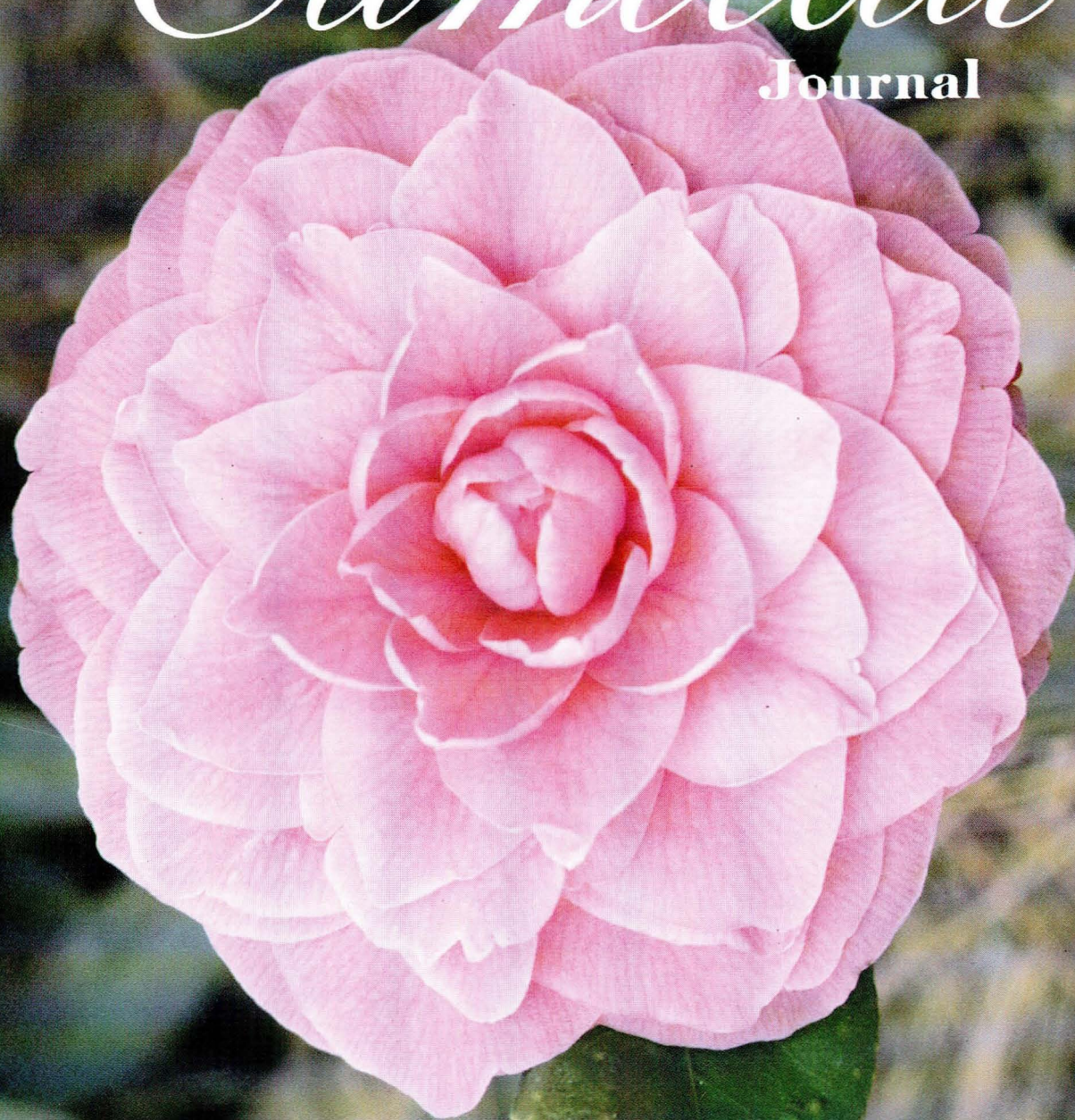


AUGUST 1990

\$2⁵⁰

The *Camellia* Journal



Dorothy Henry'

(ACS Reg. No. 2105)

A medium, rose pink, formal double *C. japonica* chance seedling. Flowers have 77 petals and bloom mid-season to late. Originated and propagated by Johnny Aldrich, Brooklet, Georgia.

SPECIAL ISSUE
Horticulture

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OF THE
American Camellia Society

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Journal

WORLD'S LARGEST PUBLICATION DEVOTED TO THE GENUS CAMELLIA

OFFICIAL PUBLICATION OF THE AMERICAN CAMELLIA SOCIETY

VOLUME 45

NUMBER 3

AUGUST 1990

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FROM THE PRESIDENT

H. C. Rambath

Hello to all Camellia Society members and friends, especially all new members. Welcome to a wonderful hobby with beautiful flowers and friendly people.

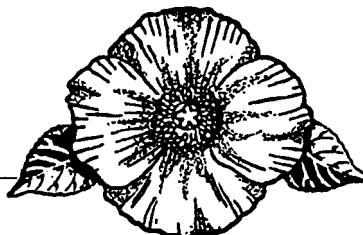
We are, at this time making plans for the fall meeting at Baton Rouge, La. on Nov. 8-10, 1990. Shortly after that we will meet in Pasadena, Ca. - Feb. 20-23, 1991. Both meetings should be well attended and enjoyable.

Recently I have begun an experiment that is new to me, since most of our camellias are in containers. Several years ago I planted the camellias in the lath house in the ground. This spring I'm mulching them with a mixture of leaves, pine needles and rice hulls, putting it on about 3" deep. Already the new growth has been remarkable. This idea came about because the Calif. Agricultural Dept. has been putting out dire reports on drought conditions this year.

As I write this though, we have just had rain—a record—not since 1906 have we had so much rain in May. For this we give thanks, but farmers are worried. A bumper crop of cherries is on the line as is the strawberry crop. Not everyone wins.

For some of you who do not use gib, I urge you to give it a try. It is an excellent way to double your camellia flowering season. By gibbing around August 15th and then every weekend after—doing 2 or 3 buds on the same plant at a time—you should start getting blossoms about 60 days after the first application. There are many articles in various Camellia publications on how to do this—or ask anyone you know who uses gib and they will help you to start the process. Also remember to dis-bud for better blooms.

Remember the ACS meetings at Baton Rouge and Pasadena. Join us for a good time. Bring flowers with you and be ready for a great new Camellia Season.



Welcome to Baton Rouge

**ACS
Fall Convention
November 7-10, 1990**

We hope you already have your calendar marked for November 7-10, 1990 to participate in the ACS Annual Meeting at Baton Rouge, LA. Headquarters hotel is the Embassy Suites Hotel, 4914 Constitution Avenue in Baton Rouge. See their ad and reservation information in this Journal. Please note that their rooms are two room suites, equipped with kitchen, two TV's, and dressing areas in addition to the usual amenities. Suites with king size beds and/or sofa sleepers are available; ask for what you need. The rates include a cooked to order breakfast (with cereal, pastries, fruit, juices available) for each guest and free cocktails in the evenings in their spacious, plant filled atrium.

Registration will begin on Wednesday afternoon in the hotel lobby with hospitality in the atrium beginning at 5:30 p.m. It will be an excellent opportunity for welcoming new friends, renewing old acquaintances, and catching up on experiences from last season. Snacks will be provided by members of the Baton Rouge Camellia Society who will be on hand to help our visitors select what to see and enjoy while visiting the Capitol City.

On Thursday, November 8th, registrations will be available for those who could not arrive on Wednesday. A Judging School is planned for 9 a.m. on Thursday morning if at least 20 people register before October 15, 1990. This will be the "rules" part; the practice-judging part of the school will be held on Friday afternoon, following completion of the Camellia Show judging. The Governing Board meeting will be held at 9 a.m. on Thursday morning. For those not attending the

Art Landry

Board meeting or Judging school, optional trips and tours will be available to participate on your own.

Thursday afternoon we will take a trip to historic St. Francisville to tour Rosedown Plantation Home and Gardens. This beautifully restored and furnished home was built in 1835 and is surrounded by 28 acres of beautiful formal gardens modeled after those at Versailles. Rosedown has been a working plantation until very recently when the farming and ranching activities were discontinued.

After completing our leisurely visit at Rosedown we will journey about two miles down the highway and visit Hemingbough. Hemingbough is located in a magnificent wooded lake area in the rolling Feliciana hills and provides an enchanted landscape at each season. Native trees, shrubs, dogwoods, and azaleas adorn the natural ravines and developed areas. We will have cocktails on the overlook patio and have dinner in adjoining Hemstead Hall, adorned with Corinthian Columns, intricate and lacy plaster friezework, bronze and crystal chandeliers. Mr. Arlen Dease, who is developing Hemingbough, has a memorable dining experience planned for us.

On Friday morning we will set up for the Camellia Flower show at the Hotel beginning at 7 a.m. This is somewhat early for a show, so be sure and give some blooms early and bring as many blooms as possible so we can have a good display. Entries will be accepted until 11 a.m. and

Judging should be completed by 2 p.m. when the second part of the Judging school will take place. Trophies will be given for Best large to very large; Best medium; Best small; Best miniature; Best reticulata hybrid and Best non-reticulata hybrid. Trophies will also be awarded for the Runner-up in each of the above as well as Best plate of three blooms of same variety; Best plate of three blooms of different varieties and Best seedling. Since this show is in connection with ACS Annual Meeting, the special Evelyn Abendroth Award will be given to the blue ribbon winner of 'Rachel Tarpy'.

The Endowment Board meeting is on Friday morning and optional tours and visits will be available in the afternoon. After our hospitality period at the hotel we will go to Glynwood for dinner furnished by Ralph and Kacoo's Seafood Restaurant. Ralph and Kacoo Olinde started their first restaurant north of Baton Rouge at False River and built the business up to a number of restaurants in the South with a reputation of having some of the best seafood around.

Saturday morning will feature our educational program with subjects and speakers of special interest to our members. The show will remain open to the public until late afternoon. Optional activities will be available in the afternoon or time to be on your own until hospitality in the evening. Our Awards Banquet will be at 7 p.m. at the Hotel and will mark the formal closing of the meeting. Of course, we hope some of you will want to stay another day or so and visit a bit longer. We look forward to being with you in Baton Rouge in November. **Y'all come!**



Guests at the ACS Fall Meeting at Baton Rouge, LA will enjoy the Gazebo and Fountain as well as the Plantation Home and 28 acre garden at Rosedown Plantation.

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American Camellia Society Annual Meeting

November 7, 8, 9 & 10, 1990

Embassy Suites Hotel
4914 Constitution Avenue
Baton Rouge, LA 70806
(504) 924-6566

SCHEDULE OF EVENTS

Wednesday, November 7, 1990

Noon - 6 p.m. Registration
5:30 p.m. - 7 p.m. Hospitality
7 p.m. Dinner on your own

Thursday, November 8, 1990

9 a.m. - 4 p.m. Registration
9 a.m. - 11 a.m. Judging School (will be held only if 20 people register before October 15, 1990)
9 a.m. - 11:30 a.m. Governing Board Meeting
Noon Lunch on your own
1:30 p.m. - 5 p.m. Tour of Rosedown Plantation Home & Gardens
5 p.m. - 7 p.m. Hospitality and Dinner - Hemmingbaugh

Friday, November 9, 1990

9 a.m. Registration
7 a.m. - 11 a.m. Set up Show
9 a.m. - 11:30 a.m. Endowment Board Meeting
11:30 a.m. Judges Lunch
12:30 p.m. - 2 p.m. Judging of Show
2 p.m. - 3 p.m. Judging School, Part II
3 p.m. Show Open to Public
1:30 p.m. - 4:30 p.m. Tour
5:30 p.m. - 7 p.m. Hospitality
7 p.m. Dinner - Glynnwood

Saturday, November 10, 1990

8 a.m. - 4 p.m. Show Open to Public
9 a.m. - 11:30 a.m. Educational Program
Noon Lunch on your own
1:30 p.m. - 4:30 p.m. Optional Tour
5:30 p.m. - 7 p.m. Hospitality
7 p.m. Awards Banquet

REGISTRATION FEES (Per Person)

Full Convention	\$125.00	(after October 15)	\$130.00
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Saturday Only	25.00		30.00

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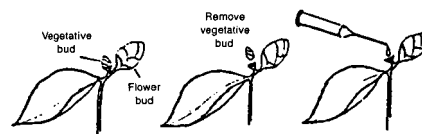
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Observations on Camellia Location from a Novice Grower

Pat Greutert

My becoming editor of *The Camellia Review* after only a few years in the Southern California Camellia Society didn't mean I was a great flower exhibitor or grower, however, it did give me access to forty years worth of *Camellia Bulletins* and *Reviews* which I have now read. Among my observations: Camellias are hardy shrubs. They survive all manner of fertilizer and planting mixes, pruning, gibbing and poisonous sprays. They like water, but not too much. If they survive their youth, many can thrive, even in neglected yards, if they were originally planted in the right location.

While I was interviewing Camellia Nomenclature great, Bill Woodroof, for an article, he announced that he grows all his plants in pots because of the poorly draining adobe soil where he lives: "They won't grow worth a darn in the ground here." His late wife Barbara dared to remark, "What about that 'Pink Perfection' growing by the front door?" She had bought it in a gallon can when they moved into the house years before. She dug a hole, dropped the plant in and tamped the dirt down with her foot. Now the plant is huge, with fire hose-sized limbs. The plant loves it there on the north side of the house, even in adobe soil.

At the show table you can't beat a good grower with a good plant in a location it loves. Year after year Caryll Pitkin tabled one winning flower after another from the 'Tomorrow Park Hill' located on the northeast corner of his house. When Caryll's poor health precluded his showing of those flowers, 'Tomorrow Park Hill's' position on the winner's charts dived.

Bob and Alice Jaacks generally make mincemeat out of competitors with their gibbed 'Valentine Day' camellias in the early shows. Both

their plants are under 50% shade cloth on either side of their garden. Then come the later shows when competitors descend from the north; Fresno, Modesto and Bakersfield. Then you're talking big location changes; hotter summers, colder winters and tule fog. We Southern Californians blanch when those people open their boxes of beautiful blooms.

But back to simpler location changes. My potted 'Commander Mulroy' bullnosed consistently for three years until I moved it into a sunnier spot on the northeast side of our house. It opened its blossoms so nicely last year that I bought an 'Alta Gavin'—same type flower; pink shading to white in the center—to sit beside 'Commander'. It, too, has good flowers. Also, 'Little Michael' floundered for two years in the shade. This year it didn't have one bud so I moved it alongside these other two plants. Of course it didn't suddenly acquire buds, but its leaves enlarged and became shiny. I know it will flower next year.

A large oak shading my 15-year-old 'Wildfire' succumbed from the effects of cesspool chemicals which burned its roots, leaving 'Wildfire' in full sun. Master grower Bill Goertz told me that since its flowers were red-orange, the plant would probably survive full sun, but any show flowers would bloom on the plant's shady side. He was right, of course.

Winning raffle plants enlarged my camellia collection with many plants I would not normally have purchased. One was 'Fiesta Grande', Lee Gaeta and Meyer Piet's 1986 introduction. It started out in my garden as an undistinguished-looking baby in a gallon can two years ago. Now repotted, this year it's four feet tall, a patrician tower with a sasanqua's abundant small leaves but bursting with numerous reticulata-

size lavender-pink blossoms. An amazing landscape plant, aptly named. Lee Gaeta said I must have it in just the right shaded location, and, obviously, I do.

At Nuccio's Nursery last year, I came upon another beautiful landscape plant; 'Taylor's Perfection', originally from New Zealand. Its blooms were so attractive on the plant that I bought it. By now I have learned a trick about location. I repotted the plant into the next larger-sized pot to insure that its roots wouldn't dry out and set it on the oak-shaded bank where I thought it would look nice. After a few month's good growth, when the plant developed numerous buds, I planted it there on the hillside. This year its branches fan out symmetrically, like a peacock's tail covered with pink tulips; a real beauty in the perfect spot. Moving plants around once they're in the ground is hard work. A trial period in the pot like this saves much unnecessary labor.

Perhaps my most surprising plant is 'Kimi Yamamoto'. I bought it at least ten years ago at his nursery from Vern McCaskill. He chose it after I told him: "I need a camellia for a clay pot 12 inches wide and 18 inches deep. It will be in complete shade under the eaves on the north side of the house where it won't get any natural rain. Oh, and I don't want it to get too big for the pot." The plant sits in that very spot in the same pot today, blooming its heart out. Not really a show flower, but again, the right plant in the right location.

A last little story: One day in my garden, in an out of the way spot between an oak tree trunk and a property-dividing chain link fence, I came upon what must be a seedling camellia, probably growing from a seed dropped by a bird. Now, several years later, the plant is about three feet tall with a four foot spread. It survives naturally, here in arid California, with no supplementary water or fertilizer, just its original thick mulch of oak leaves. Unfortunately its flowers are very ordinary—white with occasional pink stripes—but it testifies once again to the fact that a camellia will flourish in a compatible location.

Transplanting Camellia Plants



Robert Stroud

Wild camellias grow mostly on slopes in woodland, forest or thickets where the drainage is good. The key words here are "on slopes" and "where the drainage is good." Neither of these conditions exist in the area that we have chosen to plant our camellia gardens. The land is flat and the rain comes once a month, six inches in six hours. Well, maybe things are not quite that bad.

One of the things I noticed when visiting successful growers in South Louisiana was that most of them had planted their plants higher above the ground than the general camellia literature recommended. They also used a more aerated soil mixture than is generally recommended. From this I deduced that drainage must be one of the most important elements of growing healthy plants and healthy plants produce show winning flowers.

We moved recently to a new house on a larger piece of property. We had about 125 plants in the ground at the old house that I wanted to keep. This offered an opportunity to try some of the techniques that I had learned about camellia culture, Cajun style, from traveling across the southern part of Louisiana.

We built bed frames two landscape timbers high (approximately 8 inches), eight feet wide and sixteen feet long. Each of these frames were

to hold eight to twelve plants. The critical dimension here is the eight inches of height. With a rotor tiller, the soil was tilled about six inches deep. To the top of this soil was added four cubic feet of peat moss, four cubic feet of pine bark mulch, four cubic feet of potting soil and about one cubic foot of sand. This mixture was then tilled together. Twenty pounds of cottonseed meal was then added and it was tilled again. By this time the soil mixture was overflowing the two landscape timbers. After tilling in the cottonseed meal, the beds were soaked down with water. They were then left for about four weeks to season.

The day of the big move, we dug the plants at the old house and transported them to the new house and planted them one pick-up truck load at a time. We were told to get as large a root ball as possible with each plant. As the day passed, the root balls got smaller and smaller.

In the planting process, I used a liquid root stimulator with Vitamin B-1 mixed as directed—about two gallons per plant. The beds were then soaked with water to make sure that we kept the plant shock to a minimum.

At the time of the move, some of the plants were in full flush. We therefore did not prune them back as we should have. The plants had not

started new growth, that we were able to prune, did extremely well.

After several weeks, it became evident that I was going to have trouble with weeds in the beds. I bought some material called "Weed Blocker." It looked like a very dense shade cloth of black screen. We covered the beds with this weed blocker and then added a thick layer of pine bark as a mulch.

In other areas of the yard where we planted individual plants, we rotor tilled the ground approximately five feet in diameter. We then put two wheelbarrow loads of soil mix on top of this. We made a hole in the mound of mix and planted the plants almost on top of the ground. We made sure to use the vitamin B-1 root stimulator on each plant. We took a square piece of weed blocker and cut a slot in it so as to allow it to be draped around the base of the plant and then covered it with pine bark as a mulch.

In all, we have planted over 170 plants. We lost one—an Alba Plena. There are several that have had to be pruned severely but look like they will make it. Two other Alba Plena's and one Magnoliaeflora did not put on any buds and have had to be severely cut back. It seems that Alba Plenas do not enjoy moving.

In summary, the successes that I have enjoyed in planting and transplanting camellias in South Louisiana have come from planting the bushes above grade level in a very light aerated soil mix. The weed blocker has served to keep weeds away from the roots as well as keep the moisture in around the roots. An organic mulch (I use pine bark) is used to maintain moisture as well as hold the weed blocker down. I also recommend a liquid root stimulator with vitamin B-1 as an aid to get the plants started.

I read that we should view after-care of newly transplanted camellias in much the same way that we view a person who has had serious surgery. The plants will require special care during its recuperation. Its convalescence may take a considerable period of time.

With care, attention and a little knowledge of basic horticulture, you should make the head table soon.

Camellia Virus and Genetic Color Breaks

T. A. Beckett, III

There have always been questions about the causes of certain color breaks in some of our varieties of camellia flowers and foliage. The potential is there for two causes—one a virus, and the other genetic. In addition, there are probably several viruses—some affecting both flowers and foliage and others only a single factor.

Some viruses seem to cause only single patterns in the flower and leaves, such as flecks. Others cause blotches and streaks as well as flecks. 'Edwin Folk' would be an example of white flecking. 'Donckelarii' could show some of all types. 'Virgin's Blush' can show multiple effects of foliage and flowers.

Other varieties such as 'Mrs. Charles Cobb' and 'Wall Street Red' seem to be resistant to virus color breaks in the flowers. I have never seen an 'Edwin Folk' with any great degree of white in the petals.

The virus in 'Virgin's Blush' may be so great that the variety may have entirely yellow leaves to the extent it does not stand full sun without foliage burn.

I have proved many times that we can variegate certain flowers by grafting on virus infected varieties of understock. It is quite striking to note that we seldom see variegated flowers or foliage in blocks of seedlings.

When I was at Magnolia Gardens we grew thousands of seedlings for use as understock. A bed might contain 1500 seedlings without a single one showing a trace of variegation in a leaf.

In 1950, when we had the big fall freeze that killed practically all one year old grafts, there was plenty of proof that a transferable virus could

cause color breaks in the foliage. There were no variegated leaves seen in the seedlings prior to grafting the previous season.

The seedlings were grafted by varieties in rows in the plants of large enough caliper. Since, in most instances, only the scions of the one year grafts were killed, the understock later grew off. Varieties such 'Virgin's Blush' came back with variegation in the seedling foliage.

There is much room for work among the pathologists as to which variegations in flowers and foliage are caused genetically or by several viruses. It would appear that new causes in some varieties of *Camellia japonica* and *Camellia sasanqua* are continuing to appear. I have a 'Marjorie Magnificent' that has a bright yellow flecking in the foliage which of course is normally a dark green. I have seen no other like it. Since I have never grafted it, I do not know if it is caused by a virus or a genetic break.

Who can say if the many forms of 'Betty Sheffield' are all genetic or some caused by virus influences? I can say that some are not stable since it is not unusual to find most of the named color forms on the same plant if it is large enough.

Some named clones are a nurseryman's headache since they seem to be affected by the weather. 'Ville de Nantes' and 'Mathotiana Supreme' are two of these. Some years 'Ville de Nantes' almost fails to show any fimbriation, or rabbit ears, and simply blooms out 'Donckelarii.' The next year every flower may bloom out to be a true representative of the named clone, 'Ville de Nantes.'

In the case of 'Betty Sheffield Supreme', there is only one control—cut off branches that are not true to color. I can only assume that these color breaks are genetic rather than caused by a virus.

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Fun and Fellowship in Growing Camellias

Tom Corley

This is a story of sharing the fun and pleasure of growing camellias with others. It is based on the observations, activities, and experiences of the members of Auburn-Opelika Men's Camellia Club. The club has met monthly since it was chartered in 1959. We have about 35 members and an average attendance of about 15. During the fall and winter months we meet inside and have programs on camellias and on related topics of interest to the members. We utilize our members and outside speakers, including research and extension staff of Auburn University, for our programs. We also use slide sets and speakers from the American Camellia Society Headquarters. During the spring and summer months we meet at members' homes and tour their yards to observe camellias and companion plants and discuss their horticultural practices. The programs and yard tours are especially helpful to members with little or no experience in growing camellias.

The club dues are \$5 annually and the club provides free gibberellic acid to the members. We have a ladies night banquet on Valentines Day. Weather permitting, we have a fall and spring show at a local mall. We start gibbing about the first week of September for our fall show, which is held about the first of November. The show consists of displaying blooms identified by variety name but not by exhibitors name and some educational material. There is no judging of the blooms and no prizes or awards are given to the exhibitors. It is for educational purposes to show what can be grown in the area and to encourage people to grow camellias (the State flower of Alabama) and to grow them properly. Club members are present to answer questions and to discuss varieties and culture with visitors. About 99% of the blooms are grown outside. Club

members benefit by being able to choose varieties and then later obtain scions of the displayed blooms for their yards.

Our club members grow over 250 varieties, most of which are species Japonica. A few species Reticulata and hybrids with Reticulata parentage are also grown. Scions are freely exchanged among club members. Varieties new to our area are usually introduced through the acquisition of scions from nurseries and from camellia growers of other areas. Discussion with exhibitors and others at the American Camellia Society Annual Meeting is beneficial in selecting new varieties adapted to our area. We gamble on some varieties with the hope of getting good blooms only during a favorable winter. We have a program on grafting most years, and in the past the club bought rootstock wholesale for distribution to members at cost. Japonica seedlings and Sasanquas are normally used for rootstock.

Camellia growing outside is greatly influenced by the climate. The Auburn-Opelika area is in east-central Alabama at an elevation of 600 feet and the temperature drops below 10°F some years. Growing camellias outside and consistently obtaining good blooms is somewhat limited north of this area. The 3-, 5-, and 7-degree weather on December 25, 26, 27, 1983, followed 13 months later by minus 7-, and 6- degree weather on January 21 and 22, 1985, caused a lot of damage to camellias in this area. In the spring of 1985 most plants were defoliated and appeared to be dead, but most of them put out new shoots and are now nice plants. Club members completed a questionnaire on the condition of their plants in the spring of 1986. Of the 658 plants rated, 143 (grafted scion or plant) were reported as dead and only 36 were reported as holding their foliage and blooming. This means that 515 plants survived the freezes. Also, some of the 143 plants reported as dead eventually put out shoots from their grafted scions. The

8-, 3-, and 3- degree weather on December 23, 24, and 25, 1989, caused no apparent damage to plants but damaged some flower buds. However, nice blooms of 143 varieties were displayed at our show on February 17, 1990. All temperatures reported were obtained from the National Weather Service.

The Auburn-Opelika area is located in the transition zone of the Piedmont and Coastal Plains soils. Some yards have almost all red clay, while others have sandy loam soil usually underlaid with clay. In both soil types, sub-surface drainage is poor and it is important to plant camellias higher than they were growing in the nursery or container. In my poorly drained soil, my plants are 2" to 4" above ground level after settling. The natural soil in the area is acid with a pH ranging from 5 to 6. It is usually suitable for growing camellias without altering the pH. After several years of using acid-forming fertilizers, lime is sometimes needed. Continued use of a complete fertilizer results in a build-up of phosphorus which may be harmful. I now use only 15-0-15 or ammonia nitrate sparingly. Soil amendments such as bark, peat moss, leaf mold, and rotted sawdust are helpful but it is not necessary to use large amounts to get good plant growth. Watering is also helpful and sometimes necessary, but I have several hundred plants in a wooded area that have never been watered except by rain.

Tea scale is our worst pest and we use contact sprays and/or systemics to suppress it. When most of our plants were defoliated by the hard freezes, scale was no problem for several years. However, some of us will need to start a control program this year.

Petal blight is our worst disease problem, and we have had little success in suppressing it. Sanitation measures and spraying programs are practiced on a fairly large number of plants by one club member with some success. Most of us are having to learn to live with it.

In summary, we are sold on this approach of sharing the pleasure in growing camellias. In our two small cities, we have been able to maintain our membership by providing good programs and good fellowship.

Growing Miniature Camellias



Jane Griffin

Growing miniature camellias is not very different from growing other varieties of camellias. Their requirements are much the same. They need the same amount of watering and fertilizing. They are subject to the same diseases and pests and need to be sprayed on a regular schedule when these occur. They need repotting and to be worked when necessary. Miniature camellias do not need to be disbudded as heavily or to be pruned as severely as the camellias that have the larger blooms. This results in a more attractive plant that is usually covered with blooms. These are about the only differences in growing the "little one".

Miniatures come in all normal colors, shades, and variegations and in all forms from single to formal doubles. Nearly all species of camellias have miniature varieties. The plants vary in size but most grow to about the same size as the other varieties.

In Middle Tennessee we must grow all of our camellias in containers and they must be protected from our very changeable weather conditions. Many times growers have tried to grow camellias outside and may be successful for several seasons but sooner or later a severe freeze will kill the plants. We have all our plants in the greenhouse from early October until after our last frost date, usually about the middle of April. We move all of them outside to shaded or partially shaded areas and they remain there until time to move them back inside the greenhouse. We usually prune and spray the plants as we move them outside.

When we first built our greenhouses, we heated them electrically. We have since changed to natural gas since it was available and we were afraid we could lose our plants due to power failure. This has served us well until this past December when

four straight nights of -10° weather caused severe damage or outright killed several plants in an area that was poorly heated. There were three miniatures in this group of plants. We lost the 'Tinsie', but 'Something Beautiful' and 'Angel Blush' survived, had some good blooms and seem to be doing well at the present time. Maybe these two have good cold hardy traits. Several growers in the Mid South lost plants due to severe weather along with power failure. That fact must be taken into consideration in planning our greenhouses and we must take better precautions in the future.

George and I grow many varieties of camellias but I will admit we are partial to the miniature and small varieties. We grow seventy-five varieties of miniature camellias. Since we are not able to use them in our landscape, we grow them primarily to exhibit in camellia shows. Not all of these are good show flowers. Some are better suited for patio plants or for landscape purposes. Several have tiny flowers that bloom all up and down the branches. These are prolific bloomers and many have fragrance. They make very attractive plants but their blooms are largely ignored at camellia shows.

We do not try for "big blooms" on the miniatures so we do not usually gib them. We will occasionally use half strength gib solution on late blooming plants in order to get blooms during show season but you do risk oversized blooms by doing this. Some shows have a $2\frac{1}{2}$ inch limit on miniatures but the classification of "miniature to small" has caused problems with placement of these blooms at shows.

We prune the miniature camellias only to remove diseased branches and to shape the plant. We disbud the multiple buds when they are well developed and try to leave one at each terminal.

Spraying is done when necessary to control pests. We fertilize with cottonseed meal in April and in May. In June and August we use a light application of good camellia fertilizer such as Nursery Special. Later on we apply liquid iron. This routine is done for all our camellias including the miniatures.

Many growers still do not want miniatures in their collections. The commercial nurseries do not carry a large selection of miniatures since there is not a large demand for them. They do carry the most popular miniatures but some plants are hard to come by. Many good flowers are lost to us because the grower will cut off a miniature and graft another variety on the stock. Most growers are glad to share or to swap scions and that is the way most collections of miniatures are made or added to.

Hybridizers are beginning to breed and register more miniatures of all species. There are forty non-reticulata hybrids listed in the 1987 nomenclature. Four miniature reticulatas have been registered. What a change from earlier times. In 1950 there were less than fifty miniatures listed and all were japonicas.

Growing miniatures is not at all difficult and I would like to encourage all of you who do not have miniatures in your collection to give them a try. You will be pleased with them and may even grow to love the little beauties.

The 1990 - 1991 Design Contest

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See May 1990 issue of The Camellia Journal for further details.

Control of Arthropod Pests of Camellias

Jerome A. Hogsette, Jr.

No camellia grower likes to see his or her plants disfigured by insects or mites during the growing season for a number of perfectly valid reasons. For example, large numbers of disfigured leaves can detract from a plant's overall appearance, and they will remain on the plant for more than one growing season for all to see. Many dollars are spent each year on chemical pesticides which are supposed to cure whatever ails our beloved camellias. But many times these pesticides fail us, even though we might spend hours carefully spraying them on our plants. What can we really do to help remedy the pest problem in the simplest and safest way? In this article, we will discuss the basic arthropod pests for which the camellia is a host, and plans of attack which can minimize plant damage and use the least amount of your time and effort.

Entomological Insight

First some basic entomology. Mites are not insects, but are arachnids like spiders. They have eight legs in the adult stage and feed on plant juices through a hollow feeding tube. Mites do not have wings. In contrast, insects have six legs in the adult stage and the adults usually do have wings. Some insects feed through a hollow tube similar to mites, while others feed by chewing and ingesting plant tissues. Insects and arachnids (mites) are collectively referred to as arthropods, a term meaning jointed feet or legs.

Knowledge of the behavior of routinely encountered arthropod pests is a primary key to their control. For instance, on what plant parts do we normally see the most damage? Of course, on the new leaves before they harden off. Except for scale insects and spider mites, do arthropods bother to damage mature plant parts? Rarely. Therefore, we

should be especially vigilant during periods when new growth is present. Can we fully protect our plants from damage during these periods with prophylactic applications of pesticides? Not in all cases. When does most insect damage occur? At night, between dusk and midnight. If you really want to see what is going on in your garden, buy a good rechargeable flashlight and get outside after dark! Do all arthropods damage camellias? Definitely not! Many 'beneficials' reside in our gardens but unfortunately, most are easier to kill with pesticides than the pest species.

The Pests

For the sake of discussion, pests have been divided into three categories, none of which is all inclusive. The routine pests are characteristically found on camellias and stay on the plants for relatively long periods of time. These may vary due to location. Itinerant pests include camellias in their diet, but do not necessarily stay on the plant for long periods. Itinerant pests may be here today and gone tomorrow. Accidental pests are ones that feed on camellias because they have become separated from their normal host plants. This typically happens during periods of inclement weather. Accompanying each pest description are some control tips. Mention of a pesticide or a trade name does not constitute an endorsement.

Routine Pests

Aphids: Aphids are a sure sign of spring in some parts of the country and they can be seen on new growth just as soon as the growth buds pop. How do these sluggish little balls of liquid find the new growth so fast and how do they become so numerous? Many times you will notice that aphids on camellias are accompanied by ants. Ants tend aphids like people tend cattle. During the winter, aphid colonies are maintained underground in the ant nests. When ant scouts detect the ap-

pearance of new growth, worker ants carry their aphids to the sight and guard them while they feed. In return, ants harvest honeydew, a sweet, nectar-like substance the aphids secrete. As for the population explosion, female aphids do not need to mate to produce offspring, and they can produce lots of young aphids in no time. Aphids feed on new growth until it hardens and becomes difficult to pierce with their hollow feeding tubes. The ants then move their charges to another location to continue the process.

Control Tip: Aphids are only on the new growth, so why waste your time treating the entire plant? Many pesticides, such as sevin, diazinon, and malathion, are effective against aphids. If you have observed aphids on your plants, carry a small duster or trigger-grip sprayer with you and treat the aphids where you see them. If you must spray the entire plant, choose a systemic pesticide, such as Orthene or Cygon. These will be absorbed mostly by the new growth, and cause minimal damage to the beneficials. Aphids should only be on a few plants, and should not be evenly distributed throughout the garden. Ants are difficult to control, however, you may try one of the granular baits.

Aphids can be parasitized by tiny wasps. If this occurs, the aphids turn a light brown and resemble dry, leathery seeds. The wasp immature stage develops inside the aphid 'mummy' and emerges as an adult to repeat the cycle.

Scales: Camellias are attacked by several species of scale insects which have similar life cycles. The scales we see on the underside of camellia leaves are actually adult females. Early in the adult stage, the female mates, attaches to a leaf and pierces it with her hollow feeding tube, and forms a waxy covering over her body. Here she stays for the rest of her life. She lays her eggs which hatch into crawlers. These immature forms are capable of travelling long distances with wind currents with the aid of a silk thread, similar to that of a spider. They also transfer from one plant to another by hitching rides on other animals. Once a suitable plant is reached, development continues to the adult stage

(about 2 months total). The females mate, attach to a leaf, and the cycle is repeated.

Control Tip: Scales are difficult to control on mature leaves, and damaged leaves will never turn green again. An easy control measure for a severely infested plant is to defoliate it in the spring just as the new growth buds begin to pop. Place the leaves in a plastic bag and seal it. This plant will no longer supply your garden or the neighbors' gardens with scale crawlers. Protect the new growth with a systemic pesticide. Plants will be a bit bare during the first year, but will be completely recovered by the second year.

Spider Mites: Spider mite infestations can get out of hand before we even detect their presence because the mites are very small, and the characteristic signs of damage can be slow to develop. Spider mites may attack new growth initially, and then envelop an entire plant if conditions are right. 'Right conditions' are hot, dry weather. Rain is particularly damaging to spider mites, especially on camellias where mites tend to stay on the upper surface of the leaves. Female mites lay their eggs individually at random on the leaves and young mites are continuously being produced. Eggs hatch in 3 to 10 days, and developmental time from egg hatch to adult can be as short as 7 days. Also, a female may lay 50 to 100 eggs during her lifetime. As populations gain size, young mites can move to other plants in the same manner as scale crawlers.

Control Tip: A 10-power hand lens or magnifying glass is handy for detecting spider mites. Be especially vigilant during dry summer and fall periods. Inspect representative plants often, looking for mites or mite webs in leaves near the growth buds. Small mite populations produce light-colored spots along the mid-rib of the leaf blade. Large populations eventually produce a brown strip in the same area.

Pesticides do not harm mite eggs. Therefore, it is important to make at least three pesticide applications at 7-day intervals to effectively break the life cycle. Do not use the same chemical for each treatment.

Intinerant Pests

Leaf Beetles: Several species of leaf beetles (*Rabdopterus* sp.) damage new leaves on camellias and other plants just after growth buds pop in the spring. These beetles are relatively small (about 1/8 of an inch), and come in several colors, tan, brown or metallic blue-black. These pests appear at dusk and can be spotted easily with a flashlight. If touched or disturbed, beetles will fall to the ground where they are difficult to find. Since camellias do not seem to be preferred any more than *ligustrum* species, red tip (*Photinia glabra*), *pit-tosporum* species, and other woody ornamentals, beetles cannot be routinely found at any particular location on any particular night. Only the adults cause damage, and when the new growth hardens, the feeding ceases. These beetles are more fully described by Tissot and Hume, pp. 100-106, in the 1948 American Camellia Society Yearbook. Please do not follow their control advice, because the recommended pesticide is now illegal to use.

Control Tip: Beetles are difficult to control with existing pesticides, and keeping plants treated in anticipation of a random attack can be costly and time-consuming. If beetles are a serious problem in your area, check with your county extension agent for a suitable pesticide. If you have but a few plants, take a small jar on your evening walks. If you spot a small brown or black beetle, hold the jar under it, tap the leaf, and the beetle should fall in.

Crickets and Grasshoppers: A number of crickets and grasshoppers will feed on the new growth (including stems) and flower buds of camellias and other woody ornamentals. This feeding is very sporadic and it is difficult to predict when and where it will occur. These insects feed on a number of things, so our camellias are just one choice they have on any given night. Adults and immatures (nymphs) look very similar, however the adults have wings. All stages can cause damage.

Control Tip: Using prophylactic pesticide applications makes little sense unless populations are large and feeding is rather routine. If

necessary, Orthene can be used as stated on the label.

Stink Bugs, Leaf-Footed Plant Bugs, Leaf Hoppers, Plant Hoppers, and relatives: These insects can be found feeding on new growth on camellias at times. They feed through hollow feeding tubes which are used to suck the juices out of new leaves, stems, and buds. The hoppers are fast-moving insects and will quickly move out of your way if disturbed. The bugs are a little slower, but will readily retreat if you get too close. Fall populations of these pests (bugs and hoppers) can cause damage to developing flower buds. Both adults and immatures (nymphs) can cause damage. Immatures favor adults, but are wingless.

Control Tip: These pests can be damaging if present in large numbers, particularly if they are feeding on flower buds. Observe plants regularly and apply labelled pesticides to new growth or flower buds if necessary. Immatures (nymphs) can be knocked to the ground and stepped on.

Accidental Pests

Caterpillars: The only truly accidental pest I can think of is the caterpillar. In many areas, camellias are grown under trees, and trees can be host plants for a variety of caterpillars. Some caterpillars feed specifically on one type of tree, and only in certain parts of the tree. I am not aware of any caterpillars for which the camellia is the sole host plant. Why then, you might ask, are caterpillars feeding on our camellias? Caterpillars are dislodged from their arboreal feeding sites by winds and rains, and they fall to the ground, usually by means of a silk thread. If camellias are nearby, they may become part of the next meal. Most of these caterpillars cannot continue their development on camellias, so they usually do not hang around for long. They can, however, cause a considerable amount of damage in the meantime.

A few caterpillars are intinerant munchers. The one that comes to mind is the Woollybear. Woollybears have a wide variety of acceptable food items, and they will readily climb a camellia for a meal as they are passing along. Some caterpillars

may complete their entire life cycle on camellias, even though another plant might do just as well. A Saddleback caterpillar fits into this category. This is one of the few caterpillars that stings. Learn to identify it and avoid it.

Control Tip: Inspect plants as soon as possible after high winds or a hard rain. Caterpillars will usually be easy to spot if present. Hand picking (or cut neatly in two with pruning shears) is easiest, because caterpillars are not usually numerous enough to justify the time and effort needed to spray the plants. If you must apply something, sevin and B.T. (*Bacillus thuringiensis*) are best for caterpillars.

Pesticide Tips

Pesticides are poisons designed to kill arthropods by interfering with critical chemical reactions similar to those occurring in humans. Use them with care. Arthropods can absorb certain pesticides through their 'skin.' So can humans.

Always use pesticides according to label instructions. Read the label completely, especially the parts about safety and what **not** to use pesticides on. Do not spray on windy days, because pesticide goes places where you had not intended, like on you and the yard down the road, for instance. Wear protective clothing, and change clothes and bathe after spraying.



A complete list of pesticides labelled in your state for use on camellias can be obtained through your county extension agent from the pesticide coordinator at your state university. Do not use the same pesticide time and again to control the same pest. Alternate between two or three different chemicals. Otherwise, the pest will become resistant to your 'usual' pesticide, and it will no longer be effective.

It has been estimated that 90% of an insect's offspring never reach maturity. This is because of natural control factors like weather, plant resistance, predators, parasites, fungi, bacteria, viruses, etc. Arthropod predators (e.g., spiders, assassin bugs, and aphid lions) and parasites (e.g., various tiny wasps) are particularly vulnerable to pesticides. The use of systemic pesticides can help preserve your predator and parasite fauna.

Systemic pesticides are those that can be absorbed by the plant and moved through the plant's circulatory system. The effects of surface residues on beneficial ar-

thropods are minimal. Systemic pesticides are best absorbed by and concentrated in new leaves, which is where the most protection is needed. Pest species are killed by feeding on plant juices containing the pesticide. Systemics can be poured on the roots or, in some instances, painted on the trunks, and the pesticide will still be concentrated in the new growth. Three currently labelled systemics are Orthene, Cygon, and Di-Syston. Di-Syston is the most expensive and most toxic of the three.

Be prudent if you decide to purchase biological control organisms to release in your garden. There is no guarantee they will stay where you put them. They must have pest species to eat or they will not survive. Survival will also be limited if you have pesticide residues on your plants. If you do purchase, do so from an insectary as close to your area as possible. Ladybugs grown in Florida, for example, would probably not do too well at high elevations in Colorado.

Minimize the use of pesticides. By inspecting your plants regularly, you can determine whether pest populations are widespread or localized. Act accordingly. There is no need to spray your entire yard if you see a few aphids on one plant. Concentrate your efforts on the routine pests and minimize your efforts on the others.

ADDITIONAL JUDGES APPOINTED

Terms of all Judges and Novice Judges listed herein expire December 31, 1995.

CALIFORNIA

Antioch:

Larry Pitts
Nancy Pitts

Auburn:

Robert H. Steele (Novice)

Carmichael:

Donald Lesmeister

Coronado:

Beth A. Kalal (Novice)

Fresno:

Donald Martin
Dolores Martin
Mary Anne Ray

Lafayette:

Kenneth C. Hallstone

Martinez:

Don Bergamini

Menlo Park:

H. W. Oliver (Novice)

Modesto:

Anthony Miranda

Sacramento:

James Randall
William D. Stewart

San Jose:

Ruth Marcy

FLORIDA

Gainesville:

Dr. William H. Smith

Orlando:

Dale H. Fitzgerald
Mrs. Dale H. Fitzgerald

GEORGIA

Macon:

Louise D. Priester

Reynolds:

William A. Hardwick
Sarah H. Hardwick

Sustaining /Joint Sustaining

(Since May 1990 Journal)

Dolores A. Adrian, Charleston, SC
Mrs. F. Stanton Deland, Chestnut Hill, MA
Peach Valley Office Supply,
Fort Valley, GA
Universitäts-Bibliothek, GERMANY



Patrons Members

(Since May 1990 Journal)

Peach County Chamber of Commerce,
Fort Valley, GA

Election of Directors-at-Large and State Directors For the Atlantic Coast Territory

Kathryn Allen, Vice President for the Atlantic Coast Territory has submitted the following persons for nomination as Director or Director-at-Large for the Atlantic Coast Territory. In accordance with the Bylaws as amended, every effort was made to obtain at least two persons for each position. In most cases this was not possible as the incumbents were so well regarded that others did not wish to enter into nomination in opposition to them. Ballots will be mailed September 1 and must be received at Headquarters with a postmark no later than October 15. Ballots will be counted by a committee appointed by the President of the American Camellia Society.

STATE DIRECTORS

GEORGIA — **JOHN NEWSOME** of Atlanta has been actively growing camellias for over 15 years. He is a Life Member of ACS and is an accredited ACS Judge. He has served as President, Show Chairman, and Chairman of Judges in the North Georgia Camellia Society. John is a fine grower and his blooms often take top honors. He is well known on the "camellia circuit" along the Atlantic and Gulf Coasts.

SOUTH CAROLINA — **JIM PINKERTON** of Lugoff grows and exhibits outstanding camellia blooms. He is active in Mid-Carolina Camellia Society, Atlantic Coast Camellia Society, and more recently, the American Camellia Society. He is an accredited judge of the ACS and is well known by other growers and judges.

NORTH CAROLINA — **HARRY D. WATSON** of Charlotte has been a member of ACS for over 30 years. He has served as Show Chairman of the Charlotte Camellia Show a number of times. His interest in camellias led him to become an accredited judge. Blooms grown by Harry can be seen in Shows in N.C., S.C., and Ga. with many winners. Growing good blooms and judging fairly has always been his goal.

VIRGINIA — **CAPT. DOUGLAS**

SIMON of Norfolk joined the Virginia Camellia Society in 1981 upon his retirement from the U.S. Navy. Since then he has been very active, serving as Vice President twice, Co Show Chairman three times, Show Chairman once, and as President twice. He and his wife, Sally, are members of ACS and at the present time he is completing the term of Robert Matthews, resigned, as Director of Virginia on the ACS Board.

JOHN K. WALSH of Virginia Beach has been a member of ACS since 1947. He began growing camellias about that time in Savannah, Ga. where he was active in the Savannah Men's Garden Club. He moved to Swarthmore, Pa. where he maintained his plants in a greenhouse. Upon returning south to Virginia Beach, John and his wife, Patricia, became active in the Virginia Camellia Society. He has served as President, Vice President, and has chaired many of the Society's projects.

MD/DC/N. VA. — **MRS. HARRY (ZENOBIA M.) KENDIG** of Luther-ville, MD has been a member of ACS since 1975 and both she and her husband are accredited judges. As members of the Pioneer Camellia Society of Maryland since 1973, they have been most active. Since 1979 (except for 1982) they have been Show Chairman for the Society. They are growers of 400 camellias under glass and 40 plus in an outside garden. Mrs. Kendig is a past President of the Baltimore Chapter of Ikebana International and is a Master Judge of Flower Arranging.

NORTHEASTERN UNITED STATES — **LOUIS R. DAUDT** and his wife, Betty, became interested in camellias when they attended a meeting of the Aiken, SC, Camellia Club in 1957. Dr. Harold Hume, first ACS president, was the speaker. He and members of the club piqued their interest which has continued to grow. The Daudts have been very active members of the Pioneer, MD, Camellia Society for over 25 years as well as members of the Camellia Society of the Potomac

Valley in the Washington, D.C. area. They became ACS members in 1962 and are now Life Members and Accredited ACS Judges. The Daudts have attended many ACS meetings and were very instrumental in the very successful ACS meeting held at Longwood Gardens, Kennett Square, PA. They have worked in all areas of the local societies and shows.

DIRECTORS-AT-LARGE

DR. LUTHER BAXTER of Seneca, S.C. is a Life Member and Fellow of ACS. He has been a camellia enthusiast for over 40 years and a major contributor to ACS in time and talent. Earning bachelor's, master's and doctoral degrees in the field of agriculture, Dr. Baxter specialized in plant pathology and for 24 years did research on ornamental plants, primarily azaleas, camellias, and roses. He has been most generous in sharing the results of this research through articles in the ACS Journals and papers presented at ACS meetings. The favorite flower of Beulah and Luther is the one in bloom at the time.

MARVIN JERNIGAN of Warner Robins, Ga. is a Life Member of ACS. he is active in the Middle Georgia Camellia Society, the Atlantic Coast Camellia Society, and the Gulf Coast Camellia Society. Marvin is an excellent grower and hybridizer and has helped in maintaining and upgrading the gardens at Masee Lane. He and his wife, Ruth, are accredited judges and are seen at many shows. Marvin is Director from Georgia on the ACS Board at this time.

DR. HERBERT RACOFF of Columbia, S.C. is a long-time grower, exhibitor, and promoter of camellias. He is very active in Mid-Carolina Camellia Society, and ACS. Herbert is the Chairman of Exhibitions and Awards Committee of ACS and has published articles on camellia in the Journals. He and his wife, Frances, participate in many shows in the area. He is one of the finest accredited judges in ACS.

Top 100 Camellias of the '80s

Sandra Williams

The judges have spoken and the camellia shows of the 1980's are history. The most winning variety recorded in the American Camellia Society's Yearbooks is the 'Dr. Clifford Parks.' The following information on the winning varieties was gathered from a compilation of the reports in "The Judges Have Spoken" in the yearbooks from 1980-1989.

Before I show you the list of the top 100 camellias, let me tell you a little about these beautiful winners. In addition to the 'Dr. Clifford Parks', there were 28 other varieties which were red or predominantly red. These range from the black red of 'Black Tie' to the fire red of 'Magic City' and the rose red of 'Helen Bower' and many shades in between. Thirteen of these reds have white variegation. The sizes of the reds span the full range of camellia sizes, from the miniature 'Fircone' to the very large 'Harold L. Paige.'

Forty-four of the 100 are pink or predominantly pink, the top one being 'Grace Albritton.' These range from the blush pink of 'Little Susie' and 'Mrs. D.W. Davis' to apricot pink of 'Fashionata' to rose pink of 'Francie L.' and many shades within the range of pinks. Fourteen of these have some white shading or variegation with seven of them having some other shade of pink or red adding to their beauty. There are pink miniatures such as 'Spring Festival' and very large blooms such as 'Show Time.'

White varieties account for 25 more of the top 100 with ten of these having some pink or red shading or streaks. These range in size from the miniature 'Man Size' to the large to very large 'Lucy Stewart.' The white with the most points was 'Man Size.'

There was 'Curtain Call' which is a deep coral, and three that are rose colored. Now, if you are

mathematically inclined, you are probably aware that these add up to 103 varieties instead of the 100 that this article has claimed to be touting. The reason for the discrepancy is that five varieties actually tied for the 99th position so all were included in the list giving us one hundred and three.

The species breakdown of the 103 is *C. japonica*, 73; *C. reticulata*, 17; *C. hybrid*, 12; and *C. vernalis*, 1. The forms of the winning varieties are: semi-double, 44; formal double, 24; peony, 11; rose form, 8; full peony, 6; loose peony, 5; and anemone, 5.

Eight of these winning varieties were introduced to the United States before 1946, the year that the first ACS yearbook was printed. So, there were some old, tried and true varieties represented. These were 'Donckelarii', 'Mathotiana', 'Pink Perfection', 'Magnoliaeflora', 'Rosea Superba', 'Kiku-Toji', 'Debutante', and 'Ville de Nantes.'

The newest varieties, six which were registered during the '80s, are 'Pink Dahlia', 'Moonlight Bay', 'Cherries Jubilee', 'Julie Var.', 'Something Beautiful', and 'Dawn's Early Light.' 'Dawn's Early Light' was registered in 1985 and had only 5 years to score enough points to be included in this count compared with the ten years that the older varieties were shown and winning.

Nuccio was the registrant of 15 of the most winning varieties of the 1980's. He is followed by Jury with four; Kramer with 4; Asper with 3; and Atkins, Homeyer, Pursel, Magnolia Gardens, Ruffin, and Stewart with 2 each. The other registrants of these winning varieties had one each in the top 100.

A final note is the number of winning varieties whose variegated form is also in the top 100 and the families which are represented by two or more forms.

#1 'Dr. Clifford Parks'	#64 'Dr. Clifford Parks Var.'
#75 'Carter's Sunburst Pink'	#84 'Carter's Sunburst Pink Var.'
#38 'Charlean'	#48 'Charlean Var.'
#68 'Fircone'	#27 'Fircone Var.'
#42 'Francie L.'	#62 'Francie L. Var.'
#60 'Guilio Nuccio'	#17 'Guilio Nuccio Var.'
#23 'Julie'	#26 'Julie Var.'
#52 'Little Babe'	#33 'Little Babe Var.'
#94 'Mathotiana Supreme'	#94 'Mathotiana Supreme Var.'
#100 'Miss Charleston'	#31 'Miss Charleston Var.'
#16 'Mona Jury'	#55 'Mona Jury Var.'
#10 'Valentine Day'	#46 'Valentine Day Var.'

'Carter's Sunburst' and 'Mathotiana' are also in the top 100. The Elegans family is represented by 'Elegans Champagne', 'Elegans Splendor', and 'Elegans Supreme.' The Tomorrow family is represented by 'Tomorrow's Dawn', 'Tomorrow Park Hill', 'Tomorrow Park Hill Pink', and 'Tomorrow Var.' (Maverick).

The following is a list of the most winning camellia varieties in the 1980's:

#1 'Dr. Clifford Parks'	#54 'Star Above Star'
#2 'Ville de Nantes'	#55 'Mona Jury Var.'
#3 'Grace Albritton'	#56 'Mary Alice Cox'
#4 'Tomorrow Park Hill'	#57 'Kitty'
#5 'Man Size'	#58 'Little Slam'
#6 'Margaret Davis'	#59 'Lady Laura'
#7 'Tammia'	#60 'Guilio Nuccio'
#8 'Harold L. Paige'	#61 'Lady Kay'
#9 'Betty Sheffield Supreme'	#62 'Francie L. Var.'
#10 'Valentine Day'	#63 'Feathery Touch'
#11 'Pink Perfection'	#64 'Dr. Clifford Parks Var.'
#12 'Charlie Bettes'	#65 'Curtain Call'
#13 'Elegans Champagne'	#66 'Angel Wings'
#14 'Helen Bower'	#67 'Ruffian'
#15 'Snowman'	#68 'Fircone'
#16 'Mona Jury'	#69 'Silver Chalice'
#17 'Guilio Nuccio Var.'	#70 'Pharaoh'
#18 'Carter's Sunburst'	#71 'Pink Dahlia'
#19 'Elegans Supreme'	#72 'Cherries Jubilee'
#20 'Elsie Jury'	#73 'Tomorrow Park Hill Pink'
#21 'Nuccio's Gem'	#74 'Little Ginger'
#22 'Swan Lake'	#75 'Carter's Sunburst Pink'
#23 'Julie'	#76 'Sea Foam'
#24 'Jean Pursel'	#77 'Magnoliaeflora'
#25 'Tomorrow Var.'	#78 'Miss Tulare'
#26 'Julie Var.'	#79 'Moonlight Bay'
#27 'Fircone Var.'	#80 'Harriet Bisbee'
#28 'Tomorrow's Dawn'	#81 'Hopkin's Pink'
#29 'Show Time'	#82 'Fashionata'
#30 'Nuccio's Ruby'	#83 'Don-Mac'
#31 'Miss Charleston Var.'	#84 'Carter's Sunburst Pink Var.'
#32 'Lasca Beauty'	#85 'Black Tie'
#33 'Little Babe Var.'	#86 'Ave Maria'
#34 'Magic City'	#87 'Spring Festival'
#35 'Mathotiana'	#88 'Kiku-Toji'
#36 'Tiffany'	#89 'Black Lace'
#37 'Nuccio's Jewel'	#90 'Hulyn Smith'
#38 'Charlean'	#91 'Terrell Weaver'
#39 'Elegans Splendor'	#92 'Clark Hubbs'
#40 'Lucy Stewart'	#93 'Something Beautiful'
#41 'Debbie'	#94 'Mathotiana Supreme Var.'
#42 'Francie L.'	#95 'Nuccio's Pearl'
#43 'Gus Menard'	#96 'Mrs. D.W. Davis'
#44 'Campari'	#97 'Debutante'
#45 'Valley Knudsen'	#98 'Tom Thumb'
#46 'Valentine Day Var.'	#99 'Rosea Superba'
#47 'Anticipation'	#100 'Miss Charleston'
#48 'Charlean Var.'	#101 'Little Susie'
#49 'Sawada's Dream'	#102 'Gay Time'
#50 'Donckelarii'	#103 'Dawn's Early Light'
#51 'Little Babe'	
#52 'Dixie Knight Supreme'	
#53 'Mathotiana Supreme'	



BIOGRAPHICAL SKETCH

Sandra and Laddie Williams are members of the Gainesville Camellia Society in Gainesville, Florida. They have combined their interests in camellias, computers, and photography to produce a computer data base on over 1600 camellia varieties. Much of these data have been gleaned from the collection of 2500+ slides of show flowers taken at camellia shows in the Southeast over the last four years. These data and slides are to be used in a book that is being prepared at this time.

Growing Camellias In Containers on the Texas Gulf Coast

Hyman Norsworthy

Not all camellia growers are blessed with large estates that permit extensive in-ground plantings. Those living on small city lots must resort to container culture in order to accommodate a large number of plants. Being a city dweller, I have had to learn how to grow healthy plants that produce show-quality blooms. It has been my good fortune to speak to several camellia groups and I have been able to interest several growers in this culture form. These range from a town house dweller with a few plants on the patio to a major grower with about two hundred containers.

After years of a series of successes and failures, I have finally arrived at a program that works well for me. I have shared this with my Texas friends. For those who have never tried container culture and for those wishing to try another method, I am pleased to present this information. I make no claims that this is *THE WAY*. It is only one of several that may work for you. Keep the old saying in mind: IF IT AIN'T BROKE, DON'T FIX IT. If you have a good container culture program that pays dividends with healthy plants and show winning blooms, don't tinker with it.

Each of the items discussed here are important in container culture. None can be compromised. To be considered: potting medium, fertilization, watering, pH control, pruning and pest control. Neglect any one of these and your program will fail.

The potting medium must be a loose friable "soil". It must hold moisture but will drain readily. There are almost unlimited formulas that will produce good results. My formula happens to be: 5 parts ground pine bark, 3 parts sandy loam soil, 2 parts well rotted sawdust and 0.5

part Perlite. To each bushel of this mixture, I add ½ cup Osmocote 18-6-12, ½ cup fish meal and 1 cup cotton seed meal.

Every new plant coming onto the premises is bare rooted before going into my container mix. Bare rooting can be done anytime between mid-October and mid-January. Failure to follow this procedure will result in a multitude of problems—not the least of which will be variable watering frequency and inadequate pot drainage. Newly potted plants do not enter the fertilizer schedule until about eight weeks after potting.

My established container plants are fertilized *every month of the year*.

Water the plants well the afternoon before applying liquid fertilizers. When using dry fertilizers, water plants well immediately after application. Using a soil pH meter, test soil pH every three or four months. Use dolomite or sulfur to maintain pH 6.0-6.5. Use dolomite to reduce acidity and sulfur to increase acidity.

Container plants require closer attention to moisture needs than in-ground plants. Drip irrigation on a timer is a great innovation. However, manual watering is not a bad chore if the moisture requirements of the plants are fairly equal. Keep the soil moist but not wet. A plant needing water more often than every 2 to 3 days is probably root bound and should be repotted. This may be done at any time. A vigorous plant will require repotting every two to three years. I begin with 2-gallon pots and do not exceed 7-gallon pots. Periodic top and root pruning with repotting in the maximum 7-gallon container is quite adequate even for my very large plants.

Judicial pruning of container grown plants is essential to good culture. Do not wait until a plant gets unwieldy to begin a pruning program. Start early and keep at it. I keep my largest plants at a maximum height of about six feet.

Plant pest control is essentially the same as for in-ground plants—Isotox for aphids, etc. and Vendex (50% WP) for spider mites. I grow a large number of retics and retic hybrids and have a monstrous problem with cankers and die-back from *Glomerella cingulata* invasions. This poses a severe problem here on the Texas Gulf Coast for most of us. I am

APPROX. DATE	FERTILIZER	QUANTITY/CONTAINER
mid-January	Rapid Gro (1 Tbs/gal water)	Small - 1 pint Medium - 1 quart Large - 2 quarts
mid-February	CSM (cottonseed meal)	Small - 1 Tbs. Medium - 1½ Tbs. Large - 2 Tbs.
mid-March	6 parts CSM + 3 parts 10-5-5 + 1½ parts wood ashes (MIX WELL)	Small - 1 Tbs. Medium - 1½ Tbs. Large - 2 Tbs.
mid-April	6 parts CSM + 3 parts 10-14-10 + 1 part Esminel or Peters essen. mins.	Small - 1 Tbs. Medium - 1½ Tbs. Large - 2 Tbs.
mid-May	Carl Pool BR 61 (9-59-8)	Spray foliage
early June	CSM as above	
mid-June	BR 61 as above	
mid-July	CSM as above	
mid-August	BR 61 as above	
mid-September	BR 61 as above	
early October	5 parts CSM + 1 part ferrous sulfate + 1½ parts ammonium nitrate	Small - 2 tsp. Medium - 1 Tbs. Large - 1½ Tbs.
early November	Same as October	
mid-December	CSM as above	

able to keep it under fairly decent control with a rigorous spraying program during periods of leaf drop—early March through mid-May. I spray a 50/50 mix of Benlate/Captan (2 Tbs./gal water) every seven days during this period. You will note I said “control”—not “eradicate”. I do not believe eradication is possible in southeast Texas.

I have been growing camellias since the early fifties. I started container culture in 1967. Since 1985, I have expanded my container collection considerably. Today I grow about 300 camellias in containers: 155 japonicas, 115 retics and retic hybrids and 30 non-retic hybrids. These plants are grown outside without protection except in cases where the temperature falls below 20°F. With the onset of winter, I place the plants close together and bury the pots in a mixture of pine

straw and oak leaves. This is all the protection required in our normal winters. I learned in the 1983-1984 deep freezes that this method would not protect the plants at temperatures below 18°F for more than 12 hours. Now when very low temperatures are forecast (as in December 1989), I crowd the plants into my workshop, storeroom, garage and utility room. This past Christmas, I even took over the breakfast room for three days with about 30 warm retics. Temperatures plummeted on December 22 and stayed below freezing until the day after Christmas. Low point was about 10°F. The plants were returned to the usual places outside on December 26. Of course, all subsequent blooms were entered in the shows in the Grown Protected category. For our area, this deep cold will occur only about every six to eight years.

Growing *reticulatas* and most *reticulata* hybrids in the ground without protection is not recommended for this area. Only a few varieties will survive a deep freeze. Those known to be growing outside here are: ‘Dr. Clifford Parks’, ‘Valentine Day’, ‘Milo Rowell’, ‘John Taylor’, ‘Francie L.’, ‘Frank Pursel’, ‘S.P. Dunn’, ‘Dr. Jack Davis’, ‘Miss Tulare’ and ‘Valley Knudsen.’ Most of our non-retic hybrids perform about as well outside as our japonicas.

In summary, on my city lot of 106 ft. x 165 ft., I am limited to about 150 in-ground camellias. Severe restrictions on numbers of my favorite cultivars was overcome by growing some in containers. By following a few simple cultural practices, you too can grow show winning blooms of many varieties in a relatively small space. I know. I have the ACS Outstanding Bloom Certificates as proof.

Life in the Fast Lane

Ken Hallstone

Hybridizing for yellow using *C. chrysanth* is like life in the fast lane. There is never a dull moment, anything can happen and usually does.

I became involved with *C. chrysanth* in 1980 when it arrived from China to the Arboretum at the University of California in Berkeley. We grew the seedlings, grafted plants and then distributed scions to others throughout the Western Camellia World. I begged, borrowed and later distributed pollen for several years. Finally in 1985 I made a successful cross using #2 Berkeley pollen onto ‘Lasca Beauty.’ When V12(1), the number given to it was about four months old I grafted it onto a small ‘Buddha’ seedling and now some four years later the grafted plant is nearly twice the size of the original seedling and set six flower buds for

the 1990 blooming season.

I invited suggestions from the experts as to what I should cross onto these six flowers. The consensus was that I should back cross using *C. chrysanth* pollen and try some of the best of the so-called yellows.

I decided to gib one of the buds, collect the pollen, store it in the refrigerator so it would be available for use at anytime during the blooming season. November 15th, I took a picture of what I would call a poor man’s ‘Lasca Beauty.’ It was about a four inch flower and a little darker pink. As it opened, I crimped one end of a short piece of a drinking straw and slid the open end over the pistil to prevent contamination while waiting for the golden pollen to ripen. A couple of days later I collected two gelatin capsules full of golden pollen, then removed the straw from the pistil and smothered it with ample *C. granthamiana* pollen. In due course of time a good looking seed pod started to develop. At this point I moved the plant under my carport where I seasonally keep the plants that I am hybridizing. Here, there is better protection from the elements, the squirrels and blue jays, and I can even work if it is raining.

In January a few of my regular plants were beginning to bloom so I

smugly went to the refrigerator to get my V12(1) pollen and what to my wondering eyes should appear—nothing but some old gray pollen. I applied some anyway but got no takes.

As buds two and three opened on V12(1) I applied fresh pollen from my *C. chrysanth*, narrow leaf Hu Toyama. On buds four and five I used the hybrid ‘Jury’s Yellow.’ While putting the pollen from my own best yellow seedling M32(1) on the last bud, I dropped my tweezers. As I stooped to pick them up I knocked one of the previously made crosses with *C. chrysanth* to the ground. (Fortunes of war!)

Everything was looking good through February and March, and I am in the process of returning the carport plants to their regular places in the garden. As I set V12(1) down admiring the successful crosses three of the pods dropped to the ground. I grabbed for a crying towel as I looked at the one remaining cross with *C. granthamiana*. Now it is May, the small pod has shriveled up and has been removed.

You might think I am a candidate to move over and get out of the fast lane. No way! I am already plotting my strategy for next year. After all, I may have two plants with flowers next year?

Hey, Look Me Over!

Annabelle Lundy Fetterman

Camellia blooms need to be shared with others. I like to brighten someone's stay in the hospital with a bloom or two. Take some to church. Give to friends and neighbors. It's difficult not to smile when one sees a lovely flower. Do your blooms say, "Look at Me." "I'm beautiful, I'm perfect." Or are they sad because they don't show up as well as they might?

Whether gathering blooms to enter in a show, to give to friends and neighbors or to take to church, remember that blooms without a blemish show up best. When you touch a petal with your hand, touch it against the side of the box or touch it with a leaf, any touch may bruise it.

Keep an eye out for insects. Slugs leave a trail behind them and damage many good blooms. Snail and slug bait applied on the soil around your plants will control them. Get rid of aphids as soon as you detect them. They can ruin buds quickly so spray the affected limb with malathion, insecticidal soap or a commercially recommended garden spray.

Pick your blooms early in the morning when the blooms are most turgid or late in the evening. Take a box along to the greenhouse or garden. Put an inch or two of easter grass, a layer of poly fiber or spanish moss over the bottom to lay the blooms on.

As you cut them, lay each one carefully on the soft material. Give each one plenty of room and do not let them overlap each other. I take mine to the house when I get them cut. At that time I put a grape on the

stem or place small cups containing solution* saturated cotton in the bottom of the boxes. Be sure the stem touches the solution. If blooms are for a show, I fill out my cards and put them along the inside of the box being careful not to touch the bloom. Then into the refrigerator they go till I'm ready to take to a show or give away.

Many folks like boxes big enough to hold only one (1) bloom comfortably. I prefer a 13"x19" clear plastic lingerie box about six inches deep. This is deep enough so blooms will not touch the lids. I can adjust the number of blooms I place in the boxes—6 or 8 small ones, 3 larger ones, etc. If you are carrying them more than a couple of miles, place boxes on a 2" foam rubber pad in the back of the car (I like the back of station wagon). Boxes need to be level so blooms do not shift as you drive. To keep them from getting too warm, I put some blue ice on top of the boxes and cover closely with several blankets around the boxes if I'm going to a show or some distance away. When blooms get warm, they become limp and are no longer perky. Then they might say, "Don't look at me. I'm too tired."

I use clothespins to keep leaves and small branches from touching a bloom opening in the garden or greenhouse. Occasionally a leaf persists so I remove it from the plant. I've seen quality blooms in a show with a bruise or other damage that could have been prevented with a little planning beforehand. Careful handling is the difference between a blue ribbon and no ribbon. Remember—handle carefully so others may enjoy your blooms, also.

*I add one teaspoon of Floralife to one quart of distilled water.

Camellia Slide Contest Results

The Education Committee once again sponsored a camellia slide contest with different categories outlined in the competition. A number of slides were entered by several good photographers. We appreciate your interest and hope others will participate next year. Congratulations to the winners!

CATEGORY I (Slide of a single bloom)

- A. *Camellia japonica*
First: Mr. James Henkel
'Ville de Nantes'
Second: Mr. Jon W. Lowry
'Ville de Nantes'
Third: Mr. and Mrs. Thomas Lee
'Betty Foy Sanders'
- B. *Camellia sasanqua*
No entries
- C. *Camellia reticulata* and *reticulata* hybrids
First: Mr. and Mrs. Thomas Lee
'Valley Knudsen'
Second: Mr. and Mrs. Thomas Lee
'Mark's Surprise'
- D. *Camellia* hybrid
First: Mr. and Mrs. Dudley
Boudreaux 'Charlean'
Second: Mr. Ed Streit
'Scented Sun'

CATEGORY II (Camellia spray or bush)

- First: Mr. James Henkel
'Ville de Nantes'
- Second: Mr. Jon Lowry
'Jessie Burgess'
- Third: Mr. Jon Lowry
'Ville de Nantes'

CATEGORY III (Camellia plant) No Entries

CATEGORY IV (Camellias in a landscape) No entries

CATEGORY V (Club activity) First: Mr. Jon Lowry, Exhibit Second: Mr. and Mrs. Dudley Boudreaux, Program

CATEGORY VI (Creative Use of Camellias) First: Mr. and Mrs. Thomas Lee 'Demitasse' Second: Mr. and Mrs. Thomas Lee 'Hazel Grosso' Third: Mr. Jon Lowry 'Magic City' Christmas Tree

Pruning and Shaping Camellias

Ann Richardson*

Pruning Large Camellias

The pruning of garden camellias is an art form applying certain techniques that conform to principles based on their growth habits. This article will briefly answer three basic questions on pruning: why, when and how.

Why?

A camellia, particularly *Camellia japonica*, produces an abundance of new growth that competes for all available light. As the tree continues growing outward and upward, it crowds itself with numerous interior branches growing in many directions, crossing over each other in the scramble of growth toward light. In older, unpruned camellias, many of these interior branches are dead inside, leaving an outside shell of leaves and twigs.

Upon parting the branches of a densely growing camellia, one sees a beautiful (or potentially beautiful) infrastructure. The trunk and branches are smooth and muscular. In fact, camellia wood is very strong and dense, supporting the adventurous pruner who climbs the tree to prune from within.

The following are brief reasons for pruning older untouched camellias:

1. To prune away all dead branches and twigs.
2. To prune away all interfering or crossing branches that rub against each other.
3. To allow light and air to circulate within and throughout the tree.
4. To partially expose the inner branching structure, or infrastructure, of the camellia.
5. To change the shape of a camellia previously pruned as a globe, ball, lollipop, square or rectangle into a more natural shape.

6. To make a hedge (more on this below).

7. To reduce from a "tree-like" height to a "shrub-like" height (i.e. a camellia planted as a foundation plant increases in size over the years and covers over windows).

8. To bring the plant in scale with its surroundings by reducing the height (i.e. interference with overhead structures and trees or disproportion of camellia to height of the house), or by reducing the width (i.e. the camellia is interfering with plants next to it).

9. To espalier (To train camellias on a fence, up a lath or lattice structure).

Special Shaping Techniques:

In reference to #6, certain cultivars of camellias with habits for dense or compact growth are ideal for hedges. At the time of purchase, select plants with multiple branching close to the base of the plant. This will create a hedge full from the base upward. If you are trying to "rejuvenate" an old straggly hedge, the best possible course is to cut the old hedge as far back as you can. Camellias invariably will send out new sprouts at the base, but it is important to prune back hard.

In reference to #9, some camellia cultivars, like *Camellia japonica* 'Tulip Time,' lend themselves well to espalier. These cultivars are elongated between the nodes (swollen areas on stems that are growth points) and consequently are easier to tie and train on trellis, lattice or lath structures. They have loose growth and pruning is minimal compared to cultivars that are vigorous and have a tight, compact growth habit.

When?

Camellias can be pruned any time of the year, but it is best accomplished immediately after flowering and before commencing vegetative growth. In southern California, the general rule of thumb is to prune in March for early flowering camellias, like *C. sasanqua*, April for most *C. japonica* plants, and May for *C. reticulata*.

Pruning camellias after they have firmly set their flower buds but well before they bloom will produce fewer but astonishingly larger flowers, looking as if gibbed. At the

Huntington Botanical Gardens, where pruning goes on year-round because of the large number of camellias maintained, those pruned September/October have produced this result.

How?

Camellias usually have a vantage point or a "front" where they are seen most frequently; for example, along a walkway or from a patio. Although camellias need to be viewed from all sides (except those that are planted next to a fence or a house) during the pruning process, it is important to make the final pruning decision from the vantage point most viewed. It is important to step away from your work frequently, to look at the tree from a distance and from all viewing angles.

A lot of pruning time (perhaps half) is spent "inside" the tree, cutting out suckers, dead or injured branches, interfering or crossing branches. Often, in a large tree, it is advantageous to climb up inside it; the wood being very strong, it can support a lot of weight. Broken limbs and branches on camellias occur not from weight of heavy flowers or strong winds but from fallen branches of canopy trees.

Three tools are required for pruning large camellias. The first is a quality pair of hand shears, with a scissors-type action (as opposed to the anvil type). These pruning shears will cut up to 3/4" diameter branches. Loppers, those with long handles, are good for leverage, for branches with up to 1 1/2" diameter, and for reaching those hard-to-get areas in the tree. The third tool, a pruning saw with a curved and narrow blade, recommended for its ease in fitting into narrow spaces, can prune branches 3" or more in diameter.

Some Rules of Thumb:

1. Never leave stubs. They are unsightly, and can invite decay and insect damage if left for long periods of time.
2. Prune at an angle so that water will run off, allow thorough drying and help prevent decay from setting in.
3. There are 3 places to prune. Pruning anywhere else will leave a stub:

- A. Next to the trunk.
- B. Immediately above a side branch.
- C. Immediately above a bud or node.

4. Generally, cuts should be made just above an outward-pointing bud or shoot so that the resulting growth to head toward the center of the tree. If you cut next to a bud or shoot that is heading upward or downward, the new shoot or branch will go in that direction. This kind of controlled pruning will force a tree to be narrow or weeping. Camellias will take on the form you give them by selectively pruning in this manner, except for some cultivars that tend to have haphazard growth habits, in which case annual pruning is necessary to keep them in control. *Camellia reticulata* plants, with haphazard and loose branching habits, do not take easily to heavy pruning which promotes die-back. Therefore, prune only those branches that grow beyond the natural form of the plant.

5. Camellias produce multiple leaders more often than a single leader. A camellia with multiple leaders arising near the base of the plant creates a shrub-like appearance and can be kept short as a foundation plant almost indefinitely with annual pruning.

6. For a more tree-like effect, prune away all but one to three leaders. All branches laterally crossing over and rubbing the leaders should be pruned out.

Step By Step Procedure:

1. Prune out all dead and broken branches first.
2. Remove all suckers growing at the base of the tree.
3. Prune out unnecessary suckers heading directly upward along the trunk.
4. Select central leader(s) that will form the basic framework of the tree and remove the rest. Camellias tend to overproduce many leaders or trunks which create a chaotic number of branches in the interior.
5. Prune out any branch that is crossing, rubbing or interfering with the central leaders and principal lateral branches.
6. Remove "watersprouts" which camellias produce on the tops of lateral branches. These sprouts rob the camellia of clear spacing between

branches and clutter the center of the tree. By pruning them away, the central leader(s) and the interior branching patterns can be viewed and more air allowed to circulate through the tree.

7. Remove all but one or two branches growing out from the same point along the trunk. Ideally, branches should be spaced alternately up the central leader producing a three dimensional effect. Many branches in one place creates congestion and a lot of pressure on the trunk. Leave one or possibly two branches, depending on the number and spacing of lateral branches above and below this point.

8. Remove branches that grow too closely parallel up the sides of the trunk. Branches tend to grow too closely spaced one over the other. Choose a lateral branch growing at a 90 degree angle out from the trunk over one that is growing at a narrower angle. Cut excess branches close to the trunk. Don't leave stubs.

9. After the tree is thinned, it may look out of proportion and will need to be "headed back" (It may look wider than tall, or taller than wide). To narrow the tree, prune back the ends of the lateral branches to a growing point (i.e. a twig). To shorten the tree, prune back the top of the camellia to a lateral branch that has a narrow crotch angle, easily becoming the new central leader.

Pruning the following year will be necessary because hard pruning causes an imbalance between the roots and the top of the tree, resulting in a strong flush of growth and suckers along the trunk and at the ends of the cuts. For trees that have never been pruned, hard pruning is necessary to establish a basic framework of strong leaders and principal laterals. Pruning in subsequent years means maintaining the balance and structure obtained through the aforementioned methods.



*Curator, Camellia and Japanese Gardens
Huntington Botanical Gardens
San Marino, California

About our Guest Editor . . .

Jean Comber

Our guest editor is a lady of many talents. She also wears many hats in the camellia world. Jean is the editor for the Gulf Coast Camellia Bulletin and the International Camellia Society Journal. She is serving as chairman of the Publications Committee for the American Camellia Society. In the summer of 1989 after talking with members of the Publications Committee, it was decided that a Special Issue on Horticulture should be issued. You will notice that the articles included cover a wide area geographically and there should be something for every grower.

Jean and her husband, John, joined ACS in 1956 and are now Life Members and Judges. Daughter Carol joined in the family hobby of growing camellias and joined ACS. You will often find camellias grown by this family in the winner's circle.

During the blooming season Jean is busy attending and helping to judge camellia shows along the Gulf and Atlantic Coasts. She and John are devoted to ACS and attend most all of the conventions as well as the regional meetings. Jean also serves the Society as the Secretary for the ACS Governing Board and the ACS Endowment Board. If within driving distance, Jean carries her own typewriter and materials needed. We have come to depend on the generosity of Jean devoting so much time in our behalf. In 1986, she was awarded the Certificate of Commendation for outstanding service to the American Camellia Society. We are indebted to her and her many contributors for this special issue.

Growing Champion Blooms

W. Y. Bennett*

The following discussion comes from a combination of observations and general botanical information gathered over the past many years. As we get to know successful camellia growers, those who win the prizes, we look for techniques that led to their success. Some of the methods mentioned have been employed by various individuals who have been rewarded with high camellia honors. Hopefully, one can put together a few practices and a little knowledge of plant growth and become a grower of moderate to great reknown.

1. Camellia flower bud initiation begins sometime in May for plants grown in the southern states. Camellias are known as long-day plants, meaning the flower growth stimulus occurs when day length increases from spring into summer. Where camellias are growing further north (greater latitude), long day stimulus occurs later in the spring. Flower buds can easily be observed by the first part of July in northern Florida.

2. Fertilizer should be added before growth begins in early spring. This will allow time for uptake as the growth occurs. Over the past several years, it has been observed that plants having been well fertilized and cultured during a previous growth season (or seasons) have a better growth "spurt" than the plants just beginning proper care. Good health seems to carry over from year to year. As growth develops rapidly at first and more slowly as the flower buds form later in the spring and summer, fertilizers should be added in small to moderate quantities every 4 to 6 weeks during this time. What type to

use? Well, a complete one would be best. "Complete" means a fertilizer with all essential chemical nutrients. A produce of this type will be a good quality chemical mixture with slow or controlled nitrogen release. Organic fertilizers are good. They tend to be slow release type. A friend was once asked "What fertilizer do you use?" He answered Red Snapper. The questioner thought it was "Red Snapper" and could find no such brand. Only a few club members knew that this grower's championship flowers came from real Red Snapper buried in the drip line of the camellia plants' organic and slow release.

3. Water availability is certainly essential for good growth and development. At all times when growth is occurring water is essential for two major actions. One is to dissolve mineral nutrients and carry them into the plant system. The other is to fill the cells as they expand in growth. We'll go more into cell expansion as we describe development.

4. Spring buds are those growth buds that are selected for grafting. one would remove any remaining flower buds (last season) before grafting a scion. This growth bud has already formed most of the leaves that will develop in the first spurt of growth. These leaves are in an embryo stage waiting for spring conditions to signal growth time. The shoot springs out of the bud, leaves expand and about six to ten inches of growth matures in just a few weeks. At about this time, those longer days signal flower bud time. The real work begins now in forming the flower parts. They come into being as such small embryo structures that a good microscope is needed to see them. Almost all of the parts are forming during May, June, July and August. Do the plants need fertilizer and water? You bet—not

only the kinds of parts are developing, but also the numbers of parts. What does this mean for a complex flower like a 'Tomorrow?' Poor nutrition and insufficient water result in smaller and fewer petals. A healthy bud produces a healthy flower. Again flower bud growth in northern Florida can be detected by the first of July and followed to completion in different varieties from August to October. Of course, some varieties such as 'Daikagura' group begin to open in August. In general, Camellia buds seem to hesitate or rest for a while after this first phase of development, resulting in early, mid-season and late flowering varieties.

5. Opening of a flower is a strange and wonderful event. It will occur within a few hours or days. Complex flowers with a great many parts take a little longer. How can this happen so fast? Just like the rapid and stem growth, all the flower parts are present. When the time comes, cells expand in a rapid growth phase and unfurl into the open flower. A few cells will be dividing to produce pollen and eggs at this time. but most cells just grow. Growth here consists of enlargement, which is accomplished mainly by water absorption. Cell size increases greatly, it could expand twenty to fifty times or more from its original size. Water pressure inside cells actually pushes outward, thus stretching walls to very large increases in cell volume. Since you can almost see a flower opening, water absorption and wall stretching are the principle activities occurring during this process. Again, few new cells are being formed. Cells already present, formed during several months of good nutritional care and adequate watering need only to expand 50-fold or more to develop into a complete open flower. With favorable climatic conditions, one needs only to ensure that plenty of water is available during the opening process. Some growers have been known to supply maximum water by irrigating and supplying 100% humidity by misting or humidifying the air. Here the theory is based upon water relations in plant conducting tissues.

Well-irrigated roots supply water to the internal tissues. At least 95% of this water moves up into the stem, leaves and flower parts and

evaporates away. In low humidity, the evaporation rate would result in less water pressure in cells and therefore less cell expansion and smaller flowers. A plant in wilted condition is a catastrophe at flower opening. Water loss by evaporation can be stopped completely by creating 100% humidity around the plants. Maximum water pressure inside cells results, as well as maximum flower size. At flower opening time, my friend's yard was like the mist of Niagara Falls. The champions were popping out all over the place.

6. Gibbing deserves just a short comment in relation to championship development. It is generally accepted that gibbing causes flowers to open sooner and to become larger. The size part of the operation works as it does in the natural way. Gibbed cells just take in more water and become even larger, up to 30% larger. Inducing buds to open sooner can be a problem. When gibbing 'Rose Dawn' buds in a trial over a several week period from late September to early November, it was discovered that some buds did not

respond at all to gib. They opened at about the same as untreated ones. Generally one can expect to find differences in gib response not only in buds of the same plant, but also in buds of early, mid-season and late blooming varieties. A poorly developed bud when gibbed makes a poorly developed flower. A strong well-formed bud when all the environmental factors are correct, will make a super flower when gibbed.

So you can make some plans, develop some humidifying techniques, do a lot of fishing, grow your plants where the "conditions" are just right and produce champions. Oh yes, if there are plenty of trees around to modify climatic changes, a body of water nearby to increase humidity and the wisdom to grow the kinds of flowers the judges like, you will have even more champions.

**Chairman, Biology Department,
Pensacola Junior College, Pensacola, FL*



40th Anniversary Campaign

The following have made pledges or contributed to the Campaign since the May 1990 *Journal*.

Aiken Camellia Club
Camellia Club of Mobile
Mr. & Mrs. W. T. Shepherd
Mrs. John Taylor
Mr. W. F. Mann

Dues Increase — 1991

ACS dues increase will become effective January 1, 1991 as follows:

U.S. Single	\$20.00
Joint	22.50
Foreign Single (U.S. Dollars)	21.50
Joint (U.S. Dollars)	24.00
Sustaining	40.00
Patron	100.00
Life Single	400.00
Joint	450.00

A New Fertilizing Program for Southern California?

This is being written mere hours before the submission deadline for this issue in order to better access the effects of, what are for me, some vastly different fertilizing programs for the camellias.

Let me admit right at the start that I have killed more than my share of camellias with every kind of fertilizing mistake—too late, too hot, too dry, too much, etc. I have learned to tread carefully using the accepted program of initial fish emulsion, then cottonseed meal and iron followed

Marilee Gray

by 2-10-10 during the dormant months. This program gives outstanding results and, as long as one is flexible enough to bend with what can be drastic temperature changes, is relatively safe and is used by most hobbyists in this area.

Why then experiment with other programs? Because novice growers from our immediate area (Claremont lies east of the low range that divides the coastal areas from the arid inland and is classified as semi-desert) brought camellias to our show and our mini-show for local novices that were at least as good as any I have ever seen for those varieties. Naturally I had to find out what they were doing to produce that quality

Continued on page 26

CAMELLIA WEST

California Here We Come!

Dave Wood

Attention all you camellia hobbyists! Get a load of this! We are going to ring your bell! We are going to make you an offer you just cannot refuse. It is going to be better than a no-nonsense cash rebate from the tooth fairy! We are going to host the American Camellia Society Annual Spring Convention in Pasadena, California. The dates are February 20 to 23, 1991. Mark it down on your calendar. We would hate to have you miss this one! We don't want to dissemble too much but, believe me, we have planned a convention with all of the panache of a three-ring circus.

First of all, we have a great hotel, the Pasadena Hilton, with nearby shopping at the Plaza Pasadena mall (167 stores). We have booked two great tours by bus: tour number one, (Thursday) a visit to Nuccio's Nurseries (Please leave your scion snippers in your hotel rooms) with a wine tasting and a nice luncheon at the nursery. Our tour will then proceed to the Rose Bowl Museum

and then on to the Wrigley Mansion, headquarters for the Tournament of Roses Association where you will get to see all of the "inside doings" of the famous Rose Parade, etc. That night you will be taken by car to attend the February Meeting of the Temple City Camellia Society at the Los Angeles County Arboretum.

Tour number two (Friday) takes you to visit the Huntington Gardens with a complete tour of the various botanical plantings, etc. You will then assemble on the Garden Terrace for a wine-tasting and proceed to the Friends Hall at the Huntington for a luncheon. On Friday night the "out-of-town" delegates will be taken to the home of Mr. and Mrs. John Movich for one of those famous enchilada feasts.

On Saturday, you will be taken to the Descanso Gardens in La Canada for the 29th Annual Southern California Camellia Council's Spring Camellia Show. This is the biggest camellia show held in Southern California and the setting is the

Descanso Gardens with its camellia forest of cultivars. That night there will be a Happy Hour and the Annual Awards Banquet at the Pasadena Hilton Hotel Ball Room.

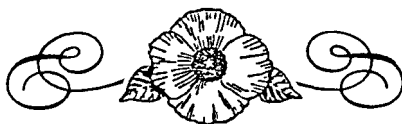
This is all in the package - no additional cost to the delegates! In all candor, we ask you: "Can you possibly refuse our offer? Are you going to stay home and miss all of these events?" Think of the fellowship! Think of rubbing elbows with all of those California Camellia Experts! Think of all the bull sessions, the friendly arguments, the intellectual prime rib! Most of us miss out on Life's big prizes. The Pulitzer, The Nobel, the Oscars, and the Emmys! But we are all eligible for Life's small pleasures. A pat on the back. A kiss behind the ear, a four-pound bass. A full moon. An empty parking space. A crackling fire. A glorious sunset. Hot soup. A cold beer and a day off. So don't miss the A.C.S. Spring convention in Pasadena, California in February 1991.

Here is a little bit about the City of Pasadena and the various attractions which might hold you over for a few days after the Convention is over:

Most people know of Pasadena as the place where the Rose Parade and the Rose Bowl game take place each New Year. There's a lot more to the city than just a parade.

Pasadena is a distinctive Southern California city with a gracious style all of its own, quite different from Los Angeles. Settled by mid-westerners seeking a winter resort in 1876, Pasadena maintains the charm and ambiance of its early days. The

city is rich with art, historic architecture, scientific institutions and beautiful gardens.



• **The Rose Bowl**, the granddaddy of all football fields, welcomes visitors and is surrounded by spectacular rose gardens on display all year long. over 3,500 rosebushes abound there, and the Rose Bowl tests new roses for the American Rose Society.

• Beneath a native California oak forest, **Descanso Gardens** has one of the world's largest displays of over 600 varieties of camellia plants. Nearby is a Japanese teahouse and garden featuring pools, waterfalls and ornamental stones.

• **The Huntington Library, Art Collection and Botanical Gardens** is special for many reasons: its rich collection of books and manuscripts on British and American history and literature; its art gallery containing one of the most comprehensive collections of British and French 18th century art in America; and its wonderful gardens.



The Wrigley Mansion is the Headquarters of the Tournament of Roses Association. Millions of viewers enjoy the spectacular parade by television each New Year's Day. Hundreds of millions of flowers petals are used including camellias.



Nuccio's Nursery, Altadena, CA will host a wine tasting party and luncheon at the Annual ACS meeting February 20-23. Guests will have the opportunity to enjoy the thousands of camellia plants as shown in the photograph.

The Huntington has a dozen distinct gardens within a parklike landscape of green lawns. About 14,000 different kinds of plants grow in displays which cover more than 130 acres. Paved paths wander through the Jungle, Palm and 12-acre Desert Garden which contain the largest outdoor grouping of mature cacti and succulents in the United States.

The Huntington's Rose Garden has more than 1,200 varieties of roses, and different types of camellias also number 1,200. The Shakespearean Garden has flowers mentioned in the Bard's plays and poems. A picturesque red wooden bridge arches over

the ponds of the Japanese Garden highlighted by a furnished Japanese house.

- **The Los Angeles Arboretum** boasts 127 acres of plants exhibited in sections based on their geographical origins. Other displays include the Water Conservation Garden, demonstration home gardens, tropical greenhouse, and prehistoric and jungle garden.

- **Tournament House and Wrigley Gardens** is a 4.5 acre site housing the ornate mansion once owned by chewing gum manufacturer William Wrigley, Jr. Serving as headquarters for the Tournament of Roses, it is set on rolling green lawns surrounded by

gardens containing many varieties of roses, camellias and annuals.

- Pasadena also provides **shopping** on classic, sophisticated South Lake Avenue, in historic Old Pasadena and in the Plaza Pasadena. Over 200 fine **restaurants** are ready to meet every taste and budget. **Nightlife** offers dancing, nightclubs, comedy clubs, theatre, jazz, rock, classical and popular music almost every night.

- **Other points of interest** include: California Institute of Technology, Gamble House (a Craftsman classic), Norton Simon Museum, Pacific Asia Museum, Pasadena Playhouse, Pasadena City Hall and many other interesting and exciting attractions.

Tentative Schedule of A.C.S. Convention in Pasadena

February 20 - 23, 1991
Pasadena, California

Wednesday, February 20

	Registration
9:30 a.m.	Governing Board Meeting (2 hours)
1:30 p.m.	Endowment Foundation Meeting (2 hours)
	Lunch and dinner on your own

Thursday, February 21

9:30 a.m.	Leave hotel by bus for tour of Nuccio's Nurseries Lunch at the Nursery, courtesy of Nuccio's Nurseries
1:30 p.m.	Leave Nursery by bus for visit to either the Rose Bowl and Wrigley Mansion or Gene Autry's Cowboy Museum in Glendale Dinner on your own
7:00 p.m.	By private car from hotel to arboretum for the February Temple City Camellia Society Meeting. Speaker: Julius Nuccio on Camellia Culture.

Friday, February 22

9:30 a.m.	Leave hotel via bus for Huntington Gardens
11:30 a.m.	Assemble at Garden Terrace for Wine Tasting
12 noon	Catered luncheon in Friend's Hall
1:30 p.m.	Leave Huntington Gardens by bus for return to Hilton Hotel. Remainder of afternoon open for shopping, etc. Dinner - out of town delegates will be brought by private car to home of John Movich for dinner.

Saturday, February 23

	Complimentary Continental Breakfast in Hilton Hotel
10:30 a.m.	Leave hotel via bus for Descanso Gardens Camellia Show
2:00 p.m.	For those interested—A visit to the Bracci and Jack's Gardens with finger food and wine.
6:00 p.m.	Happy hour at Hilton Hotel.
7:00 p.m.	Convention Banquet.

REGISTRATION FEES (Per Person)

Full Convention	\$150.00	(after Jan. 20, 1991)	\$165.00
Thursday Only	55.00		60.50
Friday Only	50.00		55.00
Saturday Only	55.00		60.50

SEND REGISTRATION AND CHECK TO:

David G. Wood
Convention Chairman
2434 Allanjay Place
Glendale, CA 91208



THE PASADENA HILTON

WELCOMES
THE AMERICAN CAMELLIA SOCIETY

To Pasadena, California
February 20, 21, 22, 23, 1991

Special Room Rates: \$87.00
(SINGLE OR DOUBLE)



Please fill out, detach and return to:

The Pasadena Hilton
150 S. Los Rables Avenue
Pasadena, CA 91101
for Toll Free Reservation 1-800-Hiltons

Arrival Date _____ Time _____ Departure Date _____

Name _____

Address _____

Number of Rooms _____ Number of People _____ Room Rate \$87.00 Single or Double

Please check one () 1-Queen Bed () 2-Twin Beds

Guaranteed by: (Circle one) AX MC VISA DC

Card Number _____ Exp. Date _____

Reservations will be held until 6 p.m. on date of arrival unless prepaid or guaranteed by a major credit card.

Cut-off date for hotel reservations will be **January 20, 1991.**

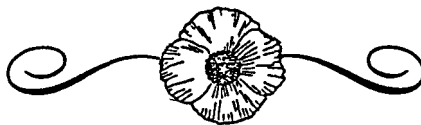


New Fertilizing Program for Southern California?

Continued from page 21

of bloom in this combination of climate, soil, and water.

The one outstanding grower that I questioned had not too organized a program, but one product mentioned, Stern's 'Miracid', perked my interest. This is one of my favorite fertilizers, one I have used on most shade plants, but never on my camellias. It is a 30-10-10 water soluble soil acidifier and plant food. Bear in mind that a 5-7% nitrogen fertilizer is considered optimum for our growing season, given our heat and low humidity of the summer months.



When I indicated that I was going to try this 30-10-10 product on my camellias, the area's most knowledgeable and respected growers cautioned that it was too hot, too dangerous to use here. Could I really believe the product literature claim that it "will not burn roots or foliage even in hot, dry summer" on camellias in our area?

As is my custom on ornamentals, I used 1/2 of the suggested strength, i.e. 1/2 Tbl/gallon. And, so that I would not feed and possibly kill all my plants at once, I began on March 24th feeding only those plants already feathering and showing active growth. Every few days, more plants were added to the program as they initiated new growth. Each plant was tagged to indicate the fertilizer, the dilution, and the date of feeding. As recommended, the application was repeated every two weeks.

My initial intent was to try, weather permitting, to get in three Miracid feedings before switching to cottonseed meal for the hot summer. However, the plants' response was so encouraging that I continued on and have given most plants four or five Miracid feedings at this time. In some cases, I did not locate the fertilizing tags and unintentionally fertilized individual plants on successive days. There was no adverse effect. Other times I intentionally fertilized a plant that I deemed too dry to fertilize safely. Again, there was no adverse reaction. Gaining courage from the azaleas, ferns, rhododendrons, fuchsias, and all the shade plants as well as the camellias, I then used the 1/2 Tbl/gallon strength solution to feed all the seedlings, one-year grafts, rooted cuttings, and struggling camellias as well. At this time, the very end of May, my camellias have never fared so well. The new growth is lush. The seedlings and cuttings have never been so vigorous, and the sick bay may soon be no more.



On April 4th, the same day that I had fed at least a third of my plants, the weather took an unpredicted turn and there followed three days of 100+ heat. Considering my excessive exposure and the vulnerability of the tender, new growth, I expected to sustain excessive foliage burn and loss. However, my foliage damage was slight to none and appreciably less than other growers with more adequate protection. Unlike other years, this heat did not cause a rampant loss of new foliage. In a few days the temperature did a sharp reversal to subnormal temperatures, so I resumed the Miracid feeding. As long as the temperature remains cool enough, my intention, at this time, is to continue with the Miracid and switch to compressed cottonseed meal cakes when summer temp-

eratures arrive. Cottonseed, even though it is only 5% nitrogen, may prove excessive to my Miracid-fed camellias when summer heat accelerates the feeding rate, so I am counting on the compressed cakes to help restrict the amount of additional nitrogen being fed.

Our area was blessed with an unseasonal, soaking rain yesterday, so, conditions being optimum, I did a general feeding of a 3-0-0 14% iron product to supplement the iron in the Miracid. If the weather permits, I will follow with a general Miracid feeding in another week. If the foliage indicates that another iron feeding may be needed, I will probably exclude from further iron feedings any variegated varieties in which the iron will tend to suppress the variegation.

A second program I investigated on a smaller scale was one given by a local gardening instructor. This program called for 1/2 cup blood meal (13% nitrogen) in April; 1/2 cup superphosphate and a liquid feeding of something with about 10% nitrogen in June; and 1/2 cup cottonseed meal in September or October. These amounts were prescribed for a 3-5 foot camellia *in the ground*. On April 4th I began this program on about 20 likely camellias and have not progressed to the second phase. Already, however, there is adequate basis for a comparison of the two programs and a preference. Whereas the Miracid was beneficial to stressed camellias, the blood meal rather promptly killed one hybrid retic. Another saluenensis/retic hybrid that should have fared well in the heat, suffered considerable foliage damage and some die-back. Furthermore, none of the plants fed the blood meal had foliage of the vigor, color, and size as did the plants fed with Miracid. To help compensate, I have recently begun giving light, judicious Miracid feedings to the camellias under the blood meal program and will switch them over as well to the Miracid program. Two further comments on the blood meal program are that hybrids would be less tolerant of the "heavy" blood fertilizer than most japonicas, and the September or October cottonseed feeding would be too late for most varieties in this area.

Some thoughts and conclusions that can be drawn at this time are as follows:

1. Miracid appears to be an outstanding product to remedy our conditions of alkaline soil and water and make the nutrients available to the plant.



2. The 1/2 strength (1/2 Tbl/gallon of water) Miracid feeding every two weeks is tolerable to all the japonicas, retics, and hybrids tested under the generally cool weather conditions that have existed thus far. (I consider 85 degrees the point at which my camellias start panting, and I withhold all fertilizers during heat.) Indications are that most or all of my camellias would have survived well if I had used the full recommended dosage. However, we rather frequently experience sudden and unseasonal variations of temperature and humidity—two important variables that prompt me to go with the safer, more dilute feedings for now. If any fertilizer damage should start to occur, the liquid-fed Miracid would be more easily leached from the soil than the solid organic products.



3. The Miracid program has, under these test conditions, produced plants with more vigorous growth and more heat tolerance than the fish emulsion/cottonseed meal program I have used in the past.



The final verdict on the value of this Miracid program will not be known until the 1990-91 show results are in. How many times will my blooms make the head table? Wait and see!

Camellia Cultures

as we do it in

San Gabriel, California

Sergio Bracci

The requirements for growing camellias are fairly basic. Camellias growers have their own methods of fertilizing, water and variations of soil mixes that they use in their program. Elsie and I have used this basic formula in our program. We have not deviated from this program in the past twenty years and find it suited to our area and our climate.

Soil Mix Formula:

1 part sandy loam
1 part forest humus
very generous amount sponge rock or vermiculite to aerate the soil.

Many micro climates can be found in your own garden. One must learn to put their camellias in the position best suited to a variety. For example, we have two large plants of 'Freedom Bell' in our garden. We placed these Freedom Bells in different micro climates in the garden, therefore, producing blooms at different times. One plant blooms two weeks later than the other one.

Light also is a major contributing factor to the proper bloom production. One must be always on the lookout to see that any new growth on trees does not encroach on the light requirements of your camellias. Believe me I speak from experience. A large willow tree in our garden has grown so rapidly that it has cut off the required light to some of the camellias in the back lath house. Flower production therefore has diminished considerably.

In the south west (where we live) the soil conditions are mostly alkaline—far different than the acid requirements of the camellia, therefore we must amend our soil

with acidic materials to correct this condition. However, one must not get carried away by too much reliance on maintaining absolutely proper pH readings. If your plants are doing well and look healthy, keep doing whatever you are doing. I have a case in point. Leona Summerson, who is one of the better growers in our area, had her soil analyzed and was told it was absolutely unsuited to grown camellias in her locality. In spite of this, her plants look great. Her constant presence on the head table disproves the analysis.

Julius Nuccio has commented often that one must be part farmer to successfully grow camellias. This is a point well taken. One must recognize their own growing area and realize that the cultural information contained in all camellia publications does not necessarily apply to your area. If you are having any problems at all, gather information from top growers in your area, ask advice and then use what is good for you.

In our arid climate, it is not at all unusual to have days with high temperatures and low humidity of 10 to 12%. In fact any application of a high nitrogen fertilizer will almost always result in some defoliation. We have found that 7% Nitrogen is ideal for our needs. On one of our trips to the south, we attended a cultural program. One of the speakers mentioned using pink soda as a fertilizer. Upon further inquiry, I found that pink soda he referred to was nitrate of soda and thought instantly of what happened to one of our members. This gentleman had come to California from Georgia. He used nitrate of soda to fertilize his camellias. He subsequently lost over half of his collection. So you see cultural requirements over the country are quite diverse. One must be aware and careful to use what is

best for them in their area.

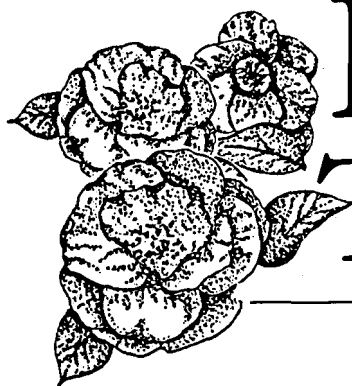
In Southern California, all flowers are grown out of doors. The use of gib has enabled us to extend our camellia season to almost six months. Being out door flowers, we are at the mercy of the elements, insect pests, what have you, that ruin the flowers. California is now in the midst of a drought. Water has become increasingly saline, Great care must be taken to leach the salts from the soil. Once a month containers should be watered thoroughly, repeatedly, to leach the salts out of the drain holes. Camellias in the ground need to be watered deeply to leach the salts below the root level.

We are very fortunate here in the west having no die-back at all. But we do not have the benefits of the high humidity that the south has so we must watch our watering program very carefully.

One main problem here is an infestation of mites that have exploded since the chemical product Kelthane was removed from our shelves. We find Diazanone, while not as effective as Kelthane, is giving some control. Hopefully this program will improve as new mite-cides become available.

In our area here in San Gabriel, we are very fortunate to be able to grow the Elegans family successfully. While just a few short miles away, they do not open at all, therefore, one should not waste time by trying to grow a cultivar that is troublesome in your area. We are not able to grow a 'Guilio Nuccio' with 'Rabbit Ears.' Our Guilio Nuccios are very flat so we discontinued that variety.

In closing, there are no hard and fast rules to follow. Listen, try and experiment—this method has worked for us with whatever success we have enjoyed. Remember, above all the secret to success is "work."



BASICS FOR THE BEGINNER

Betty Hotchkiss

Camellia sasanqua, the fall blooming camellia, has often been regarded by the camellia enthusiast as the "stepchild" of the camellia world. With its smaller blooms which shatter easily the *C. sasanqua* is not a very satisfactory cut flower. However, *C. sasanqua* can be a real star in the landscape adding color and beauty with their delicate blossoms and glossy foliage.

The camellias regarded as sasanquas in the United States generally include more than one species. The true wild *C. sasanqua* is a small, slender tree growing in the forests of southern Japan. The plants have white, single blooms 1½ - 3 inches in diameter. The species *Camellia hiemalis* is more shrub-like with pink to red flowers, informally double about 2½ inches in diameter. A third species, *Camellia vernalis*, has slightly larger, loosely informal to formal pink flowers. It is now believed that this is not a separate species but rather a natural hybrid between *C. japonica* and *C. sasanqua*. These three species and their hybrids are generally all lumped together as sasanquas.

In Japan the *Sazankwa* means "plum-flowered tea". Sasanquas have a long history of cultivation in Japan for practical purposes. Their leaves were used to produce a poor grade of tea while their seeds were used for oil. Camellia oil was used for many purposes including lighting and lubrication. The main usage of camellia oil, however, was for cooking and cosmetic purposes. The

extraction of camellia oil is difficult and time consuming and is no longer competitive with sunflower, corn, or other imported oils. Today, camellia seed are mainly used as novelties for jewelry, dolls' eyes, etc.

Cultivars of *C. sasanqua* were grown for their beauty in Japanese gardens as early as the 14th Century. Ancient trees estimated to be 400 years old still survive in the gardens of Kyoto temples. Plants of *Camellia sasanqua* were not brought to the western world until the last half of the 19th century. Since that time they have become popular additions to gardens in the Southern and Western U.S. and Australia. Their popularity is limited where winters are cold.

Sasanquas have many practical uses in the garden. They grow more rapidly than japonicas and will tolerate either full sun or shade. With their smaller leaves and dense growth habit they can be pruned to form a screen or hedge. Sasanquas will also adapt as espaliers along a wall or fence. Other uses include ground covers and container specimen. Because of their fall and early winter blooming season, they add color to the landscape when little else is available. The color range of sasanquas is more limited than japonicas. There are very few reds or variegations and shades of pink and white are predominant. The flower forms are mostly single or semidouble with formals being rare. Most sasanquas are profuse bloomers and bloom for one to three months during the fall or early winter. Many of the sasanqua cultivars are fragrant with a musky smell which is pleasant but not as sweet as the odor of the *Camellia lutchuensis*. An additional attribute of *C. sasanqua* is their

resistance to the root rot disease cause by *Phytophthora*. For this reason they are widely used for grafting understock.

Listed below are some of the popular varieties of sasanquas. The varieties marked with an asterisk (*) are those which have won the ACS Peer Sasanqua Award given to outstanding *C. sasanqua* seedlings.

'Apple Blossom' - (Fukuzutsumi) White flushed with pink, single bloom with golden stamen.

'Bettie Patricia' - Large, shell pink rose form double blooms.

*'Bonanza' - Large, deep red semidouble to peony form flowers.

*'Chansonette' - *C. hiemalis* with lavender pink formal double blooms.

'Cotton Candy' - Clear pink, large semidouble blooms with ruffled petals.

'Daydream' - Large, white single bloom edged deep rose pink.

'Dawn' - (Ginryu) *C. vernalis*. White semidouble blooms flushed pink. Small to medium blooms.

*'Egao' - *C. vernalis*. Large, semidouble deep rose bloom.

'Jean May' - Large, shell pink semidouble bloom.

'Kanjiro' - *C. hiemalis*. Large, rose pink to red semidouble blossoms.

*'Leslie Ann' - Large, white semidouble to peony blooms tipped with lavender.

*'Miss Ed' - Light pink to orchid, medium peony form flowers.

'Mine-No-Yuki' - (Snow, White Doves) Large, white semidouble to loose peony form flowers.

*'Our Linda' - Large, medium pink rose form double.

'Shishi-Gashira' - *C. hiemalis*. Red semidouble to double blooms.

'Showa-No-Sakae' - *C. hiemalis*. Soft pink semidouble to rose form double flower.

'Sparkling Burgundy' - Ruby rose to lavender, small to medium peony form flower.

*'Star Above Star' - *C. vernalis*. White shading to lavender pink semidouble.

*'Yuletide' - Orange red single flower with bright yellow stamen.

Let's Graft



W. Y. Bennett*

When one wishes to have the newest, best or an old favorite camellia, grafting is an inexpensive way to fulfill one's desires. So to begin with, round up the most vigorous plant you can find for understock that is, unless you want to go into the area of plant dwarfing. If so, you could try grafting on to some of those plants that haven't grown much in the past few years, or some of the inexpensive "deals" you may be lucky enough to find on sale.

Let's start with healthy plants for understock. Make sure the soil around the base of the root stock is clean. Remove all organic material. You may want to add an inch layer of white builders' sand over the soil. This helps to keep the root stock clean. Remove the top of the stock plant about two inches above the sand. Use a fine toothed saw. Shears can crush tissue in the stock plant. The cut should be at an angle, which promotes better healing.

Next select a healthy stem tip for the scion. Make a "knife blade" taper on the lower end of the scion about an inch long. One or two leaves are left on the scion. When this is prepared, immediately make a cleft in the root using a firm blade and a heavy object to strike the blade.

Insertion of the scion into the cleft is the most critical maneuver of the entire process. The cambia growth layers of the root stock and the scion must be matched. One locates these layers by finding the dark green line just under the bark of scion and root stock. When you are sure that you have found the cambium layers, insert the scion into the cleft on the

top side of the slant cut root stock. By feeling down the side of the root stock, you can allow the lower tip of the scion to stock out just past the bark of the root stick. Tilt the upper part of the scion inward just a hair. In this way, you are sure to cross the two cambium layers. Union will be made. Many grafters wrap some type of tape around the top of the root stock. I prefer "Parafilm." A one inch by two inch strip is about right for a one inch diameter stock plant.

Next you need to protect the scion by placing a cover over the entire scion and stump. I usually place a small mound of Sphagnum dampened with Benlate solution (1 tsp per gal) over the cut surface first. The cover could be made of plastic jugs with bottoms removed, or a glass jar with a brown paper bag over it to reduce light intensity.

After care is also of great importance. If the root stock is in the ground, be sure that shading is provided where direct sunlight strikes the plant. Container plants should be placed in very bright but no direct sunlight.

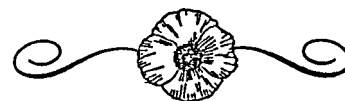
Special attention should be given to watering. A vigorous stock plant had many leaves and required much water—before you removed the top. After grafting the "new" plant has only one or two leaves. In addition, these two leaves have been covered. The new graft needs very little water until growth begins and new leaves are produced. Don't overwater. If containers are in contact with soil, natural rainfall is sufficient. Container plants will develop very well outdoors. They should be protected from hard freezes.

If the grafts are outdoors, you can expect growth a little later than spring growth on your regular camellias. When the scion bud begins to swell, watch carefully. After a few leaves expand, remove the cover at night and look for wilting the next morning. If wilting occurs, recover. Try letting fresh air under the cover by digging small openings in the sand. After several days, the plant should be able to grow with no problem into a beautiful full plant.

New Name and New Address

At the ACS Governing Board Meeting in Natchez, MS, October 18, 1989, the gardens were given a new name. We are now known as Massee Lane Gardens, home of the American Camellia Society. Historically, this is correct. In checking through early Minutes of the Society, we found many references to Massee Lane. The land on which the American Camellia Society is located was part of a large tract of land that Needham Massee acquired in the Land Lottery of 1827. The land, formerly owned by the Creek Indians, was confiscated as the Creek Indians were moved to the west. The then, dirt road that runs in front of the Headquarters was called Massee's Lane. This road was used by Mr. Massee to carry his agricultural products to market. Over the years, the apostrophe and "s" were dropped and the property was often referred to as Massee Lane. The 160 acres owned by the Society is a small portion of the original grant. The Massee home, across route 49 is still owned by descendants of Needham Massee as is a good portion of the original property.

Peach County has designated the road in front of the Headquarters as Massee Lane and a street sign has been installed. We are currently having our mail delivered and have given up our post office box. The county has approved as our address, 1 Massee Lane, Fort Valley, GA 31030. Thanks to an anonymous grant, new signs are being installed. On outgoing mail, we are adding bright orange stickers to note the change. When our present supply of stationery is exhausted, our new stationery will reflect the change.



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Pensacola Junior College, Pensacola, FL

Observations on Exobasidium Leaf Gall of Camellia

Luther W. Baxter, Jr.*

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Most camellia enthusiasts know about Exobasidium leaf gall, the springtime disease affecting new growth of *Camellia sasanqua* cultivars and seedling; however, it rarely affects *C. japonica* plants. On one of three plants of *C. japonica* cv. 'R. L. Wheeler,' leaf gall has been seen on two or three shoots per year, and it has always been on the same plant.

This fungal pathogen affects *C. oleifera*, a cold-hardy species, and the *C. sasanqua*-like plants, such as 'Dawn'. This disease has also been seen on 'Valley Knudsen', a hybrid with *C. saluenensis* and *C. reticulata* as parents. Actually the *C. reticulata* is 'Buddha' which is itself a hybrid (*C. reticulata* x *C. pitardii* 'yunnanica').

However, the hybrid camellia cultivar, 'Titirangi' has the same parentage as 'Valley Knudsen', with *C. saluenensis* as the female parent and *C. reticulata* hybrid 'Buddha' as the pollen source (male parent) but the disease has not been seen on the one plant of 'Titirangi' that we have in our garden. Others have been grafted and placed in the test site.

This year an unnamed seedling of 'Valley Knudsen' had one leaf gall, although the plant is several years old with at least 100 new shoots.

The seedling looks very much like its parent, 'Valley Knudsen', although the flower is slightly different in

color, which suggests that the one seedpod giving rise to the seedling may have resulted from selfing.

A second observation revealed that of three large plants of *C. hiemalis*, cv. 'Showa-No-Sakae', only one gall, though typical, was found; in other words, two large plants had no leaf galls. Both plants were near other *C. sasanqua* plants which had many leaf galls.

One seedling of *C. sasanqua* near SNS had no leaf galls, while a second seedling had many. Both plants were tall and non-spreading, as opposed to SNS which is extremely vigorous but spreading. There was an abundance of large, susceptible *C. sasanqua* plants nearby which means that these two seedlings had an equal opportunity to become infected by the leaf gall fungus. Two small 'Valley Knudsen' plants nearby had leaf galls.

A third observation revealed that young seedling plants under large susceptible *C. sasanqua* plants usually had many galls. Selection could likely be made for resistance, or at least field resistance by placing seedlings of *C. oleifera*, *C. sasanqua* or *C. sasanqua*-like plants under known susceptible plants, and holding them there for 2 to 3 years.

Leaf galls were found on 'Chansonette', 'Dazzler', and 'Kanjiro', three *C. hiemalis* cultivars other than SNS, but the gall numbers were low.

A fourth observation revealed that leaf galls were not found on any of several *Camellia x williamsii* hybrids. Cultivars of this type which were near a large highly susceptible *C. sasanqua* plant, 'Narumi-gata', include 'Mona Jury', 'Rose Parade', 'South Seas', 'Tiptoe', 'Tulip Time' and 'Wilber Foss'.

In conclusion, *Camellia sasanqua* and *C. oleifera* seedlings or cultivars range from highly susceptible to highly resistant to Exobasidium leaf gall. *C. hiemalis* cv. 'Showa-No-Sakae' seems to be highly resistant but not immune to infection by the Exobasidium-leaf-gall fungus. The only hybrids thus far identified as being susceptible to Exobasidium leaf gall are 'Valley Knudsen' and its unnamed seedling.

**C. saluenensis* x *C. japonica*, then resultant hybrid x *C. japonica*.

SPECIAL GIFTS

(As of June 11, 1990)



Estate of Alexander Nunn:

Set of Yearbooks

Mrs. John C. Walker:

"Get Well Wish" to Dan Nathan

Mr. & Mrs. Harold Green:

"Get Well Wish" to
Martha Beatty & Dan Nathan

Mrs. Ed Mathews:

Paper camellias for gift shop

Mrs. Pearl Terry:

"Get Well Wish" to Helen Teeter

Mr. & Mrs. Kenneth Hallstone:

Honorarium for program at Diablo Womens
Garden Club

Mr. Fred G. Hahn, Jr.:

Honorarium for program at Green Thumb
Garden Club

Betty Hotchkiss:

Honorarium for program at Garden Club of
Georgia Judges Council & Symposium

Mr. & Mrs. Sam Zerkowsky:

Contributions honoring Mr. & Mrs. Greg
Davis

Dr. & Mrs. Daniel E. Nathan:

Contributions for a "Get Well Wish" to
Martha Beatty, Safe trip to Japan for Walter
Homeyer, Dave & Elizabeth Scheibert, Ann
Brown, to Honor the Pinkertons, Twenty-
four tablecloths for the Annabelle Lundy
Fetterman building

Mrs. Dorothy Copeland:

Ferns for garden

Mrs. Milton H. Brown:

Contributions wishing a Happy Birthday to
Les Marbury and honoring The Nathan's &
The Ireland's on their Wedding
Anniversaries

Mr. & Mrs. Thomas C. Evans:

Contribution honoring The Nathan's on
their Wedding Anniversary

Mr. W. C. Wyatt:

Contribution wishing a Happy Birthday to
Les Marbury

Mr. Neville Haydon:

Book "Japanese Camellias"

Camellia Culture

Port Neches, Texas

Style



Dudley Boudreaux

In 1956, when we decided to use camellias in the garden, I reflected on the past. My parental grandfather was an early settler in Port Neches and introduced camellias to Port Neches in the early 1900's. Also, I had two excellent camellia growers as my mentors, Tom Eagleson, a nurseryman, and Marjorie Washburne, 1958 Ralph Peer Award Winner. Considering this background, it was imperative that a very good camellia culture procedure be developed or I would be faced with being classified a failure by three of my favorite people.

First things first—soil preparation for planting camellias is the most important phase of camellia growing. In purchasing the lots on which to build our home, we were indeed fortunate to locate near the Neches River where the soil is a rich, sandy loam. All grass was removed, in preparing the beds, including roots and ground cover. After the grass was removed the soil was tilled, and burnt rice hulls, ground oak leaves, pine bark (ground fine) and sheep manure were all added. This mixture was tilled and turned several times before planting. Beds were prepared about a year in advance. The mixture that I was trying to create was a pH of 5.5-6.0 since camellia plants will grow in proportion to the soil and nutrients provided. As my late mentor Tom Eagleson would say, "Never plant a \$15 camellia in a 25-cent hole and expect it to produce show winning blooms." Good drainage is

essential to camellia growing and well prepared beds will prove this.

Selecting good plants is crucial to good camellia culture. I visited local growers, nurseries, and at camellia shows, examined all winning entries. If the bloom struck my fancy, I would contact the exhibitor and try to secure a scion from his plant so that I would be assured of having a superior plant of the variety. Visits to camellia nurseries during blooming season enable me to select excellent plants as far as color, markings, and variegation. My theory is that camellia plants produce their best show quality blooms from the fourth through the seventh growth years. Consequently the camellia garden is constantly being upgraded annually by acquisition of newer proven varieties. This necessitates discarding some of the old varieties as my space is limited. Oh! Have I mentioned that all plants are grown in the ground without cover or protection? After a number of mild winters, it was concluded that reticulatas and hybrids could be grown outside in Port Neches. Each time I become brave and acquire a few, dear old Mother Nature slaps me on the wrists and lets me know that I am not in complete control. So much for growing retics and hybrids without protection in Port Neches!

Fertilizing is the first project after blooming season. I make it a practice not to fertilize during the first year after planting. After talking with various growers, I decided that fertilizing is a personal matter as no two growers use the same formula or portions of the various organic or inorganic fertilizers. After consulting

with Marjorie Washburne we collaborated to develop our own fertilizer program and settled on the following:

- 5 parts of Azalea-Camellia Plant Food (9% nitrogen; 15% phosphorus; 13% potassium; 1% calcium; 0-5% magnesium; 1% sulphur; and 1% iron)
- 3 parts cotton seed meal (2% nitrogen; 3% phosphorus; and 1.5% potassium)
- 1 part superphosphate (18% phosphorus)

The first application is made about March 15 around the base of the plant approximately 6" from the trunk to about 6" past the drip line. The mixture is placed on top of the mulch and watered in. Second feeding is made around May 1 using the same mixture and system. The last feeding of this mixture is made about June 15 and then in early September, superphosphate or Carl Pool BR-61 is applied. It would be rather difficult to state the quantity of fertilizer used as each plant requires a different feeding according to size, age, and whether it is being grown for landscape or show purposes. Since all oak leaves and pine needles are ground (finely chopped) every spring and this chopped mulch is placed in the camellia beds, a large quantity of fertilizer is unnecessary.

Immediately after the first feeding and before the first cycle of new growth starts, the annual pruning program is started. Before the program gets under way, water is withheld for about a week. This retards excessive bleeding from the cuts and infection of the wounds. All large cuts are painted with Benlate paste—my own preparation. Reasons for pruning are: cosmetic to improve appearance; restrict or promote growth; repair damage and rejuvenate old overgrown bushes. I strive to maintain all plants in a very healthy, neat growth pattern in order to effect a delight in overall appearance in the garden landscape. Nice dark green foliage during the summer covered with show quality blooms during the winter makes for a very happy, successful gardener. Remember, disbudding is a manner of pruning which reduces the number of spent blooms that will need to be picked up.

After completion of the major spring pruning project, the spraying program begins. Chemicals used are as follows:

Oil-I-Cide: Oil emulsion for control of scale insects.

Cygon 2E: Systemic insecticide for control of insects and mites.

Orthrene: Insect spray for control of aphids, spider mites, mealy bugs, etc.

Ferti-lome Liquid Fungicide: Liquid spray for control of black spot, powdery mildew, brown patch, bloom blight and other fungi.

Benomyl (Benlate): Liquide for control of dieback.

Terraclor: Granular for the control of blossom blight, brown patch, root rot, etc.

One must not forget the importance of a good watering program.

Water copiously. During the early 1960's, we made the decision to have a shallow well drilled and purchased a Ruth Berry pump and tank system which has been most valuable in growing and maintaining the camellia garden. On Tuesday or Wednesday before the show date, the plants are flooded with the intention of aiding in the opening and development of the flowers.

Gibberellic acid plays a major role in my camellia growing procedure. As stated earlier, all plants are grown in the open without protection and using gibberellic acid hastens the blooming period before the severe cold weather arrives. Gibbing is started on Labor Day weekend and continues through December, depending upon the weather. This is a weekly chore and a medical syringe is used to apply the gib, using the needle to scratch or injure the center

of the growth bud. Boudreaux's theory is that this hastens the absorption of the acid.

Cleanliness plays a very important role in camellia growing. It is instrumental in controlling various plant diseases as well as adding to the overall appearance of the gardens. I make it a practice to pick up all spent blooms on a daily basis, when time permits, making sure that none remain on the ground any longer than possible, although this turns out to be a frequent and major chore during the season.

We enjoy taking blooms to the nursing homes, hospitals, church, banks and library. It does one so much good to see and hear the nursing home residents and hospital patients express their delight over the beautiful blooms. To the two of us, this is far superior to winning an award.

Memorial Donations

(The name in boldface type indicates the person in whose memory the donation has been made as of June 11, 1990)

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Dr. Fred Lee
Mr. W. C. Wyatt
Jean, John & Carol Comber
Mr. & Mrs. W. F. Mann

Mr. Ernest L. Paulk, Ocala, FL
Kathleen Davis
Manuel & Rose Cepeda
Mr. & Mrs. Harold W. Goforth

Mr. C. R. Pope, Lafayette, LA
South Louisiana Camellia Society

Judge & Mrs. Thomas F. Porter
Mr. & Mrs. Sam Zerkowsky

Sarah Jones Robinson
Dr. & Mrs. Earl Beatty, Jr.
Mrs. Milton H. Brown

Mr. Andrew F. Sears, Portland, OR
Grace C. Bayley

Mr. John N. Sewell, Jacksonville, FL
Mrs. John N. Sewell

Mrs. Trudy Smith, Walnut Creek, CA
Northern California Camellia Society

Mrs. Kate Vinson, Fort Valley, GA
Mrs. Milton H. Brown
Dr. & Mrs. Daniel E. Nathan

Mr. Jerome Walker, Marshallville, GA
Mrs. Milton H. Brown
Mr. & Mrs. W. F. Freshwater
Dr. & Mrs. Earl Beatty, Jr.

Mrs. Hazel Weddle
Camellia Club of New Orleans

Mr. Huie H. Woods
North Georgia Camellia Society

Mrs. Ferol Zerkowsky
Mr. & Mrs. Sam Zerkowsky

Growing Camellias From Seed

Vi Stone

Planting camellia seeds is somewhat like making gumbo—"First you make a roux."

To begin, one needs to pollinate the blooms, from selected good seed parents. My work has been anything but scientific, but we have had excellent results—we have registered, over the years, about twenty-four new varieties.

The seed pods begin to form shortly after pollination and will usually mature during August. To ensure harvesting, it is wise to cover the pods with either cheesecloth or old pieces of stocking, securing with twisters.

The pods should be harvested immediately upon evidence that they are ready to split open. There are any number of ways to germinate these seeds. In advance of harvesting have medium prepared and ready to receive seeds as they do not all mature at the same time.

I have used the many different ways to do this, such as glass jars, plastic bags and egg cartons with sphagnum moss well dampened and sealed.

My current and to date most satisfactory method is the use of a misting bed which was built about 10 inches deep—with holes drilled in the bottom and covered with fine mesh wire. The mixture of about 1/8 part sand to redi-earth-well dampened and packed well. This should be 4" to 5" deep. The lid is covered inside with heavy mil plastic and the top is covered with 1/4" heavy wire to keep the squirrels out.

About one half of the box is used for camellia cuttings which are also ready to "stick" in late July or August. The seeds are planted about 1/2" apart in rows and white plastic markers are inserted with information as to parent and pollen source—also date. Use a lead pencil

to do this as it will not bleach out.

When a nice tap root and some small roots form, they may be transplanted into pint size plastic pots—do not use too large a pot—as they do better when they become root bound and then moved to next larger size pot. Any kind of usual camellia potting mixture is satisfactory. Keep misted and out of direct sunlight until several leaves have hardened off.

Pot bound plants will bloom earlier than those which are allowed to grow and spread. A light fertilizer may be used after the spring and each year thereafter.

It is recommended that plants be protected during the harsh winter months, but can be put outside in spring until late fall before the freezes come.

This is the only source (if you are lucky) to secure new varieties. No matter how many seeds are in a pod, no two blooms are alike and never like either parent, but do carry many traits of either or both parents.

ACS Publications Receive National Award

At the convention of the National Council of State Garden Clubs in Seattle, Washington in May, the American Camellia Society was the recipient of National Award number 34 which is the Award of Merit to a Plant Society. In the Awards book of 1990 the judges noted "Both the Journals and Yearbook of the American Camellia Society further the purpose for which this national plant society was organized. This award is presented in recognition of the excellent standards of writing and reporting." The President of the Garden Club of Georgia, Peggy White, accepted the award on behalf of the American Camellia Society. The National Council of State Garden Clubs represents over a quarter million members in the United States.

Thoughts on Judging

Emil Carroll

Fools walk in — so here I go. As my fellow judges and exhibitors will attest, I get very upset when a good bloom is left on the table — especially if it is mine — but also if it belongs to someone else. I don't think I really get more upset than others, but that I am more vocal than most. Because of this I have become a listening post for others who have the "why on earth was this flower not sent up" problem. I know I have offended people — I sincerely apologize — but I start out with **premise #1:** Camellia shows are for the purpose of selecting the best blooms exhibited in that show. If a bloom is left on the table that is capable of winning, then the purpose of the show is defeated. It is appreciated that the judges do a great job in selecting the winners from the honor table and no one ever gets upset if their bloom is appraised by all the judges and doesn't win.

During the past few years, I have seen at least 20 - 25 blooms left on the table that were later sent up by sweeps or another team judge and won. This brings up **premise #2:** If a bloom capable of winning, is left on the table — something is wrong with the judging. I have asked myself, time and again — why does this happen? I am very aware that this is non-intentional and that judges are sincere and honest — so what causes this problem?

The following are some observations that in themselves suggest solutions. **Premise #3:** First, it must be recognized that the function of a judging team is not to select the best bloom of the show, but to screen the blooms from which the rest of the judges will select the winners. Failure to send up a good bloom represents one judge making a decision for all

the others. I do not understand why it seems to be painful for some judges to send flowers to the head table.

Next, judges should recognize some things about themselves — unless ego gets in the way. One, none of us is infallible. One judge's comment later about a bloom his team did not send up (subsequently sent up by a sweep and won by 12 out of 15 votes) that he just couldn't see what those folks saw in that bloom.

Two, we all have bias as to size, form and color. At one show last year a 'Ville de Nantes' was sent up that had very little variegation. Two other blooms with excellent variegation, and in all other aspects an equally good bloom, didn't even get a 2 or 3 award. See, I'm biased - however this above was noted by 5 or 6 other judges.

Three, some judges tend to be dominating and brush aside comments by less aggressive members of the team. I've had judges say to me that so and so, or the team captain, just did all the selecting and to avoid confrontation, they stopped commenting or giving their opinion.

Four, the above less aggressive judges should learn how to speak up — it doesn't have to be an argument. Also, because of this factor, I feel that any one judge of a team should be able to send a bloom up.

Often problems would not occur if judges actually or mentally tabulated a bloom — using the ACS schedule. The most important cause of the problem is, in my opinion, that many judge a bloom's merits against the ultimate of that variety rather than its merits in competition at that particular show. Last year there was a Ville at one show that absolutely couldn't be improved upon - but how often do we see this? If one judged all Villes by this bloom, none would ever be sent up. A Ville may lack variegation on one petal or be short a rabbit ear - but that doesn't prevent its being the best medium large at that show.

As to solutions, I think the judging schools are a big step in the right direction; they create an awareness. The Texas Camellia Society has had 2 or 3 symposiums on judging, and during this last year, I feel the results could be seen. We had one show

where not a single deserving bloom was left on the table — obviously my idea of a well judged show. Another previously tried idea is to have a sweep team — this has caused problems - as the other teams consider this to be an affront to their abilities although any one team may have left a winner on the table. Probably the best suggestion is for the show chairman, or the chairman of the judges, to ask a team to go back over the blooms, if it is apparent that good ones have been left.

This article represents my opinions and your ideas and criticisms are solicited.



Future Meetings of the AMERICAN CAMELLIA SOCIETY

November 8-10, 1990
Baton Rouge, LA

February 20-23, 1991
Pasadena, CA

Fall 1991
Baltimore, MD

Spring 1992
(In Conjunction with ICS)
New Orleans, LA

Spring 1993
Walnut Creek, CA

Spring 1994
Open

Spring 1995
Massee Lane
(50th Anniversary)

Gibbing For Early Blooms

Jim Randall

Do you feel left out at the early shows because you can't come up with blooms consistently? With a little time and effort on your part you too can help increase the bloom count at the early shows whether it's for Camellia-Rama or any of the early shows in the South. Now when I say early blooms, I'm talking about the months of October and November.

I'd like to share with you my experiences, findings, and results that I have made over the last nine years (1981-1989) of gibbing for early blooms. I have kept very detailed notes on almost all the buds gibbed over this period. Hopefully, the information that is summarized within this article will allow you to contribute more flowers to your early local show.

Basics of Early Gibbing

Initial gibbing for early shows began in the latter part of August and continued for about a month, through September. Gibbing was conducted every three or four days for this period. I have been using a gib concentration of about 20,000 ppm. This is equivalent to about two tablespoons of distilled water per one gram of 90 percent gib powder which is readily available through ACS.

If you can, try to gib during cool mornings or on cooler days. Avoid rainy days, especially when it is expected to rain a few hours from the time you plan to gib. If it rains too soon after applying the gib it may be diluted before being entirely absorbed by the plant. Try to gib the largest buds on the plant. This will generally be on the upper part of the plant. Since the most vigorous growth is usually found here, so will the largest buds.

I used the conventional method of gibbing by removing the growth bud adjacent to a flower bud. Be sure the growth bud breaks out cleanly and there is no excess material left in the bottom of the growth bud cup. An eye dropper will work alright for applying the gib, but I have found that a solvent applicator works much better. It delivers a nice consistent small drop through a very long thin tube. The one drawback is that it tends to clog easier.

Each bud that was gibbed was marked by punching holes in an adjacent leaf with a paper punch. This code indicated the date gibbed and was used for estimating the time interval between gibbing and flowering. If you plan to mark your buds and do not like holes in your leaves, use colored yarn as a marker.

Determining when to gib a particular variety requires a target such as a show date. Then you count backwards with the average number of days required to bloom for a particular variety to establish a gib date. (I utilized data which I compiled over the years which is summarized in the Table within this article.) Then gib a bud or two on this date and also gib a week or so on either side of this estimated date.

Record Keeping

The date and variety of each bloom gibbed was recorded along with time of day, temperature and leaf code used that day. When flowering begins, blooming dates are recorded along with comments and descriptions of the bloom. From the punched holes in the leaves, deter-

GIBBING FOR EARLY BLOOMS
(October & November)

Variety	Average Days to Bloom* (1981-1989)	Range of Days to Bloom	Most Probable Range of Days**
Alta Gavin	56	46-70	46-57
Anticipation and Var.	67	50-78	70-78
Baby Pearl	61	49-74	49-58
Betty Sheffield Sup.	50	46-57	46-57
Charlie Bettes	62	46-74	57-69
Debbie	48	46-53	46-53
Dr. Clifford Parks	63	45-84	55-68
Dreamboat	51	45-62	49-53
Easter Morn	55	45-62	51-60
Eleanor Martin Sup.	74	73-76	73-76
Elegans Family	69	53-83	77-83
Elsie Jury	47	34-60	42-53
Emma Gaeta Var.	59	42-78	-
Fashionata and Var.	58	47-69	55-65
Fircone Var.	56	48-71	52-58
Freedom Bell	51	39-62	45-55
Helen Bower	57	49-67	52-62
In the Pink and Var.	54	45-68	50-54
Katie and Var.	72	52-86	61-76
Kitty	53	42-60	48-56
Lasca Beauty	64	52-79	56-69
Little Slam and Var.	34	22-41	32-39
Lovely Lady	71	65-78	65-78
Margaret Davis	48	40-53	40-53
Miss Charleston Var.	57	47-68	49-63
Moonlight Bay	50	36-61	49-60
Mrs. George Bell	54	46-62	46-62
Nuccio's Jewel	53	45-61	48-58
Tomorrow Family	58	49-70	53-61
Valley Knudsen	64	43-79	60-68
White Nun	56	42-69	53-59
Wildfire	41	34-49	41-49
OVERALL AVERAGE	57	46-67	52-62

*Note: Based on a minimum of six observations.

**Note: Approximately 2/3 of blooming times occurred in this range.

mination of the number of days to flowering can be calculated. Over the years I have built up sufficient data for a number of varieties which allows me to get in the "ball park" for obtaining blooms for a given date.

Outside Influences

Weather has a marked influence on the rate of bud maturity. As you would expect, extremely warm weather accelerates blooming, while colder weather retards the blooming time. Wide fluctuations in daily temperatures as blooming time approaches will increase the incidents of bullnosing or failure of flowers to open fully. When blooming begins, be sure buds are well shaded to prevent scorching by the sun. In the West it is a much warmer and less cloudy time of year compared to the normal blooming season. I have to be especially careful since my shade cloth provides only 40 percent protection from the sun. In addition to the weather I have had Blue Jays destroy opening buds (something to eat?) and the occasional Hummingbird will leave their little "tracks" on the fully opened flowers.

Results and Observations

Approximately half of all the early buds that are gibbed open during the October and November period. The remainder straggle through the

season into the normal spring blooming time. It seems that some buds are never really affected by the gib and I suspect that possibly the buds were too small to react properly with the gib or probably the gib was not applied correctly.

Most varieties seem to gib fairly well. Cultivars that I have had poor luck with are: Carters Sunburst (poor form), Eleanor Martin Supreme (poor variegation), Elegans family (bullnoses), Grand Slam (opens late), Grand Prix (opens late), Guilio Nuccio (opens late), In the Pink (poor form & color), Nuccio's Gem (poor form), White Nun (opens poorly), Margaret Davis (picotee edge faded), Royal Velvet (bullnoses) and Snowman (poor form). Conversely, some of the best are: Alta Gavin, Dr. Clifford Parks, Easter Morn, Elsie Jury, Fashionata, Helen Bower, Lasca Beauty, Nuccio's Jewel and Valley Knudsen.

I have observed that stamens and anthers tend to be a lighter yellow versus the golden yellow color seen during the regular blooming cycle. Some of the darker colored varieties seem to have that washed out look. Generally the variegation is better in early blooms, but not always. It's not unusual to get variations in typical forms such as Elsie Jury and Tomorrow Park Hill opening as formal

flowers. But, the nicest thing about having early blooms, is the total absence of petal blight.

The following table shows results pertaining to thirty two varieties with variegated and straight combined in some instances. The three columns within the table show average days to bloom, range of blooming time and the most probable range of days to bloom for each variety. Some varieties such as Betty Sheffield Supreme and Debbie have a range of days and a probable range of days that are identical, while Emma Gaeta has a tremendous spread in the range of days preventing a probable range of days to be estimated.

As you can see from this table, there is nothing exact about gibbing to achieve blooms on a particular date. The old rule of thumb of about sixty days still applies for most cultivars. But, the results shown in the table do give some relative differences between varieties.

To be successful in taking early blooms to your shows, you will probably have to do some refrigeration since your blooms will not all arrive on the exact date you are shooting for. I hope some of you will try gibbing for some real early blooms next season and help increase the bloom count at our early shows.

When Doing Air Layers, Take A Dim View



**Dr. Frank (Cy) Echols
with John Harley**

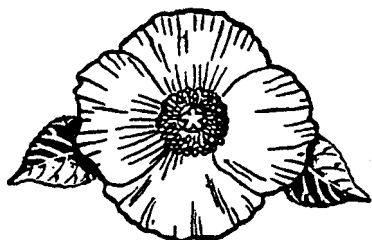
We have for many years used a heavy duty aluminum foil for our air-layers which has a bright shiny surface side and a reverse side which is dim and dull. The beginner will very likely expose the bright, shiny side in doing his air-layers. This method

makes a large camellia bush with lots of air-layers on it resemble a Christmas tree with decorations. In many instances, this creates a problem. Birds in the yard are attracted by these shiny objects and proceed to investigate. The image of the bird is reflected on the shiny surface and he immediately attacks — pecking holes in the foil. This allows the sphagnum moss in the foil to become dry. The result is usually a very poor air-layer. Therefore, it is important to always expose the dim or dull surface

of the foil. No mirror, no birds, lots of roots.

We do not start doing air-layers until new growth is well along in the spring. However, we like to do some getting ready. On these cold rainy nights such chores as cutting foil into 9 inch squares helps to get you ready to begin. We would suggest that you get a carpenter's apron. This is a dandy little helper with all the little pockets to hold cutting tools, root hormone and other items that you need to complete the air-layers. We do not air-layer the hybrids. Most hybrids make very poor plants when grown on their own roots. The best method of propagation of the hybrid seems to be grafting on japonica seedlings or on air-layers of sturdier stock. So here we go again in growing the beautiful camellias whose blooms delight us when few other plants can compare.

Camellia Culture *in the* “Tule Fog”



Mary Anne Ray

Hi! I'm 'BABY PEARL'. Am I in "TULE FOG FRESNO" yet?"

"Well, hi, 'lil fella. I'm 'ROYAL VELVET' and you sure are in Fresno. How'd you get here?"

"A whole bunch of us came up from Altadena in Nuccio's Nurseries' truck. Some of us have different colored tags on us — whatever that means."

"That means that some of you stay here for good; some of you stay for a while and some of you are deliveries for other Fresno people. The Rays' are the droppin' off place. They take care of the Central California Camellia Society's plants until they are used throughout the year at their meetings. They also take care of plants for the famous camellia garden in Fresno's Woodward Park."

"Wonder where I go."

"If you have a new bright fluorescent ribbon tied on you, you are for the society or the park."

"Nope, no ribbon—just a blue tag."

"Then, since you are in the lath houses with no ribbon, you are here to stay. You're probably for the Missus' boutonniere collection."

"I'm a boutonniere? Is that good?"

"The Mister and Missus sure think so. 'Course they love us all. They are very good to all of us."

"What's gonna happen to me here?"

"Well . . . Let me take you through a year, month by month, starting now. This is November and they are very busy with the big California Camellia-Rama. They'll pick a few blooms for the show. Next week the Mister will feed us with 0-10-10 and a little Chelated Iron."

"No Nitrogen?"

"There's a little Nitrogen in the Iron. Just enough. We're going for good blooms now and not so much growth. Okay? In late December the Mister will drench all the ground and the surface of our pots with Benlate to cut down on the 'Petal Blight' problem. January we'll get 0-10-10 and iron again and probably a spray of Dipel where needed to take care of those "Omnivorous Loopers" that like to chew holes in the centers of our buds."

"February they'll spray for aphids when necessary with Orthene or Diazanone. They really don't have too much trouble though."

"About the middle of March the Missus will do the heavy pruning. 'Course she prunes here and there all year 'round—when she cuts blooms and anytime she sees a branch going the wrong way."

"She's gonna CUT me!?"

"Hey, you'll hardly notice it and it's so-o-o good for you. She's very careful and her clippers are very sharp. You'll be even stronger and more beautiful than you are now after the 'Clip-to-maniac' as the Mister laughingly calls her gives you your spring haircut. It won't be much this year because you're still small. About this time of the year your auxins are active so . . ."

"Wait a minute. I don't have any oxen."

"NO-no-no not 'oxen' but A-U-X-I-N — auxin — your special growth hormone. The Mister will give us some cottonseed meal with chelated iron and bloodmeal. Now you'll get your Nitrogen, We'll be fed two or three more times with this mixture, probably the last time in September. Then it's back to 0-10-10 again."

"From now until April, while we have blossoms, they'll be hand-watering us—so our blooms will stay nice and pretty. Come May, the over-

head sprinklers are turned on and we are kept very comfortable even on those 100° plus days. There's nearly always a northwest breeze to accompany our evening shower."

"From April on, if any mites are seen, the Mister will spray with Kelthane or Volck—but only if the temperature is less than 80°F. Then in late June the Missus will start disbudding us."

"Disbudding?! Doesn't she WANT us to bloom?"

"Hey little guy, we have to be disbudded SOME if we're gonna have GOOD blooms that are the right size and shape. Trust me. It's the right thing to do. Sometime in August she'll begin treating some of our buds with gibberellic acid so there will be some blooms for their Camellia-Rama and the early shows. She'll keep spot gibbing us into January with her special needle."

"N-E-E-D-L-E!!!!!!"

"Relax. She just snaps out a 'lil ole growth bud next to a luscious flower bud, puts a drop of gib in the remaining cup and if you're lucky and the weather cooperates you'll bloom earlier. Some of us even bloom larger. She won't gib much of you cuz you're a boutonniere and you're 'sposed to stay little."

"There'll be lots of transplanting almost year round. Can't be too soon for me; my roots are cramped now. They put little squares of plastic screen over holes in the pots to keep snails and slugs out. Then we're put into a mix of 1 part firbark, 3 parts redwood soil amendment, 1 part silt and 1 part perlite. Feels good and stays nice and moist. That about takes care of a whole year."

"Geez, I can't see a thing anymore . . . but I sure feel good."

"That's the 'tule fog' settling in—gives us 100% humidity. That's super for us. We'll have this AM and PM, off and on, for 2 or 3 months now, but with nice midday sunshine—usually. Makes for great blooms. The San Joaquin Valley is a great place to live."

"Y-a-w-n . . . Oh 'scuse me."

"That's okay 'lil fella; we're all supposed to be a little sleepy now—becoming 'dormant' they call it. Welcome to Fresno IN THE 'tule fog'. Have a nice rest."

"Thank you. Z-Z-Z-Z"

Camellia Culture in the Southern California Foothills

So much has been written about camellia culture in the last fifteen years (the amount of time that I have been involved) that I find it somewhat difficult to come up with anything new. I have "burned the midnight oil" on many occasions reading books, magazines, articles, etc.; anything I could find to further my knowledge of successful camellia growing. I have attended dozens of meetings on culture these past years, listening to the experts explain their methods on soil, water, feeding, spraying, pruning, and grafting. So, perhaps I could tell you about my own personal experiences.

I live in the Southern California Foothills at the base of the Verdugo Mountains, where the soil is quite rocky. This, however, makes for excellent drainage. I have encountered many huge rocks in my yard, some as much as six feet in diameter. The smaller ones I dislodge with an eight foot crowbar and in order to remove the six footers I have to dig a trench around them, fill the trench with wood, and burn it for about eight hours. When the rock is red hot I spray it with cold water and the sudden contraction causes the rock to

Chuck Gerlach



crack in a hundred places. This makes it easy to remove the rock.

My soil is quite dark and acidic due, probably, to the fact that this land, in its natural state, was covered with oak trees and the decaying leaves have produced an acid soil. After the rocks are removed I sift the soil, add a little sand and peat moss and, occasionally, some vermiculite. Thus my yard is stocked with one hundred and sixty camellia plants, all of them in the ground. This growing method is easy to take care of; I don't have to worry about re-potting my plants.

I fertilize several times a year, basically the same as most other growers, with one small variation. I start feeding my plants at the first signs of new growth with a mixture

of five parts cotton seed meal, one part Nuccio's iron, and one part blood meal. This I call my "Bill Goertz Mixture". My variation is to add a little bit more blood meal to my red colored varieties. I have had very good luck at the shows, over the years, with this procedure. I seem to obtain a much deeper color, especially on 'Maroon And Gold' and on 'Freedom Bell'. I find that this mixture also deepens the color on 'Tom Thumb'.

Since I have excellent drainage I can feed more often than most other hobbyists. I even give a slight feeding of blood meal in between the regular feedings. I would not recommend this for anyone with poor drainage or someone with container grown plants. Once the blooming season starts I use equal parts of 0-10-10 and cotton seed meal.

If one is in competition at the camellia shows to win an award its about like running a baseball team. The plants that don't win at the shows, are given away. In my case, they are dug out and potted up for some raffle. Then I bring something in that has the ability to win and I plant it in my yard.

MIDDLE GEORGIA CAMELLIA SOCIETY

Invites you to participate in THREE CAMELLIA SHOWS for 1990-91.

1. **OCTOBER 12-13, 1990** at GA Living Center, GA National Fairgrounds, Perry, GA Entries 8-11 a.m., October 12, Show Chairman Marvin Jernigan, 231 Ravenwood Way, Warner Robins, GA 31093.
2. **NOVEMBER 3-4, 1990** — Eighteenth Annual Fall Camellia Show at Massee Lane Gardens. Entries 7:00 - 10:30 a.m., November 3, Show Chairman Hillary Perdue, 208 Cartwright Drive, Bonaire, GA 31005.
3. **MARCH 2, 1991** — Spring Camellia Show at Houston Mall, Warner Robins, GA

How To Raise Head Table Blooms

Jim Newell

1. There is no one single, all important factor that spells the difference between success and failure. This is true in the material sense, however at a higher level of understanding, there is one element that transcends this teaching and is known affectionately as T.L.C. (Tender Loving Care).

2. Perfection is no trifle, but trifles make perfection.

3. A winner's philosophy: If we would become a master, it is wise to follow in the footsteps of the masters. Translated into camellia lingo—keep thy plant and thy plants will love thee and bless thee with magnificent blooms.

4. Luck? Sorry - No such thing.

5. Quantity of Plants: Only as many plants are kept as can be cared for in accordance with the above.

6. Selection of plants: Always bet on a champion. The champions of the camellia world are the consistent head table winners as tabulated in the ACS Yearbooks, "The judges have spoken." Other considerations when selecting new varieties or using existing varieties for understock are as follows:

A. Does bloom shatter, bull-nose or age fast?

B. Are blooms distorted, undersized or dull colored?

C. Does plant produce mostly weak stems?

D. Are blooms from new varieties finding their way to the head table?

E. Other undesirable characteristics are flat blooms, lack of petal substance and poor strain.

7. Soil Preparation: Remove all grass, weeds, etc. and loosen the soil to a depth of 6". Dig in 4" of leaf mold, then dig in 4" of manure at least three months old. Have soil analyzed and request recommenda-

tions as to supplements needed. Add recommended supplements to bring pH to 6.0-6.5, phosphorus, potash, magnesium and calcium to H. or VH. Add trace elements which contain sulphur, iron, boron, copper, manganese and zinc as recommended by the manufacturer.

8. Fertilization and Mulching: No specific program. A general program is as follows: 2 to 3 oz. cottonseed meal to a 6 foot plant once or twice in the spring. If plants aren't growing vigorously by May, a fast release nitrogen fertilizer is used selectively as follows: 20-20-20 at 1 tlb/1 gal water or ammonium nitrate at 1 tlb/2 gal water or urea at 1 tlb/3 gal water. Use a gallon or two gallons for a 2 to 3 foot plant. No fertilizer needed after June.

Apply 3" of mulch (leaves or leaf and pine straw mixed) and 1" of horse manure. Mulch should be kept away from the trunk approximately 6" to aid in root aeration. Also keep mulch from matting, caused by water and biological break down. Matting prevents air and water penetration.

9. Water and humidity: Watering is done by low pressure dramm (grey) perfect nozzles at approximately 5 to 7 psi, 5 feet O.C. located approximately 8" above bed. Beds are watered on 7 to 10 day schedule with 1 or 2 inches of water year round. Our mist system is Eddy-Mist nozzles, placed 8 feet O.C., 7½ feet high, over beds, using 40 to 60 psi water pressure. System is activated by 24 hour timers set for the hot day hours, in series, with a humistat set at 50% and an intermittent timer set at 2½ seconds every 5 minutes. The system is used to enhance plant growth and bloom bud development. It is turned off during the blooming season.

10. Shade, ventilation and temperature control: Shade is provided by a 60% polypropylene tarpaulin over the roof. The south and west sides are sprayed with a light coat of white latex paint except for the bottom two feet. Ventilation and temperature control is provided by a 30" fan in the east end of the greenhouse (30 ft. x 36 ft.) and a wet pad system in the west end, 3½ ft x 22 ft. The system is activated by a thermostat set at 90 to 100 degrees in summer and 60 to 75 degrees in winter. This system can add up to

50% increase in humidity. No attempt is being made to use this system to lower the temperature below ambient temperature.

11. Pruning: Roughly speaking, large plants are pruned back about one third every year. This drastic pruning is done for the following reasons.

A. To produce strong vigorous stems that will in turn have the substance necessary to support, grow and sustain a large healthy bloom.

B. To remove all weak stems.

C. To provide adequate space between limbs so that disease and insects can be controlled by spraying and surgery, and flowers can bloom and be harvested without contacting other limbs which may damage them.

D. To keep plants from growing higher than one can reach to gib and harvest blooms and from growing into neighboring plants.

12. Disease Control: The number one problem is dieback. The writer has found no substitute for surgery. One must be continually vigilant in plant examination, searching for cankers or twig dieback. All infected or off colored wood must be removed and painted with a protective coating. Tree Kote is excellent. The addition of 5% Benlate and enough water to make a thick paste so that it can be brushed on will ensure complete wound seal and will prevent reinfection. These are the surgical tools I use for this work.

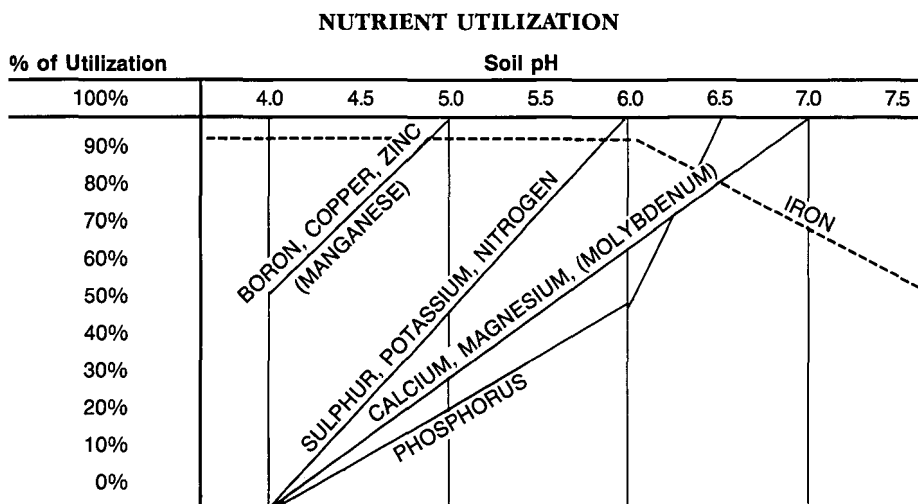
A. Razor sharp knife.

B. 1/8" to 1/4" chuck rotary tools approximately 20,000 rpm, fitted respectively with a 1/8" and 1/4" very sharp H.S. steel bit.

For small cankers, a sharp knife and bonsai shears may do the job.

For large cankers, the 1/8" or the 1/4" drill may be needed. Drills are used for drilling and routing, and the sides of the drills are used for planing and smoothing up the wound. The fine tooth saw is used for cutting limbs which are too large for the pruning shears. The electric chain saw is used for routing out large trunks 2" or more in size. The critical time for spread of dieback is in the spring during leaf drop. Now that all known dieback has been removed surgically, it is time to turn to prevention.

15. Gibbing: Potassium Gibberellic Acid is used at the following strengths—September and October last year's gib 2.2% and new gib 1.3% (13,000 ppm); November 1.5%; December 1.8%; January 2.2%. Buds are regibbed only once. Analysis of detailed gibbing records has not provided substantial evidence that multi-gibbing is superior in any way to single gibbing. Miniatures are gibbed with 0.5% potassium or magnesium gib. One or two buds per plant are gibbed every week or two depending on the size of the plant. Detailed gibbing records indicate a great difference in blooming time after gibbing—for example, Aztec-58 days, Tomorrow-45 days, Mouchang-40 days, Carter's Sunburst -36 days, Little Babe-30 days, etc. Buds are gibbed for shows in accordance with these predetermined harvest days.



Camellia Culture at Nuccio's Nursery: *A Comparison*

Camellia culture at Nuccio's Nursery is much like culture in general in Los Angeles . . . there is none. While this statement is obviously a bit extreme (at least in regards to the nursery), growing camellias in volume is relatively easy. When compared with the culturing of azaleas, this becomes even more apparent.

At the nursery we grow approximately an equal amount of azaleas and camellias. During the summer growing season, azaleas are extremely labor intensive. Because of the lighter planting medium ($\frac{2}{3}$ peat and $\frac{1}{3}$ perlite for azaleas, equal portions of peat and soil with about 25% perlite for camellias), Azaleas require more frequent watering. Azaleas are pruned once or twice, the spent flowers removed and each plant is moved to a new location so all the accumulated debris can be cleaned up.

Conversely, most of the physical maintenance on camellias is completed before summer begins. This is exceedingly beneficial since during the summer much of our time is devoted to keeping plants watered. Ideally, camellias are pruned in about March before the plants flush-out in new growth. Camellias are pruned in place with only a handful of clippings to dispose of. All the camellias at the nursery can be pruned in a little over a week, whereas a good portion of the summer will be spent pruning azaleas.

Fertilizing both plants takes place during summer with at least three feedings spaced between April and September. Because of time constraints, azaleas are usually fertilized with fish emulsion which is very effective and easy to apply.

We prefer fertilizing camellias with cottonseed meal. Cottonseed meal is slow acting but works over a six to eight week period. We will

Jim Nuccio

sometimes incorporate iron into the cottonseed at the proportion of one part to every five parts of cottonseed, thereby accomplishing two jobs at once. Because of the large volume of plants to be fed, fertilizing camellias is done for only one or two hours per day, which extends the period to complete this task to a week or more.

The only other maintenance required on camellias during this season is watering. A good deep soaking about once a week will usually suffice with possibly a second watering or washing-down needed during a hot spell.

Propagation of both azaleas and camellias takes place in June and July. While azalea cuttings can be taken throughout most of the summer, we find the ideal camellia cutting wood is in June after the first cycle of growth has stopped and hardened-off. Cuttings are arranged in flats (about 200 per flat) in a mix of peat and perlite. Flats are then placed in a quonset hut equipped with an incredibly "low-tech" but functionally sound misting system. It will be several months before the entire crop is rooted.

Camellia seeds are picked when the pods ripen and crack in the fall. Usually within a month the seeds are planted in a mix of peat and sand. Azalea seeds remain viable for several years and are planted as time permits.

Although we have not implemented a consistent program yet, an annual application of the fungicide Subdue would be beneficial. We prefer doing this in the fall to prepare the plants for winter when most of the problems due to *Phytophthora* would arise.

Grafting of camellias takes place anytime between December and March with the bulk being done in January and February. Sasanqua seedling are the primary source of rootstock while Japonica seedlings and excess name varieties of Japonicas and Sasanquas (especially Kanjiro) are used. A simple cleft graft is made, a grafting band is utilized to keep the scion in place and a glass jar is then placed over the graft. Grafts are then placed in a quonset hut.

Transplanting takes place year-round. Although summer is the least appropriate time to transplant (more for our sake than for the plants sake), we've experienced few problems when we've had to shift-up plants during this time. When our plants are canned well before summer, though, we're able to get a maximum amount of growth from them.

While not pest free, neither plant poses a problem in this regard. Plants are sprayed only as needed. Various types of mites seem to be the most common pest on both azaleas and camellias. Kelthane is the miticide used for spider mites on azaleas while camellias are sprayed with Diazinon for mites and chewers.

If everything I've written in this compendium appears all too simple, that's because growing camellias is simple. The more complex an undertaking you make it, the more difficult it becomes. Most of the equipment used at the nursery is dated but is still used quite simply because it works. Our methods are antiquated but effective. There are few shortcuts to alleviate our work load, but with efficient organization, cooperation from Mother Nature, and a certain unnamed entity working an occasional hundred-hour week, caring for camellias at Nuccio's Nursery is usually enjoyable and sometimes even profitable.

TEXAS CAMELLIA SOCIETY MEETING

H. R. Norsworthy

The Texas Camellia Society (TCS) has scheduled its annual meeting at the Holiday Inn - Park Central in Port Arthur, Texas November 2-4, 1990. TCS, in conjunction with the Southeast Texas Camellia Society, will sponsor its annual camellia show on November 3, 1990. Traditionally, programs at TCS meetings have been outstanding and this year should be no exception with Mr. Alfus O. Johnson as program chairman.

The show will be unrestricted. Ma-

jor awards will be presented to best blooms in five classes of japonica, two classes of retic and retic hybrid and two classes of non-retic hybrid specimen blooms. Also, awards will be presented to winners in four classes of multiple japonica blooms, sweepstakes and sweepstakes runner-up. Special awards will be presented to divisional sweepstakes winners in both the retic and retic hybrid and non-retic hybrid divisions. This is being done on an experimental basis to encourage participation in the early shows.

For additional information concerning the meeting, please contact Dr. Pat McMurrey, President-TCS, Rt. 2, Box 2775, Coldspring, TX 77331, (409) 653-4620 or H.R. Norsworthy, Show Chairman, 5735 Glasgow Lane, Beaumont, TX 77706, (409) 892-2242.

ACS PUBLICATION DEADLINES

November Journal	September 1
February Journal	December 1
May Journal	March 1
August Journal	June 1
Yearbook	August 1

Material should be received by the Editor on or before the above date.

Articles should be typed, double spaced if possible. Black and white photographs many accompany articles.

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THE NEW INTRODUCTIONS FOR 1989-90

'Bill Woodroof'
'Mabel Bryan Strawberry'
'Nicky Crisp'

'Rudolph Var.'
'Rudy's Magnoliaeflora'
'Spring Mist'

NEW SPECIES FOR 1989-90

C. nokoensis
C. synaptica
C. transarisanensis

Closed Wednesday & Thursday

SHOW DATES

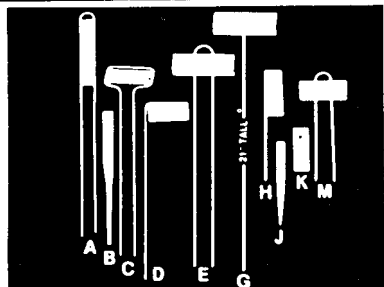
(ACS Cooperative Shows)

PLACE, LOCATION, SPONSOR

DATE

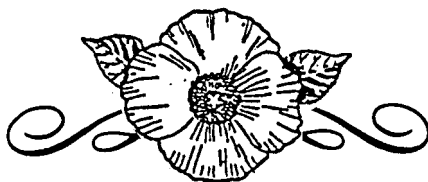
Perry, GA; Georgia National Fairgrounds; Middle Georgia Camellia Society	October 12-13, 1990
*Fort Valley, GA; Masee Lane Gardens; Middle Georgia Camellia Society	November 3-4, 1990
Baton Rouge, LA; Baton Rouge Camellia Society	November 9-10, 1990
Ft. Walton Beach, FL; Westwood Retirement Center; Ft. Walton Camellia Society	November 10, 1990
Waycross, GA; Trust Co. Bank of SE GA; Federated Garden Clubs of Waycross & Trust Co. Bank	November 14-15, 1990
Valdosta, GA; Valdosta Garden Center; Valdosta Camellia Club	November 17-18, 1990
Albany, GA; Albany Mall; Albany Men's Garden Club	December 1, 1990
Monroe, LA; Pecanland Mall; Northeast Louisiana Camellia Club	December 1, 1990
Jacksonville Beach, FL; Community Center; Island of Beaches Camellia Society	December 1-2, 1990
Slidell, LA; Slidell City Auditorium; Ozone Camellia Club	December 1-2, 1990
Brookhaven, MS; State Bank and Trust Co.; Brookhaven Camellia Society	December 8, 1990
Pensacola, FL; The Wright Place; Pensacola Camellia Club	December 8-9, 1990
Lafayette, LA; Univ. of Southwestern LA; South LA Camellia Society	December 8-9, 1990
Tallahassee, FL; Tallahassee Mall; Camellia & Garden Club of Tallahassee	January 5-6, 1991
Tampa, FL; Tampa Bay Area Camellia Society, Inc.	January 12-13, 1991
New Orleans, LA; Ganus School Gymnasium; Camellia Club of New Orleans	January 12, 1991
Ruston, LA; Holiday Inn; Ruston Camellia Society	January 12-13, 1991
Aiken, SC; USC - Aiken; Aiken Camellia Club	January 12-13, 1991
Lake Charles, LA; Gayle Hall, McNeese State University; Southwest Louisiana Camellia Society	January 19, 1991
Dallas, TX; Civic Garden Center in Fair Park; Dallas Camellia Society	January 19-20, 1991
Charleston, SC; Citadel Mall; Coastal Carolina Camellia Society	January 26, 1991
Shreveport, LA; Barnwell Garden Center; Shreveport Camellia Society	January 26-27, 1991
Daytona Beach, FL; Volusia County Camellia Society	February 2-3, 1991
Lakeland, FL; First Federal Florida; First Federal Florida	February 2-3, 1991
Charlotte, NC; Eastland Mall; Charlotte Camellia Society	February 2-3, 1991
Columbia, SC; Columbia Mall; Mid-Carolina Camellia Society	February 9-10, 1991
Chattanooga, TN; Eastgate Mall; Chattanooga Camellia Club	February 23-24, 1991
Nashville, TN; TN Botanical Garden at Cheekwood; Middle Tennessee Camellia Society	March 2-3, 1991

*Change since last issue.



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SHOW REPORTS

(Reports of ACS Cooperative Shows. In each report, the words *C. reticulata* include those hybrids with *C. reticulata* parentage. Also in each case, the *C. hybrid* means all those hybrids with other than *reticulata* parentage. *C. sasanqua* includes related species.)

CALIFORNIA

ATWATER, (12th Annual)
Sponsor: Atwater Garden Club & Camellia Society
No. Blooms Displayed: 2,000. Attendance: 400+.

ACS OUTSTANDING BLOOM CERTIFICATES:

Most Outstanding Bloom:

'Lady Laura', Dr. Lee Chow
Runner-up: 'Show Time', Larry & Nancy Pitts

C. japonica:

Large: 'Tomorrow Park Hill',
Chris & Art Gonos
Runner-up: 'Clark Hubbs Var.', Robert Ehrhart
Medium: 'Black Gold', Donald Lesmeister
Runner-up: 'In The Pink', Chris & Art Gonos
Small: 'Black Tie', Mr. & Mrs. James Toland
Runner-up: 'Lemon Drop',
Mr. & Mrs. Don Martin
Miniature: 'Kathy', Mr. & Mrs. R. H. Steele

C. reticulata:

Best Bloom: 'Howard Asper',
Chris & Art Gonos
Runner-up: 'Harold L. Paige', Garth Jacober

C. hybrid:

Best Bloom: 'Pink Dahlia', Robert Ehrhart
Runner-up: 'Pink Dahlia Var.', Robert Ehrhart

Best White:

'White Nun', Larry & Nancy Pitts

Best Novice:

'Royce', William Lee

ACS OUTSTANDING ARRANGEMENT CERTIFICATE:

Creativity: Sandra Fisher

NUMBER OF ACS MEMBERSHIPS SOLD:

None.

NORTH CAROLINA

FAYETTEVILLE, (44th Annual)
Sponsor: Fayetteville Camellia Club
No. Blooms Displayed: 762. Attendance: 4,500.

ACS OUTSTANDING BLOOM CERTIFICATES:

C. japonica: (In Open)

Very Large: 'Helen Bower', Parker Connor
Runner-up: 'Donckelarii', W. G. Duncan
Large: 'Guilio Nuccio', Lib Scott
Runner-up: 'Rosea Superba', Parker Connor
Medium: 'Betty Sheffield Supreme', Lib Scott
Small: 'Alison Leigh Woodroff', Parker Connor

C. japonica: (Protected)

Very Large: 'Guilio Nuccio', Harry Watson
Large: 'Elegans Splendor', Ray & Josie Bond
Runner-up: 'J.M. Haynie', Joe Austin
Medium: 'Harriett Bisbee', Jim Pinkerton
Runner-up: 'Sawada's Dream', Harry Watson
Small: 'Black Tie', Lester Allen
Miniature: 'Tammia', Harry Watson
Runner-up: 'Ann Clayton', Harry Watson

C. reticulata:

Best Bloom: 'Our Kerry', Joe Austin
Runner-up: 'Miss Houston', Joe Austin

C. hybrid:

Best Bloom: 'Pink Dahlia', Joe Austin
Runner-up: 'Mona Jury', Joe Austin

ACS GOLD CERTIFICATES:

In Open: Parker Connor
Protected: Lester Allen

NUMBER OF ACS MEMBERSHIPS SOLD:

None.

WASHINGTON

VANCOUVER, (10th Annual)
Sponsor: Oregon Camellia Society
No. Blooms Displayed: 350. Attendance: 5,000.

ACS OUTSTANDING BLOOM CERTIFICATES:

Most Outstanding Bloom:

'Elegans Splendor', Pam & Lee Kolb

C. japonica: (In Open)

Large: 'Elegans Splendor', Pam & Lee Kolb
Miniature: 'Night Rider', Oscar Tinkle

C. japonica: (Protected):

Best Bloom: 'King Size', Larry Landauer

C. reticulata:

Best Bloom: 'Willow Wand', Oscar Tinkle

ACS GOLD CERTIFICATES:

In Open: James Moon
Protected: Larry Landauer

ACS SILVER CERTIFICATES:

In Open: Oscar Tinkle
Protected: Oscar Tinkle

NUMBER OF ACS MEMBERSHIPS SOLD:

None.

From the Desk of the



Executive Director

If the past few weeks is any indication, it is going to be a long HOT and DRY summer. With temperatures sustained in the high 90's, we have been watering the gardens daily. We are several inches short on water and there is no rain in sight. Fortunately our 1968 irrigating system is still functioning — not as well as it once did — but it is still operating. The plants have put on much new growth — a promise of good things to come. We have observed, both in the greenhouse and outdoors, a heavy seed crop.

We have experienced more visitors than ever. What a pleasure to share so much beauty with so many visitors. At this time of year visitation drops but we enjoyed a great number of bus tours as well as visitors by private transportation. We have received many compliments on the slide presentation that is shown hourly during the season.

Rentals for the Annabelle Lundy Fetterman Educational Museum have been strong. We have been the scene for weddings, wedding receptions, class reunions, dinners, and both private and corporate parties. Not only does this bring income but it brings many to the gardens that might not otherwise come. As part of the Peach Festival, ACS sponsored a fashion show and a Victorian tea. The Fashion show was "America and What She has Worn." Sara Jean Ponder, on a return visit, narrated a show from the Pilgrim dress to the present day. Models from the sur-

Ann Blair Brown

rounding communities made it a lively show. Two Macon television stations aired part of our show on the evening news.

By the time you receive this Journal, our new signs will be in place. At the Natchez ACS meeting in October 1989, the Board approved the name of Massee Lane Gardens, Home of the American Camellia Society. We have received an anonymous grant to fund the new signs. All present signs will be reworked and a sixteen foot, double faced sign across highway 49 will be added. Thanks to our legislator, Robert Ray, permission was granted by the Department of Transportation to erect this sign. It should be much easier for visitors to find it.

Thanks to the Post Office Department and our Fort Valley Postmaster, Larry Bloodworth, we now have our mail delivered and outgoing mail and packages picked up. This is a tremendous time saver for us. We are very happy to have this service and appreciate the cooperation from the Post Office Department.

Many ACS members attended the reception and dinner honoring the Lundy Packing Company on its 40th anniversary at the Raleigh, North Carolina Marriott Hotel on June 14th. The Newcomen Society, an educational, non profit corporation whose purpose is to support and strengthen

the free enterprise system honored the Lundy Packing Company. The speaker was our immediate past President, Annabelle Lundy Fetterman. She traced the company from its early beginning to the present day. She kept the approximate 350 guests spellbound.

Many shows have begun to invite judges for their upcoming shows. Please refer to the list in your May Journal for Novice judges to be included. Also refer to your May Journal concerning the article about credit for shows held prior to the upcoming 1990-91 season. This is very IMPORTANT.

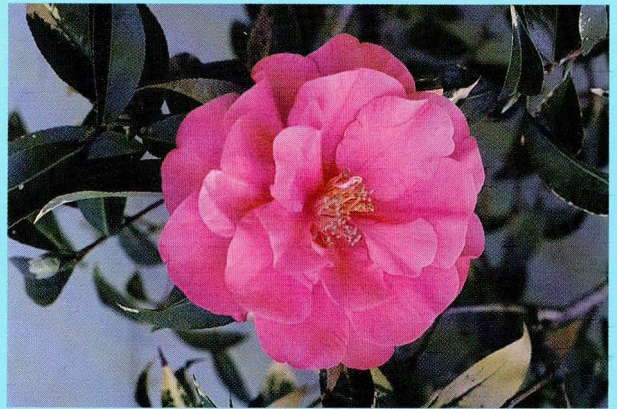
Middle Georgia Camellia Society will host a FIRST in October. The Agricenter in Perry has been completed at the cost of twenty-two million dollars. The many buildings will house cattle shows, horse shows, concerts and all kinds of meetings. The Fair will be held there and in addition to all the usual attractions, a flower show will be held October 12 and 13. The Middle Georgia Camellia Society will sponsor the camellia show and members will be gibbing early to have flowers for this event. For further information, you may contact Marvin Jernigan at 231 Ravenwood, Warner Robins, Ga 31093 or telephone (912) 922-2300.

All of us at Headquarters hope that you will enjoy a most pleasant summer and that your well tended camellia plants will reward you with many blue ribbons in the 1990-91 camellia season.

ACS Slide Contest Winners 1989 - 90



Category IA
'Ville de Nantes' - James A. Henkel



Category IC
'Valley Knudsen' - Mr. and Mrs. Thomas S. Lee



Category ID
'Charlean Var' - Mr. and Mrs. Dudley P. Boudreaux



Category II
'Ville de Nantes' spray - James A. Henkel



Category V
Exhibit - Jon Lowry



Category VI
'Demitasse' - Mr. and Mrs. Thomas S. Lee