

October 1993  
International Number  
ISSN 0159-656 X

# International Camellia Journal



KATE SHEPPARD. A WHITE CAMELLIA FOR CELEBRATION (PAGE 37)

*AN OFFICIAL PUBLICATION OF THE INTERNATIONAL CAMELLIA SOCIETY*



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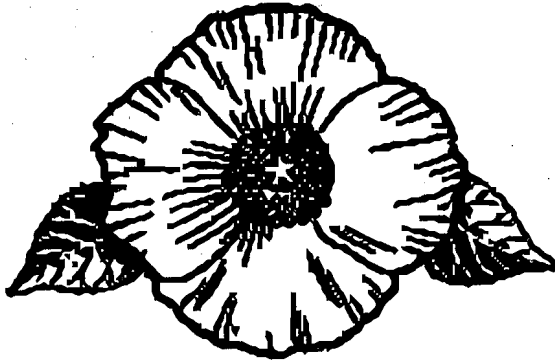
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\* Papers presented at 1993 ICS Congress in Johannesburg, S.A.



# International Camellia Journal

No. 25

October 1993

*An Official Publication of the International Camellia Society*

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1993-94

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**Channel Islands, Republic of Ireland and Other Regions**

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**International Camellia Registrar**

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Mr. Ted Grant, 9844 Judi Ave., Baton Rouge, LA 70815. U.S.A.

**Membership Registrar**

Mr. Walter Krzymowski, 159 Pinewood Dr., Slidell, LA 70458, U.S.A.

**Editor**

Mrs. Jean Comber, 521 Long Lake Dr., Pensacola, FL 32506, U.S.A.

# MESSAGE FROM THE PRESIDENT

THOMAS H. PERKINS III

UN MESSAGE DU PRESIDENT

BOTSCHAFT DES PRASIDENTEN

UN MESSAGGIO DEL PRESIDENTE

UN MENSAJE DEL PRESIDENTE



It has been a busy time for the International Camellia Society what with the final delivery of the Register. It is with regret that we must report that there will be a reprint of the Register due to the fact that it was manufactured with many defective cases of the binding and a section of the "W" was left out. The first cases of the defective bindings showed up in Australia as they were the first Region to receive their volumes. The last Registers arrived in the United States as I think our area was the furthest from the printers in Singapore. We in America took a sampling of our volumes and found a goodly portion of our allotment was bad so we have not delivered any of ours. I understand that some other areas did not deliver some of theirs when notified of the facts.

The printer has taken responsibility for the defective volumes and a reprint is in progress - a mostly cost-free replacement. Subscribers are entitled to the corrected volumes if they desire. There will be a complete overhaul of the Oriental Appendix and a loose sheet of Errata Corrections enclosed in the new Register which will be printed in Dark Maroon binding. Probably the mechanism of receiving replacement volumes will

be the clipping of the numbered limited edition page of the first volume and return it to the Register Agent to get replacement. Subscribers will dispose of the defective volumes as they see fit. Reports from many who have received the Register volumes state that they are very proud of the marvelous work and are avidly using the work.

By the time you read this the new magnificent Camellia Registers will be in the hands of our patient subscribers and we can proceed with the sale of additional sets. Many thanks are due to the untiring efforts of first, Tom Savige and then, Eric Craig and the many Register Agents who have tried to deliver this historic work through thick and thin. Reports are that Tom Savige is back in good health after heart surgery, Eric Craig has had cataract surgery and is doing fine. Reports in to our officers indicate that the membership is about stable in most regions, finances of the various regions are slowly being remitted. It seems that the German Region is being rebuilt by Dr. Ingrid Batzenchlager and Peter Fischer and that is welcome.

We welcome to the governing board, Mrs. Ann Bushell of Channel Islands, Mrs. Pat MacDonald of New Zealand, Dr. Ross Hayter of Australia, Mrs. Marigold Assinder and Miss Jennifer Trehane of England and Dr. Ingrid Batzenschlager and Peter Fischer of Germany. I notice that the Guangxi Province of China has proposed an International Symposium on Yellow Camellia Species January 8-11, 1994.

This message is being written in the middle of my summer and my time is taken up with my "Summer Camellias" - a large garden of Tea Roses. It fills in the time between winter's Camellias. A few of us are able to journey to South Africa and we are looking forward to this at the moment. Regards.

# Message Du Président

Osla a été une épouse mouvementée pour La Société Internationale Du Camellia D'u a La Livraison Finale du Régistre. C'est avec regret que nous Devons vous Annoncer que Le Régistre Va Devoir être réimprimé, ayant été manufacturé avec beaucoup de reliures défectueuses et une section du "W" complètement omise.

Les premières caisses de reliures défectueuses sont arrivés en Australie, les dernières aux Etats-unis puisque nous sommes les plus éloignés des imprimeurs a Singapour.

Nous, ici, en Amérique avons trouvé tant de défauts dans notre allocation que nous n'avons distribué aucun régistre.

L'imprimeur a pris toute responsabilité pur les volumes défectueux et est en train de réimprimer ceux-ci presque pour rien. Les souscripteurs pourront recevoir un volume corrigé si ils veulent.

L'appendice oriental sera complètement révisé, une feuille de corrections sera incluse dans le nouveau volume et celui ci sera relié en Marron Foncé. Pour recevoir un volume corrigé, il faudra couper les pages numérotées de L'edition limitée.

Du Premier volume et les retourner a l'agent. Les souscripteurs pourront disposer des volumes defectueux a leur façon.

D'après le compte rendu de ceux qui ont reçu le registre, l'ouvrage est fort admiré et avidement utilisé.

Quand vous lirez ceci, le nouveau & merveilleux registre du Camellia sera dans les mains de nos patient souscripteurs et nous pourrons procéder á la vente de volumes additionnels.

Nous sommes reconnaissant des efforts infatigable, d'abord de Tom Savige, puis

d'Eric Craig et des nombreux agents du registre qui ont livré cet ouvrage historique malgré maints avatars.

Nous apprenons que Tom Savige a retrouvé la santé après une intervention chirurgical; Eric Craig a été opéré pour une cataracte et se Porte Bien.

Nous apprenons aussi par nos officiers que le nombre des adherents reste stable partout; quant aux finances des diverses régions, les versements commencent lentement.

Il nous semble que la region allemande se retabli sous la direction du Dr. Ingrid Batzenschlager et de Peter Fischer. Cette nouvelle est la bienvenue.

Je fais bon accueil au comité gouvernant a Mme pat McDonald de la nouvelle Zélande, Dr. Ross Hayter d'Australie, Mme Marigold Assinder & Melle Jennifer Trehane D'angleterre et Dr. Ingrid Batzenschlager et Peter Fischer d'Allemagne.

Je m'aperçois que la province de Guangxi en Chine vient de proposer un Symposium International sur le Camellia Chrysantha. Janvier 8 jusqu 11, 1994.

Ce message est rédigé en plein milieu de notre été et je suis occupé avec mes "Caméllias D'été" — voir un grand jardin de roses - thé. Elles occupent mon temps et remplissent le vide entre les hivers.

Quelques un de nous vont faire le voyage vers l'Afrique du Sud & nous nous rejouissons.

A Bientôt

# NOTE FROM THE EDITOR

JEAN COMBER

NOTES DU REDACTEUR EN CHEF

ANMERKUNGEN DER RADAKTION

NOTA EDITORIALE

NOTA DE LA REDACCION



Thanks again for the help you have given me in getting the ICS Journal out for 1993. Many thanks for the translations of the titles.

Glad to hear that Tom Savige is recuperating from his surgery.

This has been a beautiful season for camelias in our part of the world. We had no freezes and the camellias bloomed from early fall thru spring. We attended many shows along the Gulf Coast and then went to California in March for the American Camellia Society meeting. The Camellia Show they had with the meeting was beautiful. We saw many of the favorite varieties we have in the South and many new ones. Now are we having a hot, dry summer so don't know how the plants will react during the blooming season.

My daughter and I had my husband's plants in containers repotted and hopefully when we move this fall, we will be able to plant them at our new house. Time will tell how many of the big old plants we will be able to move.

The deadline for the next issue is 15 July 1994. I hope that you will send in your articles before that time so we can get the Journal out on time. Thanks to all of you for your articles and cooperation.

## FROM ICS SECRETARY

ART LANDRY



Art Landry

It seems that most of our time and effort since our Board meeting in New Orleans has been taken up with matters concerning publication of the ICS Register. As this is written, work is proceeding on the corrections to be incorporated in the reprint of the Register which was necessitated by a number of pages in the 'W' section being inadvertently omitted and some instances of binding weakness. The delay in final distribution is regretted; the Register is an outstanding contribution to the Camellia growing world and will

be appreciated by all subscribers for years to come. The reprint work has fallen on the shoulders of Eric Craig and Tom Savige and they have performed in an outstanding manner on behalf of the Society. Our deep and heartfelt THANK YOU from all of us to Eric and Tom for their untiring work on this project.

The South Africa Congress promises to be an interesting trip for those able to make it. A somewhat smaller group have reserved to go to the Congress for a number of reasons. The organizers promise a varied and interesting Congress and tours for all participants. Because of the timing of the Congress and this Journal, minutes of the Board meeting will be published in the 1994 Journal.

Our slate of future Congresses really looks appealing: Channel Islands in 1995, New Zealand in 1997 and Japan in 1999. These will be great opportunities for camellia enthusiasts to renew old acquaintances and make new ones.

I may be repeating what others have said, but we all need to do what we can to get new members for the Society. A vibrant organization needs new members and new ideas to continue being vibrant. Let's share our enthusiasm with others by inviting others to join us. Membership information for each Region is included in the Journal for our convenience.

# OBITUARIES

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Nécrologie

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Obituarios

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Necrologi

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Nachrufe

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## JOAN BOWSKILL

Joan Bowskill of Hastings, East Sussex, England, Treasurer and Membership Registrar for three and one-half years in the early 1980's, passed away in December 1992. Director and then-president, John Tooby, probably said it best in the 1986 Journal: "She has continued to serve the

Society through thick and thin in spite of the difficulties caused by her husband's illness, and the need to continue running the family business which specializes in fine china. She will be chiefly remembered for her part in organizing with Cicely Perring the very successful Congress in Brighton."



## SIR JOHN CAREW POLE

Sir John Carew Pole, Bt, DSO, Lord Lieutenant of Cornwall, 1962-67, passed away in January. Although not a founding member of the Society, his Antony Betate Nurseries was on the first members' list published in the International Camellia Journal, Vol. 1, No. 2, March 1964.

Margaret Perkins caught the nature of Sir John in writing about the UK Region's 1964 visit to his beautiful Queen Anne family house at Antony, Cornwall — "... we

received the warmest of welcomes from Sir John Carew Pole and his family. The groups here were smaller and all had personal attention. It was so interesting to hear his anecdotes on the countryside and his comments on his camellias. The walk along the top path to the camellia grove looking down on the many splendid blooms and seen across the magnificent flowers of the magnolias was most memorable ..."

# FUTURE ICS CONGRESSES

CONNGRES ICS A VENIR

ICS - KONGRESS VORSCHAU

LI CONGRESSI PROSSIMI DELLA ICS

EL PROXIMO CONGRESSOICS

- 1994** International Symposium - Nanning, Guanxi P.R. China 8-11 January 1994
- 1995** International ICS Congress at Channel Islands, Brittany and Paris - Pre-Tour 26 March 1995; Congress 30 March - 3 April; Post Tour 4-10 April 1995
- 1997** International ICS Congress in New Zealand
- 1999** International ICS Congress at Miyazaki, Japan, where a Camellia Garden is under development on top of a mountain



# U.K. REGION SPRING WEEK-END, CORNWALL, APRIL 15-18, 1993

ELIZABETH SCOTT-MONCRIEF, U.K.

WEEK END-CORNQUAILLES APR 15-18 1993

FINDE SEMANA EN CORNWELL APR 15-18 1993

WEK END A CORNWALL APR 15-18 1993

WOECHEENDE - CORNWELL APR 15-18 1993

*"Spring rides no horses down the hill  
But come on foot, a goosegirl still." . . .*

Source Unknown

Certainly as she comes, the goosegirl dons her "glad rags." The eleven gardens we visited in four days were glorious with color, mostly from the rhododendrons and magnolias, and more subtly, from the camellias. The gardens were fascinating in their great variety of plants and design.

We started at Trewidden on the Thursday morning, where we were shown around by the owners, Mr. & Mrs. Alverine Bolitho and Mrs. S. E. Bolitho and the head gardener since 1975, Michael Snellgrove. The highlights here, where the garden is loosely divided into areas for groupings of different types of plants, were the Fern Pit with its Dicksonias, the North Walk and the Round Bed with their many camellias, and in the pond area, probably the largest *Magnolia x veitchii* in the British Isles. *C. tsaii*, *C. oleifera* and *C. reticulata*, including an ancient 'Captain Rawes' propped up since its bout with the 1987 hurricane, grow out of doors here and we were intrigued to see a new *C. chrysantha* planted in a sheltered corner. It will be interesting to learn how it thrives.

After lunch, we were taken to Penjerrick, where Jane Bird, the head gardener, gave us a brief history of the garden from 1765 to the present. This garden has suffered some neglect but now, hopefully, is on course for a secure future. It contains many rhododendrons, camellias and other plants of historical and botanical interest and a trust is being formed in conjunction with the Royal Botanic Garden, Edinburgh, "to safeguard the future of this romantically beautiful and botanically significant historic Cornish plantsman's garden."

Trebah Garden on the Belford River was the last venue on Thursday. Here is a wonderland, indeed. This very old garden,

established like Penjerrick by the Fox family of Falmouth, also fell on hard times during and after the 1939-45 war. It was rescued by Major Tony Hibbert and his family to whom "the restoration of Trebah became an obsession." The 25-acre garden lies in a steeply wooded ravine with many paths, most of which run longitudinally down to the mouth of the river. After enjoying a camellia walk, it was well worth the steep climb to the top of the ravine to look out over the tops of a sea of 100-year-old rhododendrons in full bloom, tree ferns and *echium pinniana* (here already in bloom). Trebah is truly amazing. Those who come to look at plants are stopped in their tracks by the vistas.

In the evening, following this feast of gardens, Dr. George Hargeaves gave us a most wonderful show of 160 slides. We were shown examples of a broad range of camellias — japonicas, sasanquas, reticulatas, hybrids, species and "oddities."

With appetites whetted by the previous day, we set off on Friday for Chyverton, where Mr. & Mrs. Nigel Holman took separate groups around their lovely garden with its gentle slopes and grassy walks. In front of the house is a truly magnificent 'Cornish Red' rhododendron that has extended its size by layering across the lawn. Against the wall of the house, built in 1730, is an equally magnificent *Magnolia grandiflora*. Mr. Holman told us that the garden contains 150 camellia varieties, including many seedlings, amongst which are *saluenensis* seedlings crossed with 'Donation'. There are over 100 separate genera in addition to rhododendron, camellia and magnolia. The plants, including the camellias, are grown naturally. No fertilizer is used, nor any spray for diseases. Past the myrtle hedge, 20-foot tall with wonderfully knarled brown trunks, lies the main camellia area. 'Nobilissima,' 'White Nun,' 'Tomorrow,' 'C. M. Hovey' and C.

*reticulata* 'Crimson Robe' were outstanding among many of great age and size.

Visits followed to Tregrehan and Porthpean, both near St. Austell. Tregrehan is where the famous Carlyon hybrid camellias were raised by Miss Gillian Carlyon and named after members of her family. 'Cornish Spring' was also raised here and we admired one of the original plants growing in the walled garden. The park was developed from the 18th century onwards and some magnificent trees still survive from that time. In the elegant glass houses, there is a satisfying collection of species camellias, including *fraterna*, *lutichunensis*, *yubsinensis*, *grijsii*, *caudata*, *kisii* and a very healthy looking *chrysantha*, which it is hoped, will flower here. Outside the walled garden is a camellia walk planted in 1844. Mrs. Christian Lamb, who worked with Miss Carlyon for many years, was a knowledgeable guide.

Porthpean, which belongs to Mr. & Mrs. Christopher Petherick, is small compared with the large woodland gardens and none the worse for this. It runs to three acres and has many camellias, azaleas and rhododendrons. Camellias, which were in bloom, included a fine 'Elsie Jury,' 'Julia France,' and the dark, rich red 'Clark Hubbs' with beautifully fimbriated petals, 'Charlotte Petherick,' named after our hostess, is a pretty pink single with a fine boss of yellow stamens. Mr. & Mrs. Petherick gave us a very welcome tea and let us wander at will. The sound of the sea at the foot of the garden wall was pleasing. In winter, it can no doubt be dramatic.

On Friday evening, Dr. Bill Ackerman from the U.S.A. gave us an erudite and interesting talk about his successful work in developing "cold-hardy" camellias.

Saturday's program started with the "lost" garden of Heligan, south of St. Austell. The house at Heligan was always occupied, but the gardens were neglected from the outbreak of war in 1914. For the next almost 90 years, the greater part of this 72-acre garden was slowly buried under the lush growth of South Cornwall. It was amazing and fascinating to hear about and see the results of the dedicated and painstaking labor to restore this almost impenetrable wilderness of 10 feet-high brambles and thick blankets of ivy, hundreds of fallen trees and laurels turned megalomaniac. Camellias were among the plants which had survived under the smothering growth. Because nothing had been done to the garden for so long —

nothing taken away, nothing altered — the structures needed for esoteric 19th century gardening remain. So at Heligan, dilapidated but recognizable, there is a melon garden, a pineapple pit and bee boles. These are to be restored accurately and the contemporary horticultural practices to be reinstated. For Tim Smit, a young archaeologist who is in charge of the restoration, his assistant Don Humphries and all other helpers, it is a strenuous but satisfying life's work.

After lunch, by contrast to the ancient, vast and somewhat wild garden of Heligan, we went briefly to Mr. Bernard Probart's garden, Cot-Wood at Crinnis, near St. Austell. Here was a small garden surrounding a pretty house with 'Royalty,' 'Francie L.,' and a wonderful 'Anticipation' growing extremely well on the walls. The lawn here was a smooth green carpet and every plant enjoyed individual care. This was a "best-kept" garden and, being small, was also restful!

Our next appointment was with David Trehane, at Trehane, where we were given tea. This garden suffered neglect following the burning of the mansion in 1946. In 1963, the property returned to Trehane ownership and work has gone on steadily since then to restore and develop the garden. We saw, not surprisingly, more camellias here than anywhere else. 'Beau Harp,' 'Commander Mulroy,' 'Cecile Brunazzi,' 'Mary Phoebe Taylor,' an excellent 'Anticipation' and 'Coral Delight' were just a few of the many which caught the eye. 'Francie L.,' 'Elegant Beauty' and 'Royalty' were trained against walls. It was good to see David in his element and on his own "path."

Sunday morning brought us to Penheale Manor, the home of Mr. & Mrs. James Colville, where Robin Leach was a very knowledgeable guide. Two items of camellia interest were outstanding here. Extending the entire length of the high wall beside the patch to the woodland garden was a very well managed and brilliant display of large camellias which had been trained against it — 'Royalty,' 'Hiryu,' 'Mrs. D. W. Davis,' 'Mars,' 'Altheaiflora,' 'Gigantea,' 'Devonia,' 'Adolphe Audusson,' 'Leonard Messel' and 'Penheale.' In the woodland garden, a row of camellias had been planted as a windbreak! Here were 'Anticipation,' 'Christmas Cheer,' 'Elizabeth de Rothschild' and four well-grown trees of good, single pink, unnamed Penheale seedling.



The last visit of the weekend was to Mount Edgumbe on Sunday afternoon. It is greatly to be regretted that so few members were able to stay on for this outstanding garden, which contains the National Camellia Collection. To reach Mount Edgumbe involved a very long detour and most members had long journeys home. Mount Edgumbe is probably important enough to warrant a visit of its own. Established in 1547 by the Edgumbe family, the deer park having been licensed by Henry VIII, the country park covers 864 acres. Much of the woodland was planted in the 18th century. The camellia collection started in 1976 with a gift of 70 plants from the International Camellia Society, added to

later by 100 mature plants from David Trehane's garden and a selection of Cornish varieties from Tregrehan. There are now some 500 varieties of camellias in the collection and it is hoped to extend this, under Park Manager Maggie Campbell-Culver to 1000.

Nearly all the gardens we visited had a history going back 200 years, some much earlier. All were romantic and none more so than the "lost garden of Heligan." All require much dedication and hard work and we are fortunate to be able to enjoy them. Our thanks must go to all our hosts, dedicated gardeners every one, and to Jo Freeman, Mrs. Christian Lamb and Charlotte Petherick for arranging it all.



ICS - UK Region — Spring Weekend in Cornwall at Chyverton, ICS Member Nigel Holman's Home and Gardens.

# CAMELLIAS — THE BIG HIT OF THE INTERNATIONAL SPRING GARDENING FAIR IN ENGLAND

PAT MACDONALD, N.Z.

CAMELLIAS - LE SUCCES FAU DE LA FOIRE PRINTANIERE  
INTERNATIONALE DU JARDINGE EN ANGELTERRE

KAMELIEN - DER GROSSE ERFOLG IN DER INTERNATIONALEN  
FRUHLINGS - GARTEN AUSSTELLUNG IN ENGLAND

CAMELIAS - GRAN EXITD EN LA FERIA INGLESA SOBRE LA  
HORTICULTURA PRIMAVERAL INTERNACIONAL

CAMELIE - FURORE IN LA FIERA DELLS INGLATERRA RIGUARDA A  
LA ORTICOLTURA PRIMAVERALI INTERNAZIONALE

The first International Spring Gardening Fair was held at Wembley Conference Centre, London, for five days over Easter. It was one of the biggest gardening shows held in Britain, with more than 60,000 attending, and the International Camellia Society played a feature role.

Jennifer Trehane was Chairman of the International Camellia Society, U.K. Regions. She is a lady of huge energy and enthusiasm, as all those who know her will agree. She has been campaigning for some way to promote camellias as good garden plants in Britain and saw the Wembley spring show as a perfect opportunity to push camellias in front of the general gardening public.

Jennifer and her team of I.C.S. members staged a brilliant exhibition along with the Royal Horticultural Society's annual Main Camellia competition. The I.C.S. exhibiton included a clever display featuring members' gardens growing camellias in various parts of Britain, a very stylish information counter with several experts on hand at all times to give advice, and a sales area with a wide range of goods sporting the camellia logo on sweatshirts, polo shirts, crystal glasses, pens, ties, bookmarks and our own New Zealand Camellia Society's greeting and gift cards (we took over 10 kg of them and they all sold).

Jeanette Bleaney organized a most unusual floral art display featuring camellias and Sally Court, a professional London landscape gardener, created a model town garden, again featuring camellias. Two of the U.K.'s major camellia nurseries, Coghurst and Trehane, also mounted

exhibits with sales areas for plants.

Jean Michel Madec of the Societe Bretonne du Camellia had an excellent exhibition showing many ways of grafting, which he demonstrated every couple of hours during the show. He displayed his collection of bonsai camellias too.

The New Zealand Camellia Society's main contribution was a display of freeze-dried camellias. Unfortunately, the display was not very comprehensive as we had to have them processed at the end of March. We scoured our garden and not a flower out. Neville Haydon came to our rescue with some sasanquas and early hybrids, and his faithful *C.japonica* 'Takanini', which always seems to have a flower. Graham and Bev Gilchrist began experimenting with freeze-dried camellias last season, using our flowers, so we were able to make up a reasonable display with some of last year's leftover blooms. Of course, we were delighted to be official exhibitors representing NZCS at such a prestigious show and very grateful to the I.C.S. (U.K. Region) for inviting us to share with them this important occasion.

The freeze-drying process has a way to go to reproduce the exact colour of the flower, but it's a novel way of displaying our blooms across the other side of the world without any agriculture department restrictions.

News International, in conjunction with the Royal Horticultural Society, organized the Fair. Not only was it to take pressure off the huge Chelsea Flower Show, but it was also a massive gardening workshop.



*Wembley — London — Easter 1993, Sally Courts "Town Garden"*

There were more than 277 exhibitors in five halls, 19 different lectures in the Grand hall seating 2500 people, 36 demonstrations each day and 84 lectures in the three smaller theatres.

The I.C.S. had part of one of the two smaller halls (still quite large by our New Zealand standards). The National Daffodil Show was staged in part of one hall and in the three main halls were gorgeous displays of spring flowers, model gardens and floral art, which as we see at Chelsea, as well as commercial displays from every kind of business manufacturing or selling

goods remotely connected with gardening.

After five days, we had not managed to see it all, even though this vast complex was under one roof. The pity of it was that it had not been widely publicized overseas. April is a marvellous time to be in England and a visit to this show would be the pinnacle of a spring garden tour.

(NOTE - From Herb Short and Jennifer Trehane, U.K. - We are indebted to Pat McDonald, N.Z. for this account of the International Spring Gardening Fair.)



*From Left* - Ross & Jane Hayter, Paul Bleaney, Eileen Farnes, Jean & Denise Madec, Jeannette Bleaney, Mayda Reynolds. *2nd Row* - Jennifer Trehane, David Farnes, John Tooby, Ron MacDonld, *Front* - Pat MacDonald, *Seated* - Vi Lort-Phillips.

# THE PRINCE OF WALES PRESENTS A CAMELLIA

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LE PRINCE DE GALLES PRESENTE UN CAMELLIA

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DER PRINZ VON WALES UBERREICHT EINE KAMELLIA

---

EL PRINCIPE DE GALES PRESENTA UNA CAMELLIA

---

IL PRINCIPE DI LA GALLES PRESENTE UNA CAMELLIA

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When Eric Baker retired as manager of the Duchy of Cornwall Nursery in Lostwithiel, Cornwall, England, The Prince of Wales presented him with a camellia named in his honour. The chance seedling was grown in the Trewithen, Truro, gardens of I.C.S. member Michael Galsworthy.

The white C.japonica 'Eric Baker' is average-sized, globular-shaped and anemone to peony form. Having first bloomed in 1977, but not previously named, it was well suited for the situation. It was registered under the name 'Eric Baker' in 1992. (see International Camellia Journal, October 1992, p. 81).

Eric Baker had been Duchy nursery manager since 1973. In that time, the nursery had grown from almost solely providing trees for planting in the Duchy's own woodlands to a retail operation run on traditional times with an extensive range of rare and common varieties. The site adjoining woodlands running down to the River Fowey, where visitors can enjoy forest walks. Restormel Castle, a stronghold owned by the Duchy since 1837, is just across the river.

Prince Charles, who is Duke of Cornwall, made the camellia presentation to Eric Baker on November 13, 1992 during a visit to Duchy of Cornwall farm (too late in the year to meet 1992 International Camellia Journal press time).

The booklet "Royal Finances" published this year by Buckingham Palace, explains

that, "As the Duke of Cornwall, The Prince of Wales runs the Duchy in effect as Trustee. He is entitled to its income but is not entitled to the proceeds from the disposal of the assets. As a Crown body, the Duchy is "tax exempt." However, the Prince voluntarily gives 25 percent of the income of the Duchy to the Exchequer, which in 1991, left approximately £ 2 million to cover the expenditure of The Prince of Wales and his family.

This arrangement goes back over 650 years. Daphne du Maurier, in her book "Vanishing Cornwall", quotes how Edward III invested his son the Black Prince, with the title, "By putting a Wreath on his Head, a Ring on his Finger, and Verge or Rod into his Hand; ever since which Time is has been settled and agreed, that the eldest Son of the King, who is Heir to the Crown, shall be Earl of Cornwall, and by a special Act of Parliament made in that Case, he is presumed to be of an Age as soon as he is born, so that he may claim Livery and Seisin of the said Dukedom the same Day he is born, and ought by Right to obtain it, as if he had fully completed the Age of 21 years."

She pointed out that, while this was the intention, younger brothers have become invested when eldest sons died. And when the present Hanovers succeeded the House of Stuart to the throne, The Prince of Wales took over the dukedom by letters patent.





***Presentation of Camellia 'Eric Baker'  
David Landale, Secretary, Duchy of Cornwall, Michael Galsworthy, ICS Member  
Prince Charles; Eric Baker, Retiring Nursery Manager; Roger Halliday, Duchy Land  
Steward; Prince of Wales presents a Camellia***

# THE ROYAL HORTICULTURAL SOCIETY

## HONORS TOM SAVIGE

LA SOCIETE ROYALE D'HORTICULTURE RENO HOMMAGE A TOM SAVIGE

DIE KONIGLICHE GARDENBAU GESELLSCHAFT EHRT TOM SAVIGE

LA SOCIETA' REAL HORTICULTURALE ONORA A TOM SAVIGE

LA SOCIETA REALE ORGICOLTURALE ONORA TOM SAVIGE

International Camellia Registrar, Tom Savige of Australia was awarded a Veitch Memorial Medal by the Royal Horticultural Society at its annual general meeting on February 23 at the Society's headquarters in Vincent Square, London.

As John Tooby, I.C.S. Director, wrote in the U.K. Region Newsletter in January 1993: "Members will be delighted to know that our International Registrar, Tom Savige of Australia, will receive the Veitch Memorial Medal in recognition of his splendid work in completing the International Camellia Register. This has involved almost full-time work on an honorary basis for over 12 years."

Charles Puddle, I.C.S. Founder Secretary and Honorary Life-Member accepted the award for Tom, who was ill and could not attend the ceremony. Fittingly, Charles Puddle was one of seven listed on the title page as assisting in the compiling of the

Register. The others are Ralph Philbrick, R. G. Waterhouse, Robert Gimson, Antonio Sevesi, Yochiaki Andoh and Shinju Shinoda.

The Veitch Memorial Medal was established by a group of gardeners to honour nurseryman, James Veitch, following his death in 1869. Veitch had operated a nursery on the Kings Road in the Chelsea section of London since 1840 and in Devon earlier. The Veitch Memorial Medal Trust administered the awards until James' son, Sir Harry Veitch, at the age of 82 in 1922, decided to turn the proceedings over to the Royal Horticultural Society.

The Veitch Medal is the RHS's second highest award (the Victoria Medal is the highest) and is the only RHS medal that can be won by those from overseas. Previous I.C.S. members who have received the Veitch Memorial Medal include Charles Puddle and David Trehane.



Charles Puddle holding Tom Savige's Veitch Memorial Medal.

# THE CAMELLIA SHOW

## — WEMBLEY —

JENNIFER TREHANE, U.K.

LE SALON DU CAMELLIA — WEMBLEY

KAMELIEN SHAU-WEMBLEY

EL ESPECTACULO DE LA CAMELIA — WEMBLEY

LA SPETTACOLA CAMELLIA — WEMBLEY

Easter 1993 — News International/Royal Horticultural Society's "International Spring Gardening Fair"

It took over a year to organize the biggest Camellia event ever held in Britain — and it was all over in eight gruelling, but rewarding and generally highly enjoyable days, five of which were actual Show days.

DAY 1 — The first 7.5 ton lorry packed with large "specimen" camellias arrived, backed up to the ramp in the smelly, dark loading area under the Wembley Conference Centre in North London, only a few yards away from the 10-ton lite. ("We've carried elephants and ballistic missiles in this, madam.") Up to the Hampton Room, carpeted and bare except for the boxes of the 30 foot x 10 foot main I.C.S. (U.K. Region) stand, and the empty tables waiting for all other exhibits — and landscape designer, Sally Court, deep in a pile of bricks, sand and cement constructing a "pond" and retaining walls for her "Town Garden." In addition to the camellias for our own trade stand, our nursery had promised to supply camellias for the Town Garden plus a "Country Garden" and for the six gazebos to add life to their photos and descriptions of the gardens of individual Camellia enthusiasts from all over Great Britain.

DAY 2 — Another 7.5 ton lorry load! The previous load was already sorted and allocated to the various exhibits (and a good restaurant round). A load of turf arrived and work began in earnest. Plenty of help from students, from two horticultural colleges and from the three News International (GOFERS) ("go for this, go for that") one of whom had been a carpet fitter — marvellous for laying turf in the Country Garden. The mobile phone, kindly supplied by one of our ICS members, was busy calling our nursery for more sup-

plies: "Another three big 'Debbies' please, an 'Elegans Champagne' for the front — and we could do with another three 'Tiptoe' — and don't forget the pheasant."

I.C.S. members and friends began arriving to help, with Peter Howarth filling in for me where possible while I darted hither and thither dealing with the many problems and queries. By 9:00 P.M., when the last of us finally gave up, the Hampton Room was beginning to look more like a Camellia Show.

DAY 3 — Sally's Town Garden was almost finished with just the primula, pulaharia and other herbaceous plants to fill in between the camellias — and the camellia blooms to float on the pond. The Country Garden, with its sloping and beautifully laid turf and its thicket of camellias complete with all-important stuffed pheasant, emerging over scattered beech leaves, just needed filling in with the odd plant here and there.

The Borde Hill Gardens exhibit about the origins of *C. x williamsii* 'Donation', arrived as did Maggie Campbell-Culver, park manager at Mount Edgcombe, which holds "The National Collection" of camellias, and Ikebana experts Angela and Takashi Sawano with their exhibits. Jeanette Bleaney and her team produced nine flower arrangements of great ingenuity in no time at all.

Cries of delight greeted Denise and Jean Michel Madec from Brittany, France, complete with a fully loaded car bearing bonsai camellias, grafting demonstrations, posters and even a *C. chrysantha* flower perfectly displayed on moss in a sealed glass jar. Then the tired but cheerful Pat and Ron MacDonald appeared all the way from New Zealand, with two boxes of freeze-dried camellia flowers and several kilos of camellia notelets and other sundries to add



to the Sales area, headed most capably by Eileen Barnes. The next long distance arrivals were Bill and Kitty Ackerman from the U.S.A. with excellent photos of Bill's breeding programme for cold-hardy Camellias.

The seemingly endless areas of display board on the main ICS exhibit "How to choose and grow Camellias" and "The Diversity of the Camellia" were filled with their allotted photos and neat computer printed text and, although there was much still to be done, we had begun to look quite impressive by the time the Press were let loose among us for the preview at 2:00 P.M. By the end of the afternoon the hall was filled with people and Camellias, with over 50 individuals entering blooms in the competitive classes - small compared with other countries but good for us and the atmosphere was great.

DAY 4 — The big day! Judging had taken place between 6:30 and 8:30 A.M. and the Show opened at 9:30 A.M. How I regret failing to alert the R.H.S. to bring their Scientific Committee in to judge Jean Madec's exhibit — he deserved a "Gold" and was thronged by crowds from the moment the Show opened. The T.V., Radio and newspapers had all publicized us and the crowds descended like locusts.

It was an unforgettable sight - a shoulder-to-shoulder team of I.C.S. members in animated conversation with members of the public, most of whom were clamouring for information about growing camellias.

Our team of 32 people, organized by John Mead, consisted of the full age range from octogenarians, including ICS Director and past-president John Tooby, former director David Trehane and Richard Hood to a 12 year old lad, Tristan Johnson, who also performed very well in a television interview.

What a day! None of us had experienced such mass interest in the Camellia before. All of us were exhausted and most of us elated and I think we all felt a warm glow of success. Four more, quieter, days followed and included the demolition of all the competitive bloom exhibits and their replacement with fresh blooms from some of the larger camellia growers. These blooms were organized according to their country of breeding and proved very popular with the public. U.S.A. varieties were by far the most numerous.

There will never be another camellia show quite like Wembley 1993. It has given a boost to camellia awareness and knowledge in Britain, acted as a catalyst for the formation of informal local groups and drawn us together as a society, as well as adding more than 30 people to our membership. The presence of friends from overseas added a very welcome international flavour - talking of which, the Dirty Duckling Restaurant and the Carvery at the Wembley Hilton will not forget us in a hurry! The socializing after the days' work was enormous fun.

My thanks to a great team. ANY IDEAS FOR NEXT YEAR?

# International Spring Ga



Tristan Johnson, Eileen Farnes—ICS Stand



Country Garden



Garden Display



Jean m. Madeoc of Brittany Display



Crowds at ICS Stand



Crowds at ICS Stand



Tristan Johnson, Eileen Farnes



Mount Edgcombe National Camellia Collection display.

# Gardening Fair—Wembley



David Trehane, Marigold Assinder, Richard Hood answering questions.



Borde Hill Exhibit - hybridizing of 'Donation'.



Jeanette Bleaney's display of floral art



Camellia Competition



Camellia Competition



Camellia Competition



Sally Court Town Garden



Individual Gardens in different areas.

# COME TO THE CHANNEL ISLANDS AND FRANCE 1995

MRS. MAYDA REYNOLDS, CHANNEL ISLANDS

RENDEZ-VOUS AUX ILES ANGLO-NORMANDES ET EN FRANCE EN 1995

BESUCHT DIE KANALINSELN UND FRANKREICH 1995

QUE VENGAN AL CANAL DE LA MANCHA Y FRANCIA EN EL AÑO 1995

ANDIAMO AL CANALE DE LA MANICAE LA FRANCIA NEL ANNO 1995

We look forward to welcoming delegates to the Channel Islands and France for the 1995 International Camellia Society Congress.

Every ICS Congress is memorable for the warm hospitality of the host country, the wonderful friendship between all nationalities, the enlightening lectures and exchange of ideas, and the opportunity to see a foreign country in the congenial company of our fellow members.

The Channel Islands are very small, so we won't be taking you on long coach journeys and we don't have any trains but we have so much for you all to enjoy.

The islands are 100 miles south of England and 14 miles west of France. Victor Hugo, who wrote "Les Miserables" during his 16 year exile in Guernsey, describe them as "pieces of France which fell into the sea and were gathered up by England." Geographically this is so, but the islands are part of the British Isles although not of the United Kingdom, Jersey and Guernsey have their own governments. There is no value added tax, so luxury goods are cheaper than on the mainland.

The charm of the islands is in the great diversity of land and seascape - great granite cliffs, golden sands and away from the coast, fertile fields. We are famous for our wonderful cows with their rich milk, our fruit and vegetables and fish, knitwear - Jerseys and Guernseys, and in recent years, for our "offshore finance centres".

Camellias have been growing in the Channel Islands for over 150 years and some of the old varieties - 'Lady Clare,' 'Lady Van Sittart' and 'Captain Rawes', can be seen in the gardens we will be visiting.

To reach the islands, travel by air - 35 minutes from London, one hour ten minutes from Paris. Travel by sea - up to nine hours by ferry from the south coast of England, but there are fast hydrofoils

between England, the Islands and St. Malo.

The Pre-Congress tour starts in Guernsey on Sunday, the 26th of March, when there will be a welcome party. During our four day stay, we will visit gardens and nurseries and places of historical interest, spend a day in Herm, an enchanting island, famous for its beautiful wild flowers and Shell Beach. We will also visit the unique island of Sark, the last bastion of European feudalism, a beautiful place where there are no tarmac roads, and like Herm, no cars or motorbikes.

The Hotel de France, Jersey, will be the venue for the Congress. This hotel has been extensively redeveloped and is the premier conference hotel, offering an excellent range of facilities. There will be the usual Welcome Reception with local dignitaries and a Vin d'Honneur. There will be two mornings of lectures, six sessions in all. We will visit the Jersey Wildlife Park with its interesting animals and plants, including Camellias donated by members of each region of the ICS. Other optional tours will include the famous Eric Young Orchid Foundation, the Jersey Museum, Mont Orgueil Castle, Howard Davis Park, Samares Manor and private gardens. A Floral Exhibition "East Meets West" is to be staged by the Jersey Flower Club and Ikebanna group.

The Congress ends with a banquet on Monday, 3 April.

On 4 April we travel to St. Malo by hydrofoil to start the post Congress tour, arranged by the French ICS directors. Now we can travel miles through the lovely Brittany countryside.

We will visit ICS member Alain Stervinou's specialist nurseries at Gouesnou, en route to the picturesque town of Quimper, where the Breton language may be heard and women dressed in the traditional Breton costume may be

seen. The Societe Bretonne du Camellia (President Jean-Michel Madec) holds an annual Camellia Show at nearby Chateau de Trevarez and here we will meet our Breton ICS members and local camellia enthusiasts.

We will stay a few days in Nantes, where we will be welcomed by Director Monsieur Claude Thoby and Madame Thoby and Monsieur Jancel, the Nantes Garden Director. Visits will be arranged to the Botanical Garden, Jardin des Plantes and to the Claude Thoby Nurseries.

Nantes, a fine city, full of historical interest, is the capitol of Brittany. It stands on

the estuary of the River Loire and is a busy port and industrial centre. Nantes is also a city of art and boasts a fine university.

Our tour ends in Paris, the wonderful capital of France. Here we will meet ICS Director Monsieur Jean Laborey who has recently retired as President of the Camellia Section of the Society Nationale d'Horticulture de France and who will make arrangements for us in this exciting city.

We will send full details and reservation forms to all ICS members early 1994 - we do hope you will be able to join us in 1995.



Tom Savige, Australia, received the following letter from Piedad Rodriguez-Pinero, Chief Librarian, Real Jardin Botanico, Plaza De Munilo, 2 2014, Madrid, Spain.

Dear Sirs,

On checking our collection of periodicals, we have found that your publication International Camellia Journal is not complete. The following volumes are missing:

Vol. 2, 3, 5, 8

As it is most interesting for our library, we would appreciate if it is possible, your sending the said volumes to us, or alternately, the information as to how we could obtain them.

Sincerely Yours,

S/S Piedad Pinero  
Piedad Rodriguez-Pinero  
Chief Librarian

NOTE—If anyone can help Piedad Rodriguez Pinero, Chief Librarian, obtain these missing ICS Journals, please do so. Thanks.

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Note of Appreciation to Mr. David Trehane from Dr. Leslie Stankler, Aberdeen, Scotland - Re:Article in 1992 ICS Journal, pg. 77 by David Trehane.

"I would like to express my thanks to Mr. David Trehane for the time and trouble he has taken to deal with my difficulties in growing camellias. My article was prompted by a quote from Charles Darwin: "False facts are highly injurious to the programs of science and they endure long, but false views, if supported by some evidence, do little harm, for everyone takes a salutary pleasure in proving their falseness."

# EXPOSITION OF CAMELLIAS OF YESTERDAY AND TO-DAY AT THE HALL OF THE NATIONAL SOCIETY OF HORTICULTURE OF FRANCE PARIS — 5-7 MARCH 1993

MRS. V. LORT-PHILLIPS, CHANNEL ISLANDS

EXPOSITION DES CAMELIAS D'HIEU ET D'AUJOURD HUI

AUSSTELLUNGEN VON KAMELIEN VON GESTERN UND HEUTE

EXPOSICION DE LA CAMELIAS DE AYER Y DE HOY

LA ESPOSIZIONE DELL CAMMELLIA DI LERI E DI OGGI

Vice-President Mrs. Mayda Reynolds and I were honored to receive and accept the invitation from Monsieur Marcel Cointet to attend the prestigious exposition of Camellias of "Yesterday and To-Day" at the Society's Hall in the Rue Grenelle Paris 7, where we celebrated my 84th birthday.

Claude Thoby had arranged for us to stay at their hotel which was within walking distance of the Exposition. We arrived with Anne and Claude and were greeted by Madame Brivet, President of the Camellia Section of the Society Nationale D'Horticulture de France and Jean Laborey, our ICS Director for France, who has been a friend to many of us, who is retiring as President of the Camellia Section of the SNHF.

In the entrance foyer, there were splendid examples of the treat in store, beautifully grown and shaped trees of Camellia 'Gloria de Nantes,' and C. 'Scentsation', grouped together, planted in a large container made to look like the straw wicker baskets used in olden days to transport merchandise in ships.

This set the theme of "The Introduction of Tea (*Camellia sinensis*) to Europe" and "The New World from China." The walls of the hall were covered with pictures, maps and posters, with dates telling when the first camellias reached the west - Portugal was the first in 1703, England 1739, France 1783, U.S.A. 1797, Denmark 1807.

Maps showing Para Camellia section, *C. sasanquas* and the highly scented small yellow camellia 'Euphlebica', which we hope to learn more about when we join the

Symposium in China next year. There were too, a board with the enemies of the camellia graphically illustrated, also, posters of Past Expositions, hybridization and legends with the story of Budhha cutting off his eyelashes, in repugnance after a carnal dream with the first camellia trees springing up from the earth where they fell.

In the center of the hall, tall Bamboos were used to form canals through which the flower bedecked Clippers sailed, each avenue of black or golden stemmed Bamboo (*phyllostachys nigra* and *aurea*) 10-12 feet high in matching big containers. On the decks were grouped splendid trees and shrubs of our favorite flowers, reds along one canal amongst which I noted Camellias 'Audolph Audusson', 'Apollo', 'Jupiter' and 'R. L. Wheeler' - rose colored, striped and variegated and in the next canal, old favorites J. C. Williams', 'Fleur de Pecher', 'Chandleri Elegans', 'Ville de Nantes', 'General Lamoricier', 'Kellingtonia', 'Marguerite Guillon' and 'Contessa Lavinia Maggi'. A group of white camellias included 'Alba Plena', 'Fimbriata' and 'Obliissima'.

Hanging over all were the square rigged sails, cleverly draped and made of the fleece/muslin which is useful in preventing frost damage and wind burn. This picturesque and original grouping of the camellia in their colored bands was the work of the Landscape Architect and Decorator, Armana Mauriera.

I emphasize the difference between our competitive shows - there were no prizes, no individual blooms displayed. It was a

cooperative effort by the foremost botanical gardens and nurserymen of France, including our friends from Nante's Botanical Garden, Claude Thoby from Caquefou and his son, Jean Thoby from the southwest of France, Alain Stervinou's Jardin de Kergaradec, Trevarez from the Department of Finisterre, Jean-Yves Roue and Robert Cadiou and others who specialize in seaside plants.

We attended a lecture with slides by Madame Fourier and Monsier Hahn showing and renewing our pleasure in her beautiful "Plantsman's" Garden we visited when on our Brittany Tour. There were two Flower Arranging demonstrations by Madame Eliane Boulongne, Maitre Komon Ikebana, President of the French Branch of the Sogetsu School and by her two col-

leagues, at different times, Madame Louise Kieffer and Madame Marie Alice Sinnatt. The evening ended with an inaugural reception "le Cocktail" when we all drank to the health of our ICS Director Jean Laborey. The President read out the long list of Jean Laborey's work and achievements for horticulture. Jean made us laugh in his witty reply when he said he felt he was listening to his own funeral eulogy. I am glad to tell his many friends on both sides of the Atlantic that he is very alive and sparkling as ever. He welcomed and paid tribute to Madame Brivet, the new President (Camellia Section).

The Societe Nationale d'Horticulture de France has been serving gardens and gardeners since 1827. May it continue its good work in a peaceful future.



*Francoise Brivet, Mayda Reynolds,  
Jean Laborey, Vi Lort-Phillips*



*Camellias en route from China*

# EXPOSITION CAMELIAS D'HIER ET D'AUJOURD'HUI 5-6-7 MARS 1993

Mrs. V. Lort-Phillips, Channel Islands

Société Nationale d'Horticulture de France

84 rue Grenelle, 75007 Paris

La Vice-Présidente de la Société Internationale du Camélia, Madame Mayda Reynolds et Madame Violet Lort-Phillips, ancienne Présidente de la S.I.C., eurent l'honneur d'être invitées par M. Marcel Cointet d'assister à "L'Exposition des Camélias d'Hier et d'Aujourd'hui", les 5, 6 et 7 mars. Nous arrivâmes par avion un jour avant pour être à temps pour l'inauguration et le cocktail qui la suivit et c'était comme ci je fêtais mon anniversaire de 84 ans.

Notre ami, Claude Thoby, eut la gentillesse de nous mettre dans le même hôtels qu'Anne et lui-même. Il se trouvait tout près dans la Rue Bourgogne, facile pour aller à pied, avec nos amis, à la Salle d'Exposition, Rue Grenelle.

En arrivant nous fûmes reçues par Madame Brivet, Présidente de la section de Camélias de la S.N.H.F. et par M. Jean Laborey, directeur de la S.I.C. en France. Dans le foyer il y avait des arbres et des arbustes magnifiques bien taillés, des Camélias entre lesquels je remarquai C. Gloire de Nantes et C. Scentsation qui parfumaient l'air. Il y avait des camélias arrangés en groupes, des couleurs vives, et leurs godets faits en paille de bambou donnaient l'impression d'être des corbeilles anciennes pour transporter des marchandises dans les bateaux à voiles.

Le thème de l'exposition fut le thé (*Camélia Simensis*) introduit en Europe et le Nouveau Monde par les fins voiliers. Il y avait des sacs, des corbeilles et des boîtes de thé avec les épices de l'Orient, qui portaient la marque de la Compagnie des Indes.

Les murs étaient couverts de tableaux, de cartes et d'affiches anciennes et de nos jours. Le Portugal fut le premier pays Européen où on introduisit notre fleur aimée en 1700, puis l'Angleterre en 1739, la France en 1783, les Etats-Unis en 1797 et le Danemark en 1807. Les cartes montraient où se trouvent, par exemple, Para Camélia, *C. japonica* et les *sasanques*, une autre carte présentait des petits camélias jaune, *C. Euphlebica*, très parfumées. Si nous joignons le symposium Chinois prévu pour l'année

prochaine nous visiterons les pays des camélias jaunes en Chine et au Vietnam. Il y avait aussi une affiche qui illustrait dramatiquement les maladies et les ennemis du camélia. Une autre affiche illustrait la légende du premier camélia. Le Bouddha eut un cauchemar effrayant; épouvanté il se coupa les cils et les jeta par terre. Le premier camélia poussa des graines où les cils du Bouddha tombèrent.

Au centre de l'exposition se trouvaient des allées de bambou *phyllostachys aurea* et *negra*, qui représentaient les canaux pour des barques imaginaires qui portaient les fleurs arbustes du camélaï, avec les sacs d'épices sur les ponts des navires à voiles carrés de l'Orient. Les camélias se groupaient en blocs des mêmes couleurs et parmi les rouges, je notai des superbes plantes d'Adolphe Audusson', 'Apollo', 'Jupiter', 'E.L. Wheeler', la prochaine allée révélait des fleurs roses, J.C. Williams, Fleur de Pêcher 'Chandleri Elegans' et puis les groupes blancs C.'Alba plena', 'Fimbriata Alba' et 'Noblessima' 'les panachés', 'Ville de Nantes', 'Général Lamorcière', 'Kellingtonia', 'Marguerite Gouillon' et 'Comtesse Lavinia Maggi', etc.

Des voiles blanches pendaient au-dessus, faites de toison de mousseline artificielle qui protégeait les fleurs de la gelée en hiver.

Le créateur de ce spectacle ravissant et raffiné fut M. Arnaud Meurier, architect-paysagiste et décorateur. La différence entre nos concours aux Etats Unis et en Grande Bretagne et cette exposition était qu'il n'y avait ni de prix, ni les noms des pépinières où on aurait pu les acheter ni une exposition de fleurs uniques avec deux ou trois feuilles et étiquetées.

Ce fut un effort coopératif des:

Jardins Botaniques de Nantes

La Pépinière de Claude Thoby à  
Coquefou et celle de son fils

Jean Thoby du Château de Gaujacq à  
Amou

Alain Stervinou de la Jardinerie



Kergaradec à Gouesnon

Jean-Yves Roué Robert Cadiou des  
Pépinières Keragoue, Plouigneau,

Le Château de Trevarez, Saint-Goazec,

La Pépinière Le Verge, Landivisiau qui se  
spécialise dans les plantes de terre de  
bruyère, etc.

Les Pépinières de Kerisnel et Saint-Pol-de-  
Leon qui se spécialisent en  
espèces de bord de mer

A Paris, il y avus notre juge pour le con-  
cours S.I.C. en 1991 à Jersey, M. Max Hills.

Dans les autres salles, il y avait des  
classes démontrant l'art floral et données  
par Mme Elaine Boulogne, Maître Koma  
Ikibana, Président du Groupe Français de  
l'Ecole de Sogretsu et ses collègues, Mme  
Louise Kieffer et Mme Marie-Alice Sinatti.

Nous assistâmes aussi à la conférence  
avec diapositives de Mme Fourier et M.

Hahn du jardin spécialisé en Bretagne.

La soirée de l'inauguration se termina  
par un cocktail dans le foyer où nous  
buvâmes à la santé de M. Laborey qui, se  
retirant comme Président de la Section  
Camélia de la S.N.H.F., transmit son baton  
à Mme Brivet. Après avoir écouté une très  
longue liste des travaux achevés par M.  
Laborey au service de la Section, énumérée  
par le Président de la S.N.H.F., M. Laborey  
nous fit rire en disant qu'il pensait avoir  
écouté sa propre necrologie mais je peux  
assurer tour ses amis dans le monde entier  
qu'il est en bonne santé et en forme  
éblouissante comme toujours. Il félicita la  
nouvelle Présidente de la Section du  
Camélia, Mme Brivet, en lui souhaitant  
bonne chance. Nous remerciâmes nos  
hôtes de la S.N.H.F. qui est au service des  
jardiniers depuis 1827, avec l'espoir que  
leurs travaux puissent continuer dans des  
conditions de paix dans l'avenir.



# INTERNATIONAL SYMPOSIUM ON YELLOW SPECIES OF CAMELLIA

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JAUNE CAMELLIA

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AMARILLO CAMELIAS

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CLESSIDRA CAMELIE

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GELBE KAMELIEN

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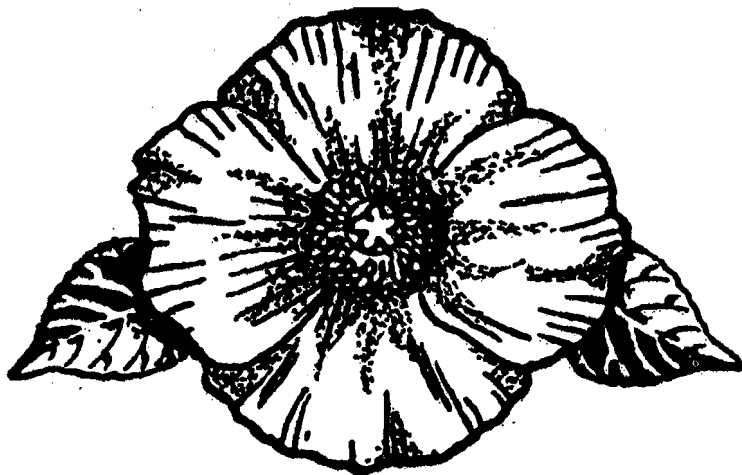
An invitation has been issued to the World Camellia Community to an International Symposium on the Yellow Camellia Species to be held on 8 - 11 January, 1994 in Nanning, Guangxi Province, P. R. China.

Breeding, Taxonomy, Ecology, Plant Disease, Tissue Culture and other aspects of the introduction of these new Species will be discussed. Papers will be invited on experiences of breeding of the previously introduced Chrysantha.

It will combine Plenary Sessions with

group discussions and visits to sites where the new Species are observed in bloom at this time of the year. The Conference promises to have its visitors share in plant material of some of the newer Species observed.

For further information please contact Mr. Li Baoshuo, the Secretariat of the Symposium, Guangxi Association for Science and Technology, 21 Gucheng Road, Nanning, Guangxi 530022, P. R. China. Fax Number is 86-771-206194.



# A VISIT TO THE CAMELLIA GARDEN OF INTERNATIONAL FRIENDSHIP AT KUNMING BOTANICAL INSTITUTE OF CHINA

H. A. FRASER, AUSTRALIA

UNE VISTE AUX CAMELIAS DES JARDINS DE L'AMITIE  
INTERNATIONALE DE L'INSTITUT BOTANIQUE DE KUNMING EN CHINE

EIN BESUCH ZU DEN "KAMELIENGAERTEN" DES INTERNATIONALEN FREUND  
SCHAFTINSTITUTES DER KUNMING BOTANISCHEN INSTITUTE IN CHINA

UNA VISTA AL JARDIN DE LA AMISTAD INTERNACIONAL DE LA  
CAMELIA EN EL INSTITUTO BOTANICO DE LA CHINA

UNA VISITA AGLI GIARDINI DI AMICIZIA INTERNAZIONALE AL  
INSTITUTU BOTANICO DE KUNMING IN LA CINA

With my wife, Dorothy, I was able to visit China in July 1992 for the 16th time and 15th to Kunming since 1978.

What vast changes we have seen in that time as we travelled widely from the borders of Vietnam and Burma, being able to climb to over 12,000 feet on the great mountain of 19 peaks, Mt. Cangshan, at Old Dali and north beyond.

Arriving in Kunming on a warm afternoon, we were met by a delegation headed by Guan Kaiyun. Assistant Director - friend since 1978 - and others from the Academia Sinica, Foreign Affairs, drivers with the most up-to-date air conditioned transport. To add to the welcome, floral tributes were presented along with welcome words. The scene was of great interest to passers-by and to us. It was rather a moving one.

It was good to be back in Kunming again among our many friends to see the vast changes since 1978 and 1989 - modern highways and tree-lined roads to the city with a car. It was also good to connect up with Dr. Bruce Bartholomew again as were the first western visitors to sign the visitors' book at the Institute in 1978. The area had been closed since before World War II.

We attended a welcome banquet at the residence of Prof. Zhang Aulo and his wife. Professor Xia Le Fang, along with many friends. A grand reunion in China of long-time first friends and visitors. As on previous occasions, we visited the camellia garden at the International Garden of Friendship and the nursery close by where the plants of 1984 and others sent over were stored and

grown to sufficient size for garden planting.

We were proudly escorted to the planted garden by Assistant Director Guan and some of the Institute's staff who proudly showed the well-grown plants in their permanent groups - U.S.A., U.K. New Zealand and Australia. Being summer, the overhead trees were in full leaf and the growing plants, thus far and wide, presented a grand sight surrounded by soft green grass.

The area close to this garden, planted with camellias, has been especially developed to cultivars from countries outside China. This plantation presented a grand picture of fresh growth. An interesting feature was a section planted with *C. japonicas* sent by A. E. Campbell of Camellia Grove, Australia and myself in 1979, surviving a very long trip by way of Japan and Beijing as the communication in those days to very remote Kunming was slow. It really did not exist for incoming plants.

Dorothy and I are now able to report that the garden of friendship is thriving and attracts much attention and comment from local and visitors outside China. The well planned stellata with details in Chinese and English explains things well. Our objective was to promote international friendship and interest and by way of tribute, thanks for help in the past with giving so many glorious plants to the world at large. The garden is in a truly beautiful setting to be seen in summer and is the important feature in the landscape in this notable institute of world renown.

This place now ranks in the Orient alongside Edinburgh in plant science and Assistant

Director Guan is the link between places. During the late 1980's, Secretary General of China, Chairman Hu Yaobang, after visiting the garden and planting a reticulata, said "The planting of the garden was the finest gesture of good will given to China from the Western World." He urged the people of Yunnan to plant and expand the growing of camellias.

The Director of the Institute, Dr. Sun Handong, newly appointed, along with Prof. Zhang Aulo, President of Academia Sinica, Professor Wu and many other notables, arranged a most enjoyable banquet for us in the very new grand World Hotel. They thanked us and the society for interest and help over the past years. We made a presentation of a number of special books for the library. We soon realized that such a banquet was no ordinary affair. Being close to my 81st birthday and our 50th Wedding Anniversary, it became a really joyous time with musical items, dancing and presentations.

Finally, we were given a specially crafted model of a red Yunnan Elephant as a sym-

bol of "Never Forgetting" to assure us of the lasting friendship.

Next year, 1994, is the 10th Anniversary of the visit of some 40 ICS Members to China for the planting of the garden in Kunming and the first camellia symposium held by the Academy of Science.

Returning home, we travelled to Beijing and made a personal call on Prof. Tang Peisong, the Host Chairman in 1984. Prof. Tang, now in his 91st year, along with Madame Tang, reside in a comfortable unit. They are active and well and send greetings to all who came to Kunming in 1984. He works at home and has 30 students attending each week for lectures from the University.

Well, now we see that the little thoughts of some members in 1983 and before and in 1978 grew into action in 1984 and started a grand venture with the camellia as the catalyst, and reached advanced maturity in 1994 and beyond. Hope to visit again.

\*NOTE - SEE ICS JOURNAL No. 16, 1984, PAGE 9



Guan Kaiyun - Asst. Director  
Dorothy & Harold Fraser  
STELLATA CONTAINS TIME CAPSULE

# CAMELLIA JAPONICA - PAUL PLANTIVEAU

CLAUDE THOBY, FRANCE

CAMELLIA JAPONICA - PAUL PLANTIVEAU

KAMELIA JAPONICA - PAUL PLANTIVEAU

LA CAMELIA JAPONICA - PAUL PLANTIVEAU

CAMMELIA GIAPPONICA - PAUL PLANTIVEAU

The hybridization of the camellia holds no secrets for Dr. Clifford L. Parks (University of North Carolina, U.S.A.). His successes in the field are many.

The valorization and commercialization of these novelties do not, however, constitute his principal occupation. It is thru these that in 1979, he entrusted Claude Thoby with a few cuttings of a camellia named, unpoetically, "45B6." This new cultivar was the result of the hybridization of *C. japonica* "Jenny Jones", pollen from *C. japonica* "Bernice Boddy", treated with ultra violet rays.

The first flower bloomed in 1985. Since then, this newcomer has been observed often and closely to determine its characteristics and merits.

They can be described thus: Compact bush, abundant blooms, self-cleaning (the flowers fall off before rusting), semi-early flowering, lightly scented, pink and lighter toward center - petals veined with vivid pink, yellow stamen joined at the base casting a salmon here on the flower.

Such a promising cultivar deserved a name to match its qualities - only this one

PAUL PLANTIVEAU

impassioned of camellias would do!

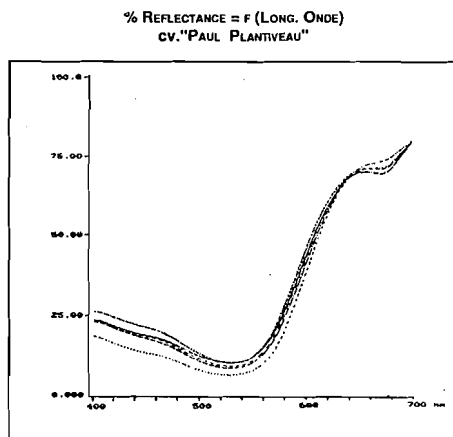
R. Jancel

The determination of colors is a subjective notion. Some people may perceive - vivid pink - bright pink - sustained pink as similar while others see them differently.

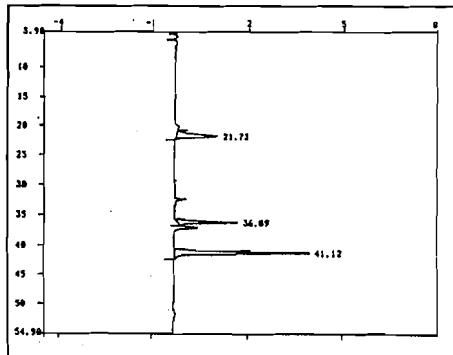
At the University of Lyon, the micromolecular and phytochemistry biology lab, under the direction of Professor Jay, has devised a procedure to scientifically determine colors.

This procedure whose two principal analyses are: Spectrocolorimetry and chromatography, was applied to the camellia for the first time at the Salon de Nantes Show. The first variety to be tested was, of course, "Paul Plantiveau."

The measurements are schematized on the graphs:



PROFIL CHROMATOGRAPHIQUE CV. "PAUL PLANTIVEAU"



The chromatographic profile, starting with the anthocyanins coloring the petals, shows 3 pictures corresponding to the three major molecules (21.73 - 36.09 - 41.42) and three secondary pictures (20.0 - 33.0 - 37). This signature characterizes the variety as

The reflectance curve indicates the variation in the percentage of light reflected by the flower in relation to the wave length of the light illuminating it.

The curve obtained is near that of the variety "Tomorrow."

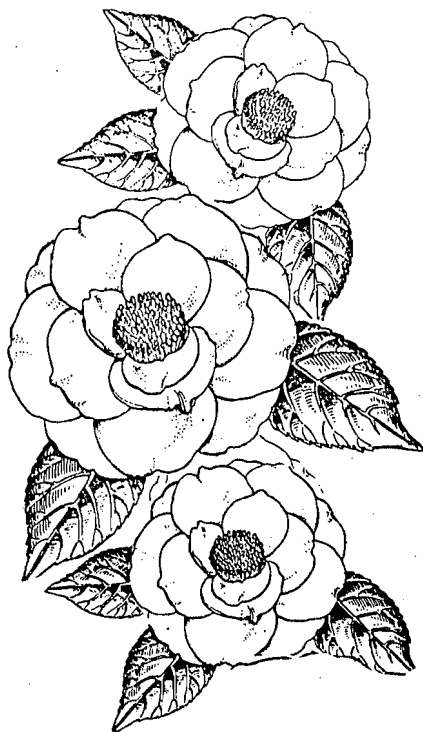
To give a mathematical form to these measurements, it has been possible to translate them into given numbers within the CLE Lab's system of coordinates.

Chromatic Plan: (AXB 44.86 x 6.16).

Saturation: C 45.28 Pure Color

Tint Analyses: Lab 7.82

NOTE: Nantes City has an old horticultural tradition and has developed to a maximum, the cultivation and passion of camellia. The japonica propagated by Dr. Clifford Parks and named Paul Plantiveau is a tribute to the previous director of the "Jardin Botanique" of Nantes. This camellia has been officially presented to the third camellia show.



# CAMELLIA JAPONICA

## "PAUL PLANTIVEAU"

L'hybridation du camellia n'a plus de secrets pour le Docteur Clifford R. Parks (de l'Université de Nord Caroline - U.S.A.). Nombreux sont les "gains" de qualité qu'il a obtenus.

La valorisation et la commercialisation de ses nouveautés ne constituent cependant pas sa préoccupation principale. C'est ainsi qu'il confie à Claude Thoby, en 1979, quelques boutures d'un camellia dénommé sans poésie 45 B (6). Ce nouveau cultivar résultait de l'hybridation de C. japonica 'Jenny Jones' par du pollen de C. japonica 'Berenice Body' traité aux ultraviolets.

Il faudra attendre 1985 pour que s'épanouissent les premières fleurs. Depuis cette date, les observations se sont multipliées afin de déterminer les caractéristiques et les mérites de la nouvelle obtention.

Celle-ci peut être décrite comme suit:

**Arbuste compact, florifère et "autonettoyant" (les fleurs tombent avant de "rouiller").**

**Floraison mi-précoce.. Fleurs légèrement odorantes, rose plus clair au centre. Pétales veinés de rose vif. Etamines jaunes soudées à la base, éclairant la fleur en rose saumoné.**

Pour un cultivar si prometteur, il fallait un nom à la hauteur de ses qualités. Celui de:

PAUL PLANTIVEAU

passionné de camellias, ne pouvait mieux convenir!

R. Jancel

La détermination des couleurs est une notion très subjective. Selon les personnes, un rose vif, un rose lumineux ou un rose soutenu peuvent être compris comme autant de similitudes ou de différences.

À l'Université de Lyon, le laboratoire de biologie micromoléculaire et de phytochimie, dirigé par le Professeur JAY, a mis au point un ensemble de méthodes pour déterminer scientifiquement les couleurs.

Cette procédure dont les deux principales analyses sont, la **spectrocolorimétrie** et la **climatographie**, a été pour la première fois appliquée au camellia à l'occasion du Salon de Nantes.

La première variété a bien sûr été "Paul Plantiveau". Les mesures effectuées peuvent être schématisées par les tableaux ci-contre.

Le profil chromatographique obtenu à partir des anthocyanes colorant les pétales fait apparaître 3 pics correspondant aux 3 molécules majeures (21.73 - 36.09 - 41.42) et 3 pics secondaires (20.0 - 33.0 - 37). Cette "signature" est caractéristique de la variété au même titre qu'une empreinte digitale.

La courbe de réflectance indique la variation du pourcentage de lumière réfléchi par la fleur, en fonction de la longueur d'onde de la lumière qui l'éclaire. La courbe obtenue est à rapprocher de celle de la variété Tomorrow.

Afin de donner une forme plus mathématique à ces mesures, il a été possible de les transformer en données chiffrées dans le système de coordonnées CIELab.

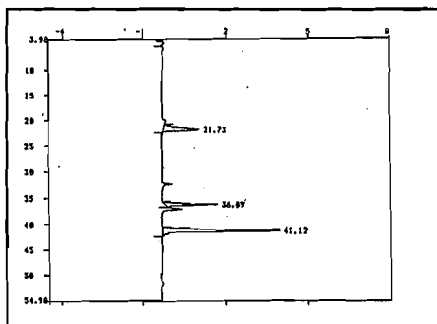
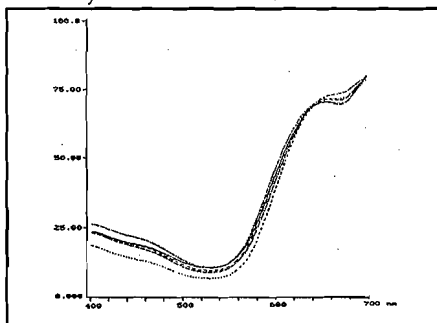
Clarté: Lab\* 53.19 Rose plus foncé que Maiden's Blush

Plan de chromaticité:

(axb) 44.86 x 6.16

Saturation: C\* 45.28 couleur pure.

Analyse de teinte: hab 7.82



# TEA GROWING IN AMERICA

SARAH FLEMING, U.S.A.

LA CULTURE DU THE AUYX ETATS-UNIS

TEE PFLANZUNGEN IN AMERIKA

LA CULTIVACION DE TE EN LA AMERICA

LA COLTIVAZIONE DI TE EN LA AMERICA

Tea, the world's most popular beverage except water, is a member of the *camellia* family. Its roots in South Carolina date back to 1799, when Andre Micheaux brought seeds to what is now Middleton Place Gardens.

The first commercial attempt to produce tea in the United States was in Greenville in 1848 by Dr. Junius Smith at his Golden Grove Plantation. His efforts in propagation were successful, but the operation was discontinued after his death in 1853. The next attempt was in 1874 by Dr. Alexis Forster in Georgetown. It was also halted by the untimely death of the owner in 1879. In 1888, Dr. Charles Shepard established the Pinehurst Tea Farm in Summerville. Pinehurst gained fame for its oolong tea which claimed 1st prize at the 1904 World's Fair in St. Louis. Dr. Shepard's plantation was an innovative and celebrated experimental farm that flourished until his death in 1915.

While stationed in Summerville during the Spanish-American War, Major Roswell D. Trimble became enchanted with the cultivation of the exotic plant. In 1901, he formed the American tea growing company with partner Augustus C. Tyler. They purchased 6500 acres of continuous rice fields near Rantowles on the Atlantic Coast Line Railroad. Thousands of Native plants, probably from Pinehurst, were planted in 1903. Although the railroad station and post office were renamed Tea, South Carolina, in honor of the ventures, they nor the partnership survived. In 1907, disputes between Tyler's son and Trimble resulted in the dissolution of the company and Trimble's return to Pinehurst to assist Dr. Shepard in the tea experiments.

Pinehurst was wild and overgrown with seeds by the time Thomas J. Lipton arrived in 1963 to create a research station on Wadmalaw Island with Dr. Shepard's remaining plants. Lipton's experiments with these plants proved that a high quality tea could be grown successfully in the United States. They also were able to solve the problem that had plagued the earlier farms — labor costs. Lipton and then-manager, Mack Fleming, designed and built a mechanical harvester that could replace 500 workers hand-harvesting the delicate leaves.

In 1987, Fleming and partner, William Hall, a third-generation English-trained tea taster, purchased the farm from Lipton to start the Charleston Tea Plantation. This effort to reintroduce *Camellia sinensis* to the United States is a continuing success with its American classic teas. Through these efforts, American classic teas are now served with pride in homes across America. South Carolina is the only state to have ever produced tea commercially - and this heritage continues today with American classic teas — the only teas grown in America.

Mack Fleming, a Clemson University Alumnus, and his partner, William Barclay Hall, own the only tea plantation in America. They cultivate 30 acres of tea plants and blend American classic tea on a barrier island-near Charleston. Their enterprise started in 1987 and their unique product is finding its way to grocery stores and gourmet shops around the country.

Mack Fleming is the only practicing horticulturist in the country and is responsible for cultivating and harvesting the plants while William B. Hall concentrates on processing



the leaves and blending the tea. They are an interesting pair. Fleming is an amiable, balding father of three with a low country drawl, while Hall, 41, a bachelor, followed his father and grandfather into the tea business at 17 as an apprentice tea taster in London.

One of the biggest selling points for American classic tea is that it is not treated with insecticides or fungicides. Fleming stated that the bushes have only been sprayed once in 12 years. He concluded that the minor problems with insects and disease the

bushes have don't warrant spraying with chemicals. The base growth has had only minor bouts with diseases — like camellia tea scale. Their plantation produces 4,000 pounds of tea per acre, the world's highest yield.

As the expert on blending and tasting, Hall is responsible for achieving a consistent flavor for American classic. He brews double strength samples of the various leaves, then tastes them in the time-honored method of slurp and spit, much like a wine taster does.



# TEA

BILL DONNAN, U.S.A.

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You may well ask: "Why is this clown writing about Tea?" That is a good question. I don't particularly like tea. I prefer coffee as my wake-up drink in the morning and I only drink tea (actually iced tea) occasionally at lunch time. My wife was a great tea drinker. She had three or four different kinds of tea which she would brew up. But my recent interest in tea was piqued when I read an advertisement about a restaurant in the Los Angeles area which claimed to serve 32 different kinds of tea! I immediately surmised that there were not 32 different kinds of tea plants. I thought to myself: "They are talking about tea which is laced with cinnamon, or cloves, or anise, or some sort of herbs". Then I got to thinking about tea being one of the camellia species, namely, *C.sinensis*. So, here I am. I am going to write about TEA and I am going to ask some camellia magazine Editor to consider publishing my wandering thoughts. And, if you are a camellia hobbyist, perhaps you will read what I have written.

The CAMELLIA NOMENCLATURE, in its list of camellia species, describes *C.sinensis* as follows. "Flowers white, leaves elliptic with rounded apex, size quite variable according to variety, maximum reported 5 1/4" x 2". These leaves constitute the tea of commerce. A shrub growing into a tree."

*C.sinensis* has an interesting history. How the Chinese found out that the brew from the leaves is a stimulant is best told by Sterling Macoboy in his "THE COLOR DICTIONARY OF CAMELLIA" (1981 pgs. 11-12). This apocryphal story is only the first of many legends about tea and about how *C.sinensis* came to the Western World. In my own experience I have quaffed tea in many countries and among many different peoples. The drink goes by many different names: TEA: CHA: CHI: CHAR: CUPPA: etc. In India and Pakistan it comes richly sweetened; in Great Britain it is laced with milk; in Russia it is drunk from thin glasses which are mounted in special metal holders. (I have

two of these pewter holders which I brought back from Moscow.) In Japan the drink is a ritual. Tea has been taxed in many countries. A tea tax started our Revolutionary War in the 1750's. I have watched Turkish Engineers risk their livelihood to smuggle gunny sacks of tea across the border from Syria. (Tea is heavily taxed in Turkey). But here I am, drifting away from my thesis. Let's go back to *C.sinensis*.

We all know the "story" of how the tea plant came to Europe. However to my way of thinking, the plant botanists of that day were too knowledgeable to be fooled by the Chinese who, supposedly, substituted *C.japonica* plant for the much desired *C.sinensis* (Tea) plants. Suffice to say the *C.japonicas* were the first to arrive and the *C.sinensis* followed later. I have always been fascinated by the tale of how Linnaeus, the famous Swedish Botanist, obtained several *C.sinensis* plants back in the 1760's. He sent instructions to Capt. C. G. Ekeberg of the Swedish East India Company to obtain seeds of *C.sinensis* in China. Ekeberg was then admonished to plant the seeds as soon as his ship left port for the journey home. The seeds germinated during the long voyage and when the ship docked at Gothenburg, the plants were thriving. These plants were then taken from Gothenburg to Uppsala and given to Linnaeus by Capt. Ekeberg's wife. She held the plants in a box, on her lap, while traveling in a closed carriage for the 332 mile journey!

Many attempts were made to introduce the tea plant into Europe. The date of its introduction into Britain is somewhere about 1740 but the first plants imported did not seem to thrive and little or no attempt was made to grow them commercially there. Robert James, eighth Lord Petre, may have had *C.sinensis* in his collection of plants at Thorndon, Essex, but it was no doubt growing in one of his stoves (Greenhouses). However, it was recognized that the tea plant needed a more mild climate and the

English commercial interests made attempts to establish tea plantations in India and in Ceylon with great success. They also made attempts to establish the commercial growing of the tea plant in their colonies in the United States.

Reading about the *C. sinensis* species in the book, "CAMELLIA IN AMERICA" by H. Harold Hume (1946 pgs. 66-69) I find that the tea plant was introduced into Georgia in 1772. Later on, in the early 1880's it was seen to be grown successfully near Charleston, South Carolina at Skiddaway Island and at Middleton Barony. Then, in 1888, Junius Smith established Golden Tea Plantation at Greenville, South Carolina and in 1889 Dr. Charles U. Shepard began cultivation of tea on a commercial basis at Pinehurst Plantation, Summerville, South Carolina. By 1899 there were 50 acres of tea plants under production and by 1907 this had increased to over 100 acres. Tea of high quality was produced and sold but the subsequent competition from the tea plantations in India soon made this commercial enterprise unprofitable. By 1920 production was abandoned. It might be of interest to note that the Pinehurst plantation was one and the same with the famous Tea Garden Nursery of Summerville, South Carolina which produced, in the 1940's and 1950's such *C. japonica* favorites as: 'Bonfire', 'Tea Garden 45', 'Barbara Morgan', 'Te Deum', 'Calvalcade',; and 'Grand Sultan' to name a few of the many introductions from that location.

We here in California also made an attempt to grow the tea plant commercially. A tea farm was established near Sacramento, California around the turn of the century but it too failed to become profitable and it was abandoned.

So much for the past. What about the present? What about the future. Why does a restaurant in Southern California advertise 32 different kinds of tea? Why is it that when I have lunch with my Professor son at the University Faculty Club at UCLA, they have a choice of four different kinds of tea? Yes, one can choose Earl Grey; or Orange pekoe; or an herbal; or the ubiquitous Lipton's

teabags! Is it because tea has become more popular? Is it because the "Green-peace" people, the environmentalists, are becoming more prevalent? I don't know. I do know that the demand for *C. sinensis*, the tea plant has been expanding. Tea is now being grown commercially in Australia. There is even a new Tea Plantation on the East Coast of the United States of America which has been producing tea commercially. Even though tea has been an integral part of U.S. history since Colonial times, tea has not been grown commercially in America for nearly 100 years, now all that has changed. The Charleston Tea Plantation, Inc. can deliver its home grown AMERICAN CLASSIC TEA from the field to the store in approximately one month. All other tea sold in the United States can be 9 months old or more before it reaches the customer. Freshness gives tea its smoothness and its delicate flavor. The Charleston Tea Plantation has a fully streamlined operation and it has produced a truly gourmet tea.

Monrovia Nursery, one of the largest wholesale nurseries here in the U.S.A. has declared that they could sell several thousand of the *C. sinensis* plants each year to people who want to grow, harvest, dry, (the leaves) and brew their own tea from their own plants! The big obstacle to that scenario is the fact that most of the varieties of *C. sinensis* have a very annoying tendency to show tip burn on the leaves. But even here we are coming to the rescue. Nuccio's Nurseries have now succeeded in introducing a new variety of *C. sinensis* which does not develop the tip-burn of the leaves. We have made some experimental trials with these plants. We have harvested the leaves and dried them out and then brewed tea from the leaves. The resulting tea has a pale green color and it has a mild taste.

Who knows? Perhaps the time will come when every suburbanite will have a *C. sinensis* tea plant in his back yard along with the usual peach, plum and avocado trees. He will harvest the leaves on his tea plant and he will offer you a "cuppa" of his own "home brew" when you come to see his camellia collection.

# THE TEA PLANT AND ITS PRODUCT

ANN RICHARDSON, U.S.A.

LA PLANTE DE THE ET SES PRODUITS

DIE TEEANLAGE UND THRE ERZEUGNISSE

LA PLANTA DE TE Y SUS PRODUCTOS

LA PLANTA TE ED IL SUO PRODOTTO

## WHAT IS TEA?

Tea is a universal beverage that is made from the young shoots of *C. sinensis*. Unlike *C. japonica* which is grown and admired for its intensely beautiful flowers, *C. sinensis* has very small, white flowers which open to seven or eight petals. It is one of the most important economic plants of the world, cultivated in massive numbers and harvested for its leaves. There is variation within this species, which botanists divide into four varieties, two of which will be discussed: variety *sinensis*, and variety *assamica*.

Tea is known to have been cultivated in China long before anything was written about it. According to official Chinese history, the legendary Emperor Shen Nung, who ruled about 1730 B.C., was fond of tea. Tea may have been first used as a vegetable. In Burma and Siam (now Thailand), it was cooked and pressure packed into a cake-like form and used as food. The first written mention of the tea-vegetable, "Ming ts'ai", was in a book about a Chinese statesman, Yan Ying, who died in 493 B.C.

The *Book of Tea*, the earliest book on tea, written by Lu Yu in the seventh century during the Tang Dynasty, contained ten essays in three volumes describing the origin of tea, its cultivation, processing, and methods of preparation. The first botanical description of *Camellia sinensis* (originally identified by Linnaeus as *Thea sinensis*) was in 1753.

Because tea has been in cultivation for so many centuries, it is difficult to determine its exact origin. The tea plant grown for centuries in China *C. sinensis* var. *sinensis* (renamed with the varietal name in 1887), is considered endemic to China, and probably was first cultivated in Yunnan Provinces. From there, it spread to other parts of Asia and India. The tea plant took on new characteristics as it adapted to new locations. Botanists discovered and identified these differences and classified them into varieties.

## CHINA AND ASSAM (India) TEAS

China dominated the tea trade until the 1850s, after which the trade declined dramatically. In 1834, the East India Company's China monopoly ended largely because of the rapid expansion of the new Indian Empire. Tea, which had been an expensive novelty at first, and only available to the upper classes in Europe, soon generally became popular. People wanted tea at more reasonable prices.

When The Assam Company was formed in India in 1839, China tea plants (*C. sinensis* var. *sinensis*) were considered better than the tea plants (*C. sinensis* var. *assamica*) found growing in the wild in the Indian province of Assam. The imported China plants were often planted alongside the native varieties on large tea estates. Upon observation, the variety *assamica* (botanical classification in 1950) had characteristics distinct from the China tea plants. The Assam plant was larger, becoming a tree 30 feet or more in height when not pruned for harvesting. In production, its yield was greater. Its larger glossy leaves produced a flavor strong and distinct from the China tea. The variety *sinensis* was a small leaved shrub, more hardy, with a flavor described as delicate.

When the two varieties grew in close proximity to each other, they produced natural crosses. This aroused a great deal of interest, because it became apparent that the offspring of these plants adapted well to different localities and growing conditions. The original Assam tea improved as a result of the crosses made with the China tea.

Historically, tea plants in India were always raised from seed, rather than grafted on a common rootstock which produces uniformity in plant form and tea flavor. A great deal of effort was made to provide standard sources for distinct tea flavors in the early industry. Seeds were harvested from parent plants selected for their similar characteristics

in huge orchard, known as "seed baries". Some of these seed sources became famous. After picking, seeds were carefully packed and exported to other tea producing countries.

India became the world's largest producer and exporter of tea with three areas that produce high quality teas: Assam, Darjeeling and Nilgiri. China still produces a wonderful variety of teas: black, green, oolong, some that are smoked, and others that are scented with species, flowers or fruits. Assam tea is considered best drunk without milk. Drinking tea with milk was not a custom in China or Japan. As early as 1660, there were recommendations in England to prepare it with milk. Later, it became customary to add sugar as well.

### **CEYLON (Sri Lanka) Tea**

Ceylon, today known as Sri Lanka, was once a great coffee country, second only to Brazil, but coffee plants were destroyed by the disease *Hermileia vastatrix* in the late 1870s and were completely replaced by tea. Today, Sri Lanka is the world's third largest tea producer and the second largest exporter.

The first commercial tea fields were planted with imported Assam seeds and a few China seeds. Today, to ensure complete uniformity of plant and tea flavors, all new plantings are done by vegetative propagation, that is, clones grafted from the same parent. The best quality teas are grown on high slopes at 4,000 feet, their flavor described as strong but delicate with a slight bitterness. Generally, lemon is not used in Ceylon tea, but milk is added if desired.

### **TEA FROM JAPAN**

Tea was first introduced from China to Japan in the 8th century. It was first used by Zen Buddhist priests who regarded it as a medicine to prevent drowsiness during meditation.

There is a legend about the holy man and founder of the Zen sect, Bodhi Dharma, who vowed to maintain an eternal meditative state. Upset upon discovering that he had fallen asleep, he cut off his eyelids so that he might not ever sleep again. This sacrifice so impressed the Lord Buddha, that he put the holy man into a deep trance. When Bodhi Dharma awoke, he discovered his eyelids back in place and on the ground where he had flung his eyelids, he saw a beautiful shrub with white buds. The holy man exclaimed: "Blessed be thou, sweet plant, formed by the spirit of virtuous resolve. Verily, for all time to come, men who drink

off thy sap shall find such refreshment that a weariness may never overcome them. Neither shall they know the confusion of drowsiness, nor any desire to slumber in the hour of duty or prayer!"

The Japanese tea ceremony was founded by Zen monks, who gathered together in monastery chapels to drink tea out of bowls before an image of Bodhi Dharma. In the chapel room where they sat was an altar with a simple arrangement of flowers and incense.

Rikyu, a student of Zen and considered the greatest of all tea masters in the mid 16th century, outlined the formalities of the tea ceremony, bringing tea drinking to a high state of perfection. The tea ceremony spread to the samurai and merchant classes and then became popular with the masses. In private homes, the room used for the tea ceremony had a built-in tokonoma, or alcove, which was reminiscent of the altar of the Zen chapel. Arranged simply, the tokonoma displayed a painting or scroll, an art object, and flower arrangement.

The tea introduced into Japan from China was green tea and remains the most widely used today. It is a mild and fragrant drink which is a stimulant with a nutritional value. This tea contains vitamins A and C, caffeine, tannin, and an aromatic volatile oil. The tea used in the tea ceremony is a thick drink made from green tea powder.

In 1911, the Zen priest, Eisai, brought from China the first tea seeds to plant at Kozangi Temple, in the western part of Kyoto. Today, several districts in Japan are well known for their high quality green tea. Domestic demand is so great that very little tea is exported.

### **HARVESTING**

The flavor, aroma, and strength of tea depend upon the variety or clone of the plants, the climate and soil, and the standard of picking and processing the leaves.

Tea is harvested by plucking the new growth of shoots as they appear in the spring. The best tea comes from new, young leaves and bud on the stem. A plucker averages about 50 lbs. of green leaves a day but during periods of rapid growth, 100 lbs. a day can be harvested.

A mechanical harvester, used in a few areas of the world, can harvest two or three inches of new growth from tea hedge rows at a tremendous saving of labor costs.

### **PROCESSING**

There are three distinct types of processed

teas: green, oolong, and black. Processing is carried out as soon as possible after harvesting. There are four stages for processing black tea; withering, maceration (rolling and sieving), fermentation/oxidation and drying/firing. For green tea, the fermentation stage is eliminated altogether. Oolong tea is fermented for only a short while, falling somewhere between green and black teas.

**Withering.** This process reduces the moisture content of the green leaf by 40-50%. The leaves are spread out on large bins or on rack to dry — a process that takes from 12-24 hours. Circulating air evaporates moisture from the leaves, leaving them soft and pliable.

**Maceration (Rolling and Sieving).** The object of rolling is to break down the size of the leaf, rupturing the leaf cells to release essential oils and enzymes. Machines now do the work in a few minutes. In the past, rolling was done by rubbing the leaves between the palms of the hands.

Vibrating sieves separate the finer leaves from the coarser ones. Depending upon the machinery a factory utilizes, the fine leaves are separated from the coarse ones, and the two are given two separate grades. In other places, the larger leaves are rolled and sieved again. Maceration is another method where the leaves are chopped in a single process to the desired size by a machine.

**Fermentation/Oxidation.** Fermentation oxidizes the juices of black tea leaves, and to a lesser extent, oolong teas. This process is temperature controlled, and changes the green leaves to a dark copper color in less than four hours. The leafy scent of the green leaves changes to the distinguishing odor of the tea variety. For green tea, the fermentation process is eliminated, and for oolong types, the process is shortened.

**Drying/Firing.** After fermentation, the leaf goes through a hot air dryer for about thirty minutes to drive off any excess moisture that could further oxidize the leaves. This stage also crystallizes the fermented juices in the

leaves. When tea is later brewed, boiling water will release the crystals.

## GRADING

Grading of black teas is not an indication of quality, it only described the size and appearance of the leaf. The two basic grades of tea are "leaf" and "broken".

Broken grade includes the more popular, darker, more strongly flavored teas. These include Dust, the finest siftings, used in tea bags; Fanning, the smallest broken leaf grade; and Broken Orange Pekoe, Broken Pekoe, and Broken Pekoe Souchang, which contain larger pieces and some golden leaf tips.

Leaf grade teas are large leaves containing a high proportion of buds, picked at the beginning of the season. These include Darjeelin and Souchong teas.

## BLENDING

Almost all black tea is blended to ensure consistency of taste and quality. Tea can vary due to the weather, methods of processing, and transportation. Some tea, such as the "Boh tea" from Malaysia, is not blended.

## PACKAGING

The tea bag was developed by an American tea merchant, Thomas Sullivan, who, in 1904, sent out samples of tea to his customers in little silk bags. Commercially, the bag did not become popular until the 1920s in the United States, and not until the 1950s in England.

Another form of packaging is the tea brick. In Tibet, this is done by steaming the leaves and putting them into molds, compressing them hard as stone. Tea is prepared from shavings of these bricks boiled in water.

In Burma and Thailand, a strong, bitter tea is packed into dried bamboo leaves.

Loose tea loses its flavor rapidly and should therefore be kept in airtight containers at room temperature, never in glass, plastic or in the refrigerator.

# KATE SHEPPARD

## A WHITE CAMELLIA FOR CELEBRATION

RICHARD H. CLERE, NEW ZEALAND

KATE SHEPPARD-UN CAMELIA BLANC POUR CELEBRER

KATE SHEPPARD-EIN WEISSE KAMELIE FUER FESTLICHE ANGELEGENHEITEN

KATE SHEPPARD-UNA CAMELIA BLANCA PARA CELEBRAR

KATE SHEPPARD-UNA CAMELLIA BIANCA PER CELEBRAZIONI

It may not be generally known that New Zealand was the first country in the world to grant their adult womenfolk the right to vote. During the 1800's, the hardy pioneers of this outpost were striving to turn another fledgling colony of Great Britain into a self-governing nation. Working alongside their menfolk, the women were far from satisfied with their inferior status and as was happening in other places in the world, militant leaders were demanding equality.

Prominent among these militant suffragettes and leading the campaign for equal rights for New Zealand women was Kate Sheppard, who on behalf of the powerful suffragette movement, confronted the Government of the day with demands for the franchise. In 1883, a petition was presented to Parliament for consideration.

Twenty members voted for and carried the motion and the suffragettes won the day. Every one of the 20 members was presented with a white camellia which was in all probability C.j. 'Alba Plena' one of the first camellias available in New Zealand - those who voted against were the recipients of a red camellia.

This year to celebrate the Centennial of Women's Rights and to honor the woman, Kate Sheppard who did so much for the cause, the Ministry of Women's Affairs sought amongst other celebrations to find a white camellia, as yet unnamed, that would commemorate and do justice to the occasion.

New Zealand does not have many camellia breeders and to locate someone who had a proven and available white camellia was not easy. It was a stroke of luck for the Ministry when they located a suitable cultivar. Mrs. Vivienne Joyce, who has a camellia nursery at Kaupokonui, South Taranaki, had been evaluating a

seedling and was about to release a white camellia. Her parents, Ella and Alf Gamlin, prominent N.Z. Camellia Society members and Judges have been involved with camellias for many years and they had a seven year old seedling of C.j. 'Tiffany' which they were about to name Mount Egmont, an extinct snowcapped volcano which dominates the Taranaki landscape. They readily agreed to the request of the Centennial organizers to register the camellia and make it available to the world under the name of 'Kate Sheppard'.

Problems were only half solved. The organizers, through various women's organizations approached cities and towns all over the country and persuaded their Parks and Reserve Departments to buy and plant 'Kate Sheppard' as part of their celebrations to commemorate the centenary of Universal Suffrage in New Zealand. Orders poured in and for the Gamlins it has meant hour upon hour of hard toil to build up the required stock of well grown plants. Hundreds of grafts were done and it was indeed fortunate that the parent plant was sufficiently robust to provide all the necessary scions.

The task is now complete. The plants are ready to be distributed and by the time this article is printed in the ICS Journal, C.j. 'Kate Sheppard', a medium to large white anemone flowered variety will be released to the world and planted in thousands of places in New Zealand.

Still further honor has been accorded Kate Sheppard and her camellia. New Zealand has released a new 10 dollar note featuring this lady and her camellia on one side of the note. Could this be the very first time a camellia has been featured on a country's currency?

(NOTE - The \$10 dollar note used C. j. 'Alba Plena')





# NANTES AND THE CAMELLIAS

FRANCOISE BRIVET, FRANCE

NANTES ET LES CAMELLIAS

NANTES UND DIE KAMELIE

NANTES A LA CAMELLIA

NANTES Y LA CAMELIA

It isn't just by chance that there is a Camellia Exposition in Nantes from March 6th to March 9th. This famous port has played a major role in the history of the plant. Here is a little historical reminder and an overview of the use of the camellia in this blessed climate.

One tends to forget this but, in the XVIIIth century, Nantes was one of the most important cities in France - in matters of commerce, its port was first in Europe. Horticultural activity was pre-eminent - there was an apothecary garden which, in 1726, became a royal garden by decree of Louis XV.

It is in this good city of Nantes, busy, open to the world, full of curiosity for new things that young Ferdinand Favre will flourish. He will become mayor, but, what will make him famous is his love of the camellia and his profound knowledge of the plant. Thanks to him, Nantes will become the city of camellias, a tradition still happily alive and respected today. After all, were we not baptizing a new camellia here at the show in '92?

Ferdinand Favre was not originally from Nantes. He was born in Switzerland to French parents who had fled France along

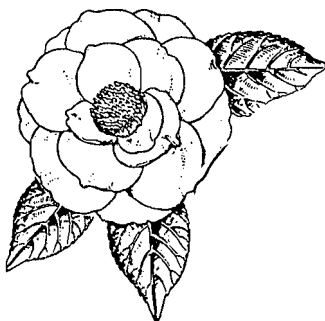
with many other protestants after the revocation of the Edict of Nantes.

Later, Ferdinand Favre travelled and in 1806, he admired an exhibition of camellias in Gand in Belgium. Later, in Devonshire he acquainted himself with their cultivation out-of-doors. The climate and soil of the region of Nantes approximating closely that of the south of England, made it seem possible to cultivate the plants out-of-doors there too. In order to acclimatize them, Ferdinand Favre used seeds sent to him from England and in 1806, sowed them in his garden at Saint-Sebastien-Sur-Loire. Soon, there were 7000 camellias planted in his park.

New varieties were obtained from the seeds and under the impetus of Ferdinand Favre, Nantes became a center of creativity. Between 1828 (Nannetensis) and 1978 (Jules Verne) 46 cultivars were created.

As for the Royal Garden, it received its first camellias before 1820. After becoming a "Botanical Garden" in 1828, it received year after year all the creations of Nantes and the latest novelties.

*Francoise Brivet, President of the Camellia Section of the SNHF.*



# NANTES ET LES CAMELIAS

FRANCOISE BRIVET

*Ce n'est pas un hasard si un salon du camélia se tient à Nantes du 6 au 9 mars. Ce fameux port a beaucoup compté dans l'histoire de cet arbuste. Petit rappel historique et aperçu de quelques usages du camelia sous ce climat béni.*

On a tendance à l'oublier, mais au XVIII<sup>ème</sup> siècle, Nantes est l'une des villes françaises les plus importantes, et le premier port d'Europe pour son activité commerciale. Les activités horticoles y tiennent également une place non négligeable: K88 il existe ainsi un "jardin d'apothicaire" devenu en 1726 "jardin royal" par une ordonnance de Louis XV.

C'est dans cette bonne ville de Nantes, active, ouverte sur le monde, curieuse de nouveautés, que s'épanouira le jeune Ferdinand Favre. Il en deviendra le maire mais c'est son amour des camélias, l'intelligence qu'il eut de cette plante qui le rendront célèbre. Grâce à lui, Nantes devint la ville des camélias, tradition heureusement toujours vivante et respectée... n'y baptise-t-on pas en ce salon 92 un nouveau camélia?

Ferdinand Favre n'était pourtant pas nantais d'origine mais né en Suisse, de parents bressans, chassés de France comme bon nombre de protestants par la Révocation de l'Edit de Nantes. En 1789, la famille s'installe à Nantes. Le petit Ferdinand a 10 ans. Les camélias sont déjà

cultivés en serre dans la région, sûrement à Angers, probablement à Nantes même.

Plus tard, Ferdinand Favre voyage, admire en 1806 une exposition de camélias à Gand, en Belgique, prend connaissance des essais d'acclimatation en plein air dans le Devonshire. Le climat et les sols de la région nantaise, proches de ceux du sud de l'Angleterre semblent tout à fait convenables à la culture en plein air des camélias. Pour les acclimater, Ferdinand Favre utilise des graines qu'il fait venir d'Angleterre en 1806 et les sème chez lui à Saint-Sébastien-sur-Loire. Il obtient très vite quelque 7000 pieds de camélias, tous plantés dans son parc.

Le semis de graines de camélias permet d'obtenir de nouvelles variétés, et sous l'impulsion de Ferdinand Favre, Nantes devint un grand centre de création: entre 1828 ('Nannetensis') et 1978 ('Jules Verne'), 46 cultivars ont été inventés.

Quant au "jardin royal", il recoit dès avant 1820 ses premiers camélias. Devenu "jardin botanique" en 1828, il accueillera, au fil des ans, les créations nantaises bien sûr, et les dernières nouveoulés.

# THE STORY OF A PASSION

J. C. ROSMANN, FRANCE

HISTOIRE D'UNE PASSION

GESCHICHTE EINER LEIDENSCHAFT

LA STORIA DI UNA CAMELLIA

LA HISTORIA DE UNA CAMELLIA

As incredible as it may seem, there still exists in 1993, creators of camellias. Even better, one of them, an amateur gardener in the full sense of the word, lives and works in the Basque country. Let us listen to his speaking of his passion. Most informative.

When one speaks of passion, one thinks first of that of Christ which was pure suffering. Or of that which, tied to love, can go either way toward happiness or pain and is destructive, transitory and can obscure judgment. However, where a "passion-hobby" is concerned, paradoxically, the opposite happens. It establishes an equilibrium and a flowering in the affected person, is lasting even though the object may vary somewhat and it does always stimulate the spirit. This is what my experience has taught me. Let me tell you the story of my passion for the camellia.

It starts in the spring of 1971. The Bassee Normandie, where I lived, was shrouded in a thick cloud of freezing fog so I decided to go spend a few days in Brittany in a village of the Morbihan, near Faouet. When I arrived there, I could feel the first stirrings of spring, already a light full of promise bathed the countryside. During a stop in a good-size village, my eyes were drawn toward a magnificent shrub, 2 1/2 to 3 meters high, with shiny dark green leaves and covered in pink flowers, with overlapping petals. Odd! I thought, a rosebush already full of blooms and all leafed out this early in the season. I walked up to get a closer look and saw it was a plant unknown to me. I was perplexed and at the same time awed by such perfection. It was love at first sight! When I arrived at my destination, I showed my friends a bloom I had picked off the ground and I found out it was a camellia japonica 'Mathotonia Rosea.' Since this first encounter, I have remained faithful to Dame Camellia. Upon my return to Normandy, I bought a C. japonica 'Adolphe Audusson' and 'Comte de Gomer' in

Normandy which I planted near a barn. My friends from Brittany had given me the address of a passionate amateur, Jean le Behan, of Poullaouen.

## A LASTING JOY

I wrote to him to get his book "No Gardens Without Camellias." The 88 year old author was kind enough to preface his book with the following "The cultivation of camellias will allow you to spread sunshine all around you, even though there may be dark clouds above. As for me, it has brought me a profound joy, making me feel useful and happy in this, my 89th year."

In this book, I found a host of information so useful to the uninitiated that I was - addresses, advice on cultivation, but above all a spirit, a mind set if you will, to nurture and embellish nature. I felt a real kinship to this kindly old man and regret to this day never having met him.

During this period, I was going through professional reconversion having decided to become a psychiatric nurse. Quickly I saw how my hobby was helping me overcome the stress of my new profession.

In 1973, diploma in hand, I requested to be stationed in the Basque country, near Bayonne, where I still live. With my wife, I lived for 2 years in the Bearn, where there are magnificent camellias. We were not rich but such was my desire to acquire a variety of the plants that I decided to quit smoking and to set aside the money thus saved in a piggy-bank marked "Camellias." At the end of our stay, I had saved a handsome amount and wondered how best to utilize it.

## THE BEGINNING OF A COLLECTION

The most interesting solution was to go to Belgium since I was going to Normandy anyway. Mr. & Mrs. Roger de Bisshop of Gand, made me feel most welcome and in their nursery, I bought 15 2-and-3-year old

plants in containers. You can imagine the excitement when I loaded my collection in the trunk of my car. From that day on, my collection really started. With the rest of my savings, I bought every available book from the American Camellia Society, of which I became a member. I found there a trove of information as well as reports of results of ongoing research. Collecting for the sake of collecting is not in my nature, so my need to be creative brought me to try my first hybridization, first between *C. japonica*, then with *C. saluenensis*. Back in Bayonne, I met an extraordinary gentleman, a nurseryman par excellence driven by the sacred fire of his craft. Paul Maymou, well-known in the region and whose kindness is equalled only by his competence. Intrigued by my passion and happy about my project of hybridization, he offered his cold-frame for my seedlings and allowed me the freedom of roaming around the nursery so that I could select the best mother plants.

### A TREASURY OF VARIETIES

I can never thank him enough for that opportunity. In 1975, he had camellia plants that still cannot be found today - *C. saluenensis*, *C. reticulata*, *C. oleifera* 'Jaune', *C. sasanqua* in 6 or 7 varieties. *C. sinensis*, *C. heterophylla* and many ancient variety of *C. japonica*. I was in Heaven! All my free time was spent at the nursery. The years '77, '78, '79 and '80 were very productive for the realization of hybrids. Between 1800 and 2000 manually obtained, inter- and intra-species. I used all I learned by reading as well as my own intuition to experiment with new hybridizations always keeping in mind the message of Jean de Behan "to nurture and embellish nature." Really, what can be more exciting than to create your own camellias, new flowers, new foliage, scent, resistance to freeze, to rain, new colors, hybrids never before produced by nature or by man. All this is possible to me and to you. Let us not forget that if roses have their own well-known professional breeders, the camellias have been diversified by the hard work and the vision of amateurs and that the great American hybridizers, Clifford Parks and Bill Ackerman are but the exceptions that confirm the rule. How to do it? It's a long slow process but simple enough.

### BASIC MATERIAL

Get one or several camellia plants with single or semi-double petals and known for

their propensity to provide seeds. Take the climate in consideration because the flower buds begin to form in July-August with temperature of 20°C to 25°C for *C. japonica* and around 25°C for *C. sasanqua*. The following plants, which I recommend are easily found commercially: *C. japonica* 'Mme Lourmand', 'Kimberley', 'Bernice Boddy', 'Sylvia', 'Furo-an', and other Higo sub-variety of *C. japonica* 'Jingle Bells' or 'Tinker Bell' (with anemone-like flowers, but very prolific), *C. williamsii* 'Charles Michael', 'Saint Eve', 'Lady Gowrie', 'Donation', 'Mary Christian', 'Rosemary Williams', *C. sasanqua* 'Narumi-gata', 'Crimson King', 'Papaver' and appparented hiemalis 'Kanjiro' and 'Dazzler'.

Choose a flower bud the day before it would normally open. Delicately open the petals trying not to traumatize the flower. You will then see the anthers, the still immature pollen sack which you must immediately excise with surgical pincers or small scissors. Take the pollen from a male donor and deposit it on the stigmas, while holding the stamens between thumb and index finger. Following the style you will see the ovary in the bottom of the flower. If the temperature is favorable (between 10°C and 15°C), the pollen you deposited will form a tube which will descend inside the styles to fertilize the ovules within the ovary. With a felt-tip magic marker, write the code you attributed to the male parent on a leaf closest to the flower, then to prevent parasitic pollination, you can protect the flower with a small paper sack for about 10 days. In October or November, the ovary has enlarged and now resembles a small apple which will soon open and release its seeds. One month before maturity, I use a plastic sack (which I puncture in several places to release rain water) so as not to lose any seed or provide the squirrels with a tasty meal. Sow your seed in a line in a light soil mixture and mark them with the names of the male and female parents. The second year, transplant them in pots (10 cm) and the 3rd year, plant them outside. Flowering usually takes place at the end of the 5th or 6th year. It takes time but then, isn't patience the first virtue of any gardener?

### HYBRIDS WITH A BEAUTIFUL LINEAGE

But to come back to my story. In 1981, a domestic upheaval derails my life. At the University of Bordeaux, I began studies which will last 8 years and which keeps me

away from home a great deal of the time. I need 48 hour days to do all I have to do. To top it all, Paul Maymou's oldest daughter tells me she needs the hothouse which holds my seedlings so I bring my plants to my little garden (850 sq. meters) and, because my exams are my first priority, I don't have time to transplant those in pots. To my sorrow, I lost part of my precious treasure.

In 1990, I came to an agreement with a talented young couple, friends of mine, who own a nursery in the Landes. It is a nursery specializing in rare plants and I become their camellia hybridizer. In return for my services, they furnish me with forcing frames, tunnels and hothouses. I successfully completed my studies and can now go back to my first love.

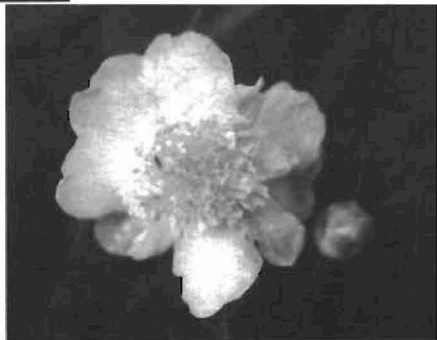
The pollinization campaign '91-92 was fantastic, with 1076 crossed seedlings, of which 910 were done by hand. The hybrids of preceding years planted in forcing frames bloomed abundantly that year especially the cross-pollinated "frost resistant" of the 1979-80 season. I decided to give to that line of hybrids whose parents are *C. oleifera* and *C. sasanqua* or *C. hiemalis*, the

name of French botanical explorers who, for the most part have been forgotten. They had participated to some extent, some more than others, to the work "General Flora of Indochina" in 1907, to its addendum in 1943 and to the first classification of Theaceae. In their search for samples to bring back to the Museum of Natural History, some even lost their lives. It seems only fair to render homage to those indefatigable researchers. The most beautiful of the hybrids issued from *C. oleifera* and *C. sasanqua*. 'Narumi-gata' presents a flower of more than 15 cm diameter, with a stamen topknot, intertwined petaloids and a peppery scent. I gave it the name 'Francois Gagnepain', editor of the aforementioned book. There is another promising hybrid, a difficult and rare cross between *C. sasanqua* 'Crimson King' and *C. hybrid* F2 'Pink Wave'. I named it 'Farfadet'. It isn't too spectacular but does have some merit.

I hope I have convinced you of the need for the amateur to create his own camellia. Look at the pictures and if you still have doubts, perhaps they will persuade you to try it.



***Camellia* X 'Joseph-Charles Pitard'**  
(*C.oleifera* 'Jaune' X *C. Sasanqua*  
'Papaver')



***Camellia* X 'Francois Gagnepain'**  
(*C.oleifera* 'Jaune' X *C. Sasanqua*  
'Narumi Gata')

# HISTOIRE D'UNE PASSION

J. C. ROSMANN

**Aussi incroyable que cela paraisse, en 1993, il existe encore des créateurs de camélias. Mieux : l'un d'eux, un jardinier amateur au sens plein du terme, vit et travaille dans le Pays basque. Écoutons le parler de sa passion. Ultra communicative.**

Lorsque l'on parle passion, on pense tout d'abord à celle du Christ qui n'a été que souffrance, ensuite à celle liée au sentiment amoureux, et l'on sait qu'elle oscille entre joies et peines, qu'elle est destructrice, fugace, et qu'elle obnubile le sens critique. En ce qui concerne la "passion hobby", c'est paradoxalement le contraire qui se produit. Elle participe à l'épanouissement et à l'équilibre de la personne, elle est durable même si l'objet de la passion varie quelque peu et, enfin, elle stimule l'esprit. C'est en tout cas ce que mon expérience m'a enseigné. Mais laissez-moi vous raconter l'histoire de ma passion des camélias.

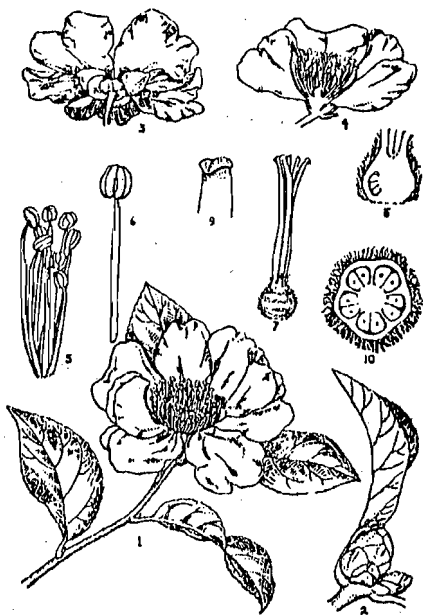
Elle commence au printemps 1971. La Basset-Normandie où je vivais était perdue

dans un brouillard épais et givrant lorsque je décidais d'aller passer quelques jours en Bretagne, dans un village du Morbihan, près du Faouet. Dès mon arrivée, je ressentais les prémices du renouveau végétal, et déjà une lumière optimiste baignait l'atmosphère. Au cours d'une halte dans un gros bourg, mon regard fut attiré par un magnifique arbuste de 2,5 à 3 m, au feuillage vert foncé et brillant, couvert de fleurs roses aux pétales imbriqués. Tiens, me dis-je, ce rosier est bien feuillu et fleuri pour la saison, curieux! Je m'en approchais et constatais qu'il s'agissait d'une plante que je ne connaissais pas. J'étais perplexe en même temps qu'émerveillé par une beauté aussi par faite, et ce fut un véritable coup de foudre. En arrivant chez mes amis, je leur montrais une fleur ramassée à terre, et j'appris qu'il s'agissait d'un camélia japonica 'Mathotiana Rosea'. Depuis cette première rencontre, je suis resté fidèle à "Dame camélia". De retour en Normandie, je me procurais *C. japonica* 'Adolphe Audusson' et 'Comte de Gomer', que je plantais près d'une grange. Mes amis bretons m'avaient transmis l'adresse d'un amateur passionné, Jean Le Bihan, de Poullaouën.

## Une joie durable

Je lui écrivais donc pour acquérir son petit livre "Pas de jardin sans camélia". Il avait alors 88 ans et m'avait gentiment préfacé son ouvrage, préface que je vous livre: "La culture du camélia vous permettra de répandre le soleil autour de vous, même quand des nuages sombres vous assailliront. Elle m'a, quant à moi, apporté cette joie profonde de me croire encore utile, et des plus heureux dans ma 89 année".

Dans ce livre, je trouvais une masse d'informations utiles pour le profane que j'étais, des adresses, des conseils de culture, mais surtout un esprit, un état d'esprit même, de sauvegarde et d'embellissement de la nature. Je me sentais de nombreuses affinités avec ce vieil homme que je n'ai jamais eu l'occasion de rencontrer, à mon grand regret. C'est à cette période que



La composition d'une fleur (1):  
bourgeon (2), calice (3),  
vue en coupe (4), étamines (5 et 6),  
ovaire (7, 8, 9) coupe transversale  
montrant les ovules (10),  
(doc. Société bretonne du camellia).

j'opérais une reconversion professionnelle, et décidais de devenir infirmier psychiatre. Très vite, je m'aperçus que mon hobby m'aidait à me ressourcer, à me retrouver après les tensions et les angoisses professionnelles.

En 1973, jeune diplômé, je demandais ma mutation pour le Pays basque, région dans laquelle je vis toujours, près de Bayonne. Avec mon épouse, je passais cependant deux années en pays béarn, où les camélias sont magnifiques. Nous n'étions pas très fortunés mais j'avais un tel désir d'acquérir des variétés de camélias que je décidais de ne plus fumer et de mettre chaque jour l'argent épargné dans une cagnotte "camélia". A la fin de mon séjour, mon pécule était assez conséquent, mais comment utiliser au mieux cet argent?

### **Les débuts d'une collection**

La solution la plus intéressante était d'aller jusqu'en Belgique, à l'occasion d'un voyage en Normandie. M. et M<sup>me</sup> Roger de Bisshop, de Gand, m'accueillirent chaleureusement, et dans leur pépinière, j'achetais une quinzaine de plantes de deux ou trois ans, en conteneurs. Inutile de vous dire dans quel état d'excitation je me trouvais lorsque je chargeais ces 15 beaux camélias dans le coffre de la voiture! A partir de ce jour là, ma collection a vraiment commencé. Avec le reste de mon pécule, je me procurais les livres disponibles de l'American Camellia Society, et m'y inscrivais comme membre. J'y trouvais un vrai trésor de renseignements, ainsi que les résultats des recherches en cours. Collectionner pour collectionner n'est pas dans ma nature, aussi mon besoin de créativité m'amena tout naturellement à essayer les premières hybridations. D'abord entre *C. japonica*, puis avec *C. saluenensis*.

De retour à Bayonne, je rencontrai un homme extraordinaire, un pépiniériste comme on en rencontre trop peu, animé par le feu sacré de son métier : Paul Maymou, bien connu dans la région, et dont la gentillesse n'a d'égal que sa compétence. Intrigué par ma passion et heureux de mes projets d'hybridation, il me proposa une serre froide pour effectuer les semis, et m'invita à circuler librement dans ses plantations pour y sélectionner les meilleurs pieds-mères.

### **Un trésor de variétés**

Je ne le remercierai jamais assez pour cette opportunité. En 1975, il avait des camélias que l'on ne trouve pas dans le

commerce encore aujourd'hui : *C. saluenensis*, *C. reticulata*, *C. oleifera* 'Jaune', *C. sasanqua* en 6 ou 7 variétés, *C. sinensis*, *C. heterophylla*, et de nombreuses variétés anciennes de *C. japonica*. J'étais us paradis ! Dès que mon travail me le permettait, j'allais faire mon petit tour dans la pépinière. Les années 77, 78, 79 et 80 furent très fécondes pour la réalisation d'hybrides : environ 1800 à 2000 sujets obtenus manuellement, *intra* et *inter*-spécifiques. Je me fixais des axes de recherche, j'exploitais toutes mes lectures et mon intuition pour expérimenter de nouvelles hybridations. J'avais, et j'ai toujours à l'esprit, la pensée de Jean Le Bihan "sauvegarder et embellir la nature". En effet, quoi de plus exaltant que de créer ses propres camélias : nouvelles fleurs, nouveaux feuillages, parfum, résistance au gel, à la pluie, coloris inédits, hybrides jamais réalisés par la nature ou la main de l'homme. Tout ceci était à ma portée, et à la vôtre. Car n'oublions pas que si les roses ont leurs obtenteurs professionnels bien connus, les camélias se sont diversifiés grâce à la nature et surtout au travail des amateurs, et les grand hybrideurs professionnels américains tels Part Ackermann ne sont que l'exception qui confirme la règle. Comment faire, me direz-vous? C'est long mais c'est au fond assez simple, vous répondrais-je.

### **Le matériel de base**

Vous vous procurez un ou plusieurs camélias à fleurs simples ou semi-doubles, et connus pour leur propension à donner des graines. Tenez compte du climat car les boutons floraux s'initient en juillet-août avec des températures de 20° à 25°C pour *C. japonica*, 25°C environ pour *C. sasanqua*. Ceux que je vous recommande ci-après se trouvent facilement dans le commerce : *C. japonica* 'Mme Lourmand', 'Kimberley', 'Berenice Boddy', 'Sylvia', 'Furo-an', et autres Higo (sous variétés de *C. japonica*), 'Jingle Bells', ou 'Tinker Bell' (à fleur d'anémone mais très féconds) : *C. williamsii* 'Charles Michaël', 'Saint-Ewe', 'Lady Gowrie', 'Donation', 'Mary Christian', 'Rosemary Williams'; *C. sasanqua* 'Narumigata', 'Crimson King', 'Papaver', et *biemalis* apparentés 'Kanjiro', 'Dazzler'.

Il s'agit de choisir un bouton floral à la veille de son éclosion. On écarte délicatement les pétales pour traumatiser le moins possible la fleur. Apparaissent alors les anthères, sacs porteurs du pollen encore immature, qu'il faut impérativement sectionner à la pince chirurgicale ou aux petits

ciseaux de couturière. Vous choisissez le pollen du donneur mâle, et vous le déposez sur les stigmates - en tenant le filet des étamines entre pouce et index - qui restent seuls à émerger du creux de la corolle, et en suivant les styles, vous apercevez l'ovaire au fond de la fleur. Si la température est favorable (entre 10 et 15°C), le pollen déposé va émettre un tube pollinique qui descendra à l'intérieur des styles pour aller féconder les ovules contenus dans l'ovaire. Au stylo-feutre indélé-



*Camellia saluenensis*

bile, vous marquez le code que vous avez attribué au géniteur mâle sur la feuille la plus proche de la fleur. Ensuite, pour éviter une pollinisation parasite, vous pouvez protéger la fleur par un petit sachet de papier que vous laissez en place une dizaine de jours. Au mois d'octobre ou novembre, en fonction des cultivars, l'ovaire a grossi, s'est transformé en une capsule ressemblant à une petite pomme, qui s'ouvre bientôt pour laisser échapper les graines. Un mois avant maturité, j'utilise des sachets de polyéthylène percés de trous (pour laisser passer l'eau de pluie) pour ne pas les perdre ou les servir au menu des écureuils. Vous semez vos

graines en ligne dans un mélange léger en les enterrant de leur hauteur, et en étiquetant les noms de la mère et du père. La deuxième année, transplantez dans des godets de 10 cm, et la troisième année vous effectuez la plantation en pleine terre. La floraison survient au bout de la cinquième ou sixième année, en moyenne. C'est un petit mais la patience n'est-elle pas la première qualité du jardinier?

### *Une belle lignée d'hybrides*

Mais revenons à mon histoire. Nous sommes en 1981. Un bouleversement familial remet en question ma vie. A l'Université de Bordeaux, j'entame des études qui vont durer huit ans et qui mettront plus ou moins éloigné de mon domicile. Les travaux sur les camélias marquent le pas, il me faudrait des journées de 48 heures car je continue à travailler. Je ne peux correctement mener de front trois activités. Pour couronner le tout, la fille aînée de Paul Maymou me fait savoir qu'elle a besoin de la serre ou je fais mes semis. Je rapatrie donc mes plantes dans mon petit jardin de 850 m et la transplantation des godets ne peut se faire, faute de temps, car les examens sont la priorité. A mon grand désespoir, je perds une partie de mon précieux trésor.

En 1990, je passe un accord avec un couple d'amis, jeunes pépiniéristes de talent dans les Landes où ils ont créé de toute pièce une pépinière botanique spécialisée dans les plantes rares. Je serai l'hybrideur de camélias attaché à l'établissement, celui-ci aura la primauté des hybridations méritantes. En échange, seront mis à ma disposition bâches, tunnels, et serres.

Mes études se terminent avec succès et je peux revenir à mes premières amours. La campagne de pollinisation 91-92 a été fantastique, avec semis de 1076 croisements dont 910 manuels. Les hybrides des années précédentes plantés dans les bâches ont fleuri abondamment cette année. En particulier les croisements de 1979-80, issus de la recherche "résistance au gel". J'ai décidé de donner à cette lignée d'hybrides, dont les parents sont *C. oleifera* et *C. sasanqua* ou *C. hiemalis*, les noms des explorateurs botanistes français, pour la plupart tombés dans l'oubli, ayant participé de près ou de loin à l'élaboration de l'ouvrage "Flore générale de l'Indo-Chine" de 1907, à son additif de 1943, et à la réalisation de la première classification des Théacées. Dans leurs récoltes d'échantillons pour le Muséum d'histoire naturelle, certains y ont



même perdu la vie. Ce n'est que justice que de rendre hommage à ces chercheurs infatigables. Le plus beau de ces hybrides, issu de *C. oleifera* et de *C. sasanqua* 'Narumi-gata', présente une fleur de plus de 15 cm de diamètre avec un toupet d'étamines et de pétaloïdes entremêlés, au parfum poivré. Je lui ai donné le nom de François Gagnepain, rédacteur de l'ouvrage précédemment cité. Un autre hybride promet, il s'agit du croisement peu courant et difficile de *C. sasanqua* 'Crismon King' par *C.* hybride F2 'Pink Wave', que j'ai nommé 'Farfadet'. Il est peu spectaculaire mais n'en demeure pas moins méritant.

J'espère que vous serez convaincu de l'utilité pour l'amateur de créer ses propres camélias. Regardez les photographies, et si vous aviez encore un doute, peut-être en serez-vous définitivement persuadé.



*Camellia reticulata* Lindl.  
1 flowering branch; 2 petals  
and menigma; 3 pistil.

*Camellia reticulata*



# SCIENCE IN THE SERVICE OF THE CAMELLIA GROWER:

R. L. BIELESKI, NEW ZEALAND

LA SCIENCE AU SERVICE DEL'AMATEUR DE CAMELIAS - VISIONS DU FUTUR

WISSENSCHAFTLICHE HILFE FUER KAMILIENZUECHTER: ZUKUNFTS ERWARTUNGEN

LA CIENCIA EN EL SERVICIO DEL CULTIVADOR DE CAMILIAS: PROSPECTO DEL FUTURO

LA SCIENZA EN EL SERVIZIO DEL COLTIVATORE: VISTA DEL FUTURO



**R. L. BIELESKI**

Plant scientists carry out most of their research on plants that are either of major economic importance (such as wheat, soybean and cotton), or that can be grown easily and rapidly in a laboratory or glasshouse, and used as model systems (spinach, pea,

tomato and maize). It means that a plant like the camellia, which is both slow-growing and prized for its beauty rather than its commercial value, does not receive very much attention at all. It was with the aim of jogging scientists into taking more interest in camellias that the New Zealand Camellia Society set up the Camellia Memorial Trust in 1985 to fund research on camellias at New Zealand universities. An account of what has been achieved to date is given in the N.Z. Camellia Bulletin, March 1993 issue (Volume 18 pp 6-9). But that is in the past. In this talk, I want to gaze into a crystal ball and tell you of the possibilities I see in the future. The overriding impression I have is that most of the knowledge that will be useful to camellia growers will come from work on other plants (the sorts referred to above), and our real trick will be to adapt that knowledge to the camellia. If we start with some sort of picture of the knowledge that might be useful, this should make us more prepared to take the opportunities as they arise; and that is my purpose in giving this talk.

The first area where we might look for advances is in control of plant disease. In New Zealand, a root rot called *Phytophthora* is the most troublesome dis-

order that camellia growers meet. The situation here provides a good example of the general difficulties that lie in the way of devising new fungicides and pesticides. In the last couple of decades, agricultural chemical companies have been required to meet increasingly stringent, extensive and expensive testing protocols before releasing a new agricultural chemical for general use. Even then the job is not done, because there has to be further testing of its application to a specific crop before the chemical can be sold for that purpose, and often the regulations are established on a country-by-country or a state-by-state basis. To give an idea of how stringent these controls can be, it is against State law in California to promote the use of dilute household bleach (sodium hypochlorite) as a vase additive to extend flower life, because that specific use of that chemical has not yet been tested and approved. As a result, chemical companies will only invest effort in developing a new agricultural chemical if the extremely high costs of testing can be offset by a major future use of that chemical. In practice, it means that only the diseases of very major crops are worth their attention. And although *Phytophthora* is often one of the most serious disease problems facing a wide range of fruit trees (avocado, apple, kiwifruit, etc.) not one of those crops provides a large enough market to make it a high priority in the minds of the chemical companies.

Thus, I do not see major advances over the next 20 years in *Phytophthora* control beyond what we have already. Even so, that still leaves us with two promising options for the camellia grower. The first is to select rootstocks that are much more resistant than the run-of-the-mill cultivar to *Phytophthora* attack, and there is every probability that this approach would be successful, given some systematic testing.

The cultivar 'Kanjiro' has already been identified as having some resistance to *Phytophthora*. The second is to test the use of the simple inorganic chemical, potassium phosphite (not phosphate), sold in Australia as "Foli-R-Fos" for treatment of *Phytophthora* problems in avocado, for its ability to control *Phytophthora* infections in camellia. Again, preliminary results suggest the method may work well for camellia. A related organic chemical called "Aliette" or fosetyl-Al would be expected to give similar and perhaps better results, and offer similar opportunities.

The other main scourge of the camellia, not found in New Zealand, is the petal blight *Sclerotinia camelliae*. There are several *Sclerotinia* species, such as *S.fruticola* or peach brown rot and *S.sclerotiorum*, which are of economic importance, but again no one crop is individually large enough and with a sufficiently big *Sclerotinia* problem to provide a big enough market for the agricultural chemicals industry to develop a new specific fungicide. The overwintering organ that gives the genus its name, the sclerotium, is highly resistant to chemicals and inactivating conditions of all kinds; and it is unlikely that we will see any major advance here. All the indications are that the best control will continue to come from good hygiene - that is, the picking up of camellia litter and burning of any diseased material so that we reduce the load of sclerotia in the soil.

There is one type of camellia disease that we take rather for granted or even encourage, and that is virus disease. There is no spray or ordinary agricultural procedure that will cure it, and nor will there be in the next 20 years. There are however procedures that could be used to eliminate virus infections from our plantings, should we want to. Wine grape industries in California and New Zealand and the apple industry in New Zealand have largely achieved this over the last 30 years, and there is every reason to believe that the techniques used there would work for camellia. They depend on three observations; virus is very slow to move between one camellia plant and another, and is mainly transferred by grafting of infected material or by scateurs that have been used on infected material; seedlings and new cultivars raised from seed begin their lives virus-free; it is possible to remove virus from propagating material by the skilled application of heat therapy or meristem culture. At present these techniques

have not been worked out for camellia, but I am confident that the camellia would be amenable to their use, and that we would succeed if we put in the effort. Further, I feel that the associated techniques of tissue culture, required for the meristem culture procedure, would have several other potential benefits (including a couple discussed later); and so this is a research area I would recommend for high priority in the next 20 years. An extended discussion of the pros and cons of removing virus from our plantings, and of the techniques we would need, is to be found in the Southern California Camellia Society publication, The Camellia Review (Vol. 54, No. 1, pp3-4 and 5-7, September/October 1992, and Vol. 54 No. 2, pp. 3-9, November/December 1992).

On the whole, camellias are not too badly bothered by insect pests. Because most insect pests are highly catholic in their eating habits, indiscriminately attacking plants from widely different genera and of very different growth habits, chemical companies have found it worthwhile to continue to develop new general pesticides. Some of the modern ones are very effective. Because they are much more easily broken down than the pesticides of the 50's and 60's (e.g. the halogenated hydrocarbons such as DDT), they remain effective for only 1-2 weeks after being sprayed on the plant. At first sight this would seem to be a disadvantage but it is not: it means that the biological world is under much less pressure to develop resistant strains of insect, and the insecticides are retaining their usefulness for very much longer. This process is helped by the current trend to use biological control procedures more and more, and to spray with pesticides only when a problem is expected, rather than on some routine basis regardless of need. Although some of the pesticides are very toxic and only for commercial use by trained operators, the safest ones (the sort sold to home growers in garden centers) are no more toxic than other materials we encounter in our everyday life, such as aspirin, tobacco, caffeine and dishwasher powder. In the next 20 to 30 years there will be a slow development of new pesticides, to adjust to the slow development of resistance in the insect population, but we should not expect any major change or advances. The area where there will be the biggest change will be in the development of biological control methods, or what is sometimes called "integrated pest management" in which most pest control is

achieved by a parasite or some other natural antagonist (such as *Bacillus thuringiensis*), with limited assistance from insecticides not toxic to the parasite. Many of the procedures will be tailored specifically to a single or closely-related species of pest and host, so it remains to be seen whether any of the methods developed will be applicable to camellia. My guess is that within 20 years, there will be methods to control species of scale and aphid that attack camellia, but that they will mainly be available on a commercial basis for orchard management. What we have to do is keep reminding scientists who get a lot of their funding from public money that to keep the amateur gardener in mind when devising strategies for using biological control agents.

Another area where research may have an impact concerns the keeping quality of camellia flowers. Many cultivars produce flowers that will last for only a day after cutting before they drop their petals and become useless as decorations. Yet what can look nicer in winter than a bowl of fresh camellias in the middle of a dinner table, or a sprig of gay miniatures on the sideboard? This quick loss of petals has been a problem with many flower species, and a great deal of research has been carried out over the last 30 years to understand the process. Many flowers are triggered into wilting and losing their petals by the plant hormone gas, ethylene; and we know that camellia share this behaviour. Various treatments have been devised that prevent ethylene from taking effect, and these are used commercially to extend the flower life of cut roses and carnations for example. Another cause of early flower death is a shortage of carbohydrate (the food store for the flower), which is particularly serious when there is a bulky cut flower supported by few or no leaves (the case with camellia). Here the vase life of the flower can be increased by supplying sugar in the vase solution, to enter the flower stem with the water. There have been preliminary experiments to test both ethylene inhibitors and sugar feeding for their ability to extend camellia life, with only limited success; but there is enough promise there for me to believe that we will be able to develop procedures that will give us 5 to 7 days to vase life for at least some cultivars. Will we ever see camellias sold by florists as cut flowers? I believe it is possible, but here we will need the breeders to help us by using cut flower life as the

main criterion in making some of their crosses and selections. The combination of postharvest flower science and intelligent breeding which has worked for other species should have every chance of success in making the camellia into a useful item for florists, so adding to their choices in the lean winter season.

Some other plant hormones and anti-hormones that are being developed may have uses with the camellia. I have already mentioned the potential for compounds blocking ethylene action to extend the cut flower life of camellias. Another group of compounds with some promise are the anti-gibberellins such as "Cultar". These shorten the internodes of various woody plants and are already being used commercially to make cherry trees much smaller and more stocky, more floriferous and easier to harvest. A preliminary trial has shown that "Cultar" affects the growth of camellia as well, making the plant much less 'leggy' and causing the flowers to bunch up. Some effects of this kind are not particularly desirable, but others offer real potential: thus I envisage nurserymen producing miniaturised "tub plant" versions of suitable cultivars for the very small garden, to be added to the present line of miniatures. Another option could be to make some of the lovely but straggly *C. reticulata* cultivars into tidier, smaller and more floriferous plants. As new compounds are devised for orchard use, other potential applications for camellia growing will undoubtedly develop.

Perhaps the area where science has the most prospects for helping the camellia fancier is in the broad field of plant breeding. I include here an understanding of the taxonomy of the genus (which species is related to what, and how closely), the identification of parents of chance seedlings, and the sorting out of cultivar relationships and possible mixups. Some major opportunities are created by the rapidly-developing techniques of molecular biology. These new tools let us do a number of spectacular things. They let us take genes from one organism and insert them into an entirely unrelated species and have them expressed there, so that their products appear in the new plant environment (as in producing new colour lines in petunia), or even allow us to synthesize a pseudo-gene that interferes with the real thing, preventing its action (for example, retarding the breakdown of cell wall materials and extending storage life in tomato fruit). Yet another

trick is to take a gene which controls where and when its neighbouring genes are expressed, and put it alongside a different gene of interest, so that it can be "turned on" and made to operate in a different organ, or at a different time in development. As an example of how this might work, I give you the yellow camellia. Despite the general impression that the colour yellow is not found in *C. japonica* cultivars, bright yellow *does* occur and is common. It is restricted to the pollen, that is all. The pigments involved are likely to be closely related to the ones giving *C. nitidissima* (*C. abrysantha*) petals their colour (and I hope this point will be settled in the next year by a research project being funded by the Camellia Memorial Trust). Thus, what we need to do is to somehow give *C. japonica* cultivars the ability to make those pollen pigments in another place, the petals; and that is just the sort of property these gene expression controllers have. This is an alternative path to making hybrids with *C. nitidissima*. Indeed, the lack of success to date with those hybrids may come about because the *C. japonica* parent is dominant in blocking formation of yellow pigments in the petal, and that this is the barrier we may have to overcome, not the ability to synthesize the pigments themselves. At present the sort of techniques required for such genetic tinkering can only be carried out in an expensively-equipped laboratory by skilled people, and the cost of generating a successfully-manipulated plant is very high; but the producers are becoming more standard, easier and more practical as each year passes. I believe that within the next 20 years it will become commercially viable for one or another of the private firms (or an interested scientist in a University department) to try genetic manipulation on the camellia: the two most probable end-points would be to generate new colour lines (particularly yellow and true blue), and camellias that can be used as cut flowers through having a greatly extended vase life. It is worth noting that once the appropriate gene has been inserted, it will usually behave like any other gene, and become inherited in the progeny, so that the modified plant will be able to become the parent of a whole family with related properties.

We do not need to wait, however, to take advantage of another branch of these molecular biology techniques, and to try fingerprinting camellias in order to learn more about the origins of hybrids and the

relationships of species. The techniques are already well-developed and routine, should some student or researcher take an interest in the topic. This is one of the sorts of projects that I hope will come up for funding by the Camellia Memorial Trust within the next few years. One general approach is to compare the detailed pattern made by several key enzymes in the different plants. The enzymes that are selected are ones that can exist in several different forms within the one plant! These are called "isoenzymes" or "isozymes", make a characteristic pattern for each genotype (cultivar), and are inherited from the parents. In this way the parents can often be identified, particularly when there is a reasonable suspicion about what those parents might be. But this technique is rapidly being surpassed by RFLP mapping, which has its best-known application in the DNA fingerprinting of murder and rape suspects, but which is having an even more routine (though less-publicized) application in resolving paternity matters, and being carried out in commercial laboratories. It involves isolating a small amount of DNA from the individual (or cultivar) of interest, then chopping it into several fragments with highly-specific enzymes, then separating and measuring the length of those fragments. The pattern (or map) that is obtained is unique for each individual (except identical twins) or each cultivar; and the various fragments are inherited from the two parents, so that if the pattern of one parent is known, part of the pattern of the other parent can be simply deduced. We have the tools now to resolve some of the many questions about parentage of various dubious camellia cultivars, as well as fatherless children!

Finally, tissue culture is a technique which has much to offer the camellia world, and I believe that developing methods to tissue culture camellias is of the highest priority. I have already indicated its use in virus elimination, but there is much more to it than that. All of the genetic manipulation I have talked about earlier is of no use at all unless real plants growing in the garden can be raised from the manipulated cells, and tissue culture is required for this - indeed, the manipulations themselves are often dependent on a range of tissue culture skills. And tissue culture methods are being used more and more by commercial nurserymen to raise many different species, and even forest trees. Our experience with other plants

suggests there will be occasional situations where a camellia will be best propagated by tissue culture methods. But perhaps the most powerful use I can see, in the next 20 years, lies in the area of what is sometimes called "embryo rescue". When two species that are not closely related are crossed, it is quite a common experience to get seed which contain a small poorly-developed embryo that dies either before or immediately after germination. This for example has been the problem of many of the crosses made with *Camellia nitidissima*. In such cases, it is often possible to dissect out the fragile embryo (under sterile conditions) and then, by using tissue culture techniques, to grow it up into a viable plant when it would have died if left as a seed. This approach could be a powerful tool for the more adventurous of our plant breeders, where they are attempting some of the more outrageous and difficult crosses, in order to develop new lines of breeding. For all the power of the molecular techniques, 95% of progress in the range of plants we have will come in the next 20 years from

relatively standard plant breeding procedures *particularly* if the breeder can be helped in successfully making difficult crosses.

The message I wish to leave with you is that in the next two decades, science will be throwing up exciting new prospects for horticulturists and plant fanciers. Very few initiatives will be specifically developed for the camellia or the camellia grower; but if we stay alert to what is happening, we will be able to adapt some of these advances to our own purposes. We need to keep ourselves educated about what is happening, be imaginative in thinking about how we might use the information, and adventurous in actually getting out and trying things. And it is my personal hope that by funding camellia research through the Camellia Memorial Trust, New Zealand's camellia fraternity and sorority will catalyze the process.

M.Sc., Ph.D., D.Sc., F.R.S.N.Z.  
*Horticulture and Food Research Institute of  
New Zealand, Ltd.*



# THE IMPORTANCE OF CAMELLIAS AS OIL PLANTS IN CHINA

SUBTROPICAL FORESTRY RESEARCH INSTITUTE

The Chinese Academy of Forestry, Fuyang, Zhejiang, China

GAO JIYIN, CHINA

IMPORTANCE DU CAMELIA COMME PLANTE OLEAGINEUSE EN CHINE

DIE KAMELIE ALS WICHTIGER OEL-LIFERANT IN CHINA

LA IMPORTANCIA DE LA CAMELIA COMO PRODUCTOR DE ACEITE EN LA CINA

LA IMPORTANCIA DEI CAMELIE COME PLANTAS DI OLIO EN LA CINA

China is a country most rich in camellia resources in the world. In the more than 200 species of camellias which have been discovered and named, over 90% originated from China. For thousands of years, camellias as ornamental flowers and plants have been not only extensively cultivated in the field of horticulture and gardens and among the people in China, but also it is very important that they have been vastly grown as oil plants in 15 provinces or districts in the south of China. No other country in the world can compare with it in this respect. The camellia trees for oil purposes have become a major source of cooking oils from woody plants in the south of China.

All camellias which are cultivated for oils are called oil-tea camellias regardless of species or varieties of the genus. According to incomplete statistics, the oil-tea camellia has a large cultivated area in six sections, higher output of oil and includes more than 20 species and several hundred cultivars in the genus camellia. About 70% are the species *C. oleifera* and 10% are *C. meiocarpa*. The rest in descending order are *C. vietnamensis*, *C. reticulata*, *C. yubisienensis*, *C. chekiangoleosa*, *C. gigantocarpa*, *C. semiserata*, *C. polyodonta*; *C. tachunensis*, *C. phellocapsa*, *C. octopetala*, *C. gauchowensis*, *C. subintegra*, *C. nanyoungensis*, etc. The total area of the camellia forests is 3.7 million hectares which equals 9.14 million acres or 15,238 square miles. The camellia forests for the oil are distributed mainly over 18-34 degrees north latitude in China, which extends across 15-16 degrees on latitude and 24 degrees on longitude, and with elevations of 30-2600 metres. The forests can be roughly divided into five cultivation regions in the light of their distributions and productive characteristics: (1) Central region, which

includes vast areas of hills and mountains in Hunan, Jiangxi and the north of Guangxi is a famous one for a long history of camellia cultivation, a boundless stretch of the forests and higher yield of their oils. The forests of oil-tea camellias in the region account for half of the total area of camellias of China and oil yields are two-thirds of the total output of oils from camellias throughout the country. There are 11 counties with 2.5 million kgs. and 18 counties with 1.5 million kgs. of the cooking oil produced annually in the region. It is a main productive base of commodity oils from camellias in China, (2) Eastern region, of which Jinhua-Juzhou basin of Zhejiang province is the centre including the south of Zhejiang, the north of Fujian, the east of Jiangxi, and the south of Anhui and Jiangsu provinces contain one-fifth of oil-tea forests and produces about 15% of the total oil output. The distinguishing features of oil-tea camellia forests in the region are large areas of camellia plantations which developed recently with a high level of management, (3) Western region, which is divided into two parts, boundaries joined among Hunan, Hubei and Sichuan provinces and a place where Guangxi district and Sichuan and Yunnan provinces meet, produces 9-10% of total output of the oils in China, (4) Southern region which is to the south of Qin Ling Mountain including the north and west of Guangdong, the east of Guangxi and Hainan island is responsible for 3% of the oils in the total output from camellias of China, (5) Northern region which is located at the hill lands of Dabie, Tongbo and Qinling-ba mountains including the south of Shanxi, Gansu and Hunan provinces, the west of Anhui province and north of Hubei province yields 2-3% of total output of the oils produced from camellias of China. It

should be especially pointed out that there are a number of ancient large trees of *C. oleifera* estimated to be more than a thousand years old in Ankang zone of the region. This indicates the long history of cultivation in the north border of camellia distribution of China.

Average yearly yield of the oils in China in the last ten years was 137 million kgs. in ordinary years and 200 million kgs. in special years. Owing to the differences in cultivation area, tending and managing level and species of variety of the camellias, the oil yields of camellias are different. The oil yields of Hunan province are the highest at 42% of total output of China. The second province in yield of oils is Jiangxi. The next provinces in yields of the oils are Guangxi, Zhejiang, Guangdong and Fujian, respectively. The total output of the oils produced annually by the six provinces mentioned above makes up 99.2% of that of the oils of China. It can be seen that the oil-tea camellia is the most important tree of woody origin for cooking oils centered in southern China.

The average yield of the oil per hectare is low at 37.5 kgs. because of mixture of varieties, large areas of old and weak forests, sparsity in the wood density and so on. It is worth noting that there have been a lot of villages and counties where 250-750 kgs. of the oils per hectare can be obtained each year since the trees have a higher productive potential. We are carrying out a glorious but arduous work of transforming the forests where oil yields were low by planting improved varieties and by better care. I think that there are bright prospects for the development of oil-tea camellias in China. If we are able to have oil yield increased to 112 kgs. per hectare, it could have solved the problem of 140 million persons using camellia oil. This will result in a major agricultural change from herb-oil to wood-oil.

The Chinese have had a long history of eating camellia oils. The oils are not only clear in colour and fragrant in taste but nourishing and good for one's health. Research has proved that the oils contain 90.7% unsaturated fatty acids and digestion by humans can reach 85-90%. By eating the oils, the contents of the serum triglyceride can be

decreased and the levels of the serum high-density lipoproteins (HDL) can be increased in blood of the human body. It was reported in medical literature that the HDL can transfer the cholesterol piled up on blood vessel walls away and play a role the same as a street sweeper. Therefore, the camellia oils also are ideal medical oils for preventing and curing coronary heart disease, coronary arteriosclerosis and high serum lipid disease.

In addition, camellia oil and its by-products have many other uses, such as, the oils are used to make lubricating and antirusting oils for industry and cosmetics. The residues after extracting the oils from camellia seeds are used to make pesticides, fertilizers, saponifiers, tea-glucosides, carbonates, active carbons, etc. The leaves of camellia trees are used to purify anthocyanidins, cocaine and caffeine. The skins of camellia fruits are used to extract tranic acids and furfurals. The trees are used for timbers for farm tools and playthings. Finally, the flowers of the trees, as everyone knows, are very beautiful and have been widely cultured in gardens. A full tree of tea-oil camellia is a treasure.

The time from mid-October to mid-November is the busiest season to pick camellia fruits in southern China. The oil-tea camellia forests become a boundless ocean of people to pick the fruits with sounds of singing and laughing and a continuous stream of vehicles to transport camellia fruits. Piles of camellia fruits with red, yellow and green colours lay drying in the sun and rumbling oil presses can be heard.

Oil-tea camellias of China are being expanded now. It is firmly believed that oil-tea camellia production of China will play an important role in reducing the cultivated land used by herbaceous oil plants and increasing the supply of cooking oils. While enjoying the bright and colourful flowers of camellias, every camellia enthusiast in the world should be mindful of their other important uses particularly using them for one of the best cooking oils known to mankind.

**ACKNOWLEDGEMENT:** I wish to express my gratitude to Dr. David Scheibert, ACS Assistant Executive Director, for his revision of this article.



# A PRELIMINARY STUDY ON THE PROPAGATION OF CAMELLIA CUTTINGS

DR. LESLIE STANKLER, SCOTLAND

UNE ETUDE PRELIMINAIRE SUR LA PROPAGATION DE BOUTURES DE CAMELLIA

EINE EINFUEHRENDE STUDIE UBER DIE PROPAGIERUNG VON KAMELIEN ABLEGERN (SPROESSLINGEN)

UN ESTUDIO PRELIMINAR SOBRE LA PROPAGACION DE LAS ESTACAS DE CAMELIAS

UN ESTUDIO PRELIMINARIO DELL PROPAGAZIONE DEI TALEE CAMELIE

## Abstract

The findings in this preliminary study show that the most important consideration when taking cuttings for propagation appears to be the month this is carried out. Many more cuttings rooted in June than in any other month.

Pushing cuttings into the medium was superior to the use of a dibber and subnodal cuttings fared better than did internodal.

The use of fresh hormone rooting powder made no difference to rooting nor did the length of cutting and amount of cambium layer exposed.

## Design of this study

Sixteen cuttings were taken at monthly intervals from May until October inclusively. All cuttings were taken in the morning from the same camellia tree and put immediately into a polythene bag and then inserted into the rooting medium within the next half hour. The leaves of all cuttings were removed to expose a stem of about 2" and some of the upper leaves were shortened to leave approximately the same surface area of leaves on each cutting. The cuttings were inserted to a depth of 1" into the rooting medium.

Eight of the sixteen cuttings were used to compare the following: subnodal (A) versus internodal (a); fresh hormone rooting powder (B) versus no hormone rooting powder (b) and the use of a dibber (C) versus pushing the stem into the medium (c).

The other eight cuttings were used to compare: 3" cuttings (D) versus 6" cuttings (d); side shoot cuttings (E) versus tip cuttings (e) and oblique cut at the base (F) versus a straight cut (f). All these cuttings were internodal, were given hormone rooting powder and inserted with the aid of a dibber.

A mist propagator was used for this study measuring 4 feet by 4 feet containing an equal mixture of peat and sand. The soil temperature was kept thermostatically at

70°C throughout the study.

Each group of sixteen camellias was removed after 3 months. (This length of time was found to be suitable on previous studies.) The rooting system of each camellia was graded as follows: more than 20 rootlets (++); less than twenty rootlets (+); no rootlets (0). There appeared to be a positive correlation between the number of rootlets and their length.

## Findings

The results obtained (figs. 1 and 2) show that the best month for carrying out propagation from cuttings in June (12 of 16 cuttings had rooted); July was the next best month (9 of 16 cuttings had rooted). The ability to root cuttings in other months both before and after June were poor.

Cuttings fared slightly better when they were pushed into the medium rather than when a dibber was used and subnodal cuttings did slightly better than did internodal. Fresh hormone rooting powder, length of cutting and exposure of the cambium layer did not appear to influence root growth.

## Comment

A perusal of past literature on taking cuttings for propagation reveals the following: Most authors favour the use of hormone rooting powder and a dibber and also exposure of the cambium layer. The month recommended for taking cuttings varies from May to September.

The present study is limited in that the numbers are small and only one camellia was used. It would be interesting to see the results of a study employing different camellias and a large number of cuttings.

I would like to thank Professor David Kerridge (Professor of Statistics, Aberdeen University) for help in designing the study.

Fig. 1

A = Subnodal

a = Internodal

B = Hormone Rooting Powder (HRP)

b = No Hormone Rooting Powder

C = Dibber

c = Push

D = 3" Stem

d = 6" Stem

NS = Not Suitable

E = Side Shoot

e = Tip

F = Oblique End

f = Straight end

	ABC	aBc	AbC	ABc	abC	Abc	aBc	abc	DEF	dEF	DeF	DEf	deF	Def	dEf	def
MAY	0	0	0	+	0	+	0	0	0	0	0	0	0	0	0	0
JUNE	+	0	++	++	++	++	++	++	0	++	++	0	++	++	++	0
JULY	++	0	+	++	0	++	+	++	+	0	0	+	0	++	++	0
AUGUST	0	0	0	+	0	0	0	0	0	0	0	0	0	0	0	0
SEPTEMBER	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NS

### ROOTING

++ = More than 20 rootlets

+ = Less than 20- rootlets

0 = No rootlets

	++	+	0
SUBNODAL	6	5	9
INTERNODAL	4	1	15
HRP	4	4	12
NO HRP	6	2	12
DIBBER	3	2	15
PUSH	7	4	9
3" STEM	3	2	15
6" STEM	3	0	16
OBLIQUE	3	1	15
STRAIGHT	3	1	16
SIDE SHOOT	3	2	15
TIP	4	0	15
<u>MONTH</u>			
MAY	0	2	14
JUNE	11	1	4
JULY	5	4	7
AUGUST	0	1	15
SEPTEMBER	0	0	15

# GROWING CAMELLIAS IN DRY CONDITIONS

JAN van BERGEN S.A.

LA CULTURE DES CAMELIAS EN MILIEU ARIDE

DAS WACHSTUM VON KAMELIEN UNTER DUERREBEDINGUNGEN

LA CULTIVACION DE LA CAMELIA EN CONDICIONES ARIDAS

COLTIVANNO LE CAMELIE IN CONDIZIONE ARIDA



JAN van BERGEN

Let's first put Camellias as they are grown and used in this part of South Africa into perspective. Where are we? What are the climatic conditions here? How are Camellias used by gardeners? How do we propagate and grow for the dry regions of South Africa? And finally, what camellias grow well here?

Boskoop Nuseries is located outside Pretoria at an altitude of 1300 m in what is known as the "Highveld" region of South Africa. This is the high plateau of central southern Africa and the natural vegetation is mainly grasslands. Our soil is a very sandy loam.

Gardeners in South Africa, with the exception of the group in Durban stimulated by Leslie & Gladys Riggall, do not have camellia shows and are therefore not very interested in large spectacular flowers for shows. So far as I know, no one in South Africa uses gibberellic acid on camellias. South African gardeners love camellias for their beauty as garden plants, growing in open ground and as container specimens. Their beautiful evergreen leaves and variety of plant forms make them attractive for the whole year. The flowering season extends from early February when the earliest sasanquas start until late October or early November when the late *japonicas* and *reticulatas* finish.

The main commercial market is for *japonicas*, *sasanquas* and *williamsii* hybrids with the *reticulatas* and *retic* hybrids just starting to become popular. Other species such as *granthamiana*, *fraternia*, *rosaeflora*, etc. are grown only by collectors.

So far as propagation goes, my nursery propagates entirely from rooted leaf bud

cuttings taken in mid-summer. Under our conditions this produces a marketable plant in three years. We find that camellias on their own roots produce much stronger plants under our dry conditions than those grafted onto sasanqua root stocks, the most common propagation method used in the wetter parts of the country.

When I talk about growing camellias in dry conditions, I refer to a period with almost no rainfall and a very low humidity during the flowering time of the camellias. South Africa has a winter rainfall area in the south and a summer rainfall area in the central and northern parts of the country. As my nursery lies in the summer rainfall area, this means very dry winters with a low humidity.

Flowering camellias in this dry winter climate present certain problems and limits the growing of certain varieties if high quality flowers are required.

We have to create the right climate for our plants e. g., increasing the humidity through overhead sprinklers, growing our plants in shade houses or in other shaded areas. The solution is to grow varieties that will flower well in dry climate. The rainfall during the flowering period of the camellias is very low or none at all.

The average rainfall recorded at Boskoop over the last ten years for the flowering season is the following:

February	71 MM
March	139 MM
April	54 MM
May	0 MM
June	9 MM
July	0 MM
August	7 MM
September	42 MM
October	113 MM

As you can see, May, June, July, and August are the driest months. The humidity in the air is very low and we are forced to keep our plants well watered and to improve the quality of flowers. I recommend an irrigation system that sprays water over the

plant and the surrounding area to raise the humidity. During this time, the days are normally warm and the nights cold. Note the following average maximum and minimum temperatures:

February	13-24 C
March	11-32 C
April	8-30 C
May	4-27 C
June	1-23 C
July	2-23 C
August	0-24 C
September	3-29 C

During the summer, the normal rainfall is sufficient for healthy growth and very little additional watering is required to keep plants in the ground in good condition. The day temperatures in summer can be as high as 37 C with no ill effect on the camellias. It is, however, interesting to see that the second growing period, which occurs from January onwards, produces much better growth on the plants due to higher humidity during that period. If we have a very mild autumn, the growth of the camellias can continue into early winter, but a "burning" of soft growth due to early frost is possible.

If one looks at the above mentioned figures, one notices that we have no rain, low humidity, cold nights and warm days during the peak flowering period. The Camellia japonica varieties are the ones that are most affected by these dramatic climatic conditions, especially the formal doubles. These do not open properly and we have a lot of "bud drop", whites and light colors burn easily when exposed to direct sun. The hybrid camellias and reticulata varieties seem to be better able to withstand the harsh climatic conditions and flower well in an exposed position.

Normally camellias grow well and need very little maintenance, except perhaps an occasional feeding with a balanced fertilizer or some compost and manure. This will keep them happy for years. We never loosen the soil or "aerate" the soil around our plants and never clean away the old leaves around the bushes as I feel they create a much needed mulch and increase the humidity around the plant. The container plants need a lot more attention and feeding is required. Under our dry climate conditions, no diseases are apparent. We are lucky not to have camellia petal blight. Aphids can be easily controlled and no beetles or other insects are a problem in this part of the country.

Over the years, I have observed the growth and flowering capacity of camellias.

Therefore, I recommend for a very dry climate, camellia japonica varieties with single, semi-double and loose double peony type flowers. They have to be grown in semi-shaded positions. Camellia sasanqua does very well in a sunny position as do the hybrid camellias, however, some protection the hot afternoon sun can do no harm. The reticulata camellias do very well in a sunny position and should not be planted in a shaded area.

A list of cultivars that perform well under dry conditions are the following:

#### *C. japonica*

Adolphe Audusson	Adolphe Audusson Var.
Apollo	Blood of China
C. M. Wilson	Can Can
Debutante	Drama Girl
Donckelarii	Elegans
Elegans Supreme	Guilio Nuccio
Hagoromo	Haku Rakuten
Hikaru Genji	Kenny
Kramers Supreme	Lady Clare
Lady Vansitart	Laurie Bray
Merrilless	Miss Charleston
Monjusu	Moshio
Nobilissima	Nuccio's Pearl
Nuccio's Gem	Nuccio's Jewel
Otahuhu Beauty	Polar Bear
Reg. Ragland	Shiro Chan
Silver Waves	Snowman
Strawberry Blonde	The Tzar
Tiffany	Tomorrow
Tomorrow Park Hill	Ville De Nantes

#### *C. reticulatas and reticulata hybrids*

Brilliant Butterfly	Citation
Dr. Clifford Parks	Dream Girl
Howard Asper	Inspiration
Lasca Beauty	Leonard Messel
Milo Rowell	Francie L.
Valley Knudsen	William Hertrich

#### *Hybrids (excluding retic. hybrids)*

Anticipation	Debbie
Donation	Elegant Beauty

#### *C. sasanqua*

Bonanza	Fuji No Mine
Hana Jiman	Hiryu
Jennifer Susan	Lucinda
Marie Young	Setsugekka
Shishi-Gashira	

Because I feel that one needs to select plants that flower well in our dry climate, I have been selecting seedlings for growth habitat and flowering capacity for a number of years.

# THE GOLDEN CAMELLIAS

T. J. SAVIGE, WIRLINGA, N.S.W., AUSTRALIA.

LES CAMELIAS D'OR

DIE GOLDENEN KAMELIEN

LA CAMELIA DORADA

LA CAMELIA D'ORO

Although J. Robert Sealy in his *Revision of the Genus Camellia*, 1956, included 4 species of camellia with yellow flowers which were *Camellia flava* (Pit.) Sealy; *C. euphlebia* Merr.; *C. fleuryi* (Chev.) Sealy and, unknowingly, *C. nitidissima* Chi, it was not until Professor Hu's description of what he called *Theopsis chrysantha* Hu, was published in English by the RHS in *The Rhododendron and Camellia Yearbook*, No. 21, 1967, that the interest of the camellia world was captured by the golden flowering camellia.

In China considerable interest and attention was given to surveying and investigating camellia species which had yellow flowers so that, by 1979, with the publication of Chang, Hung-Ta's monograph *The Taxonomy of the Genus Camellia* there were 8 species of yellow camellias that had been named. Within the following 12 years more than 20 new species names had been published. Chang considered some of these to be the same as already existing species and in 1991 he published a paper entitled "A Revision of the Section *Chrysantha* of Camellia" in the *Acta Scientiarum Naturalium Universitatis Sunyatseni*, vol. 30, No. 2 in which he reduced 7 species and 5 varieties to synonymy and raised 2 varieties to new combined species. This was quickly followed by a further revision in 1992, by Ye, Chuang-Xing and Xu, Zhao-Ran, who published a paper entitled "A Taxonomy of Camellia Section *Chrysantha* Chang" in the *Acta Scientiarum Naturalium Universitatis Sunyatseni*, vol. 31, No. 4:68-77 which lists 15 species and 2 varieties in Section *Chrysantha*. At the present date (Jan. 1993) there are a total of 17 species and 2 varieties with yellow flowers that are considered valid. There is one species in Section *Corallina*, one species in Section *Luteoflora* and the 15 species and 2 varieties in Section *Chrysantha*.

In the following listing the species are given in alphabetical order. Included are

those reduced to synonyms to indicate their relationship.

1. *Camellia aurea* Chang in *Acta Sci. Nat. Univ. Sunyatseni*, (3):71, 1979. Subgenus *Thea*; Section *Chrysantha*, Series, *Flavae*. Chinese vernacular name 'Wushi Junjuacha'. (Wushi Golden Flowered Camellia).

Differs from *C. flava* (Pit.) Sealy by its glabrous leaves with wide, cuneate bases, smaller sepals, longer petals, glabrous and much longer style, and glabrous ovary.

It forms a shrub with sub-coriaceous, oblong, glossy green leaves, 10-15 cm long x 3.5-5 cm wide, apices suddenly, briefly acute, 8-9 pairs of lateral nerves, lightly impressed, margins serrate, petioles 7-9 mm long.

Flower golden, solitary, axillary, pedicels 3-5 mm long; petals 9, elliptic or oblong, 1.5-2.2 cm long; stamens free, 10-15 mm long; ovary 5-locule; styles 5, free, 1.8-2.3 cm long. This species is similar to *C. nitidissima* Chi which, however has larger flowers, longer pedicels, 5-8 bracts and longer sepals than this species.

Distributed on limestone hills in evergreen forest in the Liangshan Province of Vietnam and in Fushui County, Guangxi Province, China, a variable ecotype exists with 11-13 petals and slightly united styles.

2. *Camellia chrysanthoides* Chang in *Acta Sci. Nat. Univ. Sunyatseni*, 3:73, 1979. Subgenus *Thea*, Section *Chrysantha*, Series *Chrysanthae*. Synonym *C. longzhouensis* Luo in *Guihaia*, 3, (3):73-74, fig. 1, 1983. Vernacular Chinese name 'Boye Jinhuaacha'. (Small Leaf Golden Flowered Camellia).

A shrub to 2.5 m tall with membranaceous, oblong or lanceolate leaves, 10-15 cm long x 2.5-5 cm wide, acuminate apices, 10-11 pair of lateral veins, serrulate margins; petioles about 10 mm long.

Flowers yellow, axillary, 4-5.5 cm diameter, petals 8-9 in number, lightly joined at the base, apices slightly pointed; stamens 1.3-1.5 cm tall; styles 3, free. Seed capsule to 4.5 cm wide x 2.5 cm high, 3-locular, 1-

2 seeds per locule, pericarp very thin, 1 mm thick.

Distributed in the Guangxi Province, China at Daqingshan of Longzhou at an altitude of 750 m in dense forest. The main characteristics of this species is that the buds and ovaries are pubescent while the branches and leaves are glabrous. The apex of the sepals are light red. It grows on both limestone and acid soils.

3. *Camellia euphlebica* Merr. ex Sealy in *Kew Bull.*, (2):219, 1949. Sub-genus *Thea*, Section *Chrysanthia*, Series *Chrysanthae*. Chinese vernacular name 'Xianmai Jinhuacha', (Prominently Veined Yellow Flowered *Camellia*).

A shrub 2 m or more tall with purplish new growth and thinly leathery, broad-elliptic leaves, 11:20 cm long x 4.5-9 cm wide, shortly, bluntly cuspidate-acuminate apices, 8-10 pair of lateral veins, margins bluntly serrate, upper surface deep green; petioles 10-13 mm long.

Flowers sulphur yellow, fragrant, solitary, pedicellate, 4 cm diameter, petals 8-9, united with the androecium for up to 10 mm from base, 2.2-3 cm long x 2.2-2.5 cm wide. Androecium 3.6 cm tall, outer filaments united for 1.6 cm to form a fleshy tube; gynoecium 4 cm long, styles 3, free to base, 3.7 cm long.

Distribution: North Vietnam, Kau Nga Shan and vicinity, near border with Guangxi and Dong County, China where it is fairly common in thickets and dense forest. Flowers December. See colour photo No. 52 and p. 25, No. 113, Gao & Zhuang *The Camellia in China*, 1989.

3a. *Camellia euphlebica* var. *euphlebica*.

3b. *Camellia euphlebica* Merr. var. *macrophylla* (Mo & Huang) Ye & Liang, comb. nov. Chinese vernacular name 'Daye Jihuacha'. (Large leaf Golden Flowered *Camellia*).

Synonym: *Chrysanthia* (Hu) Tuyama var. *macrophylla* Mo & Huang in *Acta Phytotax. Sin.*, 17, (2):88-90, fig. 1, 1979.

This variety has very large leaves and small flowers. Its similarities with *C. euphlebica* var. *euphlebica* are the short pedicels; bracts and sepals glabrous on outside and pubescent inside. Its differences are a smaller flower, less than 3 cm diameter, smaller sepals, stamens connate for only 5 mm and seeds pubescent. It has been considered the same as var.

*euphlebica* in the past but, after repeated examinations Ye & Xu conclude they are different.

Distribution: Guangxi Province in Fangchen, Shiwandashan, by streams in dense forest where it forms a 4 m tall shrub or small tree.

*C. euphlebica* Merr. ex Sealy var. *yunnanensis* Wang & Fan in *Acta Botanica Yunnanica*, 10, (3):365-366, 1988. Synonym for *Camellia fascicularis* Chang.

*C. fangchengensis*. See Gao & Zhuang, 1989, *The Camellia in China*, Colour photo No. 55, p.26, No. 116. Synonym for *C. nitidissima* Chi.

4. *Camellia fascicularis* Chang in *Acta Sci. Nat. Univ. Suryatseni*, Vol. 30, No. 2:81, 1991. Subgenus *Thea*, Section *Chrysanthia*, Series *Chrysanthae*. Chinese vernacular name 'Zhurui Jinhuacha', (Cluster Stamens Golden Flowered *Camellia*).

Synonym: *C. euphlebica* Merr. ex Sealy var. *yunnanensis* Wang & Fan in *Acta Bot. Yunn.*, 10, (3):365-366, Fig. 1, 1988.

This species differs from *C. euphlebica* Merr. ex Sealy by its fascicular stamens, seed capsule 5-8 cm diameter, thick pericarp and pilose seeds. It has leaves and a yellow flower similar to *C. euphlebica* Merr. ex Sealy but its sepals are larger to a width of 13 mm. Its free stamens and pubescent seed are similar to *C. euphlebica* var. *macrophylla* which, however, has a thinner pericarp.

Distribution: Yunnan Province, at Anjiahe near streams at an elevation of 368-480 m on yellow or sandy soil. It forms a small tree or tall shrub to 4.5 m high with a trunk to 8 cm diameter.

5. *Camellia flava* (Pit.) Sealy in *Kew Bull.*, 1949, p.217. Subgenus *Thea* Section *Chrysanthia*, Series *Chrysanthae*. Chinese vernacular name 'Huanghuacha'. (Yellow Flowering *Camellia*).

Synonym: *Thea flava* Pitard in Lecomte, *Fl. Gen. Indo-chine*, 1:347, (1910).

A shrub or small tree, 2-5 m tall with coriaceous, oval or oblong-elliptic leaves, 10.5-15 cm long x 3.8-5.8 cm wide, apices acuminate, 6-8 pair of lateral veins, margins shallowly sinuate-denticulate, teeth 3-6 mm apart, deep green upper surface, below paler, midrib pubescent, epidermis minutely verruculose, petioles 2-4 mm long.

Flowers golden yellow, solitary, axil-

lary, nodding, pedicels 6-9 mm long, petals 10-13, united with androecium for 3-4 mm from base, outer petals ovate or obovate, 1.5-1.8 cm long; outer filaments slightly united, inner free, densely hairy; ovaries 4-5 cm diameter, densely hairy, yellow, 5-locular; styles 5, free to base, 7-15 mm long, densely hairy, yellow.

Both *C. flava* and *C. aurea* have 5-locular ovaries and 5-part free styles with many free stamens. Chang says this series represents a primitive group from which the Series is derived. Sealy says there is a similarity with *C. krempfii* with their 5-carpelled, hairy gymnoecium and free styles.

It is distributed in the north, and in the province of Pinyuan, Vietnam. The species is pubescent on the underside of leaves and on the stamens and pistils. It is close to *C. pubipetala* Wan & Huang in the inconspicuous graduation between bracts and sepals, but *C. pubipetala* has 3-locular ovaries.

Subgenus *Thea*, Section *Chrysanthia*, Series *Chrysanthiae*. Chinese vernacular name 'Danhuang Jinhuacha'. (Pale Yellow Golden Flowered Camellia).

Synonyms:

*C. longgangensis* Liang & Mo in *Guibaia*, 2, (2):61-63, fig. 1, 1982.

*C. longgangensis* var. *grandis* Liang & Mo in *Guibaia*, 2, (2):63, fig. 1:10-11, 1982.

*C. longgangensis* Liang & Mo var. *patens* Mo & Zhong in *Guibaia*, 5,(4):354.

*C. grandis* (Liang & Mo) Chang & S. Y. Liang in *Acta Sci. Nat. Univer. Sunyatseni*, vol. 30, 2:82-83, 1991.

A shrub to 3 m tall with coriaceous, elliptic or oblong leaves, 8-10.5 cm long x 3-4.5 cm wide, apices acuminate or abruptly acute to pointed obtuse, 6-7 pair of lateral veins, reticulate venation, conspicuous below, margins serrulate; petioles 6-8 mm long.

Flowers light yellow, terminal, pedicellate, petals 8, obovoid, about 10 mm long; stamens free; style 3-parted free; seed capsule, globose, 1.7 cm diameter, 1-locular, 1-seeded; seed 1.3 cm diameter, brown. Differs from *C. tungbinensis* due to coriaceous leaves, smaller flowers and short, yellowish pedicel.

Distribution: Longzhou, Longjin,

Paizhong countryside in Guangxi Province in dense forest in mountain valleys and stony hill-sides at an elevation of 350 m.

The variations in size and shape of leaves are very great in this species, varying from 15.5 cm x 5.4 cm to 9.5 cm x 2.5 cm amongst the type specimens. *C. grandis* Chang & S. Y. Liang had been considered a species because its leaves were larger, outside petals light red and seed pubescent. The type specimen of *C. longgangensis* showed that the seeds were covered with brown pubescence, and the petals were slightly apically red. It was considered therefore that *C. longgangensis* was the same as *C. flava*. See colour photo No. 50, p. 25, No. 111 in Gao & Zhuang *The Camellia in China*. 1989.

7. *Camellia fleuryi* (Chev.) Sealy in *Kew Bull*, 1949, p.217. Subgenus *Thea*, Section *Corallina*.

Synonym: *Thea fleuryi* Chevalier in *Bull. Econ. Indochine* XXI, 531, 1919.

A shrub or small tree with thinly leathery, elliptic leaves, apices acuminate, 7-11 cm long x 2.5-3.7 cm wide, widely and shallowly sinuate-serrate, teeth 3-7 mm apart, upper surface dark green, beneath light green, minutely verruculose, 5-6 pair of lateral nerves; petioles 6-10 mm long.

Flowers yellow, axillary, perulate, petals 5, united at the base, obovate or oval, 11-15 mm long x 6-10 mm wide. Androecium 8-9 mm long, filaments numerous, free to base, 6.5 mm tall. Seed capsule 3.8 cm diameter x 2.5 cm high, brown furfuraeous. Distributed in Vietnam in forest at 1000 m altitude. Flowers September.

*C. fusuiensis* Liang & Dong in *Guangxi For., Sci. & Techn.* No. 1, pp. 24-26, 1990. Synonym for *C. limonia* C. F. Liang & Z. M. Su.

*C. grandis* (Liang & Mo) Chang & Liang in *Acta Sci. Nat. Univer. Sunyatseni*, vol. 30, (2):82, 1991.

8. *Camellia impressinervis* Chang & Liang in *Acta Sci. Nat. Univer. Sunyatseni*, 3:72, 1979. Subgenus *Thea*, Section *Chrysanthia*, Series *Chrysanthae*. Chinese vernacular name 'Aomai Jinhuacha'. (Sunken Veined Golden Flowered

Camellia).

A shrub about 3 m tall with coriaceous, elliptic leaves, 13-22 cm long x 5.5-8.5 cm wide, apices acute, shining olive green above, pubescent, dark punctuate beneath, 10-14 pairs of lateral veins; venation sunken reticulate above, raised below, margins serrulate; petioles 10 mm long.

Flowers golden yellow, 1-2 axillary, 4-5 cm diameter, pedicels 6-7 mm long, sepals 5, persistent, petals 12, styles 2-3 parted.

Seed capsule oblate, 1.8 cm high x 3 cm diameter, pericarp 1-1.5 mm thick, 2-3 locular, 1-2 seeds per locule.

Distribution: Guangxi Province, Longzhou, Jinlong, Banli at an elevation of more than 500 m. The species grows on limestone areas, the buds are glabrous but branches and leaves pubescent, all parts of the flower are glabrous and the seeds are pubescent; the leaves are deeply creased with nerves strongly impressed.

See colour photo No. 51, p. 25, No. 112, Gao & Zhuang, *The Camellia in China*, 1989 and Deng, Xiao-An, *The Bulletin of the Seibu Maizuru Botanical Institute*, No. 6, Mar. 1991, p. 41, colour photo No. 10.

9. *Camellia limonia* Liang & Mo in *Guibaia*, 2, (2):63-65, 1982. Subgenus *Thea*, Section *Chrysanthiba*, Series *Chrysanthibae*. Chinese vernacular name 'Ningmonghuang Jinhuaicha'.

Synonyms:

*C. limonia* form *obovata* Mo & Zhang in *Guibaia*, 5, (4):353-356, 1985, *C. parvipetala*, Liang & Z.M. Su in *Guibaia*, 5, (4):357-358, 1985.

*C. fusuiensis* Liang & X.J. Dong *Guangxi For. Sci. Techn.*, 1990, 1:12.

*C. longruiensis* Liang & Dong *Guangxi For. Sci. Techn.*, 1990, 1:13.

*C. xiashiensis* Liang & Deng in *Guibaia*, 11, 2:127-129, fig. 1, 1991.

An evergreen shrub, 1.5-3 m tall with coriaceous, elliptic leaves, 7.5-15.5 cm long x 3-5.5 cm wide, light orchid pink new growth, aging to deep green, apices acute, 6-9 pair of lateral nerves, impressed reticulate venation, margins serrate; petioles 5-10 mm long.

Flowers light yellow to white, or whitish margins, 1.5-4 cm diameter, solitary, sometimes in pairs, terminal and axillary, short pedicel, 2-3 mm

long. Flower buds cordate, petals 6-9, joined at base, rounded elliptic, stamens numerous in 4-5 series, outer series joined with base of petals, white, 9-12 mm tall; styles 3, free. Seed capsule flat compressed, 1.5-3.5 cm across x 1.3-2 cm deep, 3-valved, very thin pericarp, 1-1.5 mm thick; 1-2 seeds in each locule, 10-17 mm diameter, dark brown.

Flowers from September to December.

Distributed in Fusui County, Longzhou, Guangxi, Province in evergreen, broad-leaf forest on limestone soil at 120-230 m altitude.

The specimen of *C. parvipetala* has leaves of different sizes, the smallest 7.8 cm x 5 cm with 5-6 pair of lateral nerves and the largest 12 cm x 7.2 cm with 8-9 lateral nerves while other specimens have leaves up to 21.7 cm x 8 cm.

*C. limonia* Liang & Mo form *obovata* Mo & Zhong in *Guibaia*, 5, (4):61-63, 1985. Synonym for *C. limonia* Liang & Mo.

*C. longgangensis* Liang & Mo in *Guibaia*, 5 (2):61-63, 1985. Synonym for *C. flavida* Chang.

*C. longgangensis* Liang & Mo var. *patens* Mo & Zhong in *Guibaia*, 5, (4):354, 1985. Synonym for *C. quinqueloculosa* Mo & Zhong.

*C. longgangensis* Liang & Mo var. *grandis* Liang & Mo in *Journal of Wuban Bot. Research*, 4 (1):35, 1986. Synonym for *C. flavida* Chang.

*Camellia longruiensis* Liang & Dong in *Guangxi For. Sci. Techn.*, No. 1, pp. 12-13, 1990. Synonym for *C. limonia* Liang & Su.

*C. longzhouensis* Luo in *Guibaia*, 3, (3):192-195, 1983. Synonym for *C. chrysanthoides* Chang.

10. *Camellia luteoflora* Li in *Chang Acta Sci. Nat. Univer. Sunyatseni*, (3):72, 1982. Subgenus *Camellia*, Section *Luteoflora*. Chinese vernacular name 'Xiaohuang Huacha'. (Small Yellow Camellia Flower).

A shrub or small tree 2-5.5 m tall with oblong or elliptic leaves 6.5-17 cm long x 1.7 cm wide, apices acuminate or abruptly acute, 6-8 pair of lateral veins, impressed reticulate venation on upper surface, margins revolute, sparsely serrate, teeth spaces 3-8 mm; petioles 8-12 mm long.

Flowers light yellow, solitary, terminal or axillary, 10-18 mm diameter, sessile; petals 7-8, 11-15 mm long, bases



joined; anthers yellowish; ovaries 3-locular; seed capsule globose, 10 mm diameter; seeds 1 per locule.

*C. luteoflora* Li in Chang is related to Section *Paracamellia* but the flowers are yellow, petals joined at base, stamens joined to form a short tube. It is different to Section *Chrysantha* which has differentiated bracts and sepals, coriaceous and persistent, larger flowers, stamens and styles and so was allocated a Section of its own. It is distributed in the Guizhou Province in forests and on cliffs at an altitude of 900-1000 m.

11. *Camellia micrantha* Liang & Zhong in *Journ. of Wuhan Bot. Research*, 3, (2):132-133, 1985. Subgenus *Thea*. Section *Chrysantha*, Series *Chrysanthae*. Chinese vernacular name 'Xiaohua Jinhua'. (Small Flower Golden Flowered Camellia).

Differs from *C. pubipetala* Wan & Huang due to its glabrous leaves and branches, and from *C. longzhouensis* Luo by its smaller elliptic leaves and smaller flowers. A shrub 2-3 m tall with coriaceous, elliptic leaves, 4.5-10 cm long x 2.5-3.5 cm wide, apices acute, 5-7 pair of lateral nerves impressed on upper surface, margins serrulate; petioles 5-7 mm long. Flower light yellow, axillary; pedicels 3-4 mm long; petals 6-7, joined at the base, 7-10 mm long; stamens 6-7 mm tall, free; ovary pubescent, 3-locular; styles 3, free, 6-7 mm long, slender; seed capsule 3 cm diameter.

Distributed in the Minming County, Guangxi Province at Baijiao at an altitude of 190-350 m on acid soils. This is the fourth species with hairy ovaries. Leaves are variable, smaller ones 5 cm long with the larger ones to 10 cm. Ye & Zu say that its differences from *C. limonia* are quite blurred.

See colour photo No. 63, p. 27, No. 129, Gao & Zhuang *The Camellia in China*, 1989 erroneously as *C. mlenanthe* and photo No. 6, p. 41, Deng, Xiao-An, *The bulletin of the Seibu Maizuru Botanical Institute*, No. 6, Mar. 1991.

*C. microcarpa* Mo & Huang in *Guibaia*, 6, (1-2):62, 1982. Synonym for *C. nitidissima* Chi. var. *microcarpa* (Mo & Huang) Chang & Ye.

*C. multipetala* Liang & Deng in *Zhiwu*

*Zazhi* (Plants) No. 4, pp. 8-12, 1989. Synonym for *C. quinqueloculosa* Mo & Zhong.

12. *Camellia nitidissima* Chi in *Sunyatsenia*, 7, 1-2:19, p. 1.5, 1948. Subgenus *Thea*, Section *Chrysantha*, Series *Chrysanthae*. Chinese vernacular name 'Jinhua'. (Golden Flowering Camellia).

Synonyms:

*Theopsis chrysantha* Hu in *Acta Phytotax. Sin.*, 10, (2):139-140, 1965. *Camellia chrysantha* (Hu) Tuyama in *Journ. Jap. Bot.*, 50, 10:299, 1975.

*C. chrysantha* (Hu) Tuyama var. *longistyla* Mo & Zhong in *Guibaia*, 5, (4):354, 1985.

*C. chrysantha* (Hu) Tuyama var. *phaeubispermata* Liang in *Zhiwu Zazhi*, (Plans), No. 4, pp. 8-12, 1989.

*C. fanchenensis* in Gao & Zhuang *The Camellia in China*, p. 26, No. 118, colour photo No. 55, 1989.

A shrub or small tree 2-6 m tall with coriaceous, lanceolate or narrowly-oblong leaves, 11-16 cm long x 2.5-4.5 cm wide, apices caudate-acuminate, widely and minutely serrate, shining, intense green above, paler beneath with black dots; laxly reticulate venation, raised beneath.

Flowers golden yellow, fragrant, axillary, solitary, pedicels 10 mm long; petals 8-10, sub-rotund, 1.5-3 cm long x 1.2-2 cm wide; stamens numerous in 4 series, outer joined shortly with petals; filaments 1.2 cm tall; ovaries 3-4 locular; styles 3-4, free, 1.8 cm tall; seed capsules 3.5 cm high x 4.5-5 cm diameter, valves woody, pericarp 5-7 mm thick; seeds 6-8, about 2 cm diameter, pale blackish brown.

Distribution, Yongning, Guangxi Province and Vietnam. See colour photo No. 49, p. 25, No. 100, Gao & Zhuang *The Camellia in China*, 1989 and colour photo No. 2, p. 41, Deng, Xiao-An, *The Bulletin of the Seibu Maizuru Botanical Institute*, No. 6, Mar. 1991.

12a. *Camellia nitidissima* Chi var. *nitidissima* Chang & Ye.

12b. *Camellia nitidissima* Chi var. *microcarpa* Chang & Ye in *Acta Sci. Nat. Univ. Sunyatseni*, Vol. 30, (3):63-64, 1991. Subgenus *Thea*, Section *Chrysantha*, Series *Chrysanthae*. Chinese vernacular name 'Xiaoguo Jinhua'. (Small Fruit Golden Flowered Camellia).

## Synonyms:

*C. chrysantha* (Hu) Tuyama var. *microcarpa* Mo & Huang in *Acta Phytotax. Sin.*, 17, (2):90, 1979.

*C. microcarpa* Mo & Huang in *Guibaia*, 6, (1-2):62, 1982.

Differs from *C. nitidissima* Chi in that it not only has smaller and flatter flowers, but smaller leaves and seed capsules. Flowers deep yellow, 3 cm diameter, pedicel 10 mm long; petals 8-10; styles 3-4 parted.

Distribution: Nanning City, Maoqiao, cultivated in the Guangxi Traditional Chinese Medical Institute. This variety grows in the hills in the southeast of Damingshan and differs from the var. *nitidissima* in its smaller flowers 2.8 cm diameter, smaller bracts and sepals which have tiny outbescences on inner faces and glabrous seeds.

*C. parvipetala* Liang & Su in *Guibaia*, 5, (2):357-358, 1985. Synonym for *C. limonia* Liang & Zu.

13. *Camellia pingguoensis* Fang in *Acta Bot. Yunn.*, 2, (3):339-340, 1980. Subgenus *Thea*, Section, *Chrysantha*, Series *Chrysanthae*. Chinese vernacular name 'Pingguo Jinhuaacha'. (Pingguo Golden Flowering Camellia).

A shrub with coriaceous, ovate or lanceolate leaves, 5-9.5 cm long x 1.4-3.5 cm wide, acute apices, dark green above, atropunctate below, 6-7 pair lateral nerves, slightly raised beneath, margins serrulate; petioles 5-10 mm long.

Flowers golden yellow, terminal or axillary, 1.3-2.5 cm diameter; pedicels 2-3 mm long; petals 7-8, 7-13 mm long with bases lightly joined; stamens 3-4 series, 5-7 mm long, almost free; styles 3-parted, free to base, 8-12 mm tall; seed capsules, globose, 1.7 cm diameter, thin pericarp, 1-3 locular, seeds very small.

Distributed in Pingguo County, Guangxi Province. That collected from Tianden County is characterised by small oval leaves, flowers about 2 cm diameter, petals 5-6 and slightly united style and is a variable form of the species. The species is similar to *C. limonia* except that its seeds are pubescent while those of *C. limonia* are glabrous.

See colour photo No. 54, pg. 26, No. 116, Gao & Zhuang *The Camellia in China*, 1989.

*C. pilosperma* Liang & Chen in *Bull. Bot. Research*, 4, (4):184, t.2, 1984. Synonym for *C. flavida* (Liang & Mo) Chang & Ye.

14. *Camellia pubipetala* Y. Wan & S.Z. Huang in *Acta Phytotax. Sin.*, 20, (3):316, 1982. Subgenus *Thea*, Section *Chrysantha*, Series *Chrysanthae*. Chinese vernacular name 'Maoban Jinhuaacha'. (Downy Petalled Golden Flowering Camellia).

A shrub or small tree to 5 m tall with densely hirsute branches and thinly coriaceous, oblong or oblong-elliptical leaves, 11-21 cm long x 3.5-8 cm wide, apices caudate-acuminate, margins finely serrulate, shining dark green above, yellowish, dark punctate, densely villose beneath; 8-10 pair of lateral nerves and a midrib raised beneath; petiole 5-10 mm long. Flowers golden yellow, 4-6.5 cm diameter, solitary, terminal or axillary, nearly sessile; filaments puberulent, outer series joined for 1.4 cm and with petals for 10 mm, inner filaments free; petals 9-13, ovaries 3-4-locular; styles 2.6-3 cm tall, 3-4-cleft for one third length. Blooms November to April.

Similar to *C. impressinervis* except that the bracts, sepals and petal outer surfaces and filaments are all puberulent, style bases joined, apices 3-4-cleft; styles and ovaries puberulent. The species is also similar to *C. flavida* except that its styles are partly connate and its ovaries are 3-4-locular.

Distributed in Longan County, Guangxi Province on limestone hillsides in evergreen broadleaf forest. See colour photo No. 59, p. 26, No. 122, Gao & Zhuang *The Camellia in China* and No. 11 p. 41, Deng, Xiao-An *The Bulletin of Seibo Maizuru Botanical Institute*, No. 6, Mar. 1991.

15. *Camellia quinqueloculosa* Mo & Zhong S.L. Mo & Y.C. Zhong in *Guibaia*, 5, (4):353-354, fig. 1-3, 1985. Subgenus *Thea*, Section *Chrysantha*, Series *Chrysanthae*. Chinese vernacular name 'Duoban Jinhuaacha'. (Changeable Golden Flowered Camellia.)

## Synonyms:

*C. longgangensis* Liang & Mo var. *patens* Mo & Zhong in *Guibaia*, 5, 4:354, fig. 4, 1985.

*C. multipetala* S.Y. Liang & C.Z. Dong in *Guangxi For. Sci. Techn.* 1:9-10, fig. 3, 1990.

Differs from *C. aurea* Chang in having

more petals, 12-14; interior silky yellow, margins ciliate, bracts and sepals with silky interiors and leaves with caudate-acuminate apices. The species forms a shrub to about 4 m tall, bark glabrous, greyish yellow-brown; leaves coriaceous, elliptic, 8-16 cm long x 3-6 cm wide, apices acute or caudate-acuminate, margins serrate, both surfaces glabrous, upper dark shining green, beneath green with dark glands, 7-8 pair of lateral nerves, prominent beneath; petioles 10-15 mm long.

Flowers yellow, solitary, axillary, pedicels about 4 mm long, bracts 4-5, outside glabrous, inside silvery grey or silky yellow, margins ciliate; petals 12-14, ovate-elliptic, outside glabrous, inside silky yellow, margins ciliate; stamens in 3-4 series, filaments glabrous, outer joined at base for one third their length, inner joined lightly at base; styles 5, free, glabrous; ovaries sub-globose, glabrous, 5-locule, 2 seeds in each locule, seed capsule compressed globose, 3-4 cm diameter.

Distribution in Fusui county, Guangxi Province on limestone hills in mixed forest.

This yellow camellia was found by the team organized for the investigation of the yellow flowered camellia resources of Guangxi in 1984. However Chang in 1991 reduced it to a synonym for *C. aurea*. This was reversed in 1992 when Ye & Xu in a paper entitled "A Taxonomy of Camellia Section *Chrysantha* Chang" published in *Acta Sci. Nat. Univer. Sunyatseni* vol. 31, No. 4 re-established it as a species while reducing *C. longgangensis* var. *patens* Mo & Zhong and *C. multipetala* Liang & Deng to its synonyms.

There are many varieties in leaf shapes in this species which has thick, coriaceous leaves, dry membranous bracts and sepals and 2-5-locular ovaries.

16. *Camellia terminalis* J. Y. Liang & Z. M. Su in *Guibaia*, 5, (3):183-184, fig. 1, 1985. Subgenus *Thea*, Section *Chrysantha*, Series *Chrysanthae*. Chinese vernacular name 'Dingshen Jinhuacha'.

This species is close to *C. limonia* Liang & Mo and *C. pingguoensis* Fang from which it differs by bearing branchlets with terminal flowers, 4-

4.5 cm diameter with united styles and longer stamens 1.2-1.5 cm.

A shrub 1-2 m tall with greyish yellow-brown bark and slender yellowish-brown branches, densely furnished; leaves thinly coriaceous, elliptic or oblong-elliptic, 2.5-8 cm long x 1.5-3.8 cm wide, apices acuminate or caudate-acuminate, glabrous both surfaces, beneath sparse dark brown glands, margins serrate, tips of serrations bearing minute dark glands, 4-6 pair of lateral nerves, conspicuously raised beneath, venation obscure, reticulate; petioles about 5 cm long.

Flowers yellow, at branchlet terminals, 4-4.5 cm diameter; bracts small, semi-circular, sepals 5-6, sub-rotund, shell-like, interior silver pubescent; petals 7-9, inner initially silvery pubescent, becoming glabrous on opening, exterior petals oblong, shell-like, 1-1.5 cm long x 1-1.2 cm wide; stamens in 5-6 series, 1.2-1.5 cm long, filaments glabrous, outer series joined at base; ovaries tri-locular, with 1 or 2 seed per locule, glabrous, style glabrous, 1.2-1.5 cm tall, apices 3 lobes, each 3 mm long; Flowers October-November.

Distribution: Longming, Taideng County, Guangxi Province in evergreen forests on limestone hills.

This species is a new one discovered during the investigation of germ plasm resources of the yellow flowering camellias in Guangxi. It possess terminal flowers, conjoined styles and smaller leaves which are different to other members of Section *Chrysantha*. From the point of view of an ornamental plant it has larger flowers, smaller leaves and denser branching making it a beautifully shaped tree of high ornamental value. Chang in his revision of Section *Chrysantha* 1991 considered it was not sufficiently different botanically from *C. pingguoensis* and reduced to a synonym of that species. However Ye & Xu in 1992 in a following revision of Section *Chrysantha* restored it to a full species ranking. They say that it is similar to *C. pingguoensis* and *C. tunghinensis* and that the sepals of the species are 8 mm long, the flowers 3.6 diameter. It is also similar to *C. flavida* except the latter has larger leaves.

17. *Camellia tungbinensis* Chang in *Acta Sci. Nat. Univer. Sunyatseni*, (3):73, 1979. Subgenus *Thea*, Section *Chrysantha*, Series *Chrysanthae*. Chinese vernacular name 'Dongxing Jinhuaicha'. (Eastern Originated Golden Flowering Camellia).

A shrub 2 m tall with thinly coriaceous, elliptic leaves, 5-7 cm long x 2.5-3.5 cm wide, apices acute, dull green above, dark punctate below, 4-5 pair of lateral veins, upper margins sharply serrate; petioles 8-15 mm long.

Flowers golden yellow, axillary; pedicel 9-13 mm long; petals 8-9, basally joined for ~24 mm; ovaries 3-locular; styles 3-parted, free, 1.5-1.8 cm long; seed capsules globose, 2 cm diameter, 1-locule, pericarp very thin, 2 seeded. This species has the smallest leaves in Section *Chrysantha*. The flowers are also relatively small.

This species is similar to *C. terminalis* and *C. pingguoensis*, but its leaves are smaller. Of the 3 species, the spaces between the lateral veins on the leaves of *C. tungbinensis* are usually unequal, and the terminals of the 2nd pair of veins intersect the 3rd pair at the middle of the leaf. The spaces between the pairs of lateral veins of

the other 2 species are equal and the termination of the 2nd pair intersect the 3rd pair below the leaf centre. Of the 3 species both *C. terminalis* and *C. pingguoensis* grow on limestone hillsides, while *C. tungbinensis* grows in acid soil.

Distribution: Dongxing, Guangxi province.

See colour photo No. 53, p. 26, No. 115, Gao & Zhuang, *The Camellia in China*, 1989 and colour photo No. 12, p. 41, Deng Xiao-An, *The Bulletin of Seibo Maizuru Botanical Institute* No. 6, Mar. 1991.

*C. wumingensis* Liang & Fu in *Journ. of Wuhai Bot. Reserach*, Vol. 2, No. 2, pp. 132-133, 1984. Synonym for *C. flavida* Chang.

*C. xiashiensis* Liang & Deng in *Guibaia*, 11, (2):127-129, 1991. Synonym for *C. limonia* Liang & Mo.

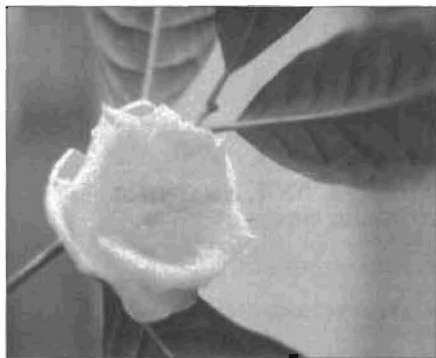
Most of the yellow camellias are semi-shade plants, distributed in limestone regions or in areas of acidic soil and are restricted in extent. *C. tungbinensis* and *C. nitidissima* are found on both types of soil. While, in cultivation, they all seem to grow in the usual slightly acid soil mixture generally used for camellia seed growing, it would be wise to use soil of the same pH in which a particular species grows in the wild.



*C. chrysantha* (Hu) Tuyama in *Journ. Bot. Jap.*, 50:299, 1965. Synonym for *C. nitidissima* Chi.



*C. chrysantha* (Hu) Tuyama var. *microcarpa* Mo & Huang in *Acta Phytotax. Sin.*, 17, (2):90, 1979. Synonym for *C. nitidissima* Chi. var. *microcarpa* (Mo & Huang) Chang & Ye.



*C. chrysantha* (Hu) Tuyama var. *phaeopubisperma* Liang in *Plants*, 4:8-12, 1989. Synonym for *C. nitidissima* Chi.



*C. chrysantha* (Hu) Tuyama var. *macrophylla* Mo & Huang in *Acta Phytotax. Sin.*, 17, (2):88, 1979. Synonym for *E. euphlebia* Merr. var. *macrophylla*.



*Camellia euphlebia* Merr. ex Sealy in *Kew Bull.*, (2):219, 1949. Sub-genus *Thea*, Section *Chrysantha*, Series *Chrysanthae*. Chinese vernacular name: 'Xianmai Jinhua' (Prominently Veined Yellow Flowered Camellia).



*Camellia flavida* Chang in *Tax. Genus Camellia*, 103, 1981.



*C. pitulosperma* Liang & Chen in *Bull. Bot. Res.*, 4, (4):185, 1984. *C. wumingensis* S. Y. Liang & Fu in *For. Sci. Techn. Guangxi*, 1990, 1:16-18, nom. sol.

# A NEW SPECIES OF YELLOW CAMELLIA

## FROM GUANGXI

*Guibaia*, 5(4): 357-358, 1985.  
(*Guangxi Institute of Botany*).

Translation by T. J. Savige, Wirlinga, NSW, Australia.

LIANG JIAN-YING & SU ZONG-MING, CHINA

UNE NOUVELLE ESPECE DE CAMELIA DU GUANGXI

EINE NEUE GELBE KAMELIENART AUS GUANGXI

UNA NUEVA ESPECIE DE CAMELIAS AMARILLAS DE GUANGXI

UNE SPECIE NUOVA DEI CAMELIE GIALLI DI GUANGXI

1. *Camellia parvipetala* J. Y. Liang & Z. M. Su, sp. nov.

Subgenus *Thea*; Section *Chrysantha*; Series *Chrysanthae* Chang.

This is close to *C. limonia* Liang & Mo from which it differs by leaves broad-ovate or oblong, large 10-12 cm long x 5-7 cm wide, lateral veins conspicuously impressed on upper surface. Akin to *C. chrysantha* (Hu) Tuyama var. *microcarpa* Mo & Huang but petals smaller, 7-13 mm long x 7-10 mm wide, margins glabrous.

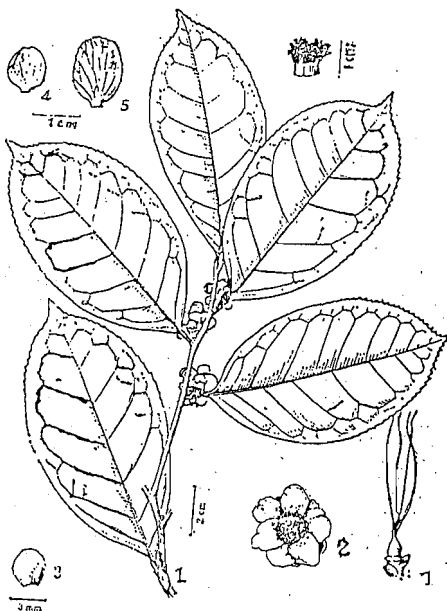
A shrub 2-4 m tall, evergreen, bark greyish brown, branches of first year's growth brown to yellow-brown, glabrous. Leaves hard-papery or sub-coriaceous, wide-ovate, oblong or obovate-elliptic, 6-15 cm long x 3.5-7 cm wide, apices suddenly cuspidate or sub-acute, bases wide-cuneate or cuneate. Lateral nerves 7-9 pair on both surfaces, curved and joined near leaf margins, conspicuously impressed on upper surface, raised beneath, both surfaces glabrous, margins serrulate, petioles 5-10 mm long, glarous.

Flowers yellow, axillary, 1.5-2.0 cm across, pedicels 2-4 mm long, bracts small, semi-circular or sub-rotund, margins sometimes ciliate, 3 mm diameter; petals 6-8 in 2-3 series, outside series very small, sub-rotund, 4-10 mm diameter, shell-like, apices emarginate, inside series oblong, 13 mm long, inside petals 13 mm long x 7-10 mm wide; stamens 8-10 mm long, exterior series joined at the base and with the inner petals; ovaries sub-globose, 2 mm diameter, glabrous; styles 3-4, free, 8-10 mm long, glabrous; fruit unknown. Flowers Oct.-Nov. (China).

Distribution: Guangxi Province, Ningming Xian, Jan. 19, 1985, J. Y. Liang 100658. Typus in the herbarium of the

Guangxi Institute of Botany.

Note: Chang Hungta in 'A Revision of the Section *Chrysantha* of *Camellia*' published in *Acta Scientiarum Naturalium Universitatis Sunyatsensi*, vol. 30, No. 2 reduced *C. parvipetala* Liang & Su to a synonym for a new species *C. grandis* (Liang & Mo) Mo & Huang. To quote: "The newly named *C. parvipetala* Liang & Su has broader leaves, the specimens of *C. grandis* Chang & Liang as Exp. Longgang 11413, has larger leaves and P. Ceng, 17005 from Longgang also bears broader leaves; therefore to reduce *C. parvipetala* Liang & Su to *C. grandis* Chang & Liang is reasonable."



# NEW TAXA OF SECTION CHRYSANTHA CHANG FROM GUANGXI.

(Guangxi Academy of Forest Exploration and Planning.)

*Guihaia*, 5, (4): 353-356, 1985.

Translated by T. J. Savage, Wirlinga, NSW, Australia.

Prof. Gao Jiyin, Subtropical Forestry Research Institute,  
Fuyang, Zhejiang, China

MO, SIN-LI & ZHONG, YE-CONG, CHINA

DE NOUVEAUX HOMS POUR LA SECTION CHRYSANTHA CHANG DU GUANGXI

EINE NEUE TAXA DER SEKTION CHRYSANTHA CHANG VON GUANGXI

NEUVA SECCION TAXA CHRYSANTHA-CHANG DE GUANGXI

NUOVA TAXODEL SPICCHIO CHRYSANTA - CHANG DA GUANGXI

1. *Camellia quinqueloculosa* Mo S. L. & Y. C. Zhong, sp. nov.

Subgenus *Thea*; Section *Chrysantha*; Series *Flavae* Chang.

Differs from *C. aurea* Chang in having more petals, 12-14; interior silver-brown or silky yellow, margins ciliate; bracts and sepals with silky interiors and leaves with caudate-acuminate apices.

Shrub to about 4 m tall, bark greyish yellow-brown, glabrous, branches yellow-brown, glabrous. Leaves coriaceous, yellow-green in the dried state, young leaves yellowish-brown, elliptic, 8-16 cm long x 3-6 cm wide, apices acute or caudate-acuminate, bases cuneate or wide-cuneate, margins serrate, both surfaces glabrous, upper dark shining green, beneath green with dark brown glands, lateral nerves 7-8 pair, venation impressed on upper surface, prominent beneath, petioles 10-15 mm long.

Flowers yellow, solitary, axillary, pedicels about 4 mm long, bracts 4-5, semi-circular, outside glabrous, inside silver grey, or silky yellow, margins ciliate, petals 12-14, subrotund or ovate-elliptic, outer glabrous, inner silky silver grey, margins ciliate; stamens numerous in 3-4 series, filaments glabrous, outer joined at base for one third their length, inner lightly joined at base, styles 5, free, glabrous, ovaries sub-globose, 5-angular, glabrous, 5-locule; seeds 2 in each locule; seed capsule compressed, globose, 3-4 cm diameter.

Distribution: Guangxi Province. Fusui Xian, limestone hill in mixed forest. Shrub 4 m tall, flower yellow, style 4-5, March 26, 1984, Forest-Ecology group 84382. Typus in Guangxi Botanical Institute Herbarium.

This yellow camellia was found by the team organized for the investigation of the

yellow camellia resources of Guangxi in 1984.

Note: Chang Hungta in "A Revision of the Section *Chrysantha* of *Camellia*" in *Acta Scientiarum Naturalium Universitatis Sunyatsensi* vol. 30, No. 2, 1991 is of the opinion that it is too close morphologically to *C. aurea* Chang and so reduced *C. quinqueloculosa* Mo & Zhong to a synonym for *C. aurea* Chang.

2. *Camellia longgangensis* Liang & Mo var. *patens* Mo & Zhong, var. nov. Subgenus *Thea*; Section *Chrysantha*; Series *Chrysanthae* Chang.

A type with different styles, sometimes 2; lateral nerves almost at an angle of 90° outspread.

Distribution: Fusui Xian. On limestone hill in mixed forest. Flower yellow. March 22, 1984, Forest-Ecology Group 84383 typus conserved in the herbarium of the Guangxi Institute of Botany.

Note: Chang Hungta in 'A Revision of the Section *Chrysantha* of *Camellia*' published in *Acta Scientiarum Naturalium Universitatis Sunyatsensi* vol. 30, No. 2, 1991 reduced this var. to a synonym for the species *Camellia flavida* Chang.

3. *Camellia chrysantha* (Hu) Tuyama form *longistyla* Mo & Zhong form nov. Subgenus *Thea*; Section *Chrysantha*; Series *Chrysanthae*.

A type with petals narrowly-oblong, merging to elliptic, thin texture, styles upper part, bent, extending beyond the stamens.

Distribution: Guangxi Province, Fangchen Xian, altitude 36 m hill in mixed forest, shrub 3 m tall, Feb. 21, 1984. Forest-Ecology Group 84362, typus conserved in the herbarium of the Guangxi Institute of Botany.

Note: Chang Hungta in 'A Revision of the Section Chrysantha of Camellia' published in *Acta Scientiarum Naturalium Universitatis Sunyatsensi* vol. 30, No. 2, 1991 reduced this form to a synonym for *C. chrysantha* (Hu) Tuyama, which in *Acta Scientiarum Naturalium Universitatis Sunyatsensi* vol. 30, No. 3, 1991 was established to be a synonym for *C. nitidissima* Chi.

4. *Camellia limonia* Liang & S. L. Mo form *obovata* Mo & Zhong, form nov. Subgenus *Thea*; Section *Chrysantha*; Series *Chrysanthea* Chang.

A type with large, obovate leaves, generally 10 cm long x 4 cm wide.

Distribution: Guangxi Province, Fusui Xian on limestone hills in mixed forest, 1981, Wei-yi 81086. Typus conserved in the herbarium of the Guangxi Institute of Botany.

Note: Chang Hungta in 'A Revision of the Section Chrysantha of Camellia' published in the *Acta Scientiarum Naturalium Universitatis Sunyatsensi* vol. 30, No. 2, 1991, reduced this to a synonym for *C. flavida* Chang.

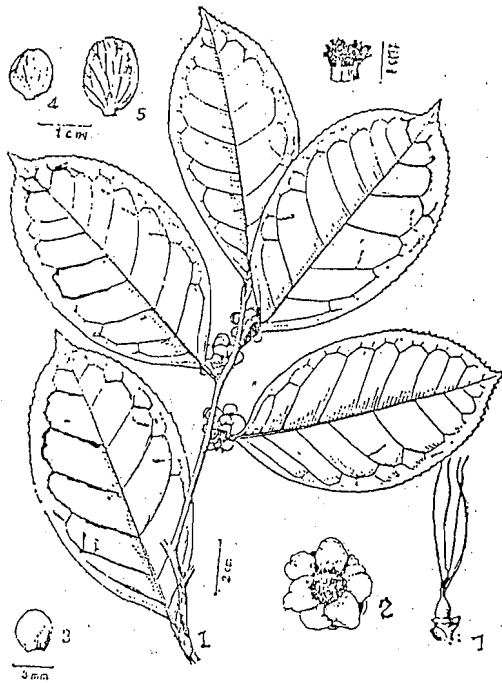


图 小瓣金花茶 *Camellia parvipetala* J. Y. Liang et Z. M. Su,  
1. Twig; 2. Flower; 3. Bract; 4, 5. Petals.  
6. Stamens; 7. Style



# NEW TAXA OF SECTION CHRYSANTHA CHANG FROM GUANGXI.

(Guangxi Academy of Forest Exploration and Planning.)

*Guibaia*, 6, (1-2): 62, 1986.

Translated by T. J. Savige, Wirlinga, NSW, Australia.

Prof. Gao Jiying, Subtropical Forestry Research Institute.

Fuyang, Zhejiang, China

MO, SIN-LI & ZHONG, YE-CONG, CHINA

DE NOUVEAUX NOMS POUR LA SECTION CHRYSANTHA CHANG DU GUANGXI

EINE NEUE TAXON DER SEKTION CHRYSANTHA CHANG VON GUANGXI 2

NUEVA SECCION TAXA CHRYSANTHA - CHANG 2

NUOVA TAXODEL SPICCHIO CHRYSANTHA - CHANG DA GUANGXI

*Camellia microcarpa* (S. L. Mo & S. Z. Huang)  
S. L. Mo Crad. nov.

Subgenus *Thea*: Section *Chrysantha*;  
Series *Chrysanthae* Chang.

*Camellia chrysantha* (Hu) Tuyama var.  
*microcarpa* S. L. Mo & S. Z. Huang in *Acta*  
*Phytotaxa Sinica* 17(2): 90-92, fig. 2, 1979.

This species is confirmed as a new one from the study resulting in its classification, but formerly the plant was considered as a variety of *C. chrysantha* (Hu) Tuyama and published as such in the *Journal of Botanical Taxonomy*. However Mo & Huang, after further study and examination felt that the main characteristics of the plant were different to *C. chrysantha* (Hu) Tuyama in that it not only has smaller flowers and seed capsules but flatter flowers when blooming, while the inside surfaces of both sepals and petals are pubescent and the edge of the petals ciliate. Also the chromosome karyotype is different. Mo & Huang thus believe that this plant should be considered a new species.

Distribution: Guangxi Province, Yongning, Sikuang, S. Z. Huang 724 1 Typus; G. Z. Wu

6805 typus; S. L. Mo, 771226, 81028, 81029.

Note: Chang Hungta in "A Revision of the Section *Chrysantha* of *Camellia*" published in *Acta Scientiarum Naturalium Universitatis Sunyatseni*, vol. 30, No. 2, 1991 agreed that the classification of *C. chrysantha* (Hu) Tuyama var. *microcarpa* Mo & Huang as a synonym for *C. chrysantha* (Hu) Tuyama (see p. 129 *Camellias* Chang & Bartholomew, 1984) was not suitable and reverted to the former classification of *C. chrysantha* (Hu) Tuyama var. *microcarpa* Mo & Huang. He rejected Mo & Zhongs reclassification as the separate species *C. microcarpa* (Mo & Huang) S. L. Mo, reducing this to synonym.

However, Chang Hungta in 1992 established that the herbarium type specimen for *C. nitidissima* Chi, 1948, was identical to that of *Theopsis chrysantha* Hu 1956 so that the above species is now properly known as *Camellia nitidissima* Chi var. *microcarpa* Mo & Huang.

# CAMELLIA TERMINALIS, A NEW ORNAMENTAL PLANT FROM GUANGXI

Guangxi Institute of Botany.

*Guibaiia*, 5(3): 183-184, 1985.

Translated by T. J. Savige, Wirlinga, NSW, Australia.

LIANG JIAN-YING & SU ZONG-MING, CHINA

UNE NOUVELLE PLANTE ORNEMENTALE DU GUANGXI

KAMELIEN ENDPFLANZEN - EINE NEUE SCHMUCKPFLANZEN AUS GUANGXI

CAMELIA TERMINALIS - UNA NUEVA PLANTA ORNAMENTAL DE GUANGXI

LA CAMELLIA TERMINALIS - UNA NUOVA PLANTA ORNAMENTALE DA GUANGXI

*Camellia terminalis* J. Y. Liang & Z. M. Su, sp. nov.

Subgenus *Thea*; Section *Chrysantha*; Series *Chrysanthae* Chang.

This species is close to *C. limonia* Liang & Mo and *C. pingguoensis* Fang from which it differs by bearing branchlets with terminal flowers, 4-4.5 cm diameter with united styles and longer stamens, 1.2-1.5 cm long.

A shrub 1-2 m tall, bark greyish yellow-brown with slender, yellowish-brown branches, densely furnished. Leaves thinly coriaceous, elliptic or oblong-elliptic, 2.5-8 cm long x 1.5-3.8 cm wide, apices acuminate or caudate-acuminate, bases wide-cuneate, glabrous both surfaces, beneath provided with sparse brown glands, margins serrulate, the tips of the serrations bearing minute dark glands, lateral nerves 4-6 pair, obscurely impressed in the dried state on the upper surface and conspicuously raised beneath. The central midrib is conspicuously raised both surfaces, venation reticulate, obscure, petioles about 5 mm long.

Flowers at branchlet terminals, 4-4.5 cm diameter, pedicels about 4 mm; bracts small, semi-circular, apices somewhat retuse, sepals 5-6, 5-8 mm long, sub-rotund or semi-circular and shell-like, apices retuse, margins occasionally ciliate, interior silver pubescent; petals 7-9, normally 8, yellow, inner initially silver-pubescent, becoming glabrous on opening, exterior petals oblong, shell-like, 1-1.5 cm long x 1-1.2 cm wide; stamens numerous, 5-6 series, 1.2-1.5 cm long, filaments glabrous, outer series joined at the base; ovary tri-locular, with 1 or 2 seeds per locule, glabrous; style glabrous, 1.2-1.5 cm

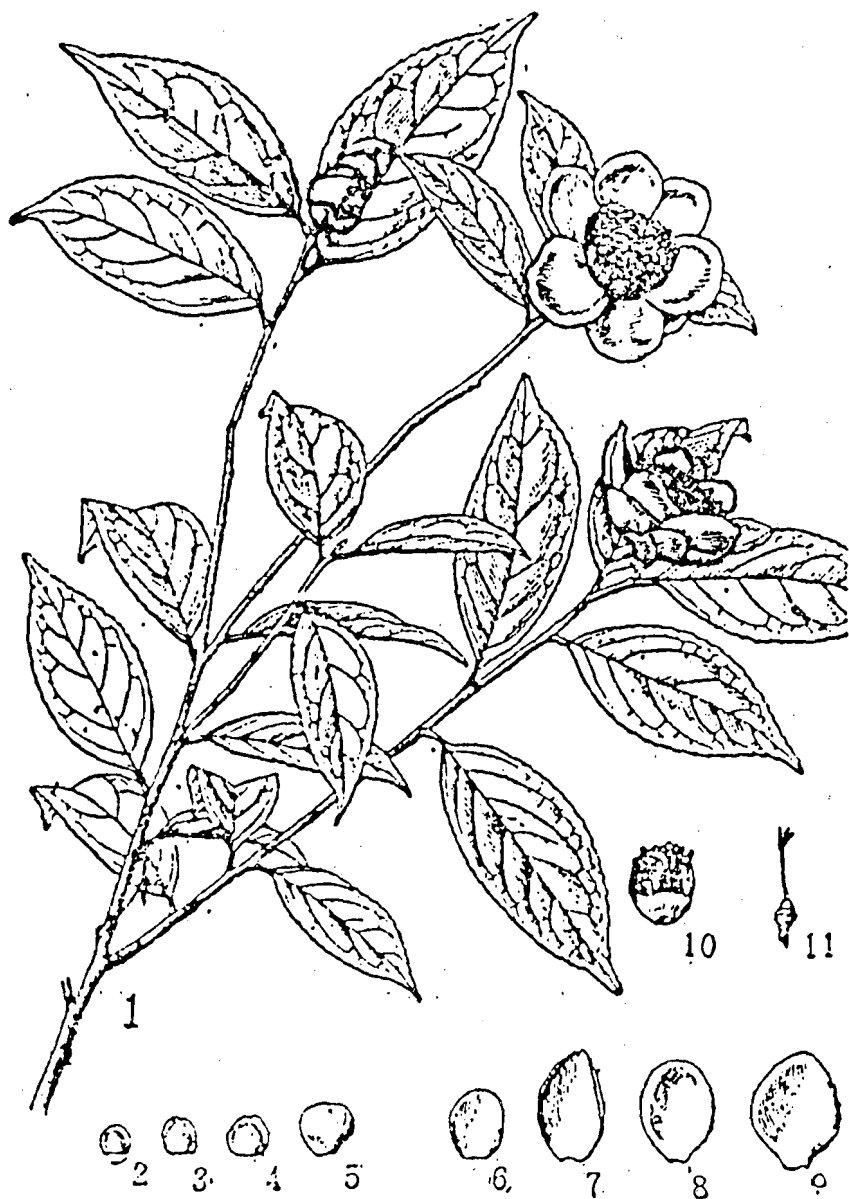
long, 3 lobes, each lobe 3 mm long. Flowers Oct.-Nov. in China. Fruit not seen.

Distribution: Guangxi Province; Taindeng County in evergreen forest on limestone hills, September 1984, J. Y. Liang 100861. Typus conserved in the Guangxi Institute of Botany Herbarium.

This species is a new one discovered during the investigation of the germ plasm resources of the yellow flowering camellias in Guangxi. It possesses terminal flowers, conjoined styles and smaller leaves which are different to other members of the Section *Chrysantha* Chang. From the point of view of an ornamental plant it has larger flowers, smaller leaves and denser branching, making it a beautifully shaped tree of high ornamental value.

Note: Chang Hungta in his "A Revision of the Section *Chrysantha* of *Camellia*" published in *Acta Scientiarum Naturalium Universitatis Sunyatseni* vol. 30, No. 2, 1991 considered that it was not sufficiently different botanically from *C. pingguoensis* Fang and reduced it to a synonym of that species.

Then in 1992, Ye, Chuang-Xing and Xu, Zhao-Ran in a further revision of Section *Chrysantha* entitled "A Taxonomy of *Camellia* Section *Chrysantha* Chang", published in *Acta Scientiarum Naturalium Universitatis Sunyatseni*, vol. 31, No. 4:69-77 reinstated *C. terminalis* to species rank saying that it is similar to *C. pingguoensis* and *C. tungbinensis* and that the sepals of the species are 8 mm long, the flowers are 3.6 cm diameter. The species is similar to *C. flavida* but the latter has larger leaves.



*Camellia terminalis* J. Y.

Liang et Z. M. Su

1. Twig 2-5. Bracts 6-9. Petals 10. Androecium  
11. Style

# COMPANION PLANTS FOR CAMELIAS

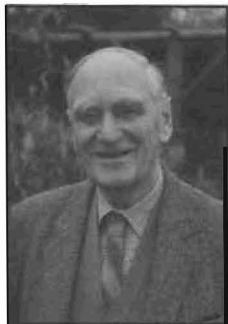
JOHN TOOBY, ENGLAND

PLANTES D'ACCOMPAGNEMENT POUR LES CAMELIAS

PFLANZEN DIE SICH MIT KAMELIEN ZUSAMMENPFLANZEN LASSEN

PLANTAS ACOMPANADAS PARA CAMELIAS

PLANTAS COMPAGNAS PER LE CAMELIE



JOHN TOOBY

The right companion plants for camellias in any particular garden depend on the climate, the aspect, the environment, the local native flora and the individual taste of the gardener concerned. I am therefore discussing the subject from my own individual

point of view.

My wife and I live in the English midlands, close to the northern edge of where camellias can be grown, and shelter from wind is an absolute necessity. We moved to a new garden on a 'greenfield' site in 1980 and these observations are based mainly on our subsequent experiences here.

I planted most our camellias between the house and a tall hawthorn hedge; that was two sides protected. Now we had to guard against the prevailing south-west wind; pines are generally agreed to be better than most conifers, so we went for our native Scots Pine (*Pinus sylvestris*). On the north-east side we planted Sweet Bay (*Laurus nobilis*) - at a little distance - and a vigorous broom, *Genista cinerea*.

There were no deciduous trees on the site; if there had been, they would probably have been oaks - oakwood is the climatic climax vegetation - and they are deeper rooting than most deciduous trees. Deep rooting without deep shade is what to look for when considering smaller trees for dotting about. So Mountain Ash (*Sorbus*) and Pear (*Pyrus*) are good choices. Others might be Dogwood (*Cornus*), some Maples (*Acer*), Snowdrop Tree

(*Halesia*) and perhaps Magnolias, though these require more room.

Shrubs, particularly evergreen ones, are needed to support and complete the wind-break; here we must remember that camellias are short on perfume, so scent is a valuable asset. *Viburnum x burkwoodii* is excellent and better than most of its kin because of its greater vigour. Other suitable scented shrubs are *Erica arborea alpina*, *Osmanthus delavayi* and *Genista cinerea*; *Daphne bholua* is barely hardy with us, so we have to make do with the lower growing *D. odora*; but it is so well scented that we would not be without it.

Having got a framework, the next thing is to grow sufficient companion plants to maintain interest throughout the year. Features to look for a long flowering-season and not too much competition for the camellias. There is a lot to be said, too, for plants which seed around; they cost less and fewer need to be planted.

We start the year with early spring bulbs; Anemones, Scillas and Snowdrops are all good and soon followed by Chionodoxas, Snakes' Heads (*Fritillaria meleagris*) and Narcissus species. Then come Dog's Tooth Violets (*Erythronium*), *Trillium*, etc. though these are loath to seed here. They come at the same time as the camellias, as do rhododendrons, azaleas and the new, bright blue *Corydalis flexuosa*. Our native Primrose and Cowslip (*Primula vulgaris* and *P. veris*) should not be overlooked.

As spring melts into summer we have irises, but their display is short; *I. sibirica* forms are vigorous and cheerful, but their foliage is coarse: we prefer the smaller 'Pacific Coast hybrids' which are dwarfer and with finer leaves. These are soon followed by lilies. Everyone should grow lilies, especially easy ones like *L. regale*,

stately, hardy, well-scented and free seedling. They may be looked down on by lily specialists because they are so easy but they are hard to beat. Also good are *L. martagon* and *L. szovitzianum*. There are innumerable hybrids and of these the 'North hybrids' are excellent. They are mostly sterile, but soon make large clumps. With lilies it really is important to start off with virus-free stock and to avoid bringing in virus from other plants; tulips are the main culprits and tulip bulbs should not be planted close to lilies; we should not have planted the variegated Solomon's Seal if we had known it was a carrier (Ref. 1) and we are now paying the price. Daphnes, too, are notoriously subject to virus and should be kept well apart from lilies. One tulip to try is *t. sprengeri*, which comes freely from seed, flowers late and likes growing under shrubs. Most of our Day-lilies (*Hemerocallis*) are from seed given to me by dear old "Brownie" when we visited Massee Lane years ago. They are quite as good as most named varieties and one flowers longer than any named variety we have. Day-lilies have not got quite the presence of lilies but they well deserve a place. We also grow an interesting toadflax (*Linaria triornithophora*) which has a long flowering season, but is a bit rampant. *Dicentra formosa* is worse and has been banished.

Aggressive carpeters such as periwinkles (*Vinca*) and heather (*Erica*) should be used with care. Epimediums need to be watched; some overwhelm everything in their path. Ajuga is better, and Creeping Dogwood, (*Cornus canadensis*), Bearberry (*Arctostaphylos uva-ursi*) and Golden Creeping Jenny (*Lysimachia nummularia aurea*) are particularly useful. Some alpine seed freely and we like *Campanula carpat-ica*, *Erinus alpinus* and *Papaver*

*miyabeianum*. *Viola cornuta*, if hardy alpine, is almost as good.

Suitable autumn-flowering plants are more difficult to find. Hydrangeas are the mainstay. Hardy Ginger lilies (*Hedychium*) have just reached English nurseries. We only have *H. densiflorum* but shall add more when they become available. Most chrysanthemums, dahlias and Michaelmas daises look out of place, as do large-flowered gladioli, but small flowered species and hybrid gladioli might fit in. This is the time when that attractive plant, *Persicaria capitata* comes into its own. We fell for it when the Society visited our old friend, Robert Gimson's garden in Spain. He had banished it to the back of the garden as he found it a pernicious weed. However it is frost-tender so in central England it never becomes a nuisance; its seedlings pop up at the end of May and flower from July until killed by the first frost. Ferns, Cyclamen and Toad Lilies (*Tricyrtis*) are useful in shady places. Grasses such as *Pennisetum orientale* are ornamental for a long period.

Then there are the stowaways; our biggest mistake was in not having a quarantine bed where weeds, pests and diseases could be dealt with before they reached the garden proper. Those which defy the efforts of nurserymen to eliminate them are difficult to control as they run to seed immediately after leaving the seedling stage themselves. Our worst are Hairy Bittercress (*Cardamine hirsuta*), a red-leaved form of Annual Meadow-grass, *Poa annua* and Pearlwort (*Sagina*). If you have avoided all three I offer my congratulations!

Ref. 1 Fox, Derek: *Growing Lilies* Croom Helm 1985.

# FRAGRANT CAMELIAS

KOJI FUNAKOSHI, JAPAN

PARFUM DE CAMELIAS

DUFTENDE KAMELIEN

CAMMELIE FRAGANTE

CAMELIAS FRAGANTES

Camelia japonica, once a wild plant originated in Japan, has been one of the most sophisticated flowers to fit the taste of the times selected constantly by connoisseur's eye throughout the ages, and is still admired by many people not only for a garden plant but also for a pot or bonsai and for flower arrangement. Its highly mutable genetic characteristic has caused the wide variation in flower colours and shapes, which enabled it enjoy today's international popularity. Of course its glossy leaves, hard wood, smooth bark, beautifully shaped tree as well as its long life have also been appreciated.

In Japan the tea ceremony type camellias, represented by Wabisukes, have been selected for more than 300 years for their serene simplicity. On the other hand, in China they took a different direction. Their ideal type seems to be represented by geometrical beauty of formal double flowers. Another effort was made by western people, who have created with zeal a group of various gorgeous flowers and elaborate hybrids by introducing all sorts of genetic factors brought from Asian regions. This group has been introduced to our country and called "Western camellias". This "Return of Camellias" reminds me of traditional Japanese girls, whose prudent and graceful manners are compared to the

wild pink camellia (Yamato-nadeshiko), often get metamorphosed into modern career women after their stay in Western countries.

I believe that we Japanese, favoured with tradition and climate, should take a leadership in the breeding of new camellias. In order to meet the requirements of the age, we have to create new types of camellias which are suitable for potting and can be admired even in a small apartment in the city. And, above all, they must have a fragrance. Imagine how wonderful it would be to have a pot of camellia in your room smelling pleasant and soothing.

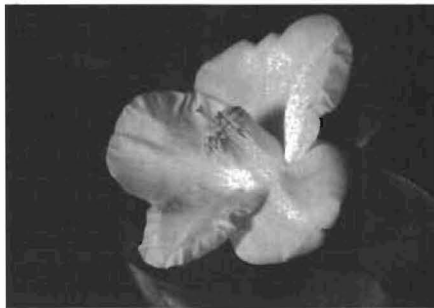
A flower without fragrance is often compared to a man without spirit. From this point of view, I have devoted myself, these ten years, to the creation of fragrant camellias, seeking for a better and stronger fragrance in better colours and shapes. Most of my new flowers are natural seedlings because I could not find enough time for pollination, fully occupied with the daily work as an otorhinologist. All seedlings are taken care of in pots on the roof of my hospital next to the laundry. It is quite a labour just to water all these pots.

I hope this would be of some help for those who intend to start breeding of camellias.

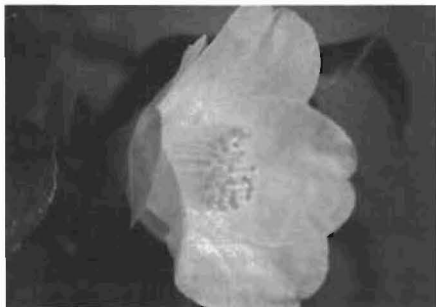
## Chance Seedlings



No. 1 (No. 5)—*Chibô*—Chance seedling of *Matoba-nisbiki*, medium large, semi-double, striped. Fragrant and fertile. Japan Camellia No. 24) 10cm in diameter hose-in-hose shape resembling *Hagoromo*. Delicate pale pink with darker edge. Cylindrical stamen tube or occasionally divided. *Freesia* type fragrance which is somewhat weaker than *Funkô*. Blooming mid-March. Named after (*Satoko Funakosbt*), wife of the originator. It means a soft and pleasant fragrance.



No. 3 (No. 11)—*Mrs. D. L. Nordling*—Chance seedling of *Barbara Clark*. 7.8cm in diameter single. White and very pale pink at edge. Perfect tea-wbisk type stamen tube, highly appreciated in Japan. Soft *hutchuensis* type fragrance. Blooming early March. First prize winner in the department of new flowers at 17th Nagoya Castle camellia show in 1991. *Mrs. Nordling* is a talented American lady, former adjudicator in U.S.-Japan trade negotiation, now works for the arrangement of U.S.-Japan sister states.



No. 2 (No. 9)—*Hana-sbirabe*—Chance seedling of *Barbara Clark*. 7cm in diameter single. Shows a fine color graduation, pink at edge shading to white at center. Yellow filaments. Blooming early March. No Fragrance. *Hana* is flower and *Sbirabe* is a tune, describing its melodious colour graduation.



No. 4 (No. 13)—*Reiga*—Chance seedling of *Sagabatsu'arashi*. 7.8cm in diameter single. White striped red. Flower shape is quite similar to its seed parent. Very vigorous. Weak fragrance. Blooming late autumn to early spring. It means beauty and means elegance.



No. 5 (No. 14)—*Reifû*—Chance seedling of *Sagabatsu'arashi*. 7.8cm in diameter loose peony form with ruffled petals and divided stamens. Weak fragrance. Blooming from late autumn to early spring. Means "Pleasant Breeze".



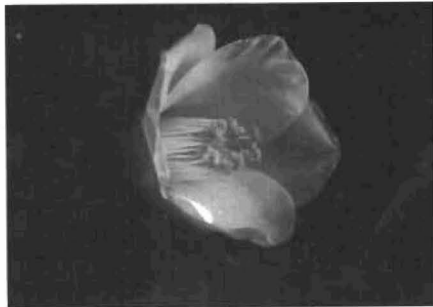
No. 6 (No. 15)—Tōkassen—Chance seedling of Saga-batsu'arasbi. 10cm in diameter. Single but a massive flower with incurved ruffled petals and perfectly cylindrical stamens. Light pink fading white at center. Weak fragrance. Blooming late autumn to early spring. Tōkassen (Tanr Huea Shann) is one of the classic Chinese dramas. Heroine's name is Rikōkun (Lii Sbiang Jiun).



No. 8, 9 (Nos. 18/19)—Kibō—Chance seedling of Kangen, japonica, medium large rose red semi-double with outward curving petals and divided stamens, slightly fragrant). 7-8cm in diameter semi-double. Its long bud composed of white petals edged pink has a resemblance to a handle of a Japanese sword artistically bound with red threads on white background. Fragrant. Blooming mid to end March. Named after (Noriko Funakosbi), the first daughter of the originator.

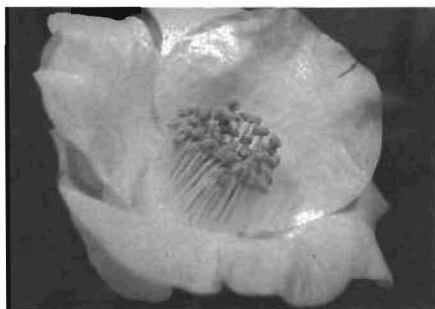


No. 7 (No. 16)—Kamansbi—Chance seedling of Saga-batsu'arasbi. Flower shape resembling to Tōkassen, darker pink finely splashed in red. Slightly fragrant. Blooming late autumn to early spring. Kamansbi (Her Maan Tzyy) is an ancient Chinese court singer from "the Western Range" (the Middle East) in the time of Emperor Gensō (Shyuan Tzong), Chūtō (Jong Tarn), praised for her exotic beauty and plaintive songs.

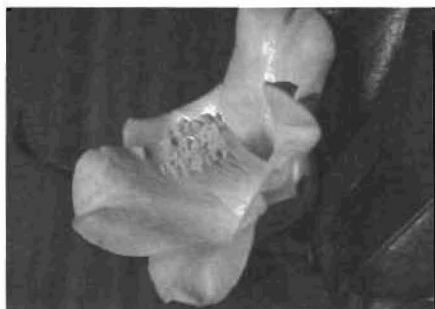


No. 11 (No. 27)—Nao-hime—Chance seedling of Kariginu, japonica, medium large semi-double, striped red). 7cm dia. clean looking white single, a little larger than Kiyoka of Kurume, Kyūsbū, with a similar pleasant fragrance. Blooming mid to end March. Named after (Naoko Funakosbi), the second daughter of the originator. Hime means a young princess.





No. 12 (No. 30)—*Niot-no-miya*—Chance seedling of *Yuri-shibori*. 8-9 dia. single cup shaped flower with one clear red stripe on every one or two petals. Clean fragrance inherited from *Yuri-shibori*. Blooming mid-March. Named after *Niou-no-miya*, Prince of Fragrance) in the 42nd chapter of *Genji-monogatari*.



No. 14 (No. 37)—*Taimu*—Chance seedling of *Mai-fubuki*, finely splashed peony form. 7cm dia. adorable single flower with ruffled petals. White delicately shaded with soft pink. Tea-white type cylindrical stamens with yellow filaments. No fragrance. Blooming late autumn. Named "Wishing Dream", as its yellow filaments may suggest a possibility of creating a yellow flower by hybridization with *c. chrysantha*, while it proved to have poor fertility.



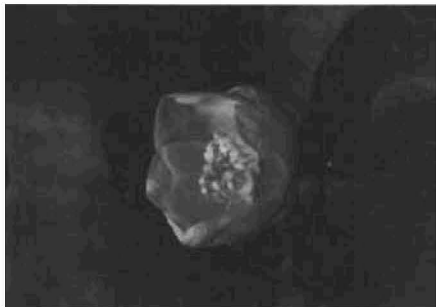
No. 13 (No. 36)—*Mado-akari*—Chance seedling of *Mado-no-tsuki*, triploid, rarely sets seed. 8-9cm dia. white semi-double flower with massive cylindrical stamens, which makes "Double *Mado-no-tsuki*", pure white in early spring changing into pale pink at higher temperature in late spring. No fragrance. *Mado-akari* means the sunlight through a window.



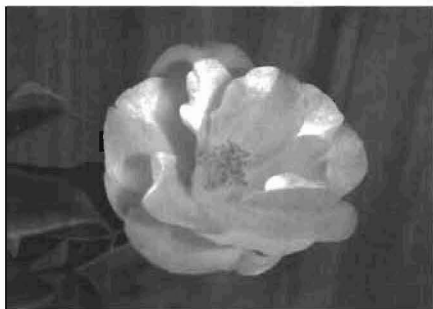
No. 15 (No. 38)—*Shōjō*—Chance seedling of *Seiōbo*. 7-8cm dia. single. White or pale pink deepening to light pink at edge. Colour graduation is even better than *Seiōbo* but the flower shape is flatter. Not fragrant. Autumn flowering. *Ikken-shōjō* means "Love at First Sight"



No. 17 (No. 40)—*Manpuku-ji*—Chance seedling of *Setōbo*. 10cm dia. single light rose pink. Better flower shape with incurved petals. Blooming late autumn to early spring. High fertility. Awarded at 11th Nagoya Castle camellia show in 1988. The original tree was contributed to *Manpuku-ji* Temple, one of the five noted temples in Aichi prefecture, located in Miyoshi, Nishi-kamo county and is still preserved there on the left of the main gate.

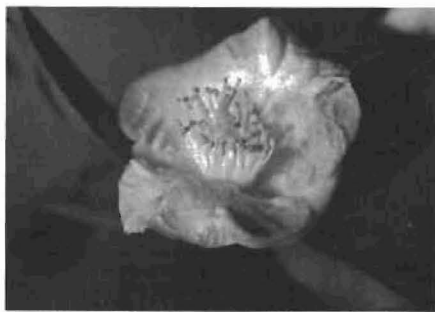


No. 18 (No. 42)—*Hōraikō*—Chance seedling of *Engei-tarō'an*. 7cm dia. single light pink deeper at edge. Better shape with incurved petals. Fresh fragrance. Not very sturdy and no fertility. Meaning "Fragrance of *Hōrai*". *Hōrai* is a mythological island on the eastern sea where lives a hermit with a magical power.



No. 19 (No. 44)—*Bodaisbin*—Chance seedling of *Donation* (*C. x williamsii*). 9-10cm dia. semi-double flower with better-shaped tubular stamens than *Donation's* divided ones. Flower color changes dramatically as it opens, from light lavender pink to bright pink, as if it were making every effort to retain its beauty to the last moment, hence named *Bodaisbin*, Buddhism spirit of everlasting search for truth. No fragrance. Blooming early March. One of the most highly appreciated flowers by the members of Nagoya Camellia Society.

## Hybrids



No. 20 (No. 46)—*Margined Wirlinga Belle*—(temporary name) *Juraku* (*C. japonica*) x *Wirlinga Belle* (hybrid). Flower shape is similar to *Wirlinga Belle*. Very pale pink margined with pink. Profuse flowering habit. Flowering early March. Sweet fragrance similar to *Wirlinga Belle*. *Juraku*, which has a beautiful color graduation as well as high fertility, was used as the seed parent in order to get a "picoteed *Wirlinga Belle*". *Wirlinga Belle* is very prolific and has produced many seedlings in various colours from white to pink or rose red in the same flower shape with almost the same fragrance. One of them is not pendulous but upright.



No. 21 (No. 48)—*Tsuji-ga-bana*—*Sode-kakusbi* (*japonica*, believed triploid) x *Asabi-no-minato Higo*, sport of *Higo-kyô-nishiki* 10cm dia. single, white flower striped red inheriting large incurved petals from *Sode-kakusbi* and *Higo* type flared stamens from *Asabi-no-minato*. Leaves are very similar to *Sode-kakusbi*'s. Flowering late March. Not fragrant. *Tsuji-ga-bana* is a traditional fine tie dye art for Kimono originated in the middle of the Muromachi era to the Momoyama era. *Ryûbi*—Same breeding as *Tsuji-ga-bana*. Pure white in winter and pale lavender pink in spring. No fragrance. (Japan *Camellia* No. 31)



No. 23 (No. 55)—*En-kun*—*Enget-tarô'an*, *japonica* x *Ume-ga-ka* (*vernalis*, fragrant) 10cm dia. elegant semi-double pink flower with white cylindrical or occasionally divided stamens. With a fragrance similar to *Ume-ga-ka*. Delightful winter flower. *En*, means elegance.



No. 24 (No. 56)—*Sbōkyō*—*Seiōbo*, believed to be *wabisuke* x *Gozen-no-kaori* (*Japonica*, fragrant/synonym: *Hinoyama-Tarō*, 6-7cm dia. single pale pink petals fading white at center. Flower shape and leaf shape resembles *Gozen-no-kaori*. Same fragrance as *Gozen-no-kaori*'s but slightly intenser. Flowering from late autumn to early spring. *Sbōkyō* (*Sb Chyau*) is the name of the younger one of the beautiful sisters in *San-goku-shi* (*San Gwo Shyy*, the most famous Chinese history novel).



No. 27 (No. 59)—*Seisbi*—Same breeding as above. 6-7cm dia. single pink flower. Trumpet type petals resembling Tulip. Size and thickness of the leaves is between *Sbigi-tatsu-sawa* and *T. D. Wipper*. Comparatively intense fragrance. *Seisbi* (*Sbi Sby*) is a peerless beauty in *Go* (*Wu*) in the *Shunjū* era (*Chuen Chiou*) and *Fusa* (*Fu Cha*), Lord of *Go*, endangered his dynasty bewitched by her beauty. She is supposed to be a hybrid of Chinese and Iranian and said to have had an attractive body smell like *Rosa rugosa*.



No. 25 (No. 57)—*Gyōsbū*—*Takane-no-yuki*, *Japonica*, faintly fragrant x *Ozora*, large *Higo sasanqua*. 9-10cm. dia. single flower. White washed with bright pink, the colour characteristic of *sasanquas*, with almost cylindrical stamens. Petal-scattering type. Small leaves and pubescent petioles. *Sasanqua*-type fragrance. Late autumn flowering. Its bright colour looks so pretty in the light of rising or setting sun in autumn, hence named *Gyōsbū*, Autumn Dawn.



No. 28 (No. 50)—*Yobukodori*—(*Japonica*) x *C. trichoclada*. This seedling had the first flower at 6 years of age. 4cm dia. neatly shaped miniature single. Plum blossom shaped notched pink petals with a vague white margin. Intense fragrance different from *C. fraterna* or *C. rosae-flora* inherited from *C. trichoclada*. Characteristics of leaves are almost similar to *trichoclada* but the size is several times larger. Slender branches are covered with hair and petioles and part of leaves along the major vein are also pubescent but less noticeable than that of *trichoclada*, which is extremely hairy as its name shows. Vigorous and profuse flowering habit. Flowering not laterally but apically. It was named *Nittai*, abbreviation of *Nippon-Taiwan* from its breeding of a Japanese *camellia* seed pollinated by a species originated in *Taiwan* (also in *Zhejiang*, and *Fujiang*). No exaggeration to say one of the masterpieces of interspecific hybrids.



No. 26 (No. 58)—*Mrs. June Hamilton*—*Sbigi-tatsu-sawa*, seedling of *Seiōbo*, x *T. D. Wipper* (hybrid, seedling of *Tiny Princess*) 5cm dia. single flat flower. White petals unusually marbled with bright pink. Profuse flowering. Suitable for a pot as it is pendulous and not too vigorous. Slightly fragrant. Flowering early March. *T. D. Wipper* produces abundant pollen. *Mrs. J. Hamilton* is a friend of *Mrs. D. L. Nordling*. Named for a pleasant memory when we had them as our guests.

Although interspecific hybrids would have more botanical significance than natural seedlings, ironically enough, chance seedlings almost like "shooting in the dark" may often produce flowers of more horticultural value. Is it because our sense of beauty and standard of judgement is too much influenced by traditional japonicas? We need fragrance and also a longer life of flowers in order to make camellias a more important interior plant in the future. A large double flower with pleasant fragrance is my dream but I have found that formal double flowers have no fragrance. Among my fragrant seedlings, Funkō is semidouble and has the strongest fragrance. Nittai has the second strongest fragrance, which is

even stronger than its pollen parent, *C. trichoclada*.

Comparing to other human senses, the sense of smell is kept deep in the memory. You may have noticed that a memory awakened by a smell is sometimes very clear and well retained. Although the sense of smell will deteriorate with age, the ability of recognition is kept better than that of detection because it is backed up by rich experience of life. I hope fragrance of camellias may add to the pleasure of our life.

This is an abstract of the article published in the bulletin of Nagoya Camellia Society No. 25, November, 1992. The second (No.) shows photo No. of the bulletin.



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## ICS TREASURY REPORT RECEIPTS AND DISBURSEMENTS

US \$

1992                      1991                      1990  
5/29/93

### INCOME

Net Subscriptions Received	'91    922	'90    82	'89    843	
	'92 <u>14,060</u>	'91 <u>2,335</u>	'90 <u>11,774</u>	
	14,982*	9,417	12,617	
Advertising	520	320	320	
Interest	1,356	2,733	2,737	
ICS Register Donations	<u>2,874</u>	<u>12,048</u>	<u>4,790</u>	
<b>Total Income</b>	19,732	24,518	20,464	

### EXPENDITURES

Stationery, Postage, Etc.	913	769	103	
Journal Expensives				
Printing	7,235	8,937	9,764	
Postage	1,866	2,132	2,232	
Subscription Envelopes	226	304	250	
Translation of Titles	-		40	
Membership Lists			<u>1,052</u>	
<b>Total Journal Cost</b>	9,327	11,373	13,338	

ICS Register Expenses				
Tom Savige		614	741	
Tama No-Ura Painting, Etc.	835	3,835	1,693	

Other Expenses				
US Bank Charges	18	20	6	
State of GA Registration	<u>15</u>	<u>15</u>	<u>15</u>	
<b>Total Expenditures</b>	11,108	16,626	15,896	

<b>INCOME - EXPENDITURES</b>	8,624	7,892	4,568	
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### ICS CAMELLIA REGISTER FINANCIAL STATUS

Details of transfer of \$80,000A to Eric Craig

Cost of Transfer in \$US (Transfer made in Sept. '92)	58,413
---	--------

ICS Register Sales from USA, UK & Channel Isles	-29,371
---	---------

ICS Register Donations + Loans - US Register Expense	-13,899
--	---------

Required Drawdown of ICS Available Funds	15,143
--	--------

Funds on Deposit in Australia, as of 6/1/93	95,419 Australian \$
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•See details on following table.

GED: 6/27/93

**SUBSCRIPTIONS RECEIVED  
BY ICS TREASURER  
US\$**

For 1990 & 1991	Total	Expenses	Net	% Remitted
Spain	960	38	<u>922</u>	96
	Total for '90 & '91		922	
For 1992				
Africa	55	0	55	100
Asia	1,023	194	829	81
Australia	2,859	886	1,973	69
Channel Isles	1,827	201	1,626	89
France	1,006	121	885	88
Germany	-	-	2,015	No Data
Italy	379	0	379	100
New Zealand	586	164	422	72
Portugal	140	32	108	77
Spain	492	20	472	96
United Kingdom	4,540	1,044	3,496	77
				Two Year Average
U.S.A.	1,895	95	<u>1,800</u>	95
			Total for 1992	<u>14,060</u>
			Total for Year '92	14,982

GED: 6/27/93

## ICS BALANCE SHEET

Assets	<u>1992</u> 5/31/93		<u>1991</u> 5/29/92		<u>1990</u> 3/29/91
Debtors	0		0		80
Cash at Bank	17,545	cash	6,477	cash	4,985
	<u>4,994</u>	CD's	<u>36,480</u>	CD's	<u>30,000</u>
Total Assets	22,539		42,957		35,065
Liabilities	12,359*		0		0
Net Current Asset	10,180		42,957		35,065
Designated Funds					
Life Membership	5,281		5,281		5,281
ICS Register Fund	<u>0</u>		<u>11,860</u>		<u>4,058</u>
	5,281		17,141		9,339
Accumulated Funds					
Beginning Balance 5/29/92	42,957	3/29/91	35,065	3/1/90	30,497
Income - Expenses	8,624		7,892		4,568
Register Fund	-13,899				
Fund Drawdown	<u>-15,143</u>				
TOTALS	<u>22,539</u>		<u>42,957</u>		<u>35,065</u>
Less Designated Funds	5,281		17,141		9,339
Less Liabilities	<u>12,359</u>				
Available Funds	<u>4,899</u>		<u>25,816</u>		<u>25,726</u>
Total ICS Funds	<u>22,539</u>		<u>42,957</u>		<u>35,065</u>

\*ICS Register Publishing Fund loans due 13 Directors

GED: 6/27/93

### NOTES ON 1992 ICS FINANCIAL REPORT

1. 1992 receipts and disbursements have been extended through May 31, 1993 in an attempted to better depict the 1992 financial year. No 1993 subscriptions have been included in the 1992 financial summary.
2. Please note that for the first time in recent history, the subscriptions received in 1992 by the ICS Treasurer have more than exceeded our total 1992 expenditures. This excludes the ICS Camellia Register financing which will be explained below.
3. Each Region is again urged to follow the ICS Diary of Administration circulated in June, 1989. Final remittances for the 1993 Financial Report should be submitted during the first quarter of 1994.
4. Remittances to ICS US Treasurer should be made by wire transfer in U.S. \$ if at all possible.
5. As noted on our Receipts and Disbursements table, \$80,000A were transferred to Australia in September 1992 to finance the publication of the ICS Camellia Register. This transfer required the drawdown of \$15,143US of our ICS Available Funds. As of June 1, 1993 Australia had \$95,419A on deposit and these funds should be more than sufficient to finance the republication of the ICS Camellia Register.

GED 6/27/93

The Financial Records of ICS have been reviewed by the auditor and a copy is on file with the Secretary and Treasurer.

ICS Executive



# REPORT OF REGISTRAR 1991-93

THOMAS J. SAVIGE, AUSTRALIA

COMPTE RENDU REGISTRAR

INFORME DEL REGISTRO

RELOZIONE DEL REGISTRO

BERECHT DES REGISTRAR

Since the last Directors meeting in New Orleans, the International Camellia Register was printed and distributed in all areas except the USA. This was because, during the distribution it was found that a percentage of the Registers were poorly bound and a section of 14 pages in the section "W" was omitted. As only the USA had not begun individual distribution at that time and they decided not to go ahead with it, they are now the only area who have not distributed the Registers to those who ordered them.

Negotiation with the printers in Singapore resulted in an offer to reprint the entire run at no charge. It was decided that this opportunity be taken to correct certain of the contents, in particular the Oriental Appendix. This is the section of 82 pages at the end of Volume II in which the oriental characters were found to have more than acceptable errors, and changes would not cause a roll-over of pagination requiring new printing plates beyond their section. However the revision to this section increased it by one page. Because of the mechanics of book publishing this meant an increase of four pages. Therefore the opportunity of using the extra blank pages for errata was decided on. The errata was limited to the correction of erroneous orthography of valid names only, and will be bound in the front of vol. II, not as a loose page as originally planned.

This extra work beyond the original agreement for reprinting will be at the cost of the ICS and the amount is not yet known, except the revision of the 82 pages of the Oriental Appendix at \$25 Aust each for the computer work.

It was also decided to use a different colour on the cover and a different numbering system by using the prefix "ICS". This is to make it clear which is the valid

publication and to preserve the integrity of a limited edition publication. It is believed that those to whom the Register has already been distributed should be asked to tear out and return the title page in vol. I to receive a copy of the reprint as a replacement of the Register.

As was anticipated, the distribution of the Register brought considerable correspondence which included new data and catalogues which added new names, changed first publication date, which sometimes revised the valid name, as well as pointing out errata in the Register. As the cut-off date for material to be included in the Register was 31st Dec 1990, a supplement is in the course of preparation which will include all further data that has come to had on cultivars validly published up to this cut-off date as well as any errata from the present publication. Early catalogues from Japan, Australia and Italy recently received, have added a substantial number of new names, and it is envisaged that the supplement will be in the order of 64 pages which are planned to be in the same format as the Register but with a soft cover. This supplement cannot be completed until the republished Register is distributed in the USA and further data is received from there. It is known, for example, that considerable numbers of camellia cultivars have been imported from China to the USA and it has been found that some of them are the same as Japanese cultivars, long grown in USA under their USA synonyms, such as 'Purity', 'Pink Perfection' etc.

I have been informed by Dr. Chris Brickell, Director general of the RHS, who has been involved in number of cultivar Registers, that it is the usual thing for a new Register to bring forth a considerable amount of new information from the files of interested horticulturalists and that sup-

plements or revisions usually become necessary after it has all settled down. The RHS produce an annual supplement to the various cultivar Registers for which they are responsible.

It is envisioned, if the ICS Directors are agreeable, and the finance is available that the first supplement should be published in 1994 and this supplement would be limited to completing and correcting the information on camellia cultivars up to the cut-off date of the Register.

To look to the future, any further supplements would be largely devoted to the new registrations and validly published names occurring after this cut-off date. It is suggested that a second supplement be planned to include all new camellias in the 5 years to the end of 1995 and this be published in 1996.

Looking further into the future the idea would be that these would be incorporated into a new edition of the Register, but it must be said that there is an enormous amount of work involved in doing this. Purely for planning purposes I would propose that the year 2001 would be a suitable time, 10 years after the original cutoff date. At which time, if I am still around, I would be 88 years old. It thus behoves the ICS to start looking round for a replacement in the next few years.

As I proposed in my report at New Orleans, the Society badly needs an Oriental Registrar. If one had existed before the publication of the Register I am sure that its Japanese portion would have been more accurate. Mr. Shinoda did an amazing job, virtually off the cuff, but if he or a similar person had accepted the position as Oriental Registrar and had time to accumulate all the necessary backup data, they would have automatically had the complete checking of all oriental names in the

Registrar proofs. In this case the final proofs were not sent to him as it was not thought fit to further involve a private person in all the extra work involved. I might add he has since done this rechecking most graciously and we are deeply indebted to him for his efforts.

I would suggest that our Japanese Directors seriously consider such an appointment and endeavour to get the agreement of the National Camellia Societies in Japan and also, perhaps in China.

The members of the UK region will be putting forward, at the Director meeting in South Africa, suggestions for controlling the process of registering camellia cultivars.

It was initially envisaged that each region, other than that already covered by National Registration Authorities, would have arranged their own local registration committees for the purpose of checking local applications, and arranging any reprint of the application form in the local language, as well as deciding on a registration fee suitable for their area. The only activity has been from the UK region, who have also handled an occasional application from Italy. It is desirable that applications from other areas, such as France, Italy, Germany and Portugal-Spain and Japan have someone locally appointed to vet applications as far as accuracy of description and actual existence as a new cultivar is concerned. All that can be done as far away as Australia is check that the actual name selected is according to the nomenclature code and to register it.

If it is decided that a Certificate of Registration is desirable, this can be arranged. It is being put to the Annual Council meeting of the ACRS in Australia to see if there is any interest here.

# REPORT OF THE MEMBERSHIP REGISTRAR

WALTER KRZYMOWSKI, U.S.A.

COMPTE REND DU REONSABLE DES MEMBRES

BERICHT DES MITGLIEDERSCHAFTREGISTRARS

RELAZIONE DEL SEGRETARIO DEL REGISTRO DEI SOCI

INFORME DEL SECRETARIO DEL REGISTRO DE SOCIOS

As in prior years, subscriptions (membership dues) fall due on January 1st. The Board of Directors has set the subscription rates for the 1994 as noted in this *Journal*.

Membership representatives are asked to report to me any changes or corrections to the

membership booklet so they can be included in an appropriate newsletter.

Support the I.C.S., urge your fellow camellia enthusiasts to enter their subscriptions to the International Camellia Society for 1994.

## **ICS Members' Subscription Rates in 1994 and Membership Representatives to whom payable - please use enclosed envelope to mail your dues to your I.C.S. Representative.**

**AFRICA (R 13.00, or Husband and Wife R 15.00)** Mr. Leslie Riggall, Fern Valley, Igwababa Road, Kloof, 3600 Natal, S.A.

**ASIA (Y2400, or Husband and Wife Y3300)** Mr. Hiroshi Tsushi, 33F Sunshine Bldg., 3-1-1, Higashi Ikebukuro, Toshima-Ku, Tokyo 170, Japan

**AUSTRALIA (\$18, or Husband and Wife \$23)** Miss N. J. Swanson, 43 Wellington Road, East Lindfield, NSW 2070

**FRANCE (80.00 Frs, or Husband and Wife 100.00 Frs)** M. Claude Thoby, Levieux Grand Chemin, Route De Paris, 44470 Carquefou

**GERMANY (30.00 DM, or Husband and Wife 35.00 DM)** Dr. I. Batzenschlager, 830 Landshut, Altsdtadt 28, Germany

**ITALY (L. 20,000, or Husband and Wife L. 25,000)** Arch. Franco Giorgetta, Via Fiori Chiari, 8-20121, Milano

**NEW ZEALAND (\$20.00, or Husband and Wife \$22.00)** Mrs. R. J. MacDonald, "Westwyn" Creamery Rd., 3 R.D. Waiuku, Auckland, N.Z.

**PORTUGAL (E1000, or Husband and Wife E. 1200)** Senhora Clara de Seabra, Praceta Prof. Egas Moniz, 167-4 Esq 4100 Porto

**SPAIN (P. 1300, or Husband and Wife P.1500)** Don Juan Armada Diez De Rivera Avda Doctor Arce 4. 28002 Madrid

**UNITED KINGDOM & ISLE OF MAN (£8.50, or Husband and Wife £ 11)** Mr. Herbert C. Short, 41 Galveston Road, East Putney, London, SW 15 2RZ

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**UNITED STATES (\$ 13, or Husband and Wife \$ 16)** Mrs. Edith Mazzei, 1486 Yosemite Circle, Clayton, California 94517

Annual subscriptions fall due on the 1st of January each year and Members are requested to pay them to the appropriate Membership Representative before the 1st June at the latest. Please use the enclosed envelope.

# 1993 I.C.S. MEMBERSHIP

AS OF JUNE 30, 1993

	LIFE		REGULAR		TOTAL
	SINGLE	COUPLE	SINGLE	COUPLE	
Australia	8	2	98	59	228
Austria			8		8
Belgium			2	2	6
Channel Is.	16	1	68	28	142
China			4		4
Denmark			2		2
France			49	18	85
Germany			121	27	175
India			1		1
Italy	2		11	10	33
Japan	20	1	55		77
Korea	1				1
Mexico			1		1
Netherlands			2		2
New Zealand	5		35	36	112
Portugal			5	14	33
Rep of Ireland	1		2	2	7
South Africa	10	1	11	1	25
Spain	1		33	1	36
Swaiziland		1			2
Switzerland			6	6	12
United Kingdom	11	2	189	70	344
United States	9		90	51	201
Zimbabwe	1	1			3
Total	85	9	793	322	1540

# NUCCIO'S NURSERIES

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TAMA AMERICANA - TAMA BAMBINO - TAMA BEAUTY - TAMA  
ELECTRA - TAMA GLITTERS - TAMA VINO - WHITE RUSTICANA*

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CAMELLIA OLEIFERA "JAUNE" x CAMELLIA HIEMALIS  
"KANJIRO" HISTOIRE D'UNE PASSION (Page 44)



**'Happy Higo'**

*Nuccio's Nurseries*





*Tama Americana* (N #9103T)—Rose-red with broad white border. Medium, semi-double with frequent petaloids. Medium, up-right, open growth. E.M.



*Tama Beauty* (N #8915)—Rose-pink, bordered white. Medium to large loose peony. Medium, bushy growth. E.M.



*Tama Electra* (N #9127)—Small to medium, single, brilliant dark red, bordered white. Vigorous, compact, up-right growth. E.M.



*Tama Bambino* (N #9212)—Rose-pink, bordered white. Miniature peony form with narrow, pointed petals. Medium, up-right growth. E.M.



*Tama Glitters* (N #8804)—Red bordered white. Medium to large semi-double to loose peony form. Medium, up-right, spreading growth. E.M.



*Tama Vino* (N #9130T)—Small to medium, semi-double with long, narrow petals. Wine-red, washing to broad white border. Medium, up-right growth. E.M.





**'Red Hots'**

*Nuccio's Nurseries*



***'K. Obara'** - Medium to large white, semi-double with wavy upright petals as flower matures. Medium, up-right, compact growth. M.L.*

*Nuccio's Nurseries*



*Wembley — London — Easter 1993, Sally Courts "Town Garden"*



***'Boozy B.' Non-Retic Hybrid  
Named for Boozy Becker, Brookhaven, MS.***





***Presentation of Camellia 'Eric Baker'  
David Landale, Secretary, Duchy of Cornwall, Michael Galsworthy, ICS Member  
Prince Charles; Eric Baker, Retiring Nursery Manager; Roger Halliday, Duchy Land  
Steward; Prince of Wales presents a Camellia***



*Tray of 9—North California Camellia Show, Walnut Creek, Ca. - Robert Ebrhart's Tray.*

*Top Row - Lemon Drop, Miss Muffett, Confetti Blush.*

*2nd Row - Black Tie, Grace Albritton, Red Buttons.*

*3rd Row - Betsy, Bemoto's Red Formal, Mansize*