

The
Camellia Bulletin

Volume 11, Number 4

July, 1958



MOUTANCHA

Published by
NORTHERN CALIFORNIA CAMELLIA SOCIETY, INC.

OFFICERS**PRESIDENT**

Walter H. Peterson (BEacon 3-3148)
 612 Marine St., Richmond

VICE-PRESIDENT

Howard E. Burnette (LUcerne 2-4304)
 18500 Center St., Castro Valley

SECRETARY

O. L. Davis (Clifford 4-4748)
 22 St. Stephens Drive, Orinda

TREASURER

R. N. Swope (ELgin 1-4009)
 14823 Farnsworth St.
 San Leandro, California

DIRECTORS

John H. Beers

Louis J. Giomi

Arthur M. Patterson

PACIFIC CAMELLIA SOCIETY**OFFICERS****PRESIDENT**

Dan H. Roberts
 11422 Ruggiero Ave., San Fernando

VICE-PRESIDENT

Douglas G. Thompson
 3162 Lindo St., Los Angeles, 28

SECRETARY

Gene Boyd
 819 E. Valencia Ave., Burbank

TREASURER

Edward O. Morgan
 850 N. Lafayette Park Place, Los Angeles 26

CAMELLIA SOCIETY OF SACRAMENTO**PRESIDENT**

Erwin E. Nowak
 3117 Bertis Drive, Sacramento, California

SECRETARY

Miss Beulah Capers
 7501 - 2nd St., Rt. 3, Rio Linda, Calif.

VICE-PRESIDENTS

D. Jackson Faustman, Mrs. Marie Erwin

TREASURER

Harold C. Rambath

CAMELLIA SOCIETY OF SANTA CLARA COUNTY**PRESIDENT**

Oscar E. Tomlinson
 1509 Camino Monde
 San Jose, California

SECRETARY-TREASURER

John J. Mendoza
 1170 Jefferson St.
 Santa Clara, California

VICE-PRESIDENT: Allen S. Eckendorf

BULLETIN EDITORIAL STAFF**EDITOR**

David L. Feathers
 1 Camellia Lane, Lafayette

ASSOCIATE EDITORS

Roy T. Thompson
 2723 Hermosita Drive, Glendale 8

ADVISORY BOARD

Woodford F. Harrison
 Harold L. Paige

Richard C. Brown
 1425-47th St., Sacramento

The Camellia Bulletin, in keeping with the fundamental concept of the amateur organizations it serves, is a non-profit enterprise published quarterly (Jan., Apr., July and Oct.) by the Northern California Camellia Society, Inc. Its principal objects and purposes are furtherance of the enjoyment and benefits derived from the culture of camellias and the dissemination of knowledge related thereto. By special arrangement with, and through the co-operation of, the Pacific Camellia Society, The Camellia Society of Sacramento and The Camellia Society of Santa Clara County, this Bulletin is also available in conjunction with membership, which is open to the general public upon application to the Secretary of any of the societies mentioned, at the respective addresses shown above. For full membership in the Northern California Camellia Society, Inc., and with respect to all persons resident in the counties of Alameda, Contra Costa, Marin, San Francisco and San Mateo, the annual dues are \$5.00—outside that area, limited membership privileges, including the right to all Society publications, are \$3.00 per year. MEETINGS are held on the first Monday of each month November through May, at 8 p.m. in the Claremont Junior High School Auditorium, Oakland, and include an informal flower display and refreshments. All matter regarding the content of the Bulletin should be addressed to the Editor. CHANGE OF ADDRESS should be reported promptly to your Secretary, as the Post Office will not forward periodicals.

SUMMERTIME

*"Summertime, an' the livin' is easy,
Fish are jumpin' an' the cotton is high . . ."*

These opening lines of the lyrics in the beautiful ballad "Summertime" from Gershwin's "Porgy & Bess" paint an alluring and somnolent picture of the hot weather season—a picture that is somewhat deceptive, however, where the successful camellia grower is concerned for this is the season of greatest danger to his plants. Here in California, where we shall see no rain for five months or so, "Summertime" is "Water-time," and for all shallow-rooted plants moisture is the matter of greatest concern.

It is under our rigorous conditions that we readily appreciate why no camellia would grow here in the wild and come to learn the value of every device that will conserve moisture and prevent the cracking and drying out of the soil. For arid conditions and extreme cold are the Never-Never Land insofar as the culture of the camellia is concerned. We know that they will thrive and develop blooms of magnificent size where there are heat extremes if plentiful moisture is present, but humidity and the more temperate climes are their natural preference. Thus we must compensate for whatever is lacking in the climatic environment by personal care, and this is most critical in the summer months.

To the many experienced growers who have long since learned this as one of the cardinal rules, we ask that you exercise a degree of forbearance if we seem to get a bit fundamental for a change. However, old hands may get forgetful at times and a reminder is occasionally helpful, while the elementary rules are absolutely essential to the novice. To be perfectly frank, there are times when one profits from his own old notes! Thus we shall dwell a little on summer care in this issue, even though the fish be jumpin' and the livin' easy for you.

Excellent articles on the whole broad subject of Summer Care will be found herein, written by acknowledged authorities.

With apologies to Mr. Jim Fisher of the Camellia Grove Nursery, Sydney, Australia, who recently sent us a copy of his interesting booklet and catalog on Camellias and Azaleas (1958-9), we have taken the liberty of quoting the following excellent detailed advice regarding the (to some) mysterious practice of disbudding:

"Disbudding can be commenced in mid-summer and continued until early winter. Flower buds are formed on the new (recent) spring growth and excess buds are better removed when the size of a pea. Hold stem at base of bud and with other hand twist off bud with circular movement (*or pinch out with strong thumb-nail—Ed.*) thus avoiding damage to remaining bud and shoot next to base, which is of value to future growth on a small tree. When budding is not heavy, leave two buds of different size on each stem, but on a heavily budded tree leave only one bud on each stem, taking care to spread the blooming period by leaving buds of varying size on the tree. Camellias *Sasanqua* do not require disbudding but all Camellias *Japonica* will show benefit from it in size and quality of remaining blooms. When disbudding late-blooming camellias it is often wise to leave all the largest buds, since very late buds can be virtually pushed off by the spring growth, without blooming."

To pursue this matter of disbudding a little further, one of the main objectives must be to open up sufficient space between the blooms so that they may expand without becoming deformed by crowding. Now it would follow that, where as great a number of perfect blooms as possible is desired, by leaving differently positioned buds on the stem (that is, an upper bud, a lower bud, then a side bud) they may be left closer together and still not interfere with each other when opening into flowers.

If one desires a mass effect on the plant, such as in the case of *Sasanquas*, it would naturally follow that no buds need be removed.

MULCHING

Mulching is especially important during the hot months for it keeps the ground cool and conserves water. Practices in mulching vary widely with different individuals and in different areas, and there is an almost unlimited variety of materials which can be used.

Nature is, of course, the great and original mulcher. Wherever vegetation, shrubs, trees grow, the falling leaves form a ground cover and the benefits of mulching begin. In areas where pockets of rotting leaves accumulate, leaf mold forms, and gardeners have long since discovered the value of this rich compost. To make a long story short, here is a list of the chief advantages of mulching, and to make it complete, a short list of disadvantages:

Advantages

1. Mulching conserves water, prevents too-rapid evaporation, especially in hot or windy weather.
2. By the decomposition of the mulching material a valuable food supply is created.
3. Mulch maintains a more even ground temperature throughout the year; in summer it keeps the ground cooler, in winter the ground is kept warmer. On Long Island, for example, a winter mulch is mandatory.
4. Mulch ameliorates the soil; if hard and impermeable, mulch softens it; if light and sandy, it enriches the soil by adding humus.
5. Mulch creates a somewhat more acid soil, a favorable condition for camellias.
6. It prevents the surface of the ground from drying into a hard layer. Since *Camellia* roots are near the surface, it prevents their drying out.
7. A heavy mulch probably deters the formation and growth of petal blight resting bodies.
8. It tends to keep down the growth of weeds.
9. It tends to prevent washing away of soil on sloping ground, and gives some protection from too strong a current from the hose when caretakers or other members of the family water camellias, as well as prevent formation of a mud film.
10. Last, but perhaps not least, the mulching habit affords a useful and handy way to dispose of raked up leaves.

Disadvantages

1. Some forms of mulch, such as leaves and twigs, tend to give the garden an unkempt appearance. If the distaff side of the house objects to this, there is always peat moss or shavings to be had.
2. Rotting humus seems to attract a large population of angleworms which, in the course of time chew up the grains of sand and leave a gummy mass which is more or less impervious to air and water.
3. A light mulch provides an ideally damp growing ground for petal blight resting bodies and also protects them from drying winds.

Kinds of Mulch

The variety of materials which can be used for mulch seems to be endless; any sort of organic matter will serve. The kinds in most frequent use are peat moss, wood shavings, peanut hulls, bagasse (the fibrous part of sugar cane which remains after the syrup is pressed out), leaves, sawdust, and compost. A book has been written, *Stone Mulching*, which advocates the placing of stones around plants and trees and in gardens, but this is stretching the meaning of the word beyond reasonable limits. —R.T.T.

COVER FLOWER

Moutancha. A fine semi-double, 4 to 5 inches in diameter and a clear light pink in color. The flower is relatively high. The plant is a slow grower and difficult to graft. The above (Descanso's experience) does not agree with the Chinese description (light crimson to bright carmine marked with white veins and stripes on inner petals, formal double) but the discrepancy can only be resolved by time. Foliage about average.

SUMMER CARE OF CAMELLIAS IN THE CENTRAL VALLEY

Milo E. Rowell, Fresno, California

There is some natural advantage in the culture of camellias in California's central valley not enjoyed in most other camellia-growing sections in the United States. So far as is known to this writer no scientifically controlled experiments have isolated the particular factor involved. We are reasonably assured, however, that our soils are not the factor as they have a high alkali content which is detrimental to camellia growth and optimum growth is only obtained by special soil preparation and constant additions of some acidifier. We can likewise eliminate our natural rainfall as the advantage of our location, as camellias require a constant high moisture and our rainfall is inadequate at least between March and November. Also, our irrigation water can be eliminated as it is on the alkaline side and is the prime cause of the need of continual acidification or neutralization.

Having eliminated soil, natural rainfall and artificial irrigation, the most important natural factor left to which we can reasonably attribute our unusual success with camellias is our temperature. There are two obvious differences in the valley temperature and other climates. Our seasonal temperature variation is much more marked than that in the California coastal regions, but more nearly comparable to the seasonal temperature variations in the South Atlantic Coast camellia area. The second difference may be more likely to be the true advantage of the Central Valley climate and that difference is the great daily temperature variation, particularly in the months from early May into October. During this period there is usually a variation between daily high and low temperatures of from about 30° to as much as 40°. In Spring and Fall, when the midday high may reach 80°, our minimum will drop to 50° or below, and in Summer when the highs are from 90° to well over 100°, the lows are nearly always below 65° and often in the high 50's. This great variation is in large part attributable to the lack of humidity. While a high summer temperature and a very low relative humidity is comfortable for us humans (in fact most enjoyable), this creates the first cultural problem in summer and by far the most important—that is, WATER.

Water for camellias in our area is important not only at the roots but also on the leaves. The natural habitat of camellias provides them with constant summer rains and high humidity. We must do likewise. Several things can be done to assist in providing humidity. If Camellias are planted under tall deep rooted trees, the water transpired through their leaves will increase, and the holding effect of the leaves will help contain the humidity. If a deep loose mulch is provided, it not only keeps down weeds, provides a cool root run, holds moisture in the ground, but additionally adds humidity to the air immediately surrounding the plants. With these two semi-permeate aids to humidity, a reasonably heavy overhead watering about every second day will provide your camellias with a satisfactory humidity for normal growth.

After over 25 years personal experience in growing camellias in the valley, plus the experience of many other growers, this writer is convinced that if the camellias are provided with adequate drainage, it is impossible to over water during the summer months. During recent years, in addition to alternate day overhead watering, our camellia beds are flooded at least once a week from June through September. Thus during this period those camellias in the ground each week receive over half an inch of water overhead three times and over two inches of water by flooding once. Since weekly flooding has been added to the schedule there has been a marked improvement in both the growth of the plant and density, size and color of the leaves. With this heavy watering program, the phrase "adequate drainage" must be stressed. Without it you can drown your plants. Besides normal drainage provisions and in part due to the high alkalinity content of our soils, it has been found desirable to plant our camellias very high in the ground and surround them with various mulching materials. The second caution for heavy watering is the possibility of leaching out an excessive amount of food. If normal cultural recommendations of intermittent feeding at about three week intervals from early spring to

(Continued on page 18)

REPORT ON CAMELLIA FLOWER BLIGHT STUDIES, SUMMERVILLE, S. C.

Dr. Freeman A. Weiss

No new work was undertaken on this problem in the Summerville area this year because it was expected that the project would be incorporated in the research program of Clemson College under the appropriation made for the investigation of camellia petal blight. Some uncompleted details of the work begun in 1957 were given attention, however, especially in view of the fact that Clemson College was unable to station an investigator at Summerville this year during the period of camellia bloom.

These further observations were concerned with:

- (1) Repetition of last year's survey to determine the extent of infection in Summerville and vicinity.
- (2) Determination of the efficacy of certain treatments applied to the experimental plots in the former Allan nursery for suppressing the overwintering stage of the fungus.
- (3) Cleaning up the area used for experiments in the Allan nursery to prevent further and continued infestation.

The results are summarized as follows.

1. Inspection of Summerville Gardens

An inspection trip made on March 12 and consultation with garden owners indicated that the first observed occurrence of petal blight this year was in the Allan nursery and a private garden on March 7. The disease was further advanced in the former location than in the latter at that time and the same difference in degree of infection was evident on the 12th, though many flowers in both locations were infected by this time. Search for emergent apothecia disclosed less than half a dozen in the private garden throughout the season, whereas they were numerous at the Allan place on March 12.

Additional inspections on March 15 and 22 showed that infection was present in several locations that were apparently free of the disease in 1957. The infection was light and very recent, on only an occasional flower, indicating that it resulted from airborne spores. In front of the Squirrel Inn, several plants that had not been examined because they were out of bloom during the 1957 survey showed general infection, possibly due to overwintering of the fungus in the near vicinity. There was scattered infection throughout the garden, whereas last year's inspection had not revealed any. Light infection was found also in a garden opposite the Squirrel Inn, and light but widespread infection was found in another garden at Dorchester and Colleton Avenues.

No infection was found at the former Moultrie Ball planting (Foster residence) nor the Cauthen residence on Carolina Ave. at the outskirts of town; nor at the Tea Farm, the Cedar Avenue Nursery, and the Summerville Floral Nursery. No infection was found at Magnolia and Middleton Gardens nor at Cypress Gardens.

It appears that camellia blight infection in this part of South Carolina is still confined to the northwest quarter of Summerville, but may be more or less general there to the north of Pine St. and Sumter and Linwood Aves., and west of Beaufort Ave. There is no evidence that the disease has intensified since last year.

2. Suppression of overwintering stage by ground treatments

On November 9, 1957, certain plots, each 1 square yard in area, were treated as shown below. All the plots at the Allan nursery had been heavily inoculated with diseased flowers collected from that area last year. Sclerotia (overwintering bodies) were beginning to form in these flowers when they were placed on the plots.

1. One ounce of terraclor (75% wettable pentachloronitrobenzene) applied to bare ground after removal of superficial mulch.
2. Same, 2 ounces of Terraclor
3. Same as 1, but the application covered with planer shavings 3 inches deep.
4. Same as 2, plus planer shavings.
5. Planer shavings only.

There were two separate plots that received each treatment.

Examinations made March 12, 15, 22, and 24 showed a complete absence of apothecia (spring fruit bodies of the fungus) in all plots to which Terraclor had been applied. Only 3 emergent apothecia were found in plots that had only shavings without Terraclor, and these came up next the board frame that enclosed the plot.

In other plots, adjacent to the treated ones, the numbers of apothecia ranged from about 15 to over 200. Many of these had long stalks indicating that they grew from sclerotia well buried in soil, and presumably formed several years ago.

It appears that Terraclor applied in early winter at as low a rate as 1 ounce per square yard completely inhibited apothecial development. The cost of material for this treatment is about 6 cents a square yard.

3. Clean-up of the Allan Place

Upon finding flower infection practically universal on all camellias in the former Allan nursery and adjacent plantings, a clean-up was initiated with the aid of workers furnished by Mr. Norwood Hastie, Mr. Sebring, and Mr. Segelkin. All open flowers and buds showing color were picked from the plants and all flowers and petals were collected from the ground. This material was hauled at once to the Summerville saw mill and incinerated.

Some of the plots were cleared of mulch and an application of Terraclor at 1 or 2 ounces per square yard was made to the bare soil, but rain interfered with the completion of this treatment. Another attempt also was prevented by rain. Accordingly, all remaining plots were treated with 5 ounces of 20% Terraclor dust applied to the surface of the mulch, but pretty well washed in by prolonged rain.

It is recommended that further treatments should be made late in the fall (November) according to approximately the following plan:

(1) The entire area of the former Allan nursery, *except the framed plots*, should be treated with Terraclor, either sprayed with a suspension of 1 lb. of 75% wettable in 3 gallons of water applied to 150 square feet, or dusted with 20% at the rate of 1 lb. to 40 square feet. This area consists of the part between the circular drive and the highway that contains camellia plants, and an area at least 10 feet in radius around each plant should be treated.

(2) Advantage should be taken of the information now available about the history of each plot to get certain further information needed as to the time and rate of Terraclor applications to give best results. For example, some of the plots should be treated again next winter at known application rates, and an examination of apothecial emergence should be made in the spring. A schedule can be furnished showing the history of each plot to date, and the extent of apothecial development this year.

(3) This clean-up project might well be undertaken as a community enterprise of the Summerville Camellia Society, under the supervision of Clemson College. If inspections next spring should show that the disease is substantially reduced though not altogether eradicated, the entire treatment should be repeated. The cost of this would seem to be a small price to pay for assurance that this area at least will not continue to be a hazard to camellia cultivation in Summerville, and if the treatment is successful there it would be an incentive to other camellia growers throughout the town to take similar measures. There would seem to be a reasonable prospect of eliminating, or at least substantially controlling, the disease in the entire community.

4. Miscellaneous Observations

Naturally developed sclerotia collected from the Allan plot in November produced apothecia when kept in moist vermiculite at a temperature of 50 to 55 F in subdued light, the first ones appearing about Jan. 25.

No apothecia were obtained from sclerotia produced in flowers of 1957 that matured under artificial conditions (i.e. removed from the plots and stored through summer at various temperature conditions).

Some examples of the vigorous reproduction of this fungus were noted. From one compound sclerotium produced in the base of a double flower, 18 apothecia developed. The stalk of one apothecium measured nearly 4 inches, and had grown straight up through soil of this depth. Some very large apothecia were found; the largest was 2.3 cm. (nearly $\frac{7}{8}$ inch—about the size of a quarter dollar) in diameter.

No evidence was seen of any damage to foliage of camellias or other plants by contact with Terraclor spray or dust, but it seems only reasonable to wash off any residue left on foliage for the sake of appearance. Statements by the manufacturers of this material, and the experience of numerous investigators, testify to its extremely low or negligible toxicity to green plants, and to man and animals.

NORTHERN CALIFORNIA NOTES AND COMMENTS

We are indebted to the President of the South Carolina Camellia Society, Mr. H. E. Ashby, for a complimentary copy of a new kind of camellia publication—a Camellia Show Handbook—consisting of 80 pages of illustrative material covering all aspects of the organization, planning, staging and, in fact, everything having to do with putting on a camellia show, set up in manual form with a handsome color cover. Regardless of the size or scope of the individual show, this handbook is a must, serving as a check-list and time-table of the manifold duties that must be performed if the camellia show is to be put on properly and it may well become the standard, if not authority then certainly the guidebook, for all future shows. We commend the South Carolina society and the Committee responsible for this valuable contribution to camellia literature and congratulate them on a well-done job. Individual copies are \$2.00, including packing and postage—12-copy lots for \$10.00. Orders should be sent to Mr. H. E. Ashby, 1372 N. Edgewater Drive, Charleston, S. C., accompanied by check payable to the South Carolina Camellia Society.

After a cleft-graft has been made, it is possible to use most anything that will not cut the stock to bind it and often nothing is required as the tension of the stock itself is so strong no binding is required. String, grafting rubbers, friction tape, and even insulated wire have been used satisfactorily, but what we like best of all is No. 20 Scotch electrical tape, $\frac{3}{8}$ " with plastic backing. After using this for two years we are very enthusiastic about it and you can use as little or as much as you wish—once around for a very light stock or a half-dozen turns if you wish to provide almost an air-tight seal. Being elastic, it expands without cutting if removed after the graft is well-knit and it is extremely convenient to apply, as well as economical. Cambium growth has been so good that, with a tapered cleft, no sealing compound seems to be required although this is generally a good idea to prevent decay, following removal of the jar and binding.

There is no good reason in the world why a camellia would not grow and prosper planted in ground that was covered (let's call it "mulched") with common brick set in sand (*without mortar*), provided an opening adequate to permit of watering, fertilizing and some aeration were left—one brick square would seem sufficient.

As everyone who has tried growing plants in clay pots well knows, the evaporation or transpiration which clay pottery permits is remarkable; and those of you who have common-brick-surfaced areas that are uncemented will readily agree that plant life such as mosses, grass, weeds, ferns and the like seem to prosper in such an unlikely place. Is there any good reason, then, why brick surfacing would not be ideal around camellias, considering its insulation from heat and cold, moisture retaining function and, best of all for those who suffer from petal blight, surroundings easy to clean and better protection from the toadstools except for a 1-square foot area! One would imagine that the watering requirement would be greatly lessened, also.

Here is an idea worth trying by anyone who would like to have a brick-paved garden or patio area and still grow his camellias in the ground.

COMMENT ON SOME OF THE NEWER VARIETIES

Dr. John D. Lawson (Camelliana Nursery) Antioch, California

A complete compilation of all the newly introduced varieties is an impossibility. Every professional grower and most of the amateurs are working with seedlings, and, of course, to each man his "baby" is just right and worthy of introduction.

However, some of the newer cultivars which have been introduced on the Coast in the past few years are worthy of some comment. The list below is not in any sense a selection of "Best Ten," and is arranged in alphabetical order and not according to the writer's preference.

Ada Pieper: Coral red, semi-double, large, M-L(*). The bloom has considerable sheen, is an eye-catcher, and opens well. Moderate open growth.

Ave Maria: Pale pink, formal double, medium large, E-M. There is a silvery cast to the bloom. The growth habit is slow, upright and compact.

Barbara Woodroof: Very pale orchid-pink outer petals, with cream white or extremely pale pink petaloid center, incomplete double, medium large, M-L. A sport of Chandleri Elegans Variegated, same flower formation and growth habit as parent. Very much inclined to revert to Francine or C. M. Wilson.

Betty Sheffield: White with pink and red markings, mostly semi-double, often peoniform, large, M. The petals slightly twisted. Upright compact growth. Inclined to sport, hence the many variations which are on the market.

Billie McCaskill: Pink, semi-double, medium size, M. The petals are long and narrow, and deeply frimbriated, making a very delicate bloom, distinctive and different. Moderate, open growth.

Bride's Bouquet: White, semi-double, large, M. Petals are fluted and notched. Texture of the bloom is quite light, and does not hold up well. Growth habit slow and drooping. Excellent variety for hanging basket.

Casilda: Red, single, large, M. The petals on this bloom are somewhat twisted and of irregular length. Slow, compact growth.

Clarice Carlton: Coral red, irregular semi-double, large, M. New in this area.

Coral Pink Lotus: Coral pink, semi-double, very large, M-L. A seedling of Lotus, with many of the characteristics of its parent, but with better bloom texture and lasting qualities. Same growth habit as Lotus, with very long, pointed shiny leaves.

Coronation: White, semi-double, very large, M. A Lotus seedling, having all of the good qualities of the parent, and few, if any, of its poor qualities. The petals have heavy texture, stand up well, and open well. There is no balling. The bloom is considerably larger than Lotus. Upright spreading growth with very large, handsome, shiny foliage.

Destiny: White striped pink, semi-double, medium large, E-M-L. Sport of Lady Clare, with rapid growth habit, upright and fairly open.

Drama Girl: Deep rose, semi-double, extremely large, M. Strong, upright growth. Large, shiny leaves.

Edelweiss: White, peoniform, large, E-M. The flower is quite spectacular, but occasionally balls. The central mass of petaloids makes this an outstanding bloom. Strong, vigorous, upright growth.

Emily Wilson: Light pink, semi-double to peoniform, large, M. Vigorous, compact, upright growth. Too new in this area to evaluate.

Faith: Rose-pink, semi-double, large, M. Variegated white petaloids and stamens in the center of many blooms makes a rather striking flower. Vigorous, upright growth.

Frosty Morn: White, irregular semi-double, M-L. This very large frosty-white bloom with its many twisted petaloids is very striking, and is enhanced by twisted, glossy, heavy leaves on an upright growth.

Guilio Nuccio: Coral red, semi-double, very large, M. The petals are wavy and of heavy substance. Occasional rabbit ears add to the interest. Vigorous, upright growth.

(Continued on page 13)

*Blooming period E-early, M-midseason, L-late.

SUMMER CARE

Harold L. Paige, Lafayette, California

In discussing summer care of camellias it might be well to begin with the observation that, although there are basic principles which apply everywhere, there may be considerable difference in the application of these principles, depending upon the climatic conditions involved. These comments will, therefore, consider conditions found in Lafayette, California, which in summer is subject to considerable variation in temperature and humidity. There are usually five or six hot days in June at a time when the plants are poorly prepared to tolerate extreme heat, having just finished their lush spring growth. This heat is accompanied by low humidity. With temperatures sometimes running as high as 112° F. anything that can be done to relieve the suffering plants obviously becomes extremely important. Frequent watering becomes imperative and syringing the leaves in the evening in addition becomes highly desirable. If damage to leaves is to be avoided, the plants must also have partial shade, while a heavy mulch kept damp is helpful in protecting the root system. Camellias in the ground in this area could be planted in much more exposed locations were it not for these unseasonable hot spells. Usually July and August do not bring much extreme heat. As long as the trade winds hold the valley winds back from the coast, the weather is delightfully temperate and sunny. In mid-September, however, the trade winds die down and the hot weather reaches a seasonal peak. Fortunately the days are much shorter and the plants in better condition to stand the extreme heat.

Any discussion of summer care should differentiate between plants in the ground and plants in containers, since the use of containers for specimen plants is not general as yet. Plants in the ground are much easier to handle because of their extensive root system. They have a very much higher factor of safety from drying out. However, plants taken from containers and put into the ground need to have their root system coaxed out into the surrounding soil. It may take a season or even two seasons to do this if the plant is somewhat root bound. If the food and water are brought to it too consistently the plant may decide to sit back and wait for its sustenance as many humans like to do. A recent experience with a planting of 60 Monterey pines illustrated this danger quite vividly. The pines were planted on a steep south slope in the blazing sun. They were carefully watered as recommended for the first summer, in cups dug into the side hill which was composed largely of sandstone. They made satisfactory growth the first year but in order to push them a little faster it was decided to water them for a second season. This was a mistake. The rapid growth continued, but when winter came the first heavy wind blew more than half of them over. They were to all intents and purposes container-grown plants with very little root system. After carefully staking up the trees, they were left to shift for themselves with no more summer watering. Now after five years of growth some of them have nine-inch trunks and are twenty-five to thirty feet high.

It should not be inferred from this experience with the pines that summer treatment given camellias in the ground should be as rough as that which was given eventually to the pines. Once they are definitely well rooted, however, camellias like the pine should be allowed to hunt for water and food, one way to encourage the roots to spread out being to apply both water and fertilizer at the drip line of the trees and somewhat beyond. On the other hand, camellias should not be neglected when the temperature is high and the humidity is low. When the heat from the sun causes water to evaporate from the leaves at a rapid rate the plant has no time to search for water in the ground. The water must be readily available. A newly planted camellia is still in a "container" even though the sides of the container are made of cool damp soil, and it should be given the same care as any other container-grown plant.

As to camellias remaining in containers, heavy emphasis again must be placed on the need for water. Here it is even more important that the plants never suffer from being dry. They seem to thrive in containers which are on the small side if the water is supplied regularly and in adequate amount.

In ordinary summer weather in Lafayette, watering can be done every third day. When the temperatures rise into the high 80's and 90's watering every other day is needed, with daily watering of containers on the really hot days. If the leaves start to droop even a quarter or a half inch, water is indicated. This lesson was learned only after many plants became crippled to the point that severe pruning was needed to bring them back. Believing the often repeated advice that the roots would rot by over-watering, an interval of four or even five days in cool summer weather was tried originally. Now it is found preferable to use a very *loose* mixture for the containers and then, with good drainage, supply plenty of water. The camellia blooms have benefited by this course of action; also the plants look much better.

Before leaving the subject of water it should be explained that containers are watered heavily enough so that about 25% of the water goes through the tub and escapes at the bottom. This holds down the accumulation of toxic salts to a safe level, despite the hardness of the lime-treated water supplied by the water district. Ground plants need deep watering for the same reason, with an equal emphasis on good drainage.

The growing area in Lafayette referred to is a small valley backing up to a semi-circle of steep hills—part of a wild section of Contra Costa County as yet inhabited only by deer, foxes, quail, owls, hawks, rabbits and gophers in great number. The valley floor is covered with fruit and nut trees. Between the wild hills and the cultivated valley a great variety of pests must be dealt with. Nature keeps the wild portion of the property beautifully balanced but this cannot be said of the land under cultivation. This means a carefully-followed spray program.

The spray program now in effect includes two or three spring sprayings for aphids. Aphids reappear just about as fast as the new growth comes out. Since all droopy branches are shortened by pruning in order to induce bushy growth, a certain amount of delayed late growth sometimes necessitates another spraying. A chlordane spray will help keep the aphids under control if applied around walks and foundations and wherever the ants establish runways. If this is done every six to eight weeks during the summer the aphid problem will be much simpler, since the ants make it a practice to plant aphids on new growth. This spray is also effective against earwigs and brachyrhinus. Scale has not been a problem as yet. Spider mites prefer the adjoining roses and citrus trees and have left the camellias pretty much alone. All of these pests have to be watched closely. Mites especially will build up tremendous populations during a few days of hot weather.

Pruning goes on throughout the spring and summer, since it is impossible to complete it at the end of the blooming season which is, of course, the best time to do it. However, delayed pruning has its compensations as there is less dis-budding to do later—a real factor for consideration as one's collection grows larger. A good deal of re-potting is done in August, September and October, along with additional pruning and shaping to compensate for any disturbance to the root system. The repotted plants are kept in a shady place for a few weeks until they have spread their roots into new soil. It is a good idea to wash off about $\frac{1}{2}$ " of soil around the ball of the plant so that the root system will immediately be exposed to the new mixture in the slightly larger pot.

To avoid over-potting, move plants up gradually as, for instance, a 14" tub to a 16" tub, rather than from a 14" tub to an 18" tub. This larger move would be likely to bring about an unhealthy condition of too much new soil with no roots to absorb the water and thereby keep the soil aerated.

Summer also calls for the staking of many of the plants, especially the younger ones in gallon cans. This makes it possible to select a good leader and keep it dominant. Other competing branches are shortened slightly unless a bush form is desired.

Disbudding is another activity that makes demands upon one's summer time. Leaving only one bud to a branch pays off later in larger blooms and less picking up of petals.

For a number of years liquid fertilizer has been used because it could be put on with a proportioner and a water-wand. In view of the heavy watering program outlined above there is a question as to the wisdom of this method, since the fertilizer may be washed out soon after it is applied. Cotton seed meal has also been used and it has proved very satisfactory especially when applied over a loose mulch, in which case there is much less tendency for it to cake. Hoof and horn meal, though high in nitrogen, dissolves slowly so that a steady feeding is possible over a long period of time. New forms of pelleted fertilizer which release their constituents slowly are appearing on the market. These should be tested carefully so that over-fertilizing may be avoided. Light and continuous feeding seems to be indicated. If limited amounts can be given to the plants at each watering it would seem that ideal feeding of container plants could be achieved. But although many growers favor continuous light feeding throughout the year, it is advisable to limit the nitrogen in the late summer and early fall to prevent the formation of a late growth cycle, if blooms are of first importance rather than continuous growth of the plant.

There are other incidental summer duties such as caring for grafts and cuttings, seedlings to be potted, etc. With the heavy emphasis on summer watering it is well to be warned again to check the drainage on ground plants and if containers hold water more than five or ten minutes check the container for stopped up drainage holes. Soggy or water-logged soil can be fatal, too.

The summer program is a very important one and may seem time-consuming when plans for vacation are in the air. There is, however, a certain satisfaction in training oneself to be observant enough to know whether a plant is happy or not just by taking a quick look at it, instead of waiting for it to drop an undue proportion of its leaves in the following spring. The goal for all camellia hobbyists is better flowers and healthier, better groomed plants. Consistent and intelligent summer care will do much to achieve this goal.

BROKEN IMAGES

It is inevitable that, in the case of a plant so variable as the camellia, there should be a diversity of opinion as to its culture and that a certain amount of what is evidently assumption should come to be accepted as established fact. I suppose that is true in all walks of life to some extent. However, as time goes on and we learn from first-hand experience rather than "the book," whenever the two do not jibe a question arises and we find ourselves obliged to choose sides. It shall be the purpose of this article to break a few images in the form of long-standing traditions respecting camellia culture.

Sun Tolerance: How often have we read that it is unwise if not actually fatal to water the foliage of a camellia during the sunny part of the day! Some contend that the drops of water on the leaves act as a sort of magnifying glass and thus cause the foliage to have burnt spots. This has always seemed a bit incredible to me because, in the natural home of the camellia the summer monsoons, bringing water without which the camellia could not survive, are inevitably followed at times by the brightest, warmest sunshine. Consequently, the camellia is by nature inured to this happening and, of course, summer rains are prevalent throughout our South, where artificial watering is the exception. One wonders, then, what substance there is for this contention! We make no effort to avoid watering the foliage during the day in summer and often deliberately do this as a means of giving relief from the heat and dryness. This should not be done in hot weather when there is tender new foliage on the plant but this will burn in a sudden heat wave regardless. Of course, watering late in the day does the most good.

Then there is the admonition that, in the coastal areas of California, camellias should never be planted in full sun. It is undoubtedly true that container-grown camellias had best be kept in partial shade in all but the most temperate (coast-adjacent) sections. This is, however, an unnatural way to grow them, consequently special cultural rules apply. While there are wide differences in climate and in the degree of sun tolerance among the varieties of japonica, as well as the species, in general it can be fairly said

(Continued on page 14)

COMMENT ON SOME OF THE NEWER VARIETIES

(Continued from page 9)

Guest of Honor: Deep rose-pink, semi-double to peony, large, M. Strong, vigorous, upright growth.

Helen K: Blush pink at base of flower shading to deep orchid-pink at edges, semi-double, medium large, E-M. This is one of a number of the shaded group including Dr. Tinsley, Nina Avery, Mrs. Lyman Clarke, Pearl Marginata, all of which are very desirable. Vigorous, upright growth.

Indian Summer: Variegated red and white, peoniform, large, E-M-L. This is a very striking seedling of Daikagura, and has a similar formation. However, there is considerable difficulty with balling. Growth habit the same as Daikagura.

Jack McCaskill: Antique rose with dark margins and heavy veining, semi-double, medium size, L. The chief interest in this flower is the unusual color and shading. No other camellia has any similarity in hue. Strong, open growth.

Judge Solomon: Red, peoniform, large, M. This is a red Elegans seedling with a more peony-type bloom than Elegans. Bushy, upright growth.

Judy O'Grady: White with pink stripes, semi-double, large, M. The pink striped bloom is rather dainty. Compact, upright growth.

Kramer's Supreme: Red, peoniform, large to very large, M. Good color and texture, but rather sparse bloomer. Strong, rapid, upright growth.

Mercury, Var.: Scarlet with heavy white variegation, semi-double, large, M. The scarlet and white contrast makes a very showy bloom. Medium compact, upright growth.

Miss Frankie: Pink, peoniform, large, M. The pink of this bloom is quite soft and glistening. Vigorous, rapid, upright growth. A seedling of Caprice.

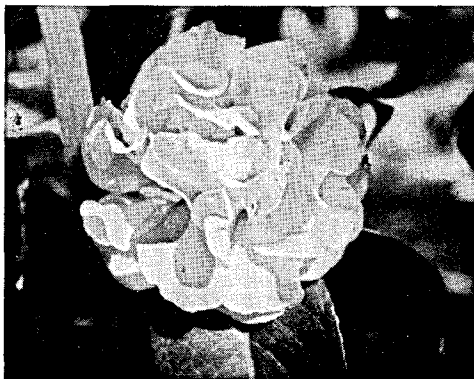
Mrs. D. W. Davis: Blush pink, semi-double, extremely large, M. When this flower is right it has massive size, and is a very delicate color. Strong, upright growth.

Onetia Holland: White, semi-double, large, M. This large white frequently is peoniform, and shows many bright golden stamens interspersed with petaloids. The white is clear and the texture of the petals is excellent. Vigorous, upright growth.

Reg Ragland: Red, semi-double, very large, E-M-L. This is a spectacular flower, and even more spectacular is the variegated form. Vigorous, upright growth.

Rosemary Kinzer: Pink, semi-double, large, M. This is not just another pink semi-double. Its color is excellent as a light pink, and frequently variegated flowers add to its appearance. The growth habit is much to be desired, being bushy and upright.

Tomorrow: Unusual and attractive shade of rose-red, semi-double, very large, E-M. While this is a semi-double, it very frequently has central petaloids and rabbit ears, and should be classified as an irregular double. Strong, rapid, upright growth.



JUDGE SOLOMON (above)
ROSEMARY KINZER (left)
(Photos by Helen Dobson Brown)

BROKEN IMAGES (Continued from page 12)

that the camellia's ability to absorb and thrive in sunlight is much under-estimated. Of equal importance, particularly to the uninitiated, it is most decidedly true that, where sun exposure is concerned in this immediate area (Lafayette, California) "one swallow does not make a summer." I say that as a result of experience in planting out in exposed situations camellias which had previously been somewhat protected. The first summer the foliage burned badly and, while more buds set, the flowers were inferior. The second and subsequent summers, however, the plants had filled out, shading themselves to a greater extent and the leaves, while not quite so deep a shade of green, were still decidedly presentable. The blooms have improved with the self-shade, while the vigor and density of the plant are far superior and its susceptibility to disease and pests greatly lessened—particularly to such shade-thriving enemies as aphids (plant lice). There is this much to be said about sun and the lack of it—it is the source of energy, the fuel that converts water, nutrients and chemicals into stems, leaves and blossoms. The action of sunlight is particularly conducive to flower formation—in almost any plant—and its benefits greatly exceed its harm. Take all arguments against sunlight with a grain of salt—your camellia in the ground will often surprise with its performance in the open, given plentiful water, mulching and plant food. It is the writer's conviction that many varieties, particularly those which originated in the Southern States, will do better if given more, rather than less, sun here. We have had exceptional performance in the open from such older varieties as ROSARY, BRILLIANT, MATHOTIANA, HELENOR, PRINCESS MURAT, the PAEONIAEFLORE family, DAIKAGURA family, and surprisingly, whites such as ELISABETH and CANDIDISSIMA; while we have observed marvelous results in even hotter climates with MME. HAHN and SIERRA SPRING, its variegated sport.

Cutting Flowers with Stems: Here is perhaps the classic misconception concerning camellias! Inquiries by visitors to camellia shows and at lectures have been very numerous on the question of whether it does harm to a camellia to cut stems with the blossoms. There seems to be a prevalent opinion among the less experienced that this is inadvisable. Undoubtedly this has arisen because the nurserymen properly tell their customers *not* to cut off any wood from a small plant which has not yet established a proper frame. That is, of course, good advice but it no longer holds when the camellia has established its basic structure and has sufficient foliage to properly shade itself, thus keeping the roots cool. Cutting stems with the flowers is really an ideal way to prune a camellia and thus get a bushier, more beautiful plant, for by taking off the terminal growth, side-branching is induced. The other possible reason for this misconception lies in the fact that one should never remove all the previous year's wood, for that is the flowering wood and buds rarely set on the gray, older-looking branches. The flowering wood is the twigs, which are usually a brown color, and always leave at least two leaves when you cut the blooms from this flowering wood. The foregoing does not apply to *reticulatas*, which do not seem to have the ability to make lateral growth readily, if the terminal is cut.

Sulphur Fumes: On a number of occasions, I have read that, if soil sulphur is applied to the surface of the ground as an acidifier, its fumes will burn the foliage in hot weather. Competent authority advises that there are no recorded instances of this ever having happened, consequently there would appear to be no real basis in fact for this statement. There is no questioning the fact that fumes from sulphur are lethal to both plant and animal life; however, it should be noted that the melting point of sulphur is about 237° F, or some 25 degrees above the boiling point of water and thus far beyond the temperature at which any form of life could survive. Actually, sulphur is one of the ten or so chemical elements essential to plant growth and health, ranking close to potassium in importance. It is ideal as a soil amendment where alkalinity is involved and really will not function properly until adequate warmth is present. Like any chemical additive to the soil, it must, of course, be used with discretion—scattered lightly over the ground or, better yet, incorporated into the soil mix or mulch.

CAMELIAS FROM THE WOMAN'S POINT OF VIEW

Helen Dobson Brown, Sacramento, California

Recently when asked to give a talk on the subject, "Camellias From the Women's Point of View," I began to try to define just what that viewpoint was. In general, there *does* seem to be a feminine and a masculine viewpoint—at least a different approach in each case—to the subject.

Most men, when first smitten by these fabulous flowers, simply can't acquire them fast enough. Just mention a new variety, and the new victim of "camelliitis" will move heaven and earth—drive miles to pick up this treasure—and bring it home to a perhaps already crowded collection.

Wives, witnessing this phenomenon, suddenly find themselves having to guard the iris, roses, spring bulbs, and so on, which have always had a respected and welcome place in the garden. Lath may spring up, grass disappear—and in some cases, the homemaker may find she no longer has a sunny spot to hang the family wash. All at once Mrs. Wife seems to have a RIVAL.

To add insult to injury—as you know, some camellia societies are for MEN ONLY. I've never known just why women are excluded from these groups; but of course, it *is* easier to sneak in a new camellia when a wife doesn't know one variety from another.

From my observation to date, I am forced to conclude that camellia culture, in its many fascinating aspects, seems to appeal particularly to men.

Trying to sum up the evidence, and at least loosely define the feminine viewpoint toward camellias—I believe most women are primarily interested in the use of the flowers, plus the use of the plants as garden beautifiers and landscape shrubs. Once surrounded by camellias, I have yet to see a wife who didn't, at least eventually, become enamoured with their beauty and variety. Comparatively few women, however, on their own, become collectors and hobbyists or propagators.

Actually, I feel circumstances play a great part in the extent to which a woman becomes interested in camellias. As a case in point, I might cite my own experience.

Not knowing one camellia from another, I acquired a garden full of them when I married my husband. Left with their care when Mr. B. was away on business, it was a matter of sink or swim for both myself and the camellias. I decided to swim. Now I am very much interested in almost every aspect of camellia culture.

Given the right set of circumstances, proximity, and a few seasons of watching these bewitching shrubs come into flower, I'm quite sure the feminine member of a household *can* fall just as completely in love with camellias as the masculine party of the second part.

It isn't at all necessary, however, to become involved in the fine points of camellia culture to enjoy having camellias in your garden. For instance, to the photography enthusiast, such a garden can become an exciting new workshop. Waiting for that special flower to open—watching for the most perfect stage of development—catching the right light on and around the blossom for that color or black and white close up, can be a challenging and sometimes richly rewarding project in itself. Keeping a camera ready and available, a woman home during the day has a particular opportunity to catch those unplanned-for shots and unusual lighting effects.

Should a woman's interests include flower arrangements—even those seen only in her own home—how wonderful it is to have handsome blooms right in your own back yard. If your husband is a grafting fan, in addition to the supply of blossoms, you have ample, handsome foliage which lasts in the house for weeks when kept in water.

If the husband is the grower and hobbyist of the family, nothing could compliment him more than his wife's interest as an appreciative onlooker and wearer of his choice blossoms. From a feminine viewpoint, just going along for the ride (literally and figuratively) can be lots of fun. Driving miles to see or enter a camellia show—standing by while your husband judges—opens the door for many interesting and enduring friendships. In this camellia game, you meet such nice people!

(Continued on next page)



A great deal has been written in the past regarding the do's and don'ts of camellia culture that we now find no longer acceptable. Some of these suggested practices of the long ago are actually the antithesis of today's culture. For example, do you remember when it was said never to cut a camellia bloom because the branch would not grow again? Today the pruning of camellias is done with great benefit to the japonica, although this may not hold with *reticulatas*.

It is also recalled that it was said "never disturb a grafted plant for two or three years by moving." It has been my practice to re-can or re-box them soon after the graft has been assured. This is especially true if the graft has callused but does not grow. The results are gratifying.

Some authorities also say "never fertilize a grafted camellia for at least two years." It is supposed that there is enough plant food in the soil to support the new graft for that period of time. I contend that the new plant will benefit by several light ($\frac{1}{4}$ of usual amount) feedings the first year and one-half the usual amount in quantity of feedings the second year. (Babies have to be fed too.) There are also growers who have used Gibberelic acid on one year grafts with fine success. This I have not tried but the results reported are worth the gamble.

There is another subject concerning one and two-year grafts that is worthy of mention. Be sure *not* to water young grafts too much. How often have you had a graft take hold and grow nicely, only to see the new growth droop, wilt and die. The probability is it was overwatered causing the roots to rot and the plant died. Remember, the great portion of the moisture taken up by the roots is expended and evaporated through the leaves. The fewer the leaves, the less evaporation through the natural processes of a plant. It is suggested to avoid watering new grafts unless they absolutely need moisture.

The theme of this issue of the *Bulletin* is "summer care." Along this line I have found that here in "the warm interior valley" most people water camellias too much in summer. This overwatering induces second growth and the result is a loss of flower buds as well as putting the plant in an unattractive form with long arms of second growth sticking out like a motorist signaling to make a turn at the next corner. For a long period I have fought this problem, and I find that one good deep watering a week and the spray of the nozzle on the leaves, only, in the middle of the week, keeps the plants from drying out and yet gives good growth and bud set with a minimum of second growth.

CAMELLIAS FROM THE WOMAN'S POINT OF VIEW

(Continued from previous page)

I like to feel, and do feel, that each viewpoint, masculine and feminine, contributes something in its own right.

In closing, I would like to offer some free advice to the ladies. If your loving and —to date—sensible husband seems to have caught "Camelliitis" (symptoms described at the beginning of this article) don't worry about it. Its probably already too late to change him anyway—so just join him!

BROKEN IMAGES (Continued from page 15)

pH Factor in Soils: While it is generally preferable to have the camellia soil on the low (acid) side of neutral, this is not an absolute essential as witness the fact our local water supply tests out at 9.4—*highly alkaline!* If the physical condition of the soil is right (rich in humus such as leaf-mold and peat moss) the pH does not *have to* be kept at the optimum of 5.5 to 7. However, acid plant foods should always be used and a mulch of pine needles or oak leaves is extremely valuable, as it provides another prime essential—*aeration.*

Sand in Heavy Soils: Unless a great deal of physical effort is devoted to proper and thorough mixing, this simply does not work out as a means of lightening the clay. Fine gravel or humus, even aged sawdust, is better.

Petal Blight: Available evidence does not seem to corroborate the contention that the spores from the toadstools will travel great distances and infect clean gardens. We know of at least two instances where there was no blight only a hundred yards from widespread infection. However, it is safest to pick up your petals and take reasonable precautions—but *don't get scared!*

SUMMER CARE OF CAMELIAS IN THE CENTRAL VALLEY (Continued from page 5)

early August are followed, no problem will result. However, to avoid excessive loss to the plants it has been our practice to leaf feed once during May, June and July in addition to our regular fertilizing program. Any good soluble high nitrogen content fertilizer applied as directed by the manufacturer has been found satisfactory.

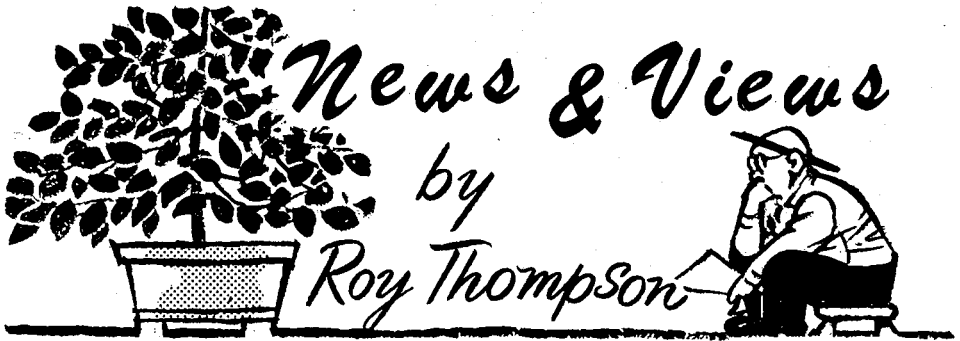
For container grown plants the same basic principles apply but the practice is a little different. Containers drain out faster and dry out the same way, so they are watered every second day and the foliage is lightly sprayed on the alternate days. In order to compensate for the extra leaching caused by alternate daily watering, a very light application of fertilizer is made every second week. The same total annual fertilizer is used in container plants, but less is applied oftener.

If the foregoing program is carried out in Spring and Summer, by early July you will be faced with a decision. By this time you will have at the very least three times as many flower buds set as you will need and you will have to decide on whether you prefer omitting disbudding and producing quantity or expending the effort and producing quality. If you decide on quality, a complete disbudding once every two weeks from now on seems to be necessary. Either the plant manages to conceal its buds each time you disbud or it has a goal in mind and promptly replaces those buds you carefully twisted off two weeks ago—in either event it seems necessary to do this easy but time consuming job over and over again to really produce only twice as many flowers as you intended.

These plants also have the unique ability to conceal their seed pods. If you have no interest in raising seedlings and wish to have the full strength of the plant produce growth and flowers, while you are disbudding keep your eyes open for seed pods overlooked earlier in the year.

There remains one further summer chore that is a matter of personal preference. When our plants are young and small we cherish every twig and leaf, but all too soon these slow-growing shrubs begin to outgrow their locations, crowd each other and become slightly misshapen. In addition to pruning to shape when picking the flowers, as soon as the first growth of spring hardens off in early summer is another good time to shape your bushes with light pruning and to open up the interiors by eliminating the unneeded short spurs and crossing branches. Camellias are most accommodating to pruning, shaping and training.

A well planted camellia is truly a lazy gardener's plant. All summer when many plants require cultivating, spraying and continual fussing, all you really have to do is water and water and water, with just a little food thrown on occasionally. The remaining summer chores will produce finer flowers and plants, but you'll succeed with quantities of beauty if you omit them.



Several pictures of large camellia plants in full bloom in the New York City area are shown in the Garden Section of the *New York Times* for April 13. The accompanying article states that the two greatest hazards to growing camellias there are drying winds and winter sun, not freezing temperatures. Great care has to be taken to see that there is sufficient ground moisture in fall and winter and that no early morning sun strikes the plants when the leaves are frozen. Late March and April are the best planting months, and to get best results the plants should be one and a half to two feet tall. Small rooted cuttings and young grafts are not recommended. The mid-season and late bloomers do best among the japonicas and a few early blooming sasanquas. No blooms can be expected in mid-winter.

Included in the article are some interesting data from the Washington, D. C., Pennsylvania, Delaware, New Jersey, and New York areas compiled by the Camellia Society of the Potomac Valley, now numbering 200 members. A recent survey of the membership revealed that 561 varieties were being grown, and of these 434 were japonicas. The rest were mainly sasanquas, although 12 species were represented.

It is important to remember that the soil about camellia plants must "breathe," that is, must have sufficient aeration. This is true whether the plants are in the ground or in containers. A glazed pot, for example, does not give a plant sufficient air circulation to keep it healthy. Hard soils, like clays and adobes, should be lightened by the admixture of some agent which will permit of more air, such as peat, humus, sand, or commercial soil conditioner. A huge colony of angleworms in the soil about a camellia will eventually throw up to the surface an all but impervious layer of finely chewed soil which has something of the texture of chewing gum and tends to keep air and water from circulating freely. Last summer a 6-foot *White Giant* began to lose its leaves and look sick; it had been in the same place in the ground for five or six years and all about it was an inch-thick layer of angleworm "mud" like a heavy blanket on top of the ground. I violated the rule that camellias shouldn't be cultivated, dug down through this blanket, removed some of it, added peat and sand, and this year the *White Giant* has regained its health and put out an unusually fine new growth. A neighbor's lawn became so hard from angleworms that it had to be dug up and replanted. It is possible, of course, that some element in our local soil is responsible for this condition, hence, I would like to hear if anyone else in the camellia circle has had any such experience.

The species *Granthamiana*, imported a few years ago from Hong Kong by Ralph Peer, has stirred up a great deal of enthusiasm among camellia people, especially those who are interested in the little-known species, of which there are something like ninety, and the possibilities of hybridizing these with the better-known japonicas, reticulatas, and sasanquas. *Granthamiana* has a 5-inch flower and foliage that is unlike anything else among camellias, and very beautiful. It bears seeds, and Messrs. Andre and Hartman of San Fernando already have three little seedlings from it, while Mr. Al Smith has three seed pods which resulted from hand-pollination and are expected to mature this

summer. It would be hard to find a more fascinating hobby than hybridizing, but the business of putting on the plastic sacks and keeping the books and labels straight is a most exacting one.

Mr. Paul Jones, the Australian artist who so successfully illustrated the two notable camellia publications, *Camellia Quest* and *Camellia Trail*, spent some weeks this spring at the Huntington Botanical Gardens making a new series of pictures for the forthcoming camellia book to be issued by the Urquhart Press in England. The first volume of this series, which came out over a year ago, included accounts and pictures mostly of older camellia varieties which were of limited interest to American collectors. Judging by Mr. Jones' present selection of varieties, the next volume will be ultra-modern, for the list contains such camellias as *Reg Ragland*, *Coronation*, *Elizabeth Le Bey*, *Frosty Morn*, *Barbara Woodroof*, *Guest of Honor*, *Buddha*, *Dian Hartman* (not yet released), and an amazing new Huntington Gardens hybrid seedling.

Mr. Jones is undoubtedly one of the foremost contemporary flower artists and in the camellia world the most accomplished painter. His pictures, done in water-color, are so near perfection that they invariably cause astonishment and instant admiration among camellia people. He was most gracious in showing his paintings at camellia meetings this spring, and always with the same result—astonishment at their perfection. It takes a great artist, for example, to paint a white camellia like *Frosty Morn* on white cardboard with no background color added.

One of the "old timers" in camellia culture in Southern California, Mr. Elvin H. Carter, now 85, had a heart attack this spring and is now in a rest home in Alhambra. For many years he had a camellia nursery in Monterey Park which, in the 1940's, was a center for camellias and camellia information, and its owner was known to every camellia collector throughout California. It was he who brought *reticulata* (Captain Rawes) scions down from the famous tree at Berkeley and introduced the species to Southern California. He found an old camellia tree at Pico, took scions from it, and named it *California*. He was a founder of the Southern California Camellia Society. He specialized on sports of *Paeoniaeflora*, one of the best known of which is *Strawberry Blonde*. His many friends will be glad to know that his condition is satisfactory.

Another camellia eccentricity in camellia behavior occurred in the week of June 22 at the home of Wilkins Garner in Glendale. A fully developed and perfect bloom of *Lallarook* appeared on a fresh green shoot which is unmistakably this spring's growth. The color and markings were not quite typical of *Lallarook*, but it was a handsome flower, not freakish, as many late blooms are. Or was this an early bloom of the 1958-59 season? Three other buds, all showing color, were on the plant at the time, all on new growth.

Early in June Dr. Clark Hubbs had a heart attack and was confined to a hospital bed for more than three weeks. He is now at home and in very satisfactory condition but cannot go back to his office until September. The attack came at a time when his garden was in need of much work, especially the grafts, which were in the jar-lifting stage. What then happened at the Hubbs home makes a really encouraging story of neighborliness and good-will: four of his camellia friends assembled there for the day, took care of the grafts, repotted 80 camellias by the bare-rooting method, procured potting soil, leaf-mold, cans for the job, did a thorough watering job all round. It is a pleasure to record such a demonstration of human helpfulness in this era of hurry and machines. Those of us who have known Clark for a long time realize that this friendly act was, in fact, a reflection of his own habitual friendliness and out-giving nature. The self-appointed visiting committee continued its care of the Hubbs' camellias for some weeks. For the record, they were Al Parker, Wilkins Garner, John Robinson, and Al Dekker.