

Atlantic Coast Camellias

JOURNAL OF THE ATLANTIC COAST CAMELLIA SOCIETY



ELEGANS CHAMPAGNE

Bloom grown by
Joe Austin

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COVER GRAPHIC

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Our cover Camellia is *Elegans Champagne*; and was grown by Joe Austin. This perennial show winner is a sport of *Elegans Splendor* and was introduced by Nuccio's Nursery in 1975. The very large bloom shows us a spectacular anemone form bloom with ruffled edges. The color is white with creamy center petaloids. Photo by Jim Darden.

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A MESSAGE FROM OUR PRESIDENT

RICHARD L. WALTZ

BALTIMORE, MARYLAND

Dear Fellow Camellia Growers:

The three H's of summer (Hot, Hazy and Humid) have arrived, and I hope everyone is coping well. Although we are in the midst of summer and most camellia groups are taking a well deserved vacation, there are a lot of things going on.

The major item of importance is the annual convention in Myrtle Beach, September 30 - October 1, 1988. The plans have been made and the stage is being set to have a fine get together. Our meeting in October has always been a real shot in the arm for me to really get me into a new camellia season. A great schedule has been planned and we need each and everyone of you as a participant. There is a complete schedule in another section of this magazine. The highlight of the convention will surely be the friendship and fellowship that all camellia growers have with each other.

I had stated earlier that there are many things going on this summer. One of major importance to Jan and I is our relocation to Richmond, Virginia. I have taken a new position with Signet Bank and my new office is in the Operations Center in Glen Allen, Virginia, a short 12 miles from Richmond. I never realized the quantity of items that can be accumulated by two seemingly organized people. However, we are looking forward to the relocation and the possibility of really growing camellia's out of doors. This will present a new set of challenges

and rewards (hopefully) for Jan and I. The real bright spot is that we will be 3 hours closer to all those great fall and winter camellia shows.

As we approach the fall season and the upcoming camellia shows, I would like to encourage each of you to make a special effort to attend and participate in as many shows as possible. I know that many of you do make the extra effort and are busy almost every weekend attending shows and meetings. Your help and support may seem to go unnoticed, but to the show chairman, his job was made a little easier by your efforts and support.

It is with sad hand that I must close this letter, for it is my final message as president of this fine organization. There are many things that I have not accomplished, but will continue to work on even after I vacate this office. The experience has been a rewarding one and one that I will not soon forget. I was encouraged by Hulyn Smith to take the job and I am glad that he made the extra effort. I will long remember these last two years.

See you at the beach!

Respectfully yours,

A handwritten signature in cursive script that reads "Richard L. Waltz". The signature is written in dark ink and is positioned above a horizontal line.

Richard Waltz, President

TIDEWATER CAMELLIA SHOW INDEPENDENCE MALL

February 27 - 28, 1988

Wilmington, N. C.

Best Bloom	<i>Curtain Call Var.</i>	Joe Austin Four Oaks, N. C.
Best Japonicas - Unprotected: Best Large-Very Large	<i>Marie Bracey</i>	Pete C. Lambrakos Mt. Pleasant, S. C.
Best Medium	<i>Ella Ward Parsons</i>	Pete C. Lambrakos Mt. Pleasant, S. C.
Best Small	<i>Tammia</i>	Parker Connor, Jr. Edisto Island, S. C.
Best Japonicas - Protected: Best Large-Very Large	<i>Katie</i>	Ann & Mack McKinnon Lugoff, S. C.
Best Medium	<i>Alyme Brothers</i>	Ann & Mack McKinnon Lugoff, S. C.
Best Small	<i>Grace Albritton</i>	Bill & Molly Howell Wilmington, N. C.
Best Miniature	<i>Fircone Var.</i>	Mrs. Ray Watson Greensboro, N. C.
Best Reticulata (Runner-up)	<i>Dr. Clifford Parks Var.</i>	Doris & Robert Fowler Lumberton, N. C.
Best Hybrid	<i>Mona Jury Var.</i>	Clara & Fred Hahn Matthews, N. C.
Best Seedling	<i># 363</i>	Clara & Fred Hahn Matthews, N. C.
Best White Japonica	<i>Swan Lake</i>	Doris & Robert Fowler Lumberton, N. C.
Best Tray of Three Blooms of Same Variety - Unprotected	<i>Dockelari</i>	Mr. & Mrs. J. K. Blanchard Wallace, N. C.
Best Tray of Three Blooms of Same Variety - Protected	<i>Snowman</i>	Bill & Molly Howell Wilmington, N. C.
Best Tray of Five Different Varieties - Protected	<i>R. L. Brent</i> <i>Mildred Pitkin</i> <i>Marg. Hilford</i> <i>Toli Queen</i> <i>Jean Purcel Var.</i>	Joe Austin Four Oaks, N. C.
Gold Sweepstakes - Unprotected	Parker Connor	Edisto Island, S. C.
Silver Sweepstakes - Unprotected	Pete Lombrakos	Mt. Pleasant, S. C.
Gold Sweepstakes - Protected	Ray Watson	Greensboro, N. C.
Silver Sweepstakes - Protected	Joe Austin	Four Oaks, N. C.
Court of Honor - Unprotected: Parker E. Connor, Jr. Edisto Island, S. C. <i>Betty Sheffield Supreme</i> <i>Hishi Karaito</i> <i>Kitty</i> <i>Granada</i>	Pete C. Lambrakos Mt. Pleasant, S. C. <i>Carter's Sunburst Var.</i> <i>Carter's Sunburst</i> <i>Gullio Nuccio Var.</i>	Dr. Samuel Gilmore Kinston, N. C. <i>Emity Wilson</i>
	Mrs. J. L. Davis Wilmington, N. C. <i>Magnolia Flora</i>	Mr. W. R. Putnam Wilmington, N. C. <i>Donckelari</i>
Court of Honor - Protected Mrs. Ray Watson Greensboro, N. C. <i>Magnoliae flora</i> <i>Black Tie</i> <i>Lucy Stewart</i> Annabelle & Lew Fetterman Clinton, N. C. <i>Guest Star</i>	Lena & Harry Watson Charlotte, N. C. <i>Ann Crayton</i> <i>Pink Diddy</i> Clara & Fred Hahn Matthews, N. C. <i>Silver Chalice</i> <i>Redwood City Var.</i> <i>Elegans Supreme</i>	Jim Darden Clinton, N. C. <i>Kitty</i> Joe Austin Four Oaks, N. C. <i>Jean Purcel</i> <i>Elegans Champagne</i> <i>Tomorrow Blush</i> <i>Miss Tulare Var.</i>

SEEDLINGS GALORE DOWN UNDER

By John Hunt
Boronia, Victoria, Australia

The production of beautiful blooms is of course the primary purpose in my camellia growing, however a very close secondary reason is the creation of new hand crosses. Believe me, nothing approaches the thrill of watching a seedling that you have helped mother nature create, opening its first flower for you. Takes me four years after germination on average, although this delay can be halved by grafting early in the seedling's life.

About ten years ago and in happier times, Hulyn Smith visited Frank Dursel with a tape recorder on my behalf. The ensuring two tapes were great with Frank discussing his thoughts and methods with me. His positive attitude confirmed my own feeling that providing one did the things that non-achievers did not like doing, success would follow. So the program already well under way continued.

Frank was very keen for me to cross '*Lasca Beauty*' with '*Arch of Triump*' so the next winter I did just that. Other crosses were made but one ensuring seedling from this particular cross has become the flagship of my collection. The seedling code named '*Alasca*' as an amalgam of the Parents' names, even in its infancy stood out like an eagle amongst crows. When two flower buds formed every precaution was taken to keep Murphy's law from once again being correct as branches do fall, my english setter has chewed up bigger plants and Phyl's cat has leapt to greater heights to cause damage. Wonderful to relate the larger of the two buds did open, although it seemed to take forever, can still recall the excitement as it took place. Finally

one morning I was confronted with the flower fully unfurled, at that moment I wouldn't have changed places with anyone on our planet. Great bloom, very large indeed with a quality about it that was really magic to me. Glowing pink in color with heavy petal texture and veining. The plant owes much to '*Lasca Beauty*' so the entire unit is first class, well worthy of inclusion in any collection. The photograph included with these notes was taken last winter by my wife, Phyllis. The bloom was rather tired, being three weeks old with rain, sun and wind testing its lasting qualities out in the open, not treated in any manner as I haven't used gibberellic acid for several years. Found gib very good in getting late bloomers out earlier for hand crosses, but other than this no real need exists here in Melbourne.

Phyl is steadfast in her refusal to allow me to name the seedling for her as she considers the flower far too large to bear her name.

My experience with '*Lasca Beauty*' suggests that this variety can be used either way and produce good looking plants. For example the best looking seedling I have is a '*Lasca Beauty*' x '*Purple Gown*' cross that has large leaves that are as thick as cabbage leaves. Could be interesting to watch this one as a batch of '*Lasca Beauty*' x '*Early Crimson*' (Zaotaohong) could be in another two years. A couple of years ago Hulyn Smith bloomed a dark red '*Early Crimson*' seedling of mine and wrote me suggesting it was the best bloom he had seen for the year. This big black, red seedling has not produced flowers for me for seven years, and is reserved for our eldest grandchild,

Brent Jason Fuller. When we learned that the highly regarded new reticulata hybrid 'Yinfenmudan' from the Kunming botanical gardens, is also an 'Early Crimson' seedling, one wonders why plant breeders appear to have ignored this variety which sets seeds better than most.

Now that I can spend time everyday

doing the things I prefer, the coming years should be full of seedlings. A great plus being that my hybriding can take place whenever the temperature is suitable, seven days every week.

With another five grandchildren together with adult family members I guess I will be pretty busy providing worthy seedlings for them all.



John Hunt is shown with a three week old bloom of his new seedling, which he calls *Alasca*. It resulted from a cross of *Lasca Beauty* and *Arch of Triumph*, and measures over 8" without the benefit of gibberellic acid. The color is "Glowing Pink." Photo by Phyllis Hunt.

SUMMER OILS AND OTHER PETROLEUM OILS

By Dr. Jim Baker

Extension Entomologist
North Carolina State University

Confusion exists about the difference between the summer oils and dormant oils. In practice, choosing a summer oil is much simpler than it seems: the only formulations for sale in garden shops, nurseries and hardware stores that come in quart sizes or less are summer oils. The confusion arises in unfortunate wording on the labels of many products. The labels often have directions for winter or dormant applications first and in fairly large type. This leads the buyer to believe the oil is a dormant oil when it is actually a summer oil which also can be applied in the dormant season.

There are three factors which distinguish summer oils from dormant oils. These factors determine the effects of the oil sprays on the plant to be treated. Some oils are so toxic to plants that they are actually used as herbicides (Stoddard solvent, diesel oil).

Factor 1: Unsulfonated Residue. Oils have saturated and unsaturated hydrocarbons. Unsaturated hydrocarbons are more unstable than saturated hydrocarbons and they tend to form substances which are toxic to plants when they are sprayed onto them. When oil is mixed with strong sulfuric acid, the unsaturated hydrocarbons react with the acid and sink to the bottom of the mixture as "sulfonated residues." That represents the portion of the oil which would burn leaves and tender stems. The portion left is the "unsulfonated residue" which is composed of saturated hydrocarbons which are much less likely to burn leaves and tender stems. Dormant oils have 50 to 90% unsulfonated residues

(50 to 10% unsaturated hydrocarbons) and they tend to damage green plants and tender stems. Summer oils have 90 to 96% unsulfonated residues (10 to 4% unsaturated hydrocarbons) which make them much safer to use on leaves and stems.

Factor 2: Density. Heavier oils are more toxic to insects than are lighter oils, perhaps because they tend to evaporate more slowly than lighter oils. Consequently, they are in contact with the target insect for a longer time. However, heavier oils are also more toxic to plants probably for the same reason. The density of summer oils must be balanced by the manufacturers for maximum efficacy and minimal plant injury.

Factor 3: Viscosity. The "body" or "thickness" of an oil is measured in arbitrary terms by timing its flow through a standard opening. In general, the faster an oil passes through, the safer it is to use on ornamental plants. However, oils from various parts of the world may have differing viscosities for the same relative plant safety. None the less, viscosity is one of the standards used to characterize insecticidal petroleum oils.

Summer oils are not applied full strength for insect control. They are usually mixed with water at a rate of 1 to 4 parts of oil and 99 to 96 parts of water depending upon the manufacturer's directions for safe use found on the label. There are two types of formulations of summer oils: miscible oils and concentration emulsions. Miscible oils are 95 to 99% oils which form an emulsion immediately when mixed with water. Concentration

emulsions are 83% oil plus emulsifiers and water. Concentration emulsions are thick and resemble mayonnaise or marshmallow topping.

Summer oils are relatively cheap, but they are also less toxic to insects than many synthetic pesticides. Summer oils are used at 1 to 4% of the mixture whereas some synthetic insecticides are used at a rate of 0.03% of the mixture. An advantage to summer oils is that insects have never developed resistance to oils. Summer oils also have good "spreading" properties and can be used at lower concentrations (2 to 4 teaspoons per

gallon) with other synthetic insecticides to enhance the coverage of a pesticide treatment. Because summer oils are safe and easy to mix and because the oils impart a sheen to treated plants, they are popular for homeowner use in controlling ornamental plant pests. Use 3 tablespoons per gallon as a leaf polish.

Summer oils have been found to be particularly effective for armored scale control (tea scale, euonymus scale, etc.) and are especially useful in that regard. Below are some of the pests and some of the rates found on various summer oil labels.

Pest	Tablespoons per Gallon	
	Summer	Dormant Season
mealybugs	2½, 3, 5 tbsp.	5, 10⅔ tbsp.
red spider mites	2½, 3, 5 tbsp.	4, 5, 8, 10⅔ tbsp.
scale insects	2½, 5 tbsp.	4, 5, 6, 8, 10⅔ tbsp.
whitefly larvae	2½, 3, 5 tbsp.	(none given)

It is not readily apparent why there is such a wide range of rates for these oils which are within 2% of each other in concentration.

The following are trade names and percentages of various summer oils: Superior Spray Oil (98%, 98.9%), Spray Oil (98%), Scalicide (98%), Summer

Spra-Oil (98%), Superior Oil (98.75%), Volck Oil Spray (98%), Volck Supreme Oil Spray (98%), Unico Spray Oil (98%), Oil-I-Cide (80%). These names are given to aid the consumer in recognizing summer oils, not as recommendation of any particular products.

The Use of Trade Names in this Insect notes does not constitute endorsement of one product to the exclusion of others.

North Carolina Agricultural Extension Service - Note No. 45

TEAMWORK LEADS TO SUCCESS

ANN AND MACK McKINNON

By Jim Darden

Ann and Mack McKinnon are serious about their Camellias. That is evident to anyone who attends Camellia shows in the Mid-Atlantic Region. In the past few years their blooms have made their way to the head table with increasing regularity.

Both Mack and Ann agree that their secret is teamwork. Both work hard at the task of furthering Camellias, but a closer look shows two different roles. Mack is the grower. He built the Camellia greenhouse, augmented the soil, acquired the plants, grafted the scions, and provides most of the day-to-day care for the plants. Ann has her segment of the greenhouse where she grows a variety of plants, including a number of outstanding orchids. She helps to coordinate their travels to over 10 shows a year, and she is very active in the Camellia societies, serving this year as the President of the Mid-Carolina Society in Columbia.

Mack McKinnon is an electrical engineer by trade. Ann recently left a position as Manager of a large distribution company in Columbia to pursue her own business. Having had a number of years in sales and distribution, she now markets her own line of craft items using the "home party" method. Her business is becoming more and more successful.

Mack and Ann live in Lugoff (pronounced Loo-goff), South Carolina, about fifteen miles northeast of Columbia just off I-20. They have a beautiful, spacious home on 2½ acres of land. This allows them the luxury of being able to grow a wide variety of fine ornamentals, including azaleas, Camellias, rhododendrons, irises, and

daylilies.

Lugoff lies in the sandhills region of South Carolina, so when the McKinnons moved to their present location several years ago and Mack decided to build his fifth Camellia greenhouse, he knew that he would have to improve the soil in order to grow high quality Camellias. He erected a 23' x 70' wood framework, covered it with plastic, and raised the growing beds inside it by adding a variety of materials.



Mack McKinnon in his Camellia greenhouse in Lugoff, South Carolina.

First came 20 cubic yards of clay loam, then two pickup truck loads of pine bark, and then two pickup loads of pigeon manure (you heard me right). He further enriched this mix with two cubic yards of peat moss. This was carefully mixed with a tiller, and the raised beds were supported by wooden side boards. Pine trees filter the light coming into the greenhouse, and pine straw is used as a mulch under the Camellias.

Mack moved his Camellia collection into this new greenhouse on Labor Day, 1984, a deceptive fact when you see the fine old well-established Camellias that are now growing head high throughout the structure. Mack and Geary Serpas moved and planted 65 Camellias that day, a fact that still brings beads of sweat to Mack's brow when he remembers.

Today over 100 healthy Camellias thrive here, with many new varieties sprouting from grafts high on older plants. Mack believes in the high grafts, a technique he learned from Joe Austin. In fact, several of the scions came from Joe. Mack is especially proud of a well-healed graft of Joe's 1987 show winner "*Tony's Joy*."

Mack enjoys growing and showing many of the finest Camellia varieties. His favorite white is '*Charlie Bettes*', which he claims is one of his top overall winners. Other favorites include '*Tomorrow Park Hill Pink*,' '*Alyne Brothers*,' '*Doris Ellis*,' and '*Helen Bower*.' Don't ask Mack if he has '*Helen Bower Var.*,' for he insists that there is no such thing. Even though several shows have two '*Helen Bower*' categories, Mack points out that all



Ann McKinnon beams at the orchids in "her" part of the greenhouse. In addition to the Camellias she grows a variety of ornamentals, both in the greenhouse and in the landscape.



Mack McKinnon's "two-story" graft coverage system. Two wide-mouth plastic gallon containers are stacked, one atop the other, to allow the graft to grow to a mature size before the cover is removed. Mack says that a much higher percentage of his grafted plants are able to survive in the lower humidity, higher light intensity, and draftier conditions on the outside when this method is employed.

'Helen Bower' blooms have a few flecks of white. He is trying to prove his point by grafting 'Helen Bower' onto a highly variegated Adolph Audusson to produce a true 'Helen Bower Var.' Indeed, Mack contention that all clones of the original 'Helen Bower' have variegation is supported by the description of that variety in the Southern California nomenclature book which states that 'Helen Bower' is a "Sport (Chimera) of Dr. Knapp grafted on 'Mathotiana Var.'" If the original graft received the x viral inoculation from 'Mathotiana Var.' then all subsequent clones of the infected

sport should have some of the variegating virus as well.

Sanitation is of paramount importance in Mack's greenhouse. Buckets can be seen at several prominent locations, waiting for leaves or blooms to fall to the ground. Mack doesn't like for either, especially spent blooms, to be on the ground for even one day. No such residue was apparent anywhere in his greenhous this day, except in the ever-present buckets.

Mack began his Camellia collection over twenty years ago, gaining much of his initial wood from noted Columbia camellian Buster Bush. Through

the years additional help has been provided by many Camellia friends, including Jim Pinkerton, Bill Shepherd, and the already mentioned Joe Austin and Geary Serphas. Many Camellia friends all over the region have helped Mack to establish his fine collection.

An interesting technique used by Mack is double stacking plastic containers over his grafts. He uses wide-mouthed gallon containers, the type restaurants get mayonnaise in, to cover newly mounted grafts. After the union has begun to mesh and new growth has begun to unfurl Mack installs another container on top of the first. He does this by cutting out the bottom of the second container, removing the top of the first, and simply stacking them. The type of container that he used nests very nicely. This "two story" protection allows the grafted scion to become much larger and stronger before it has to be weaned away from the protective cover. Many of us, myself included,

have enjoyed watching grafts mesh and grow out to fill a plastic cover, only to lament as the prized scion withered and died when the cover came off. Mack's method is a great idea and almost certainly will increase any grafter's success rate.

Mack and Ann were certainly gracious hosts on the pretty spring day in May when Mary Nell and I visited them. Not only did they show us true Southern hospitality with a scrumptious crab cake lunch, but they also took the time to carry us over to Jim Pinkerton's home and gardens where we saw another exceptional collection of Camellias and rhododendrons. All too soon we were off to Columbia and the A.C.C.S. spring meeting, where many of our Camellia friends had gathered to enjoy our unique brand of fun and fellowship. Camellians proved again to be some of the finest and friendliest people anywhere. We will put Mack and Ann McKinnon at our head table.



Mack shows Mary Nell his Camellia greenhouse. Notice the raised beds, immaculate plants and the everpresent containers used for sanitation.

Editor's Column

By Jim Darden



The Camellia season is almost here and lots of folks in our neck of the woods are getting excited as the buds swell and cool weather approaches. Many of our Camellia growers are pruning and disbudding in hopes that their blooms will be big and beautiful and destined for a head table this year. We are looking forward to our best season ever in the Fayetteville Camellia Club, as lots of new members are giving our Camellia veterans great support.

As President of the Fayetteville club I really have some big shoes to fill. I am following Annabelle Fetterman as club president, so for the first time ever my size 15D's look pretty anemic. Annabelle had run our club for the past two years, during which time our club has grown and prospered and continued to stage one of the largest Camellia shows in the country. Congratulations to Annabelle for being such a fine leader, both at the local and the national levels.

I thank goodness that I have some excellent members helping me in Fayetteville. Martha Duell is our fine Secretary, and she is also known as Julius Nuccio's "favorite little French girl." With Martha handling our money we know that our club will be in the black and each of our pocketbooks will be in the red. Martha does a great job for our club and for Camellias.

Another valuable addition to our Fayetteville Club is Dr. Bruce Williams. Bruce is Chairman of the Horticulture Department at Fayetteville Technical Community College, and will be serving as Vice President and Program Chairman of our club this

year. Bruce and I are working together to provide good programs for our club. We feel that interesting and informative programs, Camellia oriented programs if possible, are the heart and soul of our monthly meetings. Everyone needs to be stimulated by our programs. We all gather for the fun and socializing with other Camellia lovers, and this is a great part of the glue that bonds us together. But, we also come to the meetings to learn. We already have three Ph.D. horticulturists from N. C. State University scheduled to provide programs this fall. Their specialties are entomology, agronomy, and landscape architecture. Each will develop a program for us on Camellias within his area of expertise. We hope that the new members and the veteran growers in our club alike will be drawn to these programs for their educational value.

We have an interesting situation in our club with the addition of Malcolm Clark to our membership roll this past year. Malcolm, from Southern Pines, is current President of the Azalea Society of America. That gives us the national president of the A. S. A., along with Annabelle, who is national President of the American Camellia Society, in the same club. When you add Joe Austin, our master grower, in the same room with all of our other fine members you can imagine how interesting the exchange of ideas can be.

I hope that everyone in each of our seventeen Atlantic Coast Clubs will work hard this year to recruit new members and provide programs for them that are educational and stimulating. We need to support Camellias at the local, regional, and national levels in order to insure a healthy future for the species in America. Join and support your local club along with A.C.C.S. and A.C.S., and bring a friend to your next meeting.

Be sure to plan to join us in Myrtle Beach for the fall meeting on September 30 - October 1. That is always a fun meeting, and this year we will have Dr. Luther Baxter from Clemson University as our speaker. (See the meeting agenda in this issue.) If you have not already made your reservations you need to give the hotel a call right away. I hope everyone has a good fall season. We'll see you at a Camellia show.

1988-1989 ATLANTIC COAST CAMELLIA SHOW SCHEDULE

October 22	Mid-Carolina Camellia Society, Columbia, S. C.
November 12	West Carolina Camellia Show, Greenwood, S. C.
November 12	Middle Georgia Camellia Society, Masee Lane, Ga.
November 16-17	Virginia Camellia Society, Portsmouth, Va.
November 19-20	Waycross Federated Garden Club Show, Waycross, Ga.
November 19-20	Coastal Carolina Camellia Society, Charleston, S. C.
November 19-20	Valdosta Camellia Show, Valdosta, Ga.
December 3-4	Camellia Society of North Florida, Jacksonville, Fla.
December 3-4	Island of Beaches Camellia Society, Jacksonville Beach, Fla.
December 10-11	Men's Camellia Club of Pensacola, Pensacola, Fla.
January 21-22	Aiken Camellia Club, Aiken, S. C.
January 28-29	Coastal Carolina Camellia Society, Charleston, S. C.
January 28-29	Lakeland Camellia Show, Lakeland, Fla.
February 4-5	Charlotte Camellia Society, Charlotte, N. C.
February 11-12	Mid-Carolina Camellia Society, Columbia, S. C.
February 18-19	Wilson Camellia Show, Wilson, N. C.
February 18-19	North Georgia Camellia Society, Atlanta, Ga.
February 25-26	Tidewater Camellia Club, Wilmington, N. C.
February 25-26	Chattanooga Camellia Show, Chattanooga, TN.
March 4-5	Fayetteville Camellia Club, Fayetteville, N. C.
March 4-5	Middle Tennessee Camellia Society, Nashville, TN.
March 11-12	Piedmont Camellia Show, Greensboro, N. C.
Incomplete	Pioneer Camellia Show, Baltimore, MD.
April 1-2	Virginia Camellia Society, Norfolk, Va.
April 8-9	Camellia Society of the Potomac, Washington, D. C.

These show dates have been confirmed by the club secretaries and by ACS at Masee Lane. Please check to be sure, and report any errors at once to the editor. For more information on these shows, please see the listing of regional clubs and societies elsewhere in this journal.

COASTAL CAROLINA CAMELLIA SOCIETY CITADEL MALL SHOW

January 23, 1988

Charleston, S. C.

Best Bloom - Open	<i>Mathotiana Var.</i>	Mr. & Mrs. Tom Adams Orange Park, FLA.
Runner Up	<i>Guilio Nuccio</i>	M. S. Edwards Jacksonville, FLA.
Best Bloom - Protected	<i>Tomorrow's Lisa</i>	Joe Austin Four Oaks, N. C.
Runner up	<i>Carter's Sunburst Pink</i>	Joe Austin Four Oaks, N. C.
Sweepstakes - Open	Parker Connor	Edisto Island, S. C.
Runner Up	Mr. & Mrs. Tom Adams	Orange Park, FLA.
Sweepstakes - Protected	Joe Austin	Four Oaks, N. C.
Runner Up	J. K. Blanchard	Wallace, N. C.
Best Seedling	Mrs. Elizabeth L. Brown	Hilton Head, S. C.
Best Hybrid - Open	<i>Garden Glory</i>	Parker Connor Edisto Island, S. C.
Best Hybrid - Protected	<i>Mona Jury</i>	Joe Austin Four Oaks, N. C.
Best Retic - Open	<i>Terrell Weaver</i>	Mr. & Mrs. Tom Adams Orange Park, FLA.
Best Retic - Protected	<i>Tony's Joy</i>	Joe Austin Four Oaks, N. C.
Best Miss Charleston - Open	Mr. & Mrs. Tom Adams	Orange Park, FLA.
Best Miss Charleston - Protected	Joe Austin	Four Oaks, N. C.
Best Novice Bloom	<i>Drama Girl</i>	A. R. Parler, Jr. Orangeburg, S. C.
Best White - Open	<i>Charlie Bettes</i>	Mr. & Mrs. Tom Adams Orange Park, FLA.
Best White - Protected	<i>Charlie Bettes</i>	Ann & Mack McKinnon Lugoff, S. C.
Best Miniature	<i>Grace Albritton</i>	Mr. & Mrs. Tom Adams Orange Park, FLA.

Tomorrow, Var.

Tom Knudsen

Don Mac

Betty Sheffield Supreme

Nuccio's Gem

Moonlight Bay

Sweet Dreams

Show Time

Melinda Hackett

Jean Clere

Adolphe Audusson

Oscar B. Elmer Var.

Court of Honor - Open

Albert Ewan

Parker Connor

Mr. & Mrs. Tom Adams

Parker Connor

Mr. & Mrs. Tom Adams

Parker Connor

Runner Up

Parker Connor

Parker Connor

Parker Connor

Mr. & Mrs. Tom Adams

Mr. & Mrs. Tom Adams

Rupert E. Drews

Charleston, S. C.

Edisto Island, S. C.

Orange Park, FLA.

Edisto Island, S. C.

Orange Park, FLA.

Edisto Island, S. C.

Edisto Island, S. C.

Edisto Island, S. C.

Edisto Island, S. C.

Orange Park, FLA.

Orange Park, FLA.

Charleston, S. C.

Coastal Carolina Results continued . . .

Court of Honor - Protected

<i>Lucy Stewart</i>	Joe Austin	Four Oaks, N. C.
<i>Elegans Supreme Var.</i>	Joe Austin	Four Oaks, N. C.
<i>Elegans Splendor</i>	Joe Austin	Four Oaks, N. C.
<i>Jean Pursel</i>	Joe Austin	Four Oaks, N. C.
<i>Mathotiana Supreme Var.</i>	W. Gist Duncan	Columbia, S. C.
<i>Elsie Jury</i>	R. F. Stubenrauch	Charleston, S. C.

Runner Up

<i>Tomorrow's Dawn</i>	Joe Austin	Four Oaks, N. C.
<i>Betty Sheffield Blush Supreme</i>	Joe Austin	Four Oaks, N. C.
<i>Wendy</i>	Joe Austin	Four Oaks, N. C.
<i>Tomorrow Park Hill Pink</i>	G. M. Serpas	Summerville, S. C.
<i>Caroline Brown, Var.</i>	Annabelle & Lew Fetterman	Clinton, N. C.
<i>Carter's Sunburst Pink Var.</i>	Annabelle & Lew Fetterman	Clinton, N. C.

Show Chairman: Rupert Drews

Number of blooms in show: 737

AIKEN CAMELLIA CLUB

Aiken, S. C.

January 16-17, 1988

Most Outstanding Bloom	<i>Emma Gaeta Va.</i>	Joe & Mabel Austin
Best Japonica - Open	<i>Tiffany</i>	Parker Connor, Jr.
Runner-up	<i>Doris Ellis</i>	Parker Connor, Jr.
Best Japonicas - Protected		
Best Very Large	<i>Tomorrow Parkhill</i>	Joe & Mabel Austin
Best Medium	<i>Nuccios Jewel</i>	Joe & Mabel Austin
Best Miniature	<i>Grace Albritton</i>	Parker Connor, Jr.
Reticulata - Protected	<i>Jean Purcell</i>	Joe & Mabel Austin
Best Hybrid - Protected	<i>Mona Jury Var.</i>	Joe & Mabel Austin
Best White Bloom	<i>Elegans Champagne</i>	Joe & Mabel Austin
Gold Certificates:		
Open		Parker Connor, Jr.
Protected		Mrs. Alfred Bissell
Best Seedling		Dr. Walter Homeyer
Tri-Color Certificate		Lib Scott
Creativity Certificate		Cheryl Haines

WATER QUALITY AND QUANTITY

By Ken Tilt
Extension Specialist
University of Tennessee

The Tennessee nursery industry is noted for its field grown nursery stock, but many new growers are also getting involved in container production. Also, established nurseries are complementing their field operations with container production.

The first factor in determining the suitability of a site for producing plants in containers is the availability of large quantities of high quality water. The nursery must be designed to meet the demands for moving large quantities of water to and away from the site.

Growing plants in containers is totally different than producing them in the ground.

Soil has tremendous storage capacity for water and nutrients and naturally provides many of the nutrients required for good plant growth. Container plants are grown in an almost inert material, such as pine bark, which offers very little storage of water or reserve capacity of plant nutrients in comparison to our good earth. The artificial mixes have very few naturally available nutrients for plant growth. Therefore, all the nutrients and water must be provided at frequent intervals.

Irrigation water does offer traces of certain minerals. It is important to know these levels so the fertilization program can be adjusted. For example, if the water contains a high calcium content, less calcium would be added to the medium in the fertilization program.

Although many landscapers have expressed interest for growers to use some soil in their container mixes, it is very rare to see a commercial producer incorporate soil in a container

medium. The percent of clay and silt particle size fractions in the soil is too large to provide the optimum balance of water and air in the medium. The medium stays too wet and is very difficult to manage. Soil sources are too variable to get uniformity in a medium, with the resultant uniformity in plant growth. Therefore, pine bark or some other medium is used, which has large particles with less than 5 percent of the remaining bark falling within the clay or silt particle size range.

These large chunks of bark allow the medium good air space but very little water holding capacity. The water reserve in the pot is used up quickly. With the large open air spaces, very little lateral movement of water in the container goes to the roots. The roots take up the water only immediately within the surrounding area.

In a soil environment, a water gradient is created. Water moves to replace the water that was taken up by the roots. In a container medium, water cannot move fast enough from the surrounding pores to make up the deficit. Since there is limited water available, it must be replaced often.

In a container nursery 20,000 to 40,000 gallons of water are required per acre each day to provide adequate moisture to the plants. Eighty to 90 percent of this water falls between the pots or is leached out the bottom of the containers when overhead irrigation is used. This yields 16,000 to 36,000 gallons of water running off the nursery each day. Water accumulates in puddles and etches troublesome cuts in roadways and container areas. Drip

irrigation can be used but it has not proven economically feasible to install on containers less than a five-gallon size. Good planning is essential to handle the large volume of runoff.

Water you plan to use should be tested prior to purchasing land for a container nursery. If good quality water is not available, it is usually not economically feasible too modify it for

irrigation. There are a number of labs which provide water testing service. The University of Tennessee does not have this service, but help is available to analyze the water's suitability for irrigation of container plants.

The following table can serve as a guide to acceptable ranges from various water quality parameters.

**Parameters that Should Be Tested and
Desirable Ranges for Specific Elements in Irrigation Water**

Phosphorus (P)	0.005-5 mg/l
Potassium (K)	0.5-10 mg/l
*Calcium (Ca)	40-120 mg/l
*Sulfate (SO ₄)	24-240 mg/l
Magnesium (Mg)	6-24 mg/l
Manganese (Mn)	0.5-2 mg/l
Iron (Fe)	2-5 mg/l
*Boron (B)	0.2-0.5 mg/l
*Copper (Cu)	0-0.2 mg/l
**SAR	0-10
*Soluble Salts	0-0.75 mmhos/cm
Zinc (Zn)	1-5 mg/l
*Sodium (Na)	0-50 mg/l
Aluminum (Al)	0-5.0 mg/l
*pH	5-6.5
Molybdenum (Mo)	0-.02 mg/l
Chloride (Cl)	0-140 mg/l
Fluoride (F)	0-1.0 mg/l
Nitrate (NO ₃)	0-5.0 mg/l
Ammonia (NH ₃)	Undetermined
*Alkalinity	0-100 mg/l CaCO ₃

**Key parameters to be considered*

***The SAR value refers to the sodium absorption ratio.*

This value quantifies sodium levels in relation to calcium and magnesium levels in the water.

Reprinted from Tennessee Extension's Nursery Digest, and the North Carolina Nurserymen's Association Journal "Nursery Notes."

Atlantic Coast Camellia Clubs, Societies, and Shows

Aiken Camellia Club—President, W. Lee Poe, 807 Rollingwood Road; Secretary, Janet S. Burns, 1006 Alfred St., Aiken, S.C. 29801, (803) 648-0652. Meetings: Second Thursday, October through March, 7:30 p. m. at St. Paul's Lutheran Church, 353 Laurens St., N. W., Aiken, S.C. 29801, Show: January 21-22, 1989, USC - Aiken Students Activities Center.

Charlotte Camellia Society—President, Gloria B. McClintock; Secretary, J. Latimer McClintock, Jr., 1325 E. Barden Road, Charlotte, N. C. 28226, (704) 366-0207. Meetings: Last Monday each month except June, July and August, Amity Gardens Cafeteria, 6:30 p. m., Independence Blvd., Charlotte, N. C. Show: February 4-5, 1989, South Park Shopping Center, Fairview and Sharon Roads, Charlotte, N. C. Show Chairpersons: Walter D. Stone, III & Susan Stone, 5117 Amity Place, Charlotte, N. C. 28212, (704) 535-4115.

Chattanooga Camellia Club — Show: February 25-26, 1989, Chattanooga, Tennessee.

Coastal Carolina Camellia Society—President, Charles A. Bianchi; Secretary, Donna W. Shepherd, 4724 Park Place East, North Charleston, S. C. 29406, (803) 744-4841. Meetings: Third Tuesday, 7:00 p. m., August through February, except September and December. Meeting sites will be announced by Newsletter. Shows: November 19-20, 1988, First Federal of Charleston, 34 Broad Street, Charleston, S. C. Show Chairman: Charles H. Heins, 1854 Hutton Court, Charleston, S. C. 29407, (803) 766-8279. Second Show: January 28, 1989, Citadel Mall, Sam Rittenberg Blvd. (Hwy.7), Charleston, S. C. Show Chairman: Rupert E. Drews, 775 Sparrow Street, Charleston, S. C. 29412, (803) 795-2497.

Fayetteville Camellia Club—President, Jim Darden; Secretary, Nelson Condit, Rt. 1 Box 530, Aberdeen, N. C. 28315, (919) 944-1991. Meetings: Third Monday, September through May, Western Sizzlin Steak House, Raeford Road, Fayetteville, N. C., 6:00 p. m. Show: March 4-5, 1989, Cross Creek Mall, Fayetteville, N. C. Chairman; Jim Darden, Route 6, Box 504, Clinton, N. C. 28328, (919) 592-1424.

Mid-Carolina Camellia Club—President: Col. Dave Heriot, 7172 Caladonia Lane, Columbia, S. C. 29209, (803) 776-5973; Secretary, Mrs. Dwight S. Hollis, 336 Springwood Road, Columbia, S. C. 29206, (803) 787-1719. Meetings: Third Tuesday, September through April at Quincy's Steak House at the junction of Rosewood Drive Extension and Garner's Ferry Road, Columbia. Fall Show: October 29, 1988 in the Ellisor Building, State Fairgrounds. Chairman: Jack Teague, 7217 Teague Road, Columbia, S. C. 29209, (803) 776-0688. Spring Show: February 11-12 at Columbia Mall.

Middle Tennessee Camellia Society—President, Dr. Elsie Quarterman, 1313 Belmont Park Court, Nashville, Tennessee 37215; Treasurer, Mrs. A. B. Cooper, 4708 Granny White Pike, Nashville, Tennessee 37220, (615) 373-0842. Meetings: Second Tuesday, September through May (except December) at Tennessee Botanical Gardens at Cheekwood. 7:30 p. m. Show: March 4-5, 1989 at Cheekwood. Chairman: Robert Hershey, 862 Bresslyn Road, Nashville, Tennessee 37205, (615) 352-8262.

North Georgia Camellia Society—President, John T. Newsome; Secretary, Pam Slayback, 577 Greenwood Avenue, N.E. Atlanta, Georgia 30306, (404) 892-0695. Meetings: Second Friday, September through March, Atlanta Botanical Gardens, Piedmont Road at the Prado, Atlanta, Georgia, 7:00 p. m. Show: Atlanta Camellia Show, 3rd weekend in February, February 18-19, 1989, Atlanta Botanical Gardens, (404) 876-5858. Show Chairman: John T. Newsome, 2405 Howell Mill Road, Atlanta Georgia 30318, (404) 355-4478.

Camellia Society of North Florida—President, Mrs. Betty Taylor; Secretary, Mrs. Patricia Oglesby, 645 Winfred Drive, Orange Park, Florida, 32073, (904) 264-4388. Meetings: Fourth Sunday, September through March, except December, at Conference Room, Orange Park Library, Plainfield Avenue, 2:30 p. m. Show: December 3-4, 1988, Market Square Mall, 3637 Phillips Highway, Jacksonville, Florida. Show Chairman: Thomas W. Afams, 237 Adams Lane, Orange Park, Florida 32073, (904) 269-0854.

Piedmont Camellia Club—President, Johnny Lewis, P. O. Box 97, Trinity, N. C. 27370, (919) 431-3059; Secretary, Sylvia Watson, 3505 Tanglewood Drive, Greensboro, N. C. 27400, (919) 294-2467; Treasurer, Lester M. Allen, 917 Forest Hill Drive, Greensboro, N. C. 27400, (919) 299-2496; Show Chairman, Richard E. Michael, 707 Nance Drive, Thomasville, N. C. 27360, (919) 472-8733. Meetings: Second Monday, October to May, at St. Andrews Episcopal Church, 2105 West Market Street, Greensboro, N. C. 27400, 7:30 p. m. Show: March 11-12, 1989, Forum VI in Friendly Shopping Center, Greensboro, N. C.

Pioneer Camellia Society—President, Mr. Burnett Pettit, 714 Walker Avenue, Baltimore, Md. 21212, (301) 377-8119; Secretary, Zenobia Kendig, 1014 Chestnut Ridge Drive, Lutherville, Md. 21093. Meetings: First Sundays, September through May excluding January at the Cockeysville Library, Cockeysville, Md. Show date and Chairman to be announced.

Camellia Society of the Potomac Valley—President, William L. Miller, 1111 Archer Court, Alexandria, Virginia, 1-703-354-7184; Recording Secretary, Elizabeth B. Sette, 6017 Madawaska Road, Bethesda, MD 20816, 1-301-229-1307. Meetings: Second Sunday of October, November, December, February, March, and May, all at 2:30 p. m. except December (2:00 p. m.) at the U. S. National Arboretum, 3501 New York Avenue, N.E., Washington, D. C. 20002. Spring Show: April 8-9, 1989, U. S. National Arboretum. Show Chairman: Arthur A. Maryott, 4404 Maple Avenue, Bethesda, MD 20814, 1-301-654-5727. (We have informal Mini-Shows in any month that members have blooms to display.)

Tidewater Camellia Club—Show: February 25-26, 1989, Wilmington, N. C.

Valdosta Camellia Society—Show: November 19-20, 1988, Valdosta, Georgia.

Virginia Camellia Society—President, Douglas M. Simon; Secretary, Sally G. Simon, 508 Fairfax Avenue, Norfolk, Virginia 23507, (804) 625-0374. Meetings: Second Tuesday, September through May, except November, January, and February, 8:00 p. m. (except December, Potluck at 7:00 p. m. and May Picnic at 6:30 p. m.). Shows: November 12, 1988, Tower Mall, Portsmouth, Virginia. Show Chairman: Mercer Christian, 318 Orange Plank Road, Hampton, Virginia 23669, (804) 851-3553, Second Show: April 1-2, 1989, Norfolk Botanical Gardens, Norfolk, Virginia 23518. Show Chairman: Ann Schwarz, 1312 Taylor Point Road, Virginia Beach, Virginia 23454, (804) 481-6124.

West Carolina Camellia Society—Show: Greenwood, S. C.

Wilson Camellia Show—Show: February 18-19, 1989, Parkwood Mall, Wilson, N. C., Chairman: Joe Austin, P. O. Box 297, Four Oaks, N. C. 27524, (919) 963-2735.



The FAYETTEVILLE CAMELLIA CLUB Spring Picnic — Clinton, N. C., 1988

THE HORTICULTURAL PURSUIT OF SPRAYING

Luther W. Baxter, Jr., Susan G. Fagan, and Sally B. Segars

There are many horticultural practices that need to be mastered to successfully grow camellias. We need to learn about selection of varieties, the plants themselves, and the location for their growth; and about irrigation, pruning, fertilization, mulching, gibbing, propagation, and more. We need to learn about spraying - spraying to control insects, mites, weeds, and above-ground biological pathogens that cause disease. For below-ground pests, a knowledge about the practice of drenching is needed.

Spraying can be anything but fun. When we prune roses, for example, we may find a pretty rose that we can cut and share with a neighbor, but when we spray there are few side benefits.

A good sprayer can put the necessary chemical on properly with a minimum risk to us. Yet, there are limitations. I generate an inordinate amount of fear when people use sprayers for multiple purposes, particularly for applying herbicides such as Roundup and 2,4-D, two important herbicides, and when the same sprayer is used to apply materials to control mites, insects and fungal pathogens.

The practice of spraying needs to be synchronized with the biological activity of the pest we are trying to control. For example, scale insects are difficult to control, but if one understands their life cycle, they can be easily controlled; insecticides should be applied when scale insects are in the crawler stage, usually in mid-spring.

Spraying is fairly effective for controlling dieback and canker, a camellia stem disease caused by *Glomerella cingulata*, a fungal pathogen. Yet, there is more to spraying than putting the correct amounts of captan and benomyl in sprayers and then putting the water suspension on plants. The fungus is a wound pathogen; it normally gets into camellia tissue through leaf-scar wounds when it (the fungus) is active. Generally these two events happen simultaneously in the spring (usually late April to early June at Clemson) about the time that

new growth occurs. When the two fungicides, captan and benomyl, are used together, spraying at 10- to 14-day intervals is usually adequate and 3 to 4 spray applications are normally sufficient to protect vulnerable leaf-scar wounds from infection.

Wounds created by pruning and lawn mowers need to be protected for 2 to 3 weeks until wounds heal. If wounding of stems occurs in spring or summer, a particularly vulnerable time, plants should be sprayed the day of wounding and continued at 2-week intervals for 4 to 6 weeks.

Grafting creates wounds, so scions and stock need protection. This involves soaking scions in a captan-benomyl suspension for at least 30 minutes and then adding a generous amount of the fungicidal suspension to stocks as they are cut off and split in preparation for insertion of scions.

Whenever the practice of spraying is necessary, it should be done thoroughly, and at a time when the spray material will dry soon after application; otherwise there is danger of injury to the leaves because the longer the chemical stays in solution (wet, rather than dry) the greater the chance of injury (burning) to young leaves and stems.

Successful results from spraying is tied very closely with application at the right time of year (stage of growth of plant or pest) and the proper time of day (when drying conditions are good).

Usually, success is achieved with spraying camellias when one owns a good sprayer that is used for only fungicides, insecticides and miticides (not herbicides), when spray dates are marked on a calendar that is regularly observed, and when one generates the necessary energy, willpower and endurance on the days that spraying needs to be done.

"A spoonful of sugar makes the medicine go down," sings Julie Andrews in *Mary Poppins*. Perhaps a cup of "Irish coffee" would do the same for us; however, be sure to spray the camellias, not the magnolias.



Bill Redd and Peggy Charleton discuss Camellias with Fred Mayo at a pool party during the ACCS meeting in Myrtle Beach last fall. (Photo by Shepherd.)



Lena and Harry Watson are decked out for the Halloween banquet at the American Camellia Society meeting in Fayetteville last October. Photo by Shepherd.

LEAF-BUD CUTTINGS: APPLICATIONS AND LIMITATIONS

By Dr. Frank A. Blazich¹

Cuttings may be classified based on the part of the plant from which they are taken (e.g. stem, leaf, leaf-bud and root) and also the nature of the wood stage or degree of tissue maturity [e.g. hardwood, semi-hardwood, softwood (greenwood) and herbaceous (non-woody)]. The second scheme based on tissue maturity is the manner by which stem cuttings are generally classified.

The scheme which utilizes as a criterion the part of the plant from which the cutting is taken is a logical approach to classification and divides cuttings into four different types. Of these, three are commonly recognized (stem, leaf and root) despite only two being extensively used which are stem and leaf cuttings.

For a variety of reasons root cuttings are not widely utilized to propagate plants. However, if one mentions "root cutting" most individuals knowledgeable about various propagation procedures will be familiar with the term.

There is one type of cutting included in the scheme basing classification on the plant part of which many individuals have little or no knowledge. This particular cutting is a leaf-bud cutting.

A leaf-bud cutting consists of a leaf blade, petiole and a short section of stem with the attached axillary bud (Fig. 1). This type of cutting can be used to propagate particular woody (e.g. camellia, lemon and rhododendron) and herbaceous (e.g. jade plant and peperomia) plants.

For those species which can be propagated by leaf bud cuttings the approach offers a distinct advantage over the use of stem cuttings, particularly when propagation material is scarce. Leaf-bud cuttings have the potential to produce twice as many new plants from the same amount of stock material as can be started by stem cuttings. This is relatively simple to visualize because with leaf-bud cuttings each node on a stem having a well developed axillary bud can be used as a cutting whereas with stem cuttings each cutting usually consists of several nodes. For species with opposite leaves, two leaf-bud cuttings can be prepared from each node. The potential to produce more plants from a limited amount of stock material using leaf-bud cuttings in comparison to stem cuttings has been used by plant breeders specializing in such species as **Camellias** and **Rhododendrons** as a means to increase superior selections.

Preparation of leaf-bud cuttings is illustrated in Fig. 1. For woody species cuttings should be prepared from the current season's growth and treatment of the cut surfaces with a root-promoting compound such as indolebutyric acid (IBA) prior to insertion into the rooting medium will stimulate rooting. Also, when inserting a cutting into the rooting medium it should be placed at a depth such that the axillary bud is just below the surface of the medium (Fig. 1D).

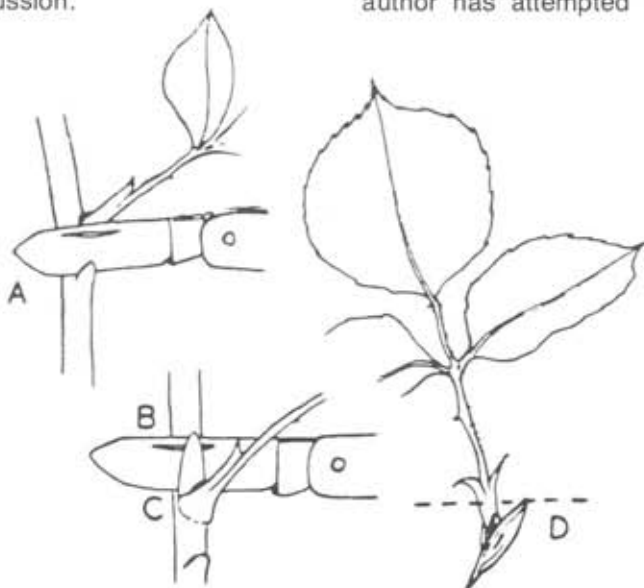
A critical factor when preparing leaf-bud cuttings is that each cutting must have an axillary bud. Failure to include an axillary bud will not prevent the

cutting from rooting. It will however, never develop into a plant because no potential shoot system as represented by the axillary bud is present. This type of situation is often observed by individuals growing jade plants (*Crassula argentea*).

Leaves on a jade plant will often fall from the mother plant onto the surface of the growing medium and root. Under most circumstances if the leaf does not have an attached axillary bud it will never develop into a plant because the axillary bud is not present. Normally a detached jade plant leaf will not regenerate a plant but there are instances when this can occur an explanation of which is beyond the scope of this discussion.

Another example of a leaf developing roots but never regenerating a plant can be observed with rhododendrons. If a rhododendron leaf is inserted into a suitable rooting medium it is not uncommon to observe root development on the petiole but similar to what was mentioned about leaves of the jade plant, the rooted rhododendron leaf will never develop into a plant because an axillary bud is not present.

Although an axillary bud must be present on a leaf-bud cutting, the bud must be well developed so that during or following rooting the bud will break and develop into a shoot. The importance of such a bud cannot be over-emphasized because on occasion the author has attempted to propagate



Leaf-bud cutting. The cutting is prepared by initially making a shallow cut (A) about one-half inch below the node. The knife is removed and a second shallow cut (B) is made about one-half inch above the node, the knife passing under the axillary bud (C) to meet the first cut (A). This results in a cutting consisting of a leaf blade, petiole and a short section of stem with the attached axillary bud. For woody species the short section of stem would consist of a thin slice of wood and bark. The cutting is inserted into the rooting medium at a depth indicated by the dotted line (D).

camellia (*Camellia japonica*) and rhododendrons by leaf-bud cuttings only to have many of the cuttings not break bud following rooting. In most cases lack of budbreak was the result of underdeveloped axillary buds but in other instances some buds which did not break were as fully mature as buds which did break and form shoots. This points out one of the major problems one often encounters when using leaf-bud cuttings which is failure of the axillary bud to break following rooting. This is particularly true for woody plants.

For an individual not familiar with leaf-bud cuttings, this type of cutting might seem like an interesting approach to propagate certain plants. This author however, feels that unless

stock material is scarce one would be well advised to use stem cuttings or some other means of vegetative propagation. This is based on personal experiences by the author and those of others reported in the literature. On the other hand, if propagation material was limited and use of leaf-bud cuttings was warranted it would be wise to initially conduct some studies to determine the potential of using leaf-bud cuttings to propagate a particular species and to ascertain the extent of axillary bud development necessary to achieve satisfactory budbreak during or following rooting.

¹Associate Professor, Department of Horticultural Science, North Carolina State University, Raleigh, N. C. 27695-7609.

Reprinted from Nursery Notes, journal of the North Carolina Association of Nurseryman, March-April, 1986, Vol. 20, No. 2.



This was the scene in Massee Lane on June 19th of this year. The new Fetterman Museum is underway, and very impressive according to Bill and Donna Shepherd. Let's all support this extraordinary project. (Photo by Shepherd.)



Show time will soon be here!! These judges are hard at work at the Charlotte show last February. Left to right: Buddy Cawthon, Elliott Brogden, Mildred Robertson, Kathryn Allen and Tyler Mizzell.



Jim Pinkerton surveys a magnificent sight at the Wilson Camellia Show in Wilson, N. C. in February.



Searching the world for new Camellias on the cruise ship, Song of America are, clockwise from the bottom, Bill and Mildred Robertson, Buck and Tyler Mizzell, Clara Hahn, two Camellia supporters, Fred Hahn, Elliott and Lawanda Brogden, and Bonnie and Geary Serpas. (Photo provided by Mildred Robertson.)

Update—When Chip Hope of our Charlotte Club wrote his article for this journal in the spring of last year his wife, Elizabeth, was overdue with their first child. Here is the proud Mama with the result—Julia May. Great job Chip!! (Photo by Shepherd.)



WILSON CAMELLIA SHOW

February 20-21, 1988

Sweepstakes	Parker Connor, Jr.	Edisto Island, S. C.
Best Japonica Bloom (Unprotected)	<i>Helen Bower</i>	Parker Connor, Jr. Edisto Island, S. C.
Best Small Japonica Bloom (Protected)	<i>Jesse Connor</i>	Clara & Fred Hahn Charlotte, N. C.
Best Large to Very Large Japonica Bloom (Protected)	<i>Elegans Champagne</i>	Joe Austin Four Oaks, N. C.
Best Medium Japonica Bloom (Protected)	<i>Margaret Davis Picotee</i>	Clara & Fred Hahn Charlotte, N. C.
Best Hybrid (Protected)	<i>Pink Dahlia</i>	Clara & Fred Hahn Charlotte, N. C.
Best Reticulata (Protected)	<i>Curtain Call</i>	Doris & Robert Fowler Lumberton, N. C.
Best Collection	Five Different Varieties (Protected)	Joe Austin Four Oaks, N. C.
Best Collection	Three of Same Variety (Unprotected)	Mr. & Mrs. J. K. Blanchard Wallace, N. C.
Best Collection	Three of Same Variety (Protected)	Fred Hahn Charlotte, N. C.
Best Seedling	Doris & Robert Fowler	Lumberton, N. C.
Best Miniature	<i>Ann Clayton</i>	Lena & Harry Watson Charlotte, N. C.

Court of Honor

<i>Tiffany</i>	Parker Connor	Edisto Island, S. C.
<i>Man Size</i>	Lena & Harry Watson	Charlotte, N. C.
<i>Miss Charleston Var.</i>	Parker Connor	Edisto Island, S. C.
<i>Elegans Supreme</i>	Parker Connor	Edisto Island, S. C.
<i>Diddy Mealing</i>	Fred Hahn	Charlotte, N. C.
<i>Tomorrow Var.</i>	Robert Fowler	Lumberton, N. C.
<i>Charlean</i>	Bobby Steubenrauch	Charleston, S. C.
<i>Lasca Beauty</i>	Joe Austin	Four Oaks, N. C.
<i>Silver Cloud</i>	Robert Fowler	Lumberton, N. C.

AN INVITATION TO JOIN

We hope that you will join the Atlantic Coast Camellia Society. Let's enjoy Camellias together.

The Atlantic Coast Camellia Society was organized September 13, 1980 at Myrtle Beach, South Carolina. The purpose of our organization is to extend the appreciation of Camellias and to promote the science of Camellia culture. Through our Camellia shows and programs, and by exchanging knowledge and ideas with the Camellia specialists within our membership, we feel that everyone in the ACCS benefits from being a member of this organization. Whether you are a beginning Camellia fancier or a veteran Camellia competitor, the ACCS is dedicated to providing information, shows, and social events that you will find helpful, entertaining, and enjoyable.

Annual dues for membership in the ACCS are \$10.00 for singles or couples. The membership year runs from September to September. A membership entitles you to three issues of Atlantic Coast Camellias, the journal of the Atlantic Coast Camellia Society. These are issued January 1 (spring), May 1 (summer), and September 1 (fall). In addition, your membership provides an invitation to our annual meeting in October in Myrtle Beach, S. C. This event has been especially successful in recent years, with over 100 participants in 1986, and with such keynote speakers as Julius Nuccio and Sergio Bracchi.

A variety of Camellia topics are addressed in articles published in Atlantic Coast Camellias. In addition to regular features concerning Camellia culture in the landscape and in the greenhouse, articles cover such topics as Camellia planting, grafting, rooting, judging, pruning, gibbing, disease control, insect control, new and old varieties, show preparations and results, liming, fertilization, spraying, mulching, disbudding, and nursery production. Numerous photographs and illustrations are provided.

We invite you to join, and welcome you as a member. Please make your check payable to the Atlantic Coast Camellia Society. Fill out the convenient application blank below, and mail it to:

Atlantic Coast Camellia Society
1325 East Barden Road
Charlotte, N. C. 28226

NAME _____

STREET ADDRESS _____

CITY _____ STATE _____ ZIP _____

PHONE () _____

Check if you want a membership card.

ANNUAL MEETING OF THE ATLANTIC COAST CAMELLIA SOCIETY

Our annual meeting is scheduled again this year to be held in Myrtle Beach, South Carolina on September 30-October 1, 1988. Much of the program has already been planned while some of the "surprises" are still on the drawing board. Mark your calendar now and join us for this interesting and educational event.

DATE: September 30 - October 1, 1988

PLACE: Independent Holiday Inn
1200 North Ocean Boulevard
Myrtle Beach, S. C. 29577
Telephone: 1-803-448-1691

COST: Registration Fee \$22.00
per person
Hotel Room: \$32.00/night
Double Occupancy

SCHEDULE OF EVENTS

Friday, September 30, 1988

2:00-5:00 Registration

3:00 Meeting of ACCS Officers and
Directors — Room 301

6:00 St. Patrick's Day Party by the
pool - Bring your **green**. Buffet
foods furnished by our
members. Drinks furnished by
ACCS

Saturday, October 1, 1988

10:00 AM Bloody Mary Party at Myrtle
Beach Elks Club, hosted by
Mr. and Mrs. Richard Waltz.

11:00 AM General Business Meeting

7:00 PM Open Bar at Myrtle Beach
Elks Club furnished by
ACCS, followed by the
Annual Banquet. Guest
Speaker - Dr. Luther Baxter

After dinner activities will include a raffle, a plant auction conducted by "Robertson Mizzell and Friends" and a slide show by Marion Edwards.

Last year over 100 members gathered in Myrtle Beach for the annual meeting. Make plans now to attend. A letter will be forthcoming from ACCS soon with more of the details. This year's meeting should be the best ever. Let's all plan to be there September 30 - October 1, 1988.

ATLANTIC COAST CAMELLIA SOCIETY

Jim Darden, Editor

Route 6, Box 504

Clinton, N. C. 28328



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