

THE *Camellia*
REVIEW

A Publication of the Southern California Camellia Society



'Mrs. D. W. Davis Descanso'
*Courtesy Descanso Gardens
and Nuccio's Nurseries*

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Southern California Camellia Society Inc.

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

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

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THE COVER FLOWER

C. JAPONICA 'MRS. D. W. DAVIS DESCANSO'

Mark Anthony, Superintendent of Descanso Gardens in La Canada, California discovered this peony form sport of Mrs. D. W. Davis in the Gardens. He told nobody about the discovery but set out to see if it could be stabilized through grafts. He was skeptical because peony forms of 'Mrs. D. W. Davis' had been found, in fact shown in camellia shows, but none of them held in grafts. This one did hold, however, and it was turned over to Nuccio's Nurseries for propagation. The color is the same as that of its parent. The form is full, tight peony, which may account for the size being somewhat smaller than that of the parent.

NEW 1972 EDITION OF CAMELLIA NOMENCLATURE

The new 1971 edition of CAMELLIA NOMENCLATURE is scheduled for delivery by the printer to the Southern California Camellia Society about December 1, 1971. The book will be mailed promptly after delivery to all members of the Society who have paid their 1972 dues and to others who have placed orders for them. The price is \$2.50 per copy for orders of less than 12 copies and \$1.95 per copy for orders of 12 and more copies. Dues and orders should be mailed promptly to the Secretary, whose address is 12022 Gertrude Drive, Lynwood, California 90262. Other members will receive their copies as they pay their dues.



THOUGHTS

from the editor

I was interested in Ben Rayner's comment in his article in the October 1971 issue of CAMELLIA REVIEW (page 3) regarding the weight given to size of bloom by California camellia show judges. He wrote "After judging was completed in the four shows which I saw, I wandered around on my own with a very critical eye. All your judges go for size and condition whereas we in New Zealand place more value on form for the variety concerned and its condition. All other conditions being equal, then the big fellow wins every time and rightly so."

I was Moderator last year of two symposiums on camellia show judging, one in Southern California and one in Northern California. It is understandable that I was conscious of the discussion in these symposiums as I judged in seven shows and as Ben did, after the judging was completed "wandered around on my own with a very critical eye". I made some notes at the end of the season of my conclusions and here they are.

1. There was some tendency to give undue credit to size. It was not my experience with the teams on which I worked or my observation in looking over the tables that this was a serious defect in the varietal judging. In the judging for Best, however, a flower of less than maximum size must have "everything" to win.

2. Some judges still started out in judging a variety to look for specks on a flower to eliminate it from competition, forgetting that a flower with superb form, size and color might merit a blue ribbon even though it has a speck or two.

3. I believe that the worst defect in the judging process goes back to a lack of knowledge by the judges of the varieties they are judging. All judges know that in varietal judging, every flower is judged against the best standards of that variety. This is impossible, of course, unless the judge knows the variety he is judging.

4. A few judges have tendencies to judge on the basis of their concepts of a "pretty" flower, particularly one with a bud center. Often the bud center is a part of the development process of the flower and is indicative of premature picking. It was the consensus of the discussion in the symposiums that a variety which is known to change its form as the bloom continues to mature shall have as the standard of perfection that form which represents its normal shape at peak of maturity.

My observations at last year's shows did not confirm the American's statement in his letter to Ben, "What did you think of our judging? Don't you think that a ten year old boy with a tape measure could do as well?"

Harold E. Dwyer

PLANTING MIXTURES, FERTILIZERS, AND CAMELLIA CULTURE*

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Reprinted from October 1965 issue of CAMELLIA REVIEW

The components of different planting media are so diverse that it would be impossible to recommend any single fertilizer program that would include all of these many mixtures. Therefore it is the authors' intent to explain general procedures and some of the basic processes that occur in planting media. It is really up to each grower to find, by experimentation, how to handle his own management problems. He should not expect that his procedures will be the same as those of other growers who may be using a different planting medium with different components. If any general advice can be given to camellia growers it is to keep the growing media on the dry side, rather than the wet side, in order to promote good aeration, root growth and to prevent attacks by water molds.

The main functions of a planting mixture are to give support for the plant by providing material in which the roots can become anchored, to provide a means of water storage, and to serve as a means for storage of mineral nutrients needed by the plant. Media such as soil, sand, perlite, sawdust, woodchips, fir bark, or mixtures of these materials differ in their ability to support a plant. One reason for this is the texture of the medium with the resulting ability of the plant's roots to grow in it. Texture controls the amount of air and water that a medium will hold. Roots of some plants grow best in a lily pond with almost no air (oxygen) available to the roots while other plants may need a well drained, sandy soil with lots of air space.

Camellia roots appear to be rather

adaptable and endure a wide range of growing conditions as long as the medium does not remain too wet very long after watering or contains more than a small amount of lime (calcium carbonate). Excess water (moisture) in the growing medium contributes to two main types of root damage. It allows growth of any water molds that may be present; usually these are *Pytophthora*, *Pythium*, *Fusarium*, and *Rhizoctonia*. These molds are parasitic and attack the stem and root system at and below the soil level thereby killing the plant by means of killing the root system thus cutting off the supply of water and nutrients to the top of the plant. The other type of damage is that excess water deprives roots of sufficient oxygen by preventing the entrance of air (oxygen) into the soil. Excess moisture also causes an accumulation of excess carbon dioxide in the soil. *Camellia sasanqua* is usually more tolerant of wet soil than *Camellia japonica* but some *C. sasanqua*, such as 'Jean May' and 'Setsugekka', are very sensitive to wet roots.

The water storage capacity of a growing medium is determined largely by the size and relative amounts of component particles and by the amount of colloidal organic matter present. Water is held on the surface of the particles and between small particles by capillary action. There is more surface present if a grain of sand is broken up into smaller pieces than there is if it is left in the relatively larger piece of rock. The more clay particles (particles less than 0.002 millimeters in diameter) a soil
(Continued on next page)

contains, the more water it will hold and the harder it is for the soil to drain. Silt holds less water than clay, and sand is the driest medium of all. However, even sands differ in particle size but those with the most and smallest particles will hold the most water. For instance, plaster sand is finer than concrete sand and will hold more water (moisture).

Nutrients, the inorganic chemical elements needed for plant growth,

were discussed by Stromberg⁵. These elements are generally classified as **MACRONUTRIENTS** and **MICRONUTRIENTS**. Those that are used by the plant in relatively large amounts are **MACRONUTRIENTS** and those needed in only small amounts or merely traces are **MICRONUTRIENTS**. Expressed as per cent of dry weight of healthy camellia leaves chemical elements generally considered as essential are listed in table 1.

Table 1

Macronutrients	% dry weight	Micronutrients	% dry weight
Nitrogen	1.5 - 2.5	Iron	0.004 - 0.015
Calcium	1.2 - 2.0	Manganese	0.0035 - 0.22
Potassium	1.2 - 2.0	Zinc	0.0014 - 0.003
Magnesium	0.2 - 0.5	Boron	0.008 - 0.13
Phosphorus	0.1 - 0.24	Copper	trace
Sulfur	0.1 - 0.25	Molybdenum	trace

Carbon, hydrogen, and oxygen are three other elements necessary for growth of any plant, animal, or other organism. Carbon is obtained by plants as carbon dioxide through pores in the leaves called stomata. Hydrogen and oxygen come from water.

Elements present in plants but not known to be essential to all plants include sodium, silicon, and aluminum. Chlorine, not included in table 1, has been determined to be necessary in micronutrient quantities for at least some plants. Deficiency symptoms for sodium, silicon, chlorine, and aluminum have not been recognized in Camellia. Water from a water softener may have excess sodium in it, and chlorinated water from a swimming pool or even some chlorinated city water may contain excess chlorine that will damage camellias and other plants. Camellias appear to be somewhat tolerant of sodium, boron, and chlorine. However, excess quantities of any nutrient element may be toxic in itself or indirectly by reason of interfering with the absorption of an-

other element by the plant or by interference with the use of another element inside the plant. An example of one element interfering with the use of another is phosphorus. Excess phosphorus inside a plant may cause "physiological" deficiency of iron by combining with it to "inactivate" the iron. Excess phosphorus outside the plant in the growing medium may prevent a plant from absorbing sufficient iron for its needs.

All of the above mentioned chemicals combine with fractions of the soil to form many organic and inorganic compounds of varying solubility. Generally speaking, nitrogen, chlorine, sodium, and boron compounds are easily soluble. Compounds of calcium, potassium, magnesium, iron, and sulfur are likely to be slowly soluble and therefore, in some soils, may or may not furnish sufficient amounts of these elements to the plant. Generally, all elements are more available to plants in acid soils than in neutral or basic soils. Each time a plant receives water some of each of these chemicals goes into solution.

These amounts vary with the solubility of each compound as it occurs in the soil, and as it is affected by other compounds present in the soil.

Plants vary in their ability to obtain nutrients from soils. The so-called acid-loving plants grow best in an acid soil and are unable to live in alkaline (basic) soils. Plants that grow well in alkaline soil either tolerate or are able to "refuse" to absorb toxic amounts of sodium, chlorine, boron, calcium, potassium, or carbonates. Camellias are particularly sensitive to lime soils and may become chlorotic when planted beside a house or a concrete curb where the roots may encounter loose plaster or concrete left there by otherwise well-meaning contractors. Nutrient deficiencies are usually apparent as patterns of yellow between the veins of leaves with various green zones along the veins. This chlorosis or yellowing is due to the lack of chlorophyll in the chlorotic (yellow) areas caused by lack of particular nutrient elements in the affected leaves. Different deficiencies usually produce distinct patterns of chlorosis; however, the patterns may be similar when they first become apparent except for nitrogen deficiency. Nitrogen deficiency is usually apparent as overall pale green leaves. Not all camellias develop dark green leaves; therefore, the grower must make some distinction between "green" and "palegreen." Chlorosis due to nutrient deficiencies is not to be confused with yellow mottling of leaves caused by virus infection, fig. 1, although some virus infected leaves may show chlorosis patterns much like those of iron or manganese deficiencies.

Camellias in calcareous locations often develop manganese deficiency. This pattern of chlorosis, fig. 2, is apparent as wedge-shape green zones along the mid-vein and lateral veins with chlorotic areas between the veins. Necrotic (dead) spots may develop in the yellow areas along the edges and

the tip of the leaf, fig. 2. Ryan and North⁴ grew camellias in high lime soil (32 per cent calcium carbonate). Manganese deficiency symptoms appeared which was corrected with the application of chelated manganese. Later these plants developed iron deficiency symptoms in which there are narrow green zones along the veins of the leaves with chlorotic interveinal areas, fig. 3. The iron deficiency symptoms was corrected with chelated iron. Thus it appears that at least some camellias can be grown in calcareous soils with the use of chelated iron and manganese. The authors realize that camellia growers are not going to try to grow camellias in calcareous soil unless there is no alternative. The above experiments are cited to give the camellia growers a better understanding of plant nutrition and to illustrate the fact that many acid-loving plants are termed such because they are not able to absorb some nutrients from basic soils. They will often grow well in such soils if nutrients are made available to them through the use of chelates or other special fertilizer forms.

Chemical elements absorbed by a plant are in exactly the same form whether they come from the decomposition of organic materials such as manure, blood, and cottonseed meal, or directly from a bottle on the chemist's shelf. The big difference in these fertilizers is the RATE OF AVAILABILITY or speed with which the chemicals from the various fertilizers become available to the plant roots. The chemicals from the so-called organic fertilizers, such as manure and cottonseed meal, are released by decomposition by soil organisms over an extended time depending on the organism population and the degree of incorporation into the soil where they may be open to decomposition. The numbers of bacteria in soil vary widely between 0.3 million and 95 million per gram of soil according to

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Millar and Turk³; and soil fungi are 8,000 to over 1,000,000 per gram of soil (28.35 grams per ounce). Both bacteria and fungi (soil molds) use the decomposition products in growth of their bodies, therefore much of the chemicals released by decomposition are immediately used again by soil organisms and must undergo decomposition again when the bacteria and fungi die. The cycle operates perhaps several times before the chemicals reach plant roots. Thus the release of chemicals by decomposition is extended over a much longer period of time than when inorganic fertilizers (natural or synthetic) are used. Natural inorganic fertilizers such as NITRATE OF SODA or ROCK PHOSPHATE do not furnish anything special as fertilizers other than INORGANIC nutrients. Nor do SYNTHETIC FERTILIZERS such as sulfate of ammonia and ammonium nitrate have any toxic properties other

than that derived from the high nitrogen content, 21 per cent and 35 per cent respectively. There is no toxicity when inorganic high nitrogen fertilizers are applied in proper amounts. Urea, strictly speaking, is an organic form of nitrogen since it has carbon in its molecule. Urea is synthetic and originally contained damaging quantities of the impurity biuret; and when used as an exclusive source of nitrogen, caused some damage. The biuret content, however, has been greatly reduced and the authors would not hesitate to use urea in camellia culture. Biuret is essentially two molecules of urea joined together to form a single larger molecule. The reason for injury by biuret is not clear. Damage from biuret was reported on some plants but no damage has been noted by the authors when using urea to fertilize camellias and macadamia nut. Use of sulfate of ammonia over a very extended period of time has appeared

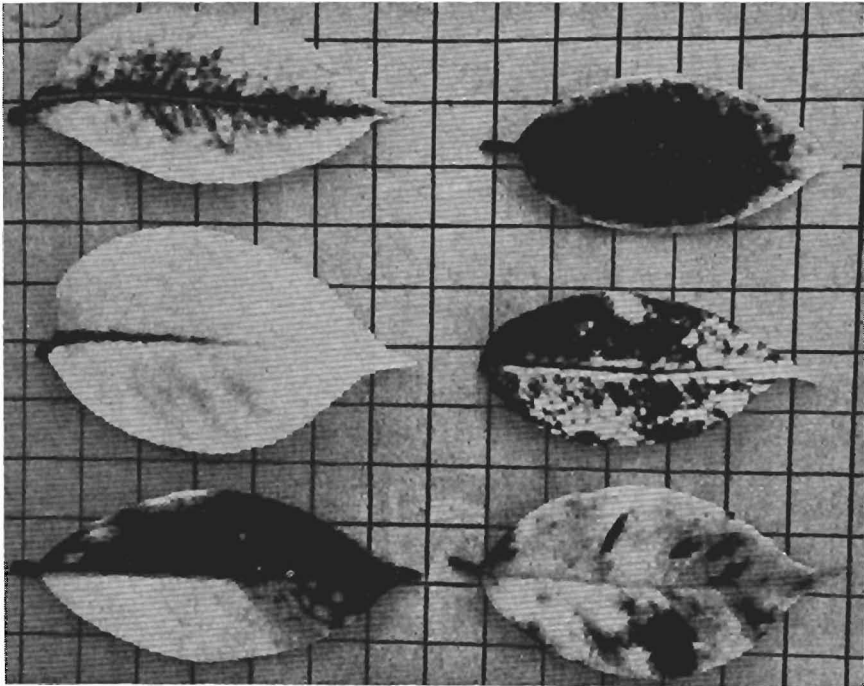


Figure 1. Virus infected camellia leaves

to increase the acidity of some soils due to sulfuric acid accumulation but this again is a very exceptional phenomenon; and is eliminated if other forms of nitrogen fertilizer are used intermittently with sulfate of ammonia.

Nitrate of soda should be used with caution in areas of low to moderate rainfall since excessive accumulation of sodium may occur that will affect soil structure and injure plants. Another factor to be considered is that, in the authors' experience, camellias become deficient in iron and manganese if nitrate nitrogen is the only nitrogen used. It is necessary therefore, in the authors' experience, to furnish some of the nitrogen as AMMONIUM (sulfate of ammonia) or as UREA or AMMONIUM NITRATE. Other "acid-loving" plants such as BLUEBERRY and MACADAMIA NUT may need ammonium as well as nitrate nitrogen. There may be soil conditions where nitrate nitro-

gen as the only nitrogen source will furnish the correct nitrogen supply for camellias and other acid-loving plants but the authors have no knowledge of these conditions. When AMMONIUM nitrogen is used, some of it is converted to the nitrate form by soil organisms before reaching plant roots; the plants thus receive both forms of nitrogen. This conversion of ammonium to nitrate occurs if the soil acidity (pH) is 6.0 or higher (above pH 7.0 is basic, below is acid). However, the reverse conversion, from nitrate to ammonium does not readily take place. Under anaerobic conditions, which are not conducive to growth of most plants particularly camellia, nitrate is degraded and forms toxic compounds before it can be converted to ammonium.

Nitrogen from ORGANIC matter is converted, by decomposition, from proteins and protein components to ammonia and then by combining with
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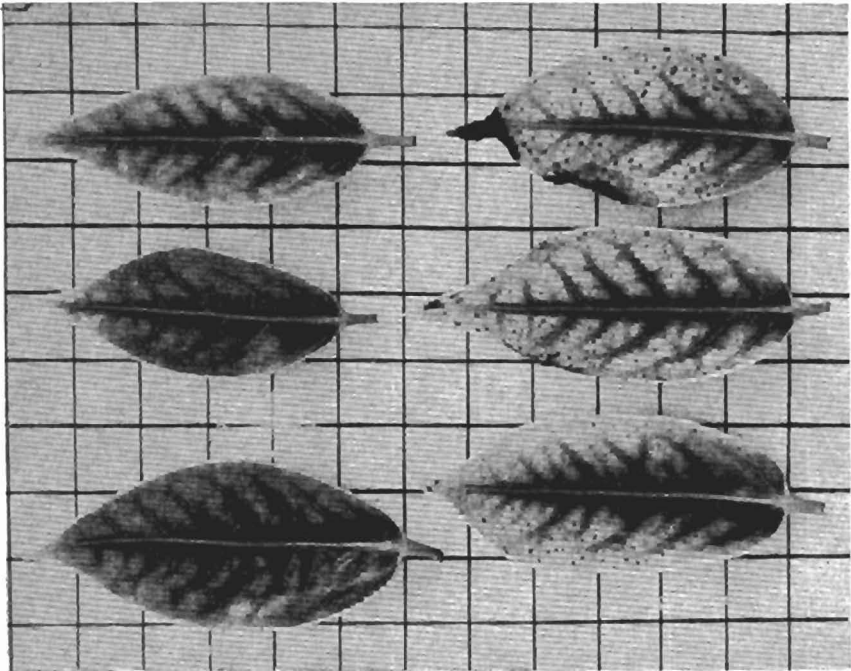


Figure 2. Manganese deficiency

water forms ammonium. The ammonium molecule may be absorbed into the plant, fixed loosely in the soil, or converted further by soil organisms, to nitrate. Thus organic matter furnishes both forms of nitrogen.

Among the organic fertilizers, **POULTRY AND ANIMAL MANURES** should be used with caution because of the relatively uncertain and varying amounts of some chemicals in different lots of the same product. This depends on leaching (by water) of chemicals to the bottom from the top and middle of a manure pile. There are no magic ingredients such as vitamins in organic fertilizers. Plants synthesize their own vitamins. Other organisms, such as birds and animals, do not synthesize vitamins and so must get them from their food.

The one thing added to soils as a result of using organic fertilizers, not furnished by inorganic fertilizers, is **ORGANIC MATTER** which is decomposed, in the soil, to **HUMUS**. 'HUMUS'³, denotes soil organic matter which has undergone extensive decomposition. It is not a homogeneous compound, it has no definite composition. It is dark-colored, heterogeneous mass, consisting of residue of

plant and animal materials together with synthesized cell substances of soil organisms. Humus is not static but dynamic in soil; it is constantly undergoing change." Humus has long been investigated and a recent work², shows that it has a much more complicated structure than the formerly presumed lignin-protein compounds. It is now thought to be composed of **HUMIC AND FULVIC** acids and their derivatives. These are very complex and diverse compounds that vary in composition depending on the parent materials, on rainfall, and on soil composition. The **HUMIC** acids have a relatively high cation-exchange capacity. Cations are positively charged elements such as sodium, calcium, iron, potassium, etc. Humic acid structure is "aromatic" or ring (cyclic) not linear, containing nitrogen units. The ratio of carbon to nitrogen is about 10:1. **FULVIC** acids are smaller molecules than the humic acids. They appear to contain nitrogen and phosphorus in their structure. Millar and Turk³ wrote "Although humus is considered to be organic, it probably contains various inorganic elements which are an integral part of the complex. In acid soils the

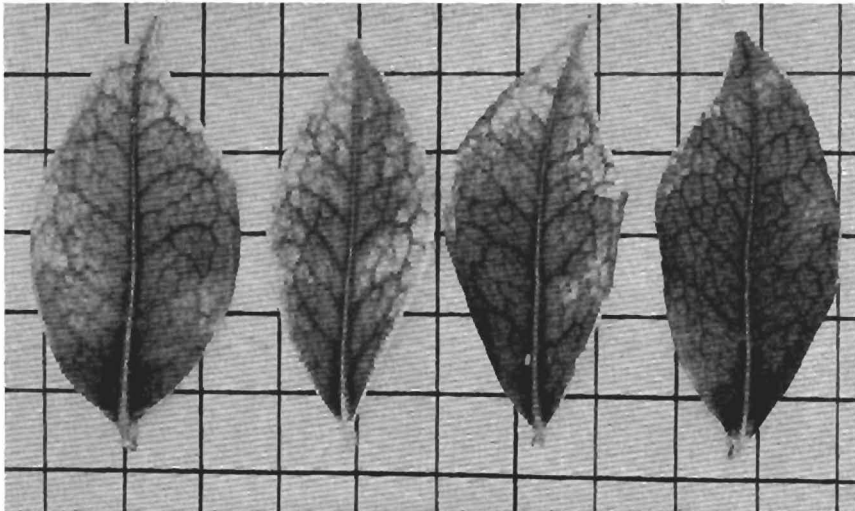


Figure 3. Iron deficiency

humus complex is likely to contain large quantities of hydrogen, iron, and aluminum; whereas in soils close to the neutral point the humus is usually nearly saturated with calcium and magnesium, and in strongly alkaline soils it may contain considerable sodium. It is constantly changing in composition. It is better, therefore, to speak of humus not as a single group of substances but rather as a state of matter, which is different under varying conditions of formation." "HUMUS^{2,3}, is characterized by a high base-exchange capacity (that is it can hold on to chemicals through chemical-electrical bonds, and release them into the soil moisture); it combines with various inorganic soil constituents; it absorbs large quantities of water and exhibits the properties of adhesion and cohesion as do mineral colloids and is less stable because it is subject to microbial decomposition. IN HAS BEEN SHOWN THAT HUMUS IS AN IMPORTANT FACTOR IN THE CONTROL OF AERATION, WATER-HOLDING CAPACITY AND GRANULATION OF FIELD SOILS. HUMUS POSSESSES OTHER PHYSICAL AND PHYSIO-CHEMICAL PROPERTIES WHICH MAKE IT A HIGHLY VALUABLE SOIL CONSTITUENT." The foregoing statements concerning humus are brief excerpts from two books^{2,3}, about soils and soil organic matter, to give the reader some idea of the complexity of soil constituents and therefore the reason why the authors do not give specific recommendations for the growing of camellias. The authors, however, have grown very good plants in the absence of humus using silica sand as the growing medium and furnishing all nutrients dissolved in water and applied daily except on weekends.

Brooks¹ used fir bark as a growing medium. In time, he attains a certain amount of humus as the fir bark is decomposed by soil organisms. Therefore he has a slowly available source

of nutrients and at the same time maintains good aeration. He mentions the use of fertilizer containing 10 per cent nitrogen, 50 per cent phosphorus, and 15 per cent potassium. Translating these figures to definitions from the Western Fertilizer Handbook⁶, the chemical content is 10 per cent nitrogen, 50 per cent phosphorus pentoxide, and 15 per cent potash. Translated further this fertilizer is 10 per cent nitrogen, 21.8 per cent phosphorus, and 12.4 per cent potassium. It is hoped that old laws governing labeling of fertilizers will be changed so that actual chemical content will be listed on the label rather than as a per cent of the compounds now listed by law. Obviously, fertilizers with higher chemical content should be used in lesser quantities, particularly with regard for those with high nitrogen content.

As to the amounts of nitrogen, phosphorus, and potassium given to a plant, the authors have used as much as 3-4 grams of nitrogen per month on 3-gallon size plants that were 4-5 feet tall with excellent results. High levels of phosphorus and potassium were not tried. Generally these elements are in adequate supply for camellias in most soils that are not strongly leached (by rain). Brooks¹ gave his 'Alba Plena' plant 2½ ounces of 10-50-15 fertilizer three times in one year. This amount contained 7.1 grams nitrogen, 15.5 grams phosphorus, and 8.7 grams of potassium for each 2½ ounces of fertilizer. These amounts may be toxic in a 3-5 gallon container but do not appear excessive for a plant in the ground.

In the authors' experience, nitrogen is the most needed fertilizer when plants are grown in a mixture containing much clay and when watered with tap water. Phosphorus and potassium may be needed only once or twice a year under these conditions. However, in container culture with

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little clay or humus content, a more complete nutrient fertilizer is needed. After organic materials such as peat, sphagnum, leaf-mold, fir bark, and cotton seed meal are decomposed to humus, the planting medium will hold nutrients much better and nitrogen may become the most needed.

Commonly used ORGANIC FERTILIZERS⁶ are listed in table 2.

Table 2 shows the great variation in chemical content among the many organic fertilizers. There is often as great a variation within a single type of manure, etc. Because of the large percentage of organic matter in these materials, chemical (inorganic) nitrogen is needed to the extent of about 1 per cent or more of the dry weight of sawdust, grain straws, and similar low nitrogen organic materials used in a planting mix. The reason for the additional nitrogen is that soil organisms use the carbon from the organic matter to build their own bodies and use the nitrogen in the soil to synthesize proteins and protein components. This process creates a temporary nitrogen deficiency in the soil

that lasts until the greatest part of the organic matter is decomposed at which time the soil organism population becomes reduced in numbers to the more nearly normal population before the organic matter is added.

A word of caution is in order on the use of FRESH REDWOOD FRAGMENTS and perhaps some other wood materials. REDWOOD should be leached or weathered to remove substances that are toxic to some plant roots. Some readers may have experienced trouble with seedlings grown in new redwood flats that resulted in death or reduced growth of the plants. However, this toxicity disappears after the wood has been weathered and washed by water. Therefore, it is best to leach redwood before incorporating it into a soil mix for use in containers. Toxicity problems of redwood bark are not known. Fresh redwood tubs are apparently leached sufficiently by water to remove damaging substances before plant roots reach the side of the container.

It is usually necessary to provide

Table 2
Average Analysis of Organic Materials

	Organic Concentrates			
	Per cent Nitrogen	Per cent Phosphorus (P ₂ O ₅)	Per cent Potassium (K ₂ O)	Per cent Organic Matter
Goat manure	2.77	1.78	2.88	60
Dairy manure	.7	.3	.65	30
Steer manure	2.0	.54	1.92	60
Poultry droppings	4.0	3.2	1.9	74
Horse manure	.7	.34	.52	60
Alfalfa hay	2.5	.50	2.50	85
Alfalfa straw	1.5	.30	1.5	82
(no leaves) t				
Bean straw	1.2	.25	1.25	82
Grain straw	.6	.20	1.10	80
	Bulky Organic Materials			
Dried blood	13.0	1.5		80
Fish meal	10.4	5.9		80
Bat guano	13.0	5.6	2.9	30
Cottonseed meal	6.5	3.0	1.5	80
Castor pomace	6.0	2.5-3.0	.5	80
Bone meal	4.1	30.0		
Tankage	7.0	8.6	2.9	30

some nutrients more often than others, particularly the micronutrients iron, manganese, and zinc. Manganese and zinc are best applied in the chelated form when needed or at intervals during the growing season. Weak chelating agents such as citric acid are effective in some cases to keep nutrients available to the plant root, but are not effective in other cases. Some chelating agents are more effective in acid soils and others are more effective in basic soils. In the authors' experience, the chelating agent that is abbreviated EDDHA and with the trade name Sequestrene 138 Fe, has been the most effective in basic soils to supply iron. In acid soils, iron sulfate may furnish sufficient iron for camellias. If manganese or iron deficiencies occur, chelated materials are the most reliable solution to the problem. Zinc sprays have been effective on some plant species to supply zinc.

The authors' philosophy is, usually, to get the most nutrients for the

money, keeping in mind the plant's need and ability of the growing medium to hold specific chemical nutrients available to the plants over the longest period of time.

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REPEAT PERFORMANCE ! SECOND CAMELLIA TOUR OF JAPAN

AGAIN, JACK CRAIG, WELL-KNOWN HORTICULTURIST AND CAMELLIA AUTHORITY, WILL ACT AS HOST AND INTERPRETER FOR A 3-WEEK TOUR OF THE FINEST OF JAPAN'S CAMELLIA GARDENS. PARTICIPANTS WILL BE GUESTS OF JAPANESE CAMELLIA SOCIETIES AND INDIVIDUAL GROWERS AS WELL.

- See wild colonies of *Camellia Japonica* on Oshima Island
- See the beautiful Higo camellias of Kumamota
- See gorgeous snow camellias
- Chat with Japanese growers in their own gardens and nurseries

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CAMELLIA CULTURE AS WE PRACTICE IT

L. R. and Violet J. Shuey

The initial meetings of the various Southern California Camellia Societies are being held this month and the first flowers of the 1971-1972 season will make their appearance on the display tables. The majority of these flowers will be "gibbed", although there will be a few early blooming varieties, such as 'Daikagura', 'High Hat', 'Conrad Hilton', etc. They will, however, make each of us aware that much remains to be done if we wish to have beautiful blooms throughout the season. There are basic procedures that we follow from now until the end of the year which we consider essential to the accomplishment of the objective.

During the long, warm, dry months of summer, when no rain has fallen and our plants are coated with dust, we endeavor to thoroughly wash the foliage as often as possible. Plants breathe through their leaves and the elimination of dust and smog residue is a requisite for healthy plants. Many of our specimen size plants are quite tall; therefore, it is necessary that proper and satisfactory hose nozzles and sprinklers be used that will spray water to the upper portions of the plant. We prefer to do this work late in the afternoon when some of the heat of the day has subsided. If time permitted, we would wash off our plants two or three times a week during the summer months.

The majority of buds are maturing and are increasing in size each day. Since they are approximately 90% water, care should be taken that each plant receives adequate water. Those in containers should be given preferred attention as they are apt to dry out in days of rising temperatures. Container grown plants should receive water from top to bottom of soil. Too often plants suffer by improper watering where the topmost portion of the soil is wet, but where

water has permeated to only the middle portion of the soil in the container.

Many amateur and commercial growers are now using a plant soil mix that contains from 50-75% La Canada Devils Gate Dam Silt. This is a very porous soil and water passes through it as easily as through a sponge. Camellias planted in such soil must be watered far more often than those planted in other soil mixes. If allowed to become dry for more than two or three days, the plant may die. The critical periods for this type of plant are the vacation days—when the watering is left to a neighbor or an inexperienced gardener.

Since we are busily occupied during the grafting, fertilizing, pruning and blooming season, we normally reserve the latter months of the year for repotting our camellias and particularly those grafts that were made during the preceding year. Whenever plants are repotted, or advanced to larger containers, special attention is given to the root structure of the plant. In most cases, we bare root the plant and if a portion of the root appears to be dead or afflicted with a root rot fungus, this portion is removed. Also, if we discover that the tap root has never been clipped but has circled the bottom of the container, we cut and remove the bottom-most portion of the tap root. The plant is then planted in our own soil mix, consisting of 50% good loam or silt and 50% well-aged redwood bark or forest humus, to which we add vermiculite or perlite. We formerly included some river washed sand in our mix, but have discontinued doing so, because experience indicated that sand retains water too long and helps to create a waterlogged soil. Furthermore, sand tends to cement the soil particles, thus making it more difficult for young roots to penetrate the soil mixture.

We have never experienced any bud dropping from camellias which have been bare rooted and removed to larger containers at this time of year. Such plants, however, should be removed, if possible, immediately following the blooming season and before new spring growth commences. Whenever a plant is bare rooted, the soil should be thoroughly watered for a period of two weeks to insure proper compaction of the soil around the roots.

After a plant has been removed to a larger container or planted in the ground, a sharp pointed redwood stake is driven into the soil as close to the main trunk as possible to insure that it will continue to grow in an upright and vertical position. Redwood stakes are used because they are not susceptible to termite damage, nor do they disintegrate as do pine wood stakes. All plants are then labeled as to variety with non-rust metal tags. In fact, this plant labeling has proven so beneficial that we have begun labeling other types of plants and trees in our garden.

Another camellia "must" at this time of year is a careful examination of all plants in the garden (whether in containers or in the ground) to determine whether any of them are in a poor or sickly condition. If so, prompt action is taken to restore the plant to its original condition. Whenever we detect a plant that is losing leaves faster than new leaves are being formed, on one that is not developing normal new growth each year, or one whose leaves are changing in color from a healthy green to a greenish yellow, we commence the application of "hyponex" and epsom salts. These old time remedies have had miraculous effects on many of our sickly plants. Hyponex can be procured from most nurseries in the area and epsom salts can be obtained from any drug store. If these remedies fail to restore our plants to health, they are usually discarded,

because such plants produce inferior flowers.

Many growers do limited spraying as a deterrent against scale and a few chewing insects, such as grasshoppers. We have more than a normal amount of camellias and each year we suffer damage to and the loss of a few leaves, principally from the new growth, but not in an amount sufficient to justify a spraying program throughout the garden. If the grower or homeowner has only a limited number of camellias and has the time to do so, he may wish to spray against damage to his plants.

As the big annual shows are just around the corner and as each of them have display tables for "gib" blooms, if you have not done so, it is imperative that gibbing be commenced as soon as possible. Since we commenced treating our camellia buds with gibberellic acid, new vistas in camellia culture have been opened to us. Our blooming season has been substantially increased and the magnificence of some of the very large gibbed varieties is breathtaking. For example, in this area, gibbed "Clark Hubbs" and "Mouchang" are entirely different flowers when compared to the untreated blooms of the same varieties.

At this time, we wish to issue a warning to all those who enjoy growing many of the smaller leaved species in containers, such as *Fraterna*, *Salicifolia*, *Rosaeflora*, *Cuspidata*, *Lutchuensis*, etc. Please do not use the same proportions of high nitrogen fertilizers on these species as you do on *Japonica*, *Reticulata* and *Sasanqua*. These smaller leaved species cannot tolerate a high nitrogen fertilizer and, if used, partial or total defoliation may result, followed by die back from the terminal branches to the trunk and in some cases eventual death of the plant. If any fertilizer is used, it should be low in nitrogen and used sparingly. Some

(Continued on page 23)

REPEAT PERFORMANCE: SECOND CAMELLIA TOUR OF JAPAN

Jack Craig

Next April a rare opportunity of seeing Japan's finest camellias will again be offered S. C. C. S. members. On April 1st a group will leave San Francisco for a three week, adventure packed camellia tour of Japan. After a night in Tokyo the group will leave immediately for Kumamoto on Japan's southern island of Kyushu where Higo camellias reign supreme. A demonstration of the technique of training Higo camellia bonsais will be given. The leading private and commercial camellia gardens of the area will be visited. A special camellia show is to be staged by the Higo Camellia Society in honor of our visit.

Next stop will be Takamatsu on the island of Saikoku for more gardens containing rare camellia cultivars peculiar to the Takamatsu area. The Kagawa Camellia Society will again stage a special camellia show in honor of our visit to their area. Their show of beautiful cut branches tastefully displayed in cut bamboo sections will be long remembered by all of our members who visited the area in 1970.

The next stop will be Kyoto where many old temple gardens containing ancient camellia specimens will be visited. Hot off the press is a spectacular new camellia book called "Tsubaki" published by Mainichi Shimbunsha.* The best of the ancient Kyoto gardens pictured in this book plus others will be features of our Kyoto visit. Other high points will be a visit to the famed Takeda Garden camellia collection and to the Shisendo where an ancient white flowered sasanqua spreads like a giant oak over a bed of white raked sand.

In Nagoya, as guests of the Nagoya Camellia Society led by Mr. Eimei Nagata, nurseries and private gardens

of Society members will be visited as well as the beautiful camellia planting at Higashiyama Botanical Garden, that being one of the largest and best kept in Japan. Among other Nagoya area highlights will be a visit to Dr. Uada's beautiful garden in Gamagori and to tiny Bentein Island where massive *C. Japonia specimens* rise like mighty oaks around an ancient shrine dedicated to Bentein, the Goddess of music, art, love and beauty.

The group will then visit the camellia famed volcanic Island of Oshima, where features to be seen include the famous camellia tunnel wild forests of *C. japonica* on Cape Ryue and the large collection of camellia cultivars in the Island's botanical garden. Ample opportunity will be afforded to inspect camellia charcoal kilns and to see and to purchase jewelry and other beautiful objects fashioned from seeds and from wood of the camellia tree. Featured at the Island's Japanese inn will be a feast of tempura, fried in pots of boiling camellia oil.

In the nursery village of Angyo, the group will inspect Japan's oldest and most famous camellia nurseries. Then, in the quaint country village of Mashiko, center of Japanese folk craft pottery, the 600 year old camellia specimen of Saimyoji Temple and equally ancient specimens growing in ancient country graveyards will be special treats for the shutter bug.

On to fabulous Nikko in the Japan Alps where Nikko's beautiful botanical garden and other features of the area will be visited before proceeding over the beautiful Alps and into snow camellia country. In the country village of Kawasaki, Mr. Kaomura, the renowned "Father of Snow Camellias"

(Continued on page 17)

S.C.C.S. MONTHLY MEETING BLOOM EXHIBITS

ERNEST E. PIERI

President Southern California Camellia Society

Competition, no matter in what area, is the "spice of life", so stated by a noted philosopher. It makes no difference what the competition, from athletics to weaving, including flowers or any other activity, active or passive. If there were not this competition, life would be very dull, I'm afraid. Take the competitive element out of sports, who would go to see our local, national or international athletic events. Professional sports would die on the vine, so to speak. Every individual, college, club or nation is trying to outdo its neighboring rival. TV has been the greatest boon to competitive sports because it brings the competition right into your living room.

This is not true with all forms of friendly competition. Take "Camellias" as an example. Camellia Shows, either at our local monthly meetings or at invitational shows set up a very friendly sort of competition. All of us are trying to show that the blooms we exhibit are better than those that our neighbor grows. Yet through all of this competition a friendly rivalry exists, a rivalry that causes all to know that they are really in this thing for the pleasure it gives them when meeting and exhibiting with other camellia enthusiasts.

Our Southern California Camellia Society meeting nights are an indication of the tremendous competitive spirit and enthusiasm among the members of the Society. All one has to do is to visit with us at one of our six meetings and see the increasing number of blooms that are exhibited at each meeting, the care that every exhibitor shows when he or she, or both of them, place their blooms on the tables for exhibit. Of course they hope that all of their blooms will be considered for the best bloom of that

category during the evening, the blue ribbon flower, or for one of the other selections for ribbons. Of course the winning of a ribbon is not paramount, but it is the cause of considerable discussion regarding the merits of each bloom as it is displayed among the other blooms.

Each month, the number of ribbons awarded, blue, red, white, green and brown, are converted into point scores and the exhibitor with the highest number of points is declared the winner for the evening. The accumulated score is added to the successive meeting scores and at the last meeting, when all of the points are tallied, the highest scorer for the six meetings is declared the winner for the season. There have been many final meetings in which the leader after five meetings has been outscored after the points of the sixth meeting have been added. Trophies are presented to the winner and runner-up.

The divisions of competition are as follows:

1. Japonica, non-treated

Four classes, for Large and Very Large, Medium (including those designated in CAMELLIA NOMENCLATURE as Medium to Large), Small, Miniature.

2. Japonica, treated

Same four classes as for non-treated japonicas

3. Reticulatas and hybrids with reticulata parentage

Open competition for non-treated and treated blooms

4. Hybrids with other than reticulata parentage, non-treated

5. Hybrids with other than reticulata parentage treated

6. Heimalis, sasanqua and vernalis

One group. Ribbons will be awarded, if merited, but points will

(Continued on page 23)

DAVE FEATHERS SAYS

John Movich

La Verne, California

I was tired last Spring after the income tax rush was over (as the people who know me know, I am an accountant) and took off for a few days up north to relax. I intended to visit with camellia people, and anticipating some pearls of wisdom during these conversations I took along my tape recorder to catch these pearls. I visited Dave Feathers in Lafayette. Dave is one of the camellia people in California to whom we listen with respect. I believe the readers of *Camellia Review* will be interested in some of the things that Dave said to me, particularly those relating to gibbing seedlings.

"While we're talking about camellia seedlings and new camellias, I would like to make a few observations that have occurred to me after more than twenty years effort in this direction. One is that I feel certain that in the future there is going to be a lot more attention paid to the camellia as a garden plant. I think the public is becoming more conscious of the fact that the camellia is a blooming plant for only about two months of the year and is an ornamental evergreen for about ten months. It makes a lot of sense to me to aspire to have a plant that is a year-around attraction and not just for two months.

"The other thing is, I think that those of us who are seriously interested in trying to grow and develop new camellias for the public have got to recognize the fact that in a number of areas there is a great deal of interest in growing camellias that gib well. While I might not be called an exponent of gibbing as such, nevertheless I recognize that there are some camellias that are completely outstanding when gibbed that are not to be regarded necessarily in that category when not gibbed. For some camellias, and I have in mind some of my own seedlings, the gib almost revolutionizes the camellia. In one show in San Jose as an experiment, I exhibited a seedling in the seedling class ungibbed that did not attract any attention of the judges, whereas the gibbed flower that I put in a collection that was non-competitive excited a great deal of attention because the gibbed flower was about twice the size of the one grown normally. It occurred to me that this is a characteristic that has value (and commercial value) in certain areas where gibbing is done so widely and is so important. So, therefore, I think that the propagator and the developer of new camellias has got to keep this in consideration in developing and evaluating

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new camellias. If it is an outstanding gibber, it probably has a certain area of application in the deep South particularly."

I asked Dave, "what do you think about gibbing seedlings for an early show in contrast to a regular season show"?

His reply: "I have no objection to gibbing seedlings in principle except I think it is a possible temptation to lead to the abuse in the gibbing of seedlings and entering them without specifying that they are gibbed. Now if you have a clear distinction between gibbed seedlings and those that are not gibbed, then I think it is perfectly okay to do it because it does give you the dimensions on the flower. On the other hand, there always will be the temptation to throw in one in the normal competition that has been gibbed and is not so designated, and that could happen accidentally as well as deliberately, so that here again you have a matter of what you might call honesty on policing of the proper segregation of the two types of bloom. Certainly gibbing is a factor to be reckoned with today and I can say that in regard to my previous remarks concerning what happens to the gibbed seedlings, it is perhaps a help toward the commercial distribution of the seedling to show what it will do when gibbed. Also there's the fact that in many cases gibbing does not particularly increase or enhance the quality or size of the flower; it simply makes it earlier and from that standpoint it has a distinct and definite advantage and should be encouraged.

"Additionally, I can say from my own experience, located as we are in an area that is late season because of the high hills to the west that cut off the winter sun (we are normally about a month later than other growers in this particular region), we have quite a number of relatively good seedlings that bloom so late that they are never available for the camellia shows. Even

those at the end of March do that. If these seedlings were gibbed and all that resulted from the gibbing is making an earlier blooming of flowers that are truly representative, I could see it would be a distinct advantage because I am able to exhibit them whereas under normal conditions I couldn't."

REPEAT PERFORMANCE

(Cont.)

and president of the Snow Camellia Society, will welcome the group and show them ancient camellia specimens before continuing on to Niigata, the center of snow camellia culture. Niigata is a treat for the camellia enthusiast. As guests of the Snow Camellia Society, many private gardens and nurseries will be visited. Also featured will be a visit to Kamo City which boasts the snow camellia as its city flower. In the city's park will be seen a collection of 400 named snow camellia cultivars as well as the famed snow camellia canyon where snow camellias will be seen in their native habitat growing under ancient cryptomania trees. At Niigata University, Dr. Hagiya, leading snow camellia authority, will personally escort the group through the University's extensive camellia collection.

The tour promises a camellia adventure supreme to all who join the group. Virtually every major camellia society in Japan extends a wholehearted welcome. Please contact Eurpac Travel, 316 Miller Ave., Mill Valley, Calif. 94941 for full particulars.

*The bulk of this 180 page volume consists of large, full color plates of Japanese camellias in ancient and beautiful Japanese garden settings. The short text is in Japanese but all photos have English subtitles. Price: about \$15. (Before monetary "crisis".—Ed.) The reader may write Inoue Book Company, Hongo, Tokyo, Japan for further details.

CALIFORNIA CAMELLIA SHOW SCHEDULE—1971-72

Date	Sponsor	Location
Dec. 4-5	Southern California Camellia Council	Descanso Gardens La Canada
Feb. 12-13	San Diego Camellia Society	Conference Bldg. Balboa Park, San Diego
Feb. 12-13	Peninsula Camellia Society	Veterans Memorial Bldg. 1455 Madison Ave., Redwood City
Feb. 19-20	Temple City Camellia Society	L. A. County Arboretum Lecture Hall, Arcadia
Feb. 19-20	Santa Clara County Camellia Society	Student Union Bldg., San Jose City College, San Jose
Feb. 26-27	Pomona Valley Camellia Society	Pomona First Federal Savings & Loan Assn. 399 N. Garey Ave., Pomona
Feb. 26-27	Delta Camellia Society	Pittsburg High School Pittsburg
Mar. 4-5	Southern California Camellia Council	Descanso Gardens La Canada
Mar. 4-5	Camellia Society of Sacramento	Memorial Auditorium 15th & J Sts., Sacramento
March 11-12	Camellia Society of Kern County	Mall of Valley Plaza Shopping Center Ming and Wible Road, Bakersfield
March 12	Central California Camellia Society	Fresno City College 1100 E. Weldon, Fresno
March 1-12	Northern California Camellia Society	Sun Valley Shopping Center Concord
March 18-19	Camellia Society of Modesto	Palm Court of E. & J. Gallo Administration Bldg., Modesto
March 25-26	Sonoma County Camellia Society	Doyle Student Center Santa Rosa Junior College Santa Rosa

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"BEST FLOWERS" IN 1970 CALIFORNIA SHOWS

There were no dominating favorites among camellia show judges in the choices of Best and Best-Runnerup in the different Divisions of California camellia shows in 1971*. Fifty-four different varieties were chosen for either Best or Best-Runnerup in the japonica, reticulata and hybrid Divisions, of which 17 varieties were chosen more than once. Only 3 varieties were chosen three times. There was no uniformity in the show schedules and the varieties have been listed as winners without regard to classification of the Divisions in which they were entered.

JAPONICA

Large and Very Large

Elegans Supreme (3)
Tomorrow Park Hill (2)
Adolphe Audusson
Carter's Sunburst Pink
Easter Morn
Fashionate
Lovelight
Mark Alan
Masterpiece
Reg Ragland Var

Medium

Ballet Dancer (2)
Betty Sheffield Supreme (2)
Midnight (2)
Can Can
Magnoliaeflora
Margaret Davis
Nuccio's Gem
Sawada's Dream
Ville de Nantes

Small

Little Man (3)
Demi Tasse (2)
Hishi Karaito
Johnny's Folly
Kalin Var
Kitty
Maroon & Gold
Tom Thumb

*This excludes the results of the Sacramento show which were not sent to CAMELLIA REVIEW.

Miniature

Fircone Var (2)
Little Slam (2)
Bright Sprite
Dragon Eye
Fleurette
Sugar Babe

RETICULATA & RETICULATA HYBRID

Kohinor (3)
Confucius (2)
Howard Asper (2)
Mouchang (2)
Valentine Day (2)
Vallee Knudsen (2)
Arch of Triumph
Francie L
Lila Naff
Milo Rowell
Pagoda
Purple Gown
Tali Queen

HYBRID WITH OTHER THAN RETICULATA PARENTAGE

E. G. Waterhouse (2)
Elsie Jury (2)
Charlean Var
Donation Var
Innovation
Julia Hamiter
Tip Toe
Waltz Time

New Name for L. A. Camellia Council

The Directors of the Los Angeles Camellia Council decided at their meeting of October 7, 1971 to change the Council's name to Southern California Camellia Council. This name was considered by the Council's organizing societies but was not used because these societies were all in the Los Angeles area and it was believed that there might be confusion between the Council with this name and the Southern California Camellia Society which was founded in 1940. The Council now includes all the camellia societies in Southern California.

CHINESE ACCOUNTS OF THE YUNNAN RETICULATAS*

E. G. Waterhouse
N.S.W., Australia

(* Reprinted from December 1970 issue of CAMELLIA NEWS, publication of Australian Camellia Research Society.)

There are two publications in Chinese, both extremely difficult to obtain and neither of which has so far appeared in an English translation. The first, YUNNAN SHAN CHA ("Yunnan Mountain Camellias") by Dr. T. T. Yu (with T. T. Feng) was published in Peking in 1958. It described and illustrated in colour twenty reticulatas and gave a picturesque account of the part they play in the cultural life of Kunming. Fortunately, Dr. Yu also writes in English and had already given an illustrated account of the Kunming reticulatas in the Camellia and Magnolia Conference Report published by the R.H.S. London in 1950. Later in the 'Camellian', 1964, he also described the "Garden Camellias of Yunnan". We had thus come to regard Kunming as the main, if not the sole, centre for the investigation of the Chinese reticulatas. However, a second publication which appeared in Shanghai in 1959, just one year later than Yu's describes not only the reticulatas known in Kunming but also a number of varieties which originated in Tali and which are not yet known outside of China. We are thus presented with a fascinating field for future investigation and study. This book YUNNAN SHAN CHA HUA ('Yunnan Mountain Camellia Flowers') was published by the Shanghai Scientific and Technological Press and is edited by CHUANG MAO CHANG. I have so far failed to obtain a copy for myself, but Mr. George Newton of Fayetteville, North Carolina, kindly presented me with a xerox copy, and Professor A. N. Davis, of the Department of Oriental

Studies at Sydney University, has been kind enough to translate for me the selected extracts given below as A, B, C and D.

The work consists of:

1. Introduction
2. Historical material for the study of native regions of mountain camellias.
3. Special characteristics of botanical forms.
4. Special characteristics in agricultural biology.
5. Introduction to major strains.
6. Techniques of cultivation of young plants.
7. Methods of cultivation.

A. Here is an interesting extract from Chapter 2:

"In 1954, members of the Horticultural Section of the Administrative Boards of Parks of Shanghai, for the purpose of beautifying the city, with unprecedented effort overcame all difficulties and transplanted the beautiful camellia from Yunnan to Shanghai. It was placed in the Plant Garden in Lung-hua. It has been there more than five years now. Its growth has been satisfactory and new trees are bearing buds. They have been exhibited in the People's Park and won great admiration. Members of Lung-hua Plant Garden, with the aim of extending the cultivation of this famous flower, have presented specimens to the Botanical Institutions in Nanking and Shen-Yang (Mukden). They are now trying to produce them in large quantities. In 1957 they sent some young plants to the General Botanical Garden in Moscow, Russia, as an experimental exercise. It is our wish that this fa-

mous flower, like China, will blossom in the peace loving gardens of the world."

B. From Introduction:

"Yunnan, in the south-west part of our country, has warm and pleasant weather and an abundant rainfall. It is a beautiful and prosperous province and has been known as the Garden of China and the Botanical Garden of the world. The most admirable plants in this big garden are camellias . . . The Yunnan camellia differs from those grown in other provinces. It is a different species. The tree is big and tall and the flowers are mostly red. The big trees usually bear several thousand flowers. In early spring, camellias in full bloom can be seen everywhere in Kunming and Tali. Some have pink petals and golden stamens. Some have mixed colours of red and white like a large piece of agate. The beauty of this flower is unrivalled. Yang Shen, of the Ming Dynasty, described it in his poem:

"Spring arrives early in the first month of the year in Yunnan, Camellia trees are in full bloom. It surpasses the beauty of apricot flowers and peach flowers And decorates the pretty garden and makes them all look like red cloud islands."

C. Extract from Chapter 2:

LIU SHEN-O, in his Botanical Geography of Yunnan, says "The plantation of camellias in Yunnan is the best in China. The centre is in Tali. In Tali alone there are more than 40 different varieties. As regards colour, there are red and white. As regards leaves, the narrow ones are known as KUEI YEH ('Osmanthus Leaved') and the colour of the flower is spinel pink. Among the Osmanthus Leaved, there are TA KUEI YEH ('Large Osmanthus Leaf') and HSIAO KUEI YEH ('Small Osmanthus Leaf') which is also known as LIU YEH ('Willow Leaf'). The leaf is still narrower. The small Os-

manthus Leaf Camellias can again be divided into two kinds CHIU HSIN ('Nine Hearts') and TU HSIN ('Single Heart'). Stamens of the nine heart camellia are divided into several fascicles. As regards the shape of the flower, the ones found in the wild are red with simple petals and are known as PAO CHU ('Precious Pearl'). Those with large and multiple petals are known as SUNG TZU LIN ('Pine Cone'). If the colour of the flower is light pink it is known as YIN HUNG SUNG TZU LIN ('Spinel Pink Pine Cone'). The dark red ones are known as ⁽¹⁾ HUNG SUNG TZU LIN ('Dark Red Pine Cone'), red mixed with white petals are known as MA NAO SUNG TZU LIN ('Cornelian Pine Cone'), those with extremely large petals and fascicles of stamens are known as SHIH TZU TOU ('Lion Head') or HSIU CHIU CHA HUA ('Embroidered Ball Camellia') or CHIU HSIN SHIH PA PAN ('Nine Centres Eighteen Petals'). The Lion Head Camellia with both red and white colours is known as TA MA NAO ('Large Cornelian') or MA NAO CHA HUA ('Cornelian Camellia'). There is also TZU PAO ('Purple Gown') which has a reddish purple colour. It is of the highest quality and most difficult to grow. Purple Gown with white stamens is known as TZU PAO YU TAI ('Purple Gown with Jade Belt').

CHU PAN (TSUE BAN) ('Chrysanthemum Petal') is another variety of camellia. It has small petals and no stamens. The dark red ones are known as ⁽²⁾ HUNG CHU PAN ('Dark Red Chrysanthemum Petal'), also known as HEN TIEN KAO ('Regret Sky High'). Those with both red and white petals are called SHIH YANG CHING ('Ten Views'). Among the Chrysanthemum Petal Group HEN TIEN KAO is the most valuable. Of all the camellias it grows most slowly and is also the most difficult to establish. It is said that it originated at

(Continued on next page)

the residence of Tu Wen-Shou, King of Tali. There were originally three trees, but one died afterwards. They were the origin of all 'Regret Sky High' camellias of today.

This colourful and beautiful flower has been loved by the people throughout the generations, it has its individual characteristics and offers permanent enjoyment to its viewers. Since the middle of the Ming Dynasty, camellias have been the theme of poets; Yang Shen, of Ming, wrote in his poem entitled 'Camellia' (SHAN CHA HUA):

"With green foliage and red flowers,
its blossoms against the snow;
The yellow bees and powdered butterflies did not come,
The pearl trees by the sea have lost their brightness,
They are ashamed to light the jade terrace with their coral branches."

Pu Ho, at the end of Ming, also wrote:

"Fighting for the spring the cold beauty is so splendid
According to the record camellia is best in Yunnan.
At the top of the tree ten thousand flowers are spitting out fire,
Reflected against the lingering snow,
they make half the sky burning red."

It is true that during the end of winter and the beginning of spring each year in Kunming and Tali, when all other plants are still dormant, more than a hundred different kinds of camellia bloom together. The scene lasts more than a month. It is one of the most splendid spectacles.

Feng Shih-Ko in his *Record of Camellias in Yunnan*, wrote: "The camellia is the best in China. It blooms at the end of winter and beginning of spring. The size of the flower is larger than the peony. It looks like a great fire or embroidered brocade shining under the sun and reflecting the clouds."

Teng Chih-chih composed a poem of two hundred lines in which he pointed out the ten excellences of camellias:

"It is beautiful, but not strange;
It will last three or four hundred years and still look newly planted.
The trunks can be forty or fifty feet high with a girth equal to a man's embrace.
The colour of its bark is dark green as an ancient vase;
Its curved branches are in the shape of a deer's tail and a dragon's form.
Its roots are twisted and in strange shape which could be used as a stand or as a pillow to sleep on;
Its thick foliage is like a tent, dark and abundant,
It stands well against frost and snow and is always green throughout the four seasons;
The flowers bloom in succession lasting two or three months;
When picked and put in a vase with water, they can last more than ten days without their colour fading."

COMMENT: Before proceeding to Chapter 5 which discusses major varieties, a comment seems appropriate:

Chinese is a monosyllabic language. Hence, the names are here given as TA MA NAO, SUNG TZU LIN etc. rather than as TAMANAO and SUNGTZULIN. A literal translation of the name follows which is often more exact and evocative than the synonyms in use outside China. HEN TIEN-KAO means 'Regret Sky High', which is more vivid than 'Dwarf'. SUNG TZU LIN means 'Pine Cone' and not 'Pagoda'. CHANG CHIA CHA means 'Chang's Family Camellia', not 'Chang's Temple' and TALI CHA just means 'Tali Camellia'.

With regard to TA MA NAO, it is to be noted that the "R" usually added after the MA in this name is a common error in Western listings. There is no "R" at all in Chinese.

D. Chapter 5—Introduction to Major Varieties:

“Different varieties of Yunnan camellias were named after their special characteristics. Some were named for their shape such as SHIH TZU TOU (‘Lion Head’), TIEH CHIH (‘Butterfly Wings’), SUNG TZU LIN (‘Pine Cone’), HEN TIEN KAO (‘Regret Sky High’), CHU PAN (‘Chrysanthemum Petal’), CHING KOU (‘Empty Mouth’), CHUAN PAN (‘Curved Petal’), and PAI YU PEI (‘White Jade Cup’). Some were named after their colours such as MA NAO (‘Cornelian’), TZU PAO (‘Purple Gown’), HO TING HUNG (‘Crane Head Red’), HSING CHUN (‘Ape’s Lips’), CHIN PIEN MU TAN (‘Golden Edge Peony’), SAN SE HUNG (‘Tricolour Red’), I NIEN HUNG (‘Pinch Red’) and PIN LANG CHIEN (‘Betelnut Paper’).

Besides these there are also TSUI FEI (‘Drunken Lady’), TUNG TSAO PIEN (‘Akebia Petal’), PAO CHU (‘Precious Pearl’), JUAN CHIH (‘Soft Branch’) and SHIH LIU CHA (‘Pomegranate Camellia’). The most famous are MU TAN CHA (‘Peony Camellia’), HEN TIEN KAO (‘Regret Sky High’) and TZU PAO (‘Purple Gown’).

CAMELLIA CULTURE

(Cont.)

of our species have no tolerance to any of the fertilizers that we have used and we are, therefore, considering the total elimination of any fertilizer. A change of soil mix from time to time is a safer procedure than continually facing a loss of many of our prized and difficult to replace species.

And last, but not least, we are continuing the disbudding work which was commenced a few months ago. Many of our plants set late buds and many of these are eliminated for higher quality perfection of blooms.

S.C.C.S. MONTHLY MEETING

(Cont.)

not count toward the annual trophy.

7. Other species

Same as for the Heimalis, etc. group.

Why not bring your blooms to the monthly meetings? Not only do we have competition for blooms, but we also have competition for those who wish to participate in our flower arrangement section. However, if for no other reason, you should enter this friendly competition for the fellowship and friendship that is enjoyed and shared by all camellia growers.

Descanso Gardens Show Date Formula

The 1972 Descanso Gardens show will be held on the first week-end of March rather than on the last week-end of February as in recent years. This is because of a formula that was adopted several years ago by the Los Angeles Camellia Council to reconcile arguments as to when the 4-show Southern California season should start, working back always from the date of the Descanso Gardens show. The formula is as follows: the date of the Descanso Gardens show will be the week-end that is closest to the first day of March. Under this formula, the 1972 show date will be March 4-5, the 1973 date March 3-4, the 1974 date March 2-3 and the 1975 date March 1-2.

Don’t resent growing old. Many people never have the opportunity of doing so.

Camellia Seeds In Wisconsin

Last March, S. C. C. S. Secretary Bernice Gunn sent some camellia seeds to Mrs. Robert Ross of Shorewood, Wisconsin. Mrs. Ross is an "uprooted Californian" who missed her camellias and hoped to grow some there from seed. She ordered 100 japonica and 100 sasanqua seeds. Because it was late in the season, Mrs. Gunn gave her good measure, along with the usual instructions to germinate them in peat moss.

Mrs. Ross wrote to Mrs. Gunn in July as follows: "I ended up practically handing them out on the street corner . . . well, not quite, but they did go to a total of 13 people. One is a little old Italian who'd known camellias from his youth in San Francisco. Disregarding all instructions (I typed yours up and ran them off) he stuck the seeds directly in soil, and had leaves already while everyone else was waiting for theirs to germinate. The other is a new neighbor (through the seeds we've now become friends), Japanese from Hawaii, who just seems to have the right empathy for making things grow by magic. So far, it does seem that those who've known camellias before are doing better than the ones who've only read my Camellia book.

"Because I kept giving away more seeds after I'd started them in the peat moss, I'm not sure how many

I ended up with—perhaps about 30. At first I had them on top of the water heater, but our basement is very dark and they didn't seem to be doing anything, so I moved them to a warm sunny windowsill. Results there have been pretty good, I think, as I've found several that have germinated every week until the last two when there have been no new ones.

"I'm sure I'll have more camellias than there's room for. So far I have 7 germinated and growing roots, 5 with leaves (both of them in the sand-with-peat mixture) and 4 potted up. Since leaf mold is not available here, I've used peat moss with an acid Ph—the little plants seem very healthy so I hope they like it. For the summer, I've put the ones in pots outside. We're having, for Milwaukee, a very cool summer; it was also a bitter spring, which may account for the slow germination. I guess the real test will be how well they adapt to the greenhouse in the winter."

Mrs. Ross said she would give a further report later on.

"Gibbing has proved to be well worthwhile. Blooms so treated are not only bigger and better but, most important, they are coming out earlier; e.g., 'Prince Frederick William', 'Paolina Maggi', 'Otome', to name a few difficult and late camellias, have already flowered this season."—July 1971 Australian Camellia Research Society (New South Wales Branch) NEWSLETTER.

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SOUTHERN CALIFORNIA CAMELLIA SOCIETY

Directory of California Camellia Societies

Societies with asterisk () are Affiliates of Southern California Camellia Society*

*CAMELLIA SOCIETY OF KERN COUNTY

President: Bob Krause; Secretary: Lemuel Freeman, 209 S. Garnsey Ave., Bakersfield 93309
Meetings: 2nd Monday Oct. through Apr. at Franklin School, Truxton and A St., Bakersfield

*CAMELLIA SOCIETY OF ORANGE COUNTY

President: Thomas Scanlin; Secretary: Mrs. George T. Butler, 1813 Windsor Lane, Santa Ana 97205
Meetings: 1st Thursday Oct. through April at Great Western S/L cor. 15th St. and N. Main, Santa Ana

CAMELLIA SOCIETY OF SACRAMENTO

President: Richard Ray; Secretary: Mrs. Frank P. Mack, 2222 G. St., Sacramento 95816
Meetings: 4th Wednesday, Oct. through April in Garden & Art Center, McKinley Park, Sacramento

*CENTRAL CALIFORNIA CAMELLIA SOCIETY

President: Donald Martin; Secretary: Mrs. Jack Evans, P.O. Box 108, Ivanhoe 93235
Meetings: Nov. 17, Dec. 15, Jan. 19, Feb. 16 at Mayfair School, Mar. 15 at Fresno State College

DELTA CAMELLIA SOCIETY

President: Aldo Maggiora; Secretary: Mrs. F. C. Hopper, 1016 Tiffin Dr., Concord 94521
Meetings: 3rd Tues. Nov. through Apr. except Dec. 7, in room B, Sun Valley Mall, Concord.

JOAQUIN CAMELLIA SOCIETY

President: Eugene Chesi; Secretary: Mrs. Ethel S. Willits, 502 N. Pleasant Ave., Lodi 95240
Meetings: 1st Tuesday October through April in Micke Grove Memorial Bldg., Lodi

LOS ANGELES CAMELLIA SOCIETY

President: Thomas Hughes; Secretary: Mrs. Haidee Steward, 130 S. Citrus, L.A. 90036
Meetings: 1st Tues., Dec. through April, Hollywood Women's Club, 1749 N. La Brea, Hollywood

MODESTO CAMELLIA SOCIETY

President: Mrs. Virginia Rankin; Secretary: Dr. J. Holtzman, 2987 Marshall Rd.,
Crow's Landing 95313
Meetings: 2nd Monday October through May in "Ag" Bldg. of Modesto Junior College

NORTHERN CALIFORNIA CAMELLIA SOCIETY

President: Robert Ehrhart (act.); Secretary: Jules Wilson, 18248 Lamson Rd., Castro Valley 94546
Meetings: 1st Mon. Nov. through May in Claremont Jr. High School, 5750 College Ave., Oakland

PACIFIC CAMELLIA SOCIETY

President: Dr. John Urabec; Secretary: Mrs. A. L. Summerson, 1370 San Luis Rey Dr.,
Meetings: 1st Thursday November through April in Tuesday Afternoon Club House,
400 N. Central Ave., Glendale

PENINSULA CAMELLIA SOCIETY

President: Capt. John C. Nichols, U.S.N., Ret.; Secretary: Mrs. Charles F. O'Malley, 65 Robles
Drive, Woodside 94062
Meetings: 4th Tuesday September through April in First Federal Savings & Loan Bldg.,
700 El Camino Real, Redwood City, Calif. 94061

*POMONA VALLEY CAMELLIA SOCIETY

President: Frank Burris; Secretary: Walter Harmsen, 3016 N. Mountain Ave., Claremont 91711
Meetings: 2nd Thursday November through April in First Federal Savings & Loan Bldg.,
399 N. Garey Ave., Pomona

*SAN DIEGO CAMELLIA SOCIETY

President: Mrs. Althea Hebert; Secretary: Miss Edna Francis, 615 W. Pennsylvania, San Diego 92103
Meetings: 2nd Friday (except February which is 1st Friday) November through May in Floral
Assn. Bldg., Balboa Park, San Diego

SANTA CLARA COUNTY CAMELLIA SOCIETY

President: John M. Augis; Secretary: Mrs. Helen Augis, 2254 Fairvalley Court, San Jose 95215
Meetings: 2nd Thursday Sept. through April in Hospitality Room, American Savings, 1285
Lincoln Ave., San Jose

SONOMA COUNTY CAMELLIA SOCIETY

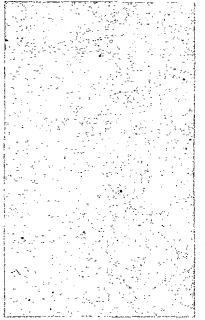
President: Mrs. Alton B. Parker; Secretary: Miss Joy Monteleone, 505 Olive St., Santa Rosa 95401
Meetings: 4th Thurs. Nov. through April, except Nov. (3rd Thur.) and Dec. (to be decided) in
Multipurpose room, Steel Lane School, Santa Rosa

SOUTHERN CALIFORNIA CAMELLIA SOCIETY

See inside front cover of this issue of CAMELLIA REVIEW

*TEMPLE CITY CAMELLIA SOCIETY

President: Milt Schmidt; Secretary: Mrs. Elsie Bracci, 5567 N. Burton, San Gabriel 91776
Meetings: Nov. 14 (Fri.), Dec. 17 (Fri.), Jan. through Apr. is 4th Thurs. in Lecture Hall of Los
Angeles County Arboretum



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