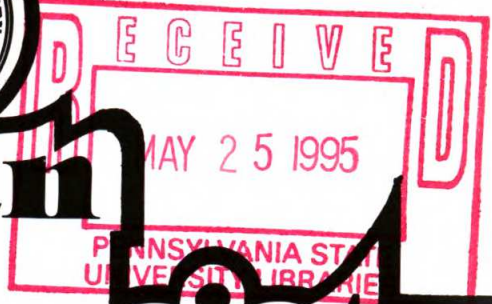


Life Sci
June 1995
NO. 294

The American Peony Society Bulletin



*Marie Laurencin
(Daphnis)*

Photograph by Nassos Daphnis

Announcing

The limited publication of a "TABLE TOP" edition devoted exclusively to

AMERICAN TREE PEONIES



Appended cultural notes cover:

- *Tree Peony history*
- *Planting and general culture*
- *Propagation by root grafting of scions*
- *Pruning, fertilization, winter protection, etc.*

Compiled and edited by
Greta M. Kessenich;
photos by Roy Klehm
and David Reath



63 BRILLIANT FULL COLOR PHOTOS

True, tree peonies with their 1400 year history are not native to America. But a class of exceptional HYBRID tree peonies are. Efforts by seven world renowned American hybridizers* who successfully cross-pollinated *P. Lutea* with *P. Suffructicosa* are covered in this limited edition. Photos are razor sharp in detail and reflect all the brilliance and subtle hues of these native Americans, including the new generation of ITOH's.

* A.P. Saunders, William Gratwick, Nassos Daphnis,
David Reath, Toichi Domoto,
Don Hollingsworth and Roger Anderson

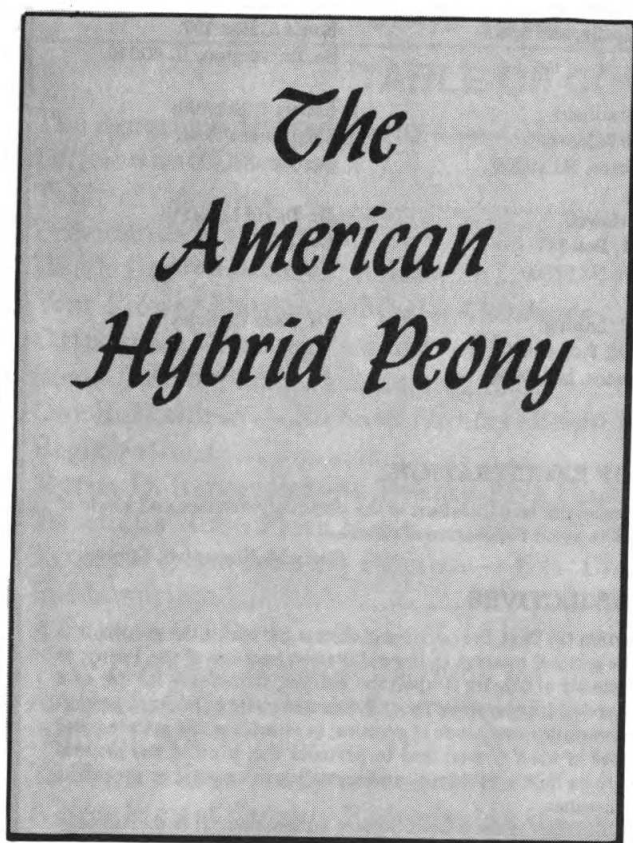
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*Devised and
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DEPT. OF REGISTRATION

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

Greta M. Kessenich, Secretary

OBJECTIVES

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

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

MEMBERSHIP

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

Single Annual	\$7.50	Junior or member family	\$2.50
Single Triennial	20.00	Life	150.00
Family Annual	10.00	Commercial membership	25.00
Family Triennial	27.50		

Family membership, any two related members in same householdOne Bulletin

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

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



AMERICAN Peony Society Bulletin



June 1995 — NO. 294

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PRESIDENT'S MESSAGE

Dear Friends:

Because of our Editor's superb record of getting this *Bulletin* mailed in time to be delivered before the publication month, many readers will read these words while their peonies are still flowering.

Here in Northwest Missouri, we ordinarily have some of the Early Herbaceous Hybrids in flower by May 1. In Kansas City, we sometimes had Laddie and Roselette in flower by April 10 or soon thereafter, while the late flowering kinds would extend into the first days of June.

Now is the time to make selection notes based upon performance in the garden. We can learn about the appealing characteristics of the flowers on the show table, and sometimes from pictures, but to rate the cultivar (variety) upon its adaptation for ornamental display in the landscape, it must be seen flowering on the plant and exposed to whatever the weather has to offer.

Not all peonies are well suited for all purposes. Some are much more satisfactory than are others when left to flower in the landscape. Some do not stand well while their flowers are opened, while others have less than optimum harmony among their ornamental characters. For cutflower production, such disharmony may be of no particular concern. Other kinds are especially reliable at producing exhibition quality flowers and may be kept for that purpose without much regard for landscape attributes.

The 1995 APS meeting at Kalamazoo, Michigan will feature a garden tour, in addition to the traditional show table exhibition. We hope to see you there. Meanwhile, try to visit gardens in your home locale where you can evaluate some unfamiliar peonies. Write our Editor to report what you like to see in garden peonies, as well as what you would like to avoid. Breeders and the propagators who decide which peonies to produce for distribution need to hear your thoughts on this.

Best wishes to all for a great gardening season,
Don Hollingsworth

Marie Laurencin (Daphnis)

A semi-double of soft coral pink petals. Deeper color in the center of pink to red to purple. Flower displayed above the glossy foliage. An elegant flower.

EARTH DAY

Greta M. Kessenich

Since 1979, 70% of North America's landfills have reached capacity. Although Americans are recycling more, they also generate more trash than ever before, according to EPA. Americans threw out 196 million tons of garbage in 1990, up 8% from 1988. Grass clippings and leaves account for 18% of waste sent to landfills. During the growing season, yard wastes account for 50%; grass clippings account for 75% of the total yard waste. Leaves make up 20%. [All percentages quoted are from *Organic Gardening*.]

Composting would reduce these wastes. It turns leaves, grass clippings and other garbage into rich earth. In a very short time, that soil would be ready to put on your garden and lawn. Select a place for a compost pile, stretch a chicken wire around a desired square, and begin to fill it with refuse from your own yard. It makes the best soil conditioner for clay or sandy soil. Your plants will respond even though the compost is not in soil form. Your peonies need this added bonus. They respond with strong stems, a healthy plant giving an abundance of good bloom.

High nitrogen materials are: Grass 25.1; Fruit waste 45.1; Humus 10.1; and Vegetable waste 15.1.

Oak leaves, Maple leaves, Ash leaves and Corn stocks range around 50.1 in high carbon material. A mix of all of them in your compost will produce nature's best soil.

(From the *Avant Gardener*, Mr. Thomas Powell, Editor and Publisher, has written the following 'Rethinking Lawns.')

The lawn is practically an American institution, a deep green sod being a goal even in desert regions. But the home turf has come under fire lately for its enormous consumption of energy, water and chemicals.

This has led some gardeners to espouse abolishing the lawn, replacing it with groundcovers, flower or mixed borders, or almost any other type of planting. Others see wisdom in simply reducing the size of lawns, or perhaps planting "alternative lawns"—these include meadow or prairie lawns of grasses and wildflowers, scented lawns of chamomile, lavender or peppermint, and even turfs of creeping thyme, yarrow or pussytoes.

The majority of homeowners, however, are opting for some reduction in the size of their lawns, and much less expenditure of energy and resources on them. They're waking up to the fact that for nearly 50 years we have been grossly oversold on the need for intensive lawn management. The average home lawn has been overwatered, fertilized too much and improperly, and mowed too close—all of which produces a weak turf prone to weeds, disease and bugs.

The new rules are: mow high and often, and water deeply (6" to

8") only in long drought; in short dry periods, the grass will go dormant but will green up with the first rain. Leaving the clippings on the lawn when you mow will supply as much as half of its fertilizer needs. Clover is often included in seed mixes today to add more nitrogen. Topdressing with compost plus activated sewage sludge and liquid seaweed, is the best way to feed a lawn, and also prevents thatch build-up.

* * * * *

Reports have been received that some of the peony gardeners have enlarged their border gardens, and peonies are being planted. Wanting space for cut flowers, one member planted the entire backyard. Another reported that he dug up the entire lawn to plant peonies.

We as peony growers can assist individually, in this waste management program.

YOUR FLOWER GARDEN

By The Master Gardener

Everyone can have a flower garden, even with a small plot of ground. It's easy if the right methods are followed.

There are two important points to be remembered: First, the flowers should be so arranged that they will harmonize with the entire home picture; second, they should be so selected that they will give a succession of blooms throughout the growing season. The most pleasing effects can be obtained if the flowers are arranged in beds or borders. They should be planted in groups—not individually.

As for the width of your border—that depends upon the individual home. For the average home, the best effects are gained with borders ranging from four to eight feet in width and as long as desired. Borders offer amazing opportunities. The shape may vary to please the fancy of the owner . . . but I would advise a curved, rather than a straight, one, because it's more friendly, intimate, and hospitable.

Many of you have had, or will have, permanent borders. Then you realize, probably, that perennial flowers ordinarily form the framework. Some of them bloom early in the Spring and their rich, green foliage remains during the entire season. And in the meantime you can add annuals to your borders to provide a variety of colors, and to help you have a succession of blooms throughout the Summer.

The question of what perennials to use is sometimes difficult to decide. But here are some that are not hard to succeed with if you use moderate care: herbaceous and tree peonies, lilies, hosta, daylily, columbine, phlox, iris, both the tall bearded and the Siberian, Fall aster, many kinds of ornamental grasses, ferns, astilbe; in addition, the annuals also go in the border garden, and the zinnia and marigold are so easy to grow. There is the petunia, daisy, batchelor's button, cosmos, Salvia, blue and red, not forgetting the colorful impatiens, just right for the shady places. Annuals and perennials must get from the soil the essential plant food elements. Your flowers will then respond and give you much beauty, so give them the correct fertilizer.

Many requests have been received for information regarding cut flowers.

The following was written by a veteran in the business, Myron D. Bigger of Topeka, Kansas. He has had years of experience with growing, showing and cutting the peony at the opportune time. Depending on the season, he always had cut flowers for the trade at Memorial Day.

CUTTING AND STORING PEONIES

Myron D. Bigger

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

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

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

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

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

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

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

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

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

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

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

Bomb-type, like **Snow Mountain, Charlies White, Mons Jules Elie, Felix Crousse** and many others, will take longer storage and perform well when removed.

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

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

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

★ ★ ★ ★

SOME PEONY DON'TS

1. Don't divide plants less than two years old.
2. Don't plant big clumps or 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.
9. Do not start watering unless you can keep it up and do not merely sprinkle the surface. This does little good. They will endure dry weather amazingly well. Even though the plants die down, prematurely, from drought, they will usually come up and grow the next year as well as ever. It is a noteworthy fact that all hard-to-open varieties will bloom well, following a dry summer.

OUR BERKSHIRES

4,000 ORGANIC PEONIES

by Richard Nunley

The Berkshire Eagle, Wed., June 15, 1994, NEW LEBANON, NY

One bright and breezy day last week I tagged along after the Lebanon Valley Garden Club to Brian Baker's peony farm in Stephentown. He has about 4,000 bushes under cultivation now, a number he plans to increase to about 6,000 by the end of the planting season next Fall, all organically grown.

His peony plantations step down a steep eastward slope that faces, across the valley which Route 22 runs up, the whole wooded rampart of the Taconics forming the line between New York and Massachusetts, an outlook of heady dramatic beauty.

The sky was deep blue, and the green forest flashed white as the stiff wind thrashed across it and, racing uphill, set the hundreds of heavily budded peonies to tossing and flashing, too.

* * * *

Brian is really a lawyer. (He greeted us in a black T-shirt printed with Shakespeare's immortal words from 2 Henry VI: "The first thing we do, let's kill all the lawyers.")

Years ago he worked for the city of New York, but with a change of administration, he decided he wanted a sabbatical from the law and moved up to his weekend place in Stephentown, his plan being to raise vegetables for sale in Manhattan's "Greenmarket" farmers markets.

The hillside farm he bought in the early '80's had long before grown up to scrubby brush, which little bit by little bit he cleared. The soil was wretched—infertile shaley hardpan that would hardly grow grass. Patiently he tilled long terraces across the face of the slope, repeatedly turning buckwheat and rye under as green manure and piling on leaves, straw, grass clippings, chips, peat moss, manure, limestone and greensand—anything he could lay his hands on to improve the fertility and tilth of his land—even newspapers.

He got into cut flowers to lengthen his selling season—summer's half gone before vegetables begin production at his elevation. He started with lilies, which were quite a success, but troublesome to ship and highly vulnerable to deer, neither of which peonies are. (About all that's left of that part of the venture are big clumps of camassia.) Gradually he phased out of vegetables and lilies to concentrate exclusively on peonies.

The peonies are cut when the buds are about golf ball size and just beginning to break open and show color. (He's in the midst of his 10-day to two-week cutting season now.) Stems are cut as long as possible and stripped of all but their top leaves. Packed in bundles of 10, they are stacked in a cooler, thousands at a time, until well before

dawn, he hits the turnpike in his peony-laden van bound for the Boston Flower Exchange on Albany Street. He expects to make four runs to market this year. At his altitude, he can supply peonies well after other growers' season is over.

This brief and intense marketing season culminates a year of planning, building soil, propagating and planting stock, fertilizing, mulching, weeding, spraying, disbudding, and irrigating, combined with nail-biting when the weatherman talks about baseball-size hail and tornadoes. All this is juggled with an increasing law practice on Stephen-town's Main Street. "You learn to work fast and work smart," he says.

A Princeton graduate, Class of '66, he is a stocky, blue-eyed bundle of cheerful energy, humorous and purposeful, who can put his mind to several things at once. William James said the object of education is to train people to operate at their "highest pitch of energy;" if so, Baker has been very well-educated, indeed.

Wearing an old fatigue hat with shiny captain's bars pinned on front (he served in the army in Germany and Vietnam), he led the ladies and me briskly down the hill, fielding half a dozen queries at once, explaining, demonstrating, diving occasionally for reference into his wind-riffled file of legal-size gardening notes, whipping out the Smith and Hawken snippers he always carries to nip off frost-blasted buds overlooked during disbudding, pawing up a handful of dirt to check on soil conditions under the straw mulch. Birds swooped and darted about—he depends on them for insect control.

Piles of newspapers, bales of wet straw, bags of leaves accumulated at the edge of the field, assembled for eventual use on new terraces. Here and there were stacked up flattish hunks of tilled-up shale like little Buddhist monuments—an idea he brought back from trekking in Nepal in December of 1976.

Often we have reason to mourn the decline of life-on-the-land in the Berkshires.

But as the vigorous sight of Baker's 4,000 peonies shows, with initiative, ingenuity, and boundless energy, it's still possible.

One person's enterprise heartens all of us. It's contagious.

REGISTRATIONS

BERNICE CARR (Don Hollingsworth), Maryville, Missouri, April 21, 1995.

Parentage **Nippon Gold x Cytherea**. Seedling #1864. Medium pink, semi-double lactiflora. Bloomed 1980. Good substance, flat form, stamens, pollen and seeds. Reliable with prolific amount of bloom. Stout stems, height 34-36 inches, midseason bloom. Dark green robust foliage, develops Fall color. Well proportioned while in flower and throughout the season.

★ ★ ★ ★

**MYRON D. BIGGER, 201 N. RICE ROAD,
TOPEKA, KANSAS 66616,
SELECTS 25 PEONIES**

Some fragrant peonies, by demand:

PINK DERBY—Pink blended to white center ball surrounded by dark pink petals.

KANSAS—A Gold Medal peony (1940 introduction), a beautiful red, dependable.

SHAWNEE ROSE—A good peony, rose color, double.

ADONIS—One of the great Sass peonies of 1930, strong stems, double pink.

PINK WONDER—1950 double pink, the base of the petals are slightly darker.

ORANGE LACE—Light pink Jap. Yellow and pink center.

COMMANCHE—Medium rose red, stamens, finely cut.

TOPEKA GARNET—Single, garnet color, bloom cover the bush.

LA PERLE—(Crousse 1886), a double pink with spicy fragrance, large flower.

ROSE SHAYLOR—(Shaylor 1920), pale pink, tinted rose pink, large flower, mild fragrance.

LILLIAN GUMM—(Gumm 1921), double pink, outer petals ruffled.

MONS JULES ELIE—(Crousse 1888), double pink, mildly fragrant.

CLOUD CAP—Large pink to white, rose type.

TRAFFORD W. BIGGER—Dark brown red Jap.

TOPEKA STATUTE—Light pink to white, Japanese.

SPELLBINDER—Single white.

SPARKLING STAR—A true pink single flower which radiates. A garden value and a long-lasting flower.

HI-MABEL—(1961), Bockstoe, bright pink hybrid, double rose center.

PINNACLE—Large near-white double.

PHILIPPE RIVOIRE—(Rivoire 1911), double red, good rose scented.

HENRY BOCKSTOCE—(Bockstoe 1955), dark red double hybrid.

CANDY HEART—White double tinted pink.

POWDER PUFF—Dwarf, pink to creamy white, bomb center.

ELLA CHRISTENSEN—(Brand 1925), double pink and fragrant.

ASA GREY—(Crousse 1886), double pink, fragrant, an occasional crimson edge.

TENNIFOLIA RUBA FLORA PLENA—Is it or is it not? I got my first fern leaf about 1930. It was pretty and very nice until I divided it. This was very hard to do and the little roots that fell off did not grow. The flower and foliage were correct but to multiply it was very difficult. In 1992 I bought two plants from a lady living near Topeka. I brought them home and turned the hose on the roots and they were stoloniferous, and I had a new experience. I did not know that Laddie was a hybrid of Tennifolia and it is not stoloniferous.

I divided the little plants, pretty much with my bare hands. Every root grew and they now make a beautiful row. Almost all have buds in 1995.

The roots that I have had all of these years must have been some of the hybrids. They were so difficult to divide. If you have Tennifolia Rubra Flora Plena that is not stoloniferous, you have one of the hybrids.

—Myron D. Bigger

In June Mr. Bigger will have a birthday. We extend greeting for a pleasant day with many happy returns. He has been a member of the American Peony Society since 1926. He has held every office and knows every facet of the Organization. He produces fine peonies of quality and beauty. He has sold peony roots and cut flowers for the many years. He is one of the great and knowledgeable peony men of today. He was one of the eight peony persons selected for the committee to write the information for the book "*The Peonies*," edited by Dr. John C. Wister.



EXCERPTS FROM GROWING PEONIES

Wm. Christman

LOCATION AND SOIL—This is naturally the first question that arises when we are contemplating any planting, and it is quite essential to know a few important facts concerning the peony to get the best results.

Drainage is very necessary as peonies will resent wet, soggy soil. **Good drainage is imperative.** Select a position where they will have full access to the sun a greater portion of the day. They should not be planted near trees or large growing shrubbery that will impoverish the soil, thus robbing the plant of essential plant food. It is safe to figure that the roots extend from a tree or shrub, a distance equal to the height. If necessary to plant nearer than this, some provision should be made for extra fertilization.

TIME TO PLANT—The month of September is perhaps the ideal month in which to plant peonies. The earlier in the Fall they can be set the better, as this will give them a chance to become established before winter weather prevents further growth. However,

peonies may be planted later in the fall up to heavy freezing weather or even in the Spring and give very good results.

HOW TO PLANT—All peony catalogues contain instructions as to method of planting, but some of these instructions are rather brief. Planting of peonies is an important operation and there is no ONE way to accomplish the work. Before planting operations are commenced the soil in which they are to be placed should have been thoroughly prepared some time in advance. If the ground is well enriched several months before planting time, so much the better. Dig the hole sufficiently large to permit the root to be placed in position without crowding. This is so often overlooked by beginners, and by crowding the roots they are apt to be broken from the crown or otherwise damaged so the best results will not be obtained. The next important step is to see that the crown is not placed too deep (two inches being sufficient), and that the dirt is thoroughly firmed about the roots. Some advocate using a hose or otherwise washing the soil about the roots and avoiding the packing of earth. If your ground has been thoroughly prepared and not too large quantities of dirt placed over the roots at first, pressure of the foot will force the mellow soil firmly about the roots and will also prevent any appreciable settling. Common sense must be used not to tramp on the crown of the plants as this would surely result in injury. In ordinary soil there is sufficient moisture to firm the roots without heavy applications of water which may result in baking if followed by hot weather, especially in heavy soil. If the soil is dry, water freely after the roots have been planted.

VARIATION IN COLOR—Plants grown on heavy soil will have deeper or more marked coloring than the same variety grown on light soil. Climatic conditions are also a factor to be reckoned with. Variation caused by these conditions is sometimes misleading. A delicate colored variety will rapidly fade in the sun and be deprived of its natural color entirely. This can be avoided by cutting the bloom as it is about to unfold, taking it in the house and keeping in a cool, dark place, until fully developed. During the blooming period if it happens to be cool and cloudy, you will have much better flowers although their development will be somewhat retarded.

DISEASE—The peony, while practically free from disease, is not immune, and to be insured of plants free from disease, it is well to be conversant with a few of the indications that are prevalent in diseased plants. It is my intention to touch but lightly on this subject as the Nurseryman is the fellow who must be on his guard and know how to combat these various maladies, and should have his stock healthy before disseminating it. The amateur may receive perfectly healthy plants and they may become diseased. Too much fertilization is one of the prevailing and primary causes of disease.

Leaf blotch is quite prevalent in large peony plantings. It is not a

serious ailment and does not materially affect the plant. This is more prevalent late in the season as the plants are about to mature. It is a fungus disease and can best be eradicated by cutting and burning the tops before the leaves have dried up and fallen late in the season.

Botrytis blight is one of the most common diseases easily discovered in a peony planting. It affects the stems, buds and leaves. Stems diseased by this blight are discernible in the early Spring after they have attained a height of a few inches, even before the leaves have expanded. These young shoots may appear perfectly healthy upon first inspection but a few days later will be found wilted and lying on the ground. Sometimes the stalks will attain maturity and be about ready to throw a blossom when they are stricken down. A second stage of the disease is shown in the buds, which will turn black and wither. If the stalk is examined it will be found dead several inches below the bud. In very wet seasons this disease is more prevalent and often exceedingly destructive. The leaves are usually the last to show symptoms of the disease by becoming brown and dry due to the tissues being killed. Plants affected must be carefully watched and as soon as the stem shows wilt, dig down an inch or two below the surface of the ground, being cautious to carefully remove the earth directly about the plant, and place it in some container that it may later be removed to the ash can or otherwise destroyed. You will note after the earth is removed that directly below the surface of the ground the stem of the plant will invariably be rotted off or consist of a decayed mass. With a sharp knife remove the stem below the decayed portion, which will be found to extend but a short distance below the surface. In handling this diseased portion exercise caution to see that you do not touch the balance of the unaffected plant, as the disease is readily transmittable. Burn the diseased portion of the plants. This is also a fungus disease and very similar to Sclerotinia Stem Rot. If the plants are badly affected they should be dug up, all tops removed carefully as low as possible without disturbing the bud, and removed to another location. Of course, this planting should be deferred to the proper season. This disease, while one of the most destructive, does not affect the root of the plant, and can be entirely eradicated if the above measures are resorted to.

REMOVING TOPS—Is late in the Fall after the plant has attained its growth for the season.

IN MEMORIAM STANLEY DE REAMER

Shererville, Indiana, *December 11, 1994*

A quiet gentleman with a love for the peony, attending all Conventions and Exhibitions for many years.

A PASSION FOR PEONIES RULES HER LIFE

by Donna S. Mullinix, Indianapolis Star Staff Writer

*(Though Dorothy Knapp sells her family-owned garden shop,
she plans on staying busy.)*

Bridge players of the world—or at least Carmel environs—take cover:

Dorothy Knapp has sold her family-owned garden and landscape company, Sundown Gardens, and is retiring. That means she's free to play bridge almost as much as she wants to—which is morning, noon and night.

She might get around to cooking, too, something she says she hasn't had time to do lately.

It's a wonder she's had time to cook any in the past 45 years. It was 1949 when she and her engineer husband, Earl—just out of the military—bought about 13 acres west of downtown Carmel and planted 7,000 peonies.

Dorothy Knapp knew about peonies. Her dad, Russell Jones, owned a hardware store in Peru, but he hybridized peonies on the side.

"I was about 3 years old and went with him when he bought his first peony collection," she recalls.

The Jones yard included seven acres of flowers, where young Dorothy worked alongside her dad.

She not only *knew* about peonies, the state flower, but she also loved them. So it seemed a good idea that, while Earl worked as the state landscape supervisor, she should grow peonies to sell.

They cleared off the land they'd bought, some of it a virtual briar patch, complete with poison ivy. Earl designed and built their house, and they planted peonies (which, in case you didn't know, come in hundreds of varieties).

Dorothy worked the garden during the week, and Earl pitched in on weekends. Customers came to view and buy cut flowers or plants from their displays on shelves in their basement.

Over the years, Earl moved to the State Toll Road Division, then retired from Dow Chemical Co. And Dorothy, with occasional advice from her dad, prospered in the garden business. Sundown Gardens became famous for its beautiful peonies, not to mention perennials, annuals, bulbs, shrubs, trees, etc.

A Prize-winner

No detraction from Sundown's fame was the **Dorothy J.** peony, a national prize-winner Russell Jones had named for his daughter in 1940. People came from all over the country to see the blush-colored double flower, and Dorothy began to give talks to garden clubs, and on radio and television. Publicity was plentiful.

Now 74, Dorothy has soft curly gray hair with a subtle whisper of

the brown it once was, clear skin with just a touch of blusher on the cheeks, and brown eyes that gleam beneath soft silvery shadow.

She's had hearing problems for 20 years; she walks on a treadmill in her bathroom and swims regularly, because her doctor says it will help her leg trouble. But she sits straight and proud as she talks about the company she birthed and mothered to its current maturity.

The Knapps added perennials, then a garden shop, then a year-round Christmas and gift shop. In 1966, their only son, Stevan, started the landscape design division.

Three years later, Earl died at 50. Mother and son—co-owners—talked it over: Sell or expand. They decided on growth. A report in the *Indianapolis Business Journal* put Sundown's sales volume at 82.6 million in 1991.

Stevan says 40 percent of Sundown's business is landscape design, and "we're the largest in the area."

One key to Sundown's success, Dorothy notes, is image.

"We've kept the place immaculate—like you'd clean your own house."

The real secret of their success is "our wonderful help. I believe people treat you like you treat them. We have people who've been with us for years, many starting in high school or college. We were up to 85 employees during the summer last year," she says.

In capable hands

The year-round staff includes Stevan's wife, Judi.

Now, the business is in the hands of three of those long-time employees: Mike McDaniel, general manager and in charge of horticultural services; Todd Erb, head of landscape design, and Brian Kirchner, head of the retail division and nursery.

Sometimes, when a person retires, he or she can't bear to go back to the scene of their work years. Not Dorothy Knapp. Though Sundown is close enough that she could walk there from the ranch house she bought recently—moving off the garden property where she's lived for almost half a century, she'll more likely drive her champagne Lincoln over there every few days to be sure the "boys" are doing things right.

That will not, she vows, interfere with her bridge games; she belongs to several clubs.

"I've always worked hard—and played hard," she declares.

May be a writer

She may also add writing for gardening publications to her list of future projects.

Stevan, at 49, says he has lots of other interests to tend to, although he has a consulting deal with the new ownership, too.

"This isn't the end of anything. It's just a new phase of a fine business."

AVAILABLE REFERENCES ON PEONY BREEDING

by Don Hollingsworth

One of the frequent requests which I receive is for information as to published references on peony breeding. No doubt our Editor also receives such inquiry. The answer is easy—just about all of the Society's books devote a substantial amount of space to this subject. We have a rich reference base on the subject. Unfortunately, these books do not appear in commercial catalogs, and inquiries at scientific libraries seldom lead to success in finding them.

Recently an APS member who grows peonies in Eastern Oregon, in the foothills of the Rocky Mountains, asked, along with some other specific questions. Anne Oveson, whose family still ranches in the area where she grew up, tells me they continue to see wild plants of the native American *Paeonia brownii* in the area. In addition to American Peony Society membership, she is active in the Species Peony International Network (SPIN) and is making some rare and interesting hybrid crosses involving *P. brownii*.

Shortly afterwards I had a similar inquiry from the opposite end of the country. While there is no assurance that persons with newly-emerging breeding interests in the future will see something published now, it seems worthwhile to share a short review of these references for those who read this *Bulletin*. What follows is excerpted from my correspondence to Mrs. Oveson.

"Concerning references on peony breeding: The American Peony Society has several currently available publications which are especially important. The most recent and most specific is the book, *The American Hybrid Peony*, 1990, therefore a good choice to start. This book has more than 50 of its pages devoted to current "state of the art" information relevant to breeding, including discussions of fertility considerations and the inheritance of wanted ornamental characters. There is a Q & A section on concepts and terminology and the A. P. Saunders historic article upon the basics of peony breeding is also reprinted. Saunders' writings are extraordinarily readable and although his peony breeding work was done in the first half of this century, the guidance he provided is as relevant today as when written. Saunders was the most scientifically oriented peony breeder of all time and it was he who originated the major portion of the hybrids from which we are breeding to this day.

"I also recommend *The American Peony Society, 75 Years*, 1979 (commonly called "*The Best of 75 Years*"), a book made up of articles published in the Society's periodicals during its first 75 years. This gives a valuable historical perspective and devotes a major section to the prolific writings of A. P. Saunders, and another to articles on

hybridizing and newer applied technology. An equally important work which complements the breeding information in the 75 years book (or the other way around) is John C. Wister, ed., *The Peonies*, 1962.

"Then there is the *Handbook of the Peony*, the basic guide to peony growing (obtain the current edition), and the periodic check-lists of recognized cultivar names (1976 and 1986). The latter give descriptions and sometimes pedigree information. All of the foregoing are available from the American Peony Society and should be at hand for reference.

"Most of the plant breeding information which is unique to peonies, and ultimately that which is most useful, comes from people who are not devoting a scientific career to it even if they are professionals in some field of scientific inquiry or applied sciences. (Perhaps one of the things which makes peony breeding explorations attractive as an avocational activity is the singular lack of competition from commercial and academic research professionals.)

"So, we simply must be tolerant of any lack of precision in what our co-workers in peony breeding take time to report, for that is virtually the only place we are going to get the useful information. Therefore, my own approach has been to read and listen to such information about what has happened in peony breeding and what the observer thinks it means. If it is new to me or makes sense in light of what I have tentatively concluded already, it gets incorporated into the way I look at the possibilities. I am grateful for whatever information my compatriots are willing to share."

★ ★ ★ ★

* * * * *

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

* * * * *

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THE PEONIES

BY

JOHN C. WISTER, EDITOR

Prepared under his editorship by M. D. Bigger, M. C. Karrels, W. H. Krekler, G. W. Peyton, P. P. Pirone, Silvia Saunders, G. S. Wister, H. E. Wolfe

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TO PLANT A TREE PEONY

It is most important to dig a hole big and wide enough to give the plants a proper start. For plants up to three years old, dig a hole a minimum of eighteen inches deep and eighteen inches wide. This will make it easier for roots to grow and spread out. Take two handfuls of superphosphate or 5-10-5 and mix with the soil. Place the plant in the hole so that the part showing where graft was joined is two inches below ground level, and three to four inches or more in colder climates. In extremely cold climates four to six inches would be better. Then cover the plant to ground level with sufficient soil so that no hole will be left.

The best time to plant would be September, October or November when plants are dormant. Tree peonies can be planted late as long as the ground is workable. Water your plants often, feed them in early Spring.

A VERY SHORT LIST OF TREE PEONY VARIETIES

There are so many more beautiful tree peonies available

Age of Gold (Saunders)—semi-double, yellow

High Noon (Saunders)—semi-double, yellow red flare

Thunderbolt (Saunders)—single, dark crimson

Black Panther (Saunders)—semi-double, dark crimson

Ruffled Sunset (Reath)—two rows of ruffled petals, cream sufficed with rose

Exotic Era (Reath)—single, yellow-apricot-rose

Waucedah Princess (Reath)—full double, lavender-pink

Leda (Nassos Daphnis)—semi-double, orchid-pink-purple flares

Iphigenia (Nassos Daphnis)—two rows petals, deep red

Boreas (Nassos Daphnis)—semi-double, burgundy-red

Guardian of the Monastery (Gratwick)—semi-double, lavender-pink

Shentenchi (Japanese)—large, pink

Yae Zakura (Japanese)—semi-double, pink

Godaishu (Japanese)—semi-double, white

Zhao fen (Chinese)—semi-double to a ruffled ball. **Zhao** is the family name; **fen** means pink.



Peony seed pods are of great importance to the flower arrangers. They look like dog-wood flowers in shape and have the substance of wood like the wooden dog-wood flower. Many people have never seen large peony seed pods; this is because the big double peonies don't produce large seed pods. Maybe these too should be placed in the Court of Honor. I am sure that many many people would be fascinated with them. O! I tell you, there is more to the peony, than just the great big doubles in red, pink and white.

—Chris Laning

A NEW WAY OF QUICKLY REPRODUCING THE TREE PEONY

*By Wu JingXu, Agronomist, Luoyang Seed Company,
No. 3, Daonan Rd., Luoyang City, China*

It is common knowledge that commercial reproduction of the tree peony has been grafting, divisions or cuttings. For grafting, the operations are too troublesome, living rate is low, it is not easy to produce its own roots and the growth of the new plant is slower, plus the life span is also short.

Now to divisions, although the living rates are higher, the maternal plant must be bigger with many parts to divide. Reproduction rate is also small. In addition, the way of cutting is not right for production because its living rate is lower and slow growth.

Therefore, it has become most important that immediate attention be given in solving a quick reproduction of the tree peony for commercial use.

In order to solve this problem, in recent years we have done large tests and successfully created a new applicable method to quickly reproduce the tree peony. Namely, to bury the plant and layer the branches. Now this method is being used exclusively to produce tree peony seedlings, achieving good results.

Practice indicates that the method has the following merits: 1. A higher living rate; 2. Quick reproduction speed (rate of propagating is 200-500% more than divisions); 3. Growth of seedlings are identical; 4. Own root develops well; 5. Life is longer; 6. Easy to operate. It is especially applicable to the varieties of branches or plants that are higher and erect.

This way of propagation is analogous to leveling, to layer the fruit trees.

Divide the bigger plants in the Fall, then plant these smaller divisions as they are placed in an inclined position and planted in individual holes in an oblique angle of 45 degrees against the ground level. Then level so as to press the above parts, namely branches, on the surface of the soil, and cover with about 10cm thickness of soil.

This is important because the buds on the branches are all at the top positions, so at the place of nodes, roots will be produced, sprout, and grow into complete plants. After that, the young plants can be cut off the mother plant. We get many new complete young plants.

★ ★ ★ ★

***If you cut a tree, plant a tree.
It is nature's replaceable energy.***

THE TECHNIQUE OF FORCING AND RETARDING TREE PEONY BLOOM IN CHINA

By Wu Jingxu, General Manager & Senior Agronomist working in
Luoyang Huafeng United Company of peony horticulture

(Address: No. 3, Daonan Rd., Luoyang City, China)

As everyone knows, the tree peony (*Paeonia Suffruticosa* Andr.) is a world-famous flower originally produced in China, and is a symbol of fineness, happiness, luckiness, riches & honor, peace, and friendship. Its disc is comparatively larger and looks magnificent, and color & fragrance of the flower are all good. Its branches and foliages are very luxuriant, also. There are many varieties (or cultivars) which are all elegant and splendid. It has been esteemed as "The first color in the State" and "The First fragrance under heaven" and "The First-rate" among thousands of species of flowers and plants, and "The Absolute Champion" of all beautiful and fragrant flowers—"The king of flowers" since ancient times. It had been respectfully called as "The State's Flower," and recently has been evaluated so by all the Chinese people, and has deeply been liked by people of the world. Furthermore, it is easy to cultivate with a more strong adaptability, and has many uses and higher economical, social, and ecological value, so it finds even more favor in consumer's eyes.

Nevertheless, it has a shortcoming in that natural flowering times are short even concentrate excessively. For the sake of making up this defect, it is very necessary that suitable measures are artificially adopted to conduct forcing or retarding cultivation accordingly as needed.

I will now try to introduce our main present ways of doing the following things, and hope that it is helpful to the friends of America, Europe, and other countries.

I. Forcing Cultivation

The natural flowering times of Moutan (tree peony) from south to north in China are from the beginning of April to the middle of May. Therefore, in order to make Moutan blooming (namely after the flower buds have already completely differentiated or basically done so), we have generally to do forcing cultivation. The major measures are: **1. Appropriate cultivars and plants are cultivated and selected in advance.**

Suitable cultivars are early or middle blooming ones which the flower buds have already completely differentiated or basically done so and easily to bloom. For instance, Luoyang Red (Luoyang Hong), Zhao Family's Pink (Zhao Fen), Shi He Lian (blooming like lotus), Zhu Shu Lei, Lu's Pink (Lu Fen), Yu Pian Zi, Caixia, Yang Jin Hong, Jin Pao Hong, Hu Family's Red (Hu Hong), Cang Zi Hong, Bai Xue Ta (White Snow Tower), Yin Fen Jin Lin (Silver Pow-

der and Golden Scales), Wu Lang Peng Sheng, Sheng Dan Lu (Pellet-Holding Oven), etc. The plants should be 3 to 8 years old, shorter in height, grow well, disease-pest free, and with substantially developed branches, plump flower buds and well-developed roots.

So as to guarantee that the cultivars and plants are dependable, commonly we select and decide ones in this or last Spring, and conduct special, thorough administrative. Usually, on germinating, tillers are removed, and the flower buds are removed before flowering, or the remaining parts are removed after blooming so as to avoid consuming nutrition. At the same time, keep enough supply of fertilizer (especially p, k) and water, and be free of disease-pest and grass, etc. Ordinarily, water 4 to 6 times (but also pay attention to irrigation when water is too much in summer), fertilize 3 to 5 times, intertill 5 to 8 times, and spray insecticide more than 3 times in every year.

2. Putting off or relieving of dormancy. When starting to do forcing cultivation, if the leaves of the plants have not fallen, and entered dormancy, one may yet postpone the plant's dormancy by removing all foliage, namely making plants to begin new second growth without dormancy through the stimulus of picking leaves. But when the plants go into physiological dormancy term, it is necessary that they first break dormancy by changeable temperature. (For example, in order to force Moutan blooming on October 1, one way of doing this is to first put the potted plants (2) 10 to 15 and 2 days at 10 to 18°C, 0 to 3°C and 10 to 18°C separately, or low temperature of 0 to 3°C for about one month), then force them to bloom under the conditions of higher temperature, humidity and enough sunlight.

A large number of tests make clear that it is also effective to relieve dormancy that daub the buds by Gaz of 300-800 ppm.

As a result of tree peony belonging to the flower plant originated in temperate zone and having a characteristic of dormancy in winter and growing, blooming in Spring, it is a futile effort to force them when to do so, so that the plants cannot only bloom normally, but also almost all the buds cannot germinate if physiological dormancy of the plants have not been broken yet. Therefore, it is extraordinarily important to defer or get rid of the dormancy.

3. Plants must be transplanted timely and rationally. In China, the forcing cultivation is usually conducted in greenhouse or the southern place where there is higher air temperature after the plants have been removed and planted in pots. Suitable transplanting time is 35 to 60 days apart from the flowering time expected. Generally, under the conditions that the forced plants are earlier flowering varieties, or the temperature is higher, it is necessary to late transplant. If not, should do it early. When digging a plant, don't harm the roots, if possible. After that, take off the earth (it is better with soil except they are difficult to transport), cut out bad root and weak, ill branches, etc., and dry about 2 days in a shady and cool place. After that,

the roots become soft, so plant it in a pot.

The size of pot should be decided in accordance with the size of plant or roots, that common size is 35 to 40cm deep, and 25 to 30cm in diameter. The soil used to plant must be especially porous so as not to concentrate water and rot the roots.

After the plants are planted, press the soil down and water fully once. Lastly, place them in a place that is high, arid, ventilated, and where sunlight is enough to administrate.

During 2 to 4 months when air temperature shall go up gradually, it is also possible that the plants are directly forced in the field where a plastic film arch shed has been built.

4. Forcing management is certainly scientific:

a. Temperature—during the earlier stage of forcing culture (from planting, to buds setting up), it should be controlled within 10 to 20°C as far as possible. At the later stage (from flower bud expanding to blooming) it has to be kept within 15 to 25°C. If it is higher or lower, they should be shaded by sun, or heated, etc.

b. Humidity—To force bloom quickly, we have to also increase humidity. Generally, every day, separately, spray with water 5 to 8 or 3 to 4 times on branches and leaves on a fine or cloudy day so that the air relative humidity of about 85% can remain and there is suitable humidity on plant. But don't make the part of the roots too wet (or the roots will become decomposed). If water in a pot is too much, we still must irrigate.

c. Light—Tree peony is a long-day plant, and heliophilous is more strong especially at later time. Length of sunshine time can also directly affect its growth and bloom. For this reason, enough light must be given as far as possible, unless the buds have not yet sprouted, and for lengthening the bloom time. If sunlight is not enough, you may install an electric light of 100 to 300 wattage in every area of 6 to 12 square meters to replenish. They need 3 to 5 hours a day, at least.

d. Fertilizing and using of plant growth regulating agent—when the plants are planted, basic manure (such as compound fertilizer) is applied 30 grams per pot. Combining watering and intertilling, 20 grams are used in the pot every half month after, and 3 to 5% of KH_2PO_4 , etc. are sprayed on leaves each week. From flower bud germinating to the bud setting up, 100 to 300 ppm of GA₃ are used to spread on bud every second or third day so it will, obviously, impel the flower bud to grow. This is a key for success.

e. Other Treatment—during forcing culture, new buds or shoots at rhizosphere, and weak or ill branches, etc., must be timely taken off, with only 1 to 2 buds on a main branch remaining. To the over-vigorous cultivars or plants of branches and leaves, a share of larger leaf should be also picked promptly in earlier forcing times, so as to strengthen apical dominance and raise the shaping rate of buds.

II. Retarding Cultivation

Generally, in order to make tree peony blooming after natural flowering time and before the last ten days of September, providing that new buds have not formed or differentiated badly during the year, we have to make the flower buds formed last year postponing bloom by retarding cultivation. This is our usual practice.

If the time needed to put off is longer (e.g. beyond one month) the plants are stored in a cool room at 1 to 3°C with 60 to 70% humidity and certain light after they are transplanted to pots at the middle of January. Up to the time [that it is about 45 days] apart from the bloom time expected, they are carried outside the room. After they gradually suite natural temperature under shady shed, regular administration such as forcing culture, is started. But the time needed to postpone is shorter. It is probable that potted flowers are laid under the conditions which temperature is 3 to 15°C, air humidity is about 60%, and light is not too strong, so that they can grow appropriately. By this way, flowering of tree peony can be postponed.

★ ★ ★ ★

GRATWICK

TREE PEONIES

The Tree Peony is a royal plant from the Orient where it has been cultivated for a least 1400 years. Known as the "King of Flowers," or the "Flower of Riches and Honor," it has been held sacred in the gardens of monasteries and temple courts, or grown as an exclusive treasure of the Imperial Palaces. To the great artists, it has always been a favorite subject, whether in painting, poetry or ceramics, and it was traditionally embroidered on the trousseaux of princesses.

In America, though still a rarity, it is fast becoming the outstanding aristocrat of flowering plants—a treasure no "self-respecting" gardener can be without. Few plants can vie with the magnificent size of its bloom—up to 12" across. None have a wider color range—from white, pink, crimson, purple mahogany and deepest black-red of the Moutan group, to the yellows, oranges, and variegated hues of the Lutea hybrid group. But what puts the Tree Peony in a class by itself is the "sculptured delicacy and wavy elegance of its great translucent petals, crimped and glistening like a huge parrot tulip fashioned out of Oriental silk."

Tree Peonies differ from the common herbaceous peony in two conspicuous ways: (1) they develop rough-barked, woody stems which, instead of dying back to the ground each winter, continue to grow year after year so that a bush [not a tree] is formed four to six-feet-tall and as many feet across; and (2) they bloom about two weeks earlier. Tree Peony flowers are also much larger than the herbaceous kinds.

A Tree Peony is usually the most notable plant in a garden and may well be given the place of honor. A single specimen can hold the focal point in an intimate design; two look well as accents on each side of steps or the entrance path; four can be used in a balanced design at the corners of a flagged area reflected in a pool; or a group of Tree Peonies is perfectly adapted as a middleground for the flower border with lilacs in full bloom in the background. When not in blossom, Tree Peonies are still extremely handsome and an addition to any garden composition for the beauty of their leaves, the gesture of their branches, and rich autumn color.

A single flower floating in a bowl is more beautiful than the most elaborate floral arrangement. Cut the blossom early with its stem not over an inch long and watch the petals unfold and grow for almost a week. Flowers grown thus—protected from sun and wind—often become larger, and even more beautiful, than those left on the plant.

CULTURE

Under good garden conditions, the Tree Peony is easy to grow, extremely hardy, and long-lived. If you have had success with roses, lilacs, and other shrubs, then you should run into no trouble with it. It is a shrub of convenient size—three to six-feet-high, and as much across—though in age, many reach much larger dimensions. Space your plants accordingly. Tree Peonies do best in places which, though sheltered from heavy winds, have a free circulation of air. Good drainage is a necessity. The competition of heavy-feeding tree roots should be avoided, but partial shade will lengthen the life of the huge blooms. Planting is done in the Fall [never where an old peony clump has been growing, nor in strongly acid soil], where the graft line is placed at least four or five inches below the ground level. Dig a "ten-dollar hole" for each plant; this means prepare the soil to a depth of two feet, and a width of three feet, mixing in about a bushel of wet moist peat moss or leaf mold, and about two pounds of bone meal.

Plants should receive some protection during the first winter to avoid alternate freezing and thawing. Some phosphate, potash and lime can be used after the first year, but not too much nitrogen. An annual feeding of a couple of pounds of bone meal is enough under most circumstances. The roots and stem should never be in contact with manure. Being woody plants, Tree Peonies should not be cut back in the Fall, but all dead branches should be removed.

Japanese Tree Peonies begin to bloom about two weeks ahead of the common peonies (which in our area is about the end of May), and are followed about a week later by the Lutea hybrids—in all, a three-week blooming season. In mid-day, the huge flowers will appreciate a bit of shade (either from nearby trees or a lath-made shelter), to preserve the subtlety of their color, and the lovely goblet shape of their great flowers. Give them several good soakings during the blooming season if the weather is dry.

Tree Peonies are not subject to insect injury. The only serious dif-

difficulty experienced in growing them is the occasional wilting and dying back of branches, generally caused by botrytis blight. If this occurs, the affected part should be cut out and burned, and a new shoot will almost surely come up from an underground bud to take its place. If the condition becomes so serious that the new shoots keep dying back, then the plant should be dug up in the Fall, thoroughly cleaned of all diseased conditions and replanted in new clean soil. Some authorities recommend three sprayings with a good fungicide like Bordeaux, —once before the flowers open, twice afterward.

Sometimes Tree Peonies will grow and flourish for years without a bit of trouble, and sometimes not! We believe it is only fair to say so; but we also believe that American gardeners are skillful enough to grow them, and that each year more of us will share with the Orient the satisfaction of growing the "King of Flowers."

WHY SHOULD WE BE INTERESTED IN PEONIES?

W. F. Christman

In planning our gardens, we usually have a few outstanding features that we wish to follow out. One is that we desire our garden at all times to have an attractive appearance. There are few perennials that can compare with the peony in this respect. It forms a very beautiful green background as soon as the leaves appear; in June, we are presented with a beautiful display of gorgeous bloom, but this is not all. After the blooming, the plants can be trimmed up in various shapes to conform with the rest of the landscape and present a fine background the entire season until heavy frosts cut them down.

Another desire of most gardeners is to have plants that are hardy and require minimum attention. In this respect, the peony is unrivaled by any other flower. Reports come to me from far north in the Canadian country where temperatures often drop to 65 below zero and in these very sections we have members who report their peonies never fail them. What more can we say for hardiness? They will survive drought and even exist without civilization. We know no true gardener will permit them to go without cultivation, for in this way they are better able to withstand lack of moisture for extended periods of time. The general thought that peonies will not do well in the south is being disproved by a number of peony enthusiasts who have planted them as far south as Mississippi and they report splendid results. The northern section of the country is ideally suited for their culture as they need rest that Winter months afford.

I grant you that peonies do not establish themselves as rapidly as

many other perennials, but after the second year, they give a splendid account of themselves; even the first year after planting, some results may be expected. Year after year they increase in beauty and vigor if they are properly cared for. The refinement of the flower and the wide range of color combinations is most pleasing; the long period of bloom, with proper selection, the diversity of foliage formation; the splendid landscape possibilities; and the remunerative prospects are only a few of the scores of reasons why we should be interested in peonies.

The peonies of grandmother's day, while of great beauty, have been relegated to the background in many cases due to the gorgeous new forms and colors produced by hybridization during the past 25 years.

In this day and age, we are obliged to select flowers that are not constantly annoyed or damaged by insect devastation. The peony does not appeal to insects and there are very few diseases with which it is troubled.

The peony has been traced back to a report in Pliny's History A.D. 77. The possibility of its existence long before that time is doubtless true. As early as 1879, Mr. H. Huftelen in *Vick's Magazine* paid the peony this splendid tribute: "No flowering plants capable of enduring our northern Winters are more satisfactory than the peonies. Massive without being coarse, fragrant without being pungent, grand without being gaudy, various in form and color, beyond the possibility of being successfully superseded, they stand in the first rank of hardy flowers."



THE DIVINE PEONY

(A FLOWER OF ANTIQUITY VISITS THE CEMETERY)

by Audrey Y. Scharmen

In the dooryards of the old houses in this village where I live grow many venerable flowers—progeny of generations of perennials. There are lilacs and hydrangeas, iris, sweetheart roses, big pink poppies and ox-eye daisies. A profusion of old-fashioned blossoms seldom seen anywhere now but in the pleasantly disheveled gardens of such aged neighborhoods.

And there are peonies. Shiny, rotund bushes with red and white and pink petals bursting from golfball-size buds. Just in time for Decoration (or Memorial) Day.

Shepherds in prehistoric Greece claimed to have seen these lush flowers glow in the dark, and doubtless found the soft light a source of comfort on the rugged, lonely mountainsides where they kept watch. Hence, they considered the peony of divine origin and

believed it could drive away demons and devils (fear of which constantly plagued the solitary herdsman).

So it is that we—shepherds still in need of comfort—carry huge bouquets of these 'divine' flowers to the graves of our loved ones to banish evil each year on Decoration Day. Other flowers (just as lovely) may be brought, but there must be peonies. As is true of many of our traditions, the consoling myth of the peony has lingered for centuries in our subconscious.

In the old neighborhood of my childhood, there were always "pinies." They were pampered royally, given rations of water even during the severest droughts, and carefully protected from the threat of prairie storms. In such times of crisis, we cut them early, and lovingly tucked them away in the icebox on the back porch. There the partly opened flowers remained in limbo until the holiday arrived.

Early on Decoration Day, the blossoms were put into fruit jars and toted to the cemetery. In that time before plastic wreaths and silken flowers languished year-round in all the cemeteries, that special day was indeed a resurrection for such barren places. Bouquets bloomed everywhere, and the peonies, quickly gone 'blowzy' in the noonday heat, shed a fragrant confetti of petals all about the graves.

We picnicked afterwards amongst the mossy gravestones and shared reminiscences of the departed. And we children cried over the little lambs in Babyland and mourned anew the grandmother we had never known.

A pity so little remains of such customs. Decoration Day is now just a springboard to summer—another day shoved around to create yet another three-day weekend. (No matter that last Christmas's fake wreath still graces Grandpap's grave.)

But here in the small country cemetery I have adopted—to take the place of the one far away where my own loved ones lie—there will be "pinies" for that bittersweet day.



Deer love the peony. They are nocturnal. They eat half moons which are about three inches across and a foot to five feet from the ground. They eat trees, shrubs, evergreens, milkweed and almost anything else, including our peonies. A deer does not have any upper teeth, only a tough pad, so a close examination will show sharp cutting and torn fibers in the same bite. Also look for foot prints, two half moons with the flat sides facing each other.

Cure? Scarecrows, flashlights, radios playing rock music, and dogs may assist. Deer can become quite tame but are always dangerous as they spook easily. Repellents include creasote, dried blood, haircut trimmings, mothballs, but don't count on all this. See your conservation officer.

OBTAINING SPECIES PEONIES

Galen Burrell

Nearly seven years ago I saw my first photograph of *Paeonia mlokosewitschii* flowering under an apple tree in a book about English gardens. I knew I just had to have this plant. At the time, I had no idea that this one photograph would consequently begin my love for species peonies and would also begin one of the most difficult tasks I have ever undertaken, obtaining authentic species peony plants or seeds.

I started by visiting some of the local nurseries. No luck. Then I went to some of the specialist plant sales that are so common in the Portland area. At the last show of the year I chanced upon five potted plants of what I was sure were *Paeonia mlokosewitschii* or at least that is what I thought the labels said. Luckily, I was quick enough to rush past a couple of elderly ladies, who were also interested in the peonies, and purchased all five of the little plants. When I got home, and started to plant the peonies, one of the labels fell out—much to my surprise and chagrin the label read *Paeonia mlokosewitschii* hybrid. I was devastated. I almost threw the plants away but I am lucky that I didn't. Over the last six years they have proven to be some of the most beautiful hybrid peonies that I have ever grown, but that's a different story. (By asking a lot of questions and by doing a great deal of my own research I was able to find the parents of these plants, which were in no way as beautiful as their progeny. It was also interesting to find out that none of their parents were actually *Paeonia mlokosewitschii*—they were also hybrids.)

Next I wrote to the peony nurseries listed in the back of the APS *Bulletin*. One actually did have a couple of plants of *Paeonia mlokosewitschii* but they were not for sale. I was amazed that no nursery in the United States seemed to grow or sell this beautiful peony. (Today at least two peony nurseries sell *Paeonia mlokosewitschii*.) It was even more amazing to find that only a couple of species peonies at all were being sold by nurseries in the United States and that these plants were questionable as to their authenticity. At that time I decided if I ever succeeded in obtaining species peonies I would start a nursery that grew and sold authentic species peonies.

I decided to try a different tactic. I obtained a list of botanical gardens from around the world from a fellow American Peony Society member. Luckily, I was naive enough to think that they would actually send me seed of species peonies, and I sent off a bunch of letters with international reply-paid coupons. Most of the gardens never did reply, some said that they might have seed the next year, and three or four gardens actually sent me a few seeds which I was extremely

excited to receive. Obtaining these seeds led to 2-3 years of germination experimentation, with, and I must admit, a lot of failures. Even today, I have a lot of unanswered questions about peony seed germination.

At the time I got the list of botanical gardens, I also received the names of a few seed catalogs that supposedly sold species peony seeds. It turned out that some of them actually did sell peony species seed, but most no longer did. To make a long story short, out of ten packets of seeds that I purchased from one seed dealer only seeds from two of the packets ever germinated. The rest rotted. (As far as I know there is only one reputable source for species peony seeds, that is Jim and Jenny Archibald, 'Bryn Collen,' Ffostrasol, Llandysul, Dyfed, SA44 5SB, Wales, U.K. Their April 1995 seed list includes *P. caucasica*, *P. peregrina*, *P. steveniana*, *P. cambessedesii*, *P. lactiflora*, *P. obovata*, and *P. veitchii* var. *woodwardii*. Their catalog is free.)

At the same time I also decided to write to all of the European nurseries selling peonies to see if they sold species. I found a few that sold species. But in order to place an order I had to apply for a plant importation permit from the Department of Agriculture. I also had to pay some pretty high fees to the nurseries so that they would ship to the U.S. It turns out that the nurseries with the best species lists would not even consider shipping plants to the U.S. I obtained plants from three European nurseries in this manner but a number of mistakes were made in my orders and there was no real way for me to return the plants. I was stuck with some expensive peonies that I did not want. Surprisingly, all of the plants that I ordered did survive.

After I received a few plants I came to realize that I had no idea if I had actually obtained true species or hybrids. I had no key to the species and subspecies of wild peonies or complete descriptions of each of the species. I needed to obtain a copy of *A Study of the Genus Paeonia*, by F. C. Stern, which was published in 1946. It turns out that this book had long been out of print but after a great deal of searching, I was able to find a copy through interlibrary loan. (Since I received my copy by Stern, I have spent untold hours reading other papers on species peony taxonomy. It's amazing to me now just how long it took me to remember the scientific names of each of the species.)

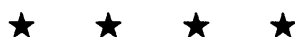
The most rewarding part of my search has been the friends that I have made who also love species peonies. Out of the many people that I have written to there have been four or five people without whose help I would have never been successful in obtaining the plants that I now have growing in my garden. For example, a gardener in Germany sent me 13 true species plants from my first letter to him. He didn't even know me. These plants have now all bloomed

and have been invaluable in helping me learn cultivation techniques for species and in learning the different characteristics for telling each species apart.

I think by now you have some idea of the difficulty in obtaining authentic species peony seeds and plants. What has made all the effort worthwhile for me has been learning that each species and subspecies of wild peony, not just *Paeonia mlokosewitschii*, is extremely beautiful and that it is possible for me to grow all of the wild species and subspecies in my garden.

So you are probably wondering if I ever did obtain *Paeonia mlokosewitschii*! The answer is that I now have nearly 70 plants of "mloko," and most amazing of all, I have 30 wild seedlings from seed collected in the Caucasus Mountains.

Postscript—I will have species peony plants available for sale for the first time this year. Please write for a copy of my first catalog. If anyone would like to join the Species Peony International Network (SPIN), also contact me, as I am the North American Coordinator for SPIN. My address is Galen Burrell, P.O. Box 754, Ridgefield, Washington 98642.



SPECIES

Some of the prominent species with their color and distribution: **Mlokosewitschi**, yellow; **Wittmanniana**, yellowish and its variety, **macrophylla** yellowish, all natives of the region between the Black and Caspian Seas; **Cambessedesii** deep rose; and **Russi** rose, Western Mediterranean islands; **mascula**, red-rose, from England to Russia and south to Asia Minor; **daurica** rose red, Crimea, Asia Minor, Caucasus; **obovata**, white to rose purple, Siberia, Manchuria, China, Japan; and its variety **Willmottiae** white, China; **japonica** white, Japan; **arientina** red, Italy, Greece, Asia Minor; **Broteri**, rose, Spain, Portugal; **coriacea** rose, Spain, Morocco, Algeria; **lactiflora** (syn. **albiflora**), white, Siberia, Manchuria, Mongolia, China Tibet; **emodi**, white India, tallest of all; **peregrina** red, and its variety **lobata** vermilion, The Balkans, **officinalis** red, Southern Europe; **Clusii**, white, Crete; **humilis**, red, Spain and France; **mollis**, red, white gardens only; **tenuifolia** (fern leaf), deep crimson, Bulgaria, Caucasus; **anomala**, crimson, Russia, Central Asia; **Veitchii**, magenta, China, and its variety **Woodwardii** magenta, Western China.

All species have only one flower to a stem except **lactiflora**, **emodi** and **Veitchii** and their varieties. The flowers are always single.

ITS CULTURE, SOIL, DRAINAGE, ETC.

The Peony is of such easy culture that it is not at all particular as to the soil, like most plants. It will grow in rich, poor, clay, or in black soil, and thrive in all of them. We prefer a sandy loam such as we have here in the fertile lands of the great Miami Valley of Ohio. Prepare your ground by digging at least 2 feet deep; your beds should be well drained so that all surplus water gets away quickly. Peonies will not stand wet feet.

Peonies may be planted effectively in several positions: in beds by themselves, as a background in perennial borders, as a foreground for shrubbery groups or borders, in single rows. Indeed, they make a delightful hedge effect where one sort is planted, so that they all bloom at one time. A hedge of Peonies is fine when used as a division-line-between city lots or to act as a screen along alleyways or unsightly fences or buildings, for after they are through blooming the plant itself is desirable for foliage effect. Simply cut away the seed-pods and trim in the tips of branches that may be longer than the others so as to make a uniform hedge. Peonies are very effective when planted to border a walk. Where planted in beds, set at least 3 1/2 to 4 feet apart each way; if in rows for hedge effect, 2 feet apart, setting the eyes in the ground 2 inches below the surface.

A covering of forest leaves, held in place by evergreen boughs or other weight to keep the leaves from blowing away, will be found very beneficial during the severe cold weather of winter. Peony roots are perfectly hardy but this covering keeps the newly-planted roots from being lifted out of their places by frost. Do not apply this covering until the ground is frozen, and remove after hard freezing weather is over, in early spring. It is the freezing and thawing that does the damage. Freezing the roots does no damage, but every freeze and thaw lifts the roots a little. Let Nature keep repeating this operation and you will find your roots on top of the ground.

—By the late John M. Good, 1925



Any peony tied up or in a cage below the top of the flower is apt to have the stems broken by the wind. I use small free standing trellis on the back side of the peonies to help keep them from tipping.

For fragrance **BIG BEN** and Reaths **PINK PEARL** is really nice. My problem, ants build nests in the ground and will cut through peony stems, if they build in the center of the plant underground, so I try to destroy all ant nests in my peony bed.

—Anne Oveson, 71735 Dougherty Loop
Wallawa, Oregon 97885

*Written by one of the great peony men, Mr. A. M. Brand,
Faribault, Minnesota, 1934.*

We must select the right place in which to plant peonies. The peony, unlike most of our flowers, is long-lived. Yes, it is very long-lived. There is but one other flower I know of, the lilac, that gives such wonderful satisfaction. There are authentic records of peonies being planted and remaining in the same place and doing well for over 125 years. A plant that will live as long as that should be planted well at the start.

The peony should not be planted in a location where the roots of large trees rob the soil of the very nourishment that the peony needs. The peony is one plant that will not do well under or near large trees. It should be planted in full sun to do its best. It should not be planted close to the basement wall of the house nor should it be planted under large growing shrubs such as honeysuckles, and large spireas.

It is a mistake to plant the peony in the lawn and then allow the lawn to close in about the plant and literally choke it to death. We cannot grow two things in the same place at the same time and have them both do well. If peonies are wanted on the lawn, the turf should be kept removed for a space of at least a foot from the plant in all directions, and the surface of this space should be kept cultivated during the growing and blooming seasons.

The mistake is often made of planting the peony too deep. The base of the eyes of the plant when planted should not be over two inches beneath the surface. If planted much deeper than this, the plant will bloom well as a rule for a year or two and then gradually give less bloom each year for a few years and then cease to bloom at all.

It is a flower that, to give its best results, demands heavy cultivation and lots of water at the blooming season. In the absence of timely rains as the bloom period approaches, it is well to give the peonies a good drenching at least once a week. Just turn the hose right on them and let the water run until the ground is saturated a foot deep. Then as the soil dries, be sure to break the crust as it forms on the surface. Most people do not cultivate their flowers enough. The best flowers are obtained by a good, thorough cultivation at least once a week until the middle of July when cultivation should cease. Late in the Fall just before the freeze-up comes, it is well to go over the peonies, and other perennials as well, to loosen the top soil to a depth of two inches. This loose soil on top acts as a mulch to the plants and roots over Winter and will save many plants from Winter root killing.

Young peonies should always be mulched lightly the first Winter after planting, with just a slight covering of straw or coarse hay.

★ ★ ★ ★

WHY PEONIES DO NOT BLOOM

Plants too young and immature. Let them develop.

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

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

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

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

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

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

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

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

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

Plants undermined by moles.

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

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

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

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

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

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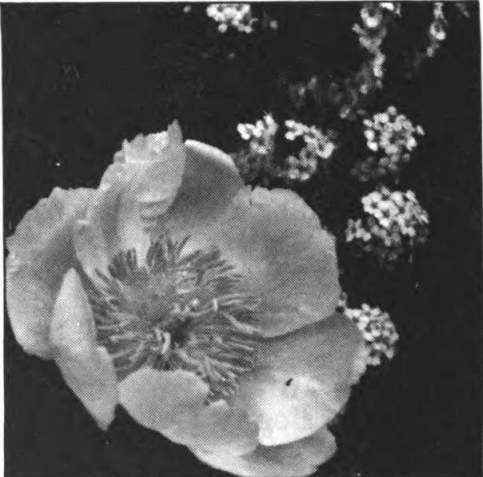
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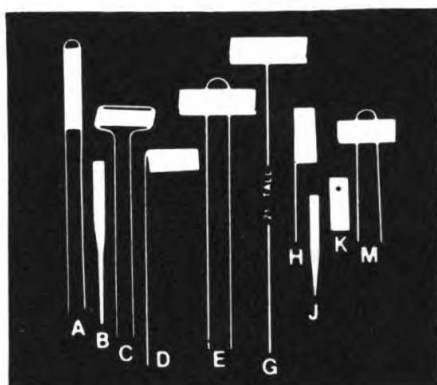
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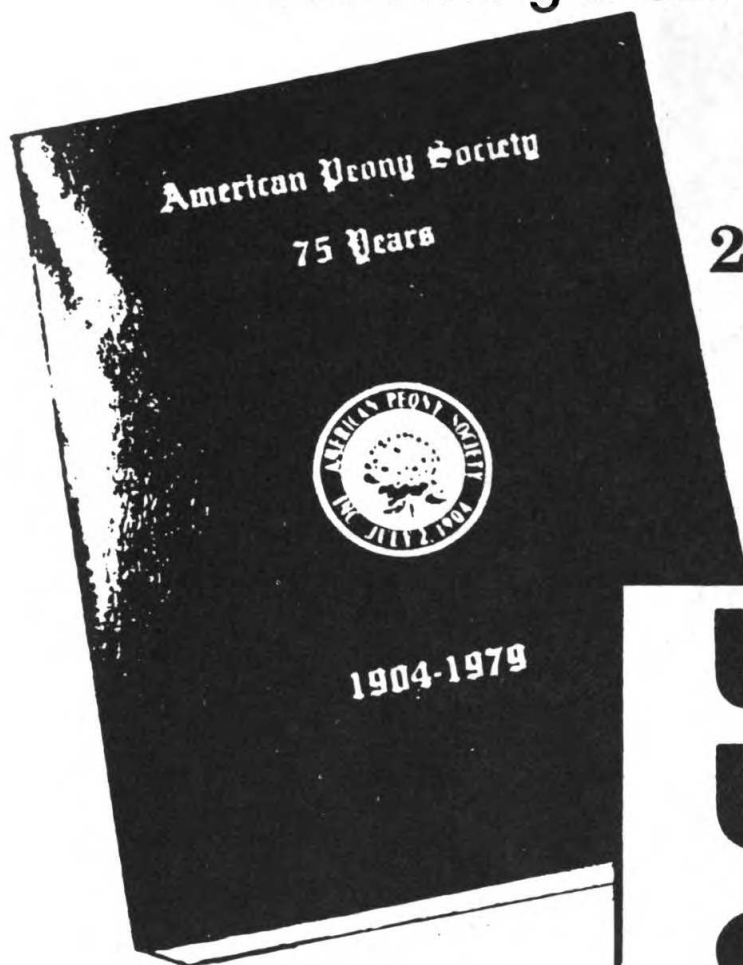
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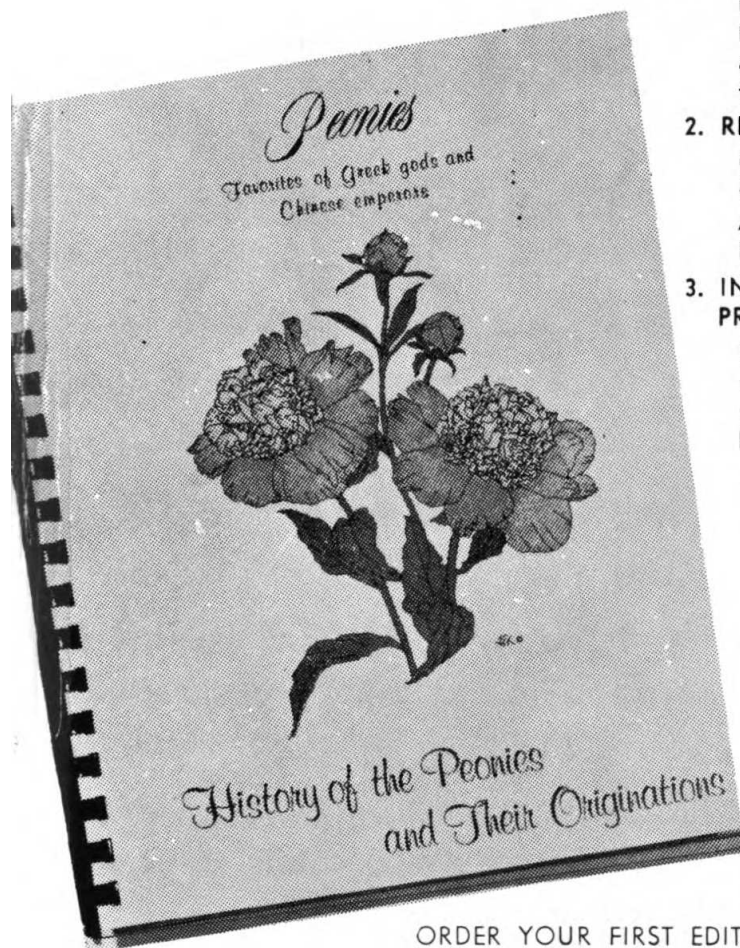
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