

MARCH, 1975

No. 213





FAIRIES PETTICOAT

(*Plant Patent 3265*) Estate Peony (Early-Double) - Ruffled petals of dainty pink - a color seldom seen in flowers.



Original from PENN STATE







т_{ор} Best Man

(Plant Patent 3268) Estate Peony (Mid-Double) - Strong growing deep red, husky stems and large foliage.

Bottom

Charlies White

(PAF) Estate Peony (Early-Double) -Elegant, beautifully formed blossoms. Outstanding for cutting or arrangements.

THE AMERICAN PEONY SOCIETY NATIONAL CONVENTION JUNE 20-21-22, 1975

THE 72nd ANNUAL MEETING AND THE 70th ANNUAL PEONY EXHIBITION



KINGWOOD CENTER

900 West Park Avenue

Mansfield, Ohio

r



Original from PENN STATE

AMERICAN PEONY SOCIETY 250 Interlachen Road (612) 938-4706 Hopkins, Minn. 55343 John E. Simkins Secretary-Treasurer Greta M. Kessenich President Bulletin Editor Greta M. Kesserich Vice President Gary P. Seaman **BOARD OF DIRECTORS** Terms Expiring 1977 Terms Expiring 1976 Terms expiring 1975 Catvin L. Helgoe Pharon B. Denlinger Irvin Ewing 550 S. Flower St. Los Angeres, Calif. 90017 5362 Free Pike 25039 Doris Court Dayton, Ohio 45419 Detroit, Mich. 48239 Joseph Glocka 12120 West Oklahoma Ave. West Allis, Wisconsin 53227 John E. Simkins 1246 Doniea Crescent Marvin C. Karrels 3272 S. 46th St. Milwaukee, Wisc. 53219 Oakville, Ont., Ca. L6J 1V7 Carl H. (Chuck) Klehm Charles Klehm & Son Nursery W G Sindt 14252 15th St. South Afton, Minn. 55001 Allen Harper Route No. 2 2 East Agonquin Road Ariington Heights, III, 60005 Clarence O. Lienau Moran, Kansas 66755 Edward Lee Michau 1412 N. Georgie Derby, Kansas 67037 Allen J. Wild Gilbert H. Wild & Son 9135 Beech Daly Rd. Detroit, Mich. 48239 Sarcoxie, Mo. 64862 Ted R. Mysyk P.O. Box 482 Frank Howell Dr. David L. Reath Rt. 1, Box 696 Newton, N.J 07860 Box 251 Woodstock Illinois 60098 Vulcan, Mich 49892 Gary P. Seaman

Charlotte Sindt 14252 15th St. South

Afton, Minnesota 55001 DISTRICT V

Dee Garrison Sec'y Treas. 4512 North 64th Street, Milwaukee, Wisconsin 53218

MIDWEST DISTRICT Chairman and Newsletter Editor: Leo J. Armatys. Central City, Nebr. 68826

DEPT. OF REGISTRATION

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

OBJECTIVES

The Articles of Incorporation state: Section (2) That the particular objects for which the corpor-ation 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 these 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

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

The AMERICAN PEONY SOCIETY BULLETIN is the official Society publication. It is mailed

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

Supporting

Gratwick Tree Peonles

Pavilion, N.Y. 14525

any other manner.

follows:

ava lable.

Contributing

Sustaining

Single Annual

Single Triennial

postpaid quarterly to all members in good standing.

Family Triennial

.... \$ 7.50

\$ 25.00

50.00

President

use#cc-by-nc-nd-4. http://www.hathitrust.org/access https://hdl.handle.net/2027/pst.000068507572 2021-07-12 11:30 GMT / https://hdl.handle ons Attribution-NonCommercial-NoDerivatives Generated Creative

Peter C. Laning 553 West F Avenue

Greta M. Kessenich, Secretary

Junior non-member family 3.50

Patron 250.00

\$100.00

Kalamazoo, Mich. 49007

Mrs. Dee Garrison



March, 1975 — No. 213

TABLE OF CONTENTS

Kingwood Center — Mansfield Ohio	1
Officers and Directors	2
Table of Contents	3
President's Message	4
Tree Peony Topics — Louis Smirnow	5
Root Grafting of Peonies — Dr. David Reath	7
Grafting Sketch #1 — Joe Kuezik	9
Grafting Sketch #2 — Joe Kuezik	10
A Little About Color — Dr. Julian L. Janus	11
Some Better Peonies – William H. Krekler	13
"You Will See a Church and Peonies" — Rev. Joseph A. Syrovy	14
Mulches — Eldred E. Green	16
There is a Road — Anthony J. DeBlasi	18
My Experiences with Tree Peony Seed — C. Graham - Jones	23
Convention American Peony Society Schedule of Events Rules Show Schedule Artistic Schedule	24 25 26 31
The Fifth District Meeting — Greta M. Kessenich	32
Help Reduce the Spread of Disease	33
The Management of Disease Rich in Peony Plantings — Don Hollingsworth 1. Diseases 2. Root Diseases 3. Other Peony Diseases	34 35 37 39
Peony Roots — Anyone? — Greta M. Kessenich	41
The Peony Patch — Ben Gilbertson	42
Rain — Rain — Rain in New Zealand	44
Registration of Peonies	45
In Memoriam	46
The Leaf is the Thing John Simkins	48
Some Biographical Data	49
Advertisers 50 - 51 - 5	52

- 3 -

Ì



FROM YOUR PRESIDENT

Nineteen seventy-four has been a good year for the Society. It has shown progress in all our programs.

We had our first International Exhibition of the American Peony Society in twenty-five years, which was held at the Royal Botanical Gardens, in Hamilton, Ontario, Canada.

The Bulletin has increased in size, with material of much interest, thanks to our imaginative editor. Many members have participated in accepting her invitation to write and send pictures for publication.

Through the generosity of the Charles Klehm & Son Nursery, a modern and new look appeared, with full color for the cover of the Bulletin.

A check list is to be compiled which is still in the process of listing all peoples now in cultivation.

In 1975 we must continue to advance. To accomplish our goal, it means all dues must be paid and contributions made in form of articles for the Bulletin. This is the one link with all members which serves as a strong band, binding us together.

With the coming of Spring, do take photos of your peonies and write a short note about the plant. Photos of peony vases, paintings, carvings with notes of explanation are of great interest.

Send articles about peony growing in your area, state or country.

We have the most beautiful flower which takes a minimum of care. Try to interest your friends in becoming a member of our Society.

1975 can be another great year!

See you at Kingwood Center, Mansfield, Ohio Bring your peonies for the Exhibition. June 20, 21 and 22nd.

-4-

John Simkins

http://www.hathitrust.org/access_use#cc-by-nc-nd-4. https://hdl.handle.net/2027/pst.000068507572 Generated on 2021-07-12 11:30 GMT / https://hdl.handle. Creative Commons Attribution-NonCommercial-NoDerivatives

Digitized by Google

Original from PENN STATE

TREE PEONY TOPICS

Louis Smirnow

Last spring visits were made to private gardens instead of the usual visits to botanical gardens and arboretums. It is in these private gardens that we found several tree peonies now extremely rare, some practically no longer in commerce. Among these are—

SHOGJOW MON (Gate of Fate) a huge white almost full double, a beautiful petal arrangement with an occasional petal of some light blue.

YOSHINO GAWA (The Yoshino River) an enormous semi-double of brightest pink, free bloomer.

BIJOU DE CHUSAN, a popular European variety, full double, outer petals pure white, center petals cream colored tipped with green, very attractive.

LOUISE MOUCHELET, another fine European variety, huge full double, color combination of rose, salmon, pink.

SHIMA DAIGIN (Island Minister) an enormous glistening, full double purest deep purple of great beauty.

KOKU RYU NISHIKI (Black Dragon Brocade) full double, velvety maroon, shaded purple. Old Japanese favorite.

GOSETSU NO MAI (Ceremonial Dance) immense semi-double of brightest red. An old Japanese favorite.

* * *

The European varieties, while closely related to the Japanese, are not seen in many gardens. They were originally Chinese but were brought to Europe in 1846 by Robert Fortune. Their foliage is large and the flowers are mostly full doubles. Some of their colors are distinct from the Japanese. Some of these are full doubles, as follows—

ARCHIDUC LUDOVICO, clear rose with lilac shading.

CAROLINA D'ITALIE, lightest flesh pink.

MADAME STUART LOW, brilliant salmon red.

REINE ELIZABETH, huge vigorous brilliant salmon rose.

TRIOMPHE DE VAN DER MAELEN, immense, vivid, violet pink. WEISS OU KOCH'S WEISS, charming white, with faint lilac shading.

These European varieties should be considered by fanciers and hybridizers for the full doubleness of their bloom. Another interesting quality is the interesting colors. Their pinks come in several shades as do the purples.

The variety DIJOU DE CHUSAN is beautiful. It has the un-

usual quality of being a bi-color, pure white with parts of the flower green.

These varieties should become more popular here. They are unusual in color and apearance.

* * *

The United States Department of Agriculture is asking that all people who grow the varieties SUFFRUTICOSA and SUFFRUTI-COSA ROCKS VARIETY, send the foliage and stems—not the flowers—to them. Send to the following address—

> Mrs. Mae Hatcher Building 265 — B A R C East Department of Agriculture, Beltsville, Maryland 20705

They need this for medical and Biological Research. When shipping send in air-dried condition.

The value of peonies may be further enhanced, as a result of their experimentation.

* * *

It is becoming increasingly evident that we, in this country, must increase our efforts to propagate tree peonies if we are to avoid extinction of named Japanese varieties. We know now that named varieties cannot be purchased in Japan. Only orders by COLOR and not by NAMES will be accepted there. I have been warning Americans about this for several years. The situation is getting worse.

The grafting of named varieties of Japanese tree peonies should be accelerated and I recommend strongly that if you have any Japanese tree peonies, you should learn to graft. Increase your efforts every year.

* * *

Some Peony Don'ts-Herbaceous and Hybrids

1. Don't divide plants less than two years old.

2. Don't plant big clumps or big roots.

3. Don't permit manure to come in contact with the roots.

4. Don't plant too deep or you will have no bloom. Two or three inches to the topmost bud is deep enough.

5. Don't try to divide the plant immediately after digging it up. Let it stand in the air for an hour or two.

6. Don't split roots when dividing if you can possibly avoid it.

7. Don't plant where peonies have grown before without changing the soil.

8. Don't fail to disbud if you want larger blooms.

— 6 —

Digitized by Google

ROOT-GRAFTING OF TREE PEONIES

By Dr. David Reath, Vulcan Michigan

Propagation of tree peonies by root-grafting is highly successful on a commercial basis in producing plants identical to chosen varieties in all respects. Scions of tree peonies, which are not trees but shrubs, are grafting to roots of herbaceous peonies. Procedures and operations requisite to this type of propagation are: (1) the production of herbaceous peonies for root stocks; (2) Preconditioning of tree peonies; (3) gathering scions from tree peonies; (4) grafting techniques; and (5) preparation of planting beds and planting grafts.

Good peony cultural practices need to be observed to produce healthy and vigorous root stocks as well as viable scions from the tree peonies. The grafting procedure is a specialized operation requiring a certain amount of expertise in cutting and fitting grafts, and the binding together of grafted parts to exclude water from adjoined parts. No grafting wax is needed, but care is required to keep cut surfaces clean.

Grafting operations in this area are begun the first of August. The Japanese tree peonies are the first to form buds and are thus grafted before the Lutea hybrids.

Two sketches of the root grafting process appear at the end of this article.

1. The Production of Root Stocks.

Healthy and vigorous root stocks are of prime importance. Experience has demonstrated the five-year old lactiflora seedlings give the best results. These are more certain of growth and survival and more resistant to Botrytis and other root diseases. Named varieties of lactifloras can also be used if free of disease.

Dig clumps of peony roots for grafting with the peripheral roots attached. Wash off soil by hosing. Store roots in a cool place, protected from drying. Moist wood chips are useful for storing the roots.

A choice lactiflora clump should produce about 25 good root stocks. The terminal 6 to 8 inches is the most desired part for each root stock, with none of the terminal portion removed, and a thickness of about one inch. Some propagators make two or more root stocks from each root section.

2. Preconditioning of Tree Peonies.

Tree peonies used to produce scions must be cultivated to produce sturdy plants and preconditioned by a program of spraying. The stock plants are sprayed once weekly from the time growth commences in the spring and throughout the summer. The following spray materials are used to prepare the solution for a small, three-gallon capacity hand sprayer:

1. Three tablespoons of Rapid-Gro (foliar fertilizer).

2. Two tablespoons of Cygon E-2 (systemic insecticide).

3. Six tablespoons of Captan (50%) (Fungicide).

4. Two tablespoons of detergent, without bleach (wetting agent). The newer systemic fungicide Benlate has also been used with satisfactory results, however, there appeared to be less control of leaf spot when using this product in comparison to Captan.

3. Gathering Scions from Tree Peonies.

The best propagating materials are from shoots that have been produced as suckers during the current season.

The first scions gathered consist of the terminal bud and one or two lateral buds. After the first scion has been removed from each stem, it has been noted that the lateral buds, which remained on the plant, rapidly enlarged and matured. These lateral buds are then harvested two or more weeks after the first scions were removed. Generally, a couple of leaves (or more) are left on each stem to manufacture food for future growth.

Terminal buds, in most cases, contain the rudimentary flower as well as rudimentary leaves. Grafts of terminal bud scions on a strong understock will often produce a bloom the following spring. The percentage of successful takes is much higher in grafts made with terminal bud scions then those made from lateral buds scions.

Lateral bud scions generally do not bloom the first spring, but they appear to produce a better or stronger plant as a one-year-old.

It has been noted here, experimentally, that scions containing two buds give better results than do single bud scions.

It is best to cut scions on the same day that they will be used. However, they may be held a few days by placing them in a plastic bag to prevent dehydration.

Also, scions can be shipped long distance when packed in plastic bags or other suitable containers.

4. Grafting Techniques.

The triangular or wedge graft is the one used exclusively by us. It is a modification of the method used so successfully by Brother Charles of Mission Gardens. During the past twenty or more years Brother Charles has been the foremost propagator of tree peonies in this country.

Organize work procedures and materials. Cover work table with clean plastic to assure cleanliness and prevent foreign particles from contaminating adjoined surfaces of grafts.

A triangular wedge, which includes the scion bud or buds, results from two downward cuts ending in a point. A notch of exactly equal size is cut from the top and down the side of the root stock. Opposite the notch, a slanting slice is cut to provide a slope as for runofff of moisture and the anchoring of tape. The scion is fitted

- 8 --

into the notch, in which the sides are smooth and in close contact to insure healing and growth, which requires much care and practice. The scion and root stock are bound firmly in place by wrapping the adjoined parts from the top down with a plastic tape called "Miracle Tie" to exclude water and pathogenic organisms which could be present in the soil. Fasten tape securely at base of wrap.



Supplies used in grafting: single edge razor blade, plastic tape, rootstock and tree peony scion. Sketch by Joe Kuczek

-9-

Completed grafts are placed in a plastic bag for each variety. Each is labeled with variety, date and other pertinent information. If planting is delayed for any reason, store grafts in a cool place or refrigerate.

5. Preparation of Planting Beds and Planting Grafts.

Select an area for planting beds on a gentle slope to assure excellent drainage. Cultivate the beds for 3 or more months previous to being used. Add a slow-release fertilizer such as Mag Amp or



Wedge shaped scion, notched rootstock and completed graft. Sketch by Joe Kuczek.

- 10 -

Osmocote. Generous amounts of well-decayed manure will improve the texture of the soil. These specially prepared beds are 10 by 250 feet.

Mark the rows running 10 feet across the width of the bed. Space the rows a foot apart, thus the 10 by 250 foot bed will accommodate 5,000 grafts.

It is desirable to plant grafts as soon as possible or within a couple of days. Plant grafts in an upright position, with the buds covered by 2 or 3 inches of soil, and 6 inches apart in the row.

As the bed is planted, the soil is carefully leveled and covered with 2 or 3 inches of wood bark chips or sawdust. A sheet of black plastic is placed over the wood chips to prevent weed growth and is removed in the spring when the crocus bloom. About November first, cover the black plastic with 6 inches of wood chips to further protect against freezing. Frost around the graft union could cause damage.

The root grafting of peonies is not a difficult procedure. With practice one can easily achieve a satisfactory percentage of success of fifty percent or more. It is the only method of propagating tree peony varieties commercially at the present time.

A LITTLE ABOUT COLOR

Dr. Julian L. Janus Sleeping Beauty Gardens, Chicago Illinois

The colors in plants have always been a source of fascination and wonder to all lovers of flowers, as to the seemingly limitless combinations of hue, shade, tints or tinge of color, which at times are almost impossible to describe.

The colors of peonies are derived from serval ancestral strains and it is believed that the ancient Chinese breeders incorporated these in their crosses of the albiflora species, which seemed to be their favorite.

Again . . . in the recent history of peony breeding, we know that many inter-specific crosses have been made, thus adding greatly to the color-gene pool. In the years to come, continued crossbreeding in various combinations will expose many colors that are not presently in our peony gardens, and there are many happy surprises in store; as the more a flower is "worked" the more reason for great expectations, as characteristics once suppressed either by dominance in one allelic gene over another or by some epistatic gene which hides or masks the expression of the genes of another pair in the chromosome chain, are revealed for the first time to some joyous eye.

There are three primary colors when we paint with oils. In flowers there are three fundamental pigments also. These pigments are acted upon by various gene-produced enzymes that act as catalysts producing changes in flower color but retaining their own properties unchanged. From their inter-action the vast gradations of color are derived.

The three fundamental flower pigments are: Plastids; Anthoxanthins; Anthocyanins.

(1) The plastids are small cytoplasmic bodies occurring in certain cells of plants. They are maternal and non-Mendelian, but are distributed to the two daughter cells when a plant cell divides. They do not react with the anthocyanins and anthoxanthins and are composed of yellow to orange coloring substances which make deeper the cream or yellow color in the flower petals.

(2) The anthoxanthins, which contribute the yellow and white shades. Many of these although almost colorless themselves, make anthocyanins bluer and when there is only a small amount they make anthocyanins redder.

(3) The anthocyanins produce the purple and the purplishred shades; also the red, crimson and magenta colors.

The plastids are insoluble in the cell sap, the other two are, and the prefix "antho" in the above two means flower.

Certain genes control the presence or absence of enzymes, other genes control the amount and also the potency of any particular enzyme. Thus the various combinations of these genes will affect color in divers ways, by inhibiting or re-enforcing and in this way each simple bio-chemical change appears to be controlled by the enzymes.

Here are some examples of color-mixing of flower colors: Crimson anthocyanins mixed with yellow anthoxanthins give a scarlet color, while bluish anthocyanin mixed with yellow xanthin gives brown. Again—by the addition of only one atom of oxygen to the formula that produces Luteolin, which is pale yellow, we now have an intense yellow pigment Quercetin.

Avoiding a deeper discussion of the chemical properties, such as benzene rings, hydroxylation or methoxylation, but merely to show what remarkable dyeing operations are carried out by these infinitesimally small entities that manufacture these pigments and enzymes and produce these many gradations of color of unbelievable beauty with just a speck of this or a minim of that. Many times only a small part of a single molecule is involved.

Some of the color-genes are named after flowers from which they were derived viz., Pelargonidin . . . a light red color for the pelargonium geraniums; Delphinidin . . . a purple color, named for the delphiniums, and yes there is one for the peony, Peonidin . . . a magenta color.

So in the great omnibus of mysteries that obscure man's knowledge, yet another slit of light is gleaming through the darkness-

- 12 -

SOME BETTER PEONIES - 1974

William H. Krekler

CHINESE (lactifolia)

SINGLES-

Red	Camden		
Pink	Dawn Pink		
White	LeJour		

JAPANESE-

Red	Myron Bran	ison, N	Vellie Say	lor, Co	ora Stubbs
Pink	Westerner,	Alice	Roberts,	Tom	Eckhardt
White	Pat Victor,	Carra	ira, Do T	ell	

SEMI-DOUBLE-

Red	Butch
Pink	Bev
White	Miss America

DOUBLE-

Red	Ма	aestro,	Auten's	Red	Sport,	Harry	L.
	Sn	nith, H	iawatha				
Pink	Mı	rs. F. D	. Roosev	elt, B	essie, G	olly, Spl	en-
	de	ns					
Whit	teMo	oonglow	, James 1	Lewis	, Dr. J.	H. Neel	ey,
	Be	ecky					

HYBRIDS

SINGLES	
Red	
	Dad
Pink	Flame, Burma Ruby, Dutch Dwarf, Ludo- vica
Nearwhite	Rose Noble, Garden Peace, Claire de Lune, Chalice

DOUBLES-

Red	Buckeye	Belle,	Red	Charm,	Firebelle,	Α.
	Krekler					
Pink	?					
Nearwhite	?					

NOTE (to pollen daubers) We need late reds, and double pinks and white hybrids.

- 13 -

By Rev. Joseph A. Syrovy

This fall there was an exceptional amount of work, before bad weather came to Iowa. The tops of my peonies had to be cut off and burned, also it was necessary to erect a fence around the twentyseven tree peonies. We have many rabbits around here and last year they nipped off some of



Hybrids in the garden

the precious buds, as I was too late in taking any precaution.

Our first big snow storm came November 13th. It has now melted away but winter has set in as the ground is beginning to freeze. (November 25th).

It was twenty years ago, when I came here and there were a few clumps of unnamed peonies by the side of the house. They are still blooming vigorously every year. I bought a few more at that time, which I still have, **PRIMEVERE**, **FESTIVA MAXIMA**, **MONS JULES ELIE**, **PHILIPPE RIVOIR**, **SOLANGE** and **RICHARD CARVEL**. Some of these were planted near the church entrance for landscape effect and the rest planted on a sloping bank behind the house.

Sometime later, I made the acquaintance of Bro. Charles and Orville Fay and visited them once or twice a year.

Bro. Charles took me through his peony fields and helped me select some of the choicest kind. MOTHER'S CHOICE was his favorite so I bought it, along with MRS. FRANKLIN D. ROOSEVELT and MRS. LIVINGSTON FARRAND. Each year I bought a few more and planted them in beds with rows of red, pink and white. I must have over fifty or sixty varieties.

Then he said: "You should have some hybrids" on one of my visits there. So I have three large beds of the following: ALEXANDER WOOLCOTT, CARDINALS ROBE, CHALICE, FLAME, LAURA MAGNUSON, LOVELY ROSE, LUDOVICA, FAY'S PRAIRIE MOON, RED CHARM (of course), RED DANDY, REQUIEM, -14-

SALMON GLOW, VICTORIA LINCOLN and a few others.

"Well now," again at one time he said: "You should have some tree peonies." So I bought ARGOSY, GESSEKI, GOLD SOVER-EIGN, KAMADA-FUJI, RIMPO, HIGH NOON, SHINTENCHI, TAMA-FUYO, YAE-ZAKURA and SOUVENIR deMAXIME COR-NU.

Reading the American Peony Society Bulletin, just who wouldn't buy some more tree peonies after reading Leo Armatys description of them in his articles. By the way, where is he, we miss him.

All these tree peonies are on a sloping hillside with a background of Exbury-hybrid Azaleas. They are a **beautiful** sight!

Some of my twenty-seven tree peonies are seedlings that I grew myself and they too, are nice.

Sometime later, Miss Sylvia Saunders wrote about hybridizing and sent some choice roots and seeds. I have two long rows of these plants. Among them are 4992, F1 of MLOKO X MACROPHYLLA and a few others. They all bear an abundance of seed. I have made some crosses with these plants.

Finally, after our Round Robin slowly disintegrated, I joined the Paeonia group. Then the interest in the Itoh's and the Itoh cross began. I ordered two Itohs from Louis Smirnow and received YEL-LOW HEAVEN and YELLOW DREAM. YELLOW HEAVEN is strong and vigorous and has produced some beautiful bloom these past two years.

YELLOW DREAM has not bloomed as yet because I took a piece off and gave it to a friend. It has now regained its vigor and I hope for blossoms next year.

Who could rub shoulders with Bro. Charles and Orville Fay and not catch the daylily bug? Now I am beginning to hybridize Tetraploid Hemerocallis.



Yellow Heaven

Several beds of Tets were set out this fall.

These cover another sloping hillside. I'm stealing a couple more feet of my lawn each year to accommodate seedlings and new plants.

- 15 -

 \odot

MULCHES

By Eldred E. Green, Horticulturist

There is a great amount of talk among many inexperienced gardeners that mulches can solve about everything. Plenty of humus in the soil and a good mulch on top will take care of all your problems. This sounds good except that mulches can work two ways—good or bad. Two experiences that I recall point this up.

1. A renovation of a large perennial garden involved digging, dividing, renewing the soil, and replanting the plants with additional plants being added. This garden had many peonies in it as well as mallows, daisies, delphinium and numerous other hardy plants. The garden was being renovated because many plants were not blooming well, especially the peonies and mallows. At one time the garden was spectacular in peony time.

When the peony roots were lifted they were found to be several inches below the surface and the buds were one or two inches above the crown instead of right beside it. The buds were growing high on the stem instead of at one side. The growth was stunted. The mallow roots likewise showed the same habit of forming buds up on the stem instead of at one side.

What has caused these plants to become buried? Overzealousness on the part of the gardener in charge. He had plenty of rotted manure to use for mulching and his theory was that the larger the perennial the deeper mulch it needed. A deep mulch applied each year had raised the soil level and buried the peonies and mallows so that they no longer bloomed.

2. This garden was different in that a non-organic mulch was involved. A number of peonies were planted in a sod. A large hole was dug and the grass removed and the soil loosened several feet. However, the sod between the planting sites was left to be removed later. To avoid much laborious digging a mulch of roofing paper was laid down between the plants. Tests had determined that the present type of roofing paper was not injurious to the plants. The mulch was left on indefinitely after the grass had been killed out. The peonies took hold and bloomed well and everything seemed fine. After about six years a decline in the peonies was noticed. Less bloom, smaller plants, and a general unthrifty condition was apparent. The surface of the bed also was somewhat lower than the surrounding soil and tended to accumulate water in the spring.

The bed was examined with a view to determining what had happened. When the mulch paper was removed it became evident that the soil under it had deteriorated in relation to the surrounding soil and its original condition. The soil was definitely stiffer (clay base) and the surface had sunk. The conclusion was unmistakable. The humus content of the soil was lost.

- 16 -

At first there had been a reasonable amount of humus and the peonies took hold and bloomed well. Then as the humus gradually broke down, the soil structure had become more and more clay and the entire soil mass had shrunk as the spongy humus had become more and more watery (colloidal). Drainage and aeration had also declined along with the loss of humus.

The mulch was removed and humus was added so that the decline has been reversed but some time will be required to bring the bed up to its original condition.

This experience leads to several observations. The first is that nonorganic mulches must be used with caution. In Hawaii and other places where miles of mulch paper are used for pineapple culture the paper is left for only one crop, about two years, and then the field is cultivated with the old plants being dug in. This renews the humus supply. The second is that humus must be added regularly if productivity of the soil is to be maintained. This occurs naturally under organic mulches as they gradually rot. The 3rd is that many gardens are going to have problems with soil structure due to the present fad of putting down black plastic and then covering with ornamental stones in the oriental manner. These mulches are left on as long as they keep the stones clean which runs into several years. During that time the humus will inevitably break down and the soil will become less porous with less air and poorer drainage the result.

On a smaller scale, everyone who has a garden can observe the soil under a rock or a board or a patio that has been covered for several years. Compare this with the adjacent soil that has had humus added regularly even if only by the death of plants roots and tops.

So mulches can be work-savers and help improve plant growth, but they must be used with caution and an understanding of the soil problems involved. The cautions are that organic mulches must be kept away from the crowns of peonies so that the soil does not build up over the buds; and that inorganic mulches must be removed every two years and humus added to prevent the soil from deteriorating. Other than that mulches are fine.

* * * * * *

Year after year P. L'ETINCELANTE continues to find its way to the show tables, always displaying its beautiful self of bright pink petals with a lighter border, almost like a halo around the edge of the single flower.

It celebrates its 70th birthday this year.

The big beautiful rose pink bomb, MONS JULES ELIE has been enjoyed in peony gardens for 87 years. (Crousse 1888).

- 17 -

 \odot

THERE IS A ROAD

By Anthony J. DeBlasi

I think it is every gardener's dream to have a huge rose garden, one in which—on a sunny June day—he or she could get lost in the enchanting maze of colors and perfumes. There would be surprises at every turn, delights to rival Eden and make any rose exhibit at a flower show pale to comparative insignificance.

Some years ago, when I moved to my first home having a decentsized garden plot, I inevitably set myself to establishing a rose garden, one—need I remark—that was well outside of the realm of that in my Colossal Daydream. I planned it with care, laid out the beds, ordered the roses. When the prized stock arrived, the planting proceeded well, thanks to my father's help, and it was not long before the eager young bushes burdened themselves with lush foliage and promising buds.

Then came the nibblers, a mob of insects whose sense of a rose garden is rather more gastronomic than esthetic. With such a lavish banquet set out before them, could they possibly have refrained from eating heartily? That these "guests" were uninvited did not affect the scruples of a class of individuals untrained in etiquette.

Something had to be done! My investment in money, labor, time, and emotion could not be permitted to be squandered by a horde of free-loading vermin! My Vision of Beauty could not be allowed to be nipped in the bud!

The solution proved simple. What saved the day was spraying. So, like Old Faithful, every Saturday morning I mixed my spray, pumped my trusty tank, and spread the cloud of chemicals through the rose bushes. This regimen stopped the marauders and the roses flourished and continued to do so as long as the treatment continued and I kept them well fed.

The rhythm, the rose-producing system I had established would have proceeded indefinitely were it not for a couple of unforeseen events. The first: During an unusually nasty winter, one third of the roses perished (I had been through mean winters before and had never lost a rose that way). The second: Rachel Carlson wrote her startling book Silent Spring in which we came to learn that spraying is a dangerously mixed blessing. Her revelations accorded with a private conviction I harbored that if nature could get along so well without chemicals and pesticides, we could too if we really wanted to. But the pressures of work and the urgency of immediate problems had blocked me from researching the matter. But now that a carefully considered warning against spraying had been sounded, and now that my Vision of Beauty was spoiled by the death of so many roses, I felt that I should stop spraying and take --- 18 ----

advantage of the unplanned hiatus in my gardening rhythm to engage in the neglected research, hopefully to learn what direction I might take in the future. Perhaps, from such hard-earned information, I could develop a garden based on sounder principles, one in which it would not be necessary to spray.

I was not exactly a novice gardener who had run aground from lack of experience. I was even fairly well versed in entomology, in which I had come to learn about the "balance of nature." Much was known about that balance, the subject matter of which spawned the science of ecology. But "Chemistry for Better Living" invaded the scene, claiming even the venerated arts of agriculture and gardening as its proper territory, along with so many of our other practices. It became increasingly attractive to heed the modern voices and grow things "scientifically." The garden literature of the 40's and 50's is replete with chemical formulations and ministrations for the culture of everything from Abelia to Zygocactus. Independent practices and experimenting on one's own were considered unnecessary. Everything had been analyzed and worked out by the experts and there was practically no gardening problem one could encounter that could not be solved by the application of some chemical or combination of chemicals. It was all so convenient. The results were encouraging, though by no means horticulturally outstanding. There was always that lack of vigor that had to be pumped with more food, that susceptibility to insect and disease damage that had to be overcome by spraying or dusting. The "success" of the modern techniques was purchased at the price of smelliness in place of fragrance, latent (though masked) weaknesses in color, stem, and leaf in place of native vigor and virility, and an overall general atmosphere in the garden of having created an artificial, outdoor hothouse filled with museum specimens being kept going by the grace of chemicals. Not to mention the potential hazards to the gardener himself of using the modern insecticides and herbicides. I may be forgiven for portraying an extreme case, for the differences between plants grown artificially and naturally (i.e., the "old way") do not jump out at you. But stop the stream of chemicals and the inherent weaknesses of the plants reveal themselves in short order. That plants could respond reasonably well to such unnatural inducements to growth is witness to the great adaptability of most living things to trying conditions.

I have observed, however, over many years of growing plants by a great many methods, ranging from hydroponics to "loving neglect," that a plant that is "left to its own devices" may not do well-but then might do very well-this representing the extreme of letting nature take her own course; whereas a plant that is constantly fed and sprayed has much less chance of survival if its regimen is halted, having grown "drugged" to the chemicals, as

- 19 -

it were, and to the artificial environment. There is a veiled—but important—insight to be had from all this and one that must be central to a truly successful style of horticulture.

The true "key" to success is not really a mystery. It is something we ourselves can obtain from a patient observation of nature's "techniques"—it is something the older husbandmen knew before the advent of modern methods. The key is simply that **you cannot escape from fundamentals**; you must do things right in the first place; you must provide the proper basic growing conditions for the plants you wish to raise; and you must avoid cultivars that are so far removed from their wild ancestors as to be unthrifty unless the breeding program has ensured the transferrence of the original resistance to disease and pests. Nature does the rest and any interference on our part is likely to spoil the results.

It is time for me to be as concise as possible, without being obscure, or end up writing a book. To that end, I will try to present the salient factors of good culture and leave the fine work and details to each gardener to work out for himself, relying on his own instincts and ingenuity, for which there is still much room in our world!

There are six fundamental variables that confront the horticulturist. They are: soil, water, air, sunshine, temperature, and genetic material. These parameters must be properly coordinated to bring about the desired results. Though listed last, "genetic material" is normally the first factor to be considered: What plants or group of plants do you wish to raise?---and of that group, which varieties are most desirable in terms of beauty, vigor, tolerance to varied conditions, etc.? Will these plants thrive in your climate? Can you provide the amount of sunshine and water preferred by these plants? Do you have a free circulation of air?---stagnant air?—a wind-swept area? How will they affect these plants? And do you have, or can you provide, the kind of soil the plants prefer, if they are choosy about soil? Do your plants like it cool, warm, or are they indifferent? Are they hardy in your location? It may seem too much to contemplate, but it's really all quite simple: if you combine the right selection of plants, the right combination of soil, water, air, sunshine, and temperatures-"right" defined as what your preferences are and what your plants' preferences are that you either have or can easily provide—then success is in the offing. One other consideration will place your garden in good stead. Do not mass plants of one genus together. Plant them in association with unrelated types. Take your cue from nature, where we see demonstrated the "axiom" that a stable system is one that harbors variety.

Thus providing the selected "genes" with their "Eden," how can you not have superb results? Plants thus "launched" grow lustily

https://hdl.handle.net/2027/pst.000068507572

Generated on 2021-07-12 11:30 GMT

- 20 -

and are not bothered by insects and diseases. These attackers have been called "nature's censors," by which is meant that they attack and destroy those organisms that are not in a state of health. Mind the distinction here: the plant is first in a state of poor health - - through some cultural lack or genetic defect - - - and then it is attacked by insects and diseases; it is **not**, as is generally supposed, first attacked and thus becomes unhealthy. Does this mean that a healthy plant will never be attacked? No, but such a plant is hot likely to suffer any serious damage, bouncing right back from its minor setback, but is more likely not to be bothered in the first place since it is not nearly as attractive to insects and disease organisms as a plant that is not growing well, for whatever **other** reasons.

This "natural censorship" smacks of metaphysics. It's as though we were saying that when the conditions for life are present, life triumphs, but as soon as one or more conditions are wanting, it is the role of the forces of death to try and take over, since what is not alive or thriving must decay and return its elements to the stream of life, that they may be taken up and be "recast" into new life forms.

Fortunately for gardeners, most plants are not very exacting in their requirements and show a remarkable zeal to perform under varying conditions. Such plants—and the peony is a fine example -will respond well to the following general requirements for flowering plants. If these cultural parameters are visualized as being control knobs, they would now all be set to their "normal" po-Ample sunshine-adequate water-a free circulation sition: of air-a soil that is friable, well drained, rich in organic matter (decomposed life forms waiting to be "recast"), teeming with soil organisms (spray residues and herbicides are a detriment to a natural, healthy soil). The emphasis on soil, here, is intended to counterbalance the neglect it has suffered under modern gardening methods. Far from being a mere "anchor" for the roots of a plant, as one school has put it, it is the spawning ground of terrestrial life -that to which everything returns and from which everything springs. Let us treat it with respect! Plants are also happiest where the various insects, birds, worms, and other creatures with which they associate, directly or indirectly, are allowed to play their appointed roles in that greater scheme of things that regulates not only our lives, but all life, and which our heavy-handed, triggerhappy "methods" have a way of upsetting.

If you are still with me, I would like to get back to my rose garden that failed and what I learned about it. My garden was in shade during the afternoon; this did not deter me from planting roses, since many experts claimed that a half day of sun was adequate. (The fact that nurseries grow roses in full sun should have made me

http://www.hathitrust.org/access use#cc-by-nc-nd-4.0

/ https://hdl.handle.net/2027/pst.000068507572

Creative Commons Attribution-NonCommercial-NoDerivatives

Generated on 2021-07-12 11:30 GMT

skeptical.) I since learned that roses **prefer** full sun. I planted them in soil that was largely builders' fill-in with a veneer of humus over the top ("roses will grow in any soil" I had read). True, I added some peat moss in each hole I dug, but that was no substitute for a sustaining soil. So, with inadequate soil and sunshine, even though the other conditions were satisfied, my roses were each given a spin toward trouble as I planted them. They became prone to insect damage and their weakness was further demonstrated in their susceptibility to winter-kill. Their performance during the spray-fed program was an example of survival by intensive care.

All this did not come to me suddenly or completely, but though it was to be years before many of the subtleties of the situation were to become evident—it was clear that in reorganizing my garden, roses were out. I could give them the soil they deserved, with more careful preparation than the first time, but would I clear the trees from our suburban site to let the full sun in? No! What less exacting, more adaptable, hardier plant than the rose, that did not mind some shade, would I choose? The tree peony? Yes! I stopped spraying, the tree peonies flourished, and I took a long stride along the road toward an understanding of the relationship between gardener and nature.

If I have conveyed the impression that I have completely researched the central puzzle of plant growth and arrived at the ultimate solution, please dismiss it from your mind. No one, I fear, will ever be so fortunate. If I have brought some important horticultural matters to your attention for consideration, that is all I intended. I would be happy if this could lead to a deeper appreciation of the problems of gardening, to a skepticism toward the use of insecticides and other toxic conveniences, and to a proper regard for the wisdom of nature.

The aware gardener is one who does not see the insect world as a conspiracy intent upon destroying our property and making life unbearable—but instead accepts it as an aspect of life that may not seem friendly (a real nuisance, to be sure, at times) but is a necessary spoke in the wheel of life, which can be made to rotate more smoothly if we work toward a balanced garden where healthy plants thrive in the midst of insects, birds, soil bacteria, and the host of creatures, seen and unseen, that together make life possible, effecting an internal harmony that does not allow any one species to proliferate at the expense of another. A loving attitude and a patient dedication will show that such a garden is not a romantic fantasy but a living, practical reality; but such a garden can remain, balanced and productive only so long as the immense variety of life within it is maintained, unchecked by toxic agents and undisciplined meddling. In such a garden there is no place for a courtship with chemicals but for a willingness to give nature an honest chance to

--- 22 ----

Digitized by Google

work her special brand of miracles. We need not concern ourselves with all the details and complexities of such a system—nature sees to that— just as we don't have to concern ourselves with how we breathe or how our cells grow. We may breathe a sigh of relief, while thanking God, that the continuation of life does not depend on our understanding of it and our conceitedly supposed "need" to control it!

MY EXPERIENCES WITH TREE PEONY SEEDS

By C. Graham-Jones Churchdown, Gloucester, England

This article has been devised not to inform readers on "How to do it" but to record my experiences, hoping the members who indulge in this propagation method will be able to offer some suggestion's for improvement.

In 1973 I received a consignment of seeds from the U.S.A. which totalled 163, and found that after the container had been left in a warm place, 48 seeds sprouted (These remarks were the subject of a previous article). The 48 seeds were planted and 19 came up the first year giving a persentage growth of 39%. The remainer were boxed up and left outside until the following Autumn. When these were examined 71 had sprouted with 24 inactive, the sprouted seed being planted close to the previous 19 which were now one year old. In early May, 5 grew making for the second year 7% growth, this to me is a very poor percentage seeing they all had roots when planted. A few of the seeds which did not grow were lifted for examination and it was found they had rotted inside.

My second consignment of seed was received from Canada and contained 24 seeds, which originated from a famous U.S.A. collection, but these failed to sprout in the container so were buried in the ground for stratification. 20 of them producing rootlets, and from this planting, 14 grew, this giving a growing percentage of 70%, and of the remaining 4, one sprouted the following Spring with 3 remaining inactive. As comparison from the hybrid seed, I obtained in 1972, seeds of P. Lutea and P. Delavayi from a local estate, 10 seeds of P. Lutea were planted and grew and of the 16 seeds planted of P. Delavayi, 10 grew, this giving growth percentage of 100% and 62% respectively.

It will be seen from the free setting species types a higher percentage of growth is obtained.

The big question in my mind is on the very poor percentage of second year growth and would appreciate views of members on their experiences with these high percentages of failures with second year seed which I have experienced.

CONVENTION OF THE AMERICAN PEONY SOCIETY THE 72nd ANNUAL MEETING AND THE 70th NATIONAL EXHIBITION

KINGWOOD CENTER - MANSFIELD, OHIO

June 20, 21, and 22nd, 1975

MANSFIELD WELCOMES YOU

For the benefit of those wishing to attend the Convention, Mansfield, Ohio is located on U.S. Highway 42, about half way between Cleveland and Columbus. It lies just west of Interstate 71 and just south of U.S. 30. By air, Mansfield is served by Allegheny Airlines, with connections to other major airlines at Cleveland.

SCHEDULE OF EVENTS

Friday, June 20—Center opens at 8:00 A. M.—prepare show entries.

Work area will be opened as needed Friday evening.

Limited refrigerated storage space.

8:00 P. M.—Board of Directors meeting.

Saturday, June 21-Exhibition open to the public.

1:00 P. M. Closes 7:00 P. M.

7:00 A.M.-11:30 A. M. set up and enter exhibits.

8:00 A. M.-Registration.

11:30 A. M.-1:30 P. M. Judging.

2:00 P. M.-Luncheon at main house.

3:30 P. M.—Panel on hybridizing—Seminar.

(Dr. Reath, Father Fiala, Gary Seaman)

5:00 P. M.—Cocktails at main house, Kingwood.

7:30 P. M.—Banquet, Mansfield Leland Motor Hotel. Welcome address, Mr. Frederick Roberts. Annual Meeting. Root Auction.

Sunday, June 22.

6:00 P. M.—Show closes to the public.

Advanced registration is urged. Fee will be \$12.00 per person. This includes registration, Saturday luncheon and banquet. Taxes, gratuities and incidentals included.

Separate reservations may be made for the luncheon at \$4.00 and the banquet, \$8.00.

Send reservations directly to Greta M. Kessenich, Secretary, 250 Interlachen Road, Hopkins, Minnesota 55343.

^{9:30} A. M.—Board of Directors meeting and brunch at Gary Seaman's Suite, Leland Hotel.

^{10:00} A. M.—Show opens to the public.

http://www.hathitrust.org/access use#cc-by-nc-nd-4.0 / https://hdl.handle.net/2027/pst.000068507572
mmercial-NoDerivatives / http://www.hathitrust Creative Commons Attribution-NonCommercial-NoDerivatives Generated on 2021-07-12 11:30 GMT

Reservations not later than June 14th.

Recommended Hotels and Motels, Mansfield, Ohio.

Approximate Price

Mansfield Leland-Motor Hotel—Single \$13, Double \$15.50, plus tax. A good 150-room hotel, located at Park Ave. West (U.S. Route 430) and Walnut Street. Family plan rates, restaurants, free parking. Tel. 522-5111.

Reservations must be in by June 1st.

Motels—(arranged in order of distance from Kingwood Center) Downtown Motor Lodge. Single \$12.00. Double \$17.00.

191 Park Ave. West, 97 rooms, restaurant, air-conditioned, TV., Tiled shower baths. Tel. 522-3662.

Travel Lodge of Mansfield. Single \$12.00. Double \$15.00. 137 Park Ave. West, tiled shower baths, air-conditioned, phones, color TV. Tel. 522-5142.

Note—Mansfield Leland-Motor Hotel is the official headquarters for the convention.

RULES FOR SPECIMEN EXHIBITS

- 1. All entries must be completed and in place by 11:30 A.M. on opening day.
- 2. All entries must have been grown by exhibitors.
- 3. Entry tags supplied by the Society must be filled out completely as to class, variety, and name and address of exhibitor. In addition, each variety must be identified with a small wood or plastic tag with the variety name legibly printed thereon. Entry tags may be obtained in advance from the secretary of the American Peony Society. The exhibitor or his agent shall be responsible for proper completion of the entry tags.
- 4. Stems should be approximately 14" long.
- 5. Exhibitors are limited to one entry each in classes 101, 102, 103, 104, 105, 106, 201, 301. Up to three entries are permitted in all other classes provided they are different varieties.
- 6. The show committee may combine or divide classes if the number of entries warrants it.
- 7. Correct varietal labeling is mandatory in the Open and the Amateur classes. It is recommended on the Novice classes, but no entry shall be disqualified for failure to identify.
- 8. Standard containers will be furnished by the show committee and must be in all classes.
- 9. The American Peony Society Handbook will govern bloom types and color.

10. Anemone type such as Gay Paree shall be shown as Japanese.

- 11. Awards need not be given to unworthy exhibits.
- 12. The decision of the judges is final.

- 25 -

DIVISION 1. Open to all Exhibitors.

- 101 Gold Medal Certificate Class Twenty-five varieties, any type or color. One bloom each in separate containers. 102 Silver Medal Certificate Fifteen varieties, herbaceous only, any type or color One bloom each in separate containers. 103 Silver Medal Certificate Ten varieties, herbaceous hybrid only, any type or color One bloom each in separate containers. 104 Silver Medal Certificate Ten varieties, Tree peonies only, any type or color One bloom each in separate containers. 105 Five varieties, Japanese Type lactiflora only, any color One bloom each in separate containers.
 - 106 Five varieties, single type lactiflora only, any color One bloom each in separate containers.

Three Blooms, one variety lactiflora only, in one container.

- Class
- 110 Double white
- 111 Double blush
- 112 Double light pink
- 113 Double dark pink
- 114 Double red
- 115 Semi-double white or blush
- 116 Semi-double pink
- 117 Semi-double red
- 118 Bomb any color
- 119 Japanese white or blush
- 120 Japanese pink
- 121 Japanese red
- 122 Single white or blush
- 123 Single pink
- 124 Single red

One Bloom Lactiflora Only

Class

- 130 Double white131 Double blush
- 132 Double light pink
- 133 Double dark pink
- **134** Double red
- 135 Semi-double white or blush
- 136 Semi-double pink

- 137 Semi-double red
- 138 Bomb white or blush
- 139 Bomb pink
- 140 Bomb red
- 141 Japanese white or blush
- 142 Japanese pink
- 143 Japanese red
- 144 Single white or blush
- 145 Single pink
- Single red 146

Three blooms one variety Herbaceous Hybrids or Species in one container.

Class

- 150 Double or semi-double white, blush or yellow
 - 151 Double or semi-double pink
 - 152 Double or semi-double red
 - 153 Single yellow
 - 154 Single white or blush
 - 155 Single pink
 - 156 Single red

160

One bloom Herbaceous Hybrid or Species.

- Class
- 161 Double or semi-double white or blush

Double or semi-double yellow

- 162 Double or semi-double pink
- **163** Double or semi-double red
- Single yellow 164
- Single white or blush 165
- 166 Single pink
- 167 Single red

Three blooms, one variety, tree peonies only, in one container.

Class

- 170 Japanese or Mouton white
- 171 Japanese or Mouton pink
- 172 Japanese or Mouton red
- 173 Japanese or Mouton violet
- 174 European or Lutea Hybrid white
- 175 European or Lutea Hybrid pink
- 176 European or Lutea Hybrid red
- 177 European or Lutea Hybrid vellow
- 178 European or Lutea Hybrid blend or bicolor

One bloom tree peony only.

Class

- Japanese or Mouton white 180 181 Japanese or Mouton pink
 - 182 Japanese or Mouton red
 - 183
 - Japanese or Mouton violet

 \odot http://www.hathitrust.org/access use#cc-by-nc-nd-4. https://hdl.handle.net/2027/pst.000068507572 Creative Commons Attribution-NonCommercial-NoDerivatives Generated on 2021-07-12 11:30 GMT

- 184 European or Lutea Hybrid white
- 185 European or Lutea Hybrid pink
- 186 European or Lutea Hybrid red
- 187 European or Lutea Hybrid yellow
- 188 European or Lutea Hybrid blend or bicolor

DIVISION II AMATEUR: Open to exhibitors who raise peonies chiefly for pleasure, sell plants or cut flowers only casually, and do not grow more than 200 plants.

Class 201 Silver Medal Certificate Ten varieties, herbaceous only, any type or color One bloom each in separate containers.

Three blooms, lactiflora only, unless otherwise stated, in one container.

Class 205 Double white or blush

- 206 Double pink
- 207 Double red
- 208 Semi-double any color
- 209 Bomb any color
- 210 Japanese any color
- 211 Single any color
- 212 Hybrid any color
- 213 Tree any type or color.

One bloom lactiflora unless stated otherwise.

- Class 220 Double white
 - 221 Double blush
 - 222 Double light pink
 - 223 Double dark pink
 - 224 Double red
 - 225 Semi-double any color
 - 226 Bomb any color
 - 227 Japanese any color
 - 228 Single any color
 - 229 Hybrid any type or color
 - 230 Tree, any type or color

DIVISION III NOVICE: Open to all amateur gardeners who exhibit peonies only at local shows.

Class

Bronze Medal Certificate. Five varieties any type or color in separate containers.

Three blooms one variety lactiflora, unless otherwise stated, in one container.

301

Class

Class

- 305 Double any color
- 306 Semi-double, any color
- 307 Japanese, any color
- 308 Single, any color
- 309 Hybrid, any color

One bloom lactiflora, unless otherwise stated.

- 315 Double white or blush
 - 316 Double pink
 - 317 Double red
 - 318 Semi-double any color
 - 319 Bomb any color
 - 320 Japanese any color
 - 321 Single any color
 - 322 Hybrid any color
 - 323 Tree any color

DIVISION IV: Seedlings and New Varieties.

Class 401 Seedlings.

Three blooms, one varity in one container, not currently introduced.

Variety must have been divided at least once. Must be shown under name or seedling number.

402 New Varieties:

Three blooms, one variety in one container. Limited to varieties named and registered with the American Peony Society and introduced no earlier than five years prior to show date.

Awards given in the two preceding classes may be Certificates of Merit or Honorable Mention at the discretion of the judges, but no ribbon awards. Varieties having won either award in previous competition may not be shown again in that class, except that varieties shown in class 401 may be shown again in class 402 regardless of awards.

403 Seedlings:

One bloom. This class is for display only. No awards will be given and any seedling entered in class 401 is ineligible.

DIVISION V: Special Entries.

501

Class

Commercial Exhibit. Collection by commercial grower of 25 to 50 varieties in separate containers. A placard approximately 9"x14" may be furnished by the exhibitor

to identify his display.

502 Visitor from greatest distance.

Five different varieties any type. Mileage verified on entry tag.

503 Multiple bloom. Single stalk not disbudded. Must show at least three open blooms.

Court of Honor. All blooms in Divisions I, II and III eligible.

Best Double	white
	blush
	light pink
	dark pink
	red
Semi-Double	white
	pink
	red
Bomb	white
	pink
	red
Japanese	white
	pink
	red
Single	white
-	pink
	red
Hybr id	yellow, white or blush
-	pink
	red
Tree	white
	pink
	red
	yellow
	violet, blend, bicolor

Also best bloom from Division II and Division III

All blooms in Court of Honor to receive Rosettes printed COURT OF HONOR.

Best Double, semi-double, bomb, Japanese, single, Hybrid and tree to receive larger rosettes.

Division II printed: BEST AMATEUR; Division III printed: BEST NOVICE.

Best in show purple Rosette printed: "GRAND CHAMPION."

- 30 ---

_ . -

http://www.hathitrust.org/access use#cc-by-nc-nd-4.0 https://hdl.handle.net/2027/pst.000068507572 Creative Commons Attribution-NonCommercial-NoDerivatives Generated on 2021-07-12 11:30 GMT

ARTISTIC DESIGNS

Facts about Kingwood Center is an interesting brochure from which our arrangement schedule is drawn. Let us lend beauty to our show as we interpret some of these Facts.

- A. Private estate of Charles Kelley King 1868-1952 evoking a sense of nostalgia
- B. Why is it free? free form or abstract in character
- C. Kingwood Hall period arrangement
- D. Library Interpret a book or story. Name it.
- E. Nature Trail nature find
- F. Sculpture in the Gardens involving a man-made sculpure
- G. Memorial Fountain water interest

ARTISTIC DIVISION RULES

- 1. An exhibitor may make only one entry per class. All must be the work of the exhibitor.
- 2. Peonies must be the dominant flower. Peonies need not be grown by the exhibitor, and some will be available from the committee.
- 3. Other flowers, foliage, grasses and accessories are permitted in all classes.
- 4. Artificial plant material is not permitted.
- 5. Entries may be placed from 8:00 p. m., Friday, June 20, until 11:00 a. m., Saturday, June 21.
- 6. While the show management will exercise due caution in safeguarding exhibits, it cannot assume responsibility for injury or loss.
- 7. Personally owned properties must be claimed immediately after the show closes at 6:00 p. m., Sunday, June 22.
- 8. Qualified judges will be used in the Artistic Division.
- 9. The decision of the judges is final.

— 31 —

THE FIFTH DISTRICT MEETING

It was peony day. by Greta M. Kessenich, Secretary It was a day long to be remembered, this last November 10th meeting and talking to the enthusiastic members of the 5th district.

Mr. Clarence Lienau flew in from Detroit and my plane from Minneapolis arrived about the same time. We were met at the O'Hara airport by our most gracious Sarah Klehm. She is very efficient in the guidance of unaccumstomed visitors arriving at O'Hara, in Chicago, Ill.

She whisked us away and soon we were with the Klehm family with Roy driving to the charming meeting place, Lorenze "Smart Country House," at Antioch, Ill., a distance of about 40 miles.

A special hour was enjoyed with peony members until 1:30 P. M. Many spent the time trying to identify unnamed colored peony slides. A real test of the I.Q. when away from all peonies in mid November.

The pros of peonydom were present. Forty reservations, with more in attendance and a very rainy Sunday. Many drove miles to attend this meeting. Antioch is about the center of the 5th district.

A most delicious dinner was served at 1:30. A roster of WHO'S WHO was at the head table:

Mr. and Mrs. Eldred Green, Chicago, Ill.. Mr. Green, a horticulturist and recently retired Garden Editor of the Chicago Sun Times.

Mr. Clarence Lineau of the Lineau Peony Gardens, Detroit, Mich

*Mr. Marvin Karrels, Milwaukee, Wisconsin, one of the Charter Members of the 5th Dist.

Dr. and Mrs. Reath of the Reath Nursery, Vulcan, Michigan Dr Reath is an authority on the Tree Peony.

Mr. and Mrs. Dee Garrison, Milwaukee, Wisconsin, President and Secretary of the 5th District.

Mr. Joe Glocka, Milwaukee, Wisconsin, Advertising and Display Manager of the Milwaukee Journal.

(Joe is an avid peony grower, with countless number of plants in his garden and more planted every year!)

Mr. Roy Klehm, Immediate Past President of the American Peony Society. Barrington, Ill.

Dr. Reath was the guest speaker, showing slides of both the herbaceous and tree peonies. It was a pleasure to hear the correct pronunciation of the names, of the Japanese tree peonies. It is no wonder these beautiful flowers were given these names, for it was like music in word language hearing Dr. Reath talk of them.

He also instructed the members in the actual grafting of the tree peony. It was so efficiently done and explained so thoroughly, which made it look simple and easy. The entire group of most interested people will be grafting this coming August. He explained the depth of planting and the treatment of the new graft.

Digitized by Google

It was then time for the auction. What an auction! The tables were piled high with grafts, tree peonies, herbaceous peony roots, green plants and the most beautiful work of art.

Joe Glocka, in the role as auctioneer is magnificent. He knows his peonies and the prices of the various roots. Bidders respond to his call and the auction is treated as a most serious business. The proceeds enrich the treasury of the 5th district as well as giving pleasure and new plants to all members.

The Klehm Nursery gave every family and single person 200 crocus bulbs. A highlight, for when the crocus bloom, peony season is not too far away.

It was my pleasure to tell about the progress of the American Peony Socity.

Past history can have a direct bearing on the present, success or failure and by study of the 70 years past, the American Peony Society will progress.

This was the theme of my part of the program.

*Over thirty years ago, the 5th District was organized, through the efforts of Marvin Karrels, the first President.

It was difficult in the beginning to bring peony people together. At one meeting only six were in attendance, in addition to the Pres. Those six were the most dedicated peony people in the land. Roy Gale, Dr. Hyde, Will Christman, Frank Tikalsky, Al Volz and Paul Sbonik. Frank Tikalsky was the first secretary of the 5th.

It was decided that if only six came to the meeting, they would continue to meet every fall. Gradually more people became interested. In later years, the Klehms, Carl and Roy contributed so much.

Now 1975, District V is an active, progressive organization.

Help reduce the spread of disease by disinfecting cutting tools when you finish dividing or pruning one plant and before going to another. Make a disinfectant container which is handy to carry and store by using one of those coffee cans that comes with a snugly fitting plastic lid. Load the can with denatured alcohol (shellac thinner) and keep it covered when in storage to retard evaporation. You might find it helpful for removing plant debris or soil to line the can with a scrap of carpet on which the tools may be wiped as they are placed in the disinfectant. Cut the carpet piece long enough to just fit around the inside of the can and it will stay put without being attached. This takes very little bother to set up, and, once you have it rigged, you can keep your tools sterilized, with very little loss of time. Better yet, use two pruners, alternating them as you move from plant to plant, and you can have the sanitation with no time loss at all.

THE MANAGEMENT OF DISEASE RISK IN PEONY PLANTINGS

By Don Hollingsworth

Although garden peonies are among the healthiest and most durable of showy perennials, when conditions are favorable for disease attack, the plants may be severely injured. Gardeners who try to grow large numbers of peonies (or any other species) under crowded conditions create a circumstance that is generally favorable for the spread of disease and, at the same time, may have much more to lose than a less avid planter. This describes a situation which I suspect is prevalent among us non-commercial peony growers.

In order to produce the fine flowers for which it is prized, the peony must attain a certain amount of growth. Once this minimum is reached and if the environment remains suitable, the plant will continue to make the annual growth necessary to produce satisfactorily for many years, sometimes living to an astonishing age. Disease has the potential of limiting or terminating the productive life of the plant. Once disease has done significant damage to a plant, we have no other choice than to accept loss in production. Such loss is economic as measured in growing time lost, flowers or seeds given up, and reduced increase, sometimes representing financial loss. We **must** be concerned with disease control.

The management of disease risk commences with an adequate planting site. If the soil, drainage, planting technique and other environmental factors are not sufficient to permit optimum growth, the plant will be disadvantaged in general. Additionally, some problems of the environment which result in retarded growth may at the same time promote development of a disease organism. For example, extremely wet soil conditions enhance development of certain root and crown rot organisms. This can happen during a drouth if poor drainage and indiscriminate watering practices are sufficient to make the soil soggy around the crowns. Thus, it can be seen that the management of disease risk is sometimes interrelated with the management of other cultural requirements. There is more to disease control than learning what chemical will destroy the causal organism.

Although conditions of the environment are important in the development of disease, a causal organism must be present or the disease will not appear even if the plant is susceptible. Dr. Malcolm Shurtleff states in his book, How to Control Plant Diseases in Home and Garden, that plant disease control is aimed at breaking the combination of factors in three basic ways, "(1) the susceptible plant is made more resistant or immune; (2) the environment is made less favorable for the causal organism and more favorable for the host plant; and (3) the disease organism is killed or prevented from reaching the plant, penetrating it and producing the disease."

A full discusion of the practices appropriate to keeping peony diseases in check is beyond the present capability of this writer and would exceed the space available. Such discussions already exist in a general way in the several basic works on plant disease that are currently in print. One or more of these is usually available in public libraries. Although fairly expensive to buy, a person who is investing very much money to acquire valuable plant materials should consider adding one or more of these references to his or her personal reference collection.

The descriptive lists of peony diseases haven't changed much in recent years. Most of them do not give enough information to be much help in figuring out what to do even if the disease can be correctly identified. Other helps are usually needed. Perhaps some of the most valuable of supplemental references are the personal experience accounts which have appeared in the American Peony Society **Bulletin.** These provide case history information such as almost never appears in the check lists. Such member reports are a valuable service and should be encouraged.

Recently our editor, Greta Kessenich, sent to me a U.S.D.A. Agricultural Research Service publication entitled "Culture and Diseases of Peonies." The section on diseases is substantial and is especially helpful in the description of field symptoms and useable information on organism life history in the case of fungal diseases as compared to the other references I have seen. Because of this I think it worth reproducing for the benefit of APS members. Consult current sources, however, to determine what chemicals are legal for various purposes, as some of the chemicals mentioned are now withdrawn for environmental protection and safety reasons. See the agricultural extension service representative in your area for current chemical treatment recommendations, or, contact the extension horticultural department at your state university. Either of these sources will also advise you how to prepare samples of plant material and where to send them for assistance in diagnosing specific causal agents involved in diseased plants.

The following has been taken from, Agricultural Research Service, "Culture and Disease of Peonies," United States Department of Agriculture ARS Crops Research Division, Beltsville, Md., 1962.

DISEASES BUD BLIGHTS

Botrytis Blight

This disease may occur wherever peonies are grown. It is sometimes very destructive in wet seasons and may ruin entire plantings, or spoil the flowers after they are picked. It affects -35stems, buds, and leaves, beginning in the spring as the shoots emerge. Infected stems show a brown discolored area at the base extending from one to several inches above and below the ground The discoloration may be superficial, with healthy tissue line. beneath, or may extend through the stem developing into a rot that girdles and blights the shoots. The affected parts may become overgrown with a gravish brown feltlike coating of fungus spores. 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. Buds attacked at an early stage dry up. In the larger buds brown necrotic areas develop on the surface or inside; often the stalk below the bud is rotted off. Some buds are partly open before they are killed. Fully open flowers may be attacked, with resulting one-sided development and rotting of the inner petals. The flower blight may occur after picking, if the flowers are wet when placed in cold storage. When the diseased petals drop, they may adhere to the leaves causing blight lesions to develop. These appear as irregular necrotic spots of a light tan color with a darker margin. This form of the disease appears in midsummer. If the weather stays dry, it is of little consequence, but in wet seasons it may damage the foliage severely. Under such conditions also the stem rot may spread into the crown and upper part of the root and result in a crown rot, but ordinarily the fungus merely may hibernate there without producing evident decay.

The different phases of this disease may be all caused by one fungus **Botrytis paeoniae**, although a different species is generally considered responsible for the disease symptoms that develop in late summer. The fungus lives over winter in the form of small, black, pimplelike resting bodies, called sclerotia, which are formed on dead foliage and stems. When the diseased plant parts decay, the sclerotia pass into the soil and thus serve as a source of infection of the young shoots during their emergence the following spring. The presence of a mulch, of manure, or of litter around the crown during the period of early shoot development promoted the infection of stems from soil-borne sclerotia, even though such materials are themselves not a source of disease.

Peony varieties differ in reaction to Botrytis blight, some apparently possess resistance. Among the better known varieties that are more or less resistant to this disease are Asa Gray, Baroness Schroeder, Festiva Maxima, Gypsy, Lady Alexandra Duff, LaTulipe, Sarah Bernhardt, and Venus. Spraying peonies with bordeaux mixture, as practiced for the control of Botrytis blight of lilies, is considered objectionable because of the staining of the foliage. In those comercial plantings where the sale of roots is a more

- 36 --

Digitized by Google

important object than the ornamental effect, the use of bordeaux mixture (4-4-50) may afford a considerable degree of control, provided spraying is begun very early and the new shoots are kept thoroughly coated with spray from the time they emerge until flower buds appear. In the home garden the more dilute 2-2-50 bordeaux mixture (1 pound of copper sulfate, $1\frac{1}{4}$ pounds of hydrated lime, 25 gallons of water) may be used with only slight staining of the foliage.

The most effective control measures are the careful removal of diseased parts as they apear and the eradication of badly diseased plants. In fall, peonies should be cut to the ground and the debris burned. Stems may be cut below the soil, as low as possible without injuring the crowns, and all debris carefully collected. In spring, stems with discolored bases should be cut out as soon as discovered, the cut being made an inch or two below the ground level. The first infected buds or leaves should also be picked off and burned.

Phytophthora Blight

This disease resembles the Botrytis blight in its effects on the flower buds, but the affected tissues are darker brown and the adjacent leaves and the stem for several inches below the bud are often involved. As the diseased parts dry they turn nearly black and develop a tough leathery texture. There is also a crown and shoot infection phase. The disease is more virulent than the Botrytis blight, affected shoots wilting completely or dying at the tips. The crown may be invaded and decomposed. Fortunately, the disease occurs less commonly than Botrytis blight and becomes only seriously destructive in persistent wet weather. Spraying during the period of early shoot growth with 5-5-50 bordeaux mixture (1 pound of copper sulfate and $1\frac{1}{4}$ pounds of hydrated lime in 10 gallons of water) gives effective control, but subsequent applications up to the time the flower buds appear may be required in wet seasons, notwithstanding the objection because of staining the foliage with spray.

ROOT DISEASES

Crown Rot

Peonies are subject to several root diseases, of which the most frequent are crown rot and root knot or root gall. Growers have generally believed that crown rot is due to contact with manure, excessive depth of planting, or defective drainage; but these factors are also the ones that promote fungus infection. At present it definitely cannot be said whether the cultural conditions or fungus parasites are of primary importance. It is well known that the Botrytis, which causes the stem disease, may over-winter in the crown and is possibly also the cause of one form of crown rot. The

crown rot caused by Phytophthora also has been mentioned. In other cases not only the crown but the fleshy roots may be attacked with necrotic areas appearing on the principal roots. These are of variable size, usually circular in outline, dry in texture, and centered about a branch rootlet. This disease, apparently associated with the soil-inhabiting fungus Rhizoctonia, is fostered by the excessive use of manure as a mulch or the manure contacting the roots.

In the control of crown rot the first essential is to provide a sanitary soil environment. It is preferable to plant in a new site with proper preparation of soil beforehand; but, if the same site is to be used again, a few shovelfuls of soil should be removed, and fresh soil from a site not previously exposed to contamination used for refilling. The crown bud should not be covered more than 2 or 3 inches except in very light soil. This process should, of course, be carried out only with dormant roots.

If one desires to save an infected plant, it should be dug up and the decayed areas cut out. The root should be then soaked in an antiseptic solution, as corrosive sublimate 0.1 percent ($\frac{1}{2}$ ounce to 4 gallons of water) for 1 to $\frac{11}{2}$ hours, after which the root can be divided for propagation, or planted in its entirety if not too large. Plants having deep areas of decay or badly crippled crown had best be discarded and burned.

Root Knot or Root Gall

Peony roots are frequently infected by root knot nematodes (Meloidogyne spp.). The symptoms of root knot appear in the aerial parts of the plant as a general reduction of vigor. The presence of numerous short, thin stems with narrow, light green leaves and few or no flowers is a more reliable indication of root knot. However, the disease is best identified by uncovering and examining a portion of the root system. If infected with nematodes, the smaller roots will have very conspicuous galls or knots ranging in size from just perceptible enlargements of the root to $\frac{1}{4}$ inch or more in diameter. On the larger roots, the knots may be $\frac{1}{2}$ inch in diameter. The form of the galls is irregular; they are usually, but not always, on one side of the root. These galls contain the adult female nematodes and the surrounding soil will be infested with nematodes in the immature stages (larvae). The nematodes can also infect a large variety of other plants including many kinds of ornamentals, vegetables, and weeds, but not most lawn grasses. This makes it very dificult to eliminate them from the small garden. Probably the best procedure is to dig up and destroy the infected peony plant, then sow grass on the spot for 2 or 3 years before again using it for any kind of ornamental. Peonies should be grown in another part of the garden. The alternative is to use chemicals to kill the nematodes in the soil.

--- 38 ---

Digitized by Google

An alternative to use of chemicals for providing clean soil in which to plant peonies is to select a site that has been in grass for several years or has been used for the growing of grain (oats, wheat, rye, barley, or corn).

(See Bulletin #210, June 1974, Nematode in Garden Peonies. Editor)

Lemoine Disease

This is another type of root gall or deformity, but the cause is not known. Though the condition resembles nematode gall in some respects, the gall nematode is not present in the typical galls. It may prove to be a virus disease. The name was originally derived from imported peony roots, but the disease occurs on domestic peonies also, and nothing definite is known as to its origin. Affected plants are barren and make very little growth, the shoots being weak and few in number. The roots show swellings in more or less regular serial order, the entire diameter of the root being enlarged. The swellings occur on both the large and small fleshy roots. Diseased storage roots show soft yellow spots when cut. It is best to avoid planting roots that show this condition, and to discard any plants that develop it.

OTHER PEONY DISEASES

Stem Rots

A disease affecting the stems and the crown of peonies, and resembling those caused by Botrytis and Phytophthora, is caused by the fungus Sclerotinia sclerotiorum. It is found less frequently than the other two diseases, but it attacks fully grown plants somewhat more aggressively, sometimes killing several or all of the shoots. It can be distinguished from Botrytis and Phytophthora, which typically infect shoots at an earlier stage of growth and cause tip blight or bud blight, by its more destructive habit, by the occasional presence of a superficial white mold on the surface of affected stems and leaves, and especially by the production of large black granular resting bodies (sclerotia) in the pith of the stem. The fungus is likely to be introduced with certain materials used for mulching, as garden litter and manure that has previously been used in hotbeds or greenhouses. Affected plants should be dug up and destroyed if badly affected, or pruned, disinfected, and set in a new location if their value justifies this effort.

Still another soil-inhabiting fungus that persists from year to year by means of sclerotia may attack peonies, especially in regions having warm summers. This fungus, Sclerotium rolfsii, may be recognized by the conspicuous white mold that forms in fanlike wefts on the surface of diseased plants and also permeates the soil, and by the numerous sclerotia, which are pale to dark brown, round, smooth or pitted, and about the size of mustard seed. Other garden

perennials, especially delphiniums and violets, and many vegetable crops are also attacked. The control is the same as described previously for Sclerotinia stem rot.

Wilt

Peonies may be attacked by the wilt fungus Verticillium. The same fungus attacks numerous other plants including maple trees, raspberry bushes, and various garden flowers. The parasite is internal, affecting the water-conducting vessels inside the stem, thus causing the plant to wilt suddenly and die prematurely. Affected plants are doomed and should not be used for propagation. They should be dug out and burned. If the site is to be replanted with a peony, the soil also should be changed.

Leaf Blotch and Measles

This disease, caused by the fungus Cladosporium paeoniae, is common after flowering. In warm seasons in particular, the measle phase of the disease may be severely disfiguring to susceptible varieties before the flowers open. Small red or reddish-brown spots appear on stems, leaves, and flowers. These remain small and pimplelike on the stems, but on the leaves some spots enlarge to form the blotch phase, characterized by purplish brown areas on the upper leaf surface and dull brown spots beneath. As this fungus overwinters on infected peony tops, the cleanup program recommended for Botrytis blight is also important here. In large-scale peony culture, where this cleanup is attempted by mowing and raking the tops, enough stubs and fragments remain to insure infection in the folowing year. Research workers have found that Elgetol,* a proprietary dinitro-ortho-cresol compound, applied to the ground and to the refuse and tops in early spring before new shoots develop, at the rate of 1 gallon of a 1 percent spray solution to 200 square feet of land, materially reduced the amount of disease appearing that season in such commercial fields. Bordeaux mixture applied immediately after the flowering season is often recommended to reduce development of leaf blotch late in the season.

Other Leaf and Stem Spots

Several other fungi have been found to cause spots on the leaves or stems of peonies. Septoria paeoniae causes circular spots with grayish white centers and reddish brown borders on leaves and stems. Anthracnose, caused by a species of Gloesporium, is marked by elongate reddish spots, becoming gray centered, sometimes zonate, and often puckering the leaf margins. Other leaf spots are caused by Phyllosticta, Cercospora, and Alternaria. In general, control measures advised for Botrytis blight are effective against these diseases. The fall cleanup program is important here also. Bordeaux sprays applied against Phytophthora blight and the leaf blotch disease are effective against these diseases as well.

- 40 -

Virus Diseases

No virus diseases of peonies have been studied in detail, but several diseases that have been briefly described seem likely to belong to this class, including the Lemoine disease.

Mosaic

Mosaic is characterized by conspicuous yellowish blotches, rings or target patterns in leaves. Affected plants are not noticeably dwarfed or deformed. The disease seems to spread slowly, if at all. Although this is a mild disorder, propagation of diseased plants should be avoided.

Crown Elongation

In the disease called crown elongation, the crowns are more numerous than normal, elongate, and branched, but the roots seem to be normal. In spring such plants develop many slender weak shoots which remain short with dwarfed leaves and no flower buds. Affected plants do not recover and should be discarded and burned. Leaf Curl or Curly Leaf

Another disorder called leaf curl or curly leaf is occasionally encountered. Plants are dwarfed with crowded, curled, and crinkled leaves, and set few or no flower buds. The roots appear to be normal. Affected plants do not recover even when transplanted. They are best discarded and burned.

* The mention of trade products does not imply that they are recommended or endorsed by the Department of Agriculture over similar products of other companies.

PEONY ROOTS, ANYONE?

Spring brings the peony, with its pink tips pushing thru the ground. Soon they will be in full bloom and that means it is time for the Annual Meeting and the Exhibition at Kingwood Center, Mansfield, Ohio.

One of the events on the program is the peony auction. This is always looked forward too, with great anticipation for it is then that different varieties of peony roots can be purchased.

We again ask for contributions of peony roots or any material pertaining to the peony. The proceeds of the auction are included in the assets of the Society.

The auction benefits the organization two-fold. Peony roots sometimes go in new gardens, a potential member of the Society, as well as supplying a new variety in an established garden.

Financially, it is of great benefit to the Society. It is the only contribution asked, in support of the organization.

We look forward to hearing from you, with sincere thanks for your contribution.

How to donate? Submit your peony name or names to the Secretary. After the auction you will be notified who purchased your donation. In the fall, mail the division to the purchaser.

Greta M. Kessenich. Secretary.

 \odot

THE PEONY PATCH 1974

By Ben Gilbertson, Kindred North Dakota

As usual, the 1974 peony season was 'different' from any that we have had before and I think that is very normal, at least for the Red River Valley of the north.

The long winter season was just about ideal as we had about six-inch snow cover in early November which was pretty well maintained throughout the rest of the winter, a rather early spring break and a long wet spring slowed things through May, then from near winter we went into full summer and things pretty well caught up to normal for the date. June brought us 3/10ths" total rainfall and July not much better, but from early August on we have had a good moisture supply.

All blooming age peonies bloomed very well and the general quality of this year's bloom was above average. We had a few outstanding new ones, one of which was only medium in size, rose type double of dark bright red several shades darker than Red Charm with a brilliant velvety sheen that I have never before seen in a peony. It is a straight lactiflora of my original Philippe Rivoire x Kansas line. Another was a semi-double Rose-pink of Lobata x lactiflora background. Also one plant from seed planted in the fall of '71 had a large bomb type double light pink flower on its single stem the third year from seed. The usual number of rather good red and pinks that were just not quite good enough, showed up.

The seeds of Anomala received from my Soviet correspondent produced 29 young plants this spring from last spring's planting after spending the winter in wet sand in our basement. I expect many more plants to come up next spring. There were about 200 dried seeds in the lot. Five of these first year plants were dug and the roots shaped into three-cornered wedges and fitted into the side of lactiflora roots that had grooves of corresponding size and shape cut into their side and rubber strips to hold them together. These should hopefully bloom in 1976. I dug away the soil from the crowns of all the Soviet plants also to see what I could do to make These four plants were listed as 'Specie Anomala L. increase. Chinensis 'Novestj Altai. Chinensis 'Poceda, and Hybrida 'Pall. All four came up and made nice plants. The first three named had 2 stalks each and Pall dried down to the ground by mid-August having had only one 8" stem with leaves similar to our hybrid 'Smouthi', no bud showed on any of them. I thought the plant must be dying, so I removed the soil all around the plant and then carefully picked away the soil part ways under it and found that it was a tuber very much like an ordinary potato. There were no buds or eyes on it but one slender stem with one small bud. It has no 'fingers' or elon-

·

Digitized by Google

Original from PENN STATE gated root parts, but is almost perfectly round. How does one ever make any increase from a plant like this? I have already had many requests for divisions of these imports which I will do my best to fulfill when I have the plants, but with only one small plant of each of these in my possession I cannot promise much for some time.

I was able to get two buds from each of Anomala and Poceda which I made grafts of but Novestj had 5 nice buds, all on the flat surface of the crown, and I did not feel that I should cut into the crown to get them.

I have just registered two more new peonies which I believe to be of far greater value as breeding stock than garden peonies for the near future as both are good seed producers and have many good qualities that a breeder should look for. I will introduce these myself as the supply is so very small and I will offer them to the breeders and hybridizers directly. I will have more of these as they are ready.

Their names and description are as follows:

WINE RED

The name describes its color, and its breeding is straight lactiflora, a grandchild of Phil. Rivoire and Kansas as both of its parents were of this cross. Stands very well, 24" tall, full bomb type double. No pollen, very good carpels, good foliage. It should produce many new shades of medium to dark red double offspring. Blooms midseason.

MULTIFLORA

This one is easily the most floriferous peony that I ever grew or saw. One three-year-old plant from a small division this summer had 49 large high-built bomb type double light pink flowers, 11 of them on one stem—and it stood up very straight with this load. Its breeding is lactiflora and $\frac{1}{8}$ Tenuifolia and $\frac{1}{8}$ Mloko., its parents being PINK 'N YELLOW, seed parent and HEDGE-MASTER its pollen parent, both of my own breeding. It has no pollen, has good carpels and produces seed very well. Blooms early and long as the many laterals start opening from the top down giving us about two weeks of good bloom.

I also have several plants that I am testing as pollen producers but will have to learn a lot more about them before I do anything with them. I have already noticed that some of them begat a much larger percentage of very fine offspring than others that never seem to come up with any thing very good.

* * * * * *

Cut off all foliage and stems of peonies close to the ground and burn, to prevent spread of disease. Early November is a good time to do it. Just before that time is permissible.

- 43 -

RAIN, RAIN, RAIN in New Zealand

Lesley Anderson,

November 19, 1974.

I have a suspicion the bed is becoming too crowded, as the growth has been tremendous.

Certainly they look healthy, with one or two exceptions. I'm hoping we get a dry summer, unlike last year, to help repair the damage. The peonies had wet feet for at least eight months of the year, so I suppose it is not surprising to find some evidence of ill-health some deformed buds, crinkly leaves etc.. Nevertheless, I have had some wonderful blooms—Buckeye Belle, Red Charm, Isani Gidui and one of Miss Saunders being particularly fine.

Unfortunately disease (botrytis) struck another one of hers but I have sprayed assiduously, so hope for better things next year.

December 4, 1974

"We have had the hottest November in 16 years. The driest since 1948. The weather has really gone crazy. As I have written, up to the end of October, we had more than doubled our rainfall.

I was in fear and trembling as regards the peonies' survival, for the ground was rock hard. Compacted to an extraordinary degree.

This last week, I have had to use the hose, as we have had temperatures from 22-30 degrees. The ground has at last dried out. The peony bloom has varied a great deal.

Doris Cooper was poor, Moonrise seemed to have caught some dread disease, which rotted the buds. I have sprayed regularly with Cupiox and Benlate but despite this, there has been a great deal of wilting in the center of the plants, with blackening of some leaves and stems. In some plants, the leaves became curled. Golden Splendor was one and the blossoms were smaller than last year. Other peony growers have had the same problems as I have had.

"Nevertheless, I have had some lovely blossoms." Lesley

* * * * * *

See the new colored slide collection of peonies. For your own entertainment, for clubs or programs. Minimum fee. Write Richard Edblom, Chairman Colored Slides, 6917 - 45th Avenue No., Minneapolis, Minnesota 55428.

- 44 -

REGISTRATION

MULTIFLORA.

(6301)November 1, 1974. Ben Gilbertson, Kindred, North Dakota. 58081.

Three way hybrid of Mloko-Lactiflora-Tenuifolia. Double, light pink.

Seed parent—Hedgemaster, $\frac{1}{4}$ Mloko and $\frac{3}{4}$ Lactiflora.

Pollen parent—Pink'N'Yellow, 1/4 Tenuifolia and 3/4 Lactiflora. First bloomed in 1970.

Height 26", early, strong stems, good substance, one to eleven buds per stem. Sets seeds freely. Ball form, reliable, no pollen, and no fragrance. Increases good, medium green foliage, good till freeze. One three-year-old plant in summer of 1974 had 49 large flowers over a two week period.

WINE RED. (6502)November 1, 1974.

Ben Gilbertson, Kindred, North Dakota. 58051.

Lactiflora, double, wine red.

Seed parent, seedling 5908.

Pollen parent, 6001.

First bloomed 1969.

Height 24", midseason, very good stems, good substance, one to three buds per stem. No pollen, no fragrance. Good bloom, stamens, sets seeds, ball form, reliable. Increases good, medium green foliage.

Plant second generation of original peony cross of Philippe Rivoire on Kansas. The seed parent and the pollen parent are the result of my initial cross. It does not resemble either of its grandparents, but would fit in somewhere between the two of them.

My primary object in registering this peony plant is to make it available to peony breeders and hybridizers as breeding stock.

ALPINE AIRE (Eldren W. Minks 1974) FMS 71. Double.

Minks Fairway Gardens, Albert Lea, Minnesota 56007.

Sport of Festiva Maxima.

First bloomed 1971, semi-ball, floriferous, good substance. Some stamens and pollen, seeds, reliable with 1-3 buds per stem. Good stem strength, 36 inch height, midseason, excellent vigor, glossy foliage.

Alpine Aire is distinguished from other cultivars of its type by a frilling and lacing of the petal extremities. Color, alpine white with some sun glitter, commands attention in the landscape.

This cultvar is a worthy addition to the peony world.

*

WANTED — SEPTEMBER 1944 BULLETIN #95. SECRETARY.

 \odot

IN MEMORIAM

PHARON B. DENLINGER

Pharon B. Denlinger, age 67 of 5362 Free Pike, owner of P.B. Denlinger Real Estate and Peony Farm died Friday at Good Samaritan hospital after an extended illness. He is survived by his wife Clara D.; daughters, Mrs. Marvin (Phyllis Jean) Phillips, Dayton and Mrs. John (Sharon Ann) Howell, Dayton; Five grandchildren, three sisters, and two brothers. He was Past Director of Dayton Area Board of Realtors, a member of the National Institute of Farm Land Brokers and Traders Club International, also was Land acquisitioner for Newfields, Past Pres. of the American Peony Society, past member of the Dayton Mercator Club & Trotwood Optimist. He was a member of Inland Anchor Club, Trotwood Rotary, Madison Grange, Wally Byam Caravan Club of Airstream International. A member of Mystic Lodge F & AM No. 405, Scottish Rite, Westbrook Club, Antioch Shrine serving with the Jesters & Clown Unit Patrol. He was a member of the Trotwood, Church of the Brethren where funeral services were held 11:00 a.m., Monday, January 13, 1975.

Mr. Denlinger was President of the American Peony Society 1966-1968. Was Vice President and presently on the Board of Directors, serving thirteen years previously.

PHARON . . . MY FRIEND

Taking time to show children four leaf clovers

Sending a rare book because we share an interest

Hour after hour cheerfully helping pass out peony blooms at the show

Always smiling, always happy, always positive, always giving of himself . . . entirely.

Radiating love . . . to children, for nature, to his wonderful wife to everyone.

> We'll all miss him Heaven is in for a treat

> > -46 -

A. H. NEHRLING, EX-PROFESSOR AT CORNELL U.

Boston Herald American—Nov. 25th, 1974.

Funeral services will be held tomorrow at 1:30 p.m. in the Congregational Church of Needham for Arno H. Nehrling, 88, of 3 Carey Rd., Needham, who died at the Glover Memorial Hospital Saturday, Nov. 23, after a lengthy illness.

A noted horticulturist and author, he was formerly professor of floriculture at Cornell University. For 32 years he was executive secretary and director of exhibitions and publications of the Massachusetts Horticultural Society.

With his wife, he was co-author of numerous books on horticulture.

A resident of Needham for 41 years, he leaves his wife, Irene (Dahlberg); a son, A. Herbert, Jr. of Wilmington Del.; a daughter, Mrs. Warren P. (Dorothy) Higgins of Meadowbrook, Pa.; four grandchildren.

Arno & Irene Nehrling authored the book "Peonies Outdoors and In."

LEONELL T. PAQUETT

Our long time member, Mr. Leonell T. Paquett, Paquett Garden, Saginaw, Michigan passed away, October 23, 1974.

A peony will last a lifetime, if given some care. Patience and Peonies go together. Give a new plant a year or two to develop into maturity. The third and fourth year will be most rewarding as to bloom and it will continue for years.

Do not remove the foliage of your peony after blooming. The plants secure nourishment in form of oxygen and nitrogen through the leaves. When cutting the bloom for the house leave at least two sets of leaves on each stem. Do not cut all flowers from the plant. It is better to leave at least half the bloom.

If you have a beautiful peony growing in your yard, that rewards you with blossoms year after year, do not be tempted to dig down and break off a section for a friend or relative. Wait until early fall and then remove the entire plant and divide it, replanting the portion or portions that you want to keep. Replanting or disturbing them after they have become established retards their productivity of both roots and flowers.

 \odot

Digitized by Google

By John Simkins

The whole process of growing peonies from seed is one of wonder.

As I follow the germination of the seed, the first root and then the leaf I wonder at each stage, what this seed will produce.

When the roots grow I wonder if it will produce a second root. This usually means a twin and can lead to interesting plants. Then as the first leaves are produced I wonder what their shape foretells. If they are herbaceous, are they a hybrid? If an Itoh cross, did it work? If a tree peony, will it be different?

Let us look at a few leaves and see if they are any promises of fulfilled dreams.

These are all the first leaves produced. Fig. 1 is a typical lactiflora leaf with its five shiny lobes in a characteristic pattern. Figs. 2 and 3 are typical tree peony leaves which are glabious (not shiny) and have three lobes.

Figs. 4 and 5 are two different herbaceous leaves with three lobes, characteristic of seeds from Mr. L. Cousin's varieties. Fig. 6 is a tree peony leaf partly transformed to five lobes with lighter tinged edges. These are typical of seeds obtained from John Wister's garden at Swathmore.

Fig. 7 is a seedling which has only two lobes. I wonder what this foretells?

Now we come to the real interesting ones. Fig. 8 is from a seed of an open cross on Amber Moon, a Saunder's lutea hybrid.

These are quite rare. This leaf has three much indented lobes. Figs. 9 and 10 look quite similar and I hope they are rare lutea crosses. The seed came from Gratwick's, where many exotic tree peonies grow.

Fig. 11 is a cross obtained using Alice Harding pollen on LeJour which is a Shaylor white single. I hope it is the Itoh cross, it surely isn't the typical lactiflora leaf.

Fig. 12 is different than anything else I have. It has four lobes, is glaucous and maybe the rarest find of all.

It would be convenient if we could foretell the end result from the shape of the seedling leaf but this would destroy a dream.

* * * *

Records of Professor Saunders that are of historical value were given to the Society.

On behalf of the American Peony Society, appreciation and thanks to Silvia Saunders for these valued papers.

Greta M. Kessenich, Secretary.

- 48 -



Mkolosewitsch, Edward. (P. Mlokosewitchi named for him by Lomakin.) Was a forester in the Russian Caucasus near Lagodechi. His daughter traveled for Wilhelm Kesselring of Petersburg in 1908 and collected GENTIANA LAGODECHINA and other valuable plants. PRIMULA JULIAE introduced by her was named after her by Kusnezov.

WITTMANN (Paeonia WITTMANNIANA is named for him) German horticulturist who traveled on behalf of the Russian Government in the south of Russia. (Caucasus). In 1841 he returned with many seeds and plants—peonies as well as others—which were sent to Nikitz. There was a book published in 1804, in German, Wittmann's Travels in Turkey, Syria and Egypt. I do not know whether this was the same Wittmann.

The biographical data was sent to Professor A. P. Saunders from Mr. Steffen of Pillintz, near Dresden, Germany. — Bulletin # 42.

- 49 -

PUBLICATIONS

- The Peonies, edited by John C. Wister (1962). Published by the American Horticultural Society, Wellington, Mt. Vernon, Va. 22121. 220 pages, information on Herbaceous, Tree and Hybrid Peonies. Many techniques of growing, propagation and breeding. A must for every Hybridizer. Price to Members, Clothbound \$3.50, Paperbound \$2.50.
- Peonies Outdoors and In by Arno and Irene Nehrling (1960) 288 pages containing information in all phases on the herbaceous and tree peony. Society members \$4.95.

Send check or money order for the above literature to American Peony Society, 250 Interlachen Road, Hopkins, Minnesota 55343.

A set of 80 35mm. color slides may be rented for a two-week period by sending a check for \$7.50 payable to the American Peony Society to Richard W. Edblom, 6917 45th Avenue North, Minneapolis, Minnesota 55428. The type of slides desired should be specified; for example, all tree peonies, all herbaceous hybrids, all lactifloras or a mixture of these three types. A list of names accompanies each set. Orders should be made at least four weeks in advance. The renter must insure the slides for \$50. A charge of \$2.00 is made for every slide missing upon return.





- 1/24 8 4 4 4 4





(YF

This is the ancient Kan (Chinese) symbol fo flower especially evol ing the peony which the regarded as the king o flowers.

Above Chinese Dragon

Saunders) Tree eony. Bright crimon with distinctive inged blossoms. ttractive laciniat-1 fine foliage.

Below Dawn Pink

Sass, 1946) (Earlyingle) - Speckled, ttractive shell pink. xcellent for garen or landscape.



Pictures furnished and cover printed by Chas. Klehm & Son.



Digitized by Google

Original from PENN STATE