

**INTERNATIONAL ORGANIZATION OF CITRUS VIROLOGISTS**  
Board of Directors 1992-1995

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**IOCV NEWSLETTER**

**July 1995**

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**13TH CONFERENCE OF IOCV**

The IOCV Conference will be held from November 16-23 at the Fujian Academy of Agricultural Sciences, Fujian, China. A Pre-conference workshop on detection of citrus greening will be held from November 13-16. This workshop will be coordinated by Drs. Bove and Garnier. A Post-Conference tour will be held from November 24-29, this includes includes a flight to Chengdu and visits to the Dujiangyan, Zongqing, Ziyang, Neijiang, Zigong, Dazu, Beibei, and Chongqing citrus areas by motorcoach. This Conference promises to be exciting with many papers being presented.

The registration fees for the Conference, November 16-23, will be \$40 more than as listed in the 2nd announcement. The registration fee will include a copy of the Proceedings of the 13th Conference. Registration fees for IOCV members will be \$340 and Non-IOCV Member Delegates will be \$390 if paid before July 31, 1995. After this date, there will be a \$50 fee for late payment. Remember abstracts are due by July 31, 1995.

To transfer funds for the IOCV conference, you need to separate transactions, one for the conference and one for the post conference visits.

**CONFERENCE** The draft should be payable to ICBC Fuzhou Br. and deposited in Acct No. 032490101858 of the Fujian Development Company of Agricultural Fine Varieties, in the Industrial & Commercial Bank of China. Funds should be routed through Chemical Bank of New York, Swift (Chem US 33) to Acct. No. 400-057778. The routing number of that bank is 021000128.

**POST CONFERENCE** The post conference fee should be transferred to the Chongqing Guest House Limited Company, Acct No. 148250034, at the China Bank, Chongqing Branch, 186 Minzu Road, Chongqing, China. Funds should be routed through China Bank of New York. Routing number of that bank is 026003269.

Address communication about the 13th Conference of IOCV to Prof. Ke Chung, Chairman, Organizing Committee of the XIII Conference of IOCV, Fujian Academy of Agricultural Sciences, 41 Hualin Road, Fuzhou 350003, Fujian, China (Phone: 86-591-7841771 ext 401; Fax: 86-591-7840650).

**FINANCIAL STATUS OF IOCV AND PROCEEDINGS OF THE 13th CONFERENCE**

The financial status of IOCV has deteriorated over the last several years. This is attributable primarily to the high cost of publishing the proceedings. Some years ago, sufficient funds were available to absorb extra costs of publication. However, returns from the 12th Proceedings covered only about half of the publication costs. Total page-charge revenue was just over \$4,000 and we estimate that we have sold about 200 volumes at \$35 (or about \$7,000). Total publication cost excluding reprints for the 12th Proceedings was about \$20,000. Authors are charged a small handling fee above the cost of producing reprints, but we still paid out more than we received in reprints. The remainder of the costs were absorbed from reserves. We were forced to borrow money

from the Wallace and Schwarz funds in order to pay the printer for the 12th Proceedings (with approval from the Executive Committee). These funds have been largely restored from sales of old Proceedings and membership fees. However, at the present time, IOCV has almost no operating capital.

We feel that the publication of the Proceedings must be self-supporting. Each conference has paid for itself, and in a few cases, some additional funds have come into the treasury from the Organizing Committee. Membership fees should pay for newsletters and administrative costs and should not be used to support publication since a copy of the Proceedings is not included in the dues.

**THE COMMITMENT MADE TO PUBLISH 5 FREE PAGES IN THE ANNOUNCEMENT FOR THE 13TH CONFERENCE IN CHINA CANNOT BE MET. AUTHORS WILL BE ASSESSED A PAGE CHARGE OF \$50 PER PAGE ON ALL ARTICLES. ABSTRACTS OF ALL PAPERS PRESENTED AT THE MEETING WILL BE PUBLISHED FREE OF CHARGE IF A FULL-LENGTH OR SHORT ARTICLE IS NOT SUBMITTED. THE PRICE OF THE 13TH PROCEEDINGS WILL BE INCREASED TO \$40 US.**

We apologize for the large increase in publication charges and the lack of earlier notification. However, without such changes, it would not be possible to publish a Proceedings of the 13th Conference.

A. Catara, Chairman  
R. F. Lee, Chairman-Elect  
C. N. Roistacher, Past Chairman  
D. J. Gumpf, Treasurer  
L. W. Timmer, Secretary

**COURSE ON THE DETECTION ON THE GREENING LIBEROBACTERS BY DNA TECHNOLOGY**

FUZHOU, November 13 to 16, 1995

The course will illustrate how the two greening liberobacters can be detected by DNA hybridization and/or by PCR. Details of the course have been given in the announcement brochure of the 13th IOCV Conference. The course can only be given if more than 15 participants register. Those wishing to take the course should write directly to J. M. BOVE for further information and payment of registration fees (250 US\$) before August 31, 1995. Please inform J. M. BOVE as soon as possible whether you are going to participate, so that he and MONIQUE GARNIER know as early as possible if the the course will be given. Please contact:

Prof. J. M. BOVE  
Laboratoire de Biologie Cellulaire et Moleculaire  
Centre INRA de Bordeaux  
71, avenue Edouard Bourleauz- B.P. 81  
33883 VILLENAVE D'ORNON CEDEX, France  
fax: (33) 56.84.31.59

## SCIENTIFIC MEETING HELD IN BRAZIL ON CITRUS VARIEGATED CHLOROSIS

A meeting was held on March 7 and 8 in Sao Paulo, Brazil, on the present status of the scientific research on citrus variegated chlorosis (CVC). The meeting was organized by the Scientific Department of FUNDECITRUS, a growers' and processors' fund for defense of citriculture. FUNDECITRUS finances as well as conducts scientific work on citrus with priority for CVC. CVC is a xylem-limited vascular disease of citrus caused by *Xylella fastidiosa*, first detected in Sao Paulo in the late 1980s, and now widespread over the commercial areas of the state. Researchers from Argentina and the States of Sao Paulo and Parana of Brazil, areas affected by CVC, presented reports and visited the FUNDECITRUS laboratory and field experiments. Cooperative researchers from the Citrus Research and Education Center, University of Florida, Lake Alfred, were also invited to make presentations on modern diagnostic procedures and approaches for scientific research. The major conclusions of the meeting were: 1) The spread of the disease is very fast, but severity is restricted to certain areas of Sao Paulo state and Argentina, so far; 2) CVC is a disease of sweet oranges, apparently having little effect of other citrus varieties; 3) 'Pera' sweet orange seems to be the most susceptible cultivar; 4) Epidemiology indicates significant spread via nursery trees as well as by leafhopper vectors; 5) Major leafhopper vectors in citrus are *Dilobopterus* sp., *Acrogonia* sp., and *Oncometopia* sp. The vectors may be monitored by use of yellow sticky traps; 6) Transmission by these insects has been under study since May 1994 with no success up to now; 7) Cleaning of stock material can apparently be achieved by the use of "woodless" buds; and 8) Disease confirmation has been made inexpensive by quick inspection under a light microscope of clear xylem extracts obtained with a syringe. During the meeting, the FUNDECITRUS laboratory in Araraquara, Sao Paulo, was inaugurated and named after the eminent Brazilian plant pathologist, Dra. Victoria Rossetti, who participated in the very simple but touching ceremony.

Submitted by Dr. J. Lima

## CVC SURVEY IN BRAZIL

The results of the latest survey conducted in 1995 by Fundecitrus, Brazil, in Sao Paulo State indicate "CVC is present in 26% of the plants and when we consider an orchard, CVC is in 88% of the orchards in Sao Paulo State."

## SUMMARY OF THE THIRD INTERNATIONAL WORKSHOP

The 3rd International Workshop on Citrus Tristeza Virus and the Brown Citrus Aphid, *Toxoptera citricida*, in the Caribbean Basin: Management Strategies, was held at Lake Alfred, Florida, May 15-18, 1995. The workshop had 150 registered participants from 26 countries (see list of participants). Progress reports were presented by invited scientists on research and other information on citrus tristeza virus (CTV) and the brown citrus aphid (BrCA) on the following topics:

- \* Epidemiology and survey
- \* Management strategies for CTV and aphid control
- \* Molecular characterization of CTV strains
- \* Development of host resistance
- \* Clean stock/budwood certification programs
- \* Mild strain cross protection

Country reports and research information were presented as posters and displayed after each related topic. These are included in this Proceedings.

The final workshop session was a discussion of the current situation of the CTV/*Toxoptera citricida* complex in the Caribbean

Basin, and Central and North America. Based on the information available from CTV and *T. citricida* surveys in every country, the five major points were:

1). CTV is present in most of the countries of the Caribbean Basin, but as yet is causing only limited decline symptoms. This situation has over the years caused a delay in the implementation of appropriate actions to prevent the occurrence of CTV epidemics throughout the region.

2). CTV decline symptoms were reported on trees on sour orange rootstock in Panama by that country's delegate. These trees apparently are from the same location where samples reacting positively with the MCA-13 monoclonal antibody were obtained in 1991 and 1992 (Proceedings of the Second CTV/BCA Workshop, 1992).

3). CTV has been detected in low incidence in Cuba and has been spread rapidly by *T. citricida* in one experimental plot. *T. citricida* has now spread over approximately the eastern 40 percent of Cuba, but is not yet found in the main citrus enterprises.

4). Since 1992 *T. citricida* has become firmly established throughout Nicaragua, but has not moved further northward in Central America. This is based on recent surveys for *T. citricida* conducted by scientists from Honduras and Belize. However since 1992 *T. citricida* has spread northward through the Caribbean islands to Jamaica, Haiti, and the eastern end of Cuba.

5). In the Dominican Republic where *T. citricida* became established in 1992, there is no evidence as yet of CTV decline symptoms in trees on sour orange rootstock. However it appears that the prevailing non-MCA-13 reactive CTV strains have been disseminated widely by *T. citricida*.

The participants agreed that the well-documented and widespread presence of both CTV and *T. citricida* in most of the Caribbean countries must be emphasized to citrus growers, government officials, researchers, and the public to increase their awareness and encourage responsible action before epidemics occur.

Seven high priority areas were identified and discussed to manage the situation as a regional problem:

- 1). A citrus budwood certification program is needed in almost every country. It might most effectively be instituted at the regional level.
- 2). There is an ongoing need to train personnel for continued surveys for CTV and aphids.
- 3). There must be conscientious and concerted use of CTV tolerant rootstocks.
- 4). Regional centers for CTV detection and characterization may be desirable.
- 5). An expert taskforce might be useful to provide advice about the CTV/*Toxoptera citricida* complex in affected countries.
- 6). A monitoring and reporting system should be developed for *Toxoptera citricida*.
- 7). Education and extension programs on the CTV/*Toxoptera citricida* complex are desirable for citrus growers, nurserymen, farm advisers, government officials, and other concerned parties.

Although all the areas are important, numbers 1, 2, 3, and 7 were given highest priority and discussed in the most detail.

There was most discussion about the need to establish a citrus budwood certification program at a regional level. To overcome the associated politics and border problems among the countries involved, it was suggested that a central, clean budwood program be established at an international institution, for example Centro Agronomico Tropical de Investigacion y Enseñanza (CATIE) in Costa

Rica, Escuela Panamericana de Agricultura "El Zamorano" or Fundacion Hondurena Investigaciones Agricultura (FHIA) in Honduras. There was an offer by Dr. Navarro of Instituto Valenciano Investigaciones Agrarias (IVIA), Valencia, Spain to provide a set of virus-free citrus cultivars to such an established budwood distribution center in the region dependent on availability of international funding to establish the regional center. Furthermore, Dr. Navarro offered to assist in the cleaning up by shoot tip grafting of specific citrus cultivars of valuable regional importance, and to train personnel at IVIA due to the well-known citrus teaching program (master degree in citriculture, short courses, etc.), the excellent greenhouse and lab facilities and especially the ability to train the personnel in Spanish. Again, this offer is contingent on the formation of a regional center in Latin America and international funding.

With regard to the use of alternative CTV tolerant rootstocks, it was agreed as to the need to start a well-organized substitution for sour orange as a rootstock in each country. It was suggested to establish field trials to evaluate the rootstocks in different type of soils, and to use more than two rootstocks per plantation. All this, of course, by using clean budwood.

It was emphasized that there is a need to utilize all alternatives to manage the CTV/*Toxoptera citricida* complex and to work closely with the Integrated Pest Management Group of the Inter American Citrus Network (IACNET). Finally, it must be emphasized that the workshop participants approved the following Declaration which was written by the IACNET Integrated Pest Management Group delegates with input and advice from the workshop participants. The Declaration follows.

#### **"THE LAKE ALFRED DECLARATION"**

*Technical Issues and Priorities for Improving the  
Financial Viability of Citrus Production and Trade*

**Prepared by the Pest Management sub-group of the  
Inter-American Citrus Network, IACNET  
May, 1995**

#### **Introduction**

1. This Declaration of common concern and intent was developed by participants during the 3rd Regional Workshop on citrus tristeza virus (CTV) and citrus disease management held at Lake Alfred, Florida in May 1995. This workshop was the third in a biennial series. The workshop was attended by about 150 participants from 25 countries, who shared experience and information about citrus pest management problems. The proceedings of these workshops have documented the pandemic spread of the highly efficient vector of CTV, the brown citrus aphid *Toxoptera citricida*, through Central America and the Caribbean, and associated with this, the increasing threat of crop destruction posed by the severe forms of CTV. Participants have shared information about technology and the design of pest management strategies based on evolving biotechnology and new developments in citrus horticulture and crop management.

2. This Declaration will enable participants to adopt a common approach in their advocacy efforts to raise awareness about the financial and economic implications of citrus pests and particularly CTV in the region. Although there are variations in details about pest dynamics and important specificities at the level of government action and institutional response to the needs of improving the citrus industry, there are sufficient commonalities to warrant the formulation and promotion of a common strategy so that a cross-country, programme-level response to the CTV threat could be adopted and implemented. Autonomous national programmes will be essential to manage CTV and the associated technology required for

citrus improvement, but equally, there are elements of the programme, such as the sharing of germplasm, the adoption of common protocols and the implementation of multi-locational rootstock evaluation trials, that will benefit from there being a common position and goals to safeguard and improve citrus production.

3. A second intention of this Declaration is to provide a foundation for common action to enhance the recognition at an international level about the problems and opportunities to improve citrus production. In particular, this Declaration will be used as an initiating and coordinating statement to enable technical workers active in citrus research and improvement programmes, to inform the relevant authorities, both nationally and internationally, who are active in setting the agenda of the International Commodity Body on Citrus (ICBC), to have access to, and information about the technical issues that have an impact on domestic and international trade of citrus and citrus products.

4. This Declaration is made under the auspices of IACNET. Its intention within the scope and purpose of IACNET is to ensure that the pest management problems of citrus and the extreme urgency of the need for unified action against CTV is adequately integrated with the work of IACNET's other sub-working groups, i.e. post-harvest management, germplasm conservation and utilization and citrus bioclimatology, especially insofar as this integration is reflected in programmes and projects developed and promoted by IACNET and submitted to donors via the ICBC.

**The Economic and Financial Context of Citrus Improvement and CTV**  
5. The pest management sub-working group of IACNET recognizes that current production of citrus is in excess of demand for most market outlets in the world. Efforts to increase demand, expand markets and manage supplies are critical issues requiring high priority in most segments of the citrus industry. Supply and demand imbalances tend to run in cycles and current trends suggest that a balance between supply and demand, or even a greater demand than supply could exist in the near-and medium-term future. This will lead to a resurgence of new orchards that will require significant increases in the supply of new planting material. Even under conditions of commodity over-supply, citrus production requires routine replacement of planting material as well as the need for market diversification and crop improvement via the introduction of new germplasm that underlies the extremely high volume requirement for continuous replanting and hence the supply of high quality, disease free planting material.

6. The extent of the demand for planting material can be approximately illustrated as follows: The 10 major producers in the region cultivate about 440 million trees. Assuming a conservative 3% replacement rate for maintenance purposes only, an annual volume of 13.1 million nursery trees have to be provided (These estimates are based on data contained in the IACNET publication: A Compilation of Citrus Data from the Americas; December 1994).

7. The financial threat posed by CTV, can conservatively be illustrated as follows: More than 90% of the trees in the 6 major producing countries and exporters of citrus in the Caribbean region, are based on sour orange rootstock which is highly susceptible to CTV. This amounts to approximately 77 million trees that would have to be replaced should CTV epidemics occur in these countries. Given the pandemic spread of *Toxoptera citricida* and the data about the incidence of severe strains of CTV, it is highly likely that replacement replantings in the region would be extremely large. The financial implications of this should be obvious enough not to require definitive quantification.

8. Productive trees are the cornerstone requirement of a profitable

citrus industry. Many horticultural and pest (insects and diseases) management issues are primarily resolved by selection of scions and rootstocks that give the best horticultural characteristics with the least requirement for pest control intervention (a level of tolerance or resistance). In citrus new efforts are and will be producing plant material that provides these beneficial characteristics.

**Unifying, Strategic Priorities**

9. A well-managed plant material and plant health management system critically requires a variety of ancillary crop management, research and extension programmes and services. Horticultural suitability needs research in bioclimatology, germplasm conservation and utilization. Similarly, research on rootstock and scion material is one of the foundation requirements of any viable citrus industry and none of the benefits of new citrus production technologies could be delivered to the benefit of farmers if the plant material distributed is latently infected by debilitating disease. Therefore, each country with a viable citrus industry, will, as a high priority, have to adopt a suitable nursery plant production programme.

10. Recognizing the integrated nature of the requirements for a successful system to produce certified plant material, the sub-group herewith calls for the recognition that research and extension services required for a successful citrus plant material production system and service, cannot be separated into individual components or single project elements. Any attempt to improve citrus production must of necessity adopt a holistic approach that will integrate horticulture and plant protection research requirements into a single programme.

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**REMINDER**

This newsletter is being sent only to members who IOCV dues are paid from 1992-1995. If you have colleagues who did not receive a newsletter remind them to pay their dues and I'll send them one. Pete Timmer, Secretary

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**Application for Membership in the INTERNATIONAL ORGANIZATION OF CITRUS VIROLOGISTS**

IOCV is an independent, non-profit association for the promotion of excellence and advancement of research with citrus viruses. Membership is open to anyone who is interested in the virus and other graft-transmissible diseases of citrus.

Name \_\_\_\_\_

Address: \_\_\_\_\_

Country \_\_\_\_\_ Phone No. \_\_\_\_\_

FAX \_\_\_\_\_ E Mail \_\_\_\_\_

**A membership fee of \$30.00 payable to IOCV, is required for the period between the 12th IOCV Conference and the 13th IOCV Conference.**

**Mail or FAX this to Dr. Pete Timmer, University of Florida C.R.E.C., 700 Experiment Station Road, Lake Alfred, Fl. 33850. FAX (813) 956 4631.**

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**NOMINATION OF A NEW CHAIRMAN-ELECT IOCV FOR 1995-1998**

**Enclosed find a ballot for Chairman-elect for 1995-1998.**

Send this completed ballot to (or bring to the 13th Conference): Dr. Pete Timmer, Secretary IOCV, University of Florida C.R.E.C., 700 Experiment Station Road, Lake Alfred, Fl. 33850

**PEOPLE - IOCV**

**JOSIE BOVÉ** reported that important changes have occurred at the Citrus Research Station in Corsica. This station is run jointly by the National Agricultural Research Institute of France (INRA) and the French Institute for Tropical and Sub-tropical Agricultural Research and Development (CIRAD). **BOVÉ** has been appointed Chairman of the Scientific Council of which **MONIQUE GARNIER** and **BERNARD AUBERT** are members. **ROLAND COTTIN**, previously at CIRAD-Martinique, has been director of the station since September, 1994.

Three major research units have been developed at this station: 1) *Plant Pathology and Cross Protection* headed by **CHRISTIAN VERNIER** who had studied with **E. CIVEROLO** at the USDA, Beltsville, Md. 2) *Citrus Genetics* with a new scientist, **FRANÇOIS LURA**, who received his Ph.D. in **J.M. BOVÉ's** laboratory and 3) *Agronomy* with **J. BUFFOON**, previously with CIRAD-Martinique, and **O. PAILLI**, who just received his Ph.D.

**Dr. BOVÉ** further reported that **R. VOGEL**, who retired 4 years ago, agreed to work part time at the Station. A citrus certification program for the production of nursery trees free of diseases has been launched.

In March, 1995, **J.M. BOVÉ** and **LUIS NAVARRO** co-chaired a symposium on recent scientific developments in mandarins. Some of the subjects covered were: new varieties, pathology, plant protection, agronomy, cultural practices, physiology and marketing. The meetings and field trips were held in Corsica. The proceedings of this meeting should be forthcoming shortly.

**CHARLES YOUTSEY** retired on Feb. 28th, 1995 after 39 years with the Florida Bureau of Budwood Registration, Division of Plant Industry, and 17 years as their Bureau chief. Charles will continue to be active doing consulting and working with the International Citrus Nurserymen Society. An excellent article recently appeared about his retirement in the Florida Citrus Industry magazine for April, 1995. **YOUTSEY** recently came through a heart by-pass operation and is recovering well. He looked thin but happy at the recent tristezza workshop-conference in Florida. We wish Charles every happiness in his new life.

**DOUGLAS STANTON**, Chief executive of Outspan International retired after 29 years service to the citrus industry of South Africa. Doug was the director of the Technical Division of Outspan and under his leadership developed the Citrus Improvement Program and the Outspan Citrus Centre. Those of us who are fortunate enough to know Doug and his lovely wife Ethnie have been touched by two warm and splendid individuals. We wish you both much happiness in your new retirement lives.

**RICHARD HENSZ** retired as Director of the Texas A & M Citrus center and was honored on March 31st, 1995 with the unveiling of a historic plaque dedicated to the Citrus Center and to **Dr. HENSZ**. **RICHARD HENSZ** was the principal architect behind the development of the Rio Red and Star Ruby grapefruit.

**KURT MENDEL** continues to be active and writes prolifically to friends on all subjects relative to citrus with his articulate and clear analysis. I feel sure that he would like to hear from old and new friends about your activities. His council and knowledge on citrus is respected and well appreciated. His address is: Prof. Kurt Mendel "Ashusat Bayit", Apt # 1502, P.O.B. 712, Ra'anana 43108, ISRAEL.

**GERD MULLER** was a featured speaker in November, 1994 at the '1st Symposium International de Frutas Tropicales in Colima, Mexico and spoke on tristeza, a serious threat to the large lime industry in the Colima District. At this symposium an award was presented honoring **ALBERT NEWCOMB** for his lifetime service, not only to the lime industry of Mexico, but for all of his efforts to promote good citrus culture in Mexico.

**CHET ROISTACHER** continues in active retirement. He lectured in Spain and for his 9th year at the Instituto Agronomico Mediterraneo at Bari and consulted for the German-Thai agency in January, 1995 addressing the greening problem in Thailand. A booklet-brochure was produced which outlined to the growers and extension workers just why their mandarin trees die at such an early age and how to extend their life by using certified budwood, controlling psyllids and removing any suspect infected branches. **ROISTACHER** also consulted in Texas in March with **MANI SKARIA** and **JOHN da GRAÇA**. **Dr. SKARIA** is developing a certification program for Texas and **JOHN da GRAÇA** is back in South Africa teaching and researching.

**Dr. P.S. REDDY** is developing a certification program for Belize. He and his staff insulated one section of their new greenhouse and with two refrigeration units they overcame one of the big problems for tropical countries, i.e how to index for cool temperature viruses such as tristeza, psorosis, tatterleaf etc. **ROISTACHER** visited Belize in April, 1995 and observed a severe problem due to the propagation of uncertified budwood. Huge losses were observed because of viroids - specifically exocortis in sweet orange on Carrizo and Rangpur lime rootstocks.

**BERNARD AUBERT** recently produced an excellent brochure on the International Society of Citrus Nurserymen (ISCN) with translations in Arabic, French and Spanish. He is also organizing the 5th congress of the ISCN to be held in Montpellier, France with options for pre and post conference trips to Morocco, Portugal, Spain and Italy. The conference and pre and post conference trips will be February 22 through March 12, 1997.

**PATRICIA BARKLEY** recently attended the tristeza workshop in Florida and is featured along with **JOHN FORSYTH** in an excellent and comprehensive review article on the Australian Certification Scheme (see Biggs, (1995) in literature review under the indexing heading).

**ED CIVEROLO** visited with **Drs. A. ÇINAR** and **U. KERSTING** in Turkey in June of 1994 and observed the new destructive disease tentatively called 'citrus chlorotic dwarf' (see references). Currently, the etiology of this disease is being studied by **S. KORKMAZ** in the laboratory of **STEVE GARNSEY** at the USDA, Orlando.

Two outstanding review articles were recently published. These are by **MARIO ROCHA PENA et al.** (1995) on tristeza in Plant Disease (see references) and one by **YOKOMI et al.** (1994) on *Toxoptera citricida* (see references in the last newsletter).

A recent article on psorosis by **GARCIA et al.** indicated a new and interesting structure for the psorosis virus and suggested that it may represent a new genus and possibly a new family related to the tenuiviruses. However, there was no serological relationship to several tenuiviruses. They proposed a new genus, *Ophiovirus*.

**JULIET OCHASAN** reported on the severity of greening in the Cordilla region of the Philippines and suggested that greening is far more

destructive than tristeza. However, tristeza stem pitting is a very serious problem. Farmers tend to hold on to poorly productive trees rather than pull them. Our congratulations to Juliet on birth of a new child which was expected in May.

After the mandarin symposium which took place in Corsica from March 6 to 11, 1995, **Steve GARNSEY** and **Tim GOTTWALD** from Florida as well as **Jean BOURDEAU** (Vietnam) and **Philippe CAO-VAN** from Martinique spent a few days in the laboratory of **Prof. Bove**.

**Dr. Teo CHAN HOCK** from Sarawak (Malaysia) is presently spending a month in the labs of **Prof. Bove** and **M. Garnier** (June 15 to July 13) to learn detection techniques for greening Liberobacter (DNA/DNA hybridization and PCR).

**JOSE BOVE** and **MONIQUE GARNIER** went to Vietnam, Cambodia and Thailand from January 20 to February 25, 1995. They found greening all over Vietnam.

#### DEATHS

**Hiraldio Lima Gómez**, Deputy Director for Research at the Citrus Research Institute of Cuba (IIC), a first class scientist with a broad and deep knowledge in the biological sciences passed away Dec. 19, 1994.

Lima was born in Matanzas Province in 1938. In 1957 he began his college education at the University of Florida, but had to leave a year later for economic reasons. He returned home to teach and later entered the Pan American School in Honduras and then transferred to the Carolina University of Prague, Czechoslovakia where he received a B.Sc. in plant genetics with honors in 1966. He returned to work at the National Center for Research at Havana, and taught plant genetics and did research in plant breeding of citrus and other tropical fruits at the School of Biology, University of Havana. In 1973 he completed his M.Sc. in biological sciences. In 1980 he began working at the IIC and devoted full time to his research in plant breeding. In 1983 he received his Ph.D based on the outstanding results of his research. In 1985 he was selected to lead scientific work at the IIC.

The accomplishments of Lima as director of scientific research at IIC were his masterpiece. He was well prepared as a scientist, but also had extraordinary human characteristics, which conferred upon him a great authority to coordinate work among scientific groups, not only at IIC but of many other institutions. He had a sharp judgement to recognize value and errors; his criticisms were accepted because they were just and wise. He showed great personal courage along with exquisite tact. He created and perfected the production system of certified plant material, fully in practice in Cuba since 1980. In addition, he took part in many technical committees for the National Biological Front, FAO's Biotechnology Network and the Inter American Citrus Network.

Lima never abandoned his love for teaching. He helped and inspired many students while at the University. He continue this tradition as president of the board that confers scientific categories in citrus and as a member of the National Board which confers Ph. D. in the biological sciences. He always found time to guide new scientists. He was a person of deep thinking, not only in science, but in many other field of knowledge and arts. Lime was modesty made a person.

**ALEXANDER MATTHEW**, one of the great pioneers of citrus in South Africa and well known speaker, scientist and author passed away in August, 1994. In 1928, he was director of the Nelspruit Subtropical

Research Station. He was a remarkable citriculturalist and speaker. The library at the Outspan Citrus Centre in Nelspruit was named in his honor.

**Dr. A.P.D. McLean**, noted citrus virologist from South Africa, passed away earlier this year at age 95.

#### SOME RECENT PUBLICATIONS

These are some selected publications, most of which appeared in 1994-1995. They are possibly only a fraction of the important contributions made by IOCV members. Apologies are made for omissions and for not having or including all publications. Publications appearing in the Proceedings of the 12th Conference IOCV are not included. Please send a copy of any of your recent publications to C.N. Roistacher, Dept Plant Pathology, University of California, Riverside CA 92521.

#### BLIGHT

**Labuschagne, N.** 1949 *Fusarium solani* as a root pathogen of citrus - an overview. *Citrus Journal* 4 (5):22-24.

#### CITRUS CHLOROTIC DWARF

**Çinar, C., S. Korkmaz and U. Kersting.** 1995 Occurrence of whitefly-borne citrus virus disease in Turkey. *FAO Plant Prot. Bul.* (in press).

**Korkmaz, S., A. Çinar, U. Kersting, S.M. Garnsey.** 1995. Citrus chlorotic dwarf virus: a new whitefly-transmitted virus disease in Turkey. *Plant Disease* (in press).

**Kersting, U., A. Çinar, S. Korkmaz and N. Önelge.** Diagnosis of citrus chlorotic dwarf virus by biological indexing. *Turkish Journ. of Phytopathology* (in press).

**Sae, G. and A. Çinar.** 1994. A study on the elimination of crinkly-leaf-type disease on some citrus cultivars by the method of shoot tip grafting *in vitro*. p. 351-351 *In Proc of 9th Congress Medit. Phytopath. Union. Kusadasi - Aydin, Turkey.*

#### CITRUS VARIEGATED CHLOROSIS

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