hot weather. In 1974, to increase his chances of success, Don made his crosses only on sunny days and enclosed the pollinated carpels in clear plastic bags. Altho some seed was harvested, many carpels atrophied, possibly due to excessive heat. In 1975, he plans to enclose the whole plant in a plastic bag with a thermometer inside to warn when too-high temperatures are developing. He suggests using this high-temperature theory in crossing lacti with Japanese tree peonies or lutea species directly rather than with lutea hybrids.

That this cross can be accomplished is borne out by two color pictures in L. Smirnow's catalog—Roy Pehrson calls attention to it—of two double Itoh-Smirnow hybrids, PINK SYMPHONY and PINK HARMONY, from lacti x suffruticosa (Japanese tree peony). Although Roy sees the cross of lacti x lutea hybrid as remaining popular with hybridizers because yellow herbaceous peonies are still rare, he cites two advantages for using suffruticosa: its early bloom period and its abundant pollen production. From his own relatively few attempts, Roy is hoping for a true hybrid from CHRISTINE x suffruticosa.

Regarding his Itoh seedlings, Roy generalizes that the bloom stems will be erect, slender but strong, averaging 22" to 28" in height, and herbaceous. The foliage appears to fall into two types: (1) a "coarse" type, large leaves not very dissected, medium green, dull texture, on long petioles with long internodes giving the plant an open appearance, (2) a "glossy" type, smaller leaf segments, light to darkest green, harder textured or even glossy, on a more compact bush. The coarse type seems susceptible to leaf-spot fungus, the glossy type resistant or immune. Some of the glossy type resist fall freezes very well, taking on brilliant coloring.

Roy also reports a very depressing incident: mini-vandals, 3-6 years old, invaded his garden on two occasions in October, pulling up some 250 stakes identifying unbloomed seedlings. Roy reset a few by memory and will recognize the lobatas and the Itohs by their foliage, but for most seedlings, details of the parentage will remain unknown. A truly disheartening experience. Chris, fearing such an incident could occur to him, promptly set out to keep written records of seedling locations and to place a second set of stakes in the garden flush with the ground.

A MESSAGE FROM THE VICE PRESIDENT

Gary Seaman

Greetings fellow members of the American Peony Society. I do not believe that vice presidents usually write messages, so all the more reason for me to do it. In view of recent national politics, I feel that it is important for the people to know the office holder. I am 31 years old and do not have the horticultural training many of my predecessors have had. I know a little about Tree Peonies, and I am learning about "those others." My association with William Gratwick over the past 17 years has helped to fill this gap. This collection of rare and unusual trees and shrubs on his estate would class it as an arboretum of distinction.

William Gratwick is a graduate of Harvard University and has degrees in architecture and landscape architecture. He is also founder and owner of what is now known as Gratwick Tree Peonies. I feel a few words about Gratwick Tree Peonies would be appropriate at this time. There have been some misconceptions in recent years as to this organization. While it is a commercial operation, the main interest is in hybridizing and developing better varieties of Tree Peonies. I have been the manager of this organization for the past several years. In 1972 I purchased some property from William Gratwick, and this was interpreted by some to be a purchase of the nursery. This is not true.

William Gratwick and Nassos Daphnis own and are active in the organization. Effective January 1975 I resigned as Manager to pursue my interest in the food service field. I will continue an association with Gratwick Tree Peonies and to pursue my interest and duties with the American Peony Society, hopefully with more vigor, as I have also resigned my position as Production Supervisor at the Lucidol Division of Pennwalt Corp.

I am now a student at The Culinary Institute of America in Hyde Park, New York. It is very exciting being a student again and pursuing my interest in the Culinary Arts.

If I tell my whole story now, there will be nothing left for future "messages." So with note I will end my first message. Remember the show at Mansfield, Ohio in June, and do not forget to bring your peonies, because without them it is not much fun. Let's all try to give Messers: Klehm, Karrels and Lineau some competition this year!

Cheers,
Gary

PEONIES IN LITHUANIA

(*Ona Skeiviene, Kaunas Botanical Gardens*)

Peonies are not native to Lithuania. They have been introduced from other countries and are extensively grown in gardens, parks, city planting and in various collections of botanical gardens. Eight different species are commonly grown in Lithuania.

P. anomala L. Native to the European part of USSR, Western and Eastern Siberia, Central Asia, Mongolia. Plants are 60-90 cm high, herbaceous, one blossom on a stem. Leaves are twice three-lobed, upper side along larger veins slightly hairy, undersides smooth. Flowers purplish red, 8 cm diameter, fragrant. Seedpods 5, generally hairy, reflexed. Seed round, black. Blooms in May-June. Grows well in light soils. Hardy. The roots of this variety in Western Siberia at one time were used as spice with meat and in folk medicine for epilepsy, gout, rheumatism, cough and various stomach/intestinal disorders.

P. masculata (L.) Mill. (syn. *P. corallina* Retz.). Native to S. Europe, Middle East, Cyprus and Sicily. Plants 60-90 cm. high, herbaceous, stems smooth, one blossom on a stem. Anthocianin present in stems and leaves gives the plant a specific colouring. Leaves twice, sometimes thrice three-lobes. Flowers purple, sometimes whitish or yellowish, 9-11 cm. diameter. Seedpods 5, arranged in a star shape or sometimes reflexed. Seed round, red when not fully ripe, later black. Blooms in May-June. Easily withstands low temperatures. Grows well in various soils, in a sunny or semi-sunny location.

P. lactiflora Pall. (syn. *P. albiflora* Pall., *P. Chinensis* hort.). Native to E. Siberia, Far East, Mongolia, Japan, China. Plant herbaceous, stems smooth, with 2 or several blossoms, 60-100 cm high. Leaves twice three-lobed. Flowers white, pleasantly scented, up to 10 cm. diameter. Seedpods 3-6, at first straight, later hooked. Seed oval, black. Blooms in June. Hardy.

P. lutea Delavay ex Franch. Native to China. Plant with semi-woody stems, 70 - 130 cm. high, grows like a shrub. Leaves grayish green, leathery, deeply lobed. Flowers yellow, 10 cm. diameter, fragrant. Seedpods 2-4. Seed black. Blooms in May - June. Needs winter protection. Very resistant to disease, grows well in all types of soil.

P. officinalis L. Native to Europe. Plants herbaceous, up to 50-80 cm. high, one blossom to a stem. Leaves twice three-lobed, upper side dark green, bottom side lighter. Flowers dark red, wide open, 10-12 cm. diameter, non-fragrant. Blooms in May.

P. peregrina Mill. (syn. *P. decora* Andr.). Native to Rumania, Albanina, Bulgaria, Yugoslavia and Middle East. Plants herbaceous, one flower to a stem, up to 80 cm. high. Leaves twice three-lobed. Flowers purple, 7-11 cm. diameter. Seed oval, shiny, bluish-black.

Blooms in May - June. This is a good decorative peony which grows well with minimum of attention in various soils and even in half shade. Hybridizes very easily.

P. suffruticosa Andr. (syn. *P. arborea* Donn., *P. moutan* Sims.). Native to China. Stems woody, upright, sparingly branching, 50-150 cm. high. Leaves long-stemmed, twice three-lobed, undersides grey-green. Flowers grow singly on the tips of branches, 10-15 cm. diameter, white, pinkish-red, with large, darker spot in the center. Seedpods 5, arranged in a star shape, hairy. Seed large, black. Blooms in May. Overwinters with light protection.

P. tenuifolia L. Native to the Southern part of European USSR, Caucasus, Middle Europe, Balkans, Middle East. Plants herbaceous, one flower on a stem, sometimes two, foliage dense, plant up to 60 cm. height. Leaves twice or thrice three-lobed or thrice feathery, divided into very narrow, parallel sections. Flowers dark purple or dark red, 8-10 cm. diameter. Seedpods 2-3, rarely 4-5, covered with reddish hair. Seed dark brown, shiny. Blooms in April - May. Plants multiply easily by seed, are long lived and hardy.

The hybridizing of peony in Lithuania was begun by Mrs. Ona Skeiviene in 1947 at the Kaunas Botanical Gardens. For this work an existing collection of *P. lactiflora* of 42 varieties at the Kaunas Botanical Gardens was used. Main objective of hybridizing was to develop disease resistant varieties that are hardy and highly decorative. For this purpose cross-breeding and selection was the method used.

The hybridizing of *P. lactiflora* followed this scheme: 1. Initial seedling beds, 2. Selected seedling beds, 3. Control beds, 4. Initial trials of varieties, 5. Competitive trials of varieties, 6. Trials of promising new varieties and their examination under commercial/production situations.

New varieties that proved themselves under all 6 counts were named and released for final testing to the State Varieties Testing Commission. This way during the 21 years (1947-1968) hybridizing *P. lactiflora*, six new varieties were named and released for testing to the State Varieties Testing Commission. Some varieties are not released yet and are numbered 9, 10, 12, 14, 15, 16, 18, 21, 23. Following are the descriptions of the six varieties that have been released for testing.

'Darius Girenas' (1947). *P. lactiflora* 'Germaine Bigot x Madame Calot'. Flowers light pink, double, 15 cm. diameter, pleasantly fragrant. Blooms first part of June. Plants are resistant to disease, 100 cm. high. Variety released for State testing in 1969.

'Freda' (1947). *P. l.* 'Auguste Dessert' x 'Parette'. Flowers whitish pink, 14 cm. diameter, semi-double, fragrant. Blooms beginning of June. There are 5 - 7 blossoms on a stem. Disease resistant, luxuriant growth, 100 cm. high. Variety released for State testing in 1969.

'Garbe Motinai' (1947). P. 1. 'Pierre Recanoux' x 'Germaine Bigot'. Flowers pink with violet blush, double, 18-20 cm. diameter, very pleasantly fragrant. Blooms in mid-June. Plant luxuriant, with large leaves, 100 cm. high. Variety resistant to disease, hardy. Variety released for State testing in 1969.

'Prof. K. Grybauskas' (1947). P. 1. 'General MacMahon' x 'Parette'. Flowers red, with white edging, double, 16 cm. diameter, fragrant. Blooms in June-July. Resistant to disease. Plant luxuriant, well formed, 100 cm. high. Variety released for State testing in 1969.

'Skeivienes Velyvasis' (1947). P. 1. 'Eugene Verdier' x 'Germaine Bigot'. Flowers double, rosy pink, 14 cm. diameter, pleasantly fragrant. Blooms in June-July. Plant luxuriant, 100 cm. high. Variety released for State testing in 1969.

'Virgilijus' (1947). P. 1. 'Pierre Recanoux' x 'Auguste Desert'. Flowers reddish, single, 18 cm. diameter. Blooms beginning of June. Plant well formed, luxuriant, 100 cm. high. Variety released for State testing in 1969.

All of the above varieties of *P. lactiflora* lend themselves well to individual or group planting or for commercial flower production. Cut flowers hold well in transport and remain decorative for a long time.

* * * * *

The following letter and article is from our member and correspondent in Argentina, near Buenos Aires. (Arboretum). Mr. Ambrosini writes in beautiful Spanish, and this is a translation.

—Editor

- 1° By means of you, the American Peony Society has made me reach a lot of information about the peony and its cultivation, and I'm very thankful. I receive very pleased all the information you may consider useful for me. As I improve in the cultivation of the peony, if any difficulties crop up, I'll take your advices into account, to consult them. Here, in my country, there are very few publications about the subject. For instance, I got your address, thanks to the Embassy Library Service of your country in Buenos Aires, where it was provided to me.
- 2° As for the cultivation of the peony, I think, it is not very much diffused here in my country. There are no peonies in the exhibitions perform during the blooming season. I'm referring to the area of Buenos Aires. The tree peony is very difficult to be got in commerce, trade or nursery (hatchery). During a lot of years, I couldn't find even a plant for sale, and thus, it was impossible for me to get any experience in its cultivation. Later, I bought a specimen of the variety *suffuticosa*, commonly called rose peony (because its rose-violet colored flower). This variety is the most diffused and it is obtained by division of plants.

— 40 —

Then, I acquired twelve plants of tree peonies in France, of which I could only acclimatize and adapt three of the variety "Souvenir de Maxime Cornu." According to a flowering expert's opinion and to the commerces', the peony doesn't find itself within the fit geographical area for its cultivation (Buenos Aires area and its surroundings). There are great losses of plants when importing them, because they don't take root, and this joined to its expensive price, discourage its introduction. On the other hand, the sinensis peonies have a tendency to be engaged in commerce by its colours (white, red and rose color) and come from cultivations of this country and from European cultivations.

- 3° As for the blooming, the tree peonies, once having taken root, offer great satisfactions, because they flower (bloom) every year. When the climate is favorable, its blooming is abundant and plentiful, on the contrary, it's more reduced. On the other hand, the sinensis peonies don't flower every year. The tree suffuticosa peony begins to flower on September 20th-21th, just with the end of the winter, and with the arrival of the spring, and its flowering lasts more or less for 20 days. On October 5th to 10th, the variety "souvenir de Maxime Cornu" flowers, but I have noticed that, as its flowers are more later, they are damaged by the sun and by the North Wind (which comes from the tropic, and it is hot) which blows from time to time in those days, withering the flowers.
- 4° The plant puts up with the winters very well; on the other hand, when the summers are rigorous, and the warm is hard, intense, persistent and firm (temperatures superior than 30°/32°), the leaves of the plant burn completely and they remain as if they would have been toasted. This happens in February.
- 5° By the moment, I haven't material enough, as to send an article for the bulletin. Although the success obtained makes me enthusiastic, I consider that I must get another advances and accumulate much more information about it. Last year, I didn't have time enough for that, nevertheless/however, the sinensis peonies flowered last year for the first time (white and red flowers, without specifying the variety), and that gave me a great satisfaction. I'll write you again quickly.

Yours sincerely,
Carlos Hector Ambrosini
Casilla de Correo 301
Correo Central
Capital Federal
Republica Argentina

PUBLICATIONS

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SAVAGE SPLENDOR (right)

Tree Peony (Saunders). Fine ivory, flashed and edged with purple. Unique twist and flare in petals.



Double white peony. This woodcut was used in *The Herball of Gerarde* (1633) - Thomas Johnson.