The Camellia Journal

Mrs. R. L. Wheeler

AN OFFICIAL PUBLICATION OF THE AMERICAN CAMELLIA SOCIETY
VOL. 17, NO. 3 JULY, 1962

It's Fun to Belong to

THE AMERICAN CAMELLIA SOCIETY

NOWHERE ELSE CAN YOU GET SO MUCH FOR YOUR MONEY . . .

★ 5 ISSUES OF THE CAMELLIA JOURNAL—September, November, January, March, July.

★ A 350 PAGE CLOTH BOUND YEARBOOK published annually and distributed to the members just before Christmas.

★ AN ANNUAL CONVENTION where members meet their friends and make new ones in a spirit of congenial fellowship.

★ A FALL MEETING of outstanding programs and entertainment.

KING AND QUEEN OF SLIDELL SHOW

★ LOCAL SOCIETIES—

Assistance in planning programs.
Slide collections of new varieties available for local Societies, including Garden Clubs.
Registration of New Varieties without cost.

★ WHERE TO BUY—

Advertising covers a wide variety of items, including all the new varieties, plants and scions.

★ REGULAR FEATURES OF THE JOURNAL—

Greenhouse culture, show dates, Rules for Shows, Camera clinic.

★ SPECIAL FEATURES—

The July Journal carries a book length feature on greenhouse culture of camellias. The November Journal will carry a book length feature on How to Stage a Camellia Show. These are extra dividends to members. An even larger membership will enable us to declare such dividends frequently.

★ AWARDS—

The Society provides Awards and Certificates for each of the Camellia Shows each year.
Gold Certificate for most Blue Ribbons.
Silver Certificate for runner-up in Blue Ribbons.
Certificate of Merit for Outstanding Blooms in Show.
Certificate of Merit for Outstanding Arrangements.
Highly Commended Seedling Certificate for Outstanding Seedlings.
Administers the Ilges, Peer, Harris and Sewell Awards.

The 1962 Year Book will carry a condensed report of its Annual Camellia Rating Committee, covering 75 old and new varieties.

Fall Meeting In Gulfport, Miss.

November 29, 30—December 1

The American Camellia Society's Governing Board has accepted the invitation of the Gulfport Men's Camellia Society to hold its Fall meeting in Gulfport, November 29, 30 and December 1, 1962.

Headquarters will be the beautiful and spacious Edgewater Gulf Hotel, directly on the Gulf of Mexico at Edgewater Park, Miss.

At the Annual meeting in Charleston invitations were extended to hold the meeting in Washington, D. C., Jacksonville, Albany and Gulfport.

These Fall meetings have developed into something much more than a business meeting of the Governing Board. All members are urged to attend and for the past few years several hundred members have enjoyed the fine fellowship and entertainment.

The Gulf Coast offers much in the way of beauty, entertainment, camellias and fine camellia people. Gulfport is convenient to a large segment of our membership from Texas to the Atlantic Coast. There is every indication that this will be the largest and best Fall meeting yet.

Details of the entertainment to be provided will be contained in the September Journal. Rates at the Edgewater Gulf Hotel are very reasonable although accommodations are excellent. Rates are $6 to $15 single or $9 to $18 twin, also deluxe parlor suites.

Mr. Robert Leeton, 615 Lewis Avenue, Gulfport, is the new President of the Gulfport Men's Camellia Society, our host.

New Pacific Coast Directors-at-Large

WOODFORD F. HARRISON, Berkeley, California

MAYNARD MUNGER, Fresno, California

—ACS—

Leaves Valuable Books to ACS

In the Summer Supplement to the American Camellia Journal of 1960 we listed some of the books in the ACS Library, including the rare 12 volume Verschaffelt *Nouvelle Iconographie des Camellias,* donated by Mr. and Mrs. S. J. Katz several years ago. Upon reading this, Mrs. Jeanne Kerr (Mrs. Udo M.) Fleischmann of New York and Welaunee Plantation, Tallahassee, wrote that she was leaving her set of the very rare 3 volume Berlèse: *Iconographie du Genre Camellia* to the ACS upon her death. This includes 300 exquisite colored plates.

Mrs. Fleischmann died in March 1962 and the executors of her estate have delivered the Berlèse *Iconographie* published in Paris in 1843 to the ACS Headquarters. In addition to this valuable camellia classic, an imperfect set of which was recently quoted by a London rare book dealer at $5,600.00, she also gave us the second edition of Berlèse's *Monographie du Genre Camellia,* published in 1840. Still another gift from Mrs. Fleischmann is Chandler and Booth: *Illustrations and Descriptions of the Plants which Compose the Natural Order Camelliae and of the Varieties of Camellia Japonica Cultivated in the Gardens of Great Britain,* published in London in 1831 with 40 colored plates. The latter is valued at $1,500.00.

Mrs. Fleischmann stipulated that no mention of her generous gift was to be made until after her death. She was a Charter Life Member of ACS.

With these valuable additions, the American Camellia Society now has one of the outstanding libraries of camellia literature. There are still some important gaps in our library but great progress has been made in the past few years. Among recent camellia works not in our library are Waterhouse: *Camellia Quest;* Hume: *Camellias in America,* 1946 Edition; Johnson: *Rhododendrons, Azaleas, Magnolias, Camellias and Ornamental Cherries,* London, 1948, and Phelps; *A Camellia Note Book,* 1940. All are now out of print. There are a number of other older books on camellias which we still do not have.

Another welcome addition to the ACS Library is "The American Flora" by A. B. Strong, published in New York in 1851. This volume is illustrated with seventy colored plates, one of which is of the Japan Rose or Camellia japonica. Five varieties are described. This is a gift from Mrs. Annie H. Thomas of Dawson, Ga.

President's Message

C. W. FARMER

Friends all over the Camellia World mourn the passing of Judge Arthur W. Solomon who passed away on April 22nd. He was the second President of American Camellia Society and ACS virtually had its beginning at a dinner given by Judge Solomon in Savannah in 1945. Beside the many things that he did for Camellias and Camellia people, he was loved and admired in his own right, as a friend with a store of Camellia knowledge and of keen mind and excellent character. Judge Solomon will long be remembered as one of the Founders of American Camellia Society.

This July Edition of the Journal is the beginning of a regular fifth issue of this publication. We are also publishing Greenhouse Culture of Camellias and later a Handbook of Show Procedures. These extra bonuses are brought about by a 16 per cent increase in membership last year.

Please notice that elsewhere in this edition three life memberships are to be awarded in a membership drive contest.

Big things are being planned for your entertainment at the Fall Meeting in Gulfport, Mississippi, November 29, 30 and December 1.

About Our Cover Flower, Mrs. R. L. Wheeler

Carl Wheeler of Central Georgia Nurseries, Macon, Georgia, along with his father, R. L. Wheeler, have originated some of the top camellia varieties of recent years. R. L. WHEELER, an Illges Medal winner, has stood the test of time against some of the newer varieties. MARY WHEELER, DIXIE KNIGHT variegated, MARY ANNE HOUSER, LADY MACON, REBEL YELL and many others were originated by the Wheelers.

Carl has been seeking a seedling of equal merit, worthy of bearing the name of his mother. He has just registered his seedling 347 as MRS. R. L. WHEELER. The 4 to 4 1/4 inch flower is full centered, formal double as in ALBA PLENA. The color is an exquisite light pink with occasional deeper pink markings. It is a midseason bloomer and has exceptional holding qualities. A sturdy symmetrical plant.

------ACS------

Why a Fifth Journal?

The old American Camellia Quarterly was issued in January, April, July and October. When the Journal superseded the Quarterly, the July issue was deferred until September and the October issue to November. We soon found that some sort of publication was still needed in midsummer, so a supplement of 4 pages was issued in June, 1960, and 6 pages in July, 1961. There is so much information that should go to our members at the end of the season that the full July issue is being reinstated and at the same time the September Journal is being continued.

------ACS------

Gulf Coast Camellia Society

An announcement has just been made that should be of great interest to all Camellia growers in the Gulf Coast States. The organization meeting of the Gulf Coast Camellia Society will be held on August 5, at 11:00 A. M. at the Roosevelt Hotel in New Orleans. More than 1,000 Camellia enthusiasts are expected to attend.

All inquiries should be directed to Jake Nowak, 13 Thrasher St., New Orleans, who is acting as secretary.

OFFICIAL PUBLICATION OF THE AMERICAN CAMELLIA SOCIETY

JOSEPH H. PYRON
Executive Secretary–Editor

Address Communications to:

Secretary, American Camellia Society, P. O. Box 465, Tifton, Georgia.

Phones: **Area Code 912**
Office—382-5561, Ext. 24
Residence—382-5294

Issued January, March, July, September and November from the office of the Secretary of the American Camellia Society, Box 465, Tifton, Ga.

Entered as second class matter September 1, 1960, at the Post Office at Tifton, Ga., and additional office of entry, under Acts of August 24, 1912.

A membership in the American Camellia Society will bring you a bound Yearbook and five issues of **The Camellia Journal.**

Annual Members—$6.00 Sustaining Members—$12.00; Life Members—$125.00; Patrons—$100.00 gift to ACS in addition to Life Membership. Make payment to American Camellia Society, Box 465, Tifton, Georgia.

Members in Foreign Countries may pay their dues through one of our representatives:

G. H. Pinckney
% John Waterer Sons & Crisp, Ltd.
Twyford, Berks, England. (£ 2. 3. 0.)

Hazlewood Bros., Pty. Ltd.
Box 1, Epping, N. S. W., Australia

Felix M. Jury
Takorangi, Waitara, Taranaki,
New Zealand

© 1961 American Camellia Society. Articles may not be Republished Without Permission of the Author and the Editor.

The Camellia Journal

AMERICA'S LARGEST PUBLICATION DEVOTED TO THE GENUS CAMELLIA

Volume 18 | Number 3 | July, 1962

TABLE OF CONTENTS

Page

List of Show Dates 4

Outstanding Camellias in Shows 4

GREENHOUSE CULTURE OF CAMELLIAS:

Foreword—George M. Wheeler 5

A Beginner Builds a Greenhouse—Dr. Jack Davis 6

Let's Grow Camellias Under Protection—Fred W. Johnson 7

So—After 25 Years I Weakened—Aubrey C. Harris 8

Some Mistakes I Have Made—Clyde X. Copeland 9

My Greenhouse Story—Dr. W. F. Mathis 10

Suggestions for Greenhouse Culture—Archie Hamil 12

Greenhouse Management—Dr. Walter F. Homeyer, Jr. 13

The Barn Door—But It is Never Too Late—Marjorie Washburne 18

From Frustration to Fulfillment—Mrs. Webb Brunson 21

A Nurseryman's Greenhouse—Robert D. Eiland 24

Greenville, S. C. Speaks for Greenhouses 27

My Camellia Houses—Capt. J. H. Brooks 28

Our Hobby Pays Dividends—Lewis and Mary Knock 30

"I Would Like to Have a Greenhouse, But—"—Mansfield Latimer 31

A Custom Made Greenhouse—Stewart C. Forbes 33

Why I Built A Greenhouse—Mark S. Cannon 33

Some Pointers by a Greenhouse Enthusiast—Mrs. Frank Dowd 36

A Greenhouse Will Pay Dividends—Dr. D. M. Rivers 37

Growing Camellias under Plastic—Ferol Zerkowsky 39

Make Your Own Redwood Tubs—Dr. Robert T. Cale 41

Do-it-yourself Plastic Greenhouses—L. T. Leitner 43

Membership Contest Rules 45

At Long Last—A Yellow Camellia 45

The 1962-1963 Arrangement Contest—Mrs. Hudson Malone 46

International Camellia Society 47

Pacific Coast Elections 47

In Memoriam 48

ACS Slide Collections 48

OFFICERS AND DIRECTORS

PRESIDENT

C. W. FARMER, Macon, Ga.
524 First National Bank Bldg.
Phone SH 2-6641

PRESIDENTS EMERITUS

H. Harold Hume, Gainesville, Fla.
Main Library, University of Florida

S. L. Marbury, Wilmington, N. C.
P. O. Box 1450

Hoyt W. Lee, Mobile, Ala.
3904 Camellia Drive

SENIOR VICE-PRESIDENT

L. C. Wannamaker, Cheraw, S. C.
P. O. Box 350

VICE-PRESIDENTS

Al Parker, Temple City, Calif.
6121 N. Rosemead Blvd.

Hal Hayward, Jackson, Miss.
4738 Clinton Blvd.

S. H. Hackney, Charlotte, N. C.
Rt. 2, Box 649-D

TREASURER

T. J. Smith, McRae, Ga.
P. O. Box 246

ASSISTANT TREASURER

Mrs. T. J. Smith, McRae, Ga.

EXECUTIVE SECRETARY-EDITOR

Joseph H. Pyron, Tifton, Ga.
Box 465 or 508 W. 8th Street

DIRECTORS-AT-LARGE

S. L. Marbury, Wilmington, N. C.
P. O. Box 1450

H. E. Ashby, Charleston, S. C.
1372 N. Edgewater Drive

Mrs. S. J. Katz, Covington, La.
P. O. Box 896

Aubrey C. Harris, Shreveport, La.
420 Milam St.

Maynard Munger, Fresno, California
5140 N. Fruit Ave.

Woodford F. Harrison, Berkeley, Calif.
910 Oxford Street

STATE DIRECTORS

Charles R. Butler, Mobile, Ala.
2401 Venetia Road

C. E. Sharpe, Texarkana, Ark.
2124 Glendale Avenue

Caryll W. Pitkin, San Marino, Calif.
2465 Sherwood Road

Mrs. John W. Freeman, Orlando, Fla.
1101 Edgewater Drive

Spencer Walden, Jr., Albany, Ga.
1201 Pinecrest Drive

Ernest A. Judice, New Orleans, La.
2113 N. Claiborne Avenue

Milton H. Brown, McLean, Va.
3819 Saigon Road

Fred W. Johnson, Jackson, Miss.
432 Pine Ridge Road

Frank Dowd, Charlotte, N. C.
1400 North Carolina National Bank Building

Albert E. Johnson, Beaverton, Ore.
4745 S. W. 139th Ave.

Mansfield Latimer, Rock Hill, S. C.
P. O. Box 2661

Horace N. Smith, Memphis, Tenn.
105 Commerce Title Building

George DuBrul, Dallas, Texas
3431 Lovers Lane

Alison J. Parsons, Norfolk 2, Va.
P. O. Box 12328

Mrs. G. W. Tritle, Seattle 66, Wash.
2656 S. W. 172nd Avenue

LIST OF SHOW DATES

Place and Sponsor	*Date*
Alexandria, Louisiana, Men's Camellia Club of Central Louisiana	November 17-18, 1962
Columbia, South Carolina, South Carolina Camellia Society, Inc.	November 17-18, 1962
Gainesville, Florida, Gainesville Camellia Society	January 12-13, 1963
Orlando, Florida, The Camellia Society of Central Florida	January 12-13, 1963
Jacksonville, Florida, Men's Garden Club of Jacksonville	January 19-20, 1963
Thomasville, Georgia, Thomasville Garden Club, Inc.	January 19-20, 1963
Alexandria, Louisiana, Men's Camellia Club of Central Louisiana	January 19-20, 1963
Port Arthur, Texas, Men's Garden Club of Port Arthur	January 19, 1963
Jacksonville, Florida, The Garden Club of Jacksonville, Florida, Inc.	January 26-27, 1963
Lafayette, Louisiana, South Louisiana Camellia Society	January 26-27, 1963
Laurel, Mississippi, Laurel Men's Camellia Society	Jannary 26-27, 1963
Beaumont, Texas, The Men's Garden Club of Greater Beaumont	January 26-27, 1963
Cairo, Georgia, Council of Garden Clubs of Cairo	February 2-3, 1963
Slidell, Louisiana, Ozone Camellia Club	February 2-3, 1963
Moss Point, Mississippi, Moss Point Men's Camellia Club	February 2-3, 1963
Birmingham, Alabama, Men's Camellia Society of Birmingham and Bessemer	Febrnary 9-10, 1963
Angusta, Georgia, Angusta Council of Garden Clubs in cooperation with the Georgia Railroad Bank	February 9-10, 1963
New Orleans, Louisiana, New Orleans Men's Camellia Club	February 9, 1963
Tyler, Texas, Tyler Camellia Clnb	February 10, 1963
Lafayette, Louisiana, Louisiana Camellia Society	Febrnary 16-17, 1963
Gulfport, Mississippi, Gulfport Men's Camellia Society, Inc.	February 16-17, 1963
Jackson, Mississippi, Jackson Camellia Society	February 16-17, 1963
Summerville, Sonth Carolina, Snmmerville Camellia Society	February 16-17, 1963
Fort Worth, Texas, Fort Worth Camellia Society	February 16-17, 1963
Meridian, Mississippi, Meridian Camellia Society	February 23-24, 1963
Whiteville, North Carolina, Whiteville Camellia Society	February 23-24, 1963
Wilmington, North Carolina, Tidewater Camellia Clnb	February 23-24, 1963
Shreveport, Lonisiana, Men's Camellia Club of Shreveport, La., Inc.	March 2-3, 1963
Greenville, South Carolina, Men's Garden Clnb of Greenville	March 2-3, 1963
Charlotte, North Carolina, Men's Camellia Clnb of Charlotte	March 9-10, 1963
Clinton, North Carolina, Coharie Men's Garden Club	March 9-10, 1963
Memphis, Tennessee, Memphis Camellia Society	March 9-10, 1963
Greensboro, North Carolina, Men's Piedmont Camellia Clnb	March 16-17, 1963
Elizabeth City, North Carolina, Men's Horticultural Society of the Albemarle	March 23-24, 1963
Norfolk, Virginia, Virginia Camellia Society	March 23-24, 1963

OUTSTANDING CAMELLIAS IN SHOWS DURING 1961-62 SEASON

The past season's winners of outstanding Japonica in Show were scattered among 37 varieties. It is interesting to see an old favorite VILLE DE NANTES again in top place after being further down the list for several years. Those winning three or more certificates are listed below:

	VILLE DE NANTES	11
	TOMORROW (Incl. varieg.)	8
	TOMORROW'S DAWN	7
Tie for Fourth	DONCKELARII	6
Tie for Fourth	GUILIO NUCCIO	6
Tie for Fifth	DRAMA GIRL	4
Tie for Fifth	REG RAGLAND	4
Tie for Sixth	CARTER'S SUNBURST	3
Tie for Sixth	EMMETT BARNES	3
Tie for Sixth	MRS. D. W. DAVIS	3
Tie for Sixth	WILDWOOD	3

Among the Reticulatas:

CRIMSON ROBE	11
BUDDHA	3
TALI QUEEN	3
NOBLE PEARL	3

Greenhouse Culture of Camellias

The special section on *Greenhouse Culture of Camellias* in this issue fulfills a long felt need for such information.

George Wheeler of Birmingham, one of our most successful greenhouse growers, was contacted by President Farmer and your Secretary-Editor last winter concerning the feasibility of such a project. We felt that a wealth of information could be contributed by growers in various sections of the United States. Mr. Wheeler agreed to coordinate and edit this material. Many people have come to our aid and as a result an outstanding contribution to camellia knowledge has been made.

This special publication was approved by the Governing Board at its Charleston meeting in February.

We discussed the cost of a separate booklet with our printer. We found that the several thousand dollar cost would necessitate charging the members for the publication. We then decided to publish the work as a special section of the July Journal and thus give it to each member, with ACS absorbing the extra cost.

In the past, many members have dismissed the idea of a camellia greenhouse as being too costly. We have endeavored to secure cost estimates of do-it-yourself greenhouses covered with several types of plastic film and rigid fiberglass reinforced materials, also of steel framed glass houses available from manufacturers.

We hope this will encourage growers even in temperate and sub-tropical areas to erect greenhouses. Many are already planning to do so in the Gulf Coast area which was hit by the worst freeze in history this past winter. This should also extend the growing of camellias to every state of the union. There is now no reason why Michigan, Illinois and other northern states should not grow greenhouse camellias as well as Richmond, Charlotte, Atlanta, Birmingham and other "greenhouse" cities.

Greenhouse Culture of Camellias

A Symposium

Edited by

GEORGE M. WHEELER

FOREWORD

This issue of the Journal is devoted primarily to greenhouses and greenhouse culture. The idea was conceived by Mr. Farmer and Mr. Pyron during our Birmingham show last winter. Since I was innocently standing by and the first one Mr. Farmer saw, I was told that I was to be editor for this issue. It just goes to prove that you should go home when the party is over.

The purpose of this issue is twofold . . . to persuade more people to build greenhouses and to help them and others just starting, with proper cultural practices. We believe these articles contain ideas and suggestions that can be adopted advantageously by growers of long experience as well. All types of houses are included to fit any pocketbook . . . from a hundred or so dollars to whatever you wish to spend. A greenhouse need not be a rich man's hobby by any means . . . hundreds of us offer proof of that.

No effort has been made to reconcile the articles so that views of individual growers will be in agreement . . . there is no one way to successfully grow healthy bushes and beautiful blooms. Thus you may choose the ideas best suited to you or your location and be assured that they will work as they have for the authors. On the other hand, you will find many ideas in complete agreement . . . and this is good for it proves that idea to have been tested by many growers in varied locations, so it has to be the right one to have been adopted universally.

I wish to express my personal thanks to all those who have contributed to this issue for they have all devoted a lot of thought and time, not to help themselves but to be of service to you and camellias. These are the people who make growing camellias the wonderful hobby it is. I wish to thank Dick Ward, a Birmingham greenhouse grower, for his help in obtaining several articles, and for his assistance with the editing. Also, our Secretary, Joe Pyron, has done everything I have asked of him, and more.

All of us participating in this issue have but one aim —the building of more greenhouses by our members. If it accomplishes this goal so that you may get the most possible enjoyment from our mutual hobby, we will feel that we have been repaid many times over.

GEORGE M. WHEELER,
Birmingham, Ala.

A Beginner Builds a Greenhouse

DR. JACK DAVIS, Tuscaloosa, Ala.

In the late winter of 1957 I was enticed by an old friend into going with him to another Tuscaloosa home to see "something pretty".

The mutual friend whose premises we were invading was on a trip around the world but we knew we were welcome at his home. We went into the back lot and opened the door of a little greenhouse. And there, hanging on an unhealthy looking bush in a clay pot was a gorgeous pink and white flower that almost literally bowled me over. It was a beautiful specimen of Mary Ann Houser.

That's when I got my first bite from the camellia bug. Since that time my friend whose flower I admired has built a second and much bigger greenhouse, I have gone through the yard stage of camellia growing, and last fall I built a greenhouse.

The new greenhouse cost as much as a medium-priced automobile, but it will last much longer. My uninitiated friends, with raised eyebrows, ask me how I am going to make the new greenhouse pay for itself. Well, it probably already has, in the pleasure my family and I have had from it. And I believe I will live longer, happier, because I have it to sustain a relaxing hobby that is a perfect off-hour activity to go along with the profession of dentistry.

When we built our home five years ago, the landscaping plan called for five camellia plants, the first ones we had owned. I became mildly interested. In 1960 I learned to graft. Such terms as cambium layer, scions and Guilio Nuccio sounded strange. I tried four grafts at first and had four takes. Although I know now that this was strictly beginner's luck, my success set me on fire.

The next few months I purchased more plants and, as advised, watered weekly, fertilized with cotton seed meal in February and June, disbudded in the early fall and used Florida Volck before the weather was too cold. Buds on my Daikaguras began to swell, along with my pride. They bloomed beautifully.

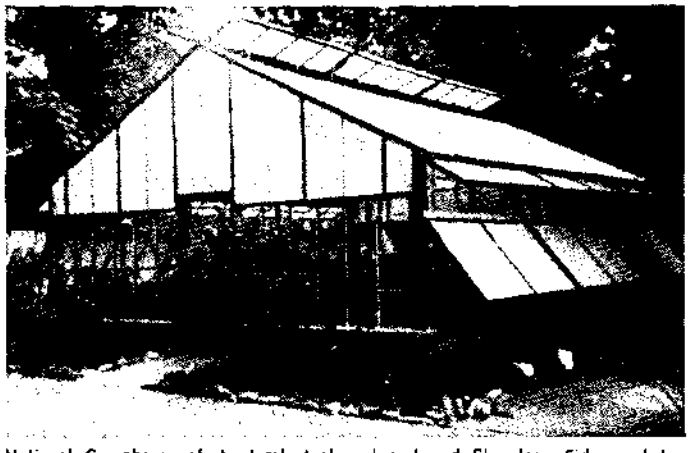
Along with the bloom came a great sense of satisfaction. This was a nice, easy hobby. Everything I had done had worked. But then it came: freezing weather. This loss of a few blooms was not too disappointing, other buds would tighten up. They were tight, all right, but when they opened they were variegated pink and white, like their early-bird mates—and brown.

I fell back in hopes of three hardy mid-season varieties. But snow, ice, and intense cold, that always seemed to come just as the buds were beginning to show enough courage to open, laid the weather lash on my low spirit without mercy.

A few days later a friend came over to compare his cruelly-browned blossoms with mine. While we were taking turns crying on each other's shoulder, we came across a Pope Pius in a protected location that had opened and looked reasonably good. It, by some miracle, had escaped the cold and my five-year-old son's informal disbudding program.

My friend wanted to take the flower to the Birmingham show. He did, entering it in the small collection of blooms grown outdoors. Since we had a part in the show my wife and I decided to attend. We might not have otherwise.

To our delight, we discovered a blue ribbon beside our bloom. We were proud, but what we saw was startling. My bloom, with its decoration of blue, was puny when compared with the greenhouse specimens. Such color, texture and size in so many varieties taught me that a greenhouse is a necessity for really outstanding blooms in this area.



National Greenhouse of structural steel, redwood and fiberglass. Sides and top raise for ventilation, automatically controlled by thermostat. MRS. FRED NEESE, High Point, N. C.

During the next few weeks I ordered catalogues, joined the American Camellia Society, talked with Tuscaloosa nurserymen and two local friends who had built camellia houses. Then I was ready to try to convince my wife that a greenhouse was a good way to invest some money we didn't have.

For a week or so I constantly stressed the strain of my work, the need of a relaxing hobby and occasionally mentioned a greenhouse as a possibility, in a casual sort of way. She tired of my dramatics after a week or so, probably knowing all along just what I was up to. The big moment eventually came. She sweetly suggested that she didn't see why, with my love of camellias, we didn't build a greenhouse.

As I quickly pulled greenhouse catalogues from secret hiding places, I recall that she added something about working with nature, the good earth and a few words that sounded vaguely as if she was suggesting that as of late I was about to drive her and the children out of their minds.

The financial problem was an easy one. I called the bank and they agreed to lend me the money. Birming-

ham greenhouse owners, all hospitable and cordially helpful, suggested that I build as large a house as I could finance and that the location be selected so that future additions could be made. They were right when they said a greenhouse is never big enough.

With the help of my brother-in-law, an architect and contractor, I began studying. A lean-to for the end brick wall to our house was the first idea, but ruled out because of too much filling and septic tank problems. Then for several weeks we worked with plans which would architecturally blend with our home.

Whatever we considered, we always seemed to come back to a factory-made house especially for camellias. It was durable, it could be enlarged, it had been recommended by owners. The model we chose is manufactured by National Greenhouse Company and is 24.5 feet wide by 34.75 feet long, with one roof vent. We chose glass over fiberglass because it was cheaper. The house complete, with framework, glass, bar caps and pipe support for a gas unit heater cost $2,266 at the factory.

Asbestos foundation would have been cheaper, but we decided on a brick base to blend with the brick in our home. We chose aluminum bar caps instead of puttitape because of permanence. A Dutch-type door added a little more expense, but these extras have been worth the money. The door, for instance, provided ventilation but also bars dogs and small children.

The 90,000 BTU gas heater, bought locally, cost $147 and the thermostat, accurate down to 35 degrees, another $16. During my first winter, we had weather as cold as zero, but my house and its equipment were adequate and did a perfect job of protecting the contents.

Other costs included freight, installation of gas, water, and electrical lines, actual construction and a $50 deductible insurance policy. We ran all our utility lines together underground in a plastic pipe. Electric fixtures for lights, as well as for future heating cables for rooting frames were installed along with a second-hand sink with drainboard. Some disagree with my allowing a sink in a greenhouse, saying the space is too valuable, but I use mine a great deal and am happy with it. Altogether, I figure my house cost $3,600.

Putting up such a house is no do-it-yourself project unless you are more talented along these lines than I am and have more time. An engineer staked the house and placed the pipe supports, an important part of efficient construction. A builder and helper then finished the house within a month and I moved in October 1st of 1961 with the new redwood tubs I had been banding together and the recently barerooted and repotted plants.

Everything worked well. Even the location, detached from our house but only about 30 feet away, is fine. Our camellias have been happy in the house and we all have been happy that we went ahead and built it.

A camellia house is a wonderful place to escape from business and professional routine. It's a place to really relax. My hobby has meant new friends sharing a common interest and much pleasure for old friends. It has become a family project. My wife and children did their first grafts last season and are recognizing more and more varieties.

During the fall of 1961 we organized our Tuscaloosa Men's Camellia Society with a membership of over 40. Five of us have greenhouses now. Several more are being built this summer, two identical with mine. Others are in the "thinking it over stage". We are assured of blooms when we have our first camellia exhibit this next year. We already have won a number of ribbons in the shows at Birmingham and Meridian. One of our members made the Honors Table at the Meridian show last February.

The greenhouse we chose is but one of many makes, types and sizes. It fitted our need beside a brick house on a big lot. Many friends of mine have built their own, using plastic or glass, and get good results.

The important thing is to realize that to have really outstanding blooms in the Middle Atlantic area, one has to have a camellia greenhouse and then go ahead and build one, just as big as can be financed.

Let's Grow Camellias Under Protection

FRED W. JOHNSON, Jackson, Miss.

Late in March friends of mine had visiting with them a retired couple presently making their home on Cape Cod. Before retiring these people made their home in Delaware and had successfully raised a few camellias not under protection. As our visit developed, they indicated their desire to try to grow a few camellias on Cape Cod, and, of course, not under protection.

Since I have been actively growing camellias under protection for the last five years, I felt that I had a duty to try to convince these fine New Englanders that they, too, should grow camellias under protection. I am afraid that I used every available minute and offered every point of persuasion at my command to accomplish this end.

In the coastal areas near the oceans or the gulf, it is very rare that growing plants are subjected to extremely cold weather. January 1962 was an exception. On January 9, 10 and 11 even the coastal regions were experiencing a severity of weather that damaged buds and in many instances plants.

Getting as far north as Jackson, Mississippi, many of my friends who have grown camellias outside for a good many years have concluded that they are fortunate indeed if they experience one excellent blooming season in each seven years. For my part, I have no desire to continue trying to enjoy beautiful camellia blooms by struggling along with plants grown out in the open when adequate protection can be provided involving a modest ex-

penditure, and from there on with a bit of heat and good ventilation the plants will produce wonderful quality blooms during the entire winter season.

Perhaps we should fairly look at this matter another way. Some individuals might have the keen interest of actually developing and bringing along certain camellia varieties, much more hardy in nature, that will produce reasonably well year in and year out when grown outside. I have no quarrel with such an objective. On the other hand, I have the feeling that the primary desire of most growers is to have good strong plants and produce a wonderful variety of blooms throughout the seven month blooming period. Protection, heat, adequate ventilation, and, of course, good care will accomplish this end.

In this marginal area there are several hundred growers doing a beautiful job growing camellias under protection. Experience is broadening rapidly. As the seasons pass, more and more are growing camellias under protection. The lessons learned and the results obtained in this marginal area offer tremendous potential to many more people who live still further north, and because of the added cold could not successfully grow camellias. The possibility of more and more people in these United States developing and exploiting their interest in camellias is almost limitless.

So . . . After Twenty-five Years I Weakened

AUBREY C. HARRIS, Shreveport, La.

For so many years, along with hundreds of other camellia growers in this fringe area of North Louisiana, I held to the attitude that unless a variety of camellia could *take* our winters, I would replace it with those that could.

This feeling prevailed for some twenty years and I managed to struggle along with fair blooms, going through snow, sleet, ice, Northern winds and sudden drops in temperatures. Never going in for formals, not too many whites, I succeeded in keeping a fairly productive yard of blooming plants.

But, after seeing what could be done as to size and quality of blooms, I thought of going into some sort of structure for protecting plants. My first venture was a small "lean-to" which housed some twenty plants. After one season, I found that this "contraption" was a splendid idea but it would not work . . . first, because of the lack of ventilation and also the absence of any type of heat.

My second try was a pre-fab house, 14' x 14' with ample vents and the proper heat . . . but my mistake here was that the sides angled to such a degree that it was not suitable for upright growing camellia plants . . . (I am now using this house for tropicals).

Last summer I found enough space in one corner of the camellia patch to erect another camellia house for further experiments. I made a careful research of camellia houses, and with a record of my past mistakes, I planned a small house, erected it, and with one exception, am well pleased.

Camellias are almost as adaptable as people, it is true, but camellias in the wild state are, to me, quite different from those grafted crosses that we are now growing. Therefore, I tried to consider three things in my plans. First, light, then ventilation and then upright growing room. My one big mistake was in the size. I had heard so many times that whatever the planned size, double it. I didn't. So now the "weeding" process has begun.

Not wanting a "fancy" house but a durable one, I decided to use concrete blocks, 2 x 4 redwood and 6' polyethylene. The concrete blocks were easy to place, level and connect with ready mix, with every fourth block a connecting bolt was inserted. By careful planning, I had the redwood precut and delivered so the only work left was the assembling which took only one day. With the use of a staple gun, application of the covering was a minor task. On top of the covering I applied small lath as a reinforcing agent. A discarded screen door was used for the entrance. I planned on the vents being oversized for proper ventilation on those *hot* winter days. To make it easier to open and close, I reversed the springs on regular hinges. Now the opening is simple, by merely releasing a cord and to close, I merely pull up. When I wired the house for lights, I used heavy outdoor wire with the thought of using an electric blower type of heater to warm the house on those few Southern nights when our readings go to 15-25 degrees outside. But as I mentioned above, I made one mistake. I didn't realize that the circuit used for the greenhouse was also used for the deep freeze, washer, dryer, and the blower for the central heating system for the home, so it could be overloaded. It was . . . and of all nights for the fuse to burn out it was five above and some of the blooms and buds were ruined.

So the project for this year was to run a gas line to the house and install a standard greenhouse heater with thermostat control. Just for safety, I have also installed a small fan in the top to blow down and circulate the warm air. With plastic 3/4 inch pipe I have now run a water line into the greenhouse and above the hose connection I have installed a small sprayer (two feet above) so that the plants may be sprayed and watered easily. For the floor, I used three inches of sand covered with about the same amount of pea gravel. This insures drainage and yet helps keep humidity high. I used concrete stepping stones for the walk.

Now as to a few pointers on the plans for the house itself. The side walls are 8 feet high, and this lets me place the larger plants in the background. The roof pitch starts at this 8-foot level and goes to the 12-foot beam

giving a 4-foot pitch to the roof which is ample for drainage.

Taking off the covering is a mere 60 minute chore which I did this year in April. In the latter part of October, I will recover and relight the heater.

One of my problems was the proper potting of the plants from the yard. I found that drainage was most important and through asking questions all over the camellia belt, I came up with this formula:

1 part leaf mold
1 part peat
I part well rotted sawdust
1 part top soil
2 parts coarse sand

So now all I have to do is wait to see if, now that the previous errors have been corrected, I can produce satisfactory blooms.

To the nut that is planning a house, I would like to give a few hints. First, I noticed that with the use of polyethylene a problem arose on condensation of water on the inside roof which dripped on the blossoms. This can be corrected in several ways . . with the use of muslin stretched over the rafters, etc., but I found that by using a double polyethylene top creating a layer of air, this problem is solved. Make your greenhouse strong . . . strong enough to withstand heavy winds . . . regardless of width or length of your house, make it high enough to take care of your growing plants. Check your heater often to see that no yellow flame is present as the fumes can cause bud drop. During severe weather when ice perhaps helps seal the house tightly, be sure to leave a vent partly open. During the hot dry spells, watering once a week may be sufficient for the plants grown outside but container plants will need more water, at least twice a week. Their foliage should be dampened quite often and the floor of the house saturated to help keep humidity high, especially during the summer.

The research I did concerning fertilizing was most baffling. If I wrote ten letters I received ten different answers. Since I couldn't get a suggested program for the fertilization of container plants, I am trying a *very light* application of a soluble commercial mixture the first of each month.

Since I am using a greenhouse for producing large blooms, I disbud more heavily than in the yard.

No matter whether you are planning to buy a large commercial structure or just putting up a protected "lean-to", get it twice as large as you originally planned or *you'll be sorry!*

Some Mistakes I Have Made

CLYDE X. COPELAND, Jackson, Miss.

Jackson held its first camellia show eleven years ago. Lady Luck smiled on the Copelands on this occasion for a variegated ADOLPHE AUDUSSON bloom from our garden received the award as Best Flower of the Show. Ever since that day, this same Lady Luck has been laughing at us instead of with us, and our success in producing good flowers has steadily declined. In an attempt to reverse the trend, and laying most of the blame on the weather, eight years ago we constructed a lean-to plastic house. For a while we were rewarded with blooms that were very satisfying, and I felt I knew most of the answers. However, in the light of our experiences during the last five or six years, I realize now that I hardly know the questions, let alone the answers. For after eight years of growing camellias in containers under protection, we barely produced enough passable blooms this year for the little lady to wear to the shows and certainly not enough of proper quality to enter for competition.

With this background, I would certainly not attempt to even try to advise anyone how to grow camellias in containers and under protection. However, I might mention briefly some of our experiments that did not prove too conducive to bigger and better blooms in copious quantities.

I. Fertilizer: When two- and three-year-old grafts in three-gallon containers are healthy and showing excellent growth of good color, I would hesitate again to attempt to produce outstanding blossoms by giving them a heaping tablespoon of commercial fertilizer (6-8-8) once each month. Of course, it may work wonders for you, but for us, well we lost nearly a hundred plants.

2. pH: Our city water has a pH above 9, and its continued use does necessitate occasional corrective measures if we are to maintain a slightly acid condition. However, I do not believe it wise to recommend reducing the pH by using a handful of wettable sulphur in a three-gallon can. The roots did not seem to care much for sulphuric acid in that concentration, nor did they feel at home when the pH was reduced to 2.5. Close to 75 plants showed this very clearly by slowly but surely dying.

3. Water: In the late fall when the humidity is very low and the camellias seem to me to appear just a little droopy I would not suggest filling the cans with water two or three times a week. It is better for them to droop than to drown. The trash pile is constantly growing.

4. Soil: A mixture of just pure leaf mold, peat moss, and sand, but containing no good loamy garden top soil, looks good and will drain perfectly. However, I am no chemist, and plants in this mixture produced blooms from such varieties as MATHOTIANA SUPREME and TOMORROW that would pass as fairly good miniatures. Also, with this mixture the greenhouse will never have to be enlarged due to rank growth.

5. Light: There is a sneaking suspicion in the back of my mind that we will never select another location for a greenhouse just north of a big live oak tree and under several pines, and then put 50% saran shade cloth under the plastic to keep the bees out. That house looked very cool and comfortable when the plants were placed inside in September. But by December we suspected a slight light deficiency. By January we knew there was a tremendous bloom deficiency, and by February we could brag of having more buds to bull-nose per square foot than everyone else in town put together.

6. Humidity: During blooming season on clear crisp days with drying winds out of the north I could not resist the temptation to remove all the sides from the greenhouse, raise the roof, and let the good fresh air sweep through. The only trouble was that the relative humidity would drop below 20% and the blooms drop to the ground.

7. Temperature: When the temperature drops to 0°F. and below, it does not appear too wise to depend on a space heater with no fan or other means to create circulation of the air. Of course, only the plants that were located around the outer perimeter of the greenhouse suffered. They didn't suffer long, though, as the cans froze solid and death was apparently instantaneous and painless. There is no need for despair over that situation because the cans can be used for new varieties.

As this is being written our plants look better than they have in years. The new foliage is luscious, the color is perfect, and the growth is outstanding. We are looking ahead to a wonderful blooming season next winter. We must look ahead for, if we dare look back, I am sure we would see that same Lady Luck with a grin on her face like a mule eating briars, for in her wisdom she already knows that in some manner I will figure out another way to keep the camellias from blooming again.

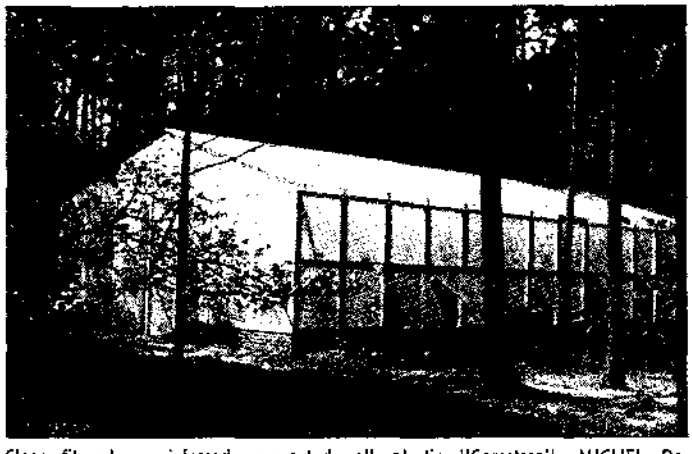
My Greenhouse Story

DR. W. F. MATHIS, Moultrie, Ga.

In 1960 I purchased a used aluminum and glass, prefabricated greenhouse, 10' x 15', from a friend for $200.00. Its cost when purchased new was over $700.00, f. o. b., Salem, Massachusetts. My friend has three children, and this glass house and his children were not compatible; so that is the reason he sold it. There was room for forty blooming size camellias in it. Those beautiful blooms afforded us so much pleasure when everything outside was frozen, that I just had to have more space for more blooms the next year.

During the summer of 1961 I designed and built another greenhouse, 18' x 36', out of pressure-treated pine lumber and 1 1/4" corrugated 8 oz. fiberglass. I prefer the 1 1/4" corrugation over the 2 1/2" because the smaller can be caulked, and it isn't necessary to use filler strips. This fiberglass is cross-corrugated, and it comes in rolls of any length desired, and any width up to 54 inches. At least a four inch overlap was used at each joint, and

Inside house constructed of treated lumber and covered with "Corostron", a corrugated reinforced clear plastic material which comes in rolls of various widths. DR. W. F. MATHIS, Moultrie,Ga.



Clear fiberglass reinforced corrugated roll plastic "Corostron". MICHEL DeLOACHE, Moultrie, Ga.

the fiberglass was secured with aluminum screw shank nails, with neopreme washers. The sun will not draw these nails out of the lumber, and the washers make it leak-proof. The house is heated with two 2,000 watt, 220 volt heaters—one over each door—and they are thermostatically controlled. The thermostats are set to come on at 35 degrees and go off at 38 degrees. This proved very satisfactory this past year. It was necessary for me to run a 220 volt line from our home to the greenhouse—a distance of 150 feet—and to add a 50 amp breaker in the main switch, and a circuit breaker in the greenhouse. That is the reason the wiring may seem a little high. An overhead sprinkler system was installed, and this is recommended very highly. There are six

sprinkler heads down each side, and they do a very adequate job. Four 37″ x 37″ aluminum awning windows are used on each side, and there is a glass door at each end. This furnishes adequate ventilation. The doors that I used were some old French doors that we had discarded from our home. The total cost of the greenhouse was about $2.50 per square foot. If a larger house were built, the cost per foot would run slightly less, and if a smaller one were built, the reverse would be true.

Below is an itemized statement of materials, labor and costs:

Layout, dig, pour footing and lay 240 concrete block (complete foundation cost)	$ 209.53
8 aluminum awning windows	133.90
Aluminum screwshank nails with neopreme washers	12.88
Gravel, sand and cement	16.33
Fiberglass—1,525 square feet	457.50
Labor, carpenter and painter	262.00
Plumbing (including all materials and sprinkler heads)	135.50
Lumber (pressure-treated)—1,024 feet	102.40
Nails, bolts, paint, corner tin and roof ridge tin	40.41
Wiring (including all materials and thermostat)	190.41
Heaters (two 2,000 watt, 200 volt)	77.13
TOTAL COST	$ 1,638.99

Perhaps I should say that I grow the greenhouse camellias in cans of various sizes, and I move them into the greenhouse in October for the blooming season. In March I place them outside for the spring and summer months, so they will benefit from the filtered sunlight under the pines, and the rainfall. This 18′ x 36′ size house will accommodate approximately 175 plants, with the can sizes varying from 3 gallon to 20 gallon.

Greenhouses are fun! You love camellias now and THINK you enjoy growing them; but unless you have some kind of protection for your TOMORROW, TOMORROW'S DAWN, BETTY SHEFFIELD SUPREME and MRS. D. W. DAVIS, then you are getting just half the fun from your hobby. Stop by on your next trip through Moultrie, visit with us and inspect our greenhouses—and profit by our mistakes.

Big Little Early Late And Beautiful

The following container grown plants are not only beautiful new additions to the camellia family but are also very nice plants. We missed the big freeze and our stock is in excellent shape. Following varieties available for shipment after Sept. 1. In light weight veneer crates. For further information on these see new varieties registered in Sept. issue. New price list with large list of own root container, latest grafts, hybrids and few Reticulatas available in a few weeks. Drop us a card for yours. (First orders received get choice of plants tagged.)

MRS. R. L. WHEELER. Light pink formal unsurpassed in beauty and perfection. Plant growth, budding, and holding qualities are ideal. All women love it and men leave the big reds to exclaim what is it and when can I get it? One-year grafts, $25.00 and $15.00. Two-year grafts, $50.00 and $35.00. Has won several awards.

GLORIA STEWART (THE IDEAL EARLY VERY LARGE WHITE). Incomplete double with loose center to semidouble. Rapid grower. Holds on exceptionally well and we have never seen one bullnose. Mrs. Art Barry's seedling. One-year grafts, $25.00 and $15.00; two-year grafts, $50.00, $35.00 and $25.00.

SOUTHLAND. Very large light pink Anemone form. Rapid open growth. Own root container-grown plants: $20.00, $15.00 and $10.00.

RED CAP. Medium large unusual star centered clear formal red. New growth bright red. Petals crimped. Own root container-grown plants $7.50 and $10.00. One-year 2 gallon grafts, $12.50.

CABOOSE. Our latest camellia to bloom. Very cold hardy, medium large semidouble tricolor, clear, sharp, striking markings. One-year 2 gallon grafts, $12.50.

EARLY BIRD. Large semidouble rose pink. Early and hasn't failed to bloom outside here unprotected since first observed in 1951. Own root plants: $10.00, $15.00 and $20.00.

GEORGIA BELLE. Large peony pink with loose center. Shown once and was best seedling in Macon show. Won Sears Roebuck Trophy. Own root container-grown plants: $7.50, $10.00 and $15.00.

JUDY MATTHEWS. George Wheeler's seedling (Birmingham). Very large peony blush pink. Has won several awards. One-year grafts: $15.00 and $25.00. Two-year: few $35.00.

RUNT. Miniature anemone form light pink.

MINUTE. Miniature formal light pink.

WART. Miniature DOCTOR TINSLEY in appearance.

DIXIE RED. Miniature anemone form wine to mahogany red.

LITTLE SITTART. Miniature LADY VANSITTART. (Will get up to 3 inches in greenhouse.) Above Miniatures nice one-year grafts: 2 gallon cans $10.00.

Jumbo container-grown grafts of following:

JULIA FRANCE
JUDGE MARVIN MANN
HAWAII
TOMORROW'S DAWN
MAVERICK
R. L. WHEELER VARI. SPECIAL

Wheeler's Central Georgia Nurseries

CLINTON ROAD — U. S. 129 — MACON, GEORGIA

Suggestions For Greenhouse Culture

ARCHIE HAMIL, Goldsboro, N. C.

PLANTING (Container or Ground Bed)

Good blooms only come from the properly planted Camellia. Never should planting take place until the root-ball soil is washed away with a gentle stream from the garden hose or, another method, pick away the soil on the outer circumference of the ball with an ice pick to expose about 2 inches of roots all around. This is a basic requirement in producing good blooms year after year.

SOIL MIX (Container)

A porous mix to provide immediate drainage is mandatory. Coarse builders sand provides this basic requirement. Mix 2 parts sterile soil, free of clay, with one part peat moss and one part ground pine bark then add enough coarse sand to provide immediate drainage, usually one-half part sand will do the job. Two to three inches of small rocks from the builders supply house must be provided in the bottom of the container to keep the drainage holes open at all times.

SOIL MIX (Ground Bed)

Again proper drainage is of prime consideration. Excavate the bed to a minimum of 12 inches below ground level. Use common brick or cement blocks to build up the bed to at least 6 inches *above* ground level. This provides a bed 18 inches deep. Fill to within 1 or 2 inches of the top then plant shallow to allow for eventual settling of the plant. Use two parts sandy soil mixed with one part shredded pine bark, as the soil mix. Caution: few beds will be perfectly level and water will flow to the low end. Thus it is *very important* to leave openings between the brick on the low end so excess water will drain off. This prevents the build up of toxic salts.

FERTILIZER AND WATER

Everyone has their pet formula and few agree on any one program. The big secret here is to have a *constant* supply of moisture and nutrients. So, use small amounts of fertilizer at frequent intervals. We use half cotton seed meal with half commercial fertilizer. Be sure to water wall about half a day ahead of applying the nutrients then again immediately following application. This keeps the roots from burning. In the greenhouse beds we use a small handful (⅛ cup) for each average size plant about March 1st and again May 1st. About September 1st we use the same quantity of only cotton seed meal. Just before and during the blooming season we apply a "tea" mixture as follows:

> Put one gallon of fish meal and one gallon of dried blood in a 10-gallon can then fill with water. Stir at intervals for about a week. To one gallon of this "tea" add one gallon of fresh water applying at the rate of 3 cups per plant, bi-weekly, throughout the blooming season. (NOTE: Have also used liquid Ortho-Gro (15-5-5) with much success, in the same way.)

For 16" greenhouse containers we use the identical program as they require more frequent watering during the hot growing months. During the blooming season in this area (Coastal Plains North Carolina) we water about every two weeks. Never keep plants soggy wet. The containers are moved out under the pine trees in early April and back inside just before the first freeze in October.

PRUNING

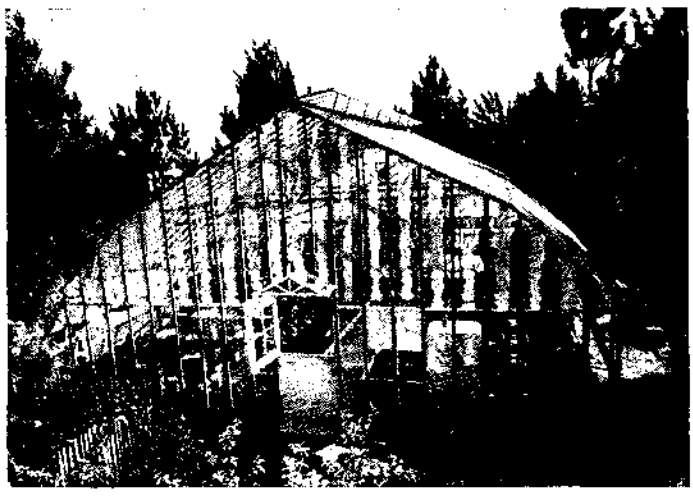
Have found through experience that we have not given this phase of Camellia culture the attention it must have. The roots grow during fall and winter to "catch up" with the top growth. If we, through the use of our pruning shears, throw the balance of power into the roots then it follows that the plant will be forced to throw out much new growth and this is where the blue ribbon winners come from.

AIR CIRCULATION

If you now have a greenhouse without roof ventilation this should be remedied. Heat rises and builds up to almost unbearable limits at roof level—be sure to provide some means of escape. Good ventilation at sides and top are mandatory to the continued good health of the plants.

THE GREENHOUSE

Our house measures 27′ x 34′, manufactured by the National Greenhouse Co., Pana, Ill. This house is designed especially for Camellias. The roof at center peak is 13 ft. high with an automatic vent running the entire length of the house. The sides are made so that they "crank out" thus giving maximum ventilation. Made to last a lifetime this house has a frame of galvanized steel. It is so strong that we have never had even a cracked glass from the fall hurricanes. Cost delivered about $3,500. We arranged for local people to assemble, cost about $500. Price includes automatic heat, automatic mist system and I added another feature, an automatic "husband-caller", an



Well ventilated hipped roof greenhouse. Note refrigerator for storing blooms as they reach peak. ARCHIE HAMIL, Goldsboro, N. C. A National Greenhouse.

intercommunication system that Jean uses to good advantage at meal time when I am overly absorbed in some greenhouse project.

The mist system operates only in the very hot summer months and is set to throw out mist for 40 seconds every ten minutes beginning at 11 o'clock—off at 3 o'clock. The plant draws needed moisture through the roots before and after this period of time.

A *thin* coat of white rubber-base inside house paint is used on the interior (rather than the exterior because of rain) to control the amount of sunlight entering through the glass sides and roof.

Greenhouse Management

WALTER F. HOMEYER, JR., Macon, Ga.

In recent camellia publications there have been many excellent articles pertinent to this subject. This is written in an effort to supplement, not to supplant those articles. I am emphatically not an expert in this phase of camellia culture. If, however, one gains experience by making mistakes, my skill may be attested by the ghosts of numerous camellias hovering over this hillside. Through blundering, luck, and a fair amount of reading, I have settled on a fairly simple program which adequately fulfills my present needs. This is not to imply that there is not some work and attentive care involved. Unfortunately, there are no shortcuts to good greenhouse camellias, particularly in reference to those grown in containers. The health of the plants and the quality of the blooms are almost directly proportional to the care given to these plants. Container-grown plants require cursory inspection at least every other day during the growing season. This program probably has some basic errors, but any projected changes will be made one step at a time with thorough evaluation of subsequent performance of the plants. Any program of management must of necessity be modified to adapt to climate, equipment and materials available, and most particularly to the amount of time and money the grower wants to devote to his hobby. This discussion, for the sake of clarity, will be subdivided into two main sections, greenhouse management and care of the plants themselves.

Greenhouse Management

The purpose of a greenhouse is to provide as nearly as possible the ideal environment for the growth and flowering of camellias. This involves the maintenance of as high as possible relative humidity, yet, almost paradoxically, a moist but well drained, well aerated soil. There should be adequate ventilation available to provide cooling. There should be provision for shade to protect the plants from the hot summer sun. There are varying amounts of automation available to provide this ideal environment without sacrifice of time and attention, but these aids are relatively expensive. (I personally substitute for this equipment a cooperative wife.)

HUMIDITY

A high relative humidity may be provided by an automatic fog system or by merely keeping the greenhouse floor damp at all times. The latter method is probably superior, particularly during the blooming season, for fog tends to settle in the corollas of flowers, leading to premature flower deterioration and discoloring. The greenhouse floor may be made more retentive of moisture by tilling in several inches of sawdust or peat. The sawdust should probably be used only when the greenhouse will be used exclusively for container culture, for it will tie up nitrogen until it completely decomposes. This is actually an advantage for the container grower, since it retards weed growth via this action. An overhead sprinkling system is relatively inexpensive and allows syringing the plants and entire greenhouse in several minutes.

When the plants are actively growing and have large amounts of succulent new growth, they should be syringed nightly. During flowering, direct water on the blooms is to be avoided at all times.

VENTILATION

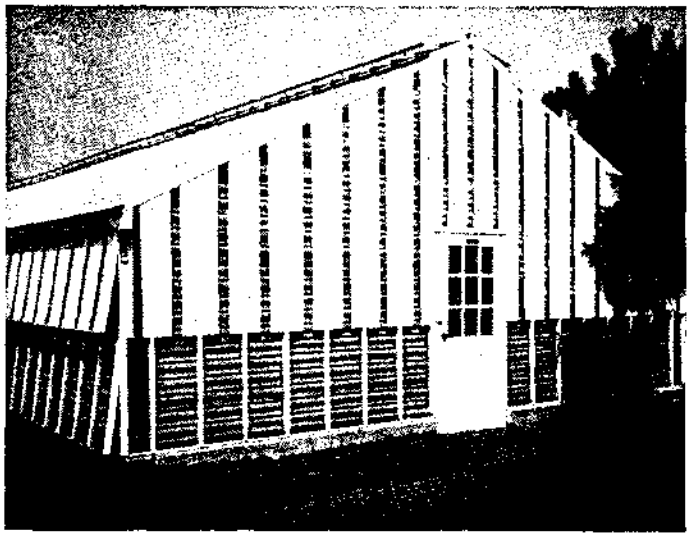
The sole function of ventilation is heat loss. At Wheeler's Central Georgia Nurseries there is a large, well shaded greenhouse which has been kept closed during the last two winters. The plants have prospered, but the flowers don't last well because of the higher temperatures.

Ventilation should be adequate to cool the greenhouse to optimum levels during flowering season and keep temperatures in safe ranges during the summer.

TEMPERATURE

During the blooming season the greenhouse temperature should be kept above 32° F. To do this in a moderate sized house it will be unnecessary to use heaters unless the temperature falls below 30° F. outside. I have inadvertently had the temperature fall to 28° F. in my houses without damage to open blooms. Often it is necessary to open ventilators in the houses on bright days far before the temperature gets above freezing in order to vent heat gain from bright sunlight. Best flowers will occur in the greenhouse when the daytime temperatures do not exceed 50° F. Higher temperatures accelerate flower opening but make the flower inferior relative to size, substance, and life. Consistently high winter temperatures force the plants into premature growth, often resulting in bud drop and, at the very least, inferior flowers. If the plants are kept in the greenhouse during the summer, temperatures may reach as high as 117° F. inside without damage, providing humidity is kept high and adequate shade is provided. On cold, windy days only the top ventilators and those on the lee side of the house should be opened to keep the blooms from being beaten about.

Spore formation in flower blight is most active in temperature ranges of 40° to 60° F. Therefore one should



Shading of house by painting on outside and alumilath inside to withstand summer heat and light. A. J. PARSONS, Norfolk, Va. A National Greenhouse.

endeavor to keep soil temperatures below this level if this problem is present.

SHADING

During the growing season the plants seem to do best in about 50% filtered sunlight. Saran shade cloth fills this purpose admirably and is available in a wide range of densities for which the actual shade provided is pre-calculated. In providing artificial shade one should take into account the shade already present from trees and the greenhouse frame.

During the blooming season flowering is best at about 70% of actual sunlight, but during late February and March it may be necessary to apply the shade cloth to prevent sunburn of the lighter colored flowers.

DRAINAGE

If the greenhouse has a stone or masonry foundation and is built on other than the most porous of soils, it is wise to supplement the natural drainage. This may be accomplished by drainage tile and gravel.

Plant Care

The casual grower who wants a relatively few select varieties under glass will find container culture too time consuming compared to the less demanding technique of ground culture. Plants grown in the ground under glass require little additional care over plants grown in the open and are capable of flowering equally as well as container grown plants.

Container culture offers the following advantages to the greenhouse grower:

(1) More plants may be kept in a given amount of space.
(2) All plants are in the same soil mix, permitting identical management.
(3) Problem soils are avoided.
(4) Correction of salinity problems is permitted.
(5) pH may be easily controlled.
(6) Plants flower at a younger age.
(7) Plants flower earlier in the season.
(8) Drainage problems are solved.
(9) Plants are easily moved at any time.

The disadvantages of container culture are:

(1) More attention relative to watering is required.
(2) Neglect cannot be tolerated.
(3) More attention relative to fertilizer and mineral supplements is demanded.

Anyone giving serious consideration to container culture should read and digest the chapter on container culture and the entire section on soils, nutrition, and moisture in *Camellia Culture* edited by E. C. Tourjé.

TYPES OF CONTAINERS AVAILABLE

Commonly used for camellia culture are plastic and clay pots, wooden tubs, and metal cans. Recently fiberglass containers have come on the market and are said to be excellent in all respects.

The only containers satisfactory for the average sized greenhouse camellia plant are those of metal or wood, though plastic and clay pots may be used for plants requiring less than one gallon of soil space.

Wooden containers, while superior from the standpoint of appearance and root insulation, are too expensive for my purposes.

At present metal containers are my choice and will probably remain so, since they are widely available at little or no cost. They are readily available in a range of sizes up to 55-gallon drums and, though they do rust, their life may be prolonged to 3 or 4 years by painting with asphalt roofing compound. Cans painted with rust resistant green paint are commercially available from the Lerio Corp., Mobile, Alabama. These cans are semi-conical in shape and readily stack for storage. Their shape and push-up bottoms facilitate removal of the plant from the container. They are available in a range of sizes from one gallon through six gallons and are priced within reason.

CONTAINER DRAINAGE

Containers should have holes around the lower, outer edge; there should be one hole for each six inches of circumference, and those larger than three gallons in size should have at least three additional holes in the bottom to prevent areas of drainage dead space. These

COROSTRON
CORE OF STRENGTH
TRANSLUCENT SHATTERPROOF PANELS

COROstron is a modern translucent building material, glass fiber reinforced, in continuous rolls and corrugated or flat panels. Planning and layout to fit your building. Ideal for greenhouses, patios and carports—See Dr. Mathis' article on greenhouses in this issue.

Write for prices and further information

Fiber Glass Plastic, Inc.

7395 N. W. 34th Ct. Miami 47, Fla.

holes should be not less than ¾ inches in diameter and, in the case of metal containers, should be painted to retard their blockage by rust; several inches of coarse sand, pebbles, or wood shavings should be placed in the bottom of containers to prevent blockage of the drain holes by humus.

This coarse material provides a further advantage in stratification of the finer particles of the soil mix above the coarser drainage material. Unless the container soil has become dry enough before watering to retract from the sides of the container, this results in saturation of the finer soil mix before drainage occurs. This phenomenon is due to the greater capillary attraction of the air spaces in the finer soil.

CONTAINER SIZE

It is more desirable to have a plant growing in a container which is too small than one too large. The former will require more care, but prosper; whereas the latter will usually be unhealthy and possibly die.

After bare-rooting a plant, one should determine the height and diameter of the roots and select a container which will allow at least 3 inches above the surface roots for mulching and watering. The plant should be of sufficient diameter to allow one inch of soil around the periphery of the roots.

BARE-ROOTING

All new plants, even those already growing in containers, are bare-rooted at their first dormancy. This may seem radical to some, but it is one of the most important steps to good container culture. The reasons for doing this are:

(1) insures having all plant roots in a common environment allowing the grower to systematize care with reference to water, fertilizer, trace elements, and pH compensation.
(2) allows correction of over-potting if present.
(3) allows grower to examine plant and its roots and correct any imbalance by pruning if roots seem insufficient.
(4) keeps weed pests and Sclerotinia Blight out of the greenhouse.

The bare-rooting should be done with a weak stream of water from a hose nozzle, but plants that have been grown in clay soils require much force. After removing all soil, the weak and diseased roots are pruned with sharp pruning shears, preferably using an oblique cut. Care should be taken not to let the roots dry, immersing them in cool water as is necessary until planting.

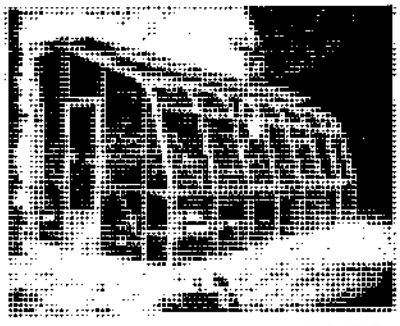
CANNING

After placing one inch of soil mix over the drainage material the roots are inserted in the container and loose soil worked gently through the root area to hold the plant upright. The container is then jarred gently on the ground to settle the soil about the roots. Soil is added several inches at a time with intervals of jarring until the roots are barely covered.

The plant is thoroughly watered and set aside in a cool, shady location. Since it may be necessary to add soil to compensate for settling, the plant is not mulched until after three waterings.

SOIL MIX

It is a common but mistaken assumption that if plants will grow well in the ground with liberal humus added then they certainly should do well with the same soil in containers. This can only be true with sandiest of soils. The key to successful container culture is good drainage, and this can be had only with the most porous of soils. Without excellent container drainage the soil will not aerate adequately for survival of the roots. On the other hand, enough moisture retention is necessary to provide a water reserve for the plant. The ideal soil media for camellias then should be porous, yet able to retain some moisture; organic in composition, but not necessarily rich in nutrients; and ideally have a pH of 5 to 6.5, though one of 4.5 to 7 is permissible. The UC System, which is becoming increasingly more popular among camellia growers, offers a wide range of mixes using fine sand and organic humus. Peat is the more desirable organic material because of its slower decomposition. The best mix



106 GREENHOUSES FOR TODAY'S HOMES

All year gardening is a hobby without peer—for leisure, home beauty and livability. Now *you* can have a garden that blooms all year with a few hours' care each week.

Our new 40 page catalog showcases 106 lifetime, prefabricated greenhouses—in full color photos. It tells you how to:

- choose a greenhouse that harmonizes with your home
- buy a greenhouse for as little as $350 —easy pay terms available
- erect a permanent greenhouse with household tools
- save money on greenhouse heating
- grow more than 200 plant varieties year-round, anywhere

Send coupon with 25¢ to cover postage and handling for your 40-page YEAR ROUND GARDENING catalog.

LORD & BURNHAM

Dept. 3, Irvington, N. Y.
division Burnham Corporation

3

NAME _____

ADDRESS _____

CITY _____ STATE _____

for camellias is half peat and half sand, for it provides good drainage, adequate moisture retention, a pH of 4.5 (using imported peats), and is relatively inexpensive. In this area the sand available is silty and tends to stratify when mixed with peat. Coarse sand, when used, tends to make the mix too porous. The mix I use is a modification to overcome this difficulty. It consists of one half peat moss, a quarter coarse sand, and a quarter "worm bed." The latter is a mixture of sandy loam and aged hardwood sawdust in which worms have been grown commercially. This mix gives roughly the same composition and pH as the regular UC mix, but is probably richer in organic nutrients.

The pH of the UC mix tends to fall below 4.5 as it ages, probably due to acids liberated in the decomposition of the peat. I have seen pH's fall below 4 using my own mix. In the near future I plan to begin incorporation of dolomitic limestone in the mix (as recommended by Dr. Lunt in *Camellia Culture*) to prevent this progressive acidification.

pH CONTROL

It is wise to check the pH's on the chlorotic plants and all others which do not seem to be growing properly. I usually spot check the other plants about every six months. For this purpose I use an indicator paper (Nitrazine Paper-Squibb) which covers the range of 4.5 to 7.5. It comes in a plastic dispenser with attached colorimetric scale and is convenient to use.

For the correction of excessive acidity I use dolomitic limestone (85% calcium carbonate and 15% magnesium carbonate). This material acts slowly and several months elapse before any change in pH is detected. One teaspoonful of this material will increase the pH of a gallon soil by roughly one point. It is not wise to use more than one tsp. per gallon at a single application.

IRON SUPPLEMENTATION

Iron deficiency is most manifest at the time of maximum active new growth. It gives a persistent generalized chlorosis of all new growth. This may be due either to primary iron deficiency or to deranged soil pH. Iron passes into a form which cannot be utilized by the plant at pH's above 8 and below 4. After determining the pH of a chlorotic plant and correcting it if abnormal, iron chelate (1% sodium ethylene diamine tetra-acetate) is applied at a rate of 1 tsp. per 4 gallons of soil.

The foliage may also be sprayed at the same time with liquid chelate or ferrous sulfate to accelerate the correction of the deficiency and improve the appearance of the foliage.

Around the first of each year all plants, with the exception of those with desirable virus-induced variegations, are

treated with iron chelate at the same rate used above. It has been shown that it is possible to temporarily clear virus-induced variegation in flowers by increasing iron chelate supplements. For this reason this group receives iron only when deficiency symptoms are present.

TRACE ELEMENTS

All fertilizer used contains trace elements. Occasionally the interveinal chlorosis of manganese deficiency is noted and these plants are treated with a trace element preparation as recommended by the manufacturer. Additionally, I apply this supplement as recommended at the conclusion of the flowering season. Most of these preparations contain around 6% iron.

FERTILIZATION

Since the roots of container grown plants are confined to a small area less fertilizer is required, and toxic levels are easily reached. The extreme porosity of the soil mix results in more leaching, necessitating more frequent applications.

There are almost as many opinions about fertilizing as growers, and probably its importance is greatly exaggerated by all of us.

Because of the tendency toward acidity of the soil mix it is desirable not to use the more expensive, acid-azalea-camellia fertilizers.

Plants are given ordinary commercial 4-12-12 with trace elements (no organic nitrogen) at a rate of 1 tsp. per gallon of soil, plants are fertilized three times between March 15 and July 15. At intervals of two to three weeks from April through December plants are given foliar sprays of Ortho-Gro 15-5-5 liquid fertilizer using 1 tbs. per gallon of water. It is never necessary to use a hardening-off fertilizer. After the first frost, plants are given three applications of fresh liquid dairy manure at monthly intervals. This is diluted 20 to 1.

PEST CONTROL

Plants should be sprayed April 1 and October 15 with Florida Volck paste emulsion at the rate of 4 tbs. per gallon of water. This should be as thorough a spraying as possible, for greenhouses are excellent breeding grounds for scale and red spider. Plants are sprayed at monthly intervals during the growing season with Malathion at twice the concentration recommended by the manufacturer to control red spider and aphids. Dieldrin granules should be applied to the greenhouse floor each spring for the control of ants and leaf chewing insects.

IRRIGATION

When watering, the soil should be thoroughly soaked. If this is done, salinity problems will be reduced or eliminated.

PRUNING

Each spring the plants should be carefully examined, and all weak and shaded-out limbs removed.

When space is a problem it is wise to attempt to prune the plants into upright growers, but not at the expense of making an unattractive plant.

DISBUDDING

Disbudding should begin as soon as the flower buds are large enough to identify, leaving only one bud to a terminal.

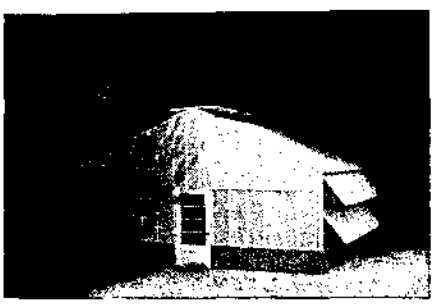
GRAFTING

Greenhouse grafting allows the grower the advantage of having his grafts uncovered and growing before temperatures are warm enough for fungus to be a problem.

CAMELLIA GROWERS

THIS HOUSE WAS DESIGNED FOR YOU

Glass Camellia House



Fiber Glass Camellia House

The two greenhouses pictured above were designed with high sidewalls and maximum roof and side ventilation specifically with Camellias in mind. They can be furnished in a variety of widths and lengths to suit your requirements.

Write for complete data on National Camellia houses.

NATIONAL GREENHOUSE CO.

400 E. Main St. Pana, Illinois

Why pay more? Our Highest Price Scion is only $2.00

Rooted cuttings at same prices as scions, 50¢ to $2.00

SEND FOR CATALOGUE!

Available September 14th

HAWAII, REBEL YELL, ALEXIS SMITH, DISNEYLAND, SILVER ANNIVERSARY, DAZZLER, BETTY SH. SUPREME, DRAMA GIRL, GUILIO NUCCIO, CARA MIA, RED ELEPHANT, WAR-EAGLE, LADY MACON, PINK SILK SATIN, PRETTY PANTELETTES, SUNDAY MORNING, WALTZTIME AND MANY, MANY OTHERS. We keep in stock more than 300 varieties at all times—Also grafts available $3.95 up! Over 15,000 sasanquas in qt. cans! Grow your own grafting stock! $25.00 per hundred

HITE'S NURSERY

FLORENCE HWY. MARION, S. C

Understock may be bare-rooted and canned at any time before grafting. Understock, one half to one inch in diameter are ideal for grafting purposes. I prefer Daydream or Maiden's Blush Sasanqua because they seem to heal and grow better than any other.

Grafting is done by the cleft technique and both scion and understock are treated with Hormodin No. 3. Sphagnum moss is wrapped around the union to promote callus formation.

Waxed paper cups are handy for covering grafts since it is possible to acclimatize the grafts slowly by gradually enlarging a hole placed in the top. Care should be taken not to water container grafts more often than absolutely necessary. Transpiration loss in these plants is small, due to the relative paucity of foliage, and over-watering results in the same effect on the plant as over-potting.

Young grafts are fertilized by alternating irrigations with Ortho-Gro 15-5-5 at one tbs. per gallon during their first growing season.

Growing camellias is one of the most rewarding and enjoyable hobbies a person can have, and the possession of a greenhouse makes this doubly true. The only disadvantage of this phase of camellia culture is the malignant fascination with which it afflicts the grower.

The Barn Door—But it is Never Too Late

MARJORIE WASHBURNE, Port Arthur, Texas

Contrary to the old adage, locking the barn door after a horse is stolen might be a good idea after all, if there is another horse to be protected from horse thieves or if the stolen horse is to be replaced . . . assuming that horse thieves are not all behind bars. Similarly, providing winter protection for camellias grown in containers after so many were frozen to death in the January, 1962, cold storm, appears to be a very good idea indeed for those of us who plan to continue growing camellias . . . assuming that since this was not the first arctic storm to freeze the coastal waters of the Gulf of Mexico it will not be the last. As camellia flowers and buds are secondary in importance only to the plants themselves, perhaps we should go farther and plan protection for plants growing in the ground as well as for container plants, as the primary purpose in having plants is to produce the flowers. The difference is, losing the flowers entails loss of only one camellia season, while losing the plants carries the loss several years back, several years forward, and the current year. If we plan to grow, show, and enjoy camellias, it is time to plan for the future on the basis of our recent experience.

Camellias have been grown outside along the Gulf Coast with considerable success for well over a century. The increased interest which led to the organization of the American Camellia Society in the forties had, by the early fifties, reached into the lives of people in all walks of life and almost all ages and become an important part of their activities. In the years between 1850 and 1950 it didn't matter too much if a few camellia buds and blossoms were destroyed by weather conditions. During the last decade, however, with thousands of people attending camellia shows in various locations and growers spending much time and effort not only in culture but also in cutting and preparing flowers for exhibition, and traveling many miles to enter them in shows —cold damage to camellias and cancelled camellia shows were no less than tragic.

Until January, 1962, there had been no severe freeze in our immediate area since February 2, 1951, when a record low temperature of 13° occurred, the total period below freezing being 108 hours. Prior to that, there had been a low of 15° on January 13, 1949. The 11 years after 1951 without a killing freeze resulted in our false and foolhardy sense of security which was shattered in January of this year with a single blow (no pun intended). While weather conditions had not been ideal, cold damage had been limited to flowers and a few buds, and there was no thought of plants being winter killed. It was the consensus that a "cool" greenhouse would give

INTRODUCING MOST BEAUTIFUL PINK OF OUR TIME

MARGUERITE CANNON

WINNER OF ACS HIGHLY COMMENDED SEEDLING CERTIFICATE

CLEAR PINK, LOOSE SEMIDOUBLE 5" TO 6" WITH FLUTED AND RUFFLED PETALS

A $10.00 deposit will tag your plant now. Scions will be $5.00 from blooming plants

PLANTS
$15.00, $20.00, $25.00
Few 2-Yr. budded, $35.00

Will ship, $1.50 for crating. We have most all the new and best of the old.

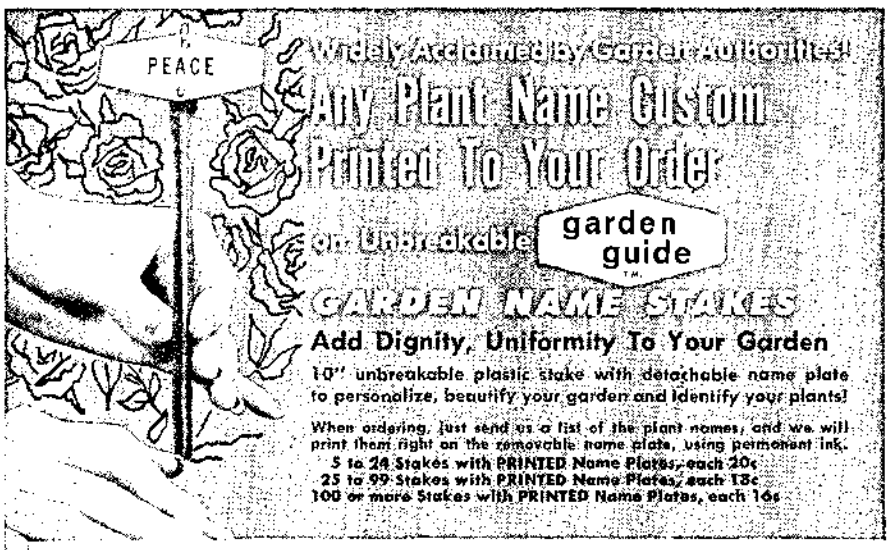
MA-DOT-CHA HOBBY NURSERY

MR. AND MRS. MARK CANNON

300 Montezuma Ave., DOTHAN, ALA.

the Gulf Coast camellia enthusiast adequate protection for both plants and flowers, if, indeed, any protection at all was needed. It became the practice of many exhibitors to cut flowers just prior to temperature drops, which usually occurred, conveniently, a few days before shows. The cut flowers, carefully groomed and stored from one to 10 days, won many trophies for their proud owners. Generally we complained a lot about the weather because the light freezes, usually 25° to 28° and occasionally perhaps 22°, came so close together that flower buds were delayed in opening. The low temperatures were of short duration and caused no serious trouble. Shows in other sections were cancelled due to cold damage which those along the lower Gulf Coast were held on schedule or occasionally postponed, and somehow the February, 1951, record of 13° slipped from mind and memory.

There are a few small greenhouses in our area just large enough for a limited number of camellias in containers to share space with tropical plants, but large camellia greenhouses with provision for hundreds of plants could probably be counted on the fingers of one hand with fingers left over. There are a few lathhouses and windbreaks, overhead pines, etc., and generally speaking camellias were not protected nor were growers prepared to protect their plants in an emergency. These conditions were prevalent when we found ourselves completely submerged in the January 9 cold storm, the widespread damage to camellias resulting from it, the can-



Widely Acclaimed By Garden Authorities!

Any Plant Name Custom Printed To Your Order

on Unbreakable garden guide

GARDEN NAME STAKES

Add Dignity, Uniformity To Your Garden

10" unbreakable plastic stake with detachable name plate to personalize, beautify your garden and identify your plants!

When ordering, just send us a list of the plant names, and we will print them right on the removable name plate, using permanent ink.
5 to 24 Stakes with PRINTED Name Plates, each 20¢
25 to 99 Stakes with PRINTED Name Plates, each 18¢
100 or more Stakes with PRINTED Name Plates, each 16¢

LOOK AT ALL THE WONDERFUL FEATURES:

• LIFETIME QUALITY: Re-usable, year-after-year! On a use-basis, the most economical of all! No replacing every season . . . your first cost is your last!

• UNBREAKABLE: Can't break when hit by rake or hoe.

• GUARANTEED: Impervious to sun, water, extremes of heat or cold, and to garden chemicals!

• ANCHOR-RIDGE prevents turning or twisting in loose soil!

• EASY PLACEMENT: Designed to be driven into hard ground without the slightest difficulty.

• DE LUXE APPEARANCE: Graceful form, color harmonized in two shades of garden green to blend beautifully with foliage. Gives smart, orderly effect.

• RE-USABLE NAME PLATES: Super tough, weather resistant plastic, held securely on 10 inch stake and properly tilted for good visibility and instant, easy reading! Name plates are readily removable, interchangeable, re-usable for years!

"Harbide" BALL POINT MARKING PEN

Writes on plastic, metal, wood . . . anything! Features waterproof, sunproof, frostproof ink for permanent, fadeproof marking of garden marker name plates. With pocket clip and leak-proof cap, 98c

"Garden Guide" Adapters (Extensions). Made the same as the stakes. These are 18" long, lengthening the stake up to 24". These may be shortened to any length desired by cutting with pruning shears. Each, 16c

All Items Sold On A Satisfaction Guaranteed or Money Back Basis!

If your dealer cannot supply, send this coupon direct, please.

PLAIN NAME PLATES that are reversible. Can be erased as desired.
7 to 24 Stakes with Plain Name Plates, each 16c
25 to 99 Stakes with Plain Name Plates, each 15c
100 (or more) Stakes with Plain Name Plates, ea. 14c

Dealer Inquiries Invited

HARLANE COMPANY
P. O. BOX 516
HIGHLAND PARK, ILLINOIS

HARLANE COMPANY, Dept. C-72 P.O. Box 516, Highland Park, Ill.
I enclose $____ (check or M.O.) for which please send me PREPAID, items listed below. (no stamps, no C.O.D. please . . . minimum order $1.00)

_____ 5 to 24 Stakes with PRINTED Name Plates, each 20¢
_____ 25 to 99 Stakes with PRINTED Name Plates, each 18¢
_____ 100 or more Stakes with PRINTED Name Plates, each 16¢ (please attach list of printed names desired)
_____ 7 to 24 Stakes with Plain Name Plates, each 16¢
_____ 25 to 99 Stakes with Plain Name Plates, each 15¢
_____ 100 or more Stakes with Plain Name Plates, each 14¢
_____ (quantity) "Garden Guide" Adapters (extension).....ea. 16¢
_____ (quantity) "Harbide" Ball Point Marking Pen.....ea. 98¢

NAME.....
ADDRESS.....
CITY.....ZONE.....STATE.....

FRANCES GARONI

1-year grafts on large understock
$15.00 and $17.50

FRANCES GARONI SUPREME

1-year grafts on large understock
$17.50 and $20.00

First release this fall. Winner of three ACS Highly Commended Seedling Awards.

A limited supply of 2-year grafts of each. Solid $25.00 and $30.00. Supremes $30.00 and $35.00.

100 varieties of the Rarest of the Rare. 900 other varieties. Several hundred varieties of own-root plants, many of the newest. No catalog—no list—write for information.

$1.50 crating charges, with order and price of plant. 3% S. C. sales tax on plants picked up at nursery.

Plants tagged in order reservations received

ROGERSON'S
GARDEN AND NURSERY

1618 Poinsette Dr. Florence, S. C.

celled shows, the staggering losses to our nurserymen and to ourselves being familiar to all. Difficult though it would have been, if I had known that Tuesday afternoon what lay ahead, every container plant I owned which was light enough to move would have been taken indoors. However, if I had been born with the sense God gave baby geese, it wouldn't have been necessary, for the lathhouse would have been enclosed and a gas heater would have been in place and ready for lighting. Containers for seedlings and other camellias not inside the structure would have been covered with leaves, pine straw, or other material since November. A major catastrophe —camellia-wise—would have been reduced to only an inconvenience.

The several courses open to us that should avoid another such disaster, with its accompanying disappointments, show cancellations, frustrations, and related horrors, might be grouped as follows:

1. Let others grow camellias and forget the pleasures of the past.
2. Continue to grow camellias without protection and look the other way when nature demands a toll.
3. Continue to grow camellias and provide protection from cold to prevent both moderate and serious damage to plants, flowers, and buds.

Never having had a greenhouse of my own, I am in no position to discuss the pleasure it affords. However, I know all about *not* having a greenhouse, and along with many others, I know all about losing years of work, watching previously beautiful and valuable plants die one by one, losing seedlings that would have bloomed for the first time within a few weeks, losing hundreds of other seedlings from a few months to a few years old, and losing all plants intended for grafting, all because of poor judgment, false optimism, and failure to be realistic.

For those who would place themselves in group No. 3, above, some already have greenhouses, some have decided to build, and others who may be limited as to space and budget, are, at the moment, still undecided as to the best course. Some growers in the second group may yet give consideration to construction of a greenhouse with heat—or a reasonable facsimile. For those in the first group, forgetting about camellias may not be easy, especially if those of us who are more persistent should have better luck weatherwise. For all, there is still time for preparation before freezing temperatures again are imminent, and therefore still time to participate in the A. C. S. "Operation Greenhouse", which now has not only high priority but emergency status. It should be remembered that if camellias need protection once a week, once a month, once a year, or only once in 10 years, protection is needed just as desperately as in sections where protection from cold is required almost every night during the winter months. In addition to preventing heavy casualties from exceptional conditions, greenhouse protection would be rewarding in improving quality of flowers. In seeking perfection, flowers from outside-grown plants normally cannot approach the form, texture, and substance of those grown under controlled

Lean-to polyethelyne house with two storm windows for ventilation. Heated through basement door. N. Q. HANNER, Greensboro, N. C.

conditions, which would surely justify the trouble and expense necessary to create those conditions.

It would be wonderful if we could all have large glass greenhouses, commercially constructed, with plenty of room for hundreds of plants, automatic temperature and humidity controls, etc. For many, including myself, this is only wishful thinking, and when time, space, and money must be considered, a simple solution lies in the do-it-yourself type of greenhouse. One of the finest private camellia displays I have ever seen—competitive or otherwise—was an individual exhibit at the Port Arthur 1962 Men's Garden Club show on January 20 immediately after the freeze. The blossoms displayed were from plants handled in a shelter made of inexpensive framing material covered with polyethylene and heat was furnished by a diesel oil stove. The greenhouse flowers entered in the regular competition were, of course, equally lovely but were not superior to those in the special exhibit.

Gulf Coast camellias grown in "cool" greenhouses with no source of emergency heat fared no better than those completely without protection during the freeze-up, and no longer can this type of protection be considered safe. Carrying container plants indoors, whether as a regular practice or an emergency measure, is difficult and time consuming, is apt to disrupt a well-regulated household, and cannot be recommended. For those who wish maximum protection with the least expenditure of effort and money, and for those who prefer not to disqualify their flowers for "open" competition unless necessary, the following is suggested as advance preparation before the next flowering season:

1. Construct a lathhouse as large as space and the budget permit, with windbreak on the north side, in which plants can be grown in the ground and/or in containers. Temperatures to about 28°, if not prolonged, will harm neither plants nor flowers so protected.
2. If practicing container culture, consider using a light-weight potting mix composed of loam, peat, and plasterers' perlite (instead of sand) so that containers may be moved with little effort.

3. Provide a complete enclosure, either conventional or do-it-yourself type with equipment for ventilation and heat. If the space is small, the most desirable container plants can be selected and placed where they can he moved into the shelter quickly and easily. Flowers and buds on plants growing in the ground may suffer but it is improbable that plants would be killed. If temperatures should remain mild until showtime, flowers would not be disqualified for "open" competition, and, in any case, some of us are more interested in camellias than in competition.

Only a very extensive greenhouse could accommodate the hundreds of plants and seedlings many of us are growing. When protected space is limited, plants will not be permanently damaged if containers left outside are sunk several inches in soil, mulch, or leaves, and covered with leaves or pine straw. These preparations should be made early enough to precede the earliest possible freeze. Watering outside plants before sudden temperature drops below 30° is also important.

Those of us who lost camellia plants in the January, 1962, freeze (my information is that the only people outside this group are those who do not grow camellias) cannot blame the heavy losses entirely on the forecasting error. If we had been forewarned perhaps the damage would not have been so great, but it is indisputable that we should have been prepared in advance and were not. Let us then admit our fault and resolve that when these same conditions occur again, we will not again be helpless.

Because few greenhouses have been devoted to camellias along the Gulf Coast, there has been little reason for organizations sponsoring camellia shows to stress competition for flowers grown under glass, interest being almost exclusively centered in "open" grown camellias. Now that "Operation Greenhouse" is under way, perhaps consideration will be given to emphasizing protected flower competition to a greater extent, with appropriate trophies. The problem of whether a flower entered as "open" was actually grown without protection has been arising all too frequently, resulting in discontent among exhibitors. By encouraging competition for protected flowers, this problem might be minimized, and at the same time construction of greenhouses would appear even more desirable. With a number of greenhouses, even small ones, devoted to camellias within a given area, show committees could be certain of a reasonable number of flowers at show time whether the weather was cooperative or not, cancellation of shows could practically be eliminated, and postponements would no longer be a problem.

There is still time for "Operation Greenhouse" to be completed before the "snow flies". Since the obvious solution is such a simple one, since there are so many benefits to be gained not only in better flowers but in better shows and in peace of mind and freedom from harassment, and since new materials have placed protection within the reach of all, how can any one of us fail to take the necessary steps to prevent another such camellia season as was experienced early in 1962! There is no need for this calamity to happen twice. For a long time to come I'll be haunted by the memory of my frozen plants, my inability to save them, and the realization that I failed to care for them properly. At the last minute it was too late to prevent the catastrophe, and the "last minute" was all there was.

Growing camellias can still be most interesting and rewarding if only we remain aware of what has happened, what can happen again, and what is required in common sense preparation. If no serious emergency develops with which we must cope, it will still be pretty wonderful just to have the necessary safeguards against frost and freezing temperatures. If all goes according to plan, my "barn door" will be safely locked about the middle of November of this year, and my new horses—I mean camellias—safely out of the reach of horse thieves—pardon me, I mean frost, sleet, wind, ice, snow and COLD.

From Frustration To Fulfillment

MRS. WEBB BRUNSON, Meridian, Miss.

A good example of the courage and determination of a handful of ardent Camellia lovers is the case of the Meridian Camellia Society. Until March of 1959 there was no local Camellia Society, when about twenty growers met to organize such a society. Most of the group had never even attended a Camella Show and knew absolutely nothing about the staging of a show. Mr. Tom Clower of Gulfport, at that time State Director for Mississippi, was contacted and he and his wife came to Meridan to give a talk on Camellias. He told of the American Camellia Society and its benefits, and so this group became affiliated with the National Society. Several speakers were invited to talk to the new Society and the response was wholehearted. The group was advised to purchase several copies of the South Carolina Show Handbook and the members began to read up on how to put on a show. It was truly a case of the blind leading the blind!

A date was set for the show, and Webb Brunson, President, began inviting Judges, all of them complete strangers to the Meridian group. Again the wonderful spirit of camellia growers manifested itself, and the response was most gratifying. Mr. James K. Mashburn was invited to give a talk and he talked mostly about container and greenhouse culture which was an entirely new subject to this group.

In November of 1959, the early freeze caused severe bud droppage of the majority of the plants. From then on, it was a constant worry about getting blooms for the first show. Several hundred letters were sent out to names picked at random from the Yearbook. The Meridian Chamber of Commerce furnished the postage and ads were sold for the program, providing the money to finance the Show . . . (many times the question was asked among the members . . . "What Show?" . . . where were the blooms coming from?)

A week before the show, a heavy and most unusual snow fell. PANIC! Several members met hurriedly, and some of them wanted to cancel. However, a few insisted that the very first Show simply could not be cancelled. The community must be shown that a Camellia Show could be put on, somehow. After all, one of the main purposes of a Society is to stimulate local interest in growing camellias. The newspaper was informed that the show would be postponed for two weeks (some members thought that a few local blooms might be there in two weeks). The Judges were informed and several area Societies were asked to tell their members.

The day before the show, two members, Mrs. Loretta McCormick and Mrs. Frances Herring, went to Pascagoula and got blooms from Burt Mann. Mrs. Elizabeth Jeffares, Recording Secretary of the Society every year, went to the home of Mr. and Mrs. Gus Menard and they very generously supplied her with a few hundred outdoor blooms.

Show day arrived and panic still prevailed. Would a decent show be possible? Just then in walked George Wheeler of Birmingham, and with him were Mike Wesson, Dick Ward and several other Birmingham growers, loaded with the most gorgeous greenhouse blooms imaginable! I doubt if they had ever been greeted with such grateful enthusiasm before or since. Then Captain and Mrs. J. H. Brooks of Jackson, Miss., arrived with blooms from Jackson members . . . then Jimmy Mashburn from Brandon. A wonderful display was brought from R. L. Brent's Nursery greenhouse and the Zerkowskys brought a large display from Slidell.

The Meridian Society was overwhelmed with the fact that Camellia lovers are so very responsive and enthusiastic about Camellias that they will travel great distances to attend Camellia Shows. Each new arrival was greeted with amazement that anyone would come so far to attend *our* insignificant little Show, which turned out to be far from insignificant, but was one of the outstanding shows in the section.

George Wheeler offered to come back and talk to the Society about greenhouses and his offer was gratefully and enthusiastically accepted. His visit the next month convinced many of the members that camellias in this area are not to be depended upon without a greenhouse. The Webb Brunsons immediately decided on a National all-glass greenhouse and also assisted Mrs. S. O. Scott in ordering hers. Mr. and Mrs. Roland Adams of York, Ala., who are members of the Meridian Society also ordered a National.

That summer, ten greenhouses were constructed, besides the garages, etc., which were made usable for camellia growing. Mr. and Mrs. R. F. Jeffares constructed their own greenhouse, using second-hand windows for sides and roof, built around a framework of redwood. Even after Mr. Jeffares had completely nailed his framework together and was told that the type of nails he used would deteriorate in redwood, he went back over the whole thing, using galvanized nails instead of common nails. He used plate glass on the roof and, of course, adequate ventilation is provided for on the sides and with two vents in the roof.

Mr. and Mrs. Ed Eaves constructed their greenhouse also, using second-hand windows, but with clear fiberglass roof. A specially treated wood was used instead of redwood. As he is out of town a good deal, he provides for temperature changes with an automatically controlled window fan, which helps keep the house from getting too hot. Both he and Mr. Jeffares use automatic gas heaters, set about two feet off the ground.

Mr. and Mrs. Jim Slaughter, newly elected President, have the largest greenhouse in Meridian, 20′ x 32′, which "Mr. Jim" built himself. He used creosoted bridge timbers for the foundation, second-hand windows, which can be opened, with windows for vents in each gable.

Mr. and Mrs. Tom Tartt of Livingston, Ala., who have never missed more than three meetings of the society,

ELEANOR GRANT

Magnificent Shocking Pink Semidouble—Early to Midseason

ACS Highly Commended Seedling Certificate
Columbia, S. C., November 19, 1960

ACS Highly Commended Seedling Certificate
Tallahassee, Fla., January 21, 1961

2-Yr. Grafts: 1st size $35.00—2nd size $25.00

Most 2-Yr. Grafts Have Buds
A Few Extra 3-Yr. Grafts

Please Include One Dollar for Shipment

Mrs. Adam Grant **702 N. Cherokee, Ave., Dothan, Alabama**

although Livingston is 40 miles from Meridian, already had a small greenhouse, converted from a chicken house, and also a large lathhouse which is covered with plastic in the winter. They have now improved on these houses and built a third.

Another member had a carpenter build a small greenhouse, using Miami windows for ventilation. Her greenhouse was divided into two sections by a glass wall and a glass door. One side is used for warmer temperature plants and the other section is kept for a few camellias in containers. Mr. and Mrs. Bill Harbour, local nurserymen who have been in the business for nearly thirty years, purchased a small ready-built plastic house with steel framework. Last year they added another section, doubling the greenhouse in size. A small spot gas heater is used for heating and they found that the greenhouse got too warm, so an opening was made on each side which could be opened or closed manually.

Mr. and Mrs. E. R. Jones purchased this same type of ready-built house which they also doubled in size the next year.

Mr. and Mrs. C. C. McCormick built a small greenhouse, using two walls of their home, adding the other two walls of Miami windows. This has a southeast exposure and receives adequate sunshine. A small spot heater gives proper heating facilities.

The next summer, more greenhouses were constructed, as those members who did not have greenhouses the first winter realized that to get full and complete enjoyment from the lovely camellia in this area of unpredictable winters, a greenhouse was a necessity. Also they realized that an expensive greenhouse is not necessary. An adequate house can be built for the cost of a summer vacation, but instead of being a pleasure of the moment, can materialize into a lifetime enjoyment project.

Mr. Sief Heblon was one of those who realized this and he built his greenhouse himself with a little professional help in laying concrete blocks for the foundation. He has one side with shelves at working height where he is able to do his grafting, etc. On the other side there is a shelf high enough to place four or five foot plants under it and he gets all available coverage from his greenhouse without any wasted space. He also erected a cutting bed with electric wiring in the bottom, covered with earth, of course, where he has rooted many cuttings. He has allowed many of his friends an individual "lot" marked off by small strips of aluminum, where they are privileged to put some of their own cuttings.

Dr. Dan Thornton and Mr. and Mrs. E. E. Morrison are others who have bought or built greenhouses.

Meridian to this date has about twenty greenhouses, which is certainly proof that the greenhouse fever can "catch on" in a hurry. Anyone who has a greenhouse can be assured of always having lovely blooms. It is quite a thrill to be able to walk out to a greenhouse on a day when the temperature has dropped to zero and snow is all over the ground, and see in the greenhouse many, many gorgeous camellias blooming to perfection, and rewarding a person for the loving care expended on them during the twelve months of the year.

So Meridian has advanced from a very inexperienced group to a society whose members attend all possible shows, carrying blooms, participating as judges, and enthusiastically entering in any and all camellia activities in this area. They feel that they are partly responsible for the growing interest in camellias in other towns, particularly Tuscaloosa, Ala., where a new Society has recently been formed. Year before last, several members attended the Meridian show, among them being the young grandson of Buford Boone, publisher of the Tuscaloosa News. Mr. Boone brought his grandson, who entered a bloom from a cutting he had rooted himself and won a blue ribbon on it. Naturally, he is a most enthusiastic camelliaphile from now on.

Meridian feels that with the continued co-operation of their sister city of Jackson, which has been of tremendous help to the Meridian Society, and other growers with greenhouses in Tuscaloosa, Birmingham, Memphis, etc., those towns will always be able to have a camellia show, even in years when there are no outside blooms. The towns which have a good many camellia houses are indeed fortunate, both for season-long enjoyment of blooms and the fact that a show can always be held, enabling fellow growers to meet, talk camellias, enjoy their blooms, and indulge in that wonderful relationship which exists between lovers of God's masterpiece, the beautiful camellia.

The few members of the Meridian Society who do not have greenhouses have co-operated wonderfully when there were no outside blooms in their own yards, and helped put on the show. Eventually, they, too, will realize the thrill and convenience of having their own camellia houses. Meridian still feels grateful to persons who aided them so thoroughly when they put on their first show without the expectation of a single bloom in this county. Of course, there will always be outside blooms in warmer places like Mobile, Gulfport, Biloxi, Slidell and Hammond, La., and friends like the Zerkowskys, Clowers, Hody Wilson, Hoyt Lee, the Menards, J. M. Hull, W. W. Dees and others can always be counted upon to provide blooms from the coastal areas. But even these camellias were affected this year by the freezes. It is my guess that there will be greenhouses in the future along the coast, also.

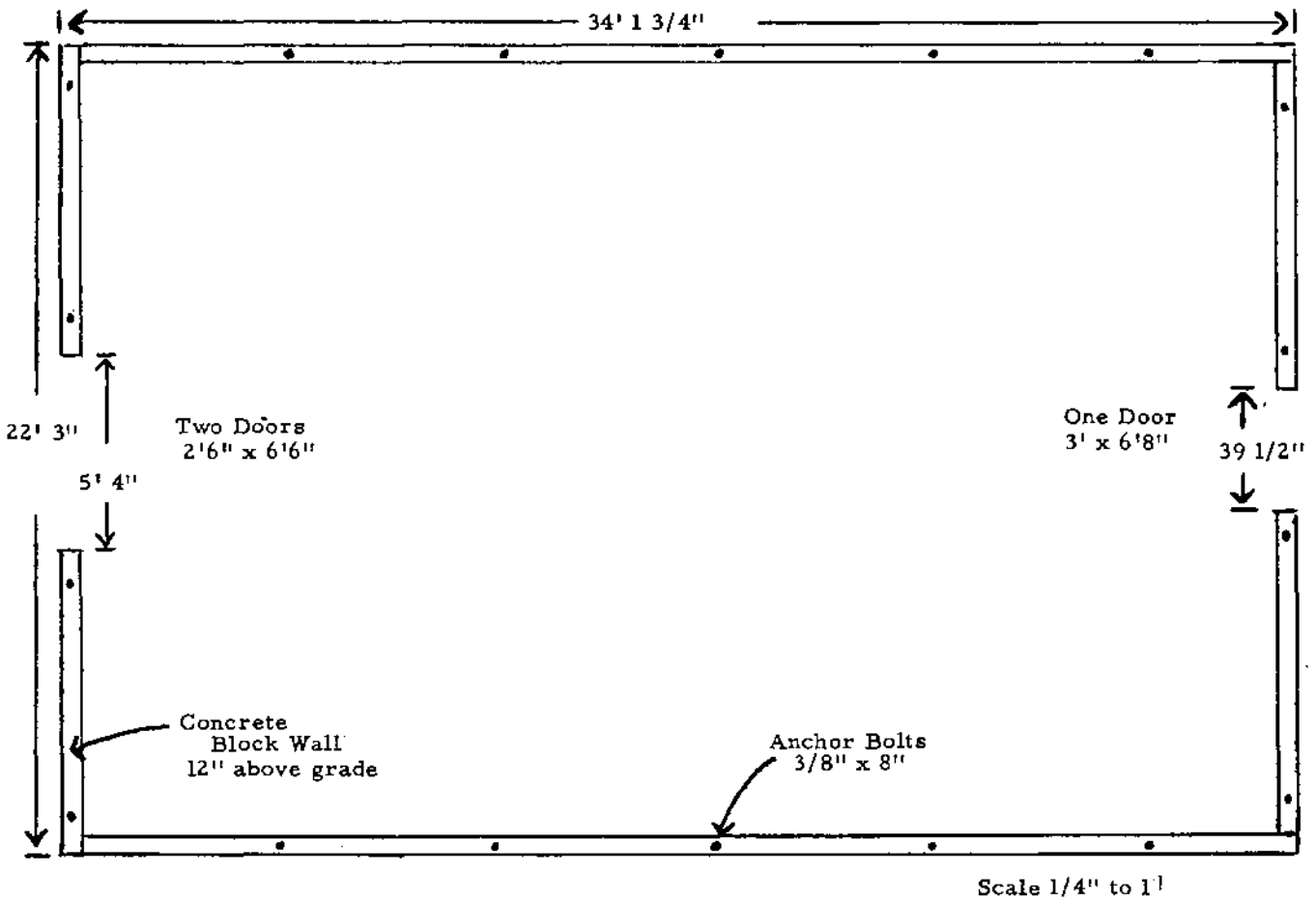
So all those who are lagging behind about building a greenhouse should begin right away . . . they will never regret it, unless they build it too small!

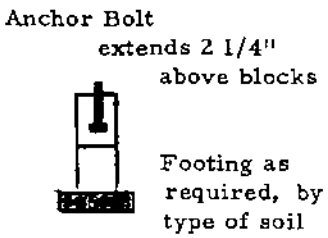
The Meridian story should have been told long ago. Imagine a camellia society, just formed and setting a show date, faced with not a bloom available in the whole county. How many societies would have gone ahead with plans, determined to have the show or else—and they had a good one. They displayed a determinedness and courage that is all too seldom displayed by show committees elsewhere. We hope others, considering cancelling, will give this some thought. Now, with the greenhouses built and with others to be built, there will never be a winter, no matter how severe, that will cause a cancellation. Perhaps more importantly, they will have perfect blooms to enjoy all winter. Ed.

A Nurseryman's Greenhouse

ROBERT D. EILAND, Charmwood Nursery, Millbrook, Ala.

Some ten years ago I became interested in camellias, in fact to such an extent that over a period of several years I gradually withdrew from the construction business, devoting more and more time to what had then become my nursery. This business was carried on at my home, the plants being grown in the yard, some in the ground but most in five gallon cans. Unfortunately the yard was not large enough for the plants and a greenhouse so one was not built until later. The business, from a small beginning, flourished through hard work and a growing reputation for specializing in only the newest and best varieties. Not too much loss was encountered through freezes though an occasional early or late freeze took its toll in dead expensive varieties, often already tagged sold, which meant a complete loss to me. But more importantly I realized that wood from which I made grafts had been damaged. Not only were these plants often small, affording only a limited number of scions, but being just released, were expensive. Too, as you can appreciate, my next year's business depended on these grafts taking and making good saleable plants. If the scion wood had been damaged, by the time this became apparent, the grafts had failed to take, there was no good wood with which to regraft, and my sales on these were gone for good. As you know, the sale on good new varieties is the first year, for after that they are in plentiful supply. I knew I had to have a greenhouse for more reasons that the foregoing; when customers buy scions they want them undamaged and so do I for their satisfaction is the basis of repeat business. I wanted to protect plants bearing scion wood,





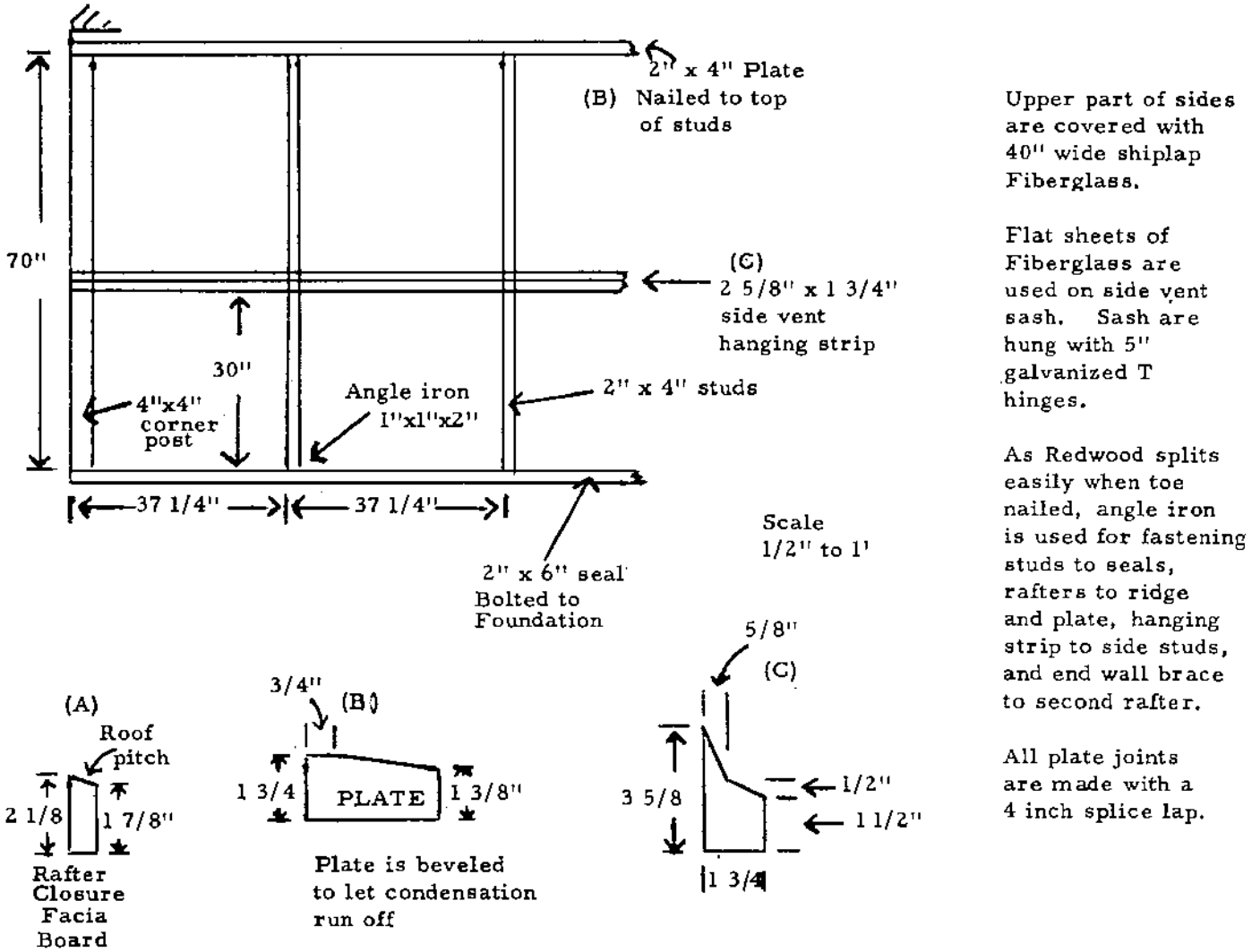
Width of House
to be 22' +
Twice the Thickness
of side window framing

Camellia House
Charmwood Nursery
Foundation Plan
By Robert Eiland

and grafts to be sold, but also to be able to display blooms of top quality. In my opinion, and that of other nurserymen, the best salesman on the yard is a beautiful bloom of a wanted variety. These blooms also "create wants" for what camellia hobbyist can resist a variety he doesn't have when he sees it blooming at its best, as it will consistently do in a greenhouse? Many more sales are made by having a display greenhouse and two people are made happy, the customer and myself. I love that kind of happiness.

Two years ago I found exactly what I wanted and could afford—seven acres of good sandy loam near Millbrook, only a few minutes' drive from Montgomery. The land was cleared and then two simultaneous projects started, building a combination home and office and the long needed greenhouse. As shown in the plans the framework is redwood and the covering is corrugated clear plastic. Side vents run the length of the house as well as the roof vent and all are operated by National Greenhouse machinery.

You all know the story of the zero weather during THAT FREEZE this past winter. I too lost plants for the house was not large enough to hold everything. But my stock plants with scions to graft or sell were not damaged nor my for sale grafts for they were all in the house. As an illustration, JULIA FRANCE had not sold too well for not many had seen a bloom. My plant had a tremendous,



Upper part of sides are covered with 40" wide shiplap Fiberglass.

Flat sheets of Fiberglass are used on side vent sash. Sash are hung with 5" galvanized T hinges.

As Redwood splits easily when toe nailed, angle iron is used for fastening studs to seals, rafters to ridge and plate, hanging strip to side studs, and end wall brace to second rafter.

All plate joints are made with a 4 inch splice lap.

Camellia House
Charmwood Nursery
Side Wall Framing Plate 2
By Robert Eiland

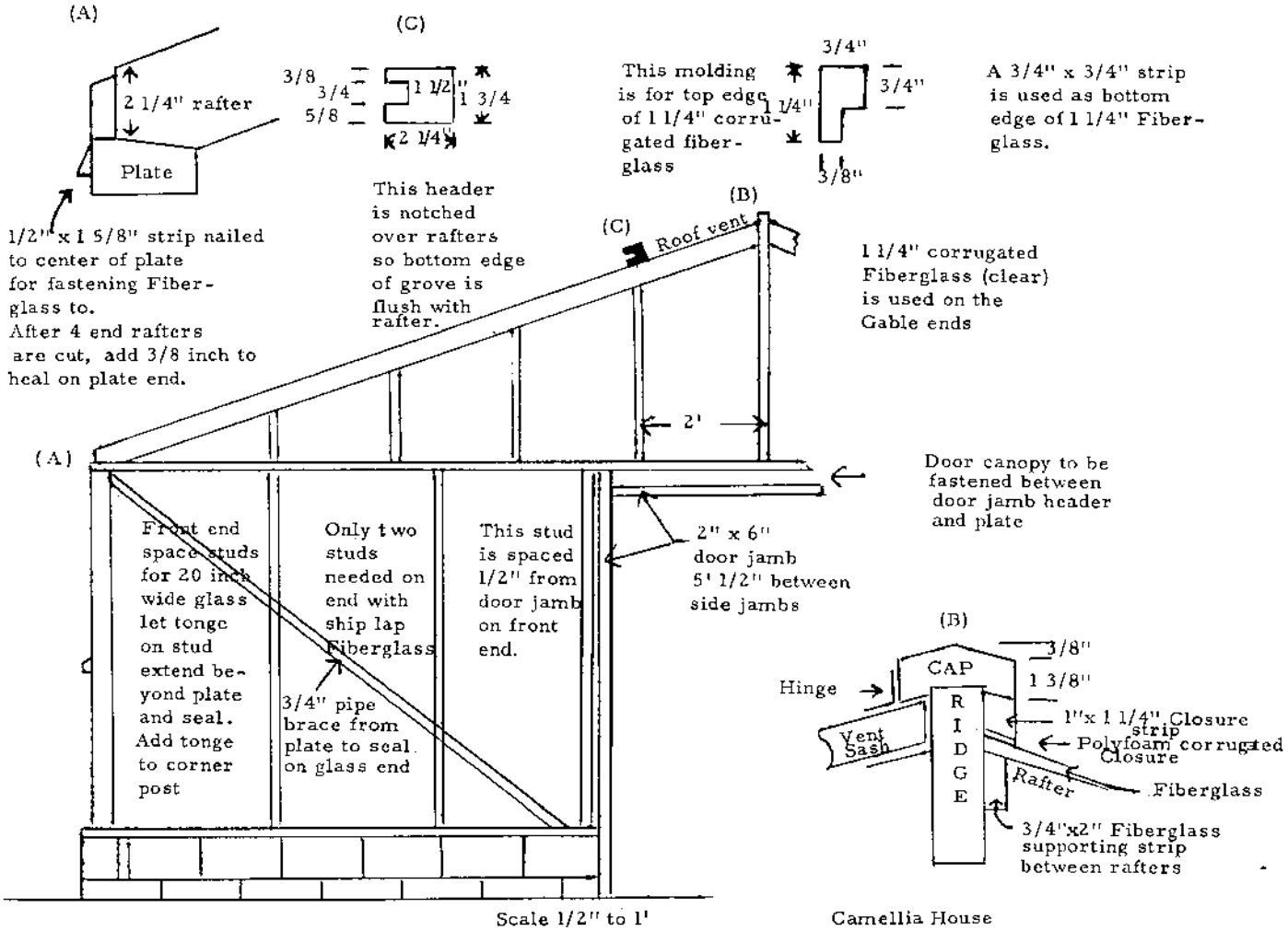
PLATE II NOTES—Roundhead brass wood screws, size 8 one and a quarter inches are used with angle iron fasteners, 4 to each piece. Size 6 by half-inch is used on shiplap Fiberglass. Size 8 by one inch for 1¼" Fiberglass. 2½" Fiberglass is nailed with aluminum roofing nails. Size 6 by half-inch is used for flat sheet on vents spaced every 6 inches. Flathead size 9 by ¾" is used on all hinges. All nails used are galvanized.

A ¾" x ¾" strip is used for closure on ends of shiplap and sheets should lap over on a stud. Side vent sash should join at a stud also. Side vent hanging strip is fastened with one nail to stud and two 1" long angles. All angle iron fasteners are painted before used.

beautiful bloom, and all the grafts I had were sold that weekend and I could have sold many more had I had them. I had offers of fifty dollars for my stock plant, less than four feet tall, proving good blooms talk the language we camellia growers listen to best.

This summer I plan to extend the house with hopes I can afford to double the length. Next summer or the one after I will build another house forty feet wide and eighty feet long. Then I will have no worries about any kind of weather doing any damage to any plant in stock for they will all be protected. Just as importantly, no customer need fear buying a cold damaged plant or scion.

Now, just one word of caution, written in every article I have seen on greenhouses, but well worth repeating. Build your house as large as you can afford, or larger than you think you will need for some time to come, for no one



Camellia House
Charmwood Nursery
End Wall Framing Plate 3
By Robert Eiland

PLATE III NOTES—Roof vent sash is 1½" thick. Fiberglass extends 1" over lower edge of sash. All vent sash are batened together.

Foam rubber weather stripping ⅜" x ⅝" is nailed to top upper edge of Fiberglass header, detail "C". Corrugated polyfoam weather seal is split in half lengthwise before use. It is used on top of rafter closure facia board, detail "A". Also on top side of Fiberglass in grove, detail "C". Also between closure strip and Fiberglass, detail "B".

Double strength greenhouse glass 20" x 36". See glazing detail elsewhere.

One row of blocking is used between rafters, half way between ridge E and eave. Blocking is 3½" wide and is nailed flush with bottom of rafters. Three-quarter inch long spacers, cut from ¼" pipe, is used at each place Fiberglass is nailed to blocking, 4 to each block.

A strip ¼" x 1¾" is used on glass end to cover opening between door jamb and first stud, and is nailed to *door jamb only.*

End walls are braced, approximately 7' from each side with 2 x 4 from second rafter down to plate. Each end of brace is scribed cut to fit.

Ridge is supported with 3, 1¼" pipes.

Before installing first sheet of Fiberglass on roof, cut about 1¼" strip from ontside edge, which will leave a sheet with both edges turned up. Center the first crown over end rafter and proceed with installation of fiberglass.

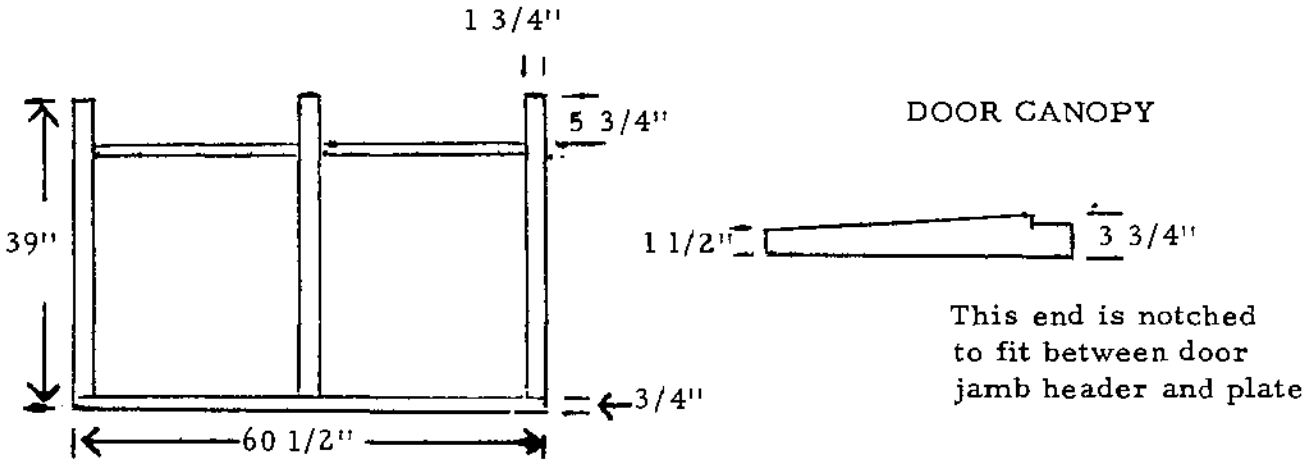
Roof vent should extend beyond end rafters 1½" to outside edge of Fiberglass and detail "C" also.

yet has built a camellia house large enough to hold all the plants he just has to have.

I sincerely hope the plans will be of some help to you in building and enjoying your house as much as I have enjoyed mine as a hobbyist as well as a nurseryman.

Editor's Note: I feel I must comment on this greenhouse for I saw it several times during its construction and a number of times since. It is the finest house of home construction I have seen for it has adequate side and overhead ventilation and is so well built. It compares very favorably with a pre-fab job by the greenhouse companies. Anyone contemplating building his own or having it built by local labor would do well to closely follow his plans.

—Geo. M. Wheeler.



The canopy is covered with 1 1/4" Fiberglass, which overhangs 2" on all 3 edges. It is also used on both sides and front and extends 1/2" below frame work.

EQUIPMENT

A Master instant heater of 75,000 BTUs is used and was sufficient at 7° F. Uses only half gallon kerosene per hour. Plugs directly into any thermostat. No fumes and no flue is required. Master Vibrator Co., 1752 Stanley Ave., Dayton 1, Ohio.

Roof and side vents are manually operated vent machines by National Greenhouse Co., Pana, Ill.

Greenville, S. C. Speaks For Greenhouses

The camellia bug bit me about 20 years ago when I saw a plant in full bloom. For the next few years, I collected many varieties. In 1950, we had an early freeze and I lost about 70% of my plants.

I decided immediately to build a greenhouse. This was an 8- by 17-foot lean-to and overflowed the first year. Then I built a free standing house 20 by 30 feet which I thought would be of sufficient size. Last winter sixty camellias in containers had to be left out buried in sawdust. Regardless of how large you build, you will not have all the room you need. Remember this!

My pet hobby for many years has been growing seedlings. I have several very good ones, of which, Frances Garoni, named for my wife, will be released in the fall of 1962. Without a greenhouse, I do not believe I could have matured and bloomed any seedlings in our climate.

A grower who has a greenhouse will have better plants, more perfect blooms, and a wonderful place to relax and care for his plants in all kinds of weather, day and night. The satisfaction and pleasure to be derived from greenhouse camellias pays handsome dividends on the cost.

Snbmitted by William Garoni.

TIPS ON GROWING BETTER CAMELLIAS

All camellia blooms are beautiful, but it is impossible to grow many of the better varieties in the Piedmont section of South Carolina without having a greenhouse. With a few greenhouses in any city, an annual show is an insured success. The Greenville show has not been cancelled or postponed during the past ten years. With snow and ice on the ground in 1959, we had one of our better shows, notwithstanding that some entries from Atlanta to our show were frozen en route.

In my opinion, it is easier to grow camellias in containers inside of greenhouses than in the open. This is because more personal attention may be given to each plant, and all plants are grown in the same medium. Growing camellias is an exceedingly interesting and economical hobby, resulting in the formation of many wonderful friendships and unsurpassing fellowship in different shows.

Soil mixture should be such as to give adequate drainage from containers. When I first started growing camellias, I made the mistake of using oversized containers. This caused the soil outside of the root structure to sour and eventually harm or destroy the plant. Now, I begin with small containers and increase the size as the root system increases. While different growers may vary slightly in the fertilizer used, all successful growers agree that "Too little is better than too much".

If I were asked to name the requirements for good blooms, my answer would be a healthy plant kept in a cool greenhouse with high humidity. Plants should be watered rather frequently during the period when blooming. High humidity can best be obtained by using gravel or sawdust, or even both, on the floor of the greenhouse.

Submitted by Jas. L. Love.

IS A GREENHOUSE NECESSARY?

Should all camellia lovers have a greenhouse? This question can start a lot of conversation pro and con. From my experience in growing camellias since 1925, my answer can be only—YES.

I grow ten outside for one under glass. However, regardless of how severe Mother Nature is, plants, blooms and interest are always good in the greenhouse.

Under glass your plants will keep interest at a high pitch all winter. You will have top quality blooms with no wind, rain or frost damage. The more tender varieties, as well as peony form and doubles, will come through with flying colors.

With outside plants only, there have been and will be years when heavy freezes ruin all blooms and some plants. A greenhouse during such winters will keep interest high as a grower moves in and has a wonderful time with his greenhouse plants. Eventually you will have a greenhouse, so why postpone the pleasure?

Submitted by Cecil Morris.

WHY HAVE A GREENHOUSE?

I became interested in camellias about 18 years ago when I purchased my first plant from Charleston which was a small plant of Blood of China. After blooming successfully the first year, the bug had bitten so I started buying plants which I planted in the open. After getting good growth and bud set, I became very disheartened to have early freezes do considerable damage to buds as well as plants because I had paid no attention to those varieties which were more cold resistant than others.

In 1950, I decided to build a small greenhouse on the end of a tool shed. This was constructed of steel sash for the three walls and cypress 2 x 4s for roof bars. This house was 9′ x 10′ and I took a few of the grafts which I had in the open and used only a small electric heater. The first winter convinced me that this was a sure way of having blooms without damage. Since that time I have expanded the first greenhouse five times, and it is now 28′ x 38′ and I am growing about 250 plants.

Greenhouses need not be expensive as a number of those in this area are constructed with used steel sash for the walls and used greenhouse materials for roof and ventilating equipment. Since greenhouses should be kept as cold as possible without freezing, heat is an inexpensive item if properly used. Oil probably is the cheapest with electricity being only a little higher but much more convenient. I use both in my greenhouse.

In having a greenhouse it is very gratifying to know that regardless of how severe a winter might be, you will be assured of good blooms. From the number of greenhouses in this local area, we do not worry about our show being postponed or cancelled due to adverse weather conditions. This has been most important in promoting camellia interest in the Greenville area.

Submitted by Haskell Gray, Jr.

My Camellia Houses

CAPT. JOSEPH H. BROOKS, Jackson, Miss.

Our first Camellia House was a slat house covered with polyethylene. The camellias were growing in the ground, and the slat house had been built over them to afford protection from cold and frost. We found that, in the Jackson climate, a slat house was not enough protection to give blooms in midwinter, so we stretched plastic over the lath, and installed heaters. This was somewhat of an experiment but we found that good blooms could be had all season with such protection. Last summer we took down most of the slat house and built a new Camellia House, using redwood for the framing, fiberglass for the roof, and polyethylene panels for the sides. Most of the construction is quite simple. The foundation is of six-inch concrete blocks on the south side and a retaining

wall on the north side. Uprights and rafters are on 32-inch centers. Rafters are braced at three-and-one-half-foot intervals with egg crate type bracing. There is a center joist supported by four by fours at eight-foot intervals. The roof pitch is about one inch to the foot. One feature is a little out of the ordinary and works real well. The side panels are made so that half of them slide open, which gives fifty percent ventilation. The construction details are as follows: two by six pressure-treated lumber is used for the plate, and the two by four studs are set flush with the inside of the plate which leaves about two inches at the bottom as a support for the panels, which are framed of one by three redwood. The polyethylene is held on by quarter-inch moulding, also redwood (ripped on a table saw from 1 x 4s). The panels are four feet, eight inches wide and long enough to just fit under the rafter overhang. The rafters are cut to project two inches beyond studs, and a 1 x 6 is nailed to rafter ends. Short pieces of 1 x 4 are nailed at intervals to bottom plate to hold panels in place. In operation, the panels slide readily since they are light, and it is so much more convenient having them always in place than having to unhook panels that hang up. They are better than doors because not so subject to wind damage. All sides are covered with Saran shade cloth; 5 percent shade on north, 32 percent shade on south and both ends. The size of the house is 15 by 55 feet. Heat is provided by three gas heaters. Most of the plants are in containers now, and are moved out of the house in summer and put under oak trees. The containers which are placed on bricks seem to last longer than those resting on the ground, or on sawdust.

The house is not real airtight, but it afforded all the protection needed last winter when the temperature dropped to one below zero.

There are some problems that we have not solved completely. One is how to get light when needed and also shade when needed—adjustable shade. Much of the time in winter the plants need all the light they can get, but there are usually two weeks or more in February when warm spells hit Jackson and the sun bears down. The temperature goes to eighty, and the full sun shining on the fiberglass roof raises the temperature inside the greenhouse to ninety or above. This year we put bamboo shading on the top, but this gives permanent shading after it is installed, and reduces the light on cloudy days below what is desired. We are thinking of trying to get a Saran Cloth curtain which can be unrolled when needed and then rolled up out of the way when not needed.

Another problem is humidity. On real cold, sunny winter days the humidity is low. If the house is opened up, the humidity drops. If it is kept closed the temperature rises. Neither condition is ideal.

We have been prone to overwater and keep our plants in containers too wet. This condition leads to bull-nosing. When the container plants are in the open during the summer they need water nearly every day; but after they are put in the greenhouse they need watering only once in two or three weeks. It is hard to adjust to this change. We want to water only when water is needed, but the hard part is to tell when this is the case. On a recent visit to Memphis, we saw a "gadget" which Dennis Videll (LU-AN FLOWER SHOP) used which is amazing. It tells at an instant the water content of the soil in any container, or in the ground, for that matter. Since obtaining one of these, we have stopped overwatering.

Firstborn

Container plants took the severe cold unusually well

Field plants had practically no damage

SOME EXCELLENT ONE-YEAR CONTAINER-GROWN GRAFTS ARE STILL AVAILABLE AT $25 EACH

SIX FIELD-GROWN TWO-YEAR GRAFTS ARE AVAILABLE AT $35 TO $50 EACH

Scions—3 Eyes, $5

HODGES ORANGEDALE NURSERY

Ragley, Louisiana

Order Now For October Delivery
Plants Are Limited

ELLEN GOFF
(America's Most Beautiful Camellia)

MISS CHARLESTON
(5 Time ACS Award Winner)

1-Yr. Grafts—$25.00; 1-Yr. Larger—$30.00; 2-Yr.—$37.50; 3-Yr.—$50.00.
Crating $1.50 each. These two are a must in any collection.

OUR TWO OUTSTANDING RELEASES FOR 1963

DOCTOR BURNSIDE
(3 Time ACS Award Winner)
Very large—True Red
Semi-Double to Peony
(Magnificent)

KAY TRUESDALE
Large to very large light
Lavender Pink—Formal to
Rose Form Double
(Out of this world)

True's Camellias

6800 Devine St. **Columbia, S. C.**

Our Hobby Pays Dividends

LEWIS AND MARY KNOCK, Frederick, Md.

In 1944 we purchased property in the north section of Frederick, Maryland, mainly because it was a property with considerable land, also because the former owner had built a substantial cabin on the back part of the grounds. This cabin eventually became the nucleus of what is now our greenhouse complex. We always had a lively interest in gardening and had begun to consider making our hobby pay its way after we both retired. In 1946 we purchased a 13 x 13 Lord and Burnham English type greenhouse, adding a good sized work room to above mentioned cabin. My work was service to the baking trade for Food Chemists with headquarters in Newark, New Jersey, and part of my territory was in southern Virginia and North Carolina. It was in this part of my travels that I made acquaintance with Camellias at about the time of, what you might call, a great revival of interest in these beautiful plants. I met John Coleman at about the time he had started his nursery in Portsmouth, Virginia, in 1942 or 1943 and would spend very enjoyable visits with him on each of my trips to this section. The back of the car would be pretty much filled with Camellias on my return to Frederick. These purchases of Camellias were made after we had received some encouragement that we would have sale of the flowers. After finding we could grow and flower these plants and that our work was acceptable with two Frederick retail florists, we decided to add a 21-foot by 52-foot standard greenhouse. We had the small house overly filled with plants by 1950 when we built this larger addition. By 1952 the small house and this addition were pretty well filled so we added 26 feet to the length making it 76 feet long and then L shaped with an additional 52 feet. This is our present set up and is enough for the two of us to take care of. The business is run as a partnership for income tax purposes. We only hire part time help for heavy hard work and none at all for preparation of flowers for sale. Mrs. Knock retired in 1953 and I retired in 1957.

Approximately one hundred plants are in ground beds and about 150 plants are in various sized containers. We supply one Baltimore wholesale florist and two Frederick retail florists with wired blooms attached to two wired leaves. The florists we serve like our Camellias tailored that way and we agree because we think a Camellia should in no way look like a gardenia, for which a collar is used. We grew ALBA PLENAS and DEBUTANTES for blooms to about March 1st, and PRIMAVERA and our seedling named for Mrs. Knock (MARY KNOCK) for blooms up to and including Easter which is the end of our blooming season. We take off all buds and blooms at that time. All of these varieties are in ground beds.

The soil for these ground beds is composed of sandy loam one inch screened and weathered cinders and German peat, about one-third each. We have had drainage problems with ALBA PLENAS causing the flower to loose its center too easily. After some experiments we feel we can overcome this fault by moving this variety to the warmer part of the house and circulation of air by electric fans during dark damp weather.

A 21-7-7 soluble acid fertilizer is used on these plants at the rate of about one-tenth of the recommended usage when watering is required. During the growing season these plants are under intermittent high pressure mist, fifteen to thirty seconds every thirty minutes. We vary the timing according to the temperature, a longer period during real hot weather. This mist system is controlled by a humidistat set at 70% relative humidity, which in turn is controlled by a time clock. Time for misting is set according to day length and is set so that plants will dry off by nightfall. Less watering is needed when this mist system is used and consequently, in connection with our method of fertilization, our plants, over a season, only receive three or four feedings of the recommended amount of fertilizer which is one pound per 1,000 square feet.

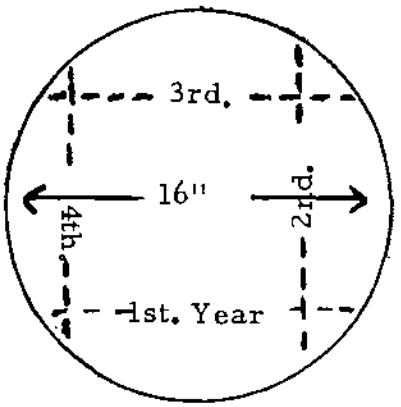
As calcium is one of the most important soil additives for soil purity, for strength of tissue and its role in making nitrogen available, we have often wondered why the use of it has not been more often advised. Here in Frederick County's highly productive limestone soil, it is one of our farmers' earliest chores, namely liming his soil. Now calcium in some forms would be poison to some forms of plant life and as camellias have a tendency to resent alkalinity a good source of calcium for such plants is gypsum, which is lime in a neutral state. We lightly dust the soil in both ground beds and in containers with gypsum once a year.

Our greenhouses are heated by hot water and in winter the thermostats are set at 38° Fahrenheit. We have automatic ventilation at the ridge on both sides and open when temperature rises above 48°. There is a device on one roof vent which leaves it open ½ inch even in the coldest weather so that some fresh air is in the house at all times. Side vents all around the house are open when the sun gathers strength, generally about February 15, and closed at night until new growth is in full leaf. We have found good ventilation very important.

After flowering and new growth has hardened, spraying is done using Malathion in recommended doses and pests have been kept to a minimum. Volck is added for one spraying when a cool day comes along.

Plants in containers are grown for our own enjoyment and we like to grow them in containers so we can move them around and discard easily when something comes along we like better. Regarding what varieties do best in the greenhouse, we have found that if it is a beauty outside it will be enhanced in every respect by being protected in a greenhouse. For instance we have had a plant of WOODVILLE RED, which of necessity has been pruned, and which is beautiful to look at even without bloom.

Watering and fertilization of container grown plants must be given more attention than those in the ground beds. These plants are in containers ranging from one gallon cans up to bushel sized containers either made of wood, galvanized iron or plastic. We have found the galvanized



iron best because they last longer and are easier to root prune. This 16 inch diameter container is as large as we use and when on examination, we find it pretty well filled with roots, we take out the soil and roots as shown on diagram by dotted lines. Notice we have made four such lines across the surface of the soil and marked some first, second, third and fourth year. By taking such portions of soil and roots no harm is done the plant and by the time you have completely pruned the roots in four years, you can start another cycle of pruning. We have three ALBA PLENAS in sixteen inch wooden tubs with trunks seven inches in circumference. These plants have been in this size tub since 1950. All of our plants must of necessity be top and side pruned which is generally done when the wood hardens in summer. We think it would be better to prune in winter but this is our busy time with flowers. We try to keep our plants six to seven feet in height.

We would like to emphasize the importance of fast drainage for container grown plants. See that the bottom of the container has plenty of good sized holes and that at least one inch of the bottom is filled with some material such as ½ inch pebbles or ½" to ¾" fir bark. We have also found ½ inch charcoal to be excellent, however, it is not always available. We have used peanut hulls in my container mixture and the roots seemed to love it. We have been advised to drench peanut hulls with Nemagin to make sure we do not have a nematode infestation. To make sure we have a uniform soil mixture in all containers we wash all soil from the roots of all plants purchased, dust the roots with Rootone, and plant in sized container not too large for size of the roots which can be observed after all old soil has been washed off. Our present soil mixture is one third of each of the following: good composted loam, Pearlite, and German peat. After discontinuing growing Orchids, we had quite a lot of fir bark on hand. We used this in the bottom of some eight inch pots when we repotted from smaller containers. When these Camellias went to larger containers, we were amazed at the large thick white roots that were down in this fir bark. On examining plants that have had this same treatment in larger containers we have observed the same results.

The 1951 American Camellia Society Year Book, pages 130 to 182 inclusive has been a source of much useful information and it came to us at a time when we were having lots of trouble with container grown plants. Much of our present culture developed from the information we obtained from this year book. We refer to it many times. In fact, all the year books are worth much more to us than the amount we pay as dues and surely the *Journal* with its up to the minute articles and news of what is going on Camellia-wise is added value for our dues dollars.

Our retirement program with Camellias has made for both of us a most interesting and rewarding way of life. The beautiful flowers we get to enjoy, the trips to as many Camellia shows as we are able to attend, some demanding duties to keep us active and above all, the many friends we have made; all of the foregoing we feel pay us good dividends on our investment.

I Would Like To Have a Greenhouse, But...

MANSFIELD LATIMER, Rock Hill, S. C.

Sooner or later 98% of all camellia growers will say, "I would like to have a greenhouse, BUT—." The other 2% probably would like to have a greenhouse too but won't admit it.

What are these "BUTS" that keep so many growers from enjoying a greenhouse for their camellias? Are these "BUTS" real reasons or just excuses? Or do these growers really believe they are real when they are not?

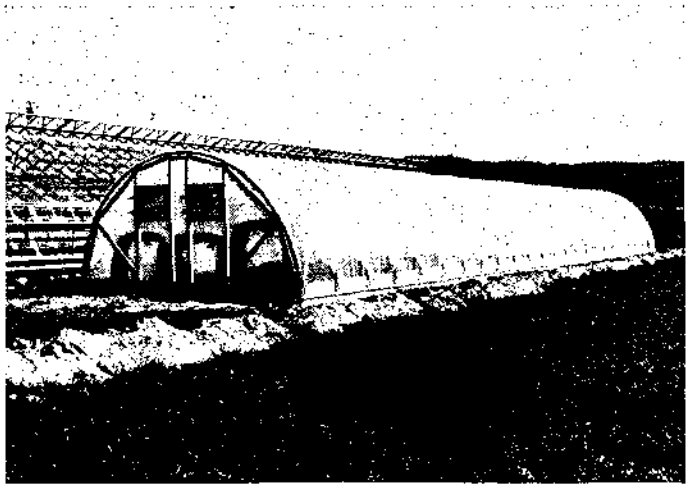
Let us look at the problem and then the facts can speak for themselves.

But, it's too expensive.

Sure, a Thunderbird is expensive but a Ford is a car too and it will take you where you want to go and bring you back just as well as the more expensive car. You don't say, "If I can't have a Thunderbird I don't want a car." No, you buy the Ford and enjoy it.

The same thing is true of greenhouses. If money is no object you can buy a greenhouse that will do just about everything except cut the blooms for you. However, a homemade plastic greenhouse, costing only a few dollars will give you just as fine blooms as the most expensive greenhouse ever built.

A little "elbow grease" and ingenuity is all that is needed to build a greenhouse. There is a wide choice of materials such as glass, fiberglass, plastic, second hand windows,



Lord & Burnham Quonsett type plastic house with conventional type house in background.

etc., in addition to a wide range of types and prices in the prefabricated houses.

Even the more expensive greenhouses are not really expensive when you consider the cost as being pro rated over a period of many years.

The only other cost is a small amount of general maintenance which most growers can do themselves. Cost of fuel is not excessive since only enough heat to keep the temperature above freezing is necessary and most nights, except in the more northern areas, no heat will be needed.

So, you see, cost can more or less be controlled by the individual grower who can spend as much or as little as his budget or wife will permit.

But, it's too time consuming.

Sure, but it's a hobby, isn't it? After all, don't you want to spend some time with your camellias? Actually the best part of it is you can determine just how much time you want to spend working with your camellias.

Aside from the fact that there are a few necessary things that have to be done for your plants, you can almost forget them if your time is really limited. Depending on how many plants you have, a half a day twice a year to move them into and out of the greenhouse, an hour twice a year to fertilize them, an hour twice a year to spray them and 5 to 10 second per plant every week or so, depending on the time of the year, to water them. If that takes all your spare time we are sure your wife will cut some of those great big blooms for you.

Seriously, we know of no hobby that will give you as much pleasure for the small amount of time invested. On the other hand, if you have the time, and are so inclined, you can spend hours with your plants and flowers.

But it takes too much room.

I assume that by this you mean you have no place to put a greenhouse. Certainly your greenhouse will hold more plants per square fot than if they were planted in your yard. Even a very small greenhouse will hold 100 plants or more, depending on the size of the plants. The flexibility given by the use of containers permits you to move and adjust your plants so that you can use available space in a way that is not possible with plants grown outside in the ground.

But it is too difficult and takes too much knowledge.

No so. If you can grow camellias outside in the ground, you can grow them inside in containers. The same general cultural requirements apply regardless of where camellias are grown. As a matter of fact camellias grown in containers have certain advantages over those grown outside.

In conclusion let us take up some of the minor differences in growing camellias outside and under glass.

SOIL MIXTURE

Actually, if everyhody used the kind of soil mixture they should for outdoor plants, this same mixture could be used for container grown plants. The most important factor in container soil is drainage. The soil should be porous so that the water may pass through the soil quickly.

WATER

The camellia is largely composed of water, which it must obtain from the soil in which it grows. Outside plants can get their water from natural rain (even they may need watering at times) but you have to supply the water for your container grown plants. The soil should never be permitted to dry out. On the other hand it should never be soggy. If you have a good soil mixture this will not be a problem.

CONTAINERS

There are five basic types of containers. These are:

1. Wood
2. Metal
3. Clay
4. Plastic
5. Fiberglass

Each has some advantage and all are satisfactory. Except for cost, wood is probably the best all around container. The main thing to remember is not to over pot. Not only is valuable greenhouse space lost by using pots that are too large but there is more danger of having a soggy soil when there are not enough roots to fill the entire area of the container.

REPOTTING

When camellias are properly planted outside they will never need moving. Container plants must occasionally be repotted when the plant becomes root bound. *Do not try to save time by putting small plants in large containers.* When you move a plant up to a larger container *do not over pot.*

FERTILIZER

Although many experienced greenhouse growers have special fertilizer formulae they use, these are not necessary. Many also fertilize during the winter or growing season but this is not necessary. Actually the same fertilizer you use on your outside plants can be used on your container plants with this one word of caution. Since the roots of container plants are confined to a small area and since all the fertilizer will go through the soil to the roots it is *important not to over fertilize.*

PRUNING

The pruning program for outside and under glass plants is the same except that, due to the fact that sprawling plants take up valuable greenhouse space, greenhouse plants are usually cut back a little more to shape and control them.

DISBUDDING

The disbudding program for outside and under glass plants is the same except that, due to the fact that most greenhouse blooms are grown for specimens, usually fewer buds are left on the greenhouse plants.

SPRAYING

The spraying program for both outside and under glass is about the same although there may be a little more of a problem with insects in the greenhouse.

CONCLUSION

There is no reason why you should not start growing camellias in a greenhouse. Its neither expensive, time consuming or difficult. If you can grow them outside you can grow them inside.

In another part of this booklet you will find complete details on all phases of greenhouse culture. Start today.

A Custom Made Greenhouse

STEWART C. FORBES, Savannah, Ga.

The large greenhouse in the Diamond garden in Savannah is a modified, steel frame Lord and Burnham house especially designed for camellias. The house is 70′ long and 21′ wide with 7′ eaves and 12′ 8″ to the ridge.

Standard continuous ventilating sash 29″ wide are located, full length, on each side of the ridge. Similar sash 23″ wide run the length of the house just under the eaves. The roof was changed by using inverted steel "T" bars instead of purlins. These bars support the removable roof sash which are made of Redwood and glazed with horticultural glass. They are 9′8″ long by 3′4½″ wide and twenty are required on each side of the roof. Some of these can be removed during warm weather and all of them are removed and stored during the summer.

The gables were also modified to accommodate a 3′ by 6′ double easement sash on each side of the 3′ doors. This provides sufficient ventilation in conjunction with the four rows of ventilators for normal winter weather.

The outside walls are of concrete block construction 24″ above grade. Between the top of this wall and the bottom of the side ventilating sash there is a row of removable side sash twice the width of the roof sash and 36″ high. These are also removed during the growing season when the temperatures get too high. In summer, they are all removed and stored with the roof sash.

Inside the house there are two 4′ beds on each side and a center bed of 7′ 4½″ width. The inside walls are of 4″ block, 20″ high. The walkway around the center bed is 26″ wide, allowing ample room for a wheelbarrow.

The beds were filled with a very sandy soil to provide ample drainage and individual holes were dug for each plant and backfilled with a good mixture. After planting, the beds are mulched with pine straw.

The top and side ventilating sash and the removable roof sash are spatter-painted on the underside with a thin mixture of white cement paint to diffuse the light. The gable ends and removable side sash are not painted.

Heating in winter is accomplished by the use of four 220 volt, plug in, Lord and Burnham electric-steam radiators. These radiators will keep the temperature above freezing in 18 degree weather and are only used when below freezing weather is predicted.

Mixed organic fertilizer is applied twice a year during the growing season and is broadcast over the mulch and watered in. During the blooming season, supplementary feeding is applied as a foliar spray using a highly concentrated liquid seaweed. This material, a British product, supplies beneficial minerals only found in seaweed.

The biggest problem in greenhouse culture of camellias is the difficulty of providing lower temperatures during hot weather in winter without elaborate cooling equipment.

Why I Built a Greenhouse

MARK S. CANNON, Dothan, Ala.

Are you surprised? So am I at my writing an article of this kind when I have been growing camellias all these years on the outside. I am going to try to give you some of the reasons for my building a greenhouse and I hope it will be interesting to you.

First let me say that I do not think there is any way to enjoy your camellias any better than to have a nice garden full of practically every new variety and to walk out over a big area enjoying the blooms of the varieties that you have not seen before. I think it would be hard to surpass this in any way. I think that the prettiest camellias we have are those hanging on the bushes out in the garden. But there is another side to this. If you have that terrible eighteen degrees, then you are out for three or four days and that is why I am going to give you my reasons for building a greenhouse.

Please understand that I do not think anyone with a greenhouse that can grow on the outside will let the

greenhouse take the place of a garden. I think a greenhouse, or a camellia house, is just adding pleasure to your camellia hobby which so many of us enjoy.

One of the things that made me decide definitely to build was that I have three or four promising seedlings that I have wanted to put on the market for two or three years. Being a person who believes a seedling should bloom three years before you think about naming it or putting it on the market, I have been unable to do this due to having a plant with two or three buds on it and just about the time they open we would have severe cold weather. Of course, then I am out of business on this seedling until another year. To give you an example of what I mean, I was fortunate enough, or at least Mrs. Cannon was, to have a seedling named for her by Mr. H. E. Ashby of Charleston, South Carolina. This past year I had to take the container in and out of the porch numerous times (I lost count) trying to get a good flower for a picture. It happened that I did not have a good picture of this variety and wanted only an excellent flower to photograph to use in advertising. This caused me quite a good deal of trouble carrying it in and out, trying to get this one picture because I did not have a greenhouse. You can see that this would be an advantage to having a camellia house.

Another example is that I have a miniature that I have bloomed for two years and, as I have stated above, do not think you should put anything on the market until you know that it is good. This miniature has not been named, it was beautiful for one year, and then the next year the cold got it and the next year it was beautiful. I have been in the process of trying to find out what this flower would do for three straight years over a period of five or six years. You can see that this is a disadvantage and you may have it too with your seedlings. Therefore if I had had my greenhouse at that time, the first three years that it bloomed I would have known whether it was worthwhile or not. As it is, I am still waiting. I think it is very interesting when we talk about a greenhouse to think about the seedlings. When they start blooming there is no doubt as to whether we will see them or not because the cold is not going to get two or three buds that we have on a young seedling plant. If you have a greenhouse, you have it made.

Now, as for new varieties, let's take the greenhouse versus outside in regard to new varieties. All of us that have been growing camellias as our hobby for a number of years are still buying the new varieties. How many times have you bought a plant and just about the time that the bud was half open we would have a severe freeze and you missed seeing the bloom? Maybe the next year something else happened. I have plants in my garden now that are four or five years old and for various reasons I have not seen them bloom although I have seen them in other places. You like to have them blooming in your own place so you can see them well. This doesn't apply to just one variety but all the new varieties. We go off and buy a plant, bring it home, and it has buds on it. We put it out in the garden and just as it is beginning to bloom BANG comes that cold weather we were hoping would not come. We do not see the new variety. This takes a little edge off of it and you wait until the next year and you don't even have a bud. You can see that being able to see all of the new varieties that you have each year is worthwhile to you.

I also think you can evaluate new varieties better when you have one in the greenhouse and one on the outside. Maybe you will have a very good flower on the outside and a good one inside, too. In this way I believe you can keep track of the new ones and know just how good they are and what to expect. Also you can talk to people and tell them whether they will grow on the inside and outside. It looks like new varieties are coming more and more each year. I do not think we should say that we are not going to get any more until we see them because that is not so. As you know the yellow one is on the way now

Charmwood Camellias

WE SELL AND SHIP TO SELL AGAIN

1-Yr. Grafts—4 and 5 Gal. Cans

$10.00	$8.50
BALI HA'I	ALEXIS SMITH
ELLEN SAMPSON	BETTY SHEFFIELD SUPREME
ELEANOR GRANT	DIAMOND HEAD
FUNNY FACE BETTY	HIGH WIDE 'N' HANDSOME
HAWAII	LINDA ABBOTT
MAVERICK	MOONLIGHT SONATA
MISS MARY	MRS. JIMMY DAVIS
REBEL YELL	PINK DOVES (Hyb.)
TOMORROW'S DAWN	WOODVILLE RED—BLUSH

JUDY MATTHEWS—1-Yr.—$15.00; 2-Yr.—$20.00 and $25.00

We are growing our Camellias by the U. C. System for producing healthy container-grown plants.

Our price list will be mailed August 1st. If not on our mailing list drop us a card.

CHARMWOOD NURSERY

P. O. Box 215 **Millbrook, Ala.**

FOR SALE

ENTIRE NURSERY STOCK OF

Camellias

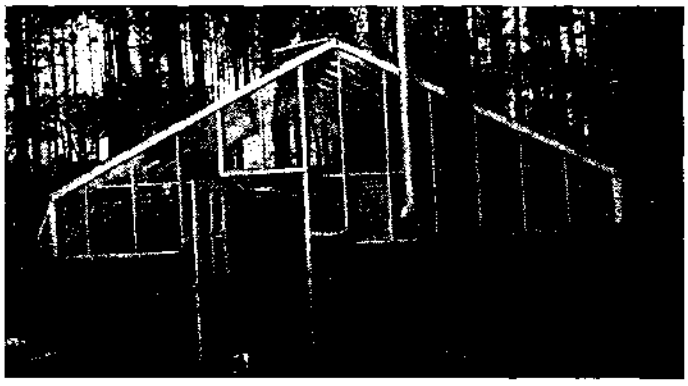
Several thousand plants of Rare Varieties,

Standards and Young Seedlings

ADDRESS INQUIRY

CARE OF AMERICAN CAMELLIA SOCIETY

Box 465 Tifton, Ga.



Pit type greenhouse of DR. HARRY KEEL, Winston-Salem, N. C.

and, of course, we are all going to buy a plant as soon as it is released and we want to see how it will bloom. I don't want to wait three years before I see mine bloom. I want to see it the first year. With my greenhouse I can if I get one that has a bud. All in all I think the new varieties alone will certainly make it worth the cost of building a house.

For several years I have been putting in a few summer grafts. These are all in the open. Nine times out of ten about fifty per cent of these summer grafts are very tender when we have the first cold spell. About half the time I will have about half of each plant killed back due to this tenderness. Now, with the greenhouse all I have to do is put them in the corner, forget them, and they will grow right on without any trouble. This will be worth something. Also you can get scions of some rare items in the summer that you missed on and graft them. Don't take summer grafting lightly because a lot of people are doing very nicely with it. In fact, I have grown some summer grafts almost as good as the winter ones. I was lucky when they hardened off and the cold did not get them. But you can't be this lucky every time.

Several years ago I built a lathe house under which I have in egg cans about five hundred and fifty plants. I use the mist system to keep these plants through the summer and in this way I can take care of them very easily since they are not scattered all over the garden. Within this group are some that have not proved whether they are of the better class or not, but still under this lathe house I can take care of them before I put them out in the garden as a permanent planting. By doing this I can also find out whether they are hardy or not. Now, why can't I put plants in the greenhouse and take care of them just as easily as I do under the lathe house? All of us know you can take a small place either in a greenhouse or under lathe and take good care of a group of plants during a summer and then move over into the winter with them. In this way you have them at your fingertips and can do as you please with them. You can fertilize them in containers and you are not bothered with the cold killing them. If you have some you want to pet you can do that. I have observed from many of my friends that you can have quite a bit of fun in this way. In a small greenhouse, say 20 x 24, you can have a lot of fun during the cold weather.

I think I should tell you, though, the turning point that made up my mind for me. I knew I had to have a greenhouse. A couple of years ago I was invited to a town over in Georgia to a program and it happened to be the day after we had had about fourteen degrees here in Dothan. I walked in and, of course, the greenhouse boys were there with some luscious blooms. They were as pretty as I have ever seen, especially since I did not have the first one at home, open or partially open. During the course of the evening Mr. Sam Hjort, who is a nurseryman of long standing over in Thomasville, walked up to my wife and said, "Mrs. Cannon, there is something wrong with this meeting."

My wife asked what it was and he said, "I have never seen you at a camellia meeting of any kind in all these years without a flower on your shoulder."

She tried to laugh and told Mr. Sam that she did not come very often without a flower but that the fourteen degree weather the day before had done away with the flowers and she did not have one for that day.

Now, you see, I have made my point, and it was a turning point because the Mrs. told me on the way home that night that we were certainly going to have a greenhouse. Now you know. Anyway the meeting was a big success because I got the go signal from the Boss and she is the Boss here just like your wife is at your house.

Now, to get to the meat in the coconut, and tell one of the real reasons why I will enjoy my greenhouse. You know, now and then every one of us will get real honest and this paragraph is going to be real honest as you will note. We have quite a few visitors to our garden during the year and we also have a nursery in connection with our garden. Well, it is certainly very discouraging to walk out after very cold weather and not be able to show a bloom to the customers we have in the nursery. By having a greenhouse, I can take them over to it and in most cases show some of the new ones that maybe they are looking for. I know it will be impossible to have all the plants in the greenhouse but I can certainly show them some nice blooms growing in there.

By having a garden and a greenhouse we can have blooms about nine months out of the year. As you know, down this far south they start blooming some time as early as July. With a greenhouse and the garden, when our customers or our friends want to see flowers, we will have them. Most people get a big thrill out of looking at nice flowers. You might say this is the commercial end of it and that is right, but I believe it will pay for itself. However, I believe also that you can get a lot of pleasure out of a greenhouse even if you are not in camellias commercially, because I have found this to be true myself.

Another thought is this. When you get home from work in the winter time and you just want to relax with your camellias, you can't go out in the yard and work. But you can go into the greenhouse where there is heat and light and do some grafting, repotting, etc. and have a good time for several hours after dinner if you are not playing with your grandchildren. This is fine recreation and a greenhouse would add to it. However all of this will not take anything away from the garden.

Why don't you try it?

Some Pointers by A Greenhouse Enthusiast

MRS. FRANK DOWD, Charlotte, N. C.

On a cold, wintry day, when nature's icy fingers have stilled every growing shrub and covered the earth with a white blanket of snow, one has only to open the door of a heated greenhouse to be overwhelmed with a magic aura of peace and serene beauty. How breathtaking is the sheer majesty of the camellia japonica in bloom! In winter this unforgettable experience is only possible with the protection of a greenhouse. Undercover, nature's cycle of growth has been awakened by approximating ideal conditions of light, heat, moisture, and food. This protected indoor garden is vibrant with vivid color and verdant green. Rain and snow on the outside only makes work inside a joy and a delight.

Camellia culture quickens one's creative powers. Nurturing a seed, cutting, or graft is somewhat like tending a precious life from birth to maturity. Unconsciously, the gardener drives towards the perfection of a project undeterred by failure or disappointment; believing, the unquenchable flame of hope and expectation burns brightly within one.

The joy of sharing one's loving labor with others is a tonic and uplift to both receiver and sender and is like few experiences I have ever had. During the long blooming season of the camellia, my husband's daily routine is to carry a tray of these spectacular blooms to friends, and quite often to strangers in hospitals and nursing homes. There is always a tray of camellias in the Bank lobby, and the public interest is truly amazing. A card with the caption, "From the Winter Indoor Garden of the Dowds" accompanies the gift.

My everlasting gratitude for the wise counsel and horticultural help from camellia friends is unbounded. A camellia friendship is a rare and priceless association. A camellia enthusiast wants to share anything he has and knows about camellia culture. Certainly, all growers profit tremendously by the successful experience of others; but I think I have profited most from my own ignorance and the painful mistakes that I have made and have been able to correct. Under one's own watchful eye, it is thrilling to restore life to a sickly plant when it is ebbing away, to increase the size and depth of color in a blossom, to preserve a bloom for a week and often make it best in the show. Many trial and error efforts of one simple dirt gardener can best be outlined briefly in the following article on my cultural experiences. With apologies to the experts, knowing full well that no two growers are in complete agreement on cultivation procedures, I expose my amateur convictions forthwith.

I. GREENHOUSE ERRORS AND REMEDIES

(a) *Beware of oversized tubbing of small plants.* Do not put one year plant in large container, hoping it can grow to 14-inch diameter tub.

REMEDY—USE CONTAINER 2" LARGER ALL AROUND THAN ROOT BALL OF PLANT. All cultural requirements can be perfect, but if tub is too large, soil in root zone will sour and cause root rot.

(b) *Beware of too deep a container.* Roots are surface feeders and seldom go deeper than 6 or 8 inches. Good rule, depth of soil in tub equals diameter of tub for small plants.

RESULT—PLANT WILL NOT DIE BUT DEVELOP SO SLOWLY THAT IT WILL NEVER BE VIGOROUS AND BLOOM WELL. In deep planting, unused, rich, moist soil at bottom of container causes root system to deteriorate as soil stagnates. Plant one year graft in 3-gallon container, pencil size understock in 1-gallon tub.

II. DO NOT PUT FIELD GROWN PLANTS INTO A CONTAINER FOR GREENHOUSE CULTIVATION WITHOUT FIRST BARE ROOTING. The soil is too heavy, is not porous enough, and lacks water holding capacity which peat moss provides. My mixture is one-third peat moss, one-third well-rotted cow manure over 2 years old and one-third sand. Nearly all humus bound together with sand. Bare root all plants before tubbing, then you will know what you are covering up.

III. BARE ROOTING

How

(1) *Prepare new container with moist soil and drainage material.*
(2) *Bare root with small stream of water, handling carefully to avoid injury to microscopic roots.*
(3) *Cut dead roots and root prune if necessary.*
(4) *Cut top growth of plant to balance with the root system. This is very important.*
(5) *Syringe foliage thoroughly every afternoon for four weeks to prevent leaf dehydration.*

When

Mid August and September, high humidity in air. Work always in the shade and keep plant in shade until ready to take in greenhouse.

Why

Tubbed plant should only stay three years in same potting mixture. Soil tends to pack easily, loses it's porous quality and its regenerative capacity to assimilate plant food with only a restricted area to draw from. This is not compulsory, but if you want optimum bloom it is essential.

IV. KEEP A COLD GREENHOUSE, 35° TO 45°. Camellias like a cool temperature while buds are developing slowly and maturing. A plant activates naturally in cool houses. Nature knows the seasons, even if you don't. With this regime, both size and depth in color is improved in bloom.

V. HUMIDITY—SHOULD NOT FALL BELOW 50%

Methods

(1) Mechanical humidifier.
(2) Wetting down floor of greenhouse daily.
(3) Syringing or fogging foliage if blooms have not started.

Improved humidifiers are changing these procedures.

VI. DON'T BE AFRAID TO PRUNE ANY TIME, IN THE GREENHOUSE

Make the plant conform to your needs in your "crowded" greenhouse, rather than preserve the specimen shape. Cover cut wound with tree paint or equivalent.

HOW I FERTILIZE

(1) Two general feedings of well balanced azalea and camellia fertilizer, containing the important trace elements. Apply after blooming, and then again 6 to 8 weeks thereafter.
(2) Quantity, 1 tablespoon to a 3-gallon container, and proportionate amounts for larger tubs. After application, very lightly scratch the soil to prevent glazing and to afford even infiltration.
(3) In the spring I foliar feed with prepared liquid fertilizer, combined with good insecticide every three weeks until new growth is hardened. Consult directions and use less than amount suggested. Remember strong new growth determines to a great degree the quality of future blooms.
(4) November 1st, I return plants to greenhouse, climate determines one's individual program. After first hard freeze on the outside, I begin to fertilize every three to four weeks with liquid fertilizer. To 30 gallons of water, add two-thirds pint of 15-5-5 liquid plant food, which contains fish meal derivatives, add two quarts of dried blood, and 10 to 12 tablespoons of iron sulphate or equivalent. Never apply until plant is thoroughly saturated with water. I apply sparingly—one-half pint to a 3-gallon container and increase accordingly for larger tubs. I continue this program until greenhouse is nearing height of blooming period, about February 15th for me, then I substitute copious watering to assist the plant which is straining towards optimum bloom. Camellia flowers are over 90% water, consuming at blooming time more than normal amounts of water and transpiring even more rapidly. I never force a plant to swell its buds by artificial stimulation with fertilizer and water. Nature gives me the sign first, as all varieties have their individual characteristics and timing for bud swelling.
(5) In September I put small quantity of 0-14-14 dry fertilizer and add a small quantity of cotton seed meal, 1 tablespoon to a 3-gallon container. I am not convinced that a high content of phosphorous and potash in combination alone is of great benefit.

In camellia culture, I believe the grower should try to reproduce as nearly as possible the climatic conditions and native environment of the camellia japonica indigenous to the Orient. Recall their natural habitat, where soil is always moist (never drys out) and is a porous, virgin soil of rich wood's earth of decomposed leaves and forest litter thriving in filtered shade, enveloped with the humid atmosphere of excessive rainfall. How ideal!

Did I say camellia culture is a peaceful, awe-inspiring, tension-releasing experience? Yes, I still do.

Camellia blossoms speak so dramatically in interesting formations, delicate and substantial textures, and in exquisite colors from the purest white through the muted shades of pink and rose to the boldest, most exotic reds, that it matters little what I do, say, or think, for in truth, "Only God can make a camellia"!

A Greenhouse Will Pay Dividends

DR. D. M. RIVERS, Greenville, S. C.

Some of my friends prefer to grow their camellias in the open but after growing them both outside and under glass for several years, my choice is greenhouse culture every time. Ten years experience in growing camellias under glass has assured me that there is no other hobby that could possibly be quite so recreating or afford me so many hours of supreme pleasure as I have had from puttering around in my greenhouse.

In Greenville, South Carolina, we have an average of fifty-two freezing nights in the winter with the mercury occasionally going down as low as one degree above zero. Our first freeze usually comes the latter part of November. Moreover, there are frequent nights during the winter when we have heavy frosts without the temperature's reaching the freezing mark.

In our own area, many varieties of camellias bloom satisfactorily outdoors but seldom open in time for our show which is always scheduled for the first weekend in March. There are varieties that do not perform well outside in the Piedmont section of the Carolinas and many of this type either have inferior blooms (or none at all) or the bark splits which results in a high mortality rate.

Some people are wary of building a greenhouse simply because they assume that the venture is too expensive. The cost can be reduced in various ways so that any person of modest means can afford a greenhouse if he really wants one. One of my friends, a College Professor, recently erected a small greenhouse to the rear of his home doing practically all the work himself. For a modest sum, he is now the proud possessor of a prize collection.

The added dividends that come to those who grow camellias in a greenhouse vastly outweigh the monetary investment.

Consider the dividends of friendship that come from greenhouse culture of camellias. Friendship is a basic need of one's personality. Without it life would be desolate and unbearable. When Charles Kingsley was asked the secret of his noble life, he replied, "I had a friend." All who belong to the fraternity of camellia growers can testify that their lives are immeasurably richer because of the numerous friends that were made along the way.

Someone has said, "A friend is one who multiplies joys, divides grief, . . ."

There is a very close fellowship existing among greenhouse growers. This is probably due to the fact that most indoor cultivators are always seeking new and outstanding varieties to test under glass; they are always searching for new techniques or innovations in greenhouse culture; and, too, they turn to other greenhouse growers for possible solutions to their problems.

Fiercest competition at the shows seems always to be present among the greenhouse group. It is indeed most interesting to note the warmth of their friendship toward each other while at the same time they evidence such a competitive spirit when exhibiting their blooms.

It can be said that no more superb, more attractive, gracious, and generous friends can be found than those who grow camellias! During the many years in which I have been a hobbyist, I have never met a person who grows camellias whom I did not genuinely like. Among camellia enthusiasts, there are no strangers. Bound by the ties of a common interest, camellia friends spend some of their happiest hours avidly discussing the newest varieties, or the discovery of a new sport.

Every camellia fancier soon discovers that his hobby is a passport to friendship and hospitality in any part of the world where camellias are grown. Several years ago, I was a victim of a most virulent type of influenza. My strength was depleted and weeks passed before substantial signs of improvement appeared. At that time, I decided to go to Florida hoping that the genial sunshine would be the tonic that I needed.

Subsequently, on our way to the west coast of Florida, my wife and I stopped in Gainesville for a few hours. While standing on the street waiting for my wife to finish her shopping spree, I saw a large wholesale hardware store which also had a retail outlet. I strolled over that way and discovered that three or four magnificent camellia blooms of excellent show quality were on display in the retail division showcase.

The strangest thing happened to me as I stood looking at those blooms. *I had a strong compulsion to enter the store.* I asked the clerk about the grower of those rare blooms stating that I, also, grew camellias as a hobby. He replied, "Wait just a minute, please, I want you to meet our Vice-President. He, too, is a hobbyist."

In a moment, the Vice-President came downstairs from his office. We had not exchanged more than a few words

Lascolite "Greenhouse White" and Clear Fiberglass Panels combined in an attractive, practical greenhouse constructed for Mrs. E. Shellenberger of Beverly Hills by Southern California Greenhouse Manufacturers, Rosemead, California.

NEW CAMELLIA "HOME"

To reap the full benefits of greenhouse culture, shelter your Camellias with Lascolite Fiberglass Panels. Made especially for greenhouses in five different greenhouse whites (plus clear). Lascolite softens and diffuses the light—promotes the growth of large, well-formed blooms and reduces the danger of overheating. Shatterproof Lascolite protects your plants against hail, "flying" stones, and errant baseballs, as well as rain, snow, frost, and wind.

This superior greenhouse material is actually among the least expensive. It is lightweight and easy to install—minimum framing and support are required. Lascolite comes in corrugated and flat panels, panes and rolls. Write today for illustrated brochure. LASCO INDUSTRIES, 1561 Chapin Road, Montebello, California.

LASCOLITE
FIBERGLASS PANELS

about camellias until he asked to be excused for a brief time, stating that he wanted to make a phone call. A few minutes more and he was back, saying, "I have just called my wife and told her that you and your wife would be our guests for lunch today and we'll spend a couple of hours talking camellias."

As I ride through any part of our nation, I know that a camellia greenhouse is an entree into the heart and home of a camellia grower. My greenhouse has brought scores of new friends into my home who, otherwise, would not have visited me. In fact, camellias have opened the door of friendship for me on three continents. It would seem that there are no strangers among camellia hobbyists in any part of the world.

A camellia greenhouse pays dividends in better health. This is an age of jangled nerves, hypertension, an uncertain number of ulcers, neuroses and phobias, all symptomatic of the emotional strain of our artificial living in an industrial society. Pressures are terrific and deadlines have to be met. Many are called upon daily to make decisions of far reaching eonsequences.

It is small wonder that mental illness is on the increase, that approximately one of every twelve persons will, at some time in life, succumb either to a serious mental illness or an emotional disturbance. There are numerous people who are living on the border line of mental illness simply because they have driven themselves at a furious pace through the years and have never found a way to gain release from their mounting fears and frustrations. Every person needs to be translated, periodically, from the realm of pressures and tensions to a completely diverted state of mind.

A camellia greenhouse has high therapeutic value to those who enjoy the tang of spring air and are not allergic to the feel of a hoe handle. Not everyone revels in gardening and those who have an aversion to getting on their knees to put in a graft of a new variety should seek a less exhilarating hobby. But those whose love of the soil causes them to forsake their golf clubs and their casting rods for a greenhouse filled with a choice collection of camellias have opened the door to better health.

Camellias are the best of the tranquilizers. In their magical power to make us forget our sorrows and frustrations, they are miles ahead of Miltown or Librium. They give us a fresh momentum for a new approach to our problems. Even a few minutes spent at the close of a busy day in a greenhouse with prize-winning blooms in profusion all about, the camellia hobbyist leaves relaxed and invigorated.

A camellia greenhouse pays dividends by adding zest to our living. For sheer joy, nothing can excel the fascinating hours that an owner of a greenhouse spends communing with his select varieties of camellias. All greenhouse owners have a well beaten path to the area where the camellias are grown. In fact, many visit their greenhouses, during blooming season, from three to ten times daily and each visit is a brief trip into another world. What could be more exciting than to watch a prize bloom unfurl its delicate petals of superior size and exquisite form? One's heartbeat is accelerated if there should be a show in the offing where the treasured bloom can be seen by fellow growers.

What devotee has not walked among his flowers in the greenhouse and been regaled by some such musings as these: "My VILLE — mm — exquisite this year— about all white and these tall rabbit ears . . . ELEGANS will be as large as a plate . . . a new seedling with big, fat buds . . . I wonder . . . That new DONKELARII . . . look! a fimbriated anemone sport of MRS. D. W. DAVIS . . . that TOMORROW will surely be seven and one-half inches in another day or two . . . what a heavily moired GUILIO NUCCIO VARIEGATED . . . a gorgeous KRAMER'S SUPREME . . . my; but that MAVERICK is well named, look at it bloom . . . huge bloom of DRAMA GIRL, ready to go into orbit . . . if that bud of CORAL PINK LOTUS continues to swell it will soon be large enough to explode . . . BETTY SHEFFIELD speckled SUPREME is breath-taking . . . it looks like a good year at the shows".

The possibility of growing show quality blooms for seven months of the year is another bonus that a greenhouse affords. Come wind, storm, hail, snow or sleet and the camellias continue to bloom, undisturbed. The humidity and heat can be controlled so as to insure luxuriant blooms.

Yes, a greenhouse does cost something; the amount depends on the size and quality desired. But after weighing the assets that a greenhouse will bring: quality blooms over an extended period, multiplied friends, better health, and zestful living, where can one find another investment that will yield such opulent dividends?

Growing Camellias Under Plastic

FEROL ZERKOWSKY, Tammia Nursery, Slidell, La.

To begin with, it is pertinent to say, the hardest part of building a plastic house for growing camellias was to convince myself it was necessary.

Until three years ago we had ideal weather for the culture of this compelling flower. X = ? happened! Our weather conditions changed. Our winters have become severe and the temperature so variable that a good blooming period is unpredictable.

The step had to be taken and we have been rewarded many times over the short period we have had plastic protection.

Our first house is 45′ wide by 60′. We used 3″ creosoted posts through the center 15′ apart. The center height is 12′ dropping to 6′ on the outer edge. We wanted this height because in this house we have our specimen plants, also the seedling PURPLE SWIRL that is now 11½′

tall x 12′ wide. The height also allows more space at the top for the heat. (This height is not necessary for smaller plants.) The two ends are closed with plastic—in the south to southwest end we have two doors 4′ wide x 6′ high, with two windows at the top to allow a fan at the north end to pull out the heat.

The sides are 3′ wide x 6′ high, doors that hang on a 2 x 4 opening out. When open two doors come together with one fastener. (Our gadget, homemade for this purpose, is quite clever, I think.)

For the foundation we poured a 4″ wide x 4″ deep concrete base. Before the concrete set we inserted long bolts on which we laid our 2′ x 4″ that was to hold our building.

The top is 1′ x 4′ cypress spaced 3 ft. apart. On the top side of the 1″ x 4″ we stretched 1-inch chicken mesh wire as tight as possible. In December we pull our plastic over the wire. The plastic is secured by the 1 x 4 with 1-inch stripping. In colder areas the plastic probably would be put on the house earlier than December.

Lath material is attached to the underside of the 1′ x 4′. Some days are warm during the blooming season and the lath placed 4′ from the plastic eliminates drip due to air circulation. The 50% shade lath material is left on the house and this eliminates the removal of the plants from the house during the summer months. The plastic is removed from the top as soon as all danger from cold can be determined. We use 4-mil plastic which is inexpensive and replaced each year.

Washed gravel is used on the ground and blocks placed under the containers. Circulation of air under the containers help them last longer.

Butane gas is used for heating purposes. An upright pipe is used with a gas jet on top of the pipe. The top of a large garbage can hangs over the flame to disperse the heat.

In our specimen house, 45′ wide x 60′ long, we use two jets, one at each end on opposite sides of the house, outside 6° to 8° would require 4 of these jets. We get our best flowers if we can keep the temperature between 40° and 45°. Colder than this wilts the flowers.

This past summer we built another plastic house. This house is used for the protection of our potted plants for sale and for the protection of the plants from which we intend to take grafting wood. The wood is protected from the severe temperature with which we have been faced. This house is 45′ wide x 125′ long and holds many plants.

Electric lights are in our houses only for the purpose of cleaning and watering at night. There is no time for this during the day.

Immediately after the last show in our vicinity and grafting is over, we do our pruning under plastic as new growth usually is earlier than our outside plants. The plants are well watered, fertilized and sprayed, then watered again after fertilizing.

The same fertilizing program is used for our container plants as is used on our outside plants.

Early spring we fertilize with our own mixture of 1 part cotton seed meal, 1 part Muriate of potash (44%), 2 parts 20% superphosphate, ½ part Esminel (needed minerals). Amount per plant: 1 teaspoonful for a 1-year graft on a ¾″ understock in a 3-gallon container. This *must* be lightly sprinkled over entire area of container. This is done as soon as danger of cold is over. About 4 weeks later we give our plants a *light* feeding of ammonium nitrate. The above size plant—3 or 4 *grains* per plant. A specimen plant 5 feet tall, heavy understock, would require 1 tablespoon of our own mixture and 1/4 teaspoon of ammonium nitrate. In October when the weather gets cool we feed our plants again with cotton seed meal, Muriate of potash, superphosphate and Es-

New beauty for

AZALEAS and CAMELLIAS

The recommended plant food for all acid-loving plants. Used by America's foremost growers, professional and amateur. Your plants deserve it.

Feed RELIANCE

FREE!

Ask for Reliance's new edition CULTURE and CARE of AZALEAS and CAMELLIAS

THE RELIANCE FERTILIZER CO., SAVANNAH, GA.

STANDARD AND RARE VARIETIES
OWN ROOT CAMELLIAS

YOUNG 8-18″ PLANTS, NOT ROOTED CUTTINGS—50¢ UP

RARE GRAFTS CANNED PLANTS

Bea & Neal Rogers'

BELLE FONTAINE NURSERY

Route 3, Box 546 Theodore, Alabama
15 miles south of Mobile on Hwy. 163
Cedar Point Road

mincl. This late feeding gives the plants good color, sturdy wood and good hardening off for grafting purposes in the spring. Successful grafting depends on good wood as well as good understock. Too much nitrogen gives spindly fast growth and the plant does not have time to harden off properly. We do not foliage feed a plant—feed only through the root system.

As for spraying we use Oil-I-Cide with Malathion and Copper A.

Our potting mixture is 1/4 good, light topsoil, 1/4 peat moss, 1/4 well rotted barnyard manure, 1/4 sharp sand. To this mixture we add pulverized charcoal. Before planting a 1-year graft we remove the clay from the root system, make a fresh cut on each root and dip the root system in a mixture of 1 tablespoonful of chloromone to 1 quart of water. When the plant is potted, it is watered down and the balance of the quart of water and chloromone solution is gently poured around each plant. This gives beautiful foliage and a fast callous to the root system.

Attention should be given to the placing of one's varieties under plastic. The large, peony type flowers should he placed in the coolest part of the house—north to northeast. These need time to develop and if placed in a southwest corner will open too fast and the flowers do not hold their substance as well. We find our VILLE DE NANTES opens too fast on the west side of the house and are smaller. Given a cooler area they will develop better.

It is good to know to keep your house closed on a windy day tho' it may be a little too warm. Wet the ground down and your flowers and plants will pick up overnight. Open your house as early as possible in the morning as heat builds up fast under plastic.

From a selling standpoint, growing under plastic is ideal. No matter what the weather is like outside we go to bed knowing that the beauty of our camellias will still be there the next day instead of frozen. The stranger seeing a camellia for the first time gives us great joy. It is impossible to believe the beauty one sees. To be able to see the flower you are buying means an understanding of the price of it. To he able to sell plants undamaged by the cold is a wonderful lightening of our responsibility to our customer.

From a personal standpoint it is a joy and a wondrous experience to know you have the desire to protect this lovely flower from unpredictable weather. To see these flowers unfurl to their full beauty is reward enough for your efforts.

During our Ozone show last year we put a picnic table inside our large house and served coffee, cake and sandwiches Saturday and Sunday. To sit down with friends from all states and some from other countries and be able to enjoy these pleasures is well worth the expense and time your plastic house will give you. How often we have visitors and a pouring rain at the same time. This is unheeded as the plastic house saves us again!

EDITOR'S NOTE: I saw these houses being built and have visited there several times since. If you want from a large to a huge house for your camellias without spending too much you would do well to copy her plans. I do not know the cost and an estimate isn't given but I do know they were surprisingly inexpensive to construct. In fact, if you are planning such a house you would do well to visit with Ferol if you live within several hundred miles of Slidell. Visiting with Ferol and her husband Sam will be worth the trip, visiting their Tammia Nursery is worth another, and likewise for the greenhouse construction. You get three for the price of one.

Make Your Own Redwood Tubs

ROBERT T. CALE, M.D., Hueytown, Ala.

The making and use of redwood containers for camellias in the greenhouse has become the common practice for many of the growers. For those who have not "stepped up" to this procedure, this article is intended.

Even though almost any type of container for a plant with drainage in the bottom will suffice, the use of redwood has enough advantages to outweigh the cost. Also, one does not need to be an expert woodwork craftsman to make excellent containers.

Construction heart grade redwood, 1" x 8", both surfaces planed, precut to desired board length is used, and the cost is approximately $210 a thousand board feet. Prices are much lower on the west coast.

The two most popular sizes of the "tubs" are the eight- and ten-sided and 15" and 18" high respectively. Each piece of lumber is thoroughly soaked with Coppo, ten percent copper Napthenate, after the sides are cut and before the tub is assembled. The wood preservative will give the tubs several extra years of use. The wood will absorb the Coppo more completely when the wood is dry, and this is preferred.

The advantages of using redwood and making the containers yourself are as follows. In this area the cost of a completed eight-sided, 15" high container using stainless steel banding material and seals is about $2.25 compared with $6.50 on the retail market. The lasting quality is much superior to metal and other woods except possibly cypress. When the plants need repotting to larger containers, the intact roots with all the dirt can be removed by simply pushing from the bottom of the tub. The roots do not cling to the sides of the tub as is the case with metal containers. The wood remains relatively cool in the summer sun and has a tendency to breathe. And finally, the appearance of the redwood tubs are pleasing to the eye.

Most growers in this area using redwood containers prefer the eight-sided by 15" high size, and for the largest plants the ten-sided by 18" size are used. Some

of the men add metal handles to the sides of the tubs for carrying them outside in the summer, but most of us use trucks with large rubber tires.

The technique of cutting the sides of each piece of lumber will now be described. Don't let the description discourage you from trying to make your own tubs. It is just as simple to cut and assemble a tub as it is to make a camellia graft, and the description of the latter can sound complicated to the novice.

The first requirement is to have a 6" table saw with a tilting base to cut the wood. Then two patterns or templates are made from wood which are then run through the saw one at a time along with the piece of redwood to be cut in order to get the proper taper of cut for each side.

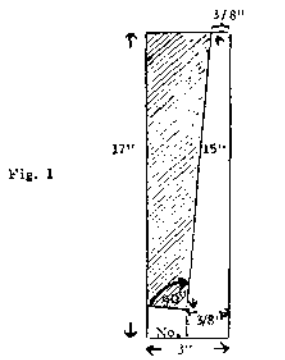


Fig. 1

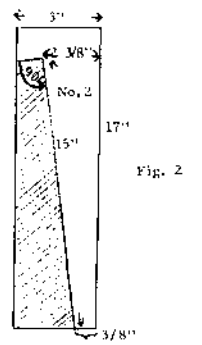


Fig. 2

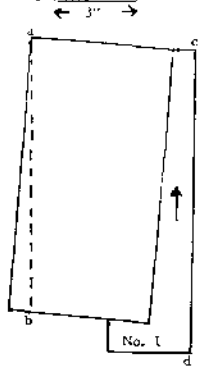


Fig. 3

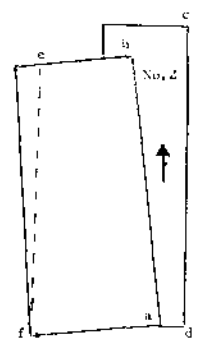


Fig. 4

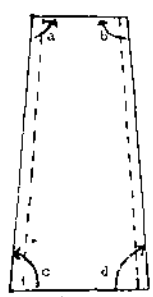


Fig. 5

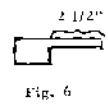


Fig. 6

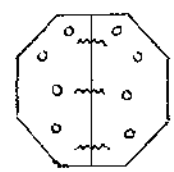


Fig. 7

The first pattern, designated No. 1, is cut from any kind of wood with dimension 1 x 3 x 17 inches. See Fig. 1 which shows that the taper of the pattern from the 3/8" tip to the right angle cut is exactly 1" and that the distance from the tip to the right angle is exactly the length of the board to be cut which is 15" in this case. The butt end opposite the tip can be any length and width for its sole purpose is to locate the piece of redwood along the tapered cut and to assist the operator in guiding the two pieces of wood (redwood and pattern) as they are pushed through the saw for the first of two cuts.

The second pattern, designated No. 2, is used with the piece of redwood in order to make the second and final cut which is the second lateral edge of the redwood. This pattern (see Fig. 2) is made from the same size board, *i. e.*, 1 x 3 x 17 inches. The width at the tip is 3/8" and the taper is 2". Here again the size of the butt end is immaterial. It is wise to permanently label the templates No. 1 and No. 2 and to add an arrow pointing in the direction in which the redwood and templates are pushed through the saw.

Before the first cut is made in the piece of 1" x 8" x 15" redwood, the base of the saw must be tilted 22½ degrees with the right side of the base down. This is necessary in order to bevel the lateral edges so that the eight pieces of redwood will fit together properly when assembled. Thus each lateral edge is tapered and beveled at the same time. On the first cut (see Fig. 3), the piece of redwood and template No. 1 are fitted together as shown and placed firmly against the guide bar labeled (cd) so that when the two pieces are pushed through the saw in direction of arrow, the blade will strike the redwood at point (a) which is the left front corner of the wood and will cut along dotted line to point (b). This completes the first of two cuts.

The second cut is made after the piece of redwood is turned around 180 degrees with the same surface up so that (see Fig. 4) point (b) now fits into the right angle of template No. 2 and line (ba) is the first tapered and beveled cut of the redwood and is also the tapered edge of the template No. 2. Now, with these two pieces of wood held firmly together, push them through the saw in direction shown on template with edge of template pressed against the guide bar (cd). The saw will cut through the dotted line (ef). The guide bar remains in the same location for both cuts, and the second cut is finished at point (f) which will be the left rear corner of the redwood. The finished piece of redwood is shown in Fig. 5, and the dotted lines are the beveled edges. Angles (a) and (b) are equal and angles (c) and (d) are equal.

It is an easy matter now to completely cut enough pieces of redwood in a few minutes in order to assemble eight or ten tubs of the eight-sided size.

To assemble the eight-sided tub, it is desirable to have a flat and level floor. Now place four of the boards on the floor with the bevel down. Drive either a 5/8" U-shaped copper staple or a large headed 5/8" copper nail partly into the surface of the wood 2½" from each end. These will locate the banding material more easily when placed around the assembled tub. If the nails are used, it is wise to partly drive two nails at the upper and two at the lower surface and locate each two nails slightly more than ½" apart so that the banding material will barely slide through the two nails. Time can be saved if a small wooden gauge (see Fig. 6) is made to show the proper placement of the staples or nails. The pieces of redwood should not be excessively dry when banding

for the expansion of the wood due to moisture after tubs are planted could snap the bands.

The boards are now stood on end two at a time with the wide width down and leaning against one another. Alternate every other board containing the staples. When all eight are loosely standing together, loop a chain or a piece of heavy copper wire with heavy insulation around the middle of the eight pieces. Draw the wire or chain progressively tighter as you assist the boards to fall in place and form a perfect octagon.

The first band of ½" stainless steel is now applied to the smaller circumference by means of a "Band-It" strapping tool. This tool can be purchased from Birmingham Saw Works, 2614 2nd Ave. N, Birmingham, Ala., for $18, and enclosed with the tool are full instructions for banding. After the first band is finished, the tub can be turned over on the other end so as to place the second band more easily. When the banding has been completed, drive in completely all of the staples or nails in every board, both top and bottom.

The stainless steel strapping material can be purchased in 200-foot coils by writing or calling A. J. Gerrard & Co., Leeds, Alabama, and the cost is $7.00 for the ½" x .015". For the ten-sided tubs the larger gauge (½" x .020") strapping is recommended. While placing the order, purchase the seals with the knock-down ears rather than the crusher type. One seal is required to secure each band and 100 seals in a box will cost about $2.60.

A few years ago galvanized steel was used for the strapping material, but these bands, especially the lower one, rusted and broke, making the restrapping very difficult if the bottom of the tub and its contents dropped down causing a flaring out of the pieces of wood on the sides. With stainless steel, the job is permanent.

The final step toward completing a tub is to make the bottom. (See Fig. 7.) Nail two pieces of 1" x 8" x 14" redwood together from side to side with three or more 5/8" x 1" corrugated steel fasteners. Then place the small end of the banded tub over the two boards and trace onto the boards the inside dimension of the tub. Next, widen the drawn octagon by 3/8" on all eight surfaces. With a band saw cut out the large octagon and bevel each of the eight edges by about five degrees by tilting the base of the saw. The 6-inch table saw can be used to cut out the bottom, but it is much more difficult than with the band saw.

With a drill press or brace and bit, punch approximately eight ½" holes in the bottom for drainage. Be sure to soak the bottom in Coppo thoroughly after it is finished as the bottom is likely to rot before the sides. Finally, drop the bottom into the tub and press firmly in place. The job has been completed.

To make the ten-sided tubs, the procedure is the same, except that the base of the saw is tilted only eighteen degrees and that a different set of templates is needed. Make the templates from 1" x 3" x 20" boards. The 15" on Fig. 1 and Fig. 2 is changed to 18". The taper for the 18" is 1" as was the ease for the 15".

If the foregoing discussion has seemed complicated, let me reassure you from personal experience that it is fun, simple and economical. This excursion into tub-building adds fun and enjoyment along the Camellia Trail.

Do-It-Yourself Plastic Greenhouses

L. T. LEITNER, Marion, S. C.

In order to have good blooms every year and to insure camellia shows, it is necessary that some protection from weather must be furnished. Even those growers who live in coastal areas have discovered the difference in quality in greenhouse protected blooms and those which bloom outdoors.

The cleverest and most practical greenhouses I have ever seen are designed and manufactured by Mr. J. L. Mason of Marion, South Carolina. Mr. Mason spent several years in completing practical designs for greenhouses to withstand extreme windstorms and snow. Although Mr. Mason started these greenhouses as a hobby, very soon his greenhouses have mushroomed into a large business. Over 150 greenhouses have been sold to farmers in North and South Carolina who are growing vine ripened tomatoes the year round.

The commercial greenhouses used in growing tomatoes are very practical for growing camellias and azaleas. These are quonsett type greenhouses 97½ feet long, 20 feet wide and 9½ feet high. The framework is prefabricated from steel tubing. There are 40 rib assemblies and seven ridges which bolt together on 2½ foot centers. The ribs are set in pipes driven into the ground, no foundation being required. This simple construction makes the greenhouse movable from one location to another. For commercial use, it is equipped with thermostatically controlled heating and ventilation systems. These greenhouses have been tested for four years, and have withstood windstorms up to 80 miles per hour and four inches of snow and sleet. This greenhouse complete with steel framework, doors, lumber and plastic can be purchased for $867.00. Thermostatically controlled cooling system is $221.00, and 150,000 BTU heating system is $375.00. This same greenhouse may be purchased in lengths from 20 to 97½ feet as a package kit. A blueprint and erection procedure is furnished so that a person with practically no mechanical ability can install it. This kit consists of metal stakes, pipe straps, metal framework, bolts and plastic, priced as follows:

20′ wide, 9′6″ high, 20′ long—$150.00 Lumber, doors and nails $45.00 to complete

20′ wide, 9′6″ high, 30′ long—$225.00 Lumber, doors and nails $50.00 to complete

Interior of house showing treated lumber framework covered with glass. Camellias planted in ground. Side windows provide ventilation. JOE AUSTIN, Four Oaks, N. C.

20′ wide, 9′6″ high, 40′ long—$300.00 Lumber, doors and nails $55.00 to complete

20′ wide, 9′6″ high, 50′ long—$375.00 Lumber, doors and nails $60.00 to complete

Because of the fact tbat 40 degree temperature is all that is needed for camellias, a small oil burning stove is ample to heat. A used stove may usually be purchased for about $10.00. Plastic used is 32 feet wide .004 mill and lasts one season. Plastic is usually put on in late September and removed the first of May. Replacement cost is $20.00. If grower so desires, he may purchase a shade cloth tarpaulin to shade camellias from May until September.

THE MOST ATTRACTIVE ALL PURPOSE GREENHOUSE TIIAT I HAVE SEEN IS A HOBBY MODEL DESIGNED BY MR. MASON. This greenhouse is 12′ wide, 7′6″ high and may be purchased in lengths from 20 to 97½′ long. It has straight side walls, with a quonsett type oval top with sufficient curve to withstand loads of sleet aud snow. This greenhouse is prefabricated from ¾″ steel tubing, with ribs on 2½ foot centers. Ribs are set in pipe driven into the ground, no fonndation is required. It may be moved from one location to another, has been tested for wind and snow aud is easy to heat or cool. It is sold in a kit form consisting of blue print and erection procedure, steel framework, metal stakes, pipe straps, bolts and plastic. It is more elaborate than any do-it-yourself greenhouse you have ever seen, priced as follows:

12′ wide, 7′ 6″ high, 20′ long—$143.00. Est. cost to complete $35.00.

12′ wide, 7′6″ high, 30′ long—$213.00. Est. cost to complete $40.00.

12′ wide, 7′6″ high, 40′ long—$283.00. Est. cost to complete $45.00.

12′ wide, 7′6″ high, 50′ long—$353.00. Est. cost to complete $50.00.

A used oil burning stove to maintain 40 degree temperature is ample for this greenhouse. Plastic will last one season and replacement cost will be $14.50.

For growers interested in rooting camellia cuttings, or protecting seedlings, Mr. Mason has a very practical low cost low boy greenhouse. This greenhouse is 15′ wide, 5′6″ high and may be purchased in lengths from 20′ to 97½′. This, too, is sold in kit form and is very simple to install. It is of the same steel construction as the other greenhouses. Purchasers of this greenhouse dig a trench 24″ wide by 12″ deep down the center of the greenhouse, giving a working headroom of 6½ feet. Because of the low height, very little heat is required. A small used oil heater in one end of the greenhouse is sufficient to maintain a 40 degree temperature. This is a wonderful greenhouse for starting new stock and is priced as follows:

15′ wide, 5′6″ high, 20′ long—$140.00. Est. cost to complete $35.00

15′ wide, 5′6″ high, 30′ long—$210.00. Est. cost to complete $40.00

15′ wide, 5′6″ high, 40′ long—$280.00. Est. cost to complete $45.00

15′ wide, 5′6″ high, 50′ long—$350.00. Est. cost to complete $50.00

Growers interested in purchasing greenhouses may write to Mr. J. L. Mason, Mason Manufacturing Company, Marion, S. C. for illustrated literature. Thermostatically controlled heating and cooling systems, plastic and shade cloth may be purchased from the manufacturer.

A camellia grower can get a great deal of fun from erecting his own greenhouse. After erecting the steelwork, he would purchase locally two screen door frames, 2″ x 4″ x 10′ dressed lumber for the gable ends, 1″ x 6″ x 10′ rough boards for the baseboards. He would then attach the large sheet of plastic to the gable ends and to the baseboards, osing plain screen door molding and small nails.

Should you care to have a ventilation system, you may purchase locally a 24″ exhaust fan with an automatic shutter, and mount in one end of the greenhouse. By closing the front door and opening the back door, this simple ventilation system would properly ventilate your greenhouse during extremely warm weather. You can purchase this fan from a local electrical distributor for about $40.00.

For your heating system, for from $10 to $15 you can purchase locally a small oil burning stove, on which you can mount a thermostat. The thermostat should be set for heat to come on at 40 degrees and cut off at 45 degrees. This degree of heat is ample until you are ready for your blooms to open. Should you care to speed up the blooming, you would set your thermostat to come on at 60 degrees and cut off at 65 degrees. Caution should be used not to run the heat very much above the recommended temperatures, as too much heat is injurious to the plants.

From past experience, I would highly recommend that you install your greenhouse before the first frost. I would also suggest that you consider purchasing a shade cloth tarpaulin to cover your plants during extremely hot weather. When not in use, this cover would be stored and should last at least ten years with proper care.

Membership Contest

Inserted in this issue of the Camellia Journal, you will find a double post card. One end of the card is for your convenience in securing a new member. You will noto that you do not have to collect any money, just get the prospect's permission, enter his name and address, sign and mail. We urge that every member get at least one new member.

The other end of the card is to be used to order more membership cards and to assist you in winning one of the fine prizes given for the most new members enlisted. You may order as many as you think you can use.

If you are one of three sending in the most new members, you will be awarded a LIFE MEMBERSHIP in the American Camellia Society, valued at $125.00.

RULES

1. A membership must be new. Renewals do not count.
2. Membership may be submitted by the membership card, by letter or by your own post card. Be sure to sign. Pay later or now if preferred.
3. Although you do not need to collect dues yourself, the membership must be paid by the new member before the contest closes.
4. If there is a tie, this tie will be broken by an impartial method to be determined by a special committee appointed by the President.
5. Written advice of membership must be received in Society office prior to receipt of dues from new member.
6. All persons are eligible, whether they are members or not, except officers, directors and employees of the American Camellia Society.
7. Either 1962 or 1963 memberships may be counted.

ADDITIONAL PRIZES

In addition to the above prizes, the person securing the most new members in each State, will be given a Camellia plant of a new variety. List of the plants, by variety, will be published in the September Journal. No person may win more than one prize.

CONTEST CLOSES DEC. 31, 1962

AT LONG LAST

A Yellow Camellia

For years the fabled and elusive yellow camellia has been sought in the Far East, Portugal and other parts of the world.

At one time a yellow sport of EIGHTEEN SCHOLARS was reported, however, when this variety was imported it threw several sports, none of which were yellow centered.

Then JAUNE, a *C. oleifera*, the so-called "Fortune's Yellow", caused mild excitement. This proved to be a great disappointment. Several reports of yellow camellias proved to be untrue. Reports of a yellow species in Indo-China cannot be verified since this area is under Communist control.

Lately the successful crossing of the yellow *Tutcheria spectabilis*, a camellia near-relative, with *C. pitardii* revived hopes for a yellow camellia.

Several Japonica varieties such as COLONIAL DAME and GUS MENARD have more than a suggestion of yellow in the center.

This past season a remarkable find of a true yellow *Camellia japonica* was reported. Mr. and Mrs. W. J. Witman of Macon, Georgia, have for a number of years planted seed each year only from the better varieties. In the past few years Mrs. Witman has done considerable interspecific hybridizing and also crossing within the species *C. japonica*. Last year they were surprised to find a yellow chance *C. japonica* seedling in one of their seedling beds. They thought possibly the weather might have caused the yellowing, so they told no one of it. They transplanted the seedling into their greenhouse last year and it set at least 25 buds on the strong vigorous plant. As each opened it was a true pure yellow, which someone aptly described as the same color as a MARÉCHAL NIEL rose. It is emphasized that this is a *chance* Japonica seedling, not a hybrid nor a controlled cross.

The Witmans invited a few friends to see their yellow camellia but asked them to keep it confidential until it flowered a third year. Among the friends was Mr. D. C. Strother. He was so excited over the pure yellow flower that he persuaded the owners to let him tell about it at the show in Charlotte. The Witmans reluctantly gave him permission. The flowers were photographed in contrast with a white—JACKIE GILES. The resulting slides are further evidence for all to see. Your Editor saw three of the yellow camellias. There is no doubt of their being yellow!

The flowers are 3 1/2 to 4 inches in diameter, with the outer petals opening rather flat and the others holding a rosebud center. Some flowers eventually open and show yellow stamens, however, the yellow color is in each petal and not confined to stamens or petaloids.

The Witmans plan to hold the plant another year to be absolutely sure that the yellow color holds. Generously they plan to donate it to the Camellia Research Advisory Committee, an independent non-profit organization with headquarters at the Los Angeles County Arboretum, to be used for experimentation, hybridizing and assignment of propagation rights as the Committee sees fit. A whole new color range of combinations of yellow with red and pink should now be possible.

Mrs. Witman says she immediately thought of the late Ralph Peer upon finding the yellow camellia. Mr. Peer had long sought in vain for the yellow camellia. The Witmans plan to send a plant to be located in the little garden near Mr. Peer's tomb.

—ACS—

Show Reports and registratiuns deferred until September Issuc.

The 1962-1963 Arrangement Contest

A cordial invitation to participate in the Arrangement Contest is extended to all Camellia Societies and Garden Clubs which hold Camellia Shows.

The requirements for participation are simple: (a) the show must be held in cooperation with the American Camellia Society, and (b) the rules which follow must be observed.

The theme for the American Camellia Society's 1962-63 Arrangement contest was inspired by The Seattle World's Fair.

A scale of points is given with the schedule.

It is suggested that the services of a professional photographer be secured and that the pictures be made just after the completion of the judging and before the doors of the show are opened to the public. It is also recommended that a film with a reasonably fine grain and a high resolving power be used. Such films as Adox KB-17 (high resolution), Ansco Supreme Pan, Kodak Plus-X Panchromatic, DuPont Superior-2, Gevert Gevapan-30, Ilford FP-3, or Ferrania Panchromatic Negative P-3 fulfill these specifications. The diaphragm of the lens should be opened as wide as possible so as to produce a shallow depth of field and thus throw the arrangement into high relief. Rule 6 is important because of photography, as drapery frequently causes confusing lines in a photograph.

RULES

1. The competitive period shall be from November 1, 1962, through April 30, 1963. Any photographs received postmarked later than May 1, 1963 will be disqualified. All photographs shall become the property of the American Camellia Society.

2. The contest shall be open to exhibitors in camellia shows held in cooperation with the American Camellia Society.

3. The Standard System of Awarding as outlined by the National Council of State Garden Clubs shall be used—only one blue ribbon, one red ribbon, and one yellow ribbon may be given in a class.

4. Classes named and interpretations shall be adaptations in spirit of the Theme, accenting one or more camellias as specified in each class.

5. Color harmonies are left to the Schedule Chairman of local shows, except where otherwise specified in a class.

6. Backgrounds shall be plain, no draping allowed.

7. Stands, bases, mats, or the like are allowed in all classes.

8. Exhibitors shall be limited to one entry in each class.

9. Photographs of winning blue ribbon exhibits in cooperating shows shall be sent to the National Chairman of the Arrangement Contest. These photographs shall be 5 x 7 inches or larger in size, printed in black and white with glossy finish. They must be clear-cut in design. Ribbons won at local shows, or other extraneous materials such as entry cards, are not a part of the arrangement and should be removed before photographing. However, should local regulations prohibit their removal, the inclusion of these articles will not disqualify an entry.

10. A description of the contestant's entry, including class, design, color, material, and container, together with the schedule of the show at which the ribbon was won shall accompany each photograph. No clips or pins shall be used in connection with the photographs.

11. Photographs and descriptions must be mailed, postmarked not later than May 1, 1963, to the National Chairman of the Arrangement Contest, Mrs. Hudson J. Malone, 1203 N. Davis Street, Albany, Georgia.

MRS. HUDSON MALONE
Chairman, ACS Arrangement Contest

1962-63 Arrangement Chairman

We are very fortunate to have Mrs. Hudson J. Malone of Albany, Georgia, as Chairman of the ACS Artistic Arrangement contest for the coming season.

Mrs. Malone has been a loyal member of the American Camellia Society and an accredited horticultural judge for a number of years, and is a charter member of the South Georgia Camellia Society. She is a National Accredited Flower Show Judge, having a Life Certificate. She served on the Board of the Garden Club of Georgia for several years, first as Editor of *Garden Gateways*, the official publication, as Treasurer, and is serving for the fourth year as Chairman of Judges Councils. She has been President of the Federated Garden Clubs of Albany and holds a Life Membership in the Garden Club of Georgia. She is active in the civic, religious and cultural activities of Albany.

THEME: *Camellias in the Space Age*

CLASS I

SEATTLE FAIR "SPACE NEEDLE"

A. An arrangement featuring "Space Needle"—Symbol of the Fair, using one or two camellias.

B. An arrangement featuring Camellias, using "Space Needle" as an accessory. Five or more camellias to be used.

CLASS II

"Floating" City of the Year 2000—The magic mysteries of space. Use extra large variety of camellias.

CLASS III

"Fine Arts Pavilion"

A. Old masters—Rembrandt, Titian, Goya, Renoir, Gauguin and any others. Arrangement interpretive in spirit.

B. Contemporary Painters — Interpretation shall express the spirit of painting.

CLASS IV

"Thrill Rides"

An interpretation of any ride of amusement found at a "Fair".

CLASS V

"Nations Represented"

From Ivory Coast to The Republic of China, Sweden, Thailand, British and Canadian, Yugoslavia, France, Japan, USSR, etc.

The arrangements should be adaptations in spirit of nation chosen to depict.

Note: In the above arrangements other Foliage, Flowers, Dried Plant Material, Treated Material, Weathered Material, Shells, Pebbles, Figurines, Sculpture, Coral, Driftwood, Branches, Bases and any accessory may be used. (No artificial flowers or artificial foliage permitted.) One or more camellias must be used.

SCALE OF POINTS

Design	35
Interpretation	20
Textural Values	20
Distinction	15
Relation of all material	10

AWARDS

The American Camellia Society will furnish the following Awards to winners in the National Contest:

Most outstanding arrangement in contest—A Silver Trophy to be retained by the winner.

Second best in the contest—A Silver Trophy to be retained by the winner.

First in each class—American Camellia Society Membership for one year.

Second in each class—Current American Yearbook.

Third in each class—Current American Yearbook.

For further information contact the Committee Member nearest you or Mrs. Hudson J. Malone, *The National Chairman.*

ARRANGEMENT CONTEST COMMITTEE

Mrs. Hudson Malone, 1203 N. Davis Street, Albany, Ga., Chairman.
Mrs. H. M. Flowers, 510 Cherokee Street, Mobile, Ala.
Mrs. Rufus Garrett, 210 Peach Street, El Dorado, Ark.
Mrs. W. H. Oberthier, 1405 Locust Street, Texarkana, Ark.
Mrs. Rose Gish, 11981 Canal Street, Grand Terrace, Colton, Calif.
Mrs. Leonard Toy, 1245 Chichester Avenue, Orlando, Fla.
Mrs. J. L. Price, 3835 Ponce de Leon Avenue, Jacksonville, Fla.
Mrs. Guy Yaste, 123 West Blount Street, Pensacola, Fla.
Mrs. Lloyd Hatcher, 711 Sixth Avenue, Albany, Ga.
Mrs. J. Everett Flournoy, 2879 Hilandale Circle, Macon, Ga.
Mrs. George S. McCowen, 1208 Courtland Avenue, Macon, Ga.
Mrs. Charles Arthus, 231 Porteous Street, New Orleans, La.
Mrs. Joe Purzer, 247 Albert Street, Shreveport, La.
Mrs. Robert Smith, 4900 Venus Street, New Orleans, La.
Mrs. A. G. Viskell, 6471 Argonne Street, New Orleans, La.
Mrs. H. S. Hagerty, Ballykeen, 105 28th Avenue, Hattiesburg, Miss.
Mrs. Dewey R. Reagan, 1421 Suter Street, Biloxi, Miss.
Mrs. Henry Gerdes, 516 Forest Hills Drive, Wilmington, N. C.
Mrs. S. M. Hutaff, 215 Woodcrest Road, Fayetteville, N. C.
Mrs. W. P. Kemp, 1518 E. Mulberry Street, Goldsboro, N. C.
Mrs. Paul Kincaid, Country Club Road, Gastonia, N. C.
Mrs. J. L. Maxwell, 1306 E. Mulberry Street, Goldsboro, N. C.
Mrs. Alfred Dixon, Route 3, Box 273, Dundee, Oregon
Mrs. Richard Kraack, 1250 Wells Street, Oswego, Oregon
Mrs. T. Haywood Curlee, 1097 Riverside Drive, Orangeburg, S. C.
Mrs. J. M. Napier, 378 E. Hampton Street, Darlington, S. C.
Mrs. W. M. Quattlebaum, 112 Chesterfield Road, North Charleston, S. C.
Mrs. W. H. Bennett, Box 193, Humble, Texas
Mrs. K. W. Schulze, 4025 Fifth Street, Port Arthur, Texas
Mrs. Catherine Trice, 1811 Colcord Street, Waco, Texas
Mrs. C. Clifton Coward, 1223 Southview Road, Baltimore, Md.
Mrs. Edward Tolson, 5615 Glenwood Road, Bethesda, Md.
Mrs. W. C. Griffin, 1702 Lee Avenue, Chesapeake Beach, Bayside, Va.
Mrs. Harry L. Miller, 1124 Buckingham Avenue, Larchmont, Norfolk, Va.

———ACS———

International Camellia Society

The International Camellia Society has been inaugurated with the following motives:

To foster the love of camellias throughout the world and to maintain and increase their popularity.

To undertake historical, scientific and horticultural research in connection with camellias.

To co-operate with all national and regional camellia societies and with other horticultural societies.

To disseminate information concerning camellias by means of bulletins and other publications.

To encourage a friendly exchange between camellia enthusiasts of all nationalities.

The following have agreed to serve as officers

President:

Professor E. G. Waterhouse, Australia

Vice-President:

Mr. Albert Fendig, U. S. A.

Membership is open to all, amateur or professional.

ANNUAL SUBSCRIPTION

One Pound Sterling or equivalent in other currencies.

All communications and subscriptions to:

Charles Puddle,
Bodnant Gardens,
Tal-y-Cafn,
Denbighshire,
UNITED KINGDOM.

———ACS———

Pacific Coast Elections

An election for Pacific Coast Territory directors will be held this Fall. The positions involved are state director for California, and director for combined Oregon-Washington, also two Directors-at-Large, covering the entire territory. The states of Arizona, Colorado, Iowa, Idaho, Kansas, Minnesota, Missouri, Montana, Nebraska, Nevada, New Mexico, North Dakota, South Dakota, Utah, Wisconsin and Wyoming, although having too few members to have state directors, do have a vote in electing the two Directors-at-Large. These states are included with the Pacific Coast Territory in order to more or less equalize the number of members in each territory.

Each member in the Pacific Coast Territory will be sent a nominating ballot in September and a voting ballot about a month later. Results will be announced at the Fall meeting in Gulfport, November 29, also in the January Camellia Journal.

New directors will take office at the Annual meeting in Shreveport next March 1-2, 1963.

In Memoriam

MRS. JEANNE KERR FLEISCHMANN

Mrs. Jeanne Kerr Fleischmann of New York and Welaunee Plantation, Tallahassee, died March 17, 1962. She was a charter life member of the American Camellia Society. She was born in New York City, graduated from Byrn Mawr College and received a law degree from New York University, but never eugaged in active practice. She and her late husband, Udo M. Fleischmann, New York real estate broker and banker, built their house at Welaunee Plantation in 1918, where they lived most of the year. She had an extensive camellia collection. She took an active interest in Tallahassee civic affairs and donated the natural history building as a memorial to her husband. Her generous gift of rare books to the American Camellia Society is described elsewhere in this issue.

JUDGE ARTHUR W. SOLOMON

Judge Solomon, a founder and President Emeritus of the American Camellia Society, died in Savannah April 22. Although he was in his 90th year and had been in declining health for several years, Judge never lost interest in camellias and in the affairs of the Society.

At T. J. Smith's suggestion that a national camellia society be orgauized, Judge Solomon entertained a group of well-known camellia enthusiasts at dinner during the Savannah show February 10, 1945. This was the actual beginning of the American Camellia Society althongh the formal organization took place on September 20, 1945, in Macon, Ga.

His homc and 12-acre gardens, at Gimball's Point near Savannah, was a mecca for camellia lovers from all over the world.

He is survived by a son, Arthur, Jr., and a daughter Mrs. Lawrence (Sara-Hcnri) Mayer, both of Savannah.

Judge Solomon was one of the charter graduates of Georgia Tech in 1892, being a member of the ATO fraternity. He was a Mason and a Shriner, past president of the Savannah Rotary Club, an Elk, a former director of the Boy Scouts Council and United Community Services, recipient of the Johnny Appleseed Award of the Men's Carden Clubs of America, and a member of Temple Niekve Israel. Judge Solomon was appointed to the Chatham County Commission in 1914 and served until 1960. The National Association of County Officials honored him with a plaque identifying him as the oldest elected county official in term of service in the nation in 1959.

A few days before being called by the Creat Father, having known for several years that his life was holding precariously by a last thread, Judge Solomon nevertheless sat at his desk and wrote his usual friendly notes to the many friends who have been judging the Savannah Camellia shows for years, asking them to be sure to be there with him in 1963.

A man whose life extended far into two centuries, he was the first to welcome the changes brought by the onward march of Time, and to adapt himself to the concepts of new generations. His life exemplifies the smooth cootinuity of a life that has become happy, peaceful and mellow through the inevitable turmoil of the years. He worshipped the beautiful, and he too believed that "all the beautiful sentiments in the world weigh less than a single lovely action".

The "Judge", as he was affectionately called by all, now rests in a peaceful and picturesque corner of the century-old Bonaventure Cemetery in Savannah, Georgia, next to his beloved wife, a place chosen by him in the shadows cast by the gnarled branches of centuries old live oaks draped in streamers of Spanish moss. He shall forever be surrounded with colorful Azaleas each spring, a flower which he also cherished. Young acorns will drop and sprout each year near his grave—a sign of Eternity!

"Does harmony die when a song is hushed?
Is fragrance ended when the rose is gone?
Does beauty pass when the rainbow fades?
Is radiance quenched when the sun has set?
Can the immortal cease to be?"

CARL A. WESTON

The Camellia World suffered a great loss on May 23, 1962, with the passing of Carl Weston of Charlotte.

Carl and Alma Weston were a great team; it isn't often that one encounters a husband and wife equally interested in camellias. They grew exceptionally fine outdoor camellias at their place on the Catawba River. They traveled widely each season and made a host of friends along the camellia circuit.

We are counting on Alma to carry on their hobby. Carl will be missed for a long time.

—ACS—

ACS Slide Collections

During the past season sets of slides were furnished for 74 showings to local clubs. In general, we are able to meet the requests for slides although when we have calls for several sets on or about the same date we have to send less interesting slides to some. It helps to send in the date you want to use the slides as early as possible and give an alternate date when possible.

There is no charge for use of the ACS slides. All we ask is that they be mailed *promptly* to the next user or returned to Headquarters. In several instances we have had to call to get them forwarded or returned. Contributions of slides to our collections are always welcome. For someone introducing new varieties, a few slides of the introduction in our collections is the best possible ad and free!

RIBBONS
ROSETTES
BADGES

for flower shows
Prompt service a specialty
Folder sent free on request

HODGES BADGE CO.

857 Boylston St. Boston 16, Mass.

— SAVE BY MAIL —

That New Camellia

Can be purchased each year from the extra earnings on your savings account when invested with the

COOPER RIVER FEDERAL SAVINGS & LOAN ASSOCIATION

224 Montague Ave. North Charleston, S. C.

H. E. ASHBY, PRES.

The safety of your savings insured up to $10,000.00 by the Federal Savings & Loan Insurance Corporation

CURRENT DIVIDEND RATE 4%

INSURED SAVINGS

Announcing -

"MIST-ER B" MIST NOZZLE NO. 2

Built for the most exacting users

One-piece body of finest cast Brass. Rigid, accurately aligned for permanent care-free service. Monel 200-mesh strainer filters out finest particles. Hourly output at 20-lbs. pressure, 1 gallon per hour; 1 2/3 gals. at 60 lbs. Will operate in series with on-off automatic devices. Adjustable Stainless Steel Target Screw makes possible "forced" type of perfect mist. Equipped to supply you with any (approximate) water output from 1 gallon to 12 gallons per hour. All nozzles pre-tested before shipped.

PRICES:
$2.95 each
6—$2.55 each
12—$2.25 each
36—$1.95 each
Postpaid

WHILE THEY LAST—A limited number of our original popular "MIST-ER B" Mist Nozzles available at reduced prices.

STANDS for either of above nozzles, with galvanized spike and 2-pc. brass swivel hose connection, $3.00 each, postpaid.

All nozzles and stands threaded ⅛".

PRICES:
$2.55 each
6—$2.25 each
12—$1.95 each
36—$1.65 each
Postpaid

Please send check or money orders—NO C.O.D's, please! Foreign purchases add $1.00 per nozzle for Air Mail.

BROOKINS NOZZLE CO.

201 N. Orange Ave. Dothan, Alabama

Phone Sy 2-2362

NOT JUST ANOTHER
COMMERCIAL FERTILIZER
BUT A PERFECT
BALANCE AND BLEND OF
ESSENTIAL PLANT FOODS

CREATED ESPECIALLY FOR YOUR CAMELLIAS AND AZALEAS

Dixie Pixie, the new wonder 4-8-8 fertilizer, will work magic for your plants . . . and show blooms.
With correct use of Dixie and a little care and attention your plants will thrive with the radiant color and perfect blooms you've admired so much in famous Southern gardens.
This new all-in-one blend of complete plant foods was especially formulated to grow healthier, bigger Camellias and Azaleas. You get the finest ingredients possible for the needs of acid-loving plants, selected and mixed for best balance on the basis of several years of careful research.
DIRECTIONS ARE SO SIMPLE, applications so easy—you just can't miss! Packaged in four convenient sizes: 5 lbs., 10 lbs., 25 lbs., and 50 lbs. Accept no substitute—ask for DIXIE PIXIE for Camellias, Azaleas, Gardenias and all plants and shrubs of the Rhododendron family.

Check with your dealer or write

DIXIE GUANO COMPANY

Manufacturer of Quality Fertilizer

LAURINBURG, N. C. **Phone CR 6-0534**

DISTRIBUTORS:
THE WAX COMPANY, Amory, Miss.
TRI-CHECK, INC., Augusta, Ga.
CAUGHMAN FEED & SEED CO., Columbia, S. C.
MAXWELL INSECTICIDE CO., Raleigh, N. C.
SMOKY MOUNTAIN FERTILIZER CO., Waynesville, N. C.

IF NOT AVAILABLE IN YOUR LOCALITY—
INSIST THAT YOUR GARDEN SUPPLY DEALER STOCK IT

There Is No Substitute Or "Just As Good" Brand

MIXING FRANCHISE AVAILABLE

FOR GA., FLA., ALA., MISS., LA., TEXAS, ARK., AND CALIF.

— WRITE FOR DETAILS —