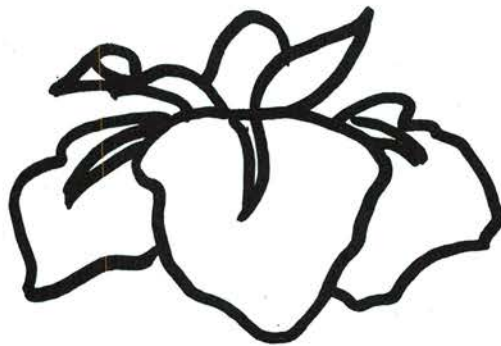
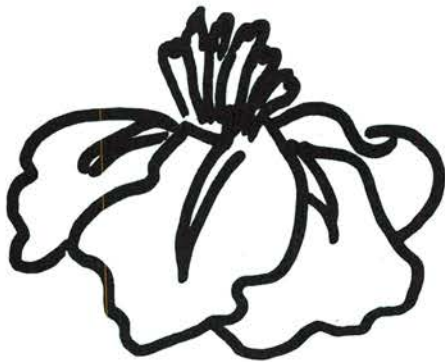
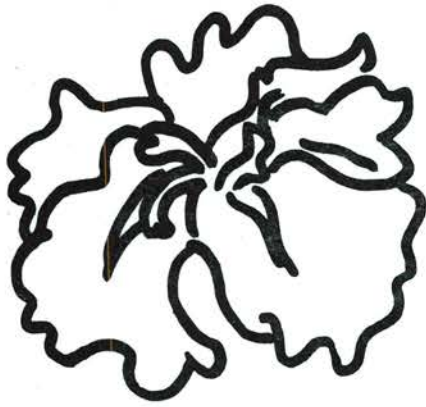


VOLUME 6, NUMBER 2

OCTOBER, 1969



THE REVIEW

OF THE SOCIETY FOR JAPANESE IRISES

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OF

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Mr. A.H.Hazzard, Kalamazoo, Mich., through 1970
Mr. Andy E. Hayes, Troy, Tenn., through 1969

APPOINTMENTS

Mr. W.E.Ouweneel, Terre Haute, Ind., Editor and
Publications Chairman
Mr.E.H.Wagner, Columbus, Ohio, Robin Chairman

FROM THE PRESIDENT'S DESK

It was wonderful to meet so many of you in Milwaukee. We were most grateful to RVP Clarence Protzman and the Convention Committee for the manner in which our meetings were scheduled. For the first time, no other sectional meetings were held at the same time as ours; consequently we had a full house and an enthusiastic audience for our slide show. We appreciated having a fine collection of pictures from Arlie Payne, Ben Hager and Art Hazzard. Bill Ouweneel served as Chairman for the special meeting on Judging Japanese irises. Arlie Payne answered questions about our Garden Judging Schedule and Virginia McClintock explained the show schedule.

One of the questions raised was that of how many blossoms should be open on one stalk at a time. Mr. Payne emphatically defended his belief that only one blossom should be open at one time on one stalk. Since the rules published in the Judge's Handbook did not support this position, there was considerable debate about it after the close of the meeting. Members from California seemed to be in favor of having more than one blossom open at a time and pointed out the advantage this has for a show stalk. Bill Gunther pointed out that he had won a Queen of the Show ribbon for just such a stalk. Since the Judges Handbook had been undergoing revision and was nearing the deadline for publication, President Bledsoe gave us two weeks in which to resolve our debate and submit any changes we might wish to make in the Handbook.

Because of the time limit, I called for a vote of our seven-member Board as provided in our Bylaws and was extremely pleased with the cooperation I received from our Officers. Since there was just one dissenting vote, I authorized changing our Judging Schedule in the Handbook to read as follows:

Number of Flowers. There can be no fixed rule on the number of flowers, because this character is variable from one variety to another as well as to the season, fertility of soil, and amount of water available to the plant at bloomtime. If there are no branches in a particular variety, two buds are normal. Branches may carry one or two buds each. New varieties with higher bud count are hybridizer's goals. In order to display each flower perfectly, and to extend the bloom season, it is preferable to have only one blossom open at a time.

Flower Stalk.

1. Branching. Stalk should have a minimum of one branch, preferably more. Branches should be well spaced so buds are not clustered and long enough so that flowers are not crowded. It is desirable that each branch carry two or more buds. Preferably only one flower should be open at a time.

During the bloom season in my own garden this year, I carefully checked each bloom stalk in order to record what varieties open more than one blossom at a time and how many blossoms were open at a time. I did not have a single variety that opened more than one blossom at a time. It is my opinion that weather affects this factor. On hot, humid days, for instance, blossoms do not last three days and are picked off, whereas in cool weather, it is possible that a third day blossom might be open while a fresh blossom opens. More research is needed. I urge each one of you to be observant of this matter next season.

One of my most enjoyable experiences at the Convention was the opportunity to meet and confer with other Sectional Presidents. It was most helpful to discuss common problems and we are continuing to compare notes in a Round Robin Letter. We agreed and recommended to the AIS Board that all sectional dues be paid through the AIS office. This will eliminate the correspondence previously necessary to confirm AIS membership as required by our Bylaws.

We are beginning to plan for the 1970 convention in New York City. As the highlight of our program, I have already asked Lee Eberhardt, President of the Median Iris Society, to show the films and slides he has made of Japanese iris gardens in Japan. Start planning now to come East for this exciting show and all of the AIS celebration.

C.A. SWEARENGEN
1898-1969

It is with great sorrow that we record the death on October 31 of "Bob" Swearengen, a close personal friend of many iris growers and first president of The Society for Japanese Irises.

Homespun, forthright, self-educated, dauntless- these four words go a long way in describing "Bob" Swearengen. Born and raised on a farm, his formal schooling limited, he obtained his education by applying his unbounded curiosity to everything he met. No machine, device, science or phenomenon of nature could bar his enquiring mind.

He and his wife, Margaret, had long been actively interested in flowers when they moved into Arlie Payne's neighborhood and became acquainted with Japanese irises. He told us that story in the April, 1965, issue of The Review. From then on his interest and activity in irises grew year by year. He was a member of the American Iris Society for seventeen years, a member of The Society for Japanese Irises from its founding and a member of the British Iris Society. He served as Japanese Iris Robin Chairman from 1964 to early in 1969. He registered twenty varieties of Japanese irises.

He is survived by his wife; a daughter, Mrs. Eleanor Welch; and a granddaughter, Miss Carmen Joyce DeWitt.

THE 1969 AIS CONVENTION

by
Bill Gunther

In preparation for the 1969 AIS Convention about a hundred Japanese irises were potted by the Milwaukee County Park Commission at their Propagating Center.

But at convention time all had died.

A possible explanation is that the soil in the pots dried out during the previous winter and the irises, while dehydrated, could not stand the bitter, cold temperatures of Wisconsin.

Whatever the cause, there were no Japanese irises in bloom for the Convention. One bed at Boerner Gardens contained about thirty plants which had been planted the previous October. They did not appear likely to bloom this year. Japanese irises bloom in the Milwaukee area about the first week in July.

Nonetheless, Japanese iris enthusiasts who attended the Convention found it very worthwhile. What made it worthwhile to them was (1) the Japanese Iris Section meeting, (2) the Japanese Iris Judges session and (3) the Japanese iris exhibits.

The Japanese Iris Section meeting was held at 10:00 AM on June 4 at the Sheraton-Schroeder Hotel. The meeting was very well attended. After a welcome to all by Eleanor Westmeyer, President of the Society, there was a showing of an excellent collection of colored slides, with narration, and then a discussion period. Most of the officers of the Society were present, and they participated actively. Response from the audience was enthusiastic.

The Japanese Iris Judges training session was held at 6:30 PM on June 6. The main presentation was made by W.A. Payne, the person most experienced and qualified for the job. He discussed Garden Judging. Our Vice President, Virginia McClintock, followed with a discussion of Show-room Judging. Success of the meeting was indicated by the fact that many of the participants and many of the audience remained in the room long after adjournment in intense discussion over some of the controversial topics introduced in the meeting.

The Educational Exhibit of the Society for Japanese Irises was displayed in the Headquarters Building of the Boerner Botanical Gardens. The building is located near the main iris plantings of the Convention, for which reason it was very well attended. Colorful illustrated posters and captioned photographs explained essential requirements for culture of Japanese irises and showed examples of the various forms. Very appropriately, this exhibit was directed not so much to the experienced Japanese iris grower- but rather to the person who is not sure just how to begin in this special field.

We are confident that the Educational Exhibit, the Section meeting and the judges training meeting conducted by the Society for Japanese Irises during the Milwaukee Convention will result in increased attention and interest toward Japanese irises by those AIS members who are not yet members of any of the specialty iris sections.

JAPANESE IRIS NOTES

by
Bill Gunther

The blooming season for Japanese irises (and for other irises too) is longer along the Southern California coast than elsewhere. The reason why this is so is that there is less variation in temperature along the coast than anywhere else in the nation; the temperature along the coastline is stabilized by the prevailing westerly breeze which flows in from over the Pacific Ocean. In my garden, which overlooks the ocean, the temperature has neither climbed to 90 degrees nor dropped to freezing at any time during the last six years.

In this unusual situation, some iris plants seem to be confused; they do not know for sure what season it is. Consequently, they do not all bloom at one time with a concentrated peak of blossoms; rather they bloom intermittently- but relatively sparsely- thru the year.

As a consequence, this region (AIS Region 15) has more AIS-sanctioned iris shows than does any other region- and it has them during all the seasons of the year.

This year, the first show which had Japanese iris entries was that at Arcadia (Los Angeles) on April 19 and 20. Even more Japanese irises were entered in the San Diego show which was a week later, April 26 and 27. These shows were timed to get most of the tall-bearded and spuria blooms so it was a surprise to the show committees to see Japanese irises coming in. The show committees in both localities have indicated that they will not again be caught unprepared; the show schedules for 1970 will include classes for Japanese irises.

A month later, from May 22 thru 24, the big Mission Valley Show, also in San Diego, was held. In addition to an accredited iris show, this event also has a large general flower show and a commercially sponsored flower show; it attracts far more visitors than any show which is limited to iris entries alone. These visitors were very much impressed with the display of Japanese iris entries. So were the AIS judges. From all of the irises-which included numerous tall-bearded varieties, spurias, Siberians, Pacific Coast hybrids, Louisians and assorted species- the judges selected a Japanese iris as queen of the Show. The winner was a beautiful stalk of CONFETTI SHOWER with excellent branching and two open blossoms. See picture on right.



Much later, June 25 thru July 6, the annual Southern California Exposition at Del Mar was held. This exposition features the largest outdoor flower show in the nation, and a component of the show is an AIS-santioned iris show which runs for the full twelve days of the exposition. It really is six different iris shows, because new irises are entered and judged every other day of the twelve days of the exposition, and no stalk may be entered for competition for more than one judging. As in previous years there were entries in the Japanese iris section for each judging day. On July 1 a stalk of the Japanese iris SKY AND WATER, with three open blossoms, was selected as the "Best Bloom" at the exposition. It won that award against competition from not only other types or irises, but also from all the roses, carnations, orchids, dahlias, and gladiolas which were entered on that day.

On October 11, 1969, the annual fall meeting of the AIS Region 15 was held at La Jolla. One of the events in that meeting was another AIS accredited iris show. Entries included bearded, Pacific Coast, Japanese, Louisiana and species iris; a number of bloomstalks were sent from Australia by air for the occassion. From all these irises, as Queen of the Show the judges picked a stalk of the Japanese iris Scheherazade. It had two open blossoms, and during the formal meeting it occupied a position of honor on a pedestal directly in front of the speaker's stand. Among the officials seated at the speaker's table were the RVP of Region 14, the RVP of Region 15 and the AIS Exhibitions Chairman, Dr. Clarke Cosgrove. See picture of SCHEHERAZADE below.



It is very notable that the Japanese irises which won the above awards were grown under the "pot culture" method which was detailed by Jack Craig in the April, 1967, issue of THE REVIEW. Under that procedure the plants are grown in pots which are standing in ponds of shallow water. Fertilizer is dissolved in water to support and sustain good growth.

Experience in Southern California indicates that Jack Craig's method not only tends to extend the blooming season, but also tends toward more blossoms simultaneously open on each bloomstalk. Using the pot culture procedure, stalks with four blossoms open simultaneously are not infrequent. An example is shown on the left below which is an Ise seedling produced by Dr. Hirao whose parentage is SHUN-CHO X SAKURA FUBUKI. The picture was taken in Del Mar, California, on September 2, 1969. The picture on the right shows a collection of Japanese irises with a 6' 2" young man placed alongside for scale.



For iris growers who might intend to try pot culture of Japanese irises in mild-weather areas, it should be noted that for a climate such as that of Southern California some minor modifications to procedures described by Jack Craig are desirable and/or necessary. These modifications include the following:

(1) In this area, the three-inch clay pots discussed by Jack Craig seem to be far too small for satisfactory results. The plants perform much better in six-inch pots; much better yet in nine-inch pots. Plastic pots seem to be better than clay pots because they are cleaner. The outside of porous clay pots becomes covered with fungus when the base of the pot is standing in fertilized water.

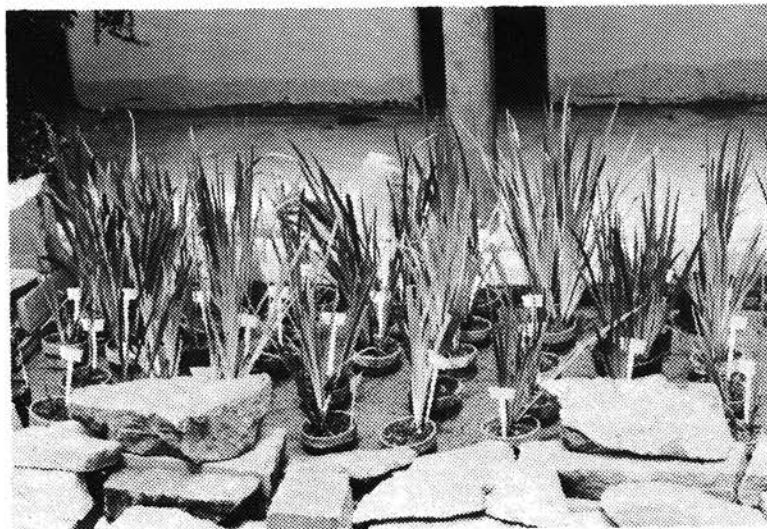
(2) Because there is no freezing in this area, the pots and plant roots can be left submerged in water the year round with no ill effects.

(3) Jack Craig prescribes complete withholding of fertilizer during the blooming season- but his prescription is not applicable here where there are blossoms from March thru October. If fertilizer were withheld for that long a time the plants as well as the blossoms might die for lack of nutrition.

(4) In this area specific action must be taken to prevent mosquitoes from using the Japanese iris ponds as breeding areas. The most effective method is to stock the ponds with small fish which eat the mosquito eggs before they hatch into wrigglers. The best fish for that purpose is the gambusia, or "mosquito fish"; they are distributed by the local agricultural service for that purpose.

(5) Another problem in this area is that the fertilized water supports almost explosive growth of algae. Resolution of that problem here is to introduce starts of either azolla or of duckweed into the ponds. These attractive small plants thrive and multiply while floating on the surface of the fertilized water. They soon cover the surface so that the pond water around the pots of Japanese irises looks like a perfectly manicured green lawn; the algae underneath then die for lack of sunshine.

(6) For the sake of appearance, and because of a termite problem, we find that bricks are more satisfactory than boards as retainers for the plastic pond liner. Appearance of the ponds can be enhanced even further by arranging stones or quarry-rock over the bricks to create an attractive rustic effect.



THE SWEARENGEN JAPANESE IRIS PRINTS

While attending a closing-out sale at a local nursery late in 1968 C.A.Swearengen purchased five colored prints of Japanese irises which apparently had been made in the late Nineteenth Century. Two of the prints were 10" x 7" and three were 10" x 14". Pictures of the individual flowers were about three inches wide and showed considerable detail. Color fidelity apparently is not what we are used to today.

The reading matter on each of the prints is given below.

IRIS KAEMPFERI

1015-Alexandre Siebold (Siebold)

1020-Souvenir(Siebold)

2 Japon Plen air.

Off. litho & pict. in Horto Van Houtteano

IRIS KAEMPFERI

1014-Alexandre von Humboldt (Siebold)

1016-Prof. de Vriese(Siebold)

2 Japon Plen air.

Off. litho. & pict. in Horto Van Houtteano

IRIS KAEMPFERI

Varietates (L. Van Houtte)

3243. Edward Mucklow

3242. Gabrielle de Nocker

3245. Gustave Van Eckhaute

3235. Jean Andries

3234. T.B.Masson

Off. Litho. & pict. in Horto Van Houtteano

IRIS KAEMPFERI

Varietates (L. Van Houtte)

3244. Benjamin Davies

3239. Dos Santos Viana

3241. James Eckersley

3240. Jos.Broome

3246. Mad. Langaard

Off. Litho. & pict. in Horto Van Houtteano

IRIS KAEMPFERI

Varietates (L. Van Houtte)

3250. Emma Lefebvre

3233. Grand Mogol

3248. Mad. Ch. Van Eckhaute

3249. Paul de Nocker

3247. Valentine de Nocker

Off. Litho & pict. in Horto Van Houtteano

Descriptions of the varieties illustrated are given below by numbers:

1015-3 petal, purple, slight blue halo, purple standards, bluish styles, falls heavily veined dark purple. Falls almost touching.

1020-3 petal, white background, pink halo, styles and standards pink with white edging. Falls almost touching.

1014-6 petal white.

1016-3 petal, rosy pink falls, slight bluish halo, standards and styles rosy red, all heavily veined. Falls almost touching.

- 3243- 3 petal, brownish purple falls and standards, styles blackish purple, conspicuous veins.
- 3242- 3 petal, purplish red background with heavy white veins from white halo to edges of falls, veins becoming reddish near edges, standards and styles tipped with purplish red. All parts narrow.
- 3245- Similar to 3243. Petals wider and slightly ruffled.
- 3235- 3 petal, white, lightly brushed with pink, Standards deep purple, narrow, with white edging, styles white, conspicuous veins.
- 3234- 3 petal, medium blue falls, triangular standards light purple, styles blackish purple, conspicuous veins.
- 3244- 3 petal, light purplish falls, blue halo, standards purplish, styles blackish blue, slight ruffling, conspicuous veins.
- 3239- 3 circular petals, white with veins extending into deep purple border. Styles cream colored with purplish crests.
- 3241- 3 petal, bluish halo, surrounded by white blending into light purple border. Falls covered with dark purplish veins. Standards solid dark purple. Styles blackish.
- 3240- 3 petal, uniform self, slight bluish halo, styles blackish blue.
- 3246- 3 petal, white, light purple standards, darker purplish styles.
- 3250- 6 petal, white center extending in veins through wide rosy-purple border. Much ruffling. Styles creamy with purplish tips.
- 3233- 3 petal, deep reddish purple. Styles dark purple with reddish purple crests.
- 3248- 3 petal, light bluish purple. Standards darker purple. Light bluish styles with purple tips.
- 3249- 3 petal, wide blue halo, medium purple border. Reddish standards. White styles tipped with purple.
- 3247- 3 petal, large white center blending into purplish red border. Standards rosy-purple at center with white edges, heavily veined. Styles cream colored.

KAEMPFERI VS. ENSATA VS. LAEVIGATA, CONT'D.

Biological Abstracts, V. 5, 1931:25264. "Miyazawa, Bungo. Studies on the botanical name of Japanese iris and its horticultural history. (In Japanese with English resume). Bull. Miyazaki Coll. Agric. & Forest. 1:15-41. 2 fig. 1920. The Japanese iris is generally known by the name *Iris laevigata* Fisch. or *I. kaempferi* Sieb. The author's study of the herbarium specimen collected by Thunberg and deposited in Uppsala University has convinced him that it must be called *I. ensata* while what is generally called by the latter name is really *I. biglumis* Vahl. The culture of the Japanese iris began in Japan 473 years ago, and its garden varieties began to appear in 1907. We may count at present more than 600 varieties through the author's selection work in recent years. Courtesy Japanese Jour. Bot."

The above abstract is slightly different from a translation of the summary of the same article given on page 37 of the October, 1968, issue of *The Review*. The date "1907" would appear to be an error.

HYBRIDIZING RECORDS OF W.A.PAYNE

W.A.Payne presented his hybridizing records to Mrs. C.E.McCaughey, AIS Historian at the Milwaukee Convention. They record and illustrate the meticulous methods he used in thirty four years of hybridizing Japanese irises. During that time he probably made over 3,000 crosses, produced and tested over 100,000 seedlings, numbered 1349 and registered 170. He used thirty two varieties as his original sources but depended largely on six Edo varieties: Aifukurin, Kongo San, Iso No Nami, Rishono, Otomene and Osamaru Miyo. Some of the others were Higo and Ise types also.

The records are in three field note books and two loose-leaf 8½" x 11" binders.

The field note books contain his working records. In them he recorded his garden contents and, more important, all of the information needed for each of his numbered seedlings. This included parentage, year of cross, year of numbering, and a detailed description of each plant and flower using Ridgway's Color Standards and Nomenclature for color descriptions. Each winter he pored over these records planning crosses he wished to make the following season. Not surprisingly, the covers are threadbare and reinforced and the pages are thumb-marked and stained.

The loose-leaf binders contain summaries and analyses of his crosses. One section consists of breeding diagrams of his registered varieties. Each diagram shows the ancestry going back generation by generation to his original thirty two varieties. It shows the year of each cross, the year the seedling was named and the year of registration. Notation is also made on each diagram of each numbered sibling and each numbered variety from duplicate crosses. Inbreeding is shown in red, other information in black. Examples were given in the October, 1966, issue of The Review.

Other sections include the following:

A table showing fractional parentage of each of the thirty-two original sources in each registered variety.

List of numbered seedlings showing inbreeding, if any, and final disposition.

Registrations showing seedling number, parentage, years in trial bed (three to nine, average about five) with inbreeding noted, if any.

Progeny of each numbered seedling with other parent also noted in each case.

One thing his records do not show is that there was seldom, if ever, a bee cross in his work. His practice was to cover each parent with florist's tissue from the time the buds began to break until pollenization had become effective.

GROWING JAPANESE IRISES IN THE DEEP SOUTH
Mrs. C.B.Hamilton, Baton Rouge, La.

Some seven years ago I was able to obtain about 200 Japanese iris seeds of the Higo strain from Dr. Shuichi Hirao of Japan. I planted them immediately upon their receipt and had excellent germination. The seeds were planted in small flats and kept in a greenhouse until they were four or five inches tall. They were then transplanted into the flower garden in beds which had been filled with peat moss and a liberal amount of 8-8-8 fertilizer. Frequent fertilizer applications of a weak liquid solution were used on them for several months. In late January or early February, depending on the weather, I agitate the dirt around all of my iris clumps and add more fertilizer. This is repeated again in late March and the plants are kept well watered during this period of growth and all through their blooming season, usually May and June, and through the month of August.

The vast majority of my plants have increased rapidly and some of the clumps have been divided several times within a five year period. During the first two years that the Japanese irises bloomed for me I made a large number of crosses as I wanted to increase my planting. One year I planted about 4,000 seeds and have grown them outdoors. For the past two years my hybridizing has been much more limited and I am working with irises that have unusual color combinations, good texture and branching- mostly in double varieties. Several of my seedlings that bloomed for the first time this year were different from any that I have ever seen.

Although these irises can be grown in water, I grow mine in raised beds in a sunny location. I find that they like a lot of sunshine, plenty of organic matter and fertilizer during their growing season and plenty of water from January through August. My plants have never really been troubled with insects although there were some thrips early last summer which I controlled with Malathion.

I have been an avid gardener for about 15 years and have grown many types of plants. I have found that Japanese irises-when given rich soil, sun and plenty of water- will perform with a minimum of care and certainly there are no prettier flowers to be found. The size and form of the flowers as well as the colors, are very varied. About six of my plants had flowers that measured at least 15 inches in diameter. Many of them are the beautiful double whites with a slight touch of yellow.

About fifty of my plants are in pots but I have not yet been successful in blooming them that way.

The climate in Baton Rouge is excellent for gardening. Our winters are mild. We seldom have over five or six days during the season when the thermometer would be below freezing. Warm sunny days occur during the winter months so we really can garden on a twelve-months basis. The average rainfall is heavy and there have been years when I did not have to water my irises with the sprinkler over once during the year.

DR. GEORGE M. REED

Growers of Japanese irises will remember Dr. George M. Reed as one of the principal early students of Japanese iris culture in the United States. Growers of Louisiana irises will remember him as one of the early hybridizers of Louisiana species.

Dr. Reed was born May 2, 1878 at Ingleside, Pennsylvania, where he attended the public schools and Freeport Academy across the Allegheny River. He received his A.B. degree from Geneva College, Beaver Falls, Pennsylvania, in 1900, an A.M. degree from the University of Wisconsin in 1904 and his Ph. D. degree from the same institution in 1907. He was Professor of Natural Science at Amity College, College Springs, Ia. from 1900 to 1903, Assistant Professor of Botany at the University of Missouri from 1907 to 1912 and Professor from 1912 to 1918. He became a pathologist with the Bureau of Plant Industry, U.S.D.A. in 1919 and in 1921 started his career as Curator of Plant Pathology at the Brooklyn Botanic Garden. His chief interest in plant pathology was powdery mildews, cereal, smuts and the physiological specialization of parasites.

In his 1929 Annual Report, Dr. C. Stuart Gager, Director of the Brooklyn Botanic Garden, made the following statement:

"In April, 1920, the Botanic Garden entered into a co-operative agreement with American Iris Society to maintain here a test garden for beardless irises and to make a special study of their culture, breeding, diseases, classification, nomenclature and comparative merit.In 1924 Dr. Reed, Curator of Plant Pathology, took charge of the project, as the pathology of Iris is one of the most fundamental of these problems, affecting its culture and breeding. The investigations have resulted in substantial additions to our knowledge of this important group of plants.... Our test garden now contains what is probably the largest collection of beardless Iris, in number of varieties, in the world."

In the AIS Bulletin for April, 1925, Dr. Reed spelled out his plan with special reference to Japanese irises:

"The following program has been laid out and there is every likelihood that much may be accomplished during the next two or three years:

1. Identification of Varieties.- For this purpose it is necessary to get together and grow all named varieties. By means of the original published descriptions and illustrations of named varieties, correct identifications of the types may be made. Such a study will enable us to straighten out such tangles as the application of two or more names to the same plant, and also the listing of different plants under the same name.

2. Nomenclature.- Since the original importations of the irises came from Japan it is very important to determine the correct Japanese name and the particular variety to which it was applied. A considerable number of importations were made independently by growers in America and Europe. A great deal of confusion in the nomenclature exists and this is due to Japanese nurserymen sending out varieties incorrectly labeled, the difficulty of

spelling Japanese names, the different translations of Japanese names and the practice of renaming Japanese varieties in Europe and America. The preparation of an authentic check-list, giving the correct spelling, meaning and application of names to definite varieties and the reduction to synonymy of the host of names which has been used, will be of great value to growers of Japanese irises.

3. Descriptions and illustrations of varieties.- It is highly desirable that a complete and accurate description of the true varieties be prepared. Such a description can only be made from growing plants when they are living side by side. It is planned to employ a suitable artist in order to make colored illustrations suitable for publication.

4. Seedlings.- Many individuals are growing Japanese irises from seed and some of the resulting plants possess qualities of unusual merit.

5. Classification.- When we have a complete knowledge of the characteristics of the different varieties, it will be possible to prepare a classification based on color and other distinctive features.

6. Culture.- There are a number of problems connected with the growing of Japanese irises. The general report is that it is extremely difficult to keep and propagate a collection of varieties. Dealers are all the time announcing a shortage of their material. It is planned to make an effort to find out some things about the cultural requirements of these varieties. Plans are being made to take up such questions as the following:

- a) Transplanting, - the time of year in which this can best be done; how frequently the plants should be divided and transplanted, etc.
- b) Soil conditions, - the adaptation of these varieties to different types of soil; methods of preparing the soil; the value of flooding during the flowering period, etc.
- c) Fertilization, - A determination of the best methods of fertilization in order to stimulate the growth and development of the plants.
- d) Diseases and control, - These plants, like others, appear to have their own particular maladies. An effort will be made to determine the nature of these and the possibility of control.

"The writer fully appreciates that this is an ambitious program and the active support of those interested in these irises is very essential....."

A progress report on the above program was given in the January, 1926, issue of the AIS Bulletin. By that time the Brooklyn Botanic Garden had received Japanese irises from eight American growers and one in Great Britain. 82 varieties had been received from John Lewis Childs, Inc., Flowerfield, Long Island, including "practically all of the varieties originated as seedlings by that firm and many of the earlier introductions of Hallock...."

Dr. Reed continues as follows:

"The old collection of Japanese varieties at the garden was lifted, sub-divided and transplanted during the past season. Mr. Montague Free, horticulturist at the Brooklyn Botanic Garden, planned a set of experiments designed to give information regarding transplanting, soil conditions, fertilizing, etc. Three varieties, namely, Goldbound, Dominator and Pyramid, are to be used in each plot. Interesting results for the first year have been obtained but naturally such experiments cannot be expected to yield final results except after several years study.

"A few plants in the Garden have died and some attention has been devoted to the characteristic disease of these plants. The disease is primarily characterized by the decay of the roots and consequently, through lack of water, the leaves wither and turn brownish. The rhizome remains essentially normal and tends to push out new roots. This disease has been observed in some of the nurseries and it may turn out to be a large factor in the disappearance of these irises.

"A number of colored illustrations of different varieties were made during the blooming period..... A full description of a considerable number was prepared, the color determinations being based on Ridgway's color chart"

In the April, 1928, issue of the AIS Bulletin Dr. Reed gave an additional report on the "Beardless Iris Trial Garden at the Brooklyn Botanic Garden". The portion referring to Japanese irises reads, in part, as follows:

"The established plants of Japanese Iris gave abundance of bloom during the past season. The first flowers appeared on several varieties on June twenty-sixth and continued daily until August first, when the last buds on two varieties opened. The flowers were of fair size and consequently the material was very satisfactory for making comparisons between the different plants. As a result progress was made in the description and identification of the varieties. Many similar or identical plants were found under entirely different names, as well as the same name applied to entirely different plants. For the most part these were straightened out and correct identification of the variety secured.

"There are serious difficulties in correctly identifying the varieties. The original descriptions often are not available. Further, they usually lack sufficient detail to identify correctly a particular plant. Sometimes it is not even stated whether the variety is single or double-flowered. Since seedlings are readily grown and may resemble quite closely named varieties, the problem of correct identification is greatly increased.

"An attempt has been made to classify the named varieties primarily on the basis of color. At different times flowers of many were collected and arranged according to color schemes. The classification and grouping finally worked out seemed to hold fairly well for the varieties considered. It is planned to submit this scheme,

including the position of the known varieties, to the members of the Iris Society in the near future so they may be able to test it out during the coming season.

"During the fall all of the older established varieties were divided and transplanted to new beds. As far as possible, these were arranged for planting according to the color classification scheme previously worked out. It will thus be possible to observe next season the varieties of similar color growing together.

"A new set of experimental beds was started in the spring. These are primarily concerned with mineral fertilizers: Nitrate of Soda, Bone Meal, Acid Phosphate, Aluminum Sulphate, and Lime. Ten different plots were laid out in which five plants of each of five named varieties were placed. No very obvious differences were observed during the course of the past season.

"There are, however, a number of serious difficulties in such experimental beds. The divided plants grow very unequally, and thus the size and vigor of the plant may not be in direct response to the fertilizer at all. Seedlings would probably serve as better material. Here again, however, there is a very great difference in the vigor of the seedlings from the same planting. Probably the most we can hope for is a very general indication as to the response of the plants to the different fertilizers.

"The most discouraging feature has been connected with diseases. Our primary problems with the Japanese Iris were originally concerned with the identification and classification. Pathological problems, however, have come to the front, and certain diseases are responsible for a high mortality among our plants. We have in previous years referred to the characteristic fibrous root rot. This is to be sharply distinguished from the rhizome rot so common among the Bearded Iris. This year the disease occurred in the usual amount, and resulted in the loss of individual plants here and there in the beds. In some cases the affected plant recovered but produced no bloom. During the last year we had a severe attack of a disease of the foliage. The most obvious symptom is the appearance of a rosy coloration of the upper side of the leaves, especially where they more or less clasp each other or the stem. Where the disease was severe and early, the plant failed to bloom, dying down more or less completely to the ground. If, however, the disease appeared later, flowers seemed to be fairly normal. A species of fusarium has been isolated with great regularity from these discolored leaves, and may be responsible for the diseased condition. A similar organism has been isolated from the fibrous roots, and it may be the same organism is responsible for both conditions. Much further work, however, is necessary to clear up these points."

The following announcement appears in the AIS Bulletin of July, 1931, in a list of AIS test gardens:

"Brooklyn Botanic Garden..... Dr. George M. Reed in charge. Test garden for Beardless Irises making a special study of Japanese varieties. Pests and diseases studied here. New Japanese, New Siberian, Beardless Species, Oncocyclus and Regelia varieties required. Communication in regard to beardless varieties invited".

Dr. Reed contributed an article titled "The Japanese Iris" in the July, 1928, AIS Bulletin. In it^{is} described the wild species, *I. kaempferi*, and its habitat. He noted that the species named for Dr. Engelbert Kaempfer who traveled in Japan in 1690-92, was not described until 1857. Dr. Reed went into considerable detail pertaining to the confusion which existed at that time as to whether the precursor of the garden varieties was *I. kaempferi* or *I. laevigata*. He describes the plant parts, and compares them, in the two species. He concluded that "It is not definitely known how the numerous garden varieties have originated -whether from *I. kaempferi* alone or whether from that crossed with other species." The article includes his classification of varieties based on color of falls. (See The Classification of Japanese Irises, Eleanor Westmeyer, The Review, April, 1965.)

The following year, in the AIS Bulletin for July, 1929, another article by Dr. Reed appeared entitled "100 Japanese Irises, More or Less". The article was directed to gardeners. Cultural practices are given and numerous varieties are described using the seven classes mentioned in his 1928 article. By this time Dr. Reed's wife, Agnes L. Reed, had developed her own Japanese iris project and published in the same issue an article entitled "The Significance of Japanese Names For Iris". (See The Review, April, 1969.) Although the article does not specify so, the names are those of garden varieties of *I. kaempferi*. The word "Significance" in the title was well chosen because the article gives not only the English translations of names but also their aesthetic, mythological and cultural relationships and shows the native Japanese love of nature in all its forms.

Referring again to the 1929 Annual Report of the Director of the Brooklyn Botanic Garden, the following statement appears regarding Dr. Reed's work:

"The investigation has now reached a stage where a trip to Japan is essential for the purpose of making first-hand studies of the history, culture, breeding, nomenclature, etc, of Japanese varieties."

Dr. J.C. Wister, first president of the AIS, 1920-1934, recalls that when Dr. Reed "first brought up the matter of going to Japan for this study he learned that extra money would be needed in addition to what the Brooklyn Botanic Garden could supply for the trip and I brought the matter to the attention of the Board of Directors of the Society and almost immediately a motion was made that the American Iris Society should subscribe to a fund to make it possible for him to go. As I remember the sum appropriated was \$250."

Dr. Reed arrived in Japan March 3, 1930 and stayed until July 22nd of that year. His report on the trip to Dr. C. Stuart Gager is contained in the Brooklyn Botanic Garden Record, November, 1930.

In his report Dr. Reed said that "the main purpose of the trip to Japan was a study of the Japanese iris, a term usually applied to the horticultural varieties of *I. kaempferi*." The report, which includes six full-page photographs of gardens, consists principally of descriptions of the gardens and nurseries he visited. He also reports: A good deal of time was spent in the Imperial Library in Ueno Park. Within

this library are found many old Japanese books. Some of those which contained references to the Iris were consulted, with the aid of Mr. Bunkio Matsuki, Columbia University, who has gone over the entire list of more than seven hundred names and given the correct spelling and new meanings". Dr. Reed's report describes briefly other Iris species seen in Japan and other ornamental plants in bloom at that time. He also made some observations on fungus infection of wheat and barley.

Dr. Reed brought no plants back with him but made arrangements for plants of wild species and "approximately two hundred" horticultural varieties to be forwarded to the United States at the proper time". He noted "these will make valuable additions to the varieties of Japanese iris already in America."

One thing Dr. Reed did not mention in his report, for which he is probably best known in Japan today, is that he helped establish the original Japan Iris Society following the plan of the American Iris Society. He wrote an article on this subject which appeared in the May, 1937, issue of the AIS Bulletin.

In the July, 1931, issue of the AIS Bulletin Dr. Reed published a forty-six page article entitled "The Iris of Japan". It included twenty-two full-page photographs and two smaller ones, only one of which appeared in his Report to the Director. Although based on his Report, it gave a greatly expanded description of the Iris species and garden varieties he had seen. In the article he mentioned three types of Japanese irises: Horikiri (Tokyo), Kumamoto (Higo) and Ise. He also noted that *I. kaempferi* was also called *I. ensata*. He gave a detailed account of pot culture noting that it was also widely used for other kinds of plants.

"Japanese Iris at Swan Lake Gardens, Sumter, S.C." was the title of another article by Dr. Reed in the May, 1937, issue of the AIS Bulletin. It was a brief description of the gardens.

In 1935 the Farmingdale Iris Garden had been established co-operatively by the Brooklen Botanic Garden and the State Institute of Applied Agriculture on Long Island. The July, 1939, AIS Bulletin contains a report by Dr. Reed on the plantings there. The garden was designed as a landscape project as well as a horticultural experiment. It contained numerous species and garden varieties. After saying that "The Bearded iris plantings have, perhaps, been more interesting from the standpoint of an epidemic of an iris disease than as a display garden of iris varieties", Dr. Reed continues "In contrast to the behavior of the Tall Bearded Iris, the Japanese, Siberian and miscellaneous species have given very fine results. No serious loss of varieties has occurred; after the first year, excellent bloom has been obtained. In consequence, the plantings of all of these have been extended, particularly of the Japanese varieties. At the present time there are approximately 350 varieties of Japanese planted..... In addition to the Farmingdale Iris Garden, a considerable area of land on the Institute farm is devoted to propagation, particularly of Japanese iris varieties. Each year these plants have given excellent results and, although they are used primarily for planting purposes in other areas, they are well worth being seen."

Following the success with Japanese irises at the Farmingdale Iris Garden, the two institutions contributed to a planting of Japanese irises at the 1940 World's Fair. Dr. Reed described the project in the October, 1940, issue of the AIS Bulletin:

"Approximately one plant each of 150 varieties was shown. The plants were grown on the grounds of the State Institute at Farmingdale, L.I., and, on June 15, when color was showing in the buds of some, were dug up and placed in 10- or 12-inch pots. They were carefully wrapped for protection against the wind and taken to the Gardens on Parade. The pots containing the iris were sunk into the ground in beds in 'The Friendly Garden'.

"The varieties represented the main types of the Japanese iris group, a few of the early-blooming ones being omitted. The collection included varieties developed in Japan, as well as those in the United States, France and England. Of special interest was the exhibit of the Kumomoto strain of Japanese iris, which was developed many years ago near Kumomoto, Japan. Mr. N. Nishida, owner of Shuho-en, has specialized in the introduction of the Kumomoto strain. The Brooklyn Botanic Garden, in 1931, introduced a number of varieties obtained from Mr. Nishida, of which a few - Chigo Kesho, Miyoshino, and Shogetsu - were displayed. In 1931 the Botanic Garden also introduced a few varieties of the Ise strain of Japanese iris, and one, Otome, was represented in the exhibit

"Along with the large number of horticultural varieties which illustrated the variations in color, color pattern, size and shape of the flower, a plant of the wild Hana-shobu, collected in Horomui, Japan, in 1930 was exhibited."

The AIS Bulletin for January, 1941, reports the following excerpt from the report of the President for 1940:

"The Society has decided to broaden its activities to further the interest in Japanese iris through the establishment of a Special Japanese Iris Section Committee, with Dr. George M. Reed, of the Brooklyn Botanic Garden as its Chairman. A large number of our members are interested in Japanese iris, and the special committee will endeavor to carry out plans that will straighten out some of the present problems regarding present conflicts in names of Japanese iris and also publish in the Bulletin descriptions of standard varieties and their performance in various regions".

In 1941 W.A. Payne received from Dr. Reed the following varieties of Japanese irises: Shinso Kajin, Emi Hotel, Kosui No Iro, Aie No Uye and Hinode Sakura.

Dr. Reed did a considerable amount of work in attempting to cross species. His most successful work is reported in "Southern United States Irises - Species and Hybrids" in the AIS Bulletin, July, 1947. The Bulletin for June, 1936, contains an article on "Hybrids of Iris laevigata with I. versicolor and I. virginica". Dr. Heinig reports on page 429 of Garden Irises: "It was once held that most cultivated Japanese iris were hybrids between Iris kaempferi and I. laevigata.

..... Reed reported failure to cross them, concluding the Japanese garden irises to be clonal variants of *I. kaempferi*."

In the Summer, 1948, issue of *Plants and Gardens*, a Brooklyn Botanic Garden publication, Dr. Reed published an article entitled "Irises For the Waterside". It is a popularly-written account on the landscaping uses of Siberian and Japanese irises and *I. pseudacorus*.

Dr. Reed retired in 1946. He died in Pittsburgh, Pa., June 30, 1956. Mr. Alexander C. Wellington contributed a commemorating article on Dr. Reed in the January, 1957, issue of the *AIS Bulletin*. The following excerpts are taken from it:

"Following his retirement from the Brooklyn Botanic Garden in 1946 he came to live with his sister, a gentle, cultured lady, Miss Emma Jane Reed, in Crafton, a suburb of Pittsburgh. Here he lived the life of a retired scientist and scholar". He "was one of those rare phenomena - an individual whose personal appearance gave credence to a distinguished career. Six feet tall, very straight, broad of shoulder, his craggy-featured face was at once both strong and sensitive. Dr. George M. Reed, the scientist was perhaps better known than George Reed the man". "His neighbors know little of his personal life or his accomplishments, on both of which he was very reticent. He was equally 'unknown' to most members of the Pittsburgh Iris Society." "Dr. Reed's Japanese garden has been transferred to the writer's in Crafton Height's, where a sunken garden was especially prepared to house it, until that time when the Pittsburgh Iris Society may make some arrangements for a better place in one of our city's public gardens, there to be known as the 'George M. Reed Memorial Garden'".

The plan to establish a Memorial Garden was never consummated. Mr. Wellington has recently informed the Editor of the unhappy events which followed the plan. He writes:

"About a year before his death Dr. Reed had generously donated a large number of choice specimens of Japanese irises to the Phipps Conservatory of the City of Pittsburgh. I transported them there and arranged with the director for their planting in a circumscribed area so that they would form a separate and distinct unit. This he gladly agreed to do and, of course, their care and maintenance. Several months later Dr. Reed visited the spot- only to discover that the irises had all been stolen." "After his death, and with the knowledge of what had happened before, I approached management with the idea of establishing this Memorial Garden, but insisted that this time a site be selected close enough to the main work office so that the garden would be under constant surveillance against theft and would receive the proper care it required and deserved. After a considerable lapse of time I was informed that no such site was available, and the project was abandoned."

Dr. Wister, who was Editor of Plants and Gardens from 1946 to 1948 writes as follows:

"I knew Dr. Reed very well and worked with him from about 1920 until the time of his death. He conducted various experiments with soil, fertilizers and irrigation in special plots about ten feet square over a series of years. After the first year or two he felt that he had valuable research information as to exactly what the Japanese iris needed but as the experiments went on he got contradictory results and before he gave it up after about four or five years he complained quite bitterly to me that neither he nor anyone else has any real information of real value as to the best way to treat the Japanese iris in this part of the country. During that period he was in close touch with the John Lewis Childs Nursery in Long Island where something like ten acres were devoted to these plants and most of them there grew very well under ordinary field conditions. On his return from Japan he said that there were not as many irises as that in all of Japan and he had been to the main growing centers and had been in close touch with Japanese botanists and Japanese Iris Society people".

Dr. George S. Avery present Director of the Brooklyn Botanic Garden writes regarding Dr. Reed: The only thing I can recall about his iris work in the two years before he retired is that he was making crosses between Japanese irises and other groups and growing the immature embryos in in vitro culture. I recall he had some success but do not recall whether he reared seedling plants successfully, or whether they reached the flowering stage."

Today one looks in vain for any record of Dr. Reed's scientific work with Japanese irises. Except for his suggested classification of varieties, which can hardly be called scientific, there seems to be no record. The Brooklyn Botanic Garden seems to have none. In view of Dr. Reed's frequent use of the AIS Bulletin to publish information, one would expect to find any results of scientific work there. Botanical Abstracts and Biological Abstracts over the period of 1920 to 1953 list no publication of papers by Dr. Reed on the subject of Japanese irises although they do list several on rusts and smuts. One seems forced to the conclusion that there are no records.

Likewise the gardens of Japanese irises he helped establish at the Brooklyn Botanic Garden, Farmingdale and Pittsburgh have disappeared.

* * * * *

Your Editor wishes to express his sincere thanks for the kind co-operation of Mr. Thomas E. Jacoby, Dr. J.C. Wister, Mr. George S. Avery and Mr. Alexander C. Wellington in the preparation of the above article.

THE SWAN LAKE IRIS GARDENS

Among the well-known public gardens, Japanese irises have probably been most successfully grown in the Swan Lake Iris Gardens of Sumter, S.C.

The gardens were started as a private project in 1927 by Mr. H.C.Bland. As it grew it received assistance from another citizen, Mr. A.T.Heath, and in 1956 was dedicated as a public park. In addition to irises, it contains numerous other plants, shrubs and trees.

According to the Chamber of Commerce: "The first Japanese iris to be grown at the gardens were by accident. They were dumped with trash on one of the islands in the lake. The next spring they bloomed and thrived in the rich, moist soil. They now number in the thousands." An illustration with this quotation shows Japanese irises growing in beds in a lawn.

The present Director of Parks and Recreation, Mr. S.P.Wright, reports that Mr. Bland tried "two hundred or more varieties but all did not prove hardy". He says that the gardens contain many unnamed varieties and also the following named varieties:

Moonlight Waves	Otome	Margaret F. Hendrickson
Painted Lady	Koko No Iro	Herrington
Pink and Opal	T.W.Ware	Sakura Gawa
Purple Higo	Bashu No Ten	Francis Cleveland
Chigo Kesho	Pink Lady	Mahagony Giant
Blue Giant	Helen Welles	Rose Anna
Red Fukron	Victor	

Japanese irises bloom in Sumter May 25 to June 10.

DISEASES AND PESTS

Biological Abstracts, V. 7, 1933:7684. "Wilson, A.R., *Armillaria mellea* as the probable cause of disease of iris. Gard. Chron. (London) 91(2352): 65 1932. The fungus was isolated from wilted dying specimens of *I. kaempferi*."

Biological Abstracts. V. 21, 1947:18304. "B.O.Dodge. Lesion nematodes on roots of Japanese iris. Jour. New York Botanical Garden, 47(562): 246-248, 1 fig. 1946. For nearly 20 years the cause of the death of Japanese iris plants has been a puzzle. Thrips, the sclerotium disease, and chaetopsis fly have been suspected, but none of them did enough damage to cause the results observed. It is now believed that the roots are infected by meadow nematodes which cause lesions. Plants may be saved by removing the infected tufts of roots, dipping the plants for 1 hr. in normal sol'n of Semesan or in corrosive sublimate 1:1000, and then setting them out in soil which has been sterilized by tear gas or some other effective fumigant.

CURRENT BIBLIOGRAPHY

by
Bill Gunther

The 1969 book, IRISES, by Harry Randall now is in stock in major bookstores. It was published in England by the Batsford Publishing Company and in the USA by the Taplinger Publishing Co., 29 East 10th St., New York, N.Y., 10003. It may be obtained by mail order from either publisher for \$8.95. It contains several pages of interesting discussion about Japanese irises- including photographs and discussion about specific Japanese varieties which the author recommends. It is of note that the author, Harry Randall, was a Past President of the British Iris Society and that he died very recently.

The October issue of the AIS Bulletin includes a paper titled "Landscape Planting of Japanese Irises" authored by Arlie Payne. This article is beautifully well written and its publication certainly will boost the use of Japanese irises by people who previously were not aware of their value and beauty in landscaping use.

A new book, dealing exclusively with Japanese irises, is scheduled for publication in Japan very soon. It will have about 300 full-page color plates and the text will be both in Japanese and in English. The author, Dr. Shuichi Hirao, is perhaps the world's foremost authority on Japanese irises and his book surely will become a collector's item in future years. Information on publication date and price will be announced in the next issue of THE REVIEW.

MAX STEIGER

Max Steiger, who was well-known for his efforts in producing lime- and drought-resistant and tetraploid Japanese irises, died March 10, 1969, in the Canary Islands. He moved there a few years ago after having done his hybridizing work in his native Germany. The next issue of THE REVIEW will carry a portion of the report he gave at the 1st International Iris Symposium in Florence, Italy, in May, 1963.

SOURCES OF JAPANESE IRISES

The following are known or believed to be sources of Japanese irises:

Arthur H. Hazzard, 510 Grand Pre Ave., Kalamazoo, Mich., 49007
Laurie's Gardens, 17225 McKenzie Hwy., Rt. 2, Springfield, Ore., 97477
Walter Marx, P.O. Box 38, Boring, Ore., 97009
Melrose Gardens, 309 Best Road South-A, Stockton, Calif. 95206
William E. Ouweneel, RR 31, Box 206, Terre Haute, Ind., 47803
Adolph Vogt, 5101 Fegenbush Lane, Louisville, Ky., 40218

Names of other suppliers will be gladly published if sent to the Editor of THE REVIEW.

REPORT OF THE NOMINATING COMMITTEE

Directors

Mr. Phil Cammer, Williamsport, Pa.
Mrs. Edith Cleaves, San Jose, Calif.
Mrs. J. A. Crist, Franklin, Ind.

Furthur nominations may be made in accordance with the provisions of Article IX, Section 2 of the Bylaws, to be filed with the Chairman of the Elections Committee not later than 31 days after the mailing of THE REVIEW in which this report is published. If there are no furthur nominations, the persons nominated in this report shall be considered elected.

November 5, 1969

Andy E. Hays, Jr., Chairman; Art Hazzard,
Ray Monnie