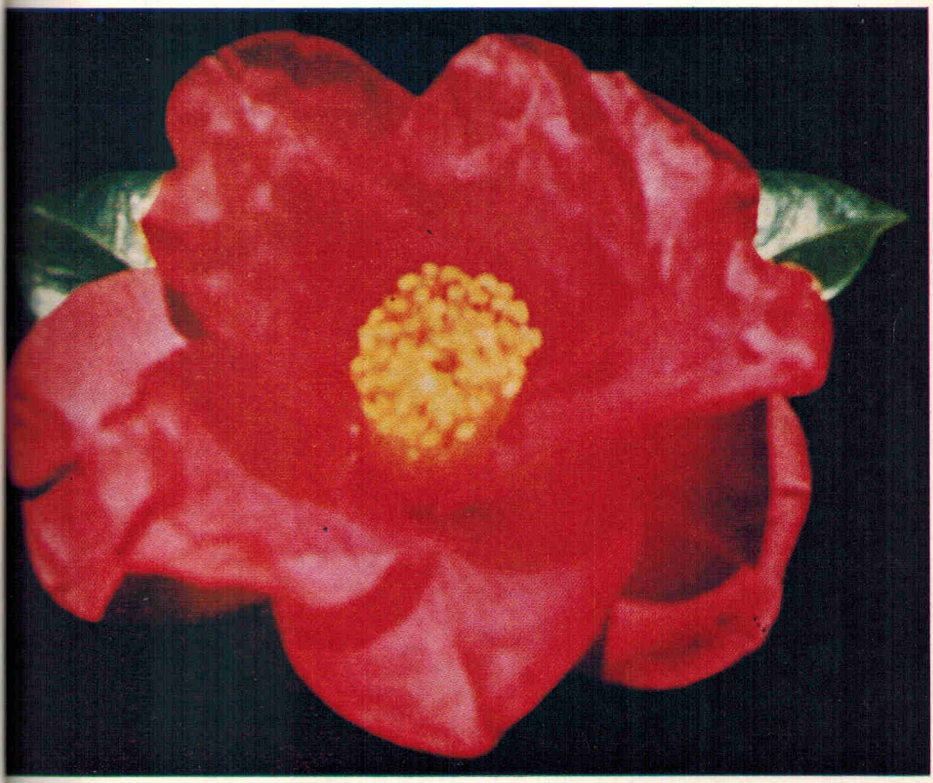
THE Camellia Review

A Publication of the Southern California Camellia Society



C. japonica "Lady in Red"
Courtesy McCaskill Gardens

Vol. 21 November, 1959 No. 2

Fifty Cents

Southern California Camellia Society Inc

An organization devoted to the advancement of the Camellia for the benefit o mankind—physically, mentally, and inspirationally.

The Society holds open meetings on the Second Tuesday of every month, Novem ber to April, inclusive at the San Marino Women's Club House, 1800 Huntingto Drive, San Marino. A cut-camellia blossom exhibit at 7:30 o'clock regularly precede the program which starts at 8:00.

Application for membership may be made by letter. Annual dues: $6.00

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THE CAMELLIA REVIEW

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VOL. 21 NOVEMBER, 1959 NO. 2

THE COVER FLOWER

C. japonica "LADY IN RED"

"Lady In Red" shown on the front cover is a seedling of "Letitia Schrader" of the reddest red color with a lovely patina over it to heighten and enhance the color. Those who have seen the bloom cannot describe the color in a better way than to use the words above. The picture reproduction does not do it justice—it really is a flower to satisfy those who want and appreciate a clean rich red flower. The bloom shows a well formed cluster of golden stamens and is a flower of semi-double form measuring five inches or better in size, and blooms from January to the end of the season.

The bush is a rapid vigorous grower which fills in well with branches carrying medium sized shiny dark green leaves.

The description of this new japonica developed by Vern and Billie McCaskill gives the camellia seeker something to look forward to. It is offered for commerce by McCaskill Gardens of Pasadena this fall.

LIVING WITH CAMELLIAS*

TOM ZUCK, *President*
Orange County Camellia Society

The Santa Ana, California, area is expanding at a remarkable rate of speed—new homes, new factories—new schools. There are those of us who live here that feel that the growing of camellias as a hobby is in an equal state of expansion and are anxious to share our notes on culture and play-time with the outside camellia world.

For a number of years a few hardy souls fought the heavy adobe soil of this county to bring to blossom the common but lively varieties that would grow in the garden and survive the drainage problems and summer heat. Fortunate for us in nearby Orange, California, Mr. Reg. Ragland started his now famous garden and yearly added to the number and quality of his camellia plants. His experiments and experience with "tub culture" led the way for all of us to utilize the river bed silt of the Santa Ana River to bring this aspect of camellia growing to a rewarding success. Most of us in this part of California now grow our camellias in containers.

The Zuck household started on the "primrose trail" of camellia growing about six years ago. In a sixty year old home acquired to house our five "homo sapien" grafts—we inherited three old camellia bushes. No knowledge of their culture but a desire to kill off the outside pests led me to use a sulphur spray of considerable strength. The result was astonishing as the plants immediately shed all their leaves. This worked on roses—why not on camellias?

In the process of discovering what camellias required to regain their leaf structure our old house now boasts of camellias—in containers—numbering in the hundreds. Long since, the rose bushes have disappeared, the h bicus had to go, the vines with the consuming needs went next, the sprin bulbs which need so much attentic —and even the need for a sulphu spray at all. Instead, in neat rows c all sides stand the tall camellias, reg and commanding, the clumps of or year grafts, two year grafts, ar the yearly present flats of camell seeds waiting to sprout or sprou waiting to be grafted. Even the r frigerator does its part in storing ne seed harvests and pollen waiting fo the right time and right temperatu for the human hand to replace n ture's philandering vagaries.

Experience in tub mixes and fe tilizing requirements for our are comes up with the following:

Mix: 1/3 heavy peat moss
1/3 river silt
1/3 red wood shavings (coarse)

Plant crown high and mulch wit 3 to 4 inches of coarse redwood sha ings. Apply iron chelates in la spring before fertilizer and in earl fall after growth. Otherwise feed wit Bandini Camellia Grow monthly fro April through September. Since re wood shavings use up nitrogen i breaking down there is far less da ger from over feeding when this pa ticular container mix is used. A fu ther help to the lazy gardener is th fact that the cans can be watere once a week only or, if you are lik me and find using the hose is suc a pleasure, water as frequently as yo like. I have found that applying soli fertilizer works best if it is arrange in conical piles around the edges c the container. This way frequent wa tering uses the fertilizer only as fa as is desirable.

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SOME EFFECTS OF GIBBERELLIC ACID ON CAMELLIA

C. P. NORTH

Department of Horticultural Science
University of California, Los Angeles

A discussion of effects of gibberellic acid on camellia must be prefaced by a brief resume of phenomena of growth substances that interact with or are modified by gibberellins. The phenomena are (1) photo-periodism or day-length, and (2) the influence of temperatures during the various phases of growth, i.e., vegetative growth, blossom bud initiation, blossom bud development, blossom opening, seed germination and seedling growth. The growth substances, termed auxins, are produced by the plant and regulate its growth.

Daylength:

There are three general groups of plants with regard to daylength: (1) long day species that flower only when the days are 12-14 hours long, (2) short day species that flower only when the days are less than 10 hours long, and (3) indeterminate day species that flower over a wide range of daylengths. Daylength is more correctly stated as the length of the dark period between periods of light. This period may be varied by the use of light-tight covers over the plants during part of the day and with artificial light over the plants at night. Some plants are so sensitive to the dark period length that less than a minute of light over the plants during a long dark period can change it to a short one.

Temperature:

Temperature influences a wide range of physiological processes in plants, exclusive of the damaging effects of very high or very low temperatures. Went (10) states that the effects of temperature on the plant are largely mediated by their effects on chemical reactions (inside the plant). He recognizes direct and delayed effects and effects of fluctuation in temperature. Further subdivision is made to take into account effects of temperature on (a) the early stages of growth (germination, vernalization), (b) growth during the developmental stages, and (c) behavior during dormant periods.

Camellias, Temperatures and Daylength

Bonner (2) has found that optimum flower bud initiation in many varieties of *Camellia japonica* occurs when the day and night temperatures are 80°F. during the day, and 50-60°F. at night. Bonner found that Pink Perfection will initiate flower buds during daylengths of 8-20 hours. However, more than twice as many floral buds were initiated by plants under a 20 hour day as by plants exposed to an 8 hour day. McElwee (7), using Victor Emmanuel and Tricolor as test plants, found that no floral buds were set during a 9 hour day but many buds were set during a 13½ hour day.

Vegetative growth was observed on Tricolor and Victor Emmanuel plants subjected to a 9 hour day by McElwee (7) and on Finlandia by Lockhart and Bonner (6). Bonner (1) reports that no new growth occurred on seedlings given an 8 hour day. The author found that Alba Plena and Purity did not make new vegetative growth or initiate floral buds when subjected to a 7½ hour day from June 1st to August 28, 1958, although control plants adjacent

(Continued)

SOME EFFECTS OF GIBBERELLIC ACID *(from Page 3)*

to the 7½ hour group made excellent growth and floral initiation during th same period. The summation of these observations is that *Camellia japonic* is a somewhat indeterminate day plant but makes its best vegetative growt and floral initiation during long days.

Auxins:

Auxins are complex growth regulating substances produced in the region of active cell division called meristems. The apicies are usually associated wit meristems and the apical meristems of shoots, roots, and buds are rich source of auxins when growth is taking place. Enlarging leaves, flowers, fruits, nodules and tumors all have been shown to produce large amounts of auxin. Leopol (5) states, "The mechanisms in the plant which are controlled or at leas influenced by auxins are sometimes difficult to distinguish one from anothe and any classification of such effects will necessarily be rather arbitrary. Fo convenience, the effects of endogenous auxins may be grouped into six genera classes: (1) the effects of auxins on growth itself, (2) the effects on tropism and movements, (3) the effects on the inhibitions of development of variou plant parts, (4) the participation in morphological differentiation, (5) th effects on flower and fruit development, and (6) the control of abscission.' "A remarkable dualism exists in the actions of auxin. Auxin can either stimu late or inhibit the various growth functions. Auxins can promote or inhibi the differentiation of buds, promote or inhibit the production of flowers, pro mote or inhibit abscission, promote or inhibit respiration or activity of som enzymes, promote or inhibit protoplasmic streaming, promote or inhibit th accumulation of certain biochemical plant constituents, and promote eithe differentiation or dedifferentiation of living cells. In each case the effec obtained is primarily a function of the effective auxin concentration in th tissue."

Auxin Inhibition:

The movement of auxin occurs in the bark tissues and is almost entirel toward the base of the plant. Large amounts of auxin, moving down from th apicies, inhibit the growth of lateral buds. This action is termed "apica dominance" and appears to be greatly varied among plant varieties. Camellia are an example of this variability where the growth of some varieties i compact and well branched while in others the growth is very sparse, wit many lateral buds that do not grow out to form branches.

Gibberellin:

Gibberellin is the term used to designate one of the forms of gibberelli acid. An effect of gibberellin was known in Japan more than one hundre and fifty years ago as the "foolish seedling" disease. However, the casual agen was not known until 1926, when Eiichi Kurosawa, a Japanese pathologist i Formosa, extracted a substance from an ascomycetous fungus *Gibberall fujikuroi*, that caused growth stimulation of both rice and maize seedling without an accompanying infection by the fungus. In 1935, Teijiro Yabut and his associates isolated a crystalline active substance which he name gibberellin after the fungus from which it was isolated.

The first investigations of gibberellins in the United States were pub lished in 1950 and since that time a great many workers have studied thes

growth regulating substances. At least four different substances, possessing gibberellin biological activity, have been found in fungal extracts and in extracts of higher plants.

Gibberellins are active in stem elongation, seed germination, flower induction, fruit set, and breaking of dormancy. Kuse (3) has shown that gibberellins interact with auxin and that gibberellins will not stimulate stem elongation in the absence of auxin. It would appear probable that a similar interaction exists in other auxin producing parts of the plant.

For further background information on gibberellin, the reader is referred to a review article by Stowe and Yamake (9). *(Continued on Page 14)*

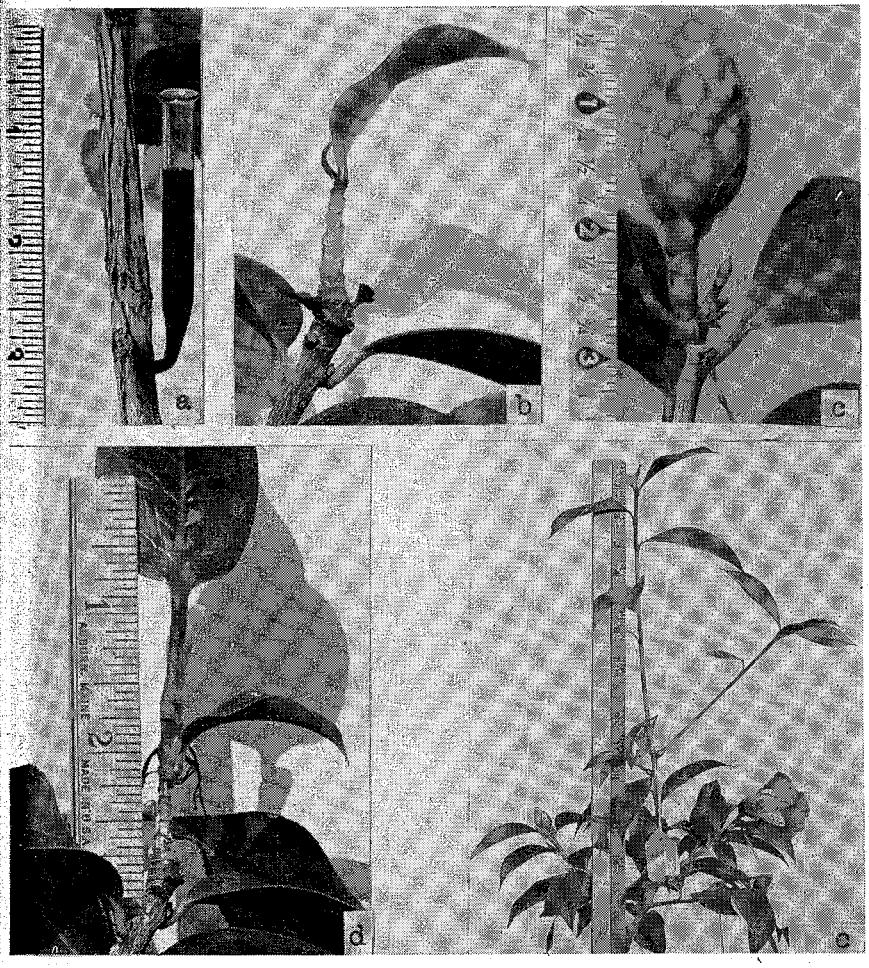


FIGURE 1

a. Infusion technique.
b. Atypical growth of immature vegetative bud.
c. Pedicel elongation and atypical growth of immature vegetative bud.
d. Normal flush of growth produced from apical bud of atypical growth (b) above.
e. Shoot and flower development on 1-5-59 following an external treatment with 30,000 p.p.m. gibberellin on 11-22-58.

SCIONS OF THE TIMES

BY MERLE GISH

Indian Chief

Camellia lovers on the West Coast should see bloom this coming season of "Indian Chief." A seedling introduced by Mr. Hugh Shackelford of Albany, Georgia.

It is a heavy, thick peony, light red flower that blooms early to midseason. It has tremendous buds that open into a very deep 5" diameter flower.

A fast, thick grower with large, light green leaves that carry a rather crinkley foliage.

This is one Mr. Shackelford set aside in the greenhouse because of its foliage before it ever flowered.

Eugenia Howell

Two years ago this coming February when the Mrs. (Rose Gish) and I were travelling through the South and Southeast one of the most talked about or perhaps I should say "hush hushed" camellias was "Eugenia Howell."

Word of mouth description varied, but the one that stuck with me was "A giant bloom of 'Eugene Lize' with lots of white flecking." Being normal I would buy that today, tomorrow or a week from Tuesday.

This sport was found near the base of the main trunk of an old "Mathotiana Variegated" shrub in the garden of Vaudie T. Howell of Semmes, Alabama. The twig supporting this beautiful flower was just long enough to make two real short scions.

The flower coloring is deep rose pink to red, sploched with white. The formation is loose peony with numerous petaloids interspersed with golden stamens. The average diameter is 5½" with a depth of about 3".

This camellia was named for Mr. Howell's wife and young daughter.

Nick Adams

Mr. Hugh Shackelford has released one of his seedlings which many feel is his best introduction although I doubt if Hugh would commit himself, for he is a true lover of camellias. This seedling he has named "Nick Adams" and it is named for one of his best camellia friends.

The very large, dark red peony has been measured at 6" with a high built center. Reportedly stays on the plant for days and is especially fine when grown in the greenhouse.

The shrub has smooth, dark green leaves and is a fast upright grower. Blooms midseason.

This year we should see many of Mr. Shackelford's seedlings on our show tables and we feel "Nick Adams" will be a most worthy addition to our new camellia season.

Wheel of Fortune

A chance seedling released for the first time this year by Vern and Billie McCaskill of McCaskill Gardens, Pasadena, California, is "Wheel of Fortune."

A 5" or better semi-double white with bold coral pink stripes. The cluster of stamens are often surrounded by rabbit eared petals.

Bushy growth and good foliage make this a much sought after camellia.

White Nun

Vern and Billie McCaskill are releasing their extra large, semi-double white seedling which they have named "White Nun." We understand Vern McCaskill had hoped to name

(Continued on Page 24)

Christmas Gifts for Camellia Belles and Beaux

Don't look now, but isn't it just a few days until Christmas? Ah me! How the time gets away, and old Saint Nick is almost here again. Have you finished your lists? It's time for you to get them ready, so may The Review just list a few of the finest things for Christmas joy and giving.

For the lady who loves beautiful things and appreciates being remembered, how about:

1. A plastic flower **bowl** for flating camellias. Raymond Noyes makes and sells to a few people only, who are lucky, clear beautifully shaped plastic oblongs, squares, three-leafed clover, and possibly others, in prices from $7.50 to $20.00.

2. Brandy snifters in any size with a choice camellia bloom floated in it and a red holiday ribbon around its stem. Here the price can be as low as $1.00 or as high as a rocket. Try the department stores or have you been to Bamico Gardens in Pasadena?

3. Wire cutters or trimming shears. These can be had in bamboo wrapped handles, stainless steel, or fine metal, in a number of shapes to thrill the bouquet maker's heart. They are practical, too. Suggest you try Bamico's again, and even if you don't find just what you want in shears, that place is simply filled with beautiful plants, sprayers and things on which to spend your money and get a good buy. They will make Christmas shopping and planning a pleasure.

4. A round-trip to Jacksonville, Florida, for the American Camellia Society Convention on January 28, and through the next two days stay in the convention headquarters at the Hotel Robert Meyer and enjoy the gardens on tour, the show, the fine people. You might even include nearby Cuba as a little side trip. (Just put a beautiful card in the lady's Christmas stocking or on the Christmas tree with the trip plan thereon.) Cost—anything you wish to make it. Let The Review help you plan your trip by air, by train, by car, or by your favorite transportation. Of course you'll include yourself in, too.

5. A camellia—at least one *new* one of her very own choice. But suggest "Lady in Red" from McCaskills, "Margaret Short" from Nuccio, "Royal Trumpeteer" from Marshall's, "Kramer's Supreme" from any of them, "Pauline Winchester" at Nuccio's, "Creation" at McCaskills. Buy another favorite of a few years standing at the lower price—these "new" ones can be ten, fifteen, and twenty dollars each. But have you seen "Alba Plena" in masses of bloom? Its white loveliness has come down through centuries and a fine plant can be had for $2.50.

6. A tub from Patio Wood Products—these are so beautiful for the patio, the choice corner, or the place you like best. You can buy them with caster carriers, and you can buy them small or large. Why not get a new camellia and plant it in one of these fine tubs, put a red ribbon on the branch with the largest buds or flower already in bloom and your "Merry Christmas" card. This is bound to be a winner in any home. The tub or tubs could be used on the hearth, too, filled with gay packages of cheeses, candies, nuts, wine (try Concannon's "Muscat de Frontignan"), champagne, or equally welcome perfume, chocolates, or envelope of bills marked "paid." With this idea you can "have yourself a ball."

AMERICAN CAMELLIA REGISTRATION BUREAU

General Rules for Filing and Processing Applications

1. Application forms may be obtained from the Secretary, America Camellia Society, Box 2398, University Station, Gainesville, Flordia, or the Secretary, Southern California Camellia Society, 2465 Sherwood Road, San Marino, California.

2. The varietal registration application forms shall be made out in quadruplicate, as fully and completely as possible, to avoid delays in final disposition, and three copies of the application, together with a registration fee of $2.00 for each variety, shall be forwarded to the Secretary, the fourth or yellow copy being retained by the applicant.

3. Applicants are urged to send two 35 mm Kodachromes of flowers for each variety for which registration is desired. If this cannot be done, send two glossy black and white photographs.

4. Applications received by the Secretary will be forwarded to the member of the Committee on Varietal Registration and Nomenclature (or his designated agent) in the area in which the applicant resides, who shall make such examination as he deems necessary and return the applications to the Secretary with his approval or rejection, stating reasons for rejection. Applicants will be notified by the Secretary as to the action taken and if the application is rejected the reasons therefor will be furnished upon request. Fees will not be refunded in the event registration is not approved.

5. Approval for registration carries no guarantee beyond formal recognition and publication of the name and description of plant and flower in the American Camellia Yearbook and, at the discretion of the Editor of that publication, in Camellia Nomenclature.

6. Applications for registration of SPORTS will not be considered unless the sport has been propagated from the parent plant and flowered for at least two years, during which period all of the blooms produced were 100 per cent true to type. This test is required as an indication that the sport has been stabilized or "set."

Nomenclature Rules

A. Formation and Use of Names

1. Name must be a proper name or a word in common language, and not a scientific name of Latin form.
2. Each word of the name must begin with a capital letter, except when national custom requires otherwise.
3. Single quotation marks are to be used to enclose a name.
4. Name must be used only once, and not for more than one species.
5. Name should preferably consist of one or two words and must not consist of more than three words, and excessively long words or phrases must not be used. (Example: 'Her Majesty Queen Elizabeth II' is too long.)
6. Name of sport should include name of parent as initial word where practicable, and it is considered practicable where solid colored or variegated variety produces one sport consisting of a variegated or solid form and

does not violate other rules. (1) However, when a variety produces various sports, a name not including the name of the parent is permissable, although reference should be made to the parent in a publication or registration. (2) (Examples: (a) 'Herme Pink'; (b) 'Colonial Lady.')

7. Name containing an initial article must not be used unless required by linguistic custom. (Example: 'The Dove' is not permitted and 'La Bella' is permitted.

8. Name containing initial abbreviation must not be used, except in abbreviations of forms of address. (Example: 'St. Andre' for 'Saint Andre.')

9. Although not mandatory, avoid the use of the following names:

(a) Names containing forms of address as distinguished from forms of title. (Example: Miss, Mr., Mrs., but forms of title such as Dr., Judge, Capt., etc., are permissible.)

(b) Names exaggerating the merits of a variety. (Example: 'Mathotiana Supreme.')

(c) Names likely to be confused. (Example: 'Imperial,' 'Imperialis.')

(d) Names resulting in a series of names with same initial word. (Examples: 'Pink Ball,' 'Pink Beauty'; 'White Ball,' 'White Beauty.')

B. Priority of Use of Names

1. First validly published name has priority, and valid publication consists of listing of name accompanied by a description sufficient to identify the variety in a dated (at least as to year), printed or similarly duplicated publication which is distributed to the public, including horticultural books or magazines, nursery or trade catalogues, and publications of horticulural societies, provided publication is made with permission of originator or introducer. Registration with an official registration authority without such valid publication does not give priority.

2. Names generally established and in common use will take priority over a name first validly published.

C. Change of Names

1. Name first validly published cannot be changed, except in the following cases:

(a) Where the same name is used for different species, the name may be changed if reference is made to disclose the former name in any listing or publication.

(b) Translation or transliteration is allowed where there are linguistic or other difficulties, except as to personal names. The first valid published translation or transliteration has priority in the particular language.

(c) Where a variety is introduced into another country, and its original name is commercially unacceptable due to the difficulty of pronunciation or when the original name or a translation would have a different connotation or implication, the name may be changed upon the approval of the originator.

2. A name generally established or in common use should not be changed to comply with rules.

THE AMERICAN CAMELLIA SOCIETY'S 15TH ANNUAL MEETING

TENTATIVE SCHEDULE OF ACTIVITIES

January 28-30, 1960, Jacksonville, Florida

Thursday, January 28, 1960

8:00 A.M. Registration, lobby of Hotel Robert Meyer.

5:00 P.M. Registration fee of $20.00 entitles each person registering either Thursday or Friday to one ticket for each event listed.

10:00 A.M. Buses leave Hotel Robert Meyer for trip to gardens of Mrs. W. M. Bostwick on Hecksher Drive and Frank D. Bisbee on Trout River Drive near Jacksonville, returning to the hotel in time for lunch.

2:00 P.M. A "choose your own subjects" session in the Hotel Robert Meyer devoted to classes on different subjects for different groups at the same time. Some of these will be repeated so that, for example, one group can watch at fairly close range a demonstration of grafting with newly designed grafting tools while another group (also not too large) enjoys a display of selected color slides with these two groups changing places for a repetition of these two events. This session will also include (principally for the ladies but the men will be welcome too!) a class on artistic arrangements under the direction of Mrs. Fred J. Hay, Chairman of the American Camellia Society's National Arrangements Contest.

5:30 P.M. Reception for Past Presidents of the American Camellia So-
7:00 P.M. ciety in the Windsor Room of the Hotel Robert Meyer. Refreshments.

8:30 P.M. Illustrated story of Jacksonville's development, including its
10:00 P.M. outstanding urban redevelopment program, which is almost amazing in its scope, as the welcoming address of the Honorable Haydon Burns, Mayor of Jacksonville. Followed by movie in color of the outstanding camellia show at Shreveport, Louisiana.

Friday, January 29, 1960

8:00 A.M.
5:00 P.M. Registration, lobby of Hotel Robert Meyer.

9:00 A.M. Buses leave Hotel Robert Meyer for all day trip. First stop at Marineland for its show which includes a very unusual act by trained porpoises. Second stop at St. Augustine for lunch at the fabulous Ponce de Leon Hotel (completed in 1888 at a cost of two and one half million dollars) and sight seeing in the oldest city in the United States. Third and last stop at Julington Nurseries near Mandarin, a thirty acre nursery specializing in camellias, then returning to the Hotel Robert Meyer.

8:30 P. M. Inter-Society Meeting in Windsor Room of Hotel Robert
0:00 P. M. Meyer, including report on the Society's camellia rating plan, presentation of Illges and Peer Medals, etc. Panel discussion on camellia show judging and exhibiting (from the viewpoint of both the judges and the exhibitors).

Saturday, January 30, 1960

9:00 A.M. Registration, lobby of Hotel Robert Meyer.
2 Noon Registration fee of $12.50 per person for late arrivals entitles each registrant to tickets for Saturday events only. Saturday morning open for shopping or visits to points of interest such as Gerbring's Nursery at Fernandina Beach (about 35 miles from Jacksonville.

1:00 P. M. Luncheon at the Hotel George Washington.

3:00 P. M. Jacksonville's 24th annual camellia show opens. Shuttle buses for convention registrants will operate between Hotel Robert Meyer and show site (the Garden Center at Riverside Avenue and Post Street) starting at 2:30 P.M. with last trip leaving Garden Center at 5:30 P.M.

7:00 P. M. Fellowship Hour on Mezzanine of Hotel Robert Meyer. Refreshments.

8:00 P. M. Annual banquet of the American Camellia Society in the Windsor Room of Hotel Robert Meyer. Introduction of newly elected Officers and Directors of the Society's members. An outstanding speaker will talk on an unusual subject.

Membership in the American Camellia Society? Surely!

The question is often asked: Why should I belong to the American Camellia Society? Anyone who is interested in camellias would benefit by being a member of the Society.

It is the central point for the latest information on new introductions, results of Camellia Shows throughout the country, diseases, general culture, and also up to date information on gardens and points of interest camellia wise.

The Society publishes a quarterly magazine devoted entirely to camellias and each fall an annual is published for all members. The 1958 annual had eighteen articles on Relatives, Species and Varieties. Three articles on diseases, thirteen articles on general culture and thirteen articles on various gardens and points of interest throughout the camellia belt. These articles were written by amateurs as well as professionals. One of the most important parts of the annual, is the names and addresses of all members of the Society. When traveling it is wise to have the annual with you. The membership list can be very helpful in getting local color, characteristics and new varieties by contacting the American Camellia Society members who are listed.

Join your American Camellia Society now at $6.00 to enjoy these real and many benefits. *Give membership as Christmas presents.*

ALTON B. PARKER.

UNDER A SKY CLEAR AND BLUE

In the fabulous San Joaquin Valley the Central California Camellia Society, year in and year out, have one of the best shows with so many blooms in evidence that the visitor admiring them wonders—wonders how, in weather which in summer reaches into the high figures so frequently, that camellias could thrive at all. Then the winter weather goes down so that the cold weather must bring out the best in our favorite plant.

The officers of this grand group, who are smiling their best over plans for the year ahead, should have someone tell us in a later article how it is done there. Too early for pictures of flowers from their area. But camellias produce such fine people, and isn't this photograph ample evidence of the fact?

Standing, from left to right, they are: Rey Merino and William Paul, Co-Chairmen Camellia Show; William B. Johnston, President, seated; Kenneth Reinold, Secretary-Treasurer; Mrs. Roy Simonsen, Hospitality Chairman, and Louis LeValley, Vice-President. Mrs. Annetta Sorensen, Publicity Chairman, was not present.

First Offering

For the first time, the Southern California Camellia Society is able to offer for sale, seeds from Sasanquas and Hiemalis growing in the famous Huntington Botanical Gardens in San Marino, California. This part of the camellia garden was planted after the japonicas sections were well under way. Sasanquas and Hiemalis seeds are now in sufficient quantity to warrant their sale.

For those not interested in developing new varieties but who want to grow their own seedling understock for grafting, these seeds are particularly attractive. Sasanquas' strong roots make very good grafting understock. Furthermore, the plants reach grafting size sooner than japonicas do. Details for buying these seeds are stated in the advertisement on this page.

FOR SALE BY SOCIETY

Books from this up-to-date list can be purchased from the Secretary of the Society.

Camellia Nomenclature—1958 edition, $1.50 postpaid; in lots of not less than 12, 90c; 1950 and 1954 editions containing culture section, 50c.

Camellia Bulletin — Special edition on Rare Species & Hybrids, 50c.

Camellia Culture — Published by Southern California Camellia Society—Editor, E. C. Tourje, $11.50.

How to Grow Camellias — published by Sunset, $1.75.

A Revision of the Genus Camellia—J. Robert Sealy, published in England, $10.00.

Camellias Illustrated — Morrie Sharp, $5.00.

Nomenclature of Sasanqua of Japan, 50c; **Camellia Varieties in Japan** (both printed in Japan), 50c.

SOME EFFECTS OF GIBBERELLIC ACID *(from Page 5)*

Gibberellin Trials and Results:

Gibberellins used in these investigations were a mixture of two gibberelli acids (11). They were dissolved in potassium hydroxide and then diluted t the desired concentration, expressed as the potassium salt (gibberellate) o gibberellic acid. The gibberellin (gibberellate) was applid externally as spray from a hand atomizer (nose and throat spayer) or as drops from pipette or medicine dropper. Drops of gibberellin were placed directly on a individual bud, or, the stembark was cut with a knife and gibberellin applie to the cut area. Sprays were applied to the general region of buds or to whole plant. When a substance is applied to the exterior surface of a plan there is considerable speculation as to the amount of the substance that actuall enters the plant tissues to produce an effect inside the plant. For this reason gibberellin was infused directly into the vascular system of the plant. Thi was accomplished by drilling an approximately 1/8 inch diameter hole nearl through the stem or branch and inserting a tight fitting, curved medicin dropper into the hole (Fig. 1a). The desired amount of gibberellin was the pipetted into the medicine dropper to flow by gravity into the plant. Excellen distribution above the infusion point was obtained, particularly if two hole were drilled at right angles to each other. Distribution below the point o infusion was limited to buds and branches approximately 4 inches from th infusion. Branches that were 8 inches below the point of infusion did no appear to be effected. After the gibberellin had entered the plant the stem wa wrapped with plastic tape or coated with an asphalt compound to preven drying through the holes. Meristematic activity soon closed the wound an no detrimental after effects have been observed. This method (infusion) i used regularly, by the author, in nutrition studies to place definite amount of micronutrients (iron, manganese and zinc) into woody shrubs and trees

At this station, the growth habit of Captain Rawes *(C. reticulata)* i rather sparse and unattractive when the plant is not in bloom. The reason for this are: (1) the basal internodes of the shoots that are normally produce in May and June, are often longer than those near the apex, (2) there ar usually few or no leaves near the base of the stems and (3) lateral buds ar usually initiated only in the upper (apical) 3 or 4 leaf axils and with fe exceptions only the top 1 or 2 lateral buds grown out into branches.

On July 7, 1957, one or two drops of 1000 parts per million (0.1%) gibberellic acid, in 5% ethyl alcohol, were applied externally to several vege tative buds on two plants of the variety Captain Rawes. In December 1957 one treated bud on each plant developed into short shoots, 1 and 2 inches i length, each with terminal flower buds. With these results as a guide, gib berellin was applied, as infusions and externally, to 20 plants of Captai Rawes, 3 Purple Gown, 4 Pagoda, 6 Cornelian, 1 Crimson Robe, and severa varieties of *C. joponica.* All of these plants were growing in 3-gallon con tainers. The amount of gibberellin applied as a single infusion ranged fro 1/2 to 30 milligrams, see Table 1. The external applications were from 50 t 30,000 parts per million (0.005 to 3.0%) gibberellin, see Table 2.

The data in Tables 1 and 2 are sample observations to indicate th effective applications and the dates on which they were applied so that further studies may be more easily planned by any interested person. The fall of 1958 and the winter and spring of 1958-1959 were unusually warm at this station and may have modified the observed shoot growth and flower development However, no growth was observed on untreated parts of the plants.

General recommendations for trial applications are 7,500 to 20,000 parts per million active gibberellin in an aqueous solution for external applications on flower and vegetative buds of *C. reticulata* and *C. japonica* varieties. Infusions should be limited to between 3 and 10 milligrams of gibberellin applied at the base of a plant 2-3 feet tall, and up to 30 milligrams for a plant over 4 feet tall.

Alcohol solutions of gibberellic acid appeared to cause some damage and are not recommended for application on camellia.

Short vegetative growth and early blossoms may be obtained on *C. reticulata* varieties if treatments are made in November, December, January and February. *C. japonica* varieties appear to blossom earlier than normal when treatments of gibberellin are applied in August. As the time of year for normal vegetative growth of *C. reticulata* is approached (April, May and June), smaller amounts of gibberellin appear to be effective and longer shoot growth results from a given application either external or infused.

Very large amounts of gibberellin infused or applied externally can cause severe damage. Shoot tops of single branches of cherry, nectarine, and plum were killed after 60 milligrams of gibberellin were infused into them. Comparable branches that received only 30 milligrams of gibberellin were not damaged. On camellia, all leaves dropped from branches that were infused with gibberellin in amounts that approximated 0.05 per cent of the dry weight of the branches involved. New shoot growth that followed the leaf abscission was not damaged. However, approximately one-half of that amount of gibberellin appeared to delay leaf abscission, particularly on Captain Rawes.

SPECIAL EFFECTS OF GIBBERELLIN

Vegetative buds killed:

Several terminal vegetative buds with blossoms buds at the same node died after being treated with high concentrations of gibberellin, however terminal vegetative buds without floral buds at the same node were not damaged by the same concentration of gibberellin, see Fig. 1,e and Fig. 2,e. At a date closer to the time for normal vegetative growth, shoot buds at the same node as flower buds were not killed by gibberellin treatments, (Fig. 2,d). Flower buds were not damaged by any concentration of aqueous solutions of gibberellin. An alcohol solution (commercial) of only 50 parts per million gibberellin burned the floral bud scales (sepals).

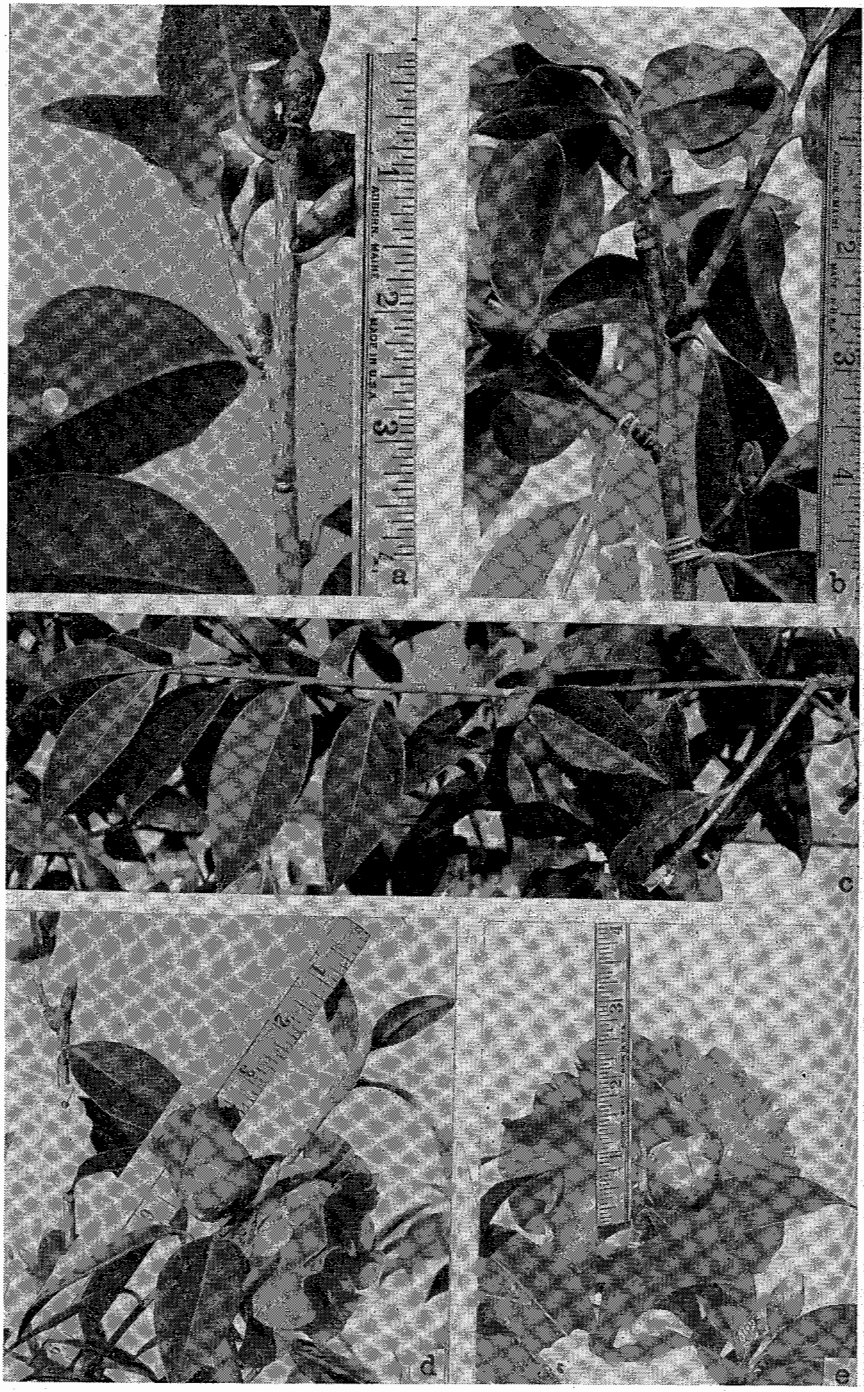
Some lateral vegetative buds died after treatment with gibberellin, apparently because they were not sufficiently mature to grow. This was confirmed by the behavior of adjacent lateral buds, one of which was obviously more mature than the other. When treated with the same concentration of gibberellin; the more mature bud grew (Fig. 2,a) while the less mature bud was killed. Buds that were almost mature enough to grow made a typical stem elongation with little or no leaf development when they were treated with high concentrations of gibberellin (Fig. 1,b.c.). Later in the season these same buds may make a normal flush of vegetative growth (Fig. 1,d).

Flowers:

Flower pedicel elongation occurred frequently after gibberellin treatment (Fig. 1,c). Gibberellin delayed petal abscission on White Daikagura and Te Dium to the extent that the outer petals had turned brown and withered while the inner petals remained fresh. Flowers of Te Deum, White Daikagura, and Hiryu (C. vernalis) treated with gibberellin stayed on the plant several days longer than the untreated flowers.

(Continued)

SOME EFFECTS OF GIBBERELLIC ACID *(from Page 15)*



uit set:

Some camellia varieties set many fruit after a branch had been infused an individual flower bud had been treated with gibberellin. A Ville de ntes set 30 seed pods on treated branches, but only 5 fruit on untreated rts of the plant. Many of the 30 pods were parthenocarpic (seedless) and re abscised in August. It has not been determined how many of the remain- fruit contain seeds. Captain Rawes also has set parthenocarpic fruit after bberellin treatments.

bberellin and daylength:

Gibberellin stimulated slightly longer than normal vegetative growth of rity and Alba Plena when these plants were maintained on a 7½ hour day. his was shown by infusing 15 to 30 milligrams of gibberellin into one branch ch of two large Purity and two large Alba Plena plants which were then aced on a 7½ hour day with light-tight covers that were placed over the nts at 3:00 P.M. and removed at 7:30 A.M. each day. The plants received s treatment from June 3rd to August 28, 1958. The gibberellin treated anches developed shoot growth and the untreated parts of the plants did t grow. No flower buds were formed on either the treated or untreated rts of the plants. Control plants, not on the 7½ hour day, produced vegeta- e growth and flower buds during the same period of time.

mmer and fall growth:

The author has not been able to stimulate buds of the current season oots of Captain Rawes into growth until December or January following eir initiation. Previous season lateral buds of a Captain Rawes were stimu- ted with gibberellin to grow in June and July; two shoot stems elongated and 3½ inches but only two narrow leaves, typical of some gibberellin imulated growth, unfolded on one stem and the leaves of the other did ot unfold completely.

Many lateral buds on a Crimson Robe, that had been infused with gib- erellin, grew out in July after the current season shoots, above them, had en removed. Most of these new shoot were normal in appearance, but several ere similar to the undesirable shoots of Captain Rawes mentioned above.

Lateral buds on two plants of Captain Rawes, formed in May 1957 and hibited since that time by apical dominance, were induced to grow in eptember and October 1958. This was accomplished by removing the current

(Continued on Page 22)

FIGURE 2

Cornelian, 3 lower buds treated with 7,300 p.p.m. gibberellin on 12-4-58; picture taken on 1-24-59. Two lower buds were not mature enough to grow. The bud in growth in growth was similar to the top buds. Flower buds on the growing shoot shoot opened to 5 inches diameter on 8-29-59 with very good color and form.

Captain Rawes. Two lower branches were treated with 7,300 p.p.m. on 12-4-58 and grew 1 and 1½ inches by 1-15-59. The upper two shoots grew out in May 1959 and did not receive gibberellin.

The stem to the right of the flower bud grew out in September 1958. The stem to the left of the flower bud grew in May 1959. The flower bud was fully open on 7-3-59.

Picture taken 3-6-59. Terminal bud treated in February at node with flower buds not damaged following gibberellin treatment.

Picture taken 1-5-59. Flower bud shown in Figure 1 (e). This vegetative bud was not mature enough to grow and died after treatment with gibberellin on 11-22-58.

GLEANINGS, FAR AND NEAR

"What's New?"

Guy Kendrick, President of the Men's Camellia Club of Shreveport, in his letter to us, noted that members continue to be interested in "What's New." This observation we are glad to get, for we must strive to give our members what they want in materials, plants, and reading matter. Mr. Kendrick also observes what is generally found true elsewhere, that most of us are inclined to concentrate on new varieties before they are actually proven in the area.

A radio show master in the Los Angeles area announces regularly that he will never play a poor new record in place of a fine old one. Would it not be wise for us to parallel this with our camellias? For never to replace a fine old one with an untested new one would save us much in every way. But man seeks the new always, yet holds onto the old, and this is good, for to assume we have reached perfection or a state of satisfaction would have cost us a new world, a new horizon, a Hugh Shakelford creation, a "Kramer's Supreme," and a thousand more.

What do you want? What interests you? Tell us and let us see if we, too, can get you something beyond that which we now have. *Do write.*

Golf Balls and Grafting

Take an old golf ball and cut the already damaged covering off and cut into it deep enough to get down to the fine rubber bands out of which it is made. Unwind and uncover down to good material. If you will keep this in your grafting box and use the rubber as winding on your grafts, you will be sure of success and you will always have winding material ready if you run out of a supply of heat treated rubber bands.

Birds and Bees . . .

"Both birds and bees enjoy the hours now why shouldn't you and I? . . ." So went the school song of yesteryear, and as I wander through Descanso Gardens or any lovely place, and hear the birds, I think how lucky man is to live in their presence and in this world. Their beauty is matched by their lovely songs and their marvels of flight and sense of direction. They, too, love the camellia trees and flowers.

The bees in busy lives have helped to cross pollinate our camellias. When I wander out to enjoy the pristene beauty of new blooms, I find the bees already there, busy at gathering pollen or nectar. Nectar in most flowers carries a perfume and the honey made from a particular type of flower carries a distinctive flavor, but that of the camellia evidently has no flavor at all. The bee does not seem to care, and works industriously on the bloom to get the nurturing fluid out of which she manufactures the honey. The pollen is just as golden and surely must be similar to the pollen in other flowers in chemical composition.

How much we owe the bees—how lovely are the birds! And they are always among our camellias.

Alaskan Report

The camellia fan who flew to Alaska on other business had time to talk of the flower in Juneau and did find a single bush there which seemed to be doing well. It was a japonica. Snow camellias should do well there in some parts of the State. We are not through with trying to discover more about Alaska and camellias.

(Continued on Page 24)

CHRISTMAS GIFTS *(from Page 7)*

7. A book. One of the finest for color and conversation can be had by browsing through those offered for sale by the S.C.C.S., or try Urquhart Press in England (let us help you). If ordering, do it now. For booklovers this gift is always a thrill, and just think how many times your favorite lady can show the pictures and enjoy them! Books are from $1.75 to $25.00.

And for the man, these suggestions:

1. A real grafting knife. If the lady will consult a friend of her husband, she will find he can get it for her or tell her where the favorite or right kind of knife can be purchased or ordered. $3.50 and up.

2. The tub and camellia mentioned above is a top flight gift for a man. Believe it to be one of the very best. You can have Nuccio, or McCaskill, or Bamico, or Marshall fix it to your liking. If you live out of their areas and transportation is a problem, get the tub (be sure it is from "Patio" for quality in wood, finish, binding and price) and the choice shrub (by no means passing over the sesanquas, hemalis, and the hybrids) and give them to be planted by that man. Lady—he probably wants his own "mix" around the plant anyway. $2.50 upward to any price that suits you.

3. Scions. Give him an order on one of the well known nurseries for one or more of the new varieties advertised by the dozens for his grafting days. The thrill of expectation furnished by such a gift will last for years. Let The Review help you with your needs. The cost—from $5.00 up.

4. Hayes Spray Gun, with some of the better known and used sprays. Very practical and needed. Start at $3.50.

5. Camellia seeds for the one who watch and grows them from seeds to flower shows. This is a practical and fine gift which can start as low as $3.50 per 200. See S.C.C.S. ad in October and November issues. Buy now and store in a cool or refrigerated space and give at yuletide.

6. Membership for the year. If he doesn't belong to the American Camellia Society, The Northern California Society, the New Zealand Society, The Australian Society or one of the other groups, this is a fine and lasting gift. Memberships now are $6.00 for A.C.C. per year. Others are in line.

7. Books. Every man who has even a half-dozen plants should have a book on the culture and nature of the camellias. The most complete, finest one is "Camellia Culture" sold by S.C.C.S. at $11.50. The Sunset book, "How to Grow Camellias," at $1.75, is an excellent volume to have in the library. Buy here to suit the taste and need.

Happy Days are Holidays If You Plan. Happy Holidays!

LIVING WITH CAMELLIAS *(from Page 2)*

General cultural notes which work for me:

Prune heavily in March and April.
Dust with chlordane prior to the bud opening per cycle.
Coarse water spray in early morning and late evening during hot weather helps the foliage and seems to prevent sun damage.
Provide as much filtered sunlight for the plants as your garden can supply. More *unreflected* sun is far better than too little but remember, plants must be conditioned to this slowly.
Species such as reticulata—salunensis—etc., need far more protection from wind than the japonics —and seem to enjoy more warmth.

A last thought from the Zuck garden. I have succumbed to the grafting method of acquiring camellias. This is a fatal ailment as each year presents so many outstanding new varieties that an already bulging garden can be re-arranged, and mustb e, to make room for those six or eight plants you plan to graft. Yet somehow this practical number always turns into at least seventy-five to a hundred. For the beginning "grafter" several suggestions might be helpful.

Select your root stock with extreme care. It should be heavily rooted in the container. If you can pick the plant up by the stem without too much "give" in the can you are safe.

For faster growing grafts the dimension of the root stock should be ½ inch or better. This is particularly true for the reticulata family as the new plant tends to grow faster than the understock.

Careful preparation of equipment and supplies for the grafting procedure certainly facilitates the pleasure and the results you can obtain. In my old fishing box I keep a magnifying glass, sharp short-bladed knife, heat treated rubber bands, and a good pruning clipper. Your camellia nomenclature book gives specific directions for the grafting itself.

For sealing your new grafts during the healing period gallon glass containers work well. The extra time required to wash them thoroughly with a liquid solution of captain pays off in the absence of fungus on the graft cut and therefore, a higher percentage of *take* results. If you find a warm spot in your house where the plants can receive sunlight filtered by venetian blinds or drapes you have an ideal location for the grafts to heal. Providing your root stock was dry before the grafting was accomplished, you need to water the plants only twice during the six week healing period. Use only a cup of water per time.

Part of the thrill of camellia grafting is the daily inspection of the individual plants so find a spot where you can get at them with ease.

Once you have had success in initiating your own plants you will have acquired the camellia hobby for life.

**Mr. Zuck was requested to write this article for if ever people loved camellias the Zuck family does. The enthusiasm takes them from growing plants to flower shows —the whole family from youngest child to the gracious grandmother, and they grow them successfully. Their grafts take, their plants grow and are happy, and their blooms take ribbons in the best of shows.*

THE EDITOR.

season (1958) shoot growth from above the buds, on August 6, 1958. One of the plants had been infused with 10 milligrams of gibberellin in March 1958 and the other had not received any gibberellin treatment. On September 26, 1958, several lateral buds on the gibberellin treated plant had grown 2 to 4 inches, but the lateral buds on the control (no gibberellin) plant did not grow until October 21, 1958. The final lengths of shoots on the gibberellin treated and control plants were 4½ to 13 inches and 1 to 4½ inches respectively. The basal internodes of most of the shoots were relatively short so that the lower leaf was close to the base of the shoot and presented a more dense and pleasing appearance (Fig. 2,c) than is usual with Captain Rawes at this station. Two floral buds were initiated at the apical node of four shoots of the gibberellin treated plant but none were formed on the control plant.

Terminal buds initiated in September and October, on the gibberellin treated plant, grew 3½ to 6 inches in April 1959 (Fig. 2,c). At this time all except one of the flower buds abscised. The remaining floral bud (Fig. 2,c) was fully open on July 3rd. It was 5 inches in diameter with good color and form. No flower buds were formed in October on the untreated plant but flower buds did form on shoots that grew in May 1959 from apical buds that were initiated in October 1958. The development of these buds, both treated and untreated, may have been influnced by the unusually warm weather in the fall and winter of 1958 and in the spring of 1959. Diurnal temperatures lower than those prevailing in this area during that period may alter the results given above.

Stem diameter growth:

Cambial activity was stimulated by gibberellin infusions and stems increased in diameter very noticably. Longitudinal bark cracks, characteristic of stem diameter growth were present on all stems above the point of infusion. The terminal bud area of some current season shoots appeared swollen and cracked by meristematic activity. Similar cambial activity was noted on cherry, apple, and nectarine after relatively large amounts of gibberellin had been infused.

Maleic hydrazide on camellia:

Elsewhere (11) the author has reported the use of maleic hydrazide to break apical dominance in Captain Rawes. While this material will break apical dominance in Captain Rawes, the response is not apparent until the following year and adverse physiological effects may accompany the desirable ones. Maleic hydrazide is a satisfactory growth inhibitor for many plants but it is not recommended for use on camellias.

The *Camellia reticulata* plants used in these studies were donated by Mr. Charles S. Jones, 882 Flintridge Avenue, Flintridge, California.

Summary

1. Camellia species observed are indeterminate day plants in regard to vegetative growth but initiate floral buds best under long day conditions.
2. Optimum diurnal temperatures for vegetative growth and floral initiation and development are 80°F. day and night. Optimum diurnal temperatures for flower opening are 65°F. during the day and 50-60°F. at night.

Gibberellic acid substituted for long days to produce vegetative growth, but did not stimulate floral differentiation on a short day regime.
Vegetative shoot length may be partially controlled by gibberellin applications before the time of year for normal growth.
Early blossoming and delayed petal abscission were observed after gibberellin had been applied.
All meristematic activity appeared to be influenced by gibberellin, but excessive applications were damaging.
Gibberellins will stimulate desirable vegetative growth only if the buds have reached a rather advanced stage of maturity.

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TABLE 1

Gibberellin Infusions

date infused	variety	plant ht. ft.	mil.gms infused	above union	date effective	type growth	final size
1-31-58	Captain Rawes	4	½	12″	3-22-58	shoot	1″
1-31-58	Captain Rawes	4½	1	5″	3-22-58	shoot	2″
2-26-58	Captain Rawes	3	8½	2″	4-16-58	shoot	3-5″
3-13-58	Captain Rawes	4½	10	2″	4-16-58	shoot	4-8″
5-22-58*	Captain Rawes	4	10	1″	not in 1958		6-9″
6-6-58	Captain Rawes	4	30	1″	April 1959	flowers	
8-8-58	White Daikagura	3½	30	base	9-5-58	open flower	large
8-8-58	Cornelian	3½	15	base	12-16-58	open flower	3¼″ dia.
1-23-59	Captain Rawes	4½	6	1-branch	3-6-59	shoot, flower	5-9″
1-23-59	Purple Gown	2½	15	base	2-13-59	all shoots	2½-6½″
3-5-59	Cornelian	3½	3	base	4-6-59	ahead of untreated	2-8″

*Gibberellin infused after normal shoot growth complete.

See Table II, Page 26

SCIONS OF TIMES *(from Page 6)*

this seedling "Simplicity" because of its styling with large, thick, wide petals, but upon checking with registration found another had already used this name.

With these thick and wide heart shaped petals we find the bloom has excellent keeping qualities.

The shrub carries large, leathery, dark green foliage which measures close to 6" in length and is a vigorous upright grower.

The plant has some characteristics of another McCaskill seedling named "Coronation" but makes a better and more compact shrub.

Mrs. Goodwin Knight

It seems that all it takes to raise the blood pressure of a camellia lover is to see the first early flowers of a new blooming season.

Only last week I saw another blossom of "Mrs. Goodwin Knight" and I must confess that with each flower I find myself being more and more impressed to the point where I truly want it to grace our garden.

The seedling now known as "Mrs. Goodwin Knight" originated and grew at the Huntington Botanical Gardens in San Marino, California.

Peony form seems the most common for this clear pink although the shading may vary with weather or season to more coral tones of pink. The blooms will average about 4½" for size. Leaf structure indicates that one of its parents may be "Are-jishi" but grows with more vigor and more openly. Blooming season begins in September and continues 'til January.

As the Huntington Botanical Gardens are not in the nursery business the policy is to release their seedlings that they feel worthy of interest when wood is available in sufficient quantity and prorate it to all nurserymen who request it. After the release date plants and scions may be obtained from your nursery people.

Gleanings *(from Page 18)*

New Catalogues

This is the season of holidays, o rain, and falling leaves, and this i the time of year for new camellia list and catalogues. How much we ow these people who each season send t us pictures, descriptions, and price of new plants we must have once w have browsed through this galaxy o fairyland wonders. Someone has sai that an optimist is one who reads a seed catalogue and thinks that he ca do what it says he can do.

To those growers who send us thei illustrated lists, we extend both con gratulations and sincere thanks. Th winter days will be spent with yo in planning and in buying—if not i buying, just in enjoyment. You giv us much—may you be repaid man fold.

Cover Pictures

The three color reproductions use on many camellia publications do no do justice to the flowers. It is difficul to reproduce the subtle, lovely hue of nature's creation and to bring ou the form so entrancing and complex Yet each year a closer resemblance i achieved.

The expense of the finer reproduc tions take them out of financial reac of most of our production magazines but even so, the craftsman and th printer continue to strive for perfec tion and will one day achieve it, fo all of us to enjoy to the maximum

A leisurely visit to an art gallery for the purpose of studying man's de velopment in art reproduction wil pay dividends. For example, whe you see in the Metropolitan Art Ga lery in New York, the early massiv bas-relief reproduction in stone o four-legged animals, you will see fiv legs — not four. The reason — th sculptor did not know how to sho four. Time and experience helps an so it will with color reproductions.

(Continued on Page 26)

IN ORBIT, CAMELLIA SOCIETIES 1959-60

UTHERN CALIFORNIA CAMELLIA SOCIETY — NOV. 10, 1959

On November 10 at 7:30 p.m. President Al Dekker will open the camellia with an unusually fine program at the regular meeting place in San no.

All early blooms are to be shown in the enlarged show spaces. Then will w the formal program with Mr. Doug Thompson presenting "The History Camellias." A social period will follow, then the awarding of blooms that e judged the best in their classes will be made, and the plant raffle will e the evening.

Doug Thompson is a student of the history and growth of camellias and review will be most interesting. He is a collector of the best plants, a lified judge, an avid camelliaphile, and is the Show Manager of the 1960 thern California Camellia Show.

Fine plants have been secured for the drawing. A large crowd is expected pen this 1959-60 season.

Open the Season at Temple City

The Temple City Camellia Society will meet in November on Monday ht, the 23rd, at the Women's Club, corner of Woodruff and Kauffman Sts., mple City, Calif., at 8:00 P.M.

At this meeting Jack McCaskill will be the honored guest. By now, every- e must know that Jack went on a European Tour this summer and, like ryone else, took lots of pictures, and, like everyone else, TCCS members uld like to see them. So Jack has promised to show pictures of the horti- ural highlights of his trip which should bring every one of the members the meeting for sure. Then, of course, there should be a few more flowers bloom by then for the display tables.

The Society was pleased with the success of their "kick-off Breakfast" the Les Marshall yard on October 11. Everyone had a good breakfast and good time.

Orange County Society

The growing Orange County Camellia Society, under the able leadership President Tom Zuck, determined to increase its tempo during this prsent ar. Summer meetings for planning purposes were held with many people pointed on many active committees.

On October 21 the group met in the Farm Bureau Auditorium in Orange hear Mr. J. Howard Asper, Superintendent of The Huntington Gardens, ve an illustrated lecture on "Hybridization and Reticulatas." Mr. Asper has ne much in his work of hybridization and development of new flowers. A st enthusiastic group enjoyed his visit and program and wished him a easant journey to Shreveport, Louisiana, Tyler, Texas, and El Dorado, kansas, where he will address the Camellia Clubs.

SOME EFFECTS OF GIBBERELLIC ACID *(from Page 23)*

TABLE 2

Gibberellin External Applications

date applied	variety	*parts per million	date effective	type growth	size at date observation
6-24-58	Te Deum	30,000	9-5-58	open flower	4" dia.
10-10-58	Captain Rawes	30,000	2-16-59	open flower	4½" dia.
11-22-58	Captain Rawes	30,000	1-5-59	shoots (Fig. 1b)	6-8"
11-22-58	Captain Rawes	30,000	12-10-58	shoots	½"
11-22-58	Captain Rawes	30,000	1-19-59	open flower	6½"
12-4-58	Captain Rawes	7,300	1-5-59	shoots	1¼"
12-4-58	Captain Rawes	7,300	1-5-59	shoots	1", 1¼" (Fig. 2b
12-4-58	Purple Gown	7,300	1-5-59	shoots	1"
12-4-58	Pagoda	7,300	1-5-59	shoots	2½"
12-4-58	Cornelian	7,300	1-12-59	shoots	1½"
12-9-58	Pagoda	1,000&w.a.**	2-6-59	open flower	
12-10-58	Captain Rawes	2,000	1-22-59	shoot	½"
3-14-58	Cornelian	1,200	4-6-59	shoots	ahead of untreat

*1000 parts per million — 0.1% by weight.

**w.a. — wetting agent (Aerosol)

PLEASANT TO HEAR

ar Editor:

You need not fear that camellias have been relegated to a subordinate ce in my esteem because I have become interested in orchids, also. I have swered some inquiries as to which flowers I like best by saying that I do consider it necessary to make a choice. How could you between such wers as fine camellias and fine orchids.

Recently, I spent an afternoon and evening at the camellia show of the kson, Miss., Camellia Society, where about 4,000 fine blooms were exhited. and found renewed determination to do better by my own plants. I ve had camellias in Greenwood for more than thirty years and now have veral hundred, ranging in size from rooted leaves to my largest plant, a ofessor Sargent, about 16 feet tall.

Through the years, I have had many fine blooms, but there have been me years when hard freezes wiped out most of the bloom. The present son included many hard freezes in midwinter, so most of my plants outside protection lost their blooms and buds. However, I have had recently some ed flowers from Ville de Nantes, Mathotiana, Dr. Tinsley, Rev. John Bentt, and some others. In the greenhouse, there has been more bloom and some at were good, but not the best of which my plants are capable. I believe at the excessive rainfall of 1958 impoverished many of my container-grown ants by leaching of their nutrients, so I expect to feed them more carefully d steadily to offset that condition.

In my greenhouse, I have orchids and camellias, and I believe that I am empting the impossible by trying to give these widely different plants the nditions that are favorable for both. Camellias should be merely kept from rd freezing, and really are benefitted by as much cold weather as they can t, provided they are watered sufficiently and do not freeze hard. Orchids st have more heat and should not be subjected to temperatures near the w range that camellias need. It seems that I must now expand my protection taking in another area of my garden of about 300 square feet, so the mellias can have what they need as to protection, giving the smaller greenuse to the orchids.

I have two good seedlings, not yet known outside of my garden. Both me from seed from Oregon, bought in 1953. One is single, intense red, with d stamens and yellow anthers; the other is a semi-double white with petaloids and rabbit ears, all petals being nicely curved and fluted. No hint of lor was shown by any of its blooms. This is the first year for the white, the cond for the red, which remained outside as a test of hardiness and is now looming, with no damage to either flowers or foliage.

You asked if I have become interested in the miniatures, which I have t. I am still in the stage of liking the big ones, although some have gone t of bounds, except for exhibition in shows.

My last purchase was Guilio Nuccio, from R. L. Brent, Jackson, Miss., e best camellia grower that I know. I feel sure that he is one of your memers. Immediately after getting it to my garden, I grafted several scions, some white stocks with the hope of getting some variegated flowers.

Thanks for your invitation to write to you about my camellias. An invitaon like that is just as sure to be accepted as one to talk about my grandildren. Best wishes.

Sincerely, J. H. PEEBLES, Greenwood, Mississippi, March 15, 1959.

COMPANION PLANTS FOR CAMELLIAS

Mr. Sylvester G. March, plant propagator for the National Arboretum, sugges these to the Camellia Society of the Potomac Valley and are listed here for their inter and value to others in various sections of the Camellia World.—EDITOR.

Shrubs

Daphne odora
Jasminum nudiflorum
Rhododendron mucronulatum
Rhododendron mucronulatum "Pink Cornell"
Pieris japonica
Pieris forresti
Skimmia japonica
Rhododendron nudiflorum
Viburnum carlesi
Chugai Hybrid Azaleas
'Kagetsu'
'Sei Un'
'Shinny no-suki'
'Joh Ga'
'Keisetsu'
Viburnum Dilatatum
Viburnum setigerum
Viburnum setigerum aurantiacum
Cleyera Japonica
Nandina domesticum
Leucothoe catesbasi
Ilex pedunculosa
Ilex aquifolium 'Camelliaefolia'
Ilex verticellata
Ilex opaca 'Cumberland'

Bulbs

Narcissus
Lilies
Lycoris radiata
Sternbergia lutea

Small Trees

Cercis canadensis
Cornus florida
Cornis florida rubra
Cornus mas
Halesia carolina
Hamamelis virginiana

Large Trees

Quercus phellos
Nyssa sylvatica
Liriodendron tulipifera
Liquidambar styraciflua
Pinus strobus
Cryptomeria japonica lobbi

Ground Covers

Hedera helix 'Bunch Ivy'
Sarcococca hookerianna humilis
Viola papilionacea priceana
Podophyllum paltatum
Pachysandra terminalis variegata
Vinca minor
Liriope minor
Liriope spicata
Cotoneaster microphylla
Cotoneaster horizontalis
Cotoneaster conspicua decora
Helleborus species
Hosta species

HONORARY MEMBERS ELECTED

Upon recommendation of the S ciety's Executive Committee the S ciety's membership at its schedul meeting on October 5 elected the f lowing as Honorary Lifetime Me bers of the Society in recognition their outstanding contributions to t growing knowledge of camellias a in recognition of the very great h that they have rendered to the C mellia Society of the Potomac Valle

Dr. Francis De Vos, Assistant Dir tor of the National Arboretum
Mr. Ralph Peer, former President the American Camellia Society
Mr. David L. Feathers, Editor, B letin of the Northern Californ Camellia Society
Mr. Frederick Huette, Director of t Municipal Gardens in Norfo Virginia

In addition the Society voted make the incumbent President of t American Camellia Society an Ho orary Member for the term of h office and to continue this practice coming years. This year's ACS Pre dent is Mr. L. C. Wanamaker Cheraw, S. C.

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Coral Mist
Country Doctor
Dr. Salk Var.
Dr. Quattlebaum
Dorothy Rose
Evan B. Davis Var.
Evalina
Ethel Rivers
Fiesta Var.
Fashion Lady
Fernandina
Five Star General Var.
General LeClerc Var.
High Society Var.
Indian Chief Var.
Judge Talbot
Juanita Smith
Julia France
Laura Stevens
Lady In Red
Leading Lady Var.
Lucy Hester Var.
Mark Alan
Margaret Short Var.
Mrs. Carl Anderson
Martha Murray
Marie Bracey Var.
Mrs. Goodwin Knight
Maylene Wong Var.
Mrs. Epps
Mrs. Paul Sanders
Napoleon Bonaparte Var.
New Horizon
Pirate's Cruise
Prelude Var.
Rev. John Bowman Var.
Royal Lady
Roman Soldier
Roman Soldier Var.
Ruffled Princess Var.
Silver Betty Sheffield
Sunset Glory Var.
Sasu
Sarah R.
Sissy Lackey Var.
Tickled Pink
Tekla Var.
Vulcan Var.
Virginia Robinson Var.
Wildwood Peony Sport
Wonder Child
White Nun
Wheel of Fortune
William Cutter Var.

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D. Herzilia F. Magalhaes

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DIRECTORY OF AFFILIATED SOCIETIES

Camellia Society of Kern County ..... Bakersfield
President: Ronald Langsworthy; Secretary, Floyd Lee, Rt. 6, Box 265, Bakersfield.
Meetings held 2nd Wednesday of the month, Oct. through April at Cunningham Memorial Art Gallery, 1930 R St., Bakersfield.

Camellia Society of Orange County ..... Santa Ana
President: Thomas Zuck; Secretary: Mrs. George T. Butler, 1121 Orange Avenue.
Meetings held 4th Wednesday, Nov. to April, at Utility Room of Santiago School, Santa Ana.

Camellia Society of the Potomac Valley, Inc. ..... Washington, D.C.
President: Dr. Allan E. Walker, Jr.; Secretary: Mrs. Edward P. Carter, 5505 42nd Ave., Hyattsville, Md.
Meetings held 1st Monday of month, Oct. through April, alternating between Alexandria, Virginia; Washington, D.C. and Chevy Chase, Maryland.

Central California Camellia Society ..... Fresno
President: William B. Johnston; Secretary: Mr. Kenneth Reinold, 2934 E. Ashlan, Fresno.
Meetings held 4th Wednesday of each month through March. Exception: December meeting on 3rd Monday at Heaton School, Del Mar and McKinley Aves., Fresno.

Huntington Camellia Garden ..... San Marino
Henry E. Huntington Library and Art Gallery, Oxford Road, San Marino.

Pomona Valley Camellia Society ..... Pomona
President: Walter H. Harmsen; Secretary: Mrs. Gertrude Hill.
Meetings held 2nd Thursday of each month, November through April, at Claremont Women's Club, 345 W. 12th, Claremont.

San Diego Camellia Society ..... San Diego
President: Clive Pillsbury; Secretary: Mrs. Ferris H. Jones, 4545 Dana Drive, La Mesa.
Meetings held 2nd Friday of each month at 7:30 p.m. in Floral Association Building, Balboa Park.

Temple City Camellia Society ..... Temple City
President: Peter Folino; Secretary: Mae Franklin, 9151 E. Wooley St., Temple City.
Meetings held 4th Monday of each month, Nov. through April, at Women's Club Auditorium, Woodruff at Kauffman, Temple City.

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