

# American Peony Society Bulletin



MARCH, 1972 — No. 201

APR 7 1972

The 69th ANNUAL MEETING

The 67th ANNUAL PEONY EXHIBITION

June 16 - 17 - 18, 1972



KINGWOOD CENTER

900 West Park Avenue

Mansfield, Ohio



## AMERICAN PEONY SOCIETY

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Complete listing of officers and directors, both District and National, will hereafter be published only in the September issue, following annual elections.

### 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	Sustaining, Annual .....	\$20.00
Single Triennial .....	\$20.00	Junior of member family .....	\$ 2.50
Family Annual .....	\$10.00	Junior non-member family .....	\$ 3.50
Family Triennial .....	\$27.50	Life .....	\$150.00

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

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

Dues are payable for the calendar year. Applications for membership should send remittance to the AMERICAN PEONY SOCIETY at the address of the Secretary, above.

### REGISTRATIONS

This department was formed "to properly supervise the nomenclature of the different varieties and kinds of Peonies". A register of all Peony names and their descriptions is held at the central offices of the Society, and new entries will be added as received to the permanent file. Applications, together with remittance of \$10.00 for each variety to be registered, should be sent to the office of the Secretary. A summary of all registrations for the year will appear in each March issue of the Bulletin.

### THE BULLETIN

The AMERICAN PEONY SOCIETY BULLETIN is the official Society publication. It is mailed postpaid quarterly to all members in good standing. Additional copies or back issues at \$1.00 each to members, \$2.00 to non-members, as available. Communications regarding editorial content or Bulletin advertising should be addressed to the Editor, 100 N.E. 81st St., Kansas City, Mo. 64118.

### SPECIAL BARGAIN

The Society has a considerable number of back Bulletins from the year 1965 to date. In order to reduce our inventory and the storage space involved, the Directors have agreed to offer them at 12 issues for \$8.95, postage paid. These will be our selection, although if you are short one or two specific issues, they could probably be included. Earlier dated back issues will remain at \$1.00 each, as available. Send order and check to the Secretary.

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Allen Harper, Editor — 100 N. E. 81st St., Kansas City, Mo. 64118



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**W. G. Sindt**

## From Your President

As I begin to write this for the March Bulletin, I feel that optimism is an attribute that we all must have. Next Spring we expect to have some beautiful peony blooms, but right now it is sub-zero with nearly two feet of snow on the ground. From what I hear in the news, we in Minnesota are not the only people who are having a bit of cool weather. However, I don't think any of us feel apprehensive about our peopies, because from previous experience we know they will survive the cold winter and thus feel that our optimism is justified.

The 1972 annual meeting at Mansfield is all set except for one thing. A show schedule has been prepared, a program for Saturday and Sunday has been confirmed, luncheon and dinner have been planned. What is the one thing that is missing? That one thing is YOU! Some of you made it to Minnesota in 1971 and I hope to see all of you again in 1972. But Mansfield is more central so that hopefully even more of you will be able to come.

The detailed program appears elsewhere in the Bulletin and there is something of interest for everyone. One of the most important events is not even listed on the schedule. This event is "Fellowship", which will be a continuous event for the entire time we are there. I am optimistic enough to predict that this will be one of the most outstanding meetings the A.P.S. has had in recent years.

There was a time in the past couple of years when some members questioned whether the A.P.S. could survive. These were legitimate doubts, but I felt optimistically that we would continue and become a stronger and more vital society. My viewpoint is the same now, because all of you have rallied to the support of the A.P.S. The number of memberships for 1972 has been greater than many of us had the optimism to expect. Basically the present members are those who have been with the society for two or more years. Now we need to get some new people into our organization and hopefully the membership contest will help in this respect. Won't you participate?

Whether you are a new member, or one of long-standing, I hope to see each of you in Mansfield in June.

Gus.

### MEETINGS AT MANSFIELD

Attention is called to a number of special meetings Saturday and Sunday at Kingwood Center.

Saturday at 2:15 Mr. Allen Wild will tell of some of his "Peony Experiences" after having spent a lifetime with peonies.

Saturday at 2:45 a hybridizing workshop will be held. This is becoming a more popular session each year and is not only for the experts but for all of us.

Saturday at 3:30 the Annual Meeting of the A.P.S. will be held. Directors will be elected and other business as necessary will be conducted. This is your society, so please attend this one annual meeting.

Sunday at 2:30 the auction of peony roots will be held. This is always an interesting time and sometimes bargains may be obtained. Since this is the only planned session for Sunday, there will be time to attend the church of your choice and/or view the grounds of Kingwood Center.

## **LUNCHEON AND BANQUET**

Kingwood Center is again serving a buffet luncheon on Saturday in the drawing room of Kingwood Hall. This will be a time for relaxation and renewing old friendships and making new ones.

The annual banquet will be held at 7:30 on Saturday evening. After presentation of show awards the speaker will be Dr. Raymond C. Allen. Dr. Allen is Director of Kingwood Center and in 1966 was awarded the A.P.S. gold medal for his contribution to the culture of peonies. Dr. Allen will tell us something of the history, aims, and programs of Kingwood Center. He spent some time the end of last year in Australia and New Zealand and may tell us a bit about their horticultural activities.

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## **INVITING YOU TO The 69th Annual Meeting and 67th National Exhibition of the AMERICAN PEONY SOCIETY Kingwood Center — Mansfield, Ohio June 16, 17 and 18, 1972**

### **SCHEDULE OF EVENTS**

Friday, June 16 — 2:00-11:00 p.m. Prepare Show entries  
8:00 p.m. — Director's Meeting

Saturday, June 17, 7:00-11:00 AM — Set up and enter exhibits.

8:00 A.M. — Registration  
11:30 A.M. — 1:30 P.M. — Judging  
12:30 P.M. — Luncheon, Kingwood Center  
2:00 P.M. — Show open to Public  
2:15 P.M. — "Peony Experiences" — Allen Wild  
2:45 P.M. — Hybridizing Workshop  
3:30 P.M. — Annual Meeting, American Peony Society  
7:30 P.M. — Annual Banquet  
Dr. Raymond C. Allen, Speaker.

Sunday, June 18, 9:00 A.M. — Show open to public

9:30 A.M. — Directors' Meeting  
2:30 P.M. — Peony Auction (In courtyard, weather permitting)  
8:00 P.M. — Show closes

Advance Registration is urged. Fee will be \$10.00, which includes Registration, Saturday Luncheon, banquet and scheduled meetings, and includes all taxes, gratuities and incidentals. Separate reservations may be made for the luncheon, at \$4.00 and the Banquet at \$7.00. Send reservations directly to Kingwood Center, 900 Park Avenue West, P. O. Box 1186, Mansfield, Ohio 44903 not later than June 10. Checks should be made payable to Kingwood Center. Location of the banquet will be announced in the June Bulletin.

# MANSFIELD WELCOMES YOU

For the benefit of those wishing to attend the Annual Meeting, 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.

A good selection of sleeping accommodations is available, the following being recommended by the Kingwood Center staff:

**MANSFIELD LELAND HOTEL** — Single \$10-\$16; Double \$12-\$18; Twin or 2 Double \$15-\$21. A good 300-room hotel, located at Park Avenue West (U. S. Route 430) and Walnut Street. Family-plan rates, restaurants, free overnight parking. Tel. 522-5111.

## MOTELS

(Arranged in order of distance from Kingwood Center)

**DOWNTOWN MOTOR LODGE** — Single \$10-\$11; Double \$13-\$14; Twin or 2 Double \$15-\$16. 191 Park Avenue West, 97 rooms, restaurant, air-conditioned, TV, tiled shower baths. Tel. 522-3662.

**TRAVEL LODGE OF MANSFIELD** — Single \$10.50; Double \$12.50; Twin or 2 Double, \$15. 137 Park Avenue West, tiled shower baths, air-conditioned, phones, color TV, Tel. 522-5142.

**HOLIDAY INN OF AMERICA** — (6 miles) — Single \$13.00; Double \$16.00; Twin or 2 Double \$18.00. 880 Laver Road (Mansfield Expressway, Route 30) one mile west of Interstate 71, 105 units, color TV, swimming pool, restaurant. Tel. 589-2200.

Reservations should be made by mail or telephone directly with the hotel or motel selected. Early reservation is suggested to avoid disappointment as to location.

## Kingwood Center

Kingwood Center is a delightful spot in north-central Ohio where the gardening sciences join the arts in a cultural setting. It is a lovely and pleasant place to visit and enjoy. But more significantly it is an educational center encouraging the home gardener to become more personally involved in the art, science and pleasures of gardening; to become more aware and appreciative of natural worlds about him; and to be exposed to more of the cultural art forms which add to the quality of life itself.

Kingwood Center is located in the western section of the city of Mansfield, Ohio which is about half way between Cleveland and Columbus. It consists of 47 acres of rolling lawns and woodlands featuring expansive outdoor garden displays that attract over 450,000 visitors annually.

Several handsome buildings of French Provincial architecture, and a greenhouse range provide the facilities for a wide range of activities.

Kingwood Center results from a philanthropic trust created by the late Charles Kelley King, an Ohio Industrialist, who had keen insights into human values and needs. When he passed away in 1952, the provisions of the trust agreement were set in motion and on October 10, 1953, Kingwood Center was opened to the public. It is constituted as botanic garden and arboretum and educational garden center. It is also a center for nature study and to a large extent a cultural center for the Mansfield area.

Not only did Mr. King leave his residence and grounds but also a

sizeable endowment fund. The income from this fund provides for the operating budget and capital improvements. Therefore, no admittance fees are charged and most activities are free to the public. Kingwood is administered by a five-man board and has no connection with the city or state government.

Today Kingwood's philosophy centers on two principles — education and service to the public. All programs and activities are undertaken with these principles in mind.

The gardens are one prominent phase of the educational program. Through these comprehensive displays, people are introduced to thousands of plants that can enhance the home landscape. Accurate labeling is an essential element of the displays, for to see a handsome daffodil or viburnum and not know its name is a great frustration. If displays are to be educational, visitors must know what they are seeing.

Peony plantings have been developed through the cooperation of the American Peony Society. Over 400 varieties of herbaceous peonies are included in the collection.

The greenhouses are a splendid year round feature. They are filled with a wide assortment of fascinating plants suitable for home use. Only a small portion are purely "conservatory" plants. Once again the emphasis is on materials that the home amateur gardener can grow and enjoy. It is not a plant museum but an active changing display facility to develop enthusiasm for plants and a broader knowledge of them. The entire greenhouse range is open to the public. Thereby visitors may see plants in all states of development from germinating seedlings to finished plants.

The greenhouses are air cooled and so are quite comfortable even in the hot summer months. The latest techniques in watering, automation, disease and insect control, propagation, etc. are employed and where possible this information is disseminated to the public either through direct communication, workshops, clinics or the monthly publication of the "Kingwood Center Notes." The greenhouses are

open every day of the year from 8 a.m. until sundown.

Another phase of the educational program is the gardener's library. It is a lending library with some 5,000 volumes in the field of gardening, botany, nature study and related subjects. In the library is a file of 400-500 seed and nursery catalogs to assist people in finding garden plants and materials. A full-time trained librarian is on hand to help those in search of information.

Kingwood is affiliated with most national and regional plant societies. Their publications are on file for public use. A children's section is yet another library feature.

Throughout the year workshops, lectures, flower shows, clinics and classes are conducted touching most phases of gardening and giving registrants first hand experience with pruning, planning, planting, propagating, etc.

"Kingwood Center Notes" is a monthly publication sent free of charge to interested gardeners all over the nation. It contains first-hand gardening and nature study information gleaned from experiences at Kingwood. Anyone wishing to receive the "Notes" may do so by sending his name and address to Kingwood.

The nature program is conducted by a full-time interpretive naturalist and some part-time assistants. The facilities include a trail that winds its way for about a mile through the woods and meadows. Along it are a large selection of wildflowers native to this region.

A small pond is the home of many waterfowl including Canada geese, woodducks, redheads, mallards, pintails, widgeons and mandarins. Many are tame enough to eat corn from the hands of visitors. This is a real delight for young people as well as adults. To see the birds at such close range is a unique experience for most visitors.

Close by are many caged birds — redtailed hawks, a golden eagle, silver pheasants, golden pheasants, ringnecks and Amherst pheasants. Some of the pheasants are permitted the run of the grounds along with the peafowl. This helps to inte-



grate the horticultural and nature programs in a tangible way. A racoon, possum and a skunk are also on hand to aid the naturalist in his interpretative program.

About 25 persons are included on the permanent year-round staff at Kingwood. During the summer a few seasonal employees are added with preferences given to young people with an active interest in horticulture or in pursuit of a career in the field. Some college students majoring in horticulture are given sum-

mer employment. They receive a well-rounded experience in the few months they are on the job.

Kingwood is open to the public free of charge year-round. Kingwood Hall, offices and library are open 8:00 - 5:00 Monday through Friday, except holidays. Kingwood Hall is opened from 1:30 - 4:30 on Sundays from Easter through November. The grounds and greenhouses are open every day of the year from 8:00 a.m. until sundown.

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**67TH ANNUAL  
PEONY EXHIBITION  
June 17 and 18, 1972  
Kingwood Center, Mansfield, Ohio 44903  
Show Open To The Public  
All Times Are Eastern Daylight Saving Time  
Saturday, June 17, 2:00 p.m. - 9:00 p.m.  
Sunday, June 18, 9:00 a.m. - 8:00 p.m.**

### Rules

1. All entries must be completed and in place by 11:00 (E.D.S.T.) Saturday, June 17.
2. All entries except those in Division VI must have been grown by the exhibitor.
3. Entry tags supplied by Kingwood Center must be filled out completely as to class, variety, name and address of exhibitor. It is essential that both the upper and lower portions of the entry tag be filled out. The lower part of the tag will be the official record of the entry. This must be done before placing the entry in the designated exhibit space. In addition, all blooms must have a small wooden or plastic label wired securely to the stem with the variety name printed legibly on both sides. In collection classes each individual specimen requires only the name label, but one specimen must carry the entry tag completely filled out except for variety name. Completion of entry tags is the responsibility of the exhibitor or his agent. Entry tags may be obtained from Kingwood Center prior to the Show or at the desk at Show time.
4. Stems in specimen classes should be approximately 14" long.
5. Exhibitors are limited to one entry in each of the following horticultural classes: 1, 2, 44, 59, and 61. Special rules governing artistic designs are given following Division VI. Two or more entries are permitted in all other classes, but there can be no duplication of varieties. For example: in Section B, Class 3, one could have one entry of Ann Cousins, Mary A. Nichols and Mattie Lafuze, and a second one made up of Alesia, Victory and Alice Harding. Or in section C, Class 14, one could not have two entries of Kansas, but could have multiple entries of Kansas, Tempest, Lowell Thomas, etc.
6. If there are three or more entries of the same variety in a class, the management may create separate variety classes if quality warrants.
7. All entries must be correctly named except in Division II (amateurs) where failure to have correct name labels will not disqualify; however, having correct name will enhance the chances for a prize. Names are not required in Arrangement classes.
8. Standard containers furnished by Kingwood Center must be used except for arrangements. The management will not be responsible for arrangement containers left after the Show.



9. The American Peony Society's Handbook will govern bloom types and color.
10. Awards and ribbons may be withheld at the discretion of the judges, and their decisions will be final.
11. The management reserves the right to reject for exhibit entries whose quality is not up to exhibition standards.
12. Utmost care will be exercised by the management in moving entries during the staging of the Show, but it cannot be responsible for damage or loss.
13. Only the judges and the personnel necessary for the conduct of the Show will be admitted during the judging.

## Awards

### American Peony Society Awards:

A. A gold medal certificate in Class 1 and Class 59.

B. Silver medal certificates in Classes 2 and 33.

C. Rosettes in Classes 19 and 26, and to the outstanding entry in Division IV and to all Court of Honor flowers.

D. Peony roots will be awarded to all first place winners in Division II (Amateurs) and Division

VI (Arrangements). Roots will be sent in the fall at the proper time. Be sure name and address on entry tag are legible.

E. First, second and third place ribbons will be given in classes other than those in which certificates and rosettes are awarded.

### Other Awards:

F. B. H. Farr Memorial Medal for the best lactiflora bloom in the Show.

## Schedule

### **DIVISION I — Open to all**

#### **Section A. Certificate Collections**

Class 1. Twenty-five varieties, any type; one bloom each in separate containers, each labeled as to name. Gold Medal Certificate.

Class 2. Fifteen varieties, any type; one bloom each in separate containers, each labeled as to name. Silver Medal Certificate.

#### **Section B. Three blooms in one container. Lactifloras (albifloras) only. One variety.**

Class 3. Double white or flesh.

Class 4. Double light pink.

Class 5. Double dark pink.

Class 6. Double red.

Class 7. Semi-double white.

Class 8. Semi-double other than white.

Class 9. Doubles, one each red, white and pink.

Class 10. Bomb type, any color.

#### **Section C. Specimen Classes. One. bloom, Lactifloras only.**

Class 11. Double white or flesh.

Class 12. Double light pink.

Class 13. Double dark pink.

Class 14. Double red.

Class 15. Semi-double white or flesh.

Class 16. Semi-double pink.

Class 17. Semi-double red.

Class 18. Bomb type, any color.

**Section D. Japanese type lactifloras.**

**Class 19.** Collection of five varieties, any color or colors. Separate containers.

**Class 20.** Three blooms of white, same variety; in one container.

**Class 21.** Three blooms of pink, same variety in one container.

**Class 22.** Three blooms of red, same variety; in one container.

**Class 23** Specimen bloom, white.

**Class 24.** Specimen bloom, pink.

**Class 25.** Specimen bloom, red.

**Section E. Single type lactifloras.**

**Class 26.** Collection of five varieties, any color or colors. Separate containers.

**Class 27.** Three blooms, white, same variety. One container.

**Class 28.** Three blooms, pink, same variety. One container.

**Class 29.** Three blooms, red, same variety. One container.

**Class 30.** Specimen bloom, white.

**Class 31.** Specimen bloom, pink.

**Class 32.** Specimen bloom, red.

**Section F. Hybrids (inter-species crosses) and species except lactiflora and moutan.**

**Class 33.** Collection of ten varieties, one bloom each, hybrids only. In separate containers, each one name-labeled.

**Class 34.** Collection of three species or varieties of species. Any type or color.

**Class 35.** Collection of three double varieties of hybrids.

**Class 36.** Collection of three semi-double varieties of hybrids.

**Class 37.** Collection of three single varieties of hybrids.

**Class 38.** Specimen bloom, double. Hybrid or species.

**Class 39.** Specimen bloom, semi-double. Hybrid or species.

**Class 40.** Specimen bloom, single. Hybrid or species.

**Class 41.** Specimen bloom, Japanese type. Hybrid or species.

**Note:** A class for three Japanese varieties will be created if needed. If there are sufficient entries, Classes 38 39 and 40 will be subdivided into color classes.

**Section G. Tree peonies.**

**Class 42.** Collection of three varieties, any type, any color. Separate containers.

**Class 43.** Specimen bloom, any type, any color.

**DIVISION II — Amateurs only:**

Those who raise peonies for pleasure only, do not sell flowers or roots except casually, and do not have more than 200 plants.

**Section H. Collection. Lactifloras only except as noted.**

**Class 44.** Ten varieties, one bloom each, any type, any color. Hybrids permitted. Separate containers. Name labeling not mandatory, but advisable.

Class 45. Three double varieties, one each red, white and pink. One container.

Class 46. Three semi-double varieties, any color. One container.

Class 47. Three Japanese type varieties, any color. One container.

Class 48. Three Single varieties, any color. One container.

Class 49. Three varieties hybrids or species, any type any color. One container.

**Section I. Specimens — one bloom.**  
Lactifloras except as noted.

Class 50. Double white.

Class 51. Double pink.

Class 52. Double red.

Class 53. Semi-double, any color.

Class 54. Japanese type, any color.

Class 55. Single, any color.

Class 56. Hybrid or species, any type, any color.

**DIVISION III — Seedlings and new varieties. Open to all.**

**Section J. Seedlings.**

Class 57. Three blooms of one variety that has not been offered for sale, but has been divided one or more times. It must be designated by name, no. or code. In one container.

**Section K. Recent Introductions.**

Class 58. Three blooms in one container. Limited to varieties which have been named and registered by the American Peony Society, and have been offered for sale no more than six years.

Awards in the above two classes will be CERTIFICATES OF MERIT or HONORABLE MENTION at the discretion of the judges. Varieties which have won either award at a previous American Peony Society show are not eligible.

**DIVISION IV — Commercial growers only.**

**Section L. Commercial Exhibit.**

Class 59. Collection of not less than 25 or more than 50 varieties, one bloom of each in separate containers, name labeled. Any type permitted.

**Note:** This class will be eligible to all special awards and for competition in Court of Honor. A placard giving name, address and location of nursery in front of exhibit is permitted. Placard limited to 9" x 14".

**DIVISION V — Visitors from out of State.**

**Section M. Collection.**

Class 60. Five specimen blooms, any type, any color. Separate containers. May be the same or different varieties.

**Section N. Greatest distance.**

Class 61. Exhibitor from greatest distance. Must exhibit three or more blooms in this class, and state on entry tag distance from Kingwood.

## COURT OF HONOR

Specific entries are not required for this division. Participation is attained by excellence and merit of entries. It is composed of the best flowers in the Show of the various types and colors as follows: a) double white or flesh; b) double light pink; c) double dark pink; d) double red; e) semi-double white; f) semi-double pink or red; g) Japanese; h) single; i) hybrid or species; j) tree.

### DIVISION VI Artistic Designs

#### Class 62. Time of Day

- A. Sunrise
- B. High Noon
- C. Sunset
- D. Midnight

#### Class 63. Time of Year

- E. Spring Breezes
- F. Summer's Heat
- G. Autumn's Harvest
- H. Winter Beauty

#### Class 64. Time of Life

- I. Youth (Interpret a sport)
- J. Prime of Life (Interpret a vocation or hobby)
- K. Senior Citizen.

## AWARDS

1. First, second, and third place ribbons will be given in all classes as awarded by the judges.
2. Peony roots will be awarded to first place exhibits.
3. Grand Champion and Reserve Champion ribbons will be awarded.

**CHAMPION OF THE SHOW:** The finest flower in the Court of Honor.

**Note:** Court of Honor candidates will not be limited to specimen classes. It shall be the duty of the judges to search the collections for outstanding flowers for the Court of Honor.

## 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.
3. Other flowers, foliage, grasses and accessories are permitted in all classes.
4. Artificial plant material is not permitted.
6. Entries may be placed from 8:00 p.m., Friday, June 16, until 11:00 a.m., Saturday, June 17.
7. While the show management will exercise due caution in safeguarding exhibits, it cannot assume responsibility for injury or loss. All containers should be marked with name and address of owner.
8. Personally owned properties must be claimed immediately after the show closes at 6:00 p.m., Sunday, June 18th.
9. Qualified judges will be used in the Artistic Division.
10. The decision of the judges is final.

# The Use of Colchicine to Induce Polyploidy in Peonies

David Reath

Attempts to induce polyploidy in peonies through the use of colchicine, have thus far proved unsuccessful. (1) The experiments reported in these pages indicated that peony seedlings were quite unaffected by colchicine solutions in the strengths (.05 percent or, one-twentieth of a percent) that had been found successful in other genera. (2) Greater concentrations were then tried, and it was found that even up to just below lethal concentrations, peony seedlings were still quite unaltered. It was also noted, however, that the hypocotyl (primary root) is more susceptible to the toxic effects of colchicine than is the epicotyl.

Experiments were then carried out, applying the colchicine to the epicotyl area and seed only, but not to the hypocotyl. This is in contrast to the usual method of complete seedling submersion during treatment. This has proved to be the most important point in treating peony seedlings. Various strengths were then experimented with, and the peony seedlings were found to tolerate concentrations all the way from ten times (.5 percent solution) up to one hundred times (5 percent solution) the strengths used successfully in other genera.

However, as the strengths increased, mortality among the treated seedlings increased in direct proportion, so that, in concentrations of over one-and-a-half percent the mortality rate rose rapidly, with only very few surviving the high, five percent, solution. But it was also found that among those seedlings that did survive, the percentage of polyploids increased, also in direct proportion.

## PROCEDURE

For germinating peony seeds, the following procedure is recommended. Basically it is the one first described by Dr. Lela Barton. (3)

The peony seeds are harvested while still very light brown, and planted as soon after this as possible, up to 50 seeds being placed in a

five-inch azalea pot containing good moist garden loam. The planted pots are put in plastic bags, sealed with elastic bands to retain soil moisture, and placed in a room at 60 to 70 degrees Fahr. for three months. The soil should never be allowed to dry out; it should probably be watered gently every four or five weeks.

After two-and-a-half months examine the seedlings from time to time to ascertain their stage of development. At about three months, many seeds will have well-developed hypocotyls with a slight enlargement of the proximal end (nearest the seed). This slight enlargement will develop into the petioles of the cotyledons, which in most peony species never emerge from the seed coat.

Now transfer the pots to a cool room with a temperature range of 40 to 50 degrees. After one to two months, some of the seedlings will be found to be splitting in the hypocotyl areas near the seeds, and a very immature epicotyl will be emerging. The epicotyl cells are at this point undergoing cell division; this is the important point referred to in the second paragraph above: the necessary stage of development when colchicine treatment should be used, to induce polyploidy. If the epicotyl develops too far, little or no active cell division will be taking place; growth of the epicotyl being then mainly due to elongation of cells already formed.

Although seedlings whose epicotyls were more than half an inch long did manage to survive concentrations in the upper limits (2 percent to 5 percent), only rarely did any seedlings show the effects of colchicine mitosis (colchicine tumors of seedling's leaves and petioles), and from these, only a very few polyploids were able to be selected.

Seedlings are then carefully removed from the pots of soil, sorted as to stage of epicotyl development, and most of the soil particles washed off under running tap water set at about 68 degrees.

Now take small plastic or glass vials and insert about 12 seedlings, upside down, with the seed and epicotyl at the bottom. Enough colchicine solution is then added with a medicine dropper, to cover only the seeds and the epicotyl areas; the greatest care being taken not to let any solution spill onto the hypocotyls. If it does the plant should be removed from the vial and washed with water and then returned to the vial.

Replace the caps on the vials to maintain humidity within, and place the vials about four inches above fluorescent lights. Twenty-four hours is the recommended treatment period, at a temperature near 68degrees F. After this the seedlings are again washed for fifteen minutes in running tap water set at about 68 degrees. They are then soaked in pans of water at the same temperature, to further remove the high concentration of colchicine within them. This soaking should be continued for 12 hours, during which time the water should be changed every hour.

Following the end of treatment, the seedlings may then be planted in flats containing this mixture: four parts good garden soil; two parts peat; one part sand; plus a small amount of slow release fertilizer such as MagAmp. Mag-Amp is used in a proportion of one tablespoonful per gallon of soil mixture. Plant the seedlings, covering all the hypocotyls and with the seed on the surface of the soil. Keep the flats at 50 to 65 degrees Fahr. Continuous fluorescent lighting overhead at eight inches above the flats is very helpful.

After a few days to two weeks time, some of the seedlings will start to grow, and within 30 days "colchicine tumors" will be seen appearing on the primary leaf, its petiole, or both. In other types of plants these so called "colchicine tumors" customarily appear at the point at which colchicine mitosis take place. (4) Therefore the appearance of these tumors on a number of treated seedlings is an indication that the solution concentration is adequate for possible polyploid development.

Let the seedlings stay in the flats throughout the spring and summer.

Watch them carefully to maintain optimum growing conditions at all times; especially, shade them from too hot summer sunshine.

In August or September, as foliage starts to mature, the surviving seedlings may be lined out where they should remain for four years or longer.

After a year or two in the nursery bed, it is often possible to detect those seedlings that may be polyploids. Label these and in three or four years divide them. If further growth so justifies, chromosome counts are then made on roots that appear to have arisen from the epicotyl (treated) area. In some seedlings, the whole plant will have completely converted, while in others, often part of a plant has become a polyploid while the rest of it remains diploid. This gives us an excellent opportunity to compare the polyploid with its diploid counterpart. The plant may be divided and the diploid separated from the tetraploid portion. It has been relatively easy to separate polyploid sections from diploid sections of induced peonies.

The young polyploid seedlings during the first year following such a division, will have mostly diploid roots, but the future root growth from the polyploid epicotyl area will all be polyploid.

Dr. Robert Griesbach has made chromosome counts of root tips of some of the induced lactiflora seedlings and has confirmed that they are indeed tetraploids, with 20 chromosomes. His assistance has been greatly appreciated. Thanks are also due to Mr. Edward Auten, Jr. who supplied several thousand lactiflora seeds for the experiment, Mr. Orville Fay and Brother Charles and Brother Daniel of Mission Gardens who supplied seeds and much helpful advice.

Seedlings of Japanese tree peonies have also been treated with colchicine. Their epicotyls seem more susceptible to its toxic effects, than in the lactifloras, and when concentrations of one percent or higher, were used, mortality was much higher among tree peonies than it had been among the lactifloras. Concentrations in the range of one-half to one per-

cent solution is therefore recommended for the Japanese tree peonies.

Likewise, the interspecific hybrid seedlings of *lactiflora* x *peregrina* parantage (the "lobata hybrids") are also more susceptible to damage than *lactiflora* are, and the concentrations recommended for tree peonies would therefore be recommended for this group also.

#### SUMMARY

A method of inducing polyploidy in peonies by the use of colchicine is reported. The epicotyl and seed only of the seedling is submerged, rather than the entire plantlet. Treatment for 24 hours in a solution of one to two percent is recommended. This is followed by a 12 hour wash. A one percent solution is prepared by dissolving one gram of colchicine in 100 grams of sterile distilled water. Following treatment, the seedlings are then carefully raised in soil under continuous fluorescent lighting.

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## MEMBERS' FORUM

### —Our Readers Write

Oklahoma City, Okla.

"—I've made some new seed beds and planted 55 seeds out of ROSELET'S CHILD. Have a pod of three seeds on tree Peony X MOONRISE. ROMAN GOLD has about five seeds I can sorta count and two more tree peonies have one pod each.

I did enjoy the Show and meeting. You know, Silvia Saunders is really a nice person. She made everyone

feel wanted at the banquet. My husband is not really a flower man, but she made him feel so good he'll be willing to take me to the meeting next year."

—Muryle Kostiuk

Mitchellville, Md.

"— Over the long haul, this organization is doing a great work and deserves our support, whether we get our "money's worth" or not. I personally feel more than repaid, and have been astounded at the bargains available in information and plant material by belonging to the Society, not to mention the contacts with other Peony lovers, which no one could put a price on.

I do hope you will always find a place in the Bulletin for more and more articles for those interested in raising Peonies from seed; all the way from the highly technical aspects of genetics down to the nitty gritty of how deep to plant the seeds and how to care for the seedlings and how NOT to leave pollen exposed to the sun. One never knows what little detail or what specific bit of scientific datum would be just what someone wants to know. And some of us are too inexperienced to ask good intelligent questions.

Please reprint more of Prof. Saunders' remarks some day. Also could we, over a period of time, have a list of peonies with their pedigrees and chromosome counts? Or perhaps I'm asking for the moon!

— Helen Howard

Kindred, N. Dak.

1971 was another rather good year for the North Dakota Peony growers. No weather problems except perhaps a little dry during July and August and a little too much rain hampered the usual fall work. There was no disease nor any insect problems which is quite normal with us. Our worst weeds are the little Elm and Box Elder seedlings and they are not too difficult.

Our Peony bloom was very gratifying and we tried our hand at show-



ing in the National Show since it was only 240 miles away this time. We had 11 entries and brought home 1 Blue and 5 Red ribbons which I thought was not too bad considering the competition we had. In two of the classes where we had red, there were no blues awarded which means that we had the best in the class.

As for new seedlings, we had the usual many red and pink doubles that are 'just as good' as the varieties that we already have too many of and therefore of no value as I see it. We did have two plants almost identical, of  $\frac{3}{4}$  lactiflora and  $\frac{1}{4}$  tenuifolia breeding that were small dwarfish neat looking plants with white anemone type double flower, no pollen but with excellent carpels and they both gave us a good crop of seed in their first bloom. They may have value as breeding stock. Another new plant of the same general ancestry — KANSAS was the pollen parent — was a rather short statured double red, a rather large full double with a thin row of very short anthers of pollen. It also looks a lot like KANSAS in color when first open but does not acquire the bluish tinge that its daddy does. It has good carpels and a very good seed producer. There was no apparent fading in this flower. All three of these plants bloomed a year earlier than seedlings usually do, no doubt on account of the tenuifolia breeding. Then we had a whole flock of lactiflora x Otto Froebel seedlings that opened in the most glorious color shades of orange to red but faded so very badly that in a day or two they looked terrible and we discarded every one of them. The lacti mother parent used here was our own 5908 which does not fade and it may be that by using some other red male parent, we can eliminate the fading and keep some of these wonderful colors. I am going to try.

— Ben Gilbertson

Terre Haute, Ind.

"— I have over 500 peonies of blooming size and also over 200 seedlings that have not yet bloomed. The oldest seedlings will be three years old this year, and I expect to get

bloom on a few of them. I am anxious to find out if any of them will be any good, as I let nature do the pollinating.

My peonies this year were not as good as they normally are. I may be overfertilizing them. I use some bone meal in the fall after cutting off the tops, and then sheep manure in the spring, before they come up. Hope the Society can give us some answers to the many questions we all have."

— James W. Wyrick

Rev. Joseph R. Syrový, Vining, Ia.

"— I ended my Robin by asking for help on Thrips. Next day I received Peony Bulletin No. 200 and noted Calvin Heigoe's letter about his difficulty with Thrips. I had a whole box of old copies of Organic Gardening and have been interested in the articles referring to insect and disease control. Among the articles I had marked was one on Thrips. It is a formula used years ago and I just wondered if it wouldn't still work. It is called "Kerosene Emulsion."

There is an old saying which runs like this, "Be not the first by whom the new is tried, nor not the last to lay the old aside." Many of you still swear by the old and widely used Bordeaux mixture as a fungicide; I recommended not long ago using Bichloride of Mercury for root rot.

The formula, from New Garden Encyclopedia, comes under the heading "Kerosene," and reads as follows:

"To make a stock emulsion, take 1 lb. soap or soap chips dissolved in one half gallon hot water. Add  $\frac{1}{2}$  gal. Kerosene and stir rapidly until a creamy emulsion is formed. To use, mix one part emulsion to 50 parts water and spray.

It is important to use real soap and not a detergent. L. H. Bailey's Standard Encyclopedia of Horticulture, Vol. 1 found in most public libraries, gives, under the title "Soap" a formula for its manufacture and under "Contact Insecticides," formula for larger quantities of the Emulsion." (Father Joseph suggests that real

soap may be hard to come by these days, hence the formula — in the big cities the same might be said for Kerosene, but try the suburban cut-rate filling stations.)

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## Archives

Discovered among the pages of back Bulletins is the following letter, dated Sept. 30, 1960:

"Dear Mr. Peyton — I finally received the slides of the pink hybrid MARTHA MAINS; parentage OFFICINALIS ROSEA X ALICE HARDING. This, too, is the parentage of CHARLES MAINS. Unfortunately I got these two mixed up in the trial garden.

MARTHA MAINS is decidedly a better peony than CHARLES as it grew in our garden this year—better color and stems. Both tend to have a rosebud center when opening, changing to an open center which is deeper pink than the outer petals.

You will probably like Mr. Tinnapel's description better than mine. MARTHA MAINS is not for sale this year — plants too young to divide profitably.

I am treating seed, both on the plant and after harvesting, with a 1 percent solution of colchicine. Will make a planting later with the hope (forlorn?) of seeing bloom in three to seven years. I am 80 in November.

I was glad to meet you at the Show and hope to do so again next season. I know you were very busy. Like the Bulletin well. Pardon the delay.

Walter Mains"

## Errata and Addenda

Bulletin No. 200, Page 10, line 2 read "price" for "pride". (Pride does enter into the measure of value, but this isn't what was intended.)

Page 13 - permission grant should show "copyright 1961."

Page 8 in the Rating Sheet, on line "Point Variance" move all numbers one space to the left.

Below, in the right hand column, insert FLOWER just above paragraph 2 "COLOR".

Bulletin No. 199, Page 10, Class 145 — Second by Gilbertson with Souv. de Maxime Cornu.

## Auction Roots Needed

The Peony root Auction at our annual meeting is generally one of the highlights of the gathering. Choice roots are donated by generous members, and spirited bidding takes place.

Donations are again solicited from anyone wishing to participate. If you have a surplus of any choice variety or intend to divide a desirable variety, your contribution will be appreciated. We could even use a fair number of moderate priced sorts to stimulate some interest from the local non-member fanciers.

Hybridizers are urged to offer one or more of their selected seedlings. This provides an exchange of breeding stock with other hybridizers, and a chance for the donor to learn how his origination performs away from home.

Last year the auction receipts were about \$900, which went a long way toward reducing the Society's deficit. A similar or better sale this year could put us in a position of increasing services to the membership. Please send list of your offers to the Secretary. The combined list will be published in the June Bulletin, so that those unable to attend may bid by mail.

# THE CHAMPS

Championships are sometimes fragile things with the thinnest of veneers, resting on a foundation of quicksand. Champions sometimes attain their lofty pinnacle by the barest of margins or by what can only be called mere chance. The batter wins his crown because his nearest rival is the victim of a spectacular catch. A football team fails to win the championship when a receiver slips on a wet spot and misses an easy catch and a sure touchdown. A peony loses out because of a water spot or a guard petal broken in the bagging. Or it may win because someone else's better one was left on the bush.

However, the batter who almost made it was one of the very best, and the football team that lost out by one touchdown it should have had was still possibly best in the league. So it is with peonies. One that loses out by a whisker must be one of the best. It may lose because the judge is prejudiced against that variety or color. I knew a judge who admitted he did not like red peonies. Could RED CHARM, KANSAS or DOUGLAS BRAND win if he were judging?

It takes a fine flower to win at a national show. Unfortunately, a fine flower does not always mean a fine variety, a variety which will give satisfaction wherever grown every year; one that has a rugged constitution, blooms freely, stands adverse weather conditions and is a good plant. It is interesting to go back a number of years and see what varieties reached the lofty status of CHAMPION. Here they are since 1947.

- 1947 Blanche King
- 1948 Yukon
- 1949 A. B. Franklin
- 1950 Kansas
- 1951 Red Charm
- 1952 Nancy Nicholls
- 1953 LeCygne
- 1954 Ann Cousins
- 1956 Le Cygne
- 1957 No Show
- 1958 Doris Cooper

- 1959 Hansina Brand
- 1960 Le Cygne
- 1961 Frances Mains
- 1962 Lovely Rose
- 1963 Mrs. Franklin D. Roosevelt
- 1964 Hansina Brand
- 1965 Red Charm
- 1966 Annisquam
- 1967 Doris Cooper
- 1968 Carol
- 1969 Nick Shaylor
- 1970 Princess Margaret
- 1971 Douglas Brand

Space limitation precludes any but the briefest comment. In this list of 22 there are but four repeaters, one of them the hybrid, RED CHARM. Several in the list I would not recommend to a beginning grower. In my experience they have faults which make them unsatisfactory for most people. Other growers may disagree. In fact, I know some who do; so take these criticisms for what they are worth.

BLANCHE KING is a poor plant: too dwarf, too few flowers. YUKON, inadequate stems for so tall a plant. A little shower and wind put it in the mud. A. B. FRANKLIN is one for the north country. LE CYGNE, unreliable. High quality flowers about once every five years, leggy plant. ANN COUSINS: stems, although heavy, cannot support the immense, deep bloom, and break with even a light shower. JAMES PILLOW, too tall. Although stems are strong its great height makes it vulnerable to storm damage, and makes it a spradley plant. DORIS COOPER, unreliable and a shy bloomer. CAROL: unlike most hybrids, the stems are poor, and the plant sprawls.

No semi-doubles or Japs have ever been champs as far back as my records go, and only one single, the hybrid, LOVELY ROSE. Admitting that it is more difficult to get Japs and singles to a show in good condition, it is my feeling that they are usually discriminated against in judging. WESTERNER, BU - TE and

the hybrid Jap, WALTER MAINS are but three of the fine ones that could make it sometime. MISS AMERICA, MINNIE SHAYLOR and a few other semis could go all the way. Several of the lovely lobata hybrids that are semi double are possibilities, particularly CYTHEREA, of perfect form; CARINA, the reddest red; and ALEXANDER WOOLCOTT, the brilliant crimson.

Only the three hybrids have made it to date, but many others of all types could be strong contenders if they could be gotten to a show in prime condition. (Difficult because of early blooming.) It is significant that reds have won only three times: the hybrid RED CHARM which some call the world's best peony, twice, and DOUGLAS BRAND in 1971; and dark pinks only twice: BLANCHE KING and PRINCESS MARGARET. This seems to confirm the feeling of most people that there are not many top varieties in those two colors.

It is interesting to note that only one of the varieties that were considered best during the early part of this century appears on our list: LE CYGNE, which was originally given a near-perfect rating of 9.9. We seldom see SOLANGE, KELWAYS, GLORIOUS, FESTIVA MAXIMA, MARTHA BULLOCH, E. G. HILL, FRANCES WILLARD, MONS, MARTIN CAHUZAC, REINE HORTENSE, JEANNOT, PHILIPPE RIVOIRE and some others. Most of the champs came on the scene during the second quarter of the century. Only three made their appearance after 1950: FRANCES MAINS, PRINCESS MARGARET and DOUGLAS BRAND.

FRANCES MAINS, is a very light pink, almost blush, is one of the most beautiful of all peonies. In the originators garden at Belle Center, Ohio, the blooms were gorgeous, the stems strong and the plants excellent. Unfortunately, a few growers in other parts of the country report indifferent success with it. Others say it is fine but a little late for the shows some years.

PRINCESS MARGARET, one of the late Art Murawska's last originations,

adds another fine one to the rather short list of dark pinks. The flower is a very large double, distinctive in being rather cup-shaped. Stems are strong and of medium height. Midseason. Marvin Karrels includes it in the list of his 25 favorites.

DOUGLAS BRAND, one of Brand Peony Farms newest, is so new and scarce that it has not yet been offered for sale. It is a very attractive, bright red double, larger (9-10 inches) and brighter than KANSAS. The owner, Mr. R. W. Tischler, says it is 32-34 inches in height, has very strong stems and good vigor; is a good bloomer but buds sometimes blast under certain weather conditions. An average propagator. Tischler thinks it is too large for most commercial purposes, will be mainly a show flower. If it proves successful in all parts of the country, it will be a most welcome addition to the ranks of red peonies of show quality.

In view of all the current activity in peony breeding, inter-species crossing, combining of advanced generation crosses and back crosses, chromosome manipulation, etc., it will be interesting to see whether the character of the CHAMPS will change during the next 25 years. My guess is we will see a lot of new things.

## The Peony Symposium

Ballots are not being received in the number we had hoped for. We should have at least 50 ballots to make a satisfactory reporting. To date we have only 14.

We note some transposition toward the end of the ballot: Following Yellow, the Light Pink should apply to Hybrid Single, and the Deep Pink and Red to Hybrid Semi-Double. "Full" relates to the Yellow, to separate the two current shades.

Please review your bloom notes or scratch your memory and put down something in as many classes as you can. Don't worry too much about season - we'll enter according to general observation.

## Peonies on The 50 Yard Line

Don't hesitate to plant peonies, or more peonies, merely because you lack the ideal location.

The ideal location, according to the usual instructions, is a spot far from the house and trees where the peonies will be in the sun from morning until evening. In my case, that would mean the middle of the back yard which is also the location of the 50-yard line, as my boys view the premises. With the sides of the yard being the respective end zones, it is apparent that my prime planting territory has been preempted by football.

My first planting of peonies along the foundation occurred shortly after we built our house eleven years ago. Prompted by fond memories of the pink peonies my father grew, I ordered eight roots from a local nursery and planted them on the South side of our house, just 18 inches from the foundation.

They were poor specimens the first few years until I realized that the three foot eave was depriving the plants of most rainfall. Once I included these peonies in my watering schedule, their growth was excellent.

Due to their southerly location these peonies bloom about a week earlier than the other. RED CHARM invariably is in bloom by Memorial Day which is early for the Minneapolis area. Thus the season of bloom can be extended by taking advantage of a southern exposure.

At the same time that I planted peonies on the South, I decided to grow iris next to the foundation on the west side of the house. In a strip of soil two feet wide along that side, I planted a varied and expensive group of iris. For the next three years they grew, but rarely bloomed. An iris expert has since told me there was not enough sunlight on that side to produce blooms.

After removing the iris, I gambled and put in two LONGFELLOWS, two BLANCHE KINGS and a MARY BRAND. A heavy hail storm in July of the first summer left only the

stems, but the plants recovered and have done well there ever since.

Having had success with peonies along the South and West foundations, I next looked at the area, barely two feet wide, between the East side of the house and a sidewalk. I began by planting two roots of KANSAS and two orf MINUET in early April. They bloomed that year. Today they are well over four feet high and have been joined by six others, all of which thrive there. A KANSAS bloom won a red ribbon in the Novice Division of the A P S Exhibition in 1971.

Contrary to the classic advice to space peonies four feet apart, the distance between my plants varies from 24 to 36 inches. The shorter interval has not harmed their performance although it does make them appear a little crowded. I accept the crowding as the price I must pay to have room for all the varieties that catch my eye.

At the present there are ten peonies along each side of these three sides of the house. My remaining 20 are divided between the rear corners of the back yard, but safely out of the path of flying footballs. However, these locations are so close to large trees that peonies shouldn't grow there, according to the rules. But the relatively little sunshine they receive is sufficient.

Recently a neighbor erected a garage just 15 feet from the East side of our house. That will considerably reduce the amount of sun received by the peonies there. It will be interesting to see how they perform next year.

With the exception of five hybrids, all of my peonies are double lactifloras. I understand that both tree peonies and the new yellow hybrids are more shade tolerant than lactifloras. If the new garage proves too much of an obstacle, I may have to put that theory to the test.

— Richard Edblom  
Minneapolis, Minn.

## Tree Peony Topics

The ever popular Japanese Tree Peonies are in danger of having their vast number of varieties reduced considerably. A thorough investigation discloses that the number of farmers who grew tree peonies for years has been severely reduced because of their inability to obtain labor. Most farm workers have found more profitable jobs in the factories of the fast improving Japanese economy, hence the shortage of farm labor.

No Japanese grower or dealer will ship tree peonies by named variety. Orders are accepted by color only, so that the number of varieties available in white, pink or red may not be more than four or five regardless of the size of the order. Our experience discloses that not more than 25 or 30 varieties have reached this country in the past year or two, and the chances are that this number will be still further reduced.

We are fortunate in this country to have many of the scarce varieties, and the grafting of these clones is essential to avoid the possibility of their being lost to posterity. It is my suggestion that all owners of Japanese varieties do some grafting following the next blooming season, and continue each year thereafter.

Listed below are some of the varieties which, to our knowledge are no longer being grown:

SAHO HIME	HINO MARU
HIODOSHI	MIFUKUMON
ORIHIME	YUKI GASANE
SHIG YOKU	TAMA MIDORI
YOW SHIN	SHIN SHUIN RYU
AHOWKIN	DAIGOKU DEN
IKUHO MON	NIPPON SAKURA
MUENSAI	UKAREGI OWI
REIGYOKU	YAE NISHIKI
TOSHIRO	SAIGYOW ZAKURA
GABISAN	WAKOW DEN
TAIHOW	KAMIKAZE
SHIUN	AKASHI-GATA
YUKATA NO HARU	
NISHIKI NO SHITONE	

(Ed. Note: If any of you are growing any of these varieties, it would be most helpful if you would notify Mr. Smirnow or yours truly.)

We often hear that tree peonies, when received or after being dug, show root rot. This does not necessarily mean that the plant is diseased. Tree peonies which are grafted on herbaceous understock will show rotting of the herbaceous segment after growing a while. This rotted understock will eventually disappear and root growth from the union of scion and understock will take over.

— Louis Smirnow

## Midwest District Newsletter

Leo Armatys has done a masterful job of putting together the current (Dec. 18) issue of the Midwest District Newsletter.

When we prevailed on him to take over, with considerable reluctance on his part, we had no idea he had such talented assistants at his command. That he further essayed a printed and illustrated volume was far beyond our fondest expectations for this publication.

It is my understanding that copies of this issue were mailed to most of the Society's membership. If you did not receive a copy, a letter to Lee should bring you one. For this reason, direct excerpts from this issue will not be printed here. Following is a condensed summary of the articles published:

Reports from most of the top tree peony growers in the country on their one favorite Tree Peony.

Excerpts from the two district round Robin letters now circulating, including remarks from Roy Pehrson, Larry Harder, Willis Smith, Don Hollingsworth, Herbert White, Rev. Syrov, Elva Hemphill, Gus Sindt Ed Michau, Muryl Kostiuk, your Editor and lastly, the late Sam Wis-sing, who said, in perhaps his last words in print "Keep the Robin going: it's tonic for all of us and we need each other." To which Leo and I say a hearty Amen!

Review of the contribution of the Gratwick-Daphnis team to the pro-

gress and distribution of the Tree Peony.

A disclosure on *Ectemnius Stirpicola*, the Peony stem borer.

A list of sources for Tree Peonies, and an invitation to enjoy free listing to advertise your needs or trades. This was written as limited to tree Peonies, but Leo says now that ANY Peony wants or offers will be accorded space.

It has long been the feeling of your Editor that the establishment of Sectional groups markedly increases the interest in one's Specialty flower, be it Iris, Hemercolis, Peonies or whatever. A closer rapport among members can be obtained because in a given area, cultural practices and problems are similar, distances between members are not great; thus a freer exchange of experiences can be more easily accomplished. Time was when the Society had FIVE active districts; now there are two. With the current upsurge in Peony popularity and the fantastic improvement in the Society's well being, NOW would seem to be the ideal time to revive the former Districts, or create new ones based on mutual area interests.

## The Ito Hybrids

In the fall of 1968 I planted the Ito hybrid peonies which Louis Smirnow had found in Japan and introduced in this country. These were the first crosses of *Lactiflora* and the *Lutea* hybrids put into commerce in America.

One of the first questions heard about these was "Are they fertile"? The answer is now known to be "Yes". In 1971 Yellow Emperor produced five plump shiny seeds. The plants of Yellow Heaven and Yellow Dream were not so large as those of Yellow Emperor and they had pods with seeds not fully developed, indicating that they should be good seed bearers on large plants. This is good news to hybridizers seeking new types and shades in the yellow segment of the peony color range.

These Ito hybrids are eye catchers. Visitors driving into our yard always notice the unusual colors and shadings of these flowers. We have a rigorous climate here on the edge

of the high plains of Kansas and peonies usually take about five years to become large plants similar to three year plants grown in the eastern states. These Ito's ignored our climate and have grown rapidly. The blooms hold a long time, better than tree peonies, which are rather difficult to grow here without special attention. — Frank Moote.

## Notes From Edward Auten, Jr.

Awards given to Auten Hybrid Peonies by the Royal Horticultural Society, England.

June 28, 1956

Award of Merit ..... Dandy Dan  
Rosedale  
Red Monarch  
John Harvard

Highly Commended ... Rose Marie  
June 19, 1959

Award of Merit .... Robert Auten  
June 16, 1960

Highly Commended ... Red Dandy  
Red Emperor

May 31, 1961

Award of Merit ... Red Dandy  
Red Emperor

June 18, 1968

Highly Commended .. Chief Justice  
A brief history of the Hybrid variety  
EARLY SCOUT

EARLY SCOUT Single red hybrid.  
RICHARD CARVEL X WITTMANN-  
ANA hybrid. Medium height, cut leaf-  
ed foliage, single bloom, one per stem.  
Blooming date about ten days earlier  
than *officinalis* x *lactiflora* hybrids.  
Introduced 1952 by Edward Auten,  
Jr.

"I did the pollination for it during  
a noon hour, using pollen sent me  
by Mr. Lyman D. Glasscock. Careful-  
ly sacked four or five blooms, but  
had to rush off to work, so rubbed  
left over pollen on untagged RICH-  
ARD CARVEL blooms.

Rain and heat killed the bagged  
blooms, but to see what I got from  
the open RICHARD CARVEL, I raised  
about 100 plants and got three  
hybrids, of which EARLY SCOUT was  
the best. One other, ROXANA, a per-  
fect little mound of narrow petals.  
I have lost track of altogether. The  
last I sent to Gurney's nursery in  
South Dakota."



## Pilfered from 'Paeonia'

"Paeonia" is the new title for the publication formerly known as the Hybridizers' Newsletter, originated by "The American Peony Society's First Lady - Our Miss (Silvia) Saunders." This letter was originally circulated to a small group of peony enthusiasts who had secured some of Miss Saunders' offerings of hybridizing stock from her father's collection of worth while breeding clones, mostly catalogued by seedling number or parentage. Other interested or prospective breeders have since been added, and an invitation is still extended to those interested. A modest contribution of \$2 is asked to cover publication costs. Editors are Chris and Lois Laning, 553 West F Avenue, Kalamazoo, Mich. 49007, to whom all inquiries should be addressed.

### ROY PEHRSON REPORTS CN HIS "ITO TYPE" CROSSES OF 1971

"I've decided to make a perfunctory report — with apologies, because my results don't make the sense I'd hoped. I'll give it all to you so you can see what I mean.

(Following is listed the results of seed count on some 33 crosses, involving well over 100 seed pods. These are not published here due to space restrictions, but his conclusions should be food for thought to any serious hybridizer.)

"There is something wrong in all this. In some way I have surely goofed, for there are certainly too many seeds. Probably in almost every group of crosses listed, some of the seeds are not true hybrids.

In order to modify these data so as to make them more realistic, I'll make some assumptions:

1. Where single seeds are shown they are genuine hybrids.
2. Where two in a pod, only one is real.
3. If three or more, none is hybrid.

Having 'corrected' the totals in this manner, it is now a simple matter to compute values or percentages re-

presenting the comparative effectiveness of each pollen in producing hybrid seeds. Just divide the number of seeds assumed to be hybrids by the number of crosses made. It works out like this:

F2 "A"	.45
Ludlowi	.44
Amber Moon	.38
Argosy	.36
Aurore	.36
Potanini	.29
Tall Delavayi	.25
Golden Bowl	.20
lutea No. 14	.20
Delav.-lutea No. 1	.16
Tall lutea	.10
Golden Isles	.07

My previous guess that lutea and Delavayi (species) pollens might be more effective than the hybrids is not supported by this data, and I'm compelled to abandon it.

Dave Reath suggests that unreduced gametes may have played a part in the production of the "lutea" tree peonies. On reflection I can only agree. If it's true, then all of the following statements are probably true, also.

1. The lutea and suffruticosa cross is possible only when undivided gametes are involved.
2. All F1 "lutea hybrid" tree peonies must be triploid.
3. F2 plants and backcrosses may be either diploid or tetraploid, and possibly fertile.

In the breeding of "Ito" hybrids, the following statements, tho less certain, are also probably true:

1. The cross is possible only when the pollen parent provides ten chromosome gametes.
2. The "Ito" hybrids are triploid.
3. Lutea or Delavayi species pollens will be less effective than any other - unreduced gametes again required.
4. F1 hybrids somewhat better — some gametes will normally contain all 10 chromosomes.

5. F2 lutea hybrids will be most effective of all if tetraploid. All pollen grains will have 10 chromosomes.

It is on the basis of argument No. 5 that I obtained some of Gratwick's advanced generation hybrids to try. Perhaps one or more of these may be tels.

I'm going to try my best to get more hybrid plants. If I don't succeed, I won't be too disappointed; it's going to be immensely interesting to watch the baby plants I now have, grow into adulthood.

OMNIBUS SECTION (STILL FROM "PAEONIA")

Note to Rev. John Fiala, Dr. David Reath, Mr. Fred Cooper and others: processes are of more value than the products developed when applied to Peony breeding, so tell us How you did what you did, and if possible, WHY? Reporting on failures as well as successes will provide a mere complete picture of processes and goals. Error corrected gives double impact. Don't fear mistakes, use them."

SWAP COLUMN: Miss Saunders suggests having a "for sale and wanted" column as a service of our newsletter. Do you want it? OK, then develop and make use of it. As for me, I don't believe in selling anything I can give away.

Dara E. Emery of Santa Barbara Botanic Garden, California would seem to be the first to request this service. He has a few species available he would like to trade for some desired plants of mediterranean species. He also inquires if commercial people might object to this "free exchange". (The opinion of your Bulletin Editor here is that few commercial growers deal strongly in species, perhaps because many are difficult to grow, and relatively little demand does not make them a profitable item for propagation. I doubt that any commercial grower would seriously object.)

Note to Howard L. Treganza, Canton, S. D.

PRIMEVERE X ALICE HARDING T. P. cross would produce yellow herbaceous plants. This is what is now called the "Ito" cross. Mr. Ito

of Japan was the first to successfully make this cross, and produced nine plants, eight of which grew and prospered. Five of these are available from Louis Smirnow at \$50 per plant.

When you try this Ito cross - ALICE HARDING T. P. pollen on PRIMEVERE, you will find it takes very poorly, maybe not more than one true hybrid out of 100 crosses — BUT WHAT A PLANT is finally obtained!

Miss Saunders writes:

"Cameron English of Willowvale, Ontario called me today (Sept. 29) in great excitement. HIGH NOON has a big bloom on it! This is the latest I think that I've heard of a peony reblooming. RENOWN does it, too, but not in my garden this late.

"Roy suggested to me that this reblooming is merely that the plant is overenthusiastic and can't wait till next Spring — but can't we breed over-enthusiasm into the race? I believe people who are crossing lutea hybrids and herbaceous should use RENOWN and HIGH NOON."

(Ed.: I believe P. californica could come into play here if we can hybridize with it.)

From Fred Cooper, Ottawa, Canada (re: P. Potanini tall yellow)

Examination of the pigments of the flower of potanini Tall Yellow indicates that it is different from both potanini trollioides (a single chalcone and lutea (carotinoids). This flower appears to have four or five distinct yellow pigments, probably three being chalcones, one of which being identical to the trollioides type, a yellow flavanol pigment and perhaps a carotinoid, though this may be only an artifact and not a major pigment.

All this is pretty academic, but it does suggest a possible hybrid origin for this plant. Nonetheless, I believe it should perform in the same fashion as predicted for trollioides when used in hybridizing.

In this issue of "PAEONIA" there is a long compilation of data on P. californica, including some of Prof. Saunders notes on P. browni. This surely should be required reading for anyone interested in the breeding possibilities of this unique American species.

## More from Pehrson

(as reported by Sylvia Saunders)

"You have to have population" is an axiom which applies to whatever plant is being worked with. A very high degree of discrimination is required, when making selections from an "easy" cross. A population, once started, should be kept five years before being plowed up. I contend, therefore, that those with limited physical energy or limited real estate, would do best to concentrate on the very difficult crosses! The standard of excellence will not yet have been raised to the unattainable. But not everybody agrees with this idea.

Have you completely digested all the information contained in Fred Cooper's fine article in the June - September 1970 issue of our Bulletin? (Number 197) We should keep it in mind for every single cross we attempt. Many of the herbaceous species contain no possibility for any color other than the usual peonidin. The hybrids produced by using these may be a bit different in habit, or form, or foliage, but they will incite no buying frenzy in the ordinary gardener. Instead, we should use those hybrids containing Mloko or lobata, both of which have yellow flavone in their makeup. Although macrophylla blooms appear to have no yellow in them, this bloodline can produce it, too. We should all try to get the three other colors available in various tree peony species, into the herbaceous peony. These are: the plastid yellow from *p. lutea*, the chalcone yellow of *p. potanini*, and the pelargonidin in some of the suffruticosas.

The following comments refer only to crossing of species that are not closely related.

1. Diploid x diploid are usually the most difficult to make.
2. Diploid x tetraploid are somewhat easier. (The one exception is lacti (diploid) x lobata (tetraploid) which is extremely easy.
3. Tetraploid x tetraploid are the easiest of all, with the single exception noted.

How many of us have the plant called "*p. potanini* Tall Yellow" which

David Reath imported from Sir Frederick Stern? If you are using tree peonies in your work, I believe you should get a plant of this. I received one from Reath last fall and it is growing much better than any other tree peony I have. It spreads readily from stolons so it may even compete with your quackgrass. Fred Cooper tells us this species has the soluble chalcone yellow. Maybe we could get a brilliant orange from it, if we can cross it with Lacti. It certainly is worth trying.

## Beginner's Corner

In listing the chief reasons for failure of Peonies to bloom, they are given in what I consider a descending order of importance, though to an extent they are interrelated.

1. Poor plant
2. Poor planting
3. Lack of care
4. Insect invasion
5. Disease

Let's develop these in order, beginning with 1. Poor plant. This involves much more than whether it has 3 to 5 eyes and an adequate root system. Actually, depending much on type and habit of growth, a good plant could have as few as two or as many as six or more eyes. These eyes, though, should be plump and firm, the closer to actual crown level the better, of a size at least equal to the previous year's best stem, and not distorted or misdirected by overlying roots.

Roots should be of moderate size. Perhaps  $\frac{3}{4}$  to  $1\frac{1}{2}$  inches would be ideal, though this again depends on type and variety, and separate standards would definitely apply to hybrids. Ideally, roots should be as numerous as the number of eyes, and all be slightly outward facing. They need not necessarily be symmetrically arranged, as obviously divisions from established plants will have roots growing mainly in one direction. Curled or crossing roots should have been trimmed off.

Perhaps more important is root condition. Roots, as with eyes should be plump, strong yet mildly brittle, with no evidence of disease on sur-

face or cut ends. Rotted or rotting "cores" should have been removed. When cut, roots should be white, not tan, brown or dirty lavender. Dry, shriveled roots are to be avoided (such as are too often found in bushel baskets at your neighborhood garden shop), although if roots of choice varieties have inadvertently been left to dry out, they will often recover with an overnight soaking, starting with warm (not over 100 degrees) water. Do not leave in water over 24 hours, to prevent waterlogging.

2. Poor planting. More good peony roots fail to bloom because of poor planting than from any other single reason. The first consideration is selection of location. Good drainage is essential. Note that high ground or a slope is no sure guarantee of good drainage. The best test is to dig a peony hole and fill it with water. If the water does not disappear in 24 hours, you have a drainage problem, and should correct it by artificial means — tiling or side ditching, or look for another likely spot. Sunshine is also important. Some varieties tolerate partial shade better than others, notably many of the hybrids and some of the more subtly colored lactifloras will benefit by some shade. In any event, sunshine should be provided for at least 60 percent of the day. Freedom from root competition is of next importance. Do not plant closer to established shrubs than the height of the shrub, and with trees, far enough away so that the overhang will not reduce the 60 percent sunlight requirement.

Ideally, ground should be prepared well in advance of planting time, along the lines suggested on pages 9 and 10 of the Peony Handbook. (You don't have one? - Get one!) However, the novice is not likely to plan this far in advance, so the directions which follow on Page 11 are more applicable to this article. Incidentally, an excellent illustration, combining the type of root to plant, depth and soil preparation heads up the page. For the benefit of those not having the Handbook, a paraphrase of the directions follows: Dig each hole large enough to easily accommodate the root without crowding it (at least twice the diameter and

depth of the division to be planted). Return about one-third of the loose soil to the hole and mix in well about a half trowel full of standard garden (NOT lawn) fertilizer, say 6-10-4 or 5-10-5. When I can get it, I use a slightly lesser amount of Fertilome "winterizer," a 5-13-12 formula. For the organic gardener, a handful of bonemeal and a cup of dried sheep manure will do nicely.

Cover the mixture with about an inch of unmixed dirt and tamp it all down well. Be sure you do not plant the root upside down — a normal division has the crown on top with the eyes pointing upward and the roots extending downward. Then, holding the crown with one hand, draw in soil and firm it around the roots with the fingers to work out all air pockets. When you have filled the hole to a point just even with the eyes, pour in about a gallon of water and let it settle, then fill with loose soil, mounding it up a few inches for winter protection and to keep the roots from heaving. The mound will normally sink to proper level. If it does not, level it in the spring, but CAREFULLY, preferably as soon as the frost is out of the ground and before the new steems appear.

Cautions: 1. Do NOT plant either entire plants or sections whacked off from a neighbor's stock without removing all dirt, washing and trimming roots as described previously. To do so will invariably result in weak plants subject to deterioration from disease and weather.

2. Most roots commercially shipped come to you packed in some kind of moisture retaining medium. Keep plants in this material until ready to plant, in as cool a place as available, preferably not over 50 degrees — 34 to 38 degrees is better — use your old refrigerator if you have one. Keep material just barely moist until ready to plant, then be sure to remove all packing material before planting.

Next issue: Culture, Insects and Disease.

## 1972 APS Membership Contest

**WHO IS ELIGIBLE?** Any currently paid up APS member.

**HOW LONG DOES IT RUN?** From March 15 to October 15, 1972.

**HOW DO I ENTER?** Simply send the name and address of the new member secured, either on an APS membership application blank, or on your own stationery, together with remittance for the type of membership desired. If prospect prefers to send in direct, be sure that he indicates you as the solicitor. **No credit will be given for memberships not reported in this manner at the time of application.**

**HOW DO I GET RECOGNITION?** Points are awarded to each contestant based on the type of membership secured, according to the following schedule:

Single Annual .....	Two Points
Family Annual .....	Three Points
Single Biennial .....	Six Points
Family Triennial .....	Ten Points
Sustaining .....	Eight Points
Family Junior .....	Five Points
Individual Junior .....	Ten Points
Life .....	Thirty Points

We have purposely increased points for Junior memberships out of proportion to the dues secured as we are in urgent need of younger members to carry on the work now being done by our 'aging' members.

Points will not be awarded for con-

versions of one membership type to another; i.e. from annual to triennial or individual to family, except that three points will be awarded for conversion of Junior membership to full adult membership.

**HOW ARE WINNERS DETERMINED?** There will be ten winners declared, based on the total number of points earned. Please make sure that all entries are postmarked on or before October 15.

**WHAT DO I WIN?** Gift certificates for the Peonies of one's choice will be offered by various growers, in Ten Dollar denominations, according to the following schedule:

First, \$50; Second, \$40; Third, \$30; Fourth, \$20 and Fifth through Tenth, \$10 each. A minimum of 10 points will be required for any award however.

**Get busy NOW!** Secure from your Secretary the new flyer on the advantages of joining the APS. Have them available in your garden - take them to and place them in a conspicuous place at Flower Shows - Talk up APS membership to your neighbors, your garden club members. Accept invitations to talk on Peonies at every opportunity, and stress the advantages of membership. Let's make 1972 the biggest year for increase of membership the American Peony Society has ever enjoyed!

## NECROLOGY

Wilmington, Del.

"— My brother and I were very pleased to hear that application for registration of the new peony variety **ROBERT S. CRAWFORD** has been accepted. Your November 20 memo requests an obituary, and I attach one for your use.

As the obituary points out, Dad's primary vocation was banking, but at his summer home in North Olmsted, he owned 5½ acres of land, chiefly devoted to growing peonies.

At this location he had at one time 15,000 - 18,000 plants, including many

of the known varieties. As long as 30 years ago he began raising from seed, and the one now named in his honor was the best of the group. Some others are still developing, and I may contact you later about additional varieties.

Inasmuch as I have two brothers, I would appreciate receiving three copies of the American Peony Society Bulletin March issue when they are printed. Thank you for your help in establishing this new variety."

— William A. Crawford

## Robert Crawford, 91, Retired Banker, Dies

Robert S. Crawford, 91, a vice president and cashier of National City Bank before he retired in 1950, died Tuesday in his home, 1435 Wagar Avenue, Lakewood.

Mr. Crawford was born in Ireland, and came here with his parents when he was 9.

He started his banking career as an office boy and messenger with the old Park National Bank in 1897. After several mergers, Park National became part of the old Union Trust Co. and Mr. Crawford was named secretary of Union Trust in 1921.

He was executive vice president of the Union Trust from 1930 to 1933, when it was liquidated. He then joined National City Bank.

He was a former director of the Fresh Air Camp, a member of the Council on World Affairs, the Central YMCA, Greater Cleveland Safety Council and the Clifton Club.

Mr. Crawford, widely known as a peony grower, raised prize peonies on a farm in North Olmsted and was a member of the American Peony Society and the Ohio Dahlia Society.

Surviving are three sons, Robert W., William A. and Walton S. His wife, the former Minnie Walton, died in 1964.

Mr. Crawford was a member of Lakewood Congregational Church, 13-75 W. Clifton Boulevard.

## Ralph Hugo Giff

Sept. 22, 1889 - Dec. 2, 1971

Dear Miss Kessenich:

Mrs. Carrothers who wrote to tell you of the death of my uncle, Ralph Giff, gave me your letter asking for an account of his peony plantings.

The first incident in this connection that I ever heard about took place in the early 1920's. Mr. Giff took some Festiva Maxima peonies to London to a show. He had to drive sixty miles in his model T sedan to enter his flowers. The day was hot, and the peonies wilted. Disgusted he stopped the car and threw them

on the side of the road. His wife thought that foolish, and she picked them up, set them back in the pail of water and persuaded him to continue and to exhibit his wilted bouquet. In the relative coolness of the hall used for the exhibition the peonies revived, and he won a special award and a first prize on them.

At that time he had bought several acres on the edge of Sarnia and planted them in peonies. He had to leave these plantings when his work took him to Toronto in 1925. Later he sold the peony ground for residential purposes, and he eventually bought a house and lot in it himself.

In Toronto though crowded for garden space he continued to raise peonies but always looked forward to the time he could retire and spend all his time cultivating flowers.

After his retirement 20 years ago, he and his wife moved back to Sarnia. The lot he bought here had a light sandy loam and too many oak trees. He built the soil up with fertilizers, barnyard manure, and bone meal to where he could raise the best of peonies.

Among his favorites in the herbaceous beds were MONSIEUR JULES ELIE and NICK SHAYLOR. He also had 14 different varieties of tree peonies. His favorites among them were perhaps REINE ELIZABETH and ALICE HARDING. His pleasure in his flowers took a momentary lapse one spring when a small child climbed his fence and picked the first blooms ever to appear on the REINE ELIZABETH.

Even after his wife's death two years ago when his own health became poor, he kept his interest in peonies. Talking to him in mid-October he told me how much he wanted to get better so that he could see the end result of a herbaceous peony he had hybridized. This plant had white blooms with red markings last summer, but was not, he felt, completely established.

He was more fortunate with seeds he planted three years ago from an ALICE HARDING. This summer he saw their first blooms. He also had

## Mrs. Loyde C. Thompson

Mrs. Loyde C. Thompson, 67, 923 Reeves Drive, Grand Forks, N. Dakota, died Wednesday, January 11, at her home.

Mrs. Thompson was born May 4, 1904, in La Salle County, Ill. At the age of four she moved to Warren, Minn., with her family. She attended elementary and high school at Warren and the University of North Dakota at Grand Forks.

The former Ethel Rosendahl, she married Loyde Thompson June 7, 1926, at Warren. The couple then moved to Valley City, N.D. In 1929 they came to Grand Forks and had lived there ever since.

Mr. Thompson died June 8, 1969. He was a member of the Board of Directors of the American Peony Society at the time of his death. The satisfaction of knowing that some of his stock would go to friends who would appreciate it.

I hope the foregoing account is of some use to you. I would appreciate it very much if you would send me the bulletin in which the notice of my uncle's death appears.

— Jean Elford

Dear Mrs. Pennell:

I wish to inform you of the sudden death of a member of the North Dakota Peony Society, Mrs. Ethel R. Thompson, of Grand Forks, North Dakota, on January 11, 1972.

She was a devoted member of the Society and worked for years, in company with her husband, Mr. Loyde C. Thompson, now deceased, to encourage the growth and exhibition of the best named varieties of Peonies. She gave a tremendous amount of time and effort to the annual show and the Society.

You will find other pertinent data about Mrs. Thompson in the newspaper clipping.

Mrs. Nicholas Kohanowski,  
Secretary, North Dakota Peony Society

## Preview, June Bulletin

At last, an Editor's Dream! Already we have a fine group of contributions for the June Bulletin issue. These include such authors and experts as Clarence Lienau on Cut Peony Production for the Small Grower, Anthony De Biasi—"Some Goals for the Serious Hybridist" and Don Hollingsworth with "A Peony Cross for Non-hybridizers." Alexander reports on the GOLD MEDAL Peonies, Myron Bigger on Judging, our Beginner's Corner continues, and last minute news on the Annual Meeting will be featured. If your dues are not paid, send them in and don't miss our big June issue.

## Classified Advertising

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WANTED: varieties ASA GRAY, GRANDIFLORA, JUBILEE. Mr. Richard Banziger, Route 2, Box 209, Catskill, N. Y. 12414.

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WANTED: 6-10 each KUKENI JISHI, JUNE ROSE, FUYAJO, tenuifolia red double. Top O' The Ridge, 100 NE 81st St., Kansas City, Mo. 64118.

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Advertising in this column is of particular value to the small grower or the individual offering or seeking a limited number of choice or scarce Peony varieties. Any Peony-related advertising will be accepted, however.

Cost 50c per line — average 6-7 words per line. Name and address charged as one line. Minimum ad four lines (\$2.00). Copy and check for ad should be mailed to the Editor by the tenth of the month preceding issue i.e. June, Sept., Dec., Mar.



## DEPARTMENT OF REGISTRATION

The following new Peony varieties were accepted for registration during the years 1970 - 1971 - 1972.

### APPANOOSE

(Willis J. Smith 1971)

Seedling No. A39

Early bomb type red, slight fragrance, dependable bloomer. Awarded Honorable Mention at Van Wert National Show in 1960. Seedling of Richard Carvel.

### BERTHA'S CHOICE

A. Harper (1971)

Seedling No. B2-7

Lactiflora, Single. Parentage unknown. 5-5½ inch flower. Color nearest RHS 46A- Currant Red, but darker. Height 32" Early midseason, 3-4 buds. Blooms well from young plants, fine for arrangements when not disbudded.

### CHIEF WAPELLO

(Willis J. Smith 1971)

Seedling No. A40

Bright red double, medium early, tall heavy stems, stands erect, dependable bloomer. Awarded first class certificate at Van Wert National Show in 1960. Seedling of Adolph Rousseau.

### CLAUDIA NELSON

(Willis J. Smith 1972)

Seedling No. 4-42

Late double pink, medium dark pink with lighter color on edges of petals. Very dependable bloomer in hot weather. Awarded Honorable Mention at Van Wert National Show in 1960.

### DOUGLAS BRAND

(R. W. Tischler 1972)

parentage unknown 9" - 10" flowers. Large brilliant red, very attractive. Full double. No stamens. 32-34 inches in height, very strong stems. Vigor, good. Blooms late midseason. Average number of side buds. Amount of bloom - good. Occasionally blasts in unfavorable weather.

### HONSHU DAWN

A. Harper (1971)

Seedling No. A1-1

Lactiflora, Japanese. Parentage unknown. 6 inch blooms. Color RHS 61D Rose Bengal. Height 34", midseason for Jap, 4-5 buds. Brilliant pink, two rows guard petals; crisp, narrow self colored staminodes. Distinct improvement in form and reliability over Prairie Afire.

### HOT CHOCOLATE

(Henry Sass 1971)

Seedling No. 41-42.

Registered by El Dorado Gardens Lactiflora, Oxblood red, Japanese. Parentage not listed. 6" x 3" flowers, Oxblood red (RHS 183C). Center, the same. Stamens, none. Flower form: Guards cupped, center compact, recurved. Height—38". Season EM Foliage, medium to deep green. Buds per stem, 4-5. Divided four times. Complete monotone in glistening "Dutch Process" cocoa brown. Moderate sized flower held stiffly but gracefully on tall stems of ample strength for support. Best seedling Midwest District Show, 1969.

### JESSIE MORGAN

(Willis J. Smith 1972)

Seedling No. 2-41

Large dark red double, strong erect stems, medium early, holds color well in sunlight. Awarded first class certificate at Minneapolis National Show in 1971. Seedling of Mons. Martin Cahuzac.

### MAHASKA

(Willis J. Smith 1972)

Seedling No. 4-41.

Dark maroon semi-double, strong stems, medium early, bloom has a waxy gloss and does not fade in sunlight. Seedling of Mons. Martin Cahuzac.

### OSAKA FLAME

A. Harper (1971)

Seedling No. A3-5

Lactiflora, Japanese. Parentage unknown. 6 inch blooms. Color; Guards RHS 58C Neyron Rose, center 21D-20B Maize to Chinese Yellow. Height 22", early midseason. Light rose pink, three rows petals, some shallowly notched. Soft yellow staminodes, red tipped carpels. Good stem and plant habit.

### PINNACLE

(Bigger, 1970) 34-55

Seedling of a seedling. (Unnamed) A Very large near white with a pink cast to the center of the flower. It appears white from a distance. The three foot stem is even stronger than the stem of KANSAS. There are a

few stamens giving the flower a creamy cast. Fine clean foliage.

**ROBERT S. CRAWFORD**

Originator - Robert S. Crawford

Registered by William A. Crawford  
1971

Dark Red. Japanese. Parentage not listed. This strain was first started about 1955. Similar to MIKADO but darker red with darker red center. medium sized, mid-season. Waved petals of dark rose red, center broad and flat. Thick staminodes, stained dark rose red, tipped light yellow. Plant medium height, (Waist high) erect stems, close set foliage. Flower, slight pungent odor.

**TOP HAT**

(Helen Reynolds 1971)

Seedling No. 43-14

Lactiflora, Japanese, Parentage unknown. 6½" x 3" flowers, cardinal red (RHS 53D) 18D centers. No stamens. Amber, red, tipped carpels. Guards slightly recurved, center moderately compact. 32-34" in height. Foliage deep minate, full to ground. 2-3 buds casionally red at center. Floriferous, hardy and vigorous plant. Blooms midseason.

**UP FRONT**

(Bigger, 1970) Seedling No. 7-57

Unknown Parentage.

A very smooth all one color, full rose, medium pink, that is most attractive. The plant is about three feet tall with fine medium green foliage.

**WHITE MOON**

(Bigger 1970) Seedling No. 50-61

Frankie Curtis x ———.

A white, all white with nothing but white, full rose fragrant flower held up very well on a 30 inch stem. Fine medium green foliage.

**ZEILA DALE**

(Willis J. Smith 1971)

Seedling No. 3-52

Bud is blush white and opens to a large white rose type double with a cupped center. Has strong erect stems and is very fragrant. Flower is larger and more fragrant than LE CYGNE. It is from a cross of FANNY CROSBY by LE CYGNE. Awarded Honorable Mention at Van Wert National Show in 1960.

**Registrants:**

Myron D. Bigger, 201 N. Riee Rd.

Topeka, Kans. 66616

William A. Crawford, for Robert S. Crawford, originator; (deceased) 704 Hopeton Road, Westover Hills, Wilmington, Del. 19807.

Helen Reynolds, originator and registrant for Henry Sass; El Dorado Gardens, 500 E. Locust St., El Dorado, Kansas 67042

Willis J. Smith, 404 McCarroll Dr., Ottumwa, Ia. 52501

A. W. Tischler, Brand Peony Farms Box 36, Faribault, Minn. 55021.

Allen Harper, Top O' The Ridge, 100 N. E. 81st St. Kansas City, Mo. 64118

Please refer to the inside front cover for the statement of intent and directions for registering under this department.

It has been suggested that some elaboration of the purposes and advantages of registration would be of interest not only to originators of new varieties but to the general membership.

To return to the origin of varietal registration, one must consider the original basis for the founding of the American Peony Society. Section 2 of the Articles of Incorporation states in its recital of objects "—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 —"

This, actually was the heart of the movement to organize a Society. Names and varieties had been so confused chiefly through the practice of many of the commercial growers and dealers of the time to secure varieties in quantity and name them without regard to the origin or originally published name of the clone. This was particularly true in the United States at the turn of the century, when large eastern nurseries were importing great quantities of stock from Eurpoe, chiefly France and Holland, and later England.

As a result, many identical plants were being offered under perhaps a half dozen names, while on the other hand, a single name was often applied to three or four different varieties.

As a consequence of the Society's organization, all possible varieties were assembled at Cornell Universi-

ty and subsequently other locations with the intention of reducing each variety to a single name and each name associated with but one type. From these investigations a basic check list was compiled, and the Department of Registration was formed.

Since that time, registrations have been accepted by the Society until today its files contain the names and descriptions of more than 3500 varieties.

Registration is of distinct value both to the originator and the eventual possessor alike. In no other manner can each individual be protected against intentional or inadvertent misnaming of varieties. Let us expand on the respective advantages gained.

To the originator, registration assures him that the name he has selected, if approved, may not thereafter be used to identify any peony variety. He may then introduce it with assurance that no different variety will be similarly named. Having been introduced, the variety may be entered in exhibitions as a New Variety, whereas otherwise it would be eligible for entry only in seedling classes.

It might be well here to distinguish between Registration and Introduction. A peony may be Registered as soon as its identity as a distinct type can be determined, generally speaking not until it has been divided at least twice. This requirement is urged for the reason that peonies are somewhat unique in frequently altering form subsequent to first bloom and later division. This is particularly true of the Japanese types, wherein later division occasionally causes them to be modified to types including so-called anemones, bomb type double and even full doubles.

Often "feathering" occurs after division: the propensity to throw some petal-like staminodes from the center of the bloom, generally considered to be a fault in evaluation of the Jap types. Semi-doubles, too, may develop to full doubles, or occasionally stabilize as Japs.

A peony need not be Introduced after it is registered. Many growers

are not commercial minded, and their chief enjoyment is in developing a variety "good enough to name" and be distributed if so desired without its being confused with any other existing variety.

Introduction, on the other hand, is the first offering for sale of a variety, and in order to be "official" and of value to the entire family of peony fanciers should be offered in a printed publication, either a catalog or through public news media, such as Garden Magazines or the Peony Society Bulletin. While the Society does not currently attempt to validate introductions, a separate division of the Registration department is planned, so that the introducer and his offerings may be listed in the Bulletin columns.

Such action will assure the introducer that his variety is eligible to be shown in all "open" classes in exhibitions, that it is available to prospective purchasers, and that it is eligible for any awards that the Peony Society does now or may in the future bestow on suitable varieties.

If you have detected a variation in style in the current listing of Registrations, it is because the Society does not currently have a formal registration blank. Your Secretary is presently working on this project, assisted by a few interested members. If you plan to register a Peony this year, please write first to the Secretary, furnishing only the desired name. You will then be sent an application blank, together with advice as to whether or not your proposed name is acceptable. On filling this out, and returning it with your registration fee, your variety will be officially Registered, and you will receive a Certificate of Registration.

The following Peony names have been submitted for Registration in 1972 by Charles Klehm and Son Nursery, 2 Algonquin Road, Barrington, Ill. 60005

BARRINGTON BELLE  
MOON CRATER  
MOON RIVER  
PINK JAZZ  
SWEET SIXTEEN

## PUBLICATIONS

**Handbook of The Peony**—A 36-page booklet containing concise articles on why and when to plant, the care, culture and propagation of peonies of all kinds, including 8 pages on Tree Peonies. Three line drawings, and 8 black-and-white photographs are included, as well as lists of varieties and sources. Price: \$1.00 each. 25 to 49 copies, \$.75 each. 50 or more copies, \$.50 each. Revised and reprinted December 1969.

**Back Bulletins.** Current Issues, \$1.00 each, to members. \$2.00 to non-members.

**Peonies Outdoors and In** by Arno and Irene Nehrling, (1960). Hearthside Press, 381 Park Avenue, South, New York, New York 10016, 288 pages, including 11 color plates and 118 black-and-white sketches and photographs. A complete guide to selecting, growing and using herbaceous and tree peonies. A 50-page section on Peonies Indoors including Arrangements, and How to Stage a Show. About 40 pages are devoted to the Tree Peony. Price: To Society members, \$4.95. To non-Members \$5.95.

**The Peonies**, edited by John C. Wister (1962). Published by the American Horticultural Society, 901 N. Washington St., Alexandria, Va. 22314. 220 pages, packed with up-to-date information on Herbaceous, Tree and Hybrid Peonies. Many techniques of growing, propagation and breeding. A must for every Hybridizer. Profusely illustrated. Price to Members, Clothbound \$3.50, Paperbound \$2.50.

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

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**Color Slide Collection:** The American Peony Society maintains several groups of excellent sets of peony slides for rental. Each set contains 80 slides. A list of names accompanies each set. Ideal for program and Garden Club meetings, these slides are a fine way to study the standard and newer varieties.

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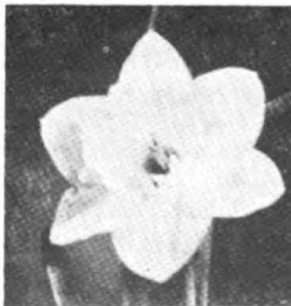
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