

INTERNATIONAL ORGANIZATION OF CITRUS VIROLOGISTS

NEWSLETTER April, 2011

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From The Past and New Chairperson

Núria Duran-Vila, Past Chairwoman



Núria Duran-Vila

As I indicated in the opening ceremony of the 18th IOCV Conference in Campinas, it was a pleasure for me to have, as a host country, Brazil, the citizens of which elected a lady, Dilma Rousseff, as President of the Nation. Even though I got positive and negative feedbacks regarding Dilma, I still regard the choices of Brazil, Argentina and Chile as three good examples of a path towards "normality" regarding

"gender issues". These have been and still are examples that should be followed if we want to build a fair world. True enough, we still have a long way to go.

I was selected as IOCV chairperson-elect during the 16th IOCV Conference held in Mexico in 2004 and became chair-person in 2007 during the 17th IOCV Conference in Turkey. I accepted this responsibility with excitement and interest and I wanted to do the best for an organization that helped me to become a good professional and to get acquainted with outstanding people, many of which I consider today as "my friends". The task was not easy but I am proud that IOCV has been able to get financial support for young scientists to attend the conference. It is now their responsibility to change and improve IOCV, to build an even more performing IOCV and to work together as we always did.

I would like to apologize for the fact that IOCV was not able to keep Mark Hilf as the new chairman and I must thank Pete Timmer for accepting the challenge of being the new chairman. I would like to thank the members of the IOCV Board of Directors for their task and especially the efforts of John Da Graça for having taken care of the manuscripts, which were supposed to be published but are today only available on-line at the IOCV web site located within the IVIA site. From the IOCV Board we missed Chet Roistacher who has been an invaluably active and dedicated IOCV officer.

We also missed the help and warmth of his wife, Jean, who was also been involved with IOCV in many ways during many years.

I would like to acknowledge the financial support from the Brazilian citrus industry (Cutrale, Citrosuco, LouisDreyfus, Branco Peres, Cambuhy, Fazenda Rancho Rey, Syngenta, Bayer Crop Science, and Grupo Montecitrus) and from PlantPrint (Spain) to encourage young scientists to attend this Conference.

We got 25 applications that were evaluated by a committee representing the five continents (Gerhard Pietersen for Africa, Juliana Freitas-Astua for America, Zhao Xueyuan for Asia, Josy Bové for Europe, and Pat Barkley for Oceania). I would like to thank Juliano Ayres, Josy Bové and the Fundecitrus team for their efforts for taking care of the logistics regarding the 13 awardees (Edson, Serena, Maria Saponari, Fabricio, Maria del Carmen, Maria Candida, Madhura, Serdar, Agustina, Francisco, Viviani, Lochy and Paulo) including the independent support of Cyrelys by Fundecitrus. I hope that these young scientists will take it at heart to go and fight for an always better IOCV.

Even though in my first sentence I mentioned the new President of Brazil, I am fully aware that the well being of a country is not only built by politicians but mostly by its citizens. There is no doubt that Brazil has become an economic giant in just a few years. There is no doubt that in addition to its economic growth, Brazil is successful in terms of reducing poverty and we wish that this success continues and serves as a good example for the Region and for rest of the world. And all this is possible through the input of the citizens: farmers, workers, businessmen and businesswomen, scientists and why not, also congress organizers. I would like to thank Marcos Machado and his team (Juliana Freitas-Astúa, Marco Aurelio Takita and many others) for a successful congress. I would like to thank the Fundecitrus team (Antonio Juliano Ayres, Nelson Arno Wulff and many others) for an excellent post-conference tour through Cambuhy Farm, Sao José Farm, Nursery Citrosol and Novo Mundo Farm (Cutrale).

Finally, during the business meeting, the proposal to organize the next (19th) IOCV conference and Tour in South Africa in 2013 has been approved by a

unanimous vote. After having heard and seen the bid presented by our South-African friends, I have become really anxious to get there! In the meantime, let's keep in touch and work together.

With warm regards, devotedly yours, Nuria Duran-Vila

Pete Timmer, Chairman



Pete Timmer

I am very grateful for all of the support I received from the membership in my nomination and election as chairman. Marcos Machado was very gracious in accepting the election results and has been very supportive since the election. Frankly, I have not been very active in IOCV in recent years and my nomination and

election was a bit of a surprise to me. For a long time, I was very active in the organization as editor of the proceedings and as secretary. However, during a decade or more prior to my retirement, I dedicated my efforts to investigation of fungal pathogens of citrus and thus, I could no longer even justify attendance of the last four congresses in Brazil, Cyprus, Mexico, and Turkey. Fortunately, I was able to attend the recent meeting in Brazil.

I think IOCV has undergone revitalization in recent years following a period of relative inactivity. Much of that has been due to the efforts of Nuria Duran-Vila, the most recent chairperson of the organization. The current web page has been developed and maintained at IVIA in Moncada, Spain which has been very helpful to the organization. Nuria and Josy Bovè have led the effort to post descriptions and many illustrations of the various systemic diseases. I really appreciate their efforts as well as the contributions made by the many authors to that section. I hope we can continue and expand that effort.

Since I have not been very involved in IOCV the last few years, it will take a little time and effort for me to become familiar with all the procedures and activities of the organization. I really appreciate the assistance of Nuria in making the transition. The officers of IOCV are currently:

Pete Timmer – Current Chairman Georgios Vidalakis – Secretary Robert Krueger – Treasurer

Nominations will be made and an election conducted for the position of Chairman Elect left vacant by the resignation of Mark Hilf in the near future.

John da Graça and Eric Mirkov have graciously agreed to serve as editors of the proceedings and will handle editing and publication of the papers from the Brazil conference

The Board of Directors, in addition to the officers, will consist of:

Nuria Duran-Vila – Past Chairwoman Maria Laura Garcia – Universidad Naciónal, La Plata, Argentina

John da Graça and Chet Roistacher will rotate off the board and their service to IOCV as board members is greatly appreciated. I appointed Maria Laura at the recent meeting to expand the regional representation and to provide advice in the molecular aspects of citrus virology.

One issue I would like to address during the next few years is to expand the coverage of the organization. Several members have suggested that we should include investigation of fungal and bacterial diseases in the scope of the organization. Having worked a great deal in those areas, I have been interested in doing that for many years. IOCV has covered all systemic diseases of citrus for a long time. Many of the diseases that were originally thought to be viral diseases have turned out to be caused by viroids, spiroplasmas, phytoplasmas and bacteria. We have also covered many diseases of unknown etiology such as blight and other declines. I do not think it would be a great leap to now include non-systemic diseases. I really do not want to change the name of the organization. We should at least maintain the designation "IOCV". Perhaps, we could just subtitle the organization as "IOCV- an organization dedicated to the understanding and management of diseases of citrus". This would allow expansion of our membership and allow participation of a large number of other investigators worldwide. We can see what the current members think and then proceed if there is a consensus.

IOCV

Chairperson-Elect Elections 2013-2016

Georgios Vidalakis

Dear Friends,

The Board of Directors is prepared to initiate the process for the election of the Chairperson-Elect for 2013-2016. Robert Krueger researched several electronic voting protocols and after testing among the Board we concluded that "electionbuddy" (http://electionbuddy.com/) is a secure system that can serve our needs at a reasonable cost.

In approximately two weeks after you receive this newsletter all the current IOCV members that have paid the membership fees for 2010-2013 will receive an e-mail from "electionbuddy". Please, make sure that the message will not end up in your junk mail or labeled as spam.

With this first message we will start the nomination process with a nomination ballot and instructions for the eligible IOCV members for the Chairperson position.

Stay tuned and we will communicate soon.

XVIII IOCV Proceedings Instructions for Authors

John da Graça

Manuscripts should be submitted by email to John da Graça.

jdagraca@ag.tamu.edu

by May 31, 2011. (NOTE- I have a new email address).

- 1. Manuscripts should be written in Word (Times New Roman format, 12 pt). Please type double spaced, following the format used in recent IOCV proceedings (www.ivia.es/iocv). Please try and ensure that there are no hidden codes which can create havoc for editors, especially in references. If there are problems, the file will be sent back to the authors for fixing.
- 2. Figures and Tables should be on separate pages. Table headings should be upper case.

- 3. Author addresses should under the author names on the first page of the manuscript.
- 4. The Number System is used for referencing, not the "Author (date)" system. Please make sure you have used the correct one; this will save the editors a lot of time.
- 5. Check your references very carefully many errors were detected in manuscripts for recent proceedings, including incorrect titles, missing authors, wrong dates, volumes, page numbers.
- 6. For journal abbreviations, please see a copy of the 15th 17th Proceedings on the website (www.ivia.es/iocv)
- 7. For full manuscripts, divide the paper into: Abstract, Introduction (note: do not type INTRODUCTION), Materials and Methods, Results, and Discussion (these last two can be combined). These will be reviewed by two reviewers.
- 8. Short communications should not exceed 4 printed pages (1 page of full text in the Proceedings is approx. 500 words; make allowance for figures and Tables). These will not be sent out for review they will be edited by the editorial committee.

The XVIII Conference of the International Organization of Citrus Virologists

Juliana Freitas-Astúa and Marcos Machado The XVIII IOCV Conference was held in Campinas, Brazil, from November 7 to 12, 2010, and was organized locally by the Centro de Citricultura Sylvio Moreira-IAC, Fundecitrus, and Embrapa.

The IOCV conferences always bring together the main experts on graft-transmissible diseases of citrus, particularly those caused by viruses, viroids and bacteria. The last Conference did not differ from the others on that respect. One hundred and thirty six delegates from 21 countries attended the meeting. However, for the first time, many of those were young scientists awarded with travel grants supported by the citrus industry, an old dream of the IOCV community.

Country	Number of Delegates	Country	Number of Delegates
South Africa	2	India	1
Argentina	8	Israel	2
Brazil	48	Italy	8
Chile	1	Japan	1
China	8	Lebanon	1
Costa Rica	1	Malaysia	3
Cuba	2	Nigeria	2
Spain	3	Peru	1
USA	36	Turkey	3
France	2	Uruguay	2
Greece	1	Total	136

Dr. Elliot Kitajima was the keynote speaker for the Opening Ceremony of the Conference and talked about the history of bud-transmitted diseases of citrus in Brazil. After that, the organizers acknowledged Drs. Gerd Walter Muller, Ary Aparecido Salibe, and Antonino Catara for their contributions on the research of citrus diseases. Dr. Nuria Duran-Vila was also honored during the event for her good job as the IOCV chairwoman. Following the acknowledgments there was a welcoming cocktail, a good opportunity for engaging discussions with colleagues and friends from all over the world.



Opening Ceremony of the XVIII IOCV Conference

The 12 sessions of the conference comprised 59 oral and 60 poster presentations. From those, 26 were on CTV and tristeza, 34 dealt with other viruses and viroids, and 26 were on huanglongbing (HLB). Several abstracts (14) were presented on new technologies and 9 on citrus variegated chlorosis (CVC)/ *Xylella fastidiosa*. The seven invited lectures included updates on different aspects of the research on citrus tristeza, leprosis, HLB, and stubborn. Additionally, experiences of topnotch researchers that work on *Xylella fastidiosa* (Pierce's disease



Marcos Machado addressing the delegates during the visit in the Sylvio Moreira Citrus Center

strain) and RNAi to control insect vectors were also brought to our Conference and led to relevant scientific discussions.

During the field trip day, the delegates visited two farms near Campinas and had the chance to see in loco HLB, leprosis, and CVC, the last two of great importance to Brazil but still absent in many citrus producing areas in the world. The Farewell Dinner, in a typical Brazilian "churrascaria", was a great opportunity to continue the discussions and already start thinking about the 19th edition of our Conference.



During the field trip of the XVIII IOCV Conference

The local organizing committee wants to thank all of the sponsors and institutions involved in the event, as well as the delegates for their participation and feedback during and after the Conference. As expected good science was discussed, collaborations were intensified, new projects were planned, and friendship was strengthened. We hope to see you all in South Africa!!



XVIII Conference of the International Organization of Citrus Virologists
Campinas, SP, Brazil
November 7 to 12, 2010

XVIII IOCV Business Meeting November 11, 2010

AGENDA Welcome

- 1. Minutes of the last IOCV Business meeting
- 2. Report from the treasurer
- 3. Amendment of the IOCV by laws
- 4. Invitations to organize the next IOCV Congress
- 5. The Web page
- 6. The proceedings (past, present and future)
- 7. Update of the "slide collection" on Citrus Diseases
- 8. Update on "Citrus growing countries"
- 9. Future support for young citrus phytopathologists

A short summary of our meeting is presented here. For more details please, see the attached minutes document.

BUSINESS MEETING SUMMARY

- 1. Minutes of the last IOCV Business meeting, were approved.
- 2. Report from the treasurer.

The balance in IOCV checking and awards accounts was reported and the membership dues for 2010-2013 should generate enough income to cover IOCV's day to day annual expenses. The report of the Treasurer was accepted by the members present.

3. Amendment of the IOCV by laws ARTICLE VI-ELECTIONS.

Section 1-Amended.

"Not later than six (6) months prior to the opening day of the forthcoming international conference the Secretary shall prepare and send to each member a nomination ballot. Members may place on the ballot the name of one (1) person whom they wish to nominate as a candidate for the office of Chairperson-elect. The nomination ballot shall be sealed in an envelope or sent back to the Secretary via the appropriate electronic protocol. The envelope containing the nomination ballot should be placed in a mailing envelope which must contain the name and address of the voting member. It is then to be forwarded to the Secretary of IOCV to reach him/her by a date specified on the nomination ballot. Upon receipt of the nomination ballots, the Secretary will check the voting eligibility of the sender from the return address, remove the sealed ballot envelope and file them. The mailing envelopes shall be discarded. At the expiration of the specified time for receipt of ballots the Secretary in company of two (2) other members of IOCV appointed by the Chairperson of IOCV shall remove and tabulate the nomination ballots. The two (2) persons receiving, the largest number of nominations shall then become candidates for office of Chairperson-elect. In case a nominated candidate is unavailable or has expressed unwillingness to become a candidate his name shall be replaced by that of the person receiving the next highest number of nomination votes."

Section 2-Amended.

"The Secretary shall have ballots containing in alphabetical order the names of the two (2) persons nominated as described Bovè to be candidates for the office of Chairperson-elect. Prior to the opening of the forthcoming international conference the Secretary shall send the election ballot to each member in good standing. After marking the election ballot, it shall be sent as instructed to reach the Secretary not later than two (2) weeks before the opening of the next international conference. He/She shall check voting eligibility, discard mailing envelope and file the unopened ballot envelopes. He/She shall bring these to the site of the conference or else provide that they are delivered to the Chairperson of IOCV by the opening day of the conference. At least forty-eight (48) hours before the official banquet, the delegates attending the conference will be allowed to deliver to the Secretary or acting person their ballot. Only those delegates that were active members when the election process started will have the right to vote." Duran-Vila asked for the vote on the changes in Section 2 and all accepted in favor.

Section 6. The final text after discussion was as follows.

"In case the office of Chairperson of IOCV becomes vacant for any reason, the current Chairperson-elect shall succeed automatically to the office of Chairperson. Should the office of Chairperson-elect become vacant for this or any other reason, the Chairperson will call for a special election by regular election procedures if time permits. If the time frame does not coincide with the conference, the Secretary shall proceed with the election process described in Sections 1 and 2. The Chairperson of IOCV shall appoint a ballot-

- counting committee of four (4) IOCV members including the Secretary. The ballot-counting committee shall open and tabulate the ballots and inform only the current Chairperson of the election results. The results will then be announced by the Chairperson to members by mail."
- 4. Invitations to organize the next IOCV Congress. Cook announced that the next conference is going to be in South Africa in 2013. She invited everybody, she gave some information about South Africa and made a short presentation about the citrus industry in South Africa. She gave some information about the venue (flight, facility, accommodations, mid-week tour, accompanying person's programs, and post conference tour (citrus production area, Western Cape, Eastern Cape, Stellenbosch and the Garden route). Proposed date was late July 2013. She also announced the organizing committee.
- 5. The Web page.
 The domain "iocv.org" belongs to IOCV and UCR can host the website for free. A web site development committee was formed by Vidalakis, Dewdney, and DaGraça.
- 6. The proceedings (past, present and future).
 After long discussion the group decided to proceed with electronic publishing only if the papers can be referenced as in printed publications.
- 7. Update of the "slide collection" on Citrus Diseases.

All agreed that this project should continue. The new Chairperson will contact the people responsible for the different diseases to continue with the project.

8. Update on "Citrus growing countries" A "Leading Committee" was formed by Ximena Besoain, Matilde Tessitori, and Josy Bovè volunteered to support the project.

9. Future support for young citrus phytopathologists.

There is a \$3,000 carryover from the XVII IOCV. Thanks were expressed towards Brazil and other countries like Spain that contributed generously. It was decided to keep this account/activity for the next conference and the organizers of the next IOCV conference will seek contributions including private donations of IOCV members.

Financial Support for Young Citrus Phytopathologists & Post-Conference

Nelson Arno Wulff and A. Juliano Ayres XVIII IOCV Conference, Campinas/SP November 7-12, 2010.

Over the last years, much has been discussed about the need to bring young scientists to the IOCV conferences. For the first time, the IOCV has been able to collect funds, essentially from the Brazilian citrus industry, to help young phytopathologists or microbiologists to attend the 18th IOCV Conference & Post-Tour in Brazil. Contacts with the citrus industry were done by Juliano Ayres from Fundecitrus and Dr. Joseph Bové, and several companies have supported the young scientists.

The IOCV nominated a committee with representatives from the five Continents to evaluate the applications and 14 scientists attended the conference.

We thank the companies for their financial support and congratulate the applicants for their good job. Special thanks to J. Ayres and J. Bové for their valuable contribution.





Francisco F. Laranjeira

Barbosa Embrapa Mandioca e Fruticultura, Cruz das Almas, BA Brazil



Agustina de Francesco Instituto de Biotecnologia y Biologia Molecular, Universidad Naciónal, La Plata Argentina



Cyrelys Collazo Cordero Instituto de Investigaciones en Fruticultura Tropical, Ciudad de La Habana Cuba



M. Saponari Istituto di Virologia Vegetale del CNR, Instituto de Investigaciones en Unità Organizzativa di Supporto, Bari Fruticultura Tropical, Ciudad de Italy



Lochy Batista La Habana Cuba



Madhura Kunta Texas A&M University-Kingsville Citrus Center USA



Maria Candida Godoy Gasparoto Escola Superior de Agricultura "Luiz de Instituto Valenciano de Investigaciones Queiroz"/USP, Piracicaba, SP



Maria Carmen Vives Garcia Agrarias (IVIA). Moncada, Valencia



Serena Rizza Catania



Serdar Satar University of Catania-Distef, University of Çukurova, Faculty of Agriculture Turkey



Paulo Zaini Instituto de Química/USP São Paulo, SP Brazil



Edson Bertolini Instituto Valenciano de Investigaciones Agrarias (IVIA). Moncada, Valencia Spain



Fabricio P. Gonçalves Escola Superior de Agricultura "Luiz de Queiroz"/USP, Piracicaba, SP Brazil



Viviani V. Marques IAPAR, Londrina, PR Brazil

Post-Conference, Araraguara/SP, November 12-16, 2010.

The post-conference committee would like to thank the hosts of our field trips: Cambuhy which received the tour with the manager Fernando Tersi and his staff; Mr. Nelson Ivan and his collaborators from São José Farm; Juliano Ayres, his family and staff from Citrosol; Mrs. Valdir Guessi, Ricardo Violante, managers and collaborators from Cutrale; and Fundecitrus for organization, reception and visit to its scientific department and laboratories.

Besides the excellent reception and activities concerning citrus groves visit, nurseries, field experiments and also citrus diseases, our hosts provided excellent meals and enjoyable talks while sharing their experiences. Certainly, those who attended the post tour have learned a lot from Brazilian citrus industry and its hospitality!



Cambuhy Farm, Matão, SP. Brazil. Nov. 13th, 2010.



Cambuhy Farm, Matão, SP. Brazil. Fernando Tersi (manager) and Dr. J.M. Bové in a block without HLB in the center of the farm. Nov. 13th, 2010.



Picture time !!! Cambuhy Farm, Matão, SP. Brazil. Delegates observing machines used for HLB management: platforms for inspections; pruning machine and others. Nov. 13th, 2010.



Lunch at Cambuhy Farm, after visiting a neighbor farm with HLB, CVC, Leprosis and Black spot. Nov. 13th, 2010.



Well it is picture time once more!!! – Cambuhy Farm, Nov. 13th, 2010.



São José Farm, Motuca, SP. Visiting HLB management experiments. Nov. 13th, 2010.



Citrosol Nursery – Reception desk. Nov. 14th 2010.



Picture time!! Flamboyant tree at Citrosol Nursery. Nov. 14th 2010.





From the visit in the Citrosol nursery houses, with many thanks to Juliano Ayres and his family for the warm welcome and the excellent hospitality. Nov. 14th, 2010.



Reception coffee in Novo Mundo Farm – Cutrale, Comendador Gomes, MG. Brazil. Nov. 15th, 2010.



Citrus Sudden Death (CSD) affected field at Novo Mundo Farm. Valencia Sweet Orange/Rough lemon severely affected by CSD. Nov. 15th, 2010.



Yes, you guessed correctly, it is picture time again!!! – Novo Mundo Farm, Nov. 15th



Cutrale's team at Novo Mundo Farm. Nov. 15th, 2010.





Photos by: Nelson Arno Wulff, Nuria Duran-Villa, Jean-Pierre Thermoz, and Georgios Vidalakis

Announcement of 2013 IXX IOCV Conference Dates.

Gerhard Pietersen & Organizing Committee
The dates finalized for the 2013 IOCV meeting to be held in South Africa are

Sunday evening 28 July, 2013 until Friday, 2 August, 2013.



In order to ensure the conference venue booking in the popular Kruger National Park we have finalized these dates for the conference well in advance. This also enables potential delegates to diarize the dates early. In selecting the dates we took a number of factors into account including 1) local school and public holidays, 2) climate, 3) visibility of symptoms of local citrus diseases (eg. Greening and blackspot), 4) avoidance of other important relevant international meetings, for example the APS, and 5) cost of air-travel at that time.

We will therefore be unable to change dates and hope this arrangement will make it easier for all of you to attend the meeting.

AROUND THE WORLD

California

To My Friends in IOCV

Chet Roistacher

I wish to express my sincere appreciation and thanks to the members of IOCV who sent this greeting to me from the conference in Brazil. It was heartwarming!



This was the first conference I have missed in over 40 years. I wish to assure members that it was because of personal reasons and not due to health problems. As shown in the enclosed picture taken last month in Borrego State Park I have been busy fighting dragons while you have been fighting HLB.



Of interest, I have transferred many lectures from the EcoPort slide shows to Power Point presentations. Over 25 lectures have been done and these are useful, not only for the information contained, but also for teaching. I will be pleased to send these lectures to you on a CD if requested and always, I would like to hear from you and about your work.

Citrus Pathogen Detection Workshop Parlier, California, Feb. 1-3, 2011.

Ray Yokomi

A hands-on workshop for applied plant pathologists on detection of citrus pathogens was held at the USDA, ARS Parlier laboratory February 1-3, 2011.



Participants of the Citrus Pathogen Detection Workshop held in Parlier, CA on Feb. 1-3, 2011.

The workshop was organized by Raymond Yokomi and Georgios Vidalakis with support from a grant from the California Citrus Nursery Board (CCNB). The workshop featured detection of *Citrus tristeza* virus (CTV) by direct tissue blot immunoassay (DTBIA) and real time (q) Reverse Transcription Polymerase Chain Reaction (RT-PCR) assay; qRT-PCR detection of citrus viroids (Pospiviroids (CEVd and CVd-IV) and Hostuviroids (CVd-IIa, IIb, IIc); and PCR of Spiroplasma citri. The workshop included comparison of nucleic acid extraction (DNeasy Plant Mini kit, CTAB, Trizol, and Buffard) for target preparation, quantitation and standardization of template nucleic acid, and use of internal standards COX-CY3 (DNA) and NAD-SYBR Green. The workshop was attended by 32 participants and was deemed highly successful.

France First Step towards a Sentinel Network for Huanglongbing Disease Outbreak Detection in Mediterranean Basin

Michel Dollet, Frèdèric Gatineau, & Juliana Freitas-Astúa

Among the world citrus countries, so far only Australia and the Mediterranean basin are still HLB free. With a yearly production of 18 million tons of citrus, the Mediterranean basin belongs to the three major citrus producing areas. But HLB may appear

sooner or later. Because of the importance of movements, trade, tourism, pilgrimages, *Citrus* production is in danger. The threat could come:

- from Atlantic Islands: *Trioza erytreae* was reported in Madeira and the Canary Islands about 500 km from Agadir in Morocco- ten years ago.
- from Asia, the threat could come from the East (Saudi Arabia, Iran, Yemen)
- from the South (Ethiopia, Sudan, Somalia).



A training course, jointly organized by Cirad - France, Embrapa -Brazil, and University of Yaoundé I -Cameroon and jointly funded by Agropolis Foundation (France) and Capes (Brazil), was held at CIRAD Montpellier, France (5th- 8th April, 2011) on HLB symptoms, psyllid identification (*Diaphorina citri* and *T. erytreae*) and molecular diagnosis. This event gathered Moroccan, Tunisian, Egyptian and

Turkish partners involved in citrus sector or in plant pathology research.

This event led to the foundation of a sentinel network in the South Mediterranean basin aimed at defining and implementing actions for a prevention strategy and education. The network must be extended to the entire Mediterranean basin -Southern Europe, Near East- everywhere there are Citrus trees. The goal is that national plant protection services must be ready to eradicate any outbreak of HLB or psyllid vector invasion at its earliest stage. The later the detection will be done the more disastrous the consequences. The group decided several actions to be undertaken as soon as possible, like, first of all, obtaining from the quarantine services of all the Mediterranean countries that Trioza erytraea, Diaphorina citri and Candidatus Liberibacter spp. must be registered as quarantine organisms.

A steering committee has been elected:

Baysal Ömür (Department of Plant Pathology and Molecular Biology West Mediterranean Agricultural Research Institute (BATEM) –Turkey; baysalo@yahoo.de)

Cherif Mohamed (Centre Technique des agrumes – Tunisia; cherifmoh2003@yahoo.fr)

Dollet Michel (Cirad –France; michel.dollet@cirad.fr)

Laranjeira Franscisco (Embrapa Cassava and Fruits -Brazil; chico@cnpmf.embrapa.br)

Youssef Sahar (Agricultural Research Centre Plant Pathology Research Institute Virus & Phytoplasma Research Section Molecular Biology Lab –Egypt; saharyoussef@link.net)

Tamesse Joseph Lebel (University of Yaoundé I Ecole Normale Supérieure Laboratoire de Zoologie –Cameroun ; <u>iltamesse@yahoo.fr</u>)

Zemzami Mustapha (Director of group Dar es Salam Group –Morocco; <u>zemzami@domaines.co.ma</u>)



"Joint French-Brazilian-African training course for the construction of a sentinel network for Greening disease outbreak detection in peri-Mediterranean countries"

Cirad, Montpellier, France, 5th-8th of April 2011

Florida

Florida's Citrus Budwood Registration Program

Michael Kesinger

Florida's citrus nurseries have escaped the wrath of huanglongbing. After switching to greenhouse protected production in 2007, Florida nurseries have had their budwood sources tested for four consecutive years with no citrus greening being found. The new stringent sanitary and protective requirements along with increased inspection frequencies have given growers increased confidence that the nursery stock they are purchasing is pathogen-free. To help bolster this confidence, the bureau of Citrus Budwood Registration ran over 40,000 graft-transmissible pathogen tests in the past year. Dr. Peggy Sieburth published a paper titled "Increased Efficiency and Sensitivity for Identifying Citrus Greening and Citrus Tristeza Virus using Real-time PCR Testing" in the proceedings of the Florida State Horticultural Society.

The new isolated Budwood Foundation at Chiefland has been operational for four years and is on track to distribute over 300,000 budeyes this year. The foundation greenhouses consist of approximately 1.5 acres of growing area, with 366 different clonal selections of citrus. Forty-eight shoot-tip grafts were released from the parent tree program in Winter Haven last year and 52 new entries have been accepted already this fiscal year.



Budwood Foundation at Chiefland

Second International Research Conference on Huanglongbing & Josy Bovè Recognition

Georgios Vidalakis & Tim Gottwald



In January 10-14, 2011 the Second International Research Conference on Huanglongbing was held in Orlando Florida.

Eleven sessions covered a broad

range of topics including, pathogen detection, vector biology, ecology, and management, pathogen and vector genomics, host tolerance and resistance, disease diagnosis, economics, epidemiology, and management, and international citrus industries, regulations, and growers experience.

Details, proceedings, and summaries of the conference can be found at:

http://irchlb.org/hlb.aspx

At the opening ceremony of the conference the organizing committee recognized Prof. Bovè's numerous scientific contributions for HLB and other prokaryotic diseases of citrus with an award. The brief presentation made during the award presentation is following.

Joseph M. Bové

Joseph M. Bové was born in Luxembourg in 1929 then moved to France when he was 11 years old where he studied at the National Inst. of Agronomy in France, the University of Paris, and then the University of California Berkeley. He received his PhD from the Pasteur Institute in 1967 and his dissertation was on tulip yellows mosaic virus.

His over 300 research publications span a broad landscape of microbiology and molecular biology and demonstrate impressive and expansive international collaborations. Prof. Bové has long studied fastidious mycoplasma-like organisms, and it was his lab that discovered, elucidated, and

described the causal agent of citrus stubborn *Spiroplasma citri*. Prof. Bové and his group also made outstanding contributions to the etiology of other citrus diseases associated with fastidious prokaryotes, specifically *Witches-broom* disease of lime in Oman and citrus variegated chlorosis caused by *Xylella fastidiosa* in Brazil.



For more than 37 years Prof. Bové and his group have made numerous contributions to defining the pathology, etiology, molecular biology, and control of HLB. Electron microscopy coupled with antibiotic studies demonstrated that HLB was not caused by a mycoplasma or virus and his 1970-1985 series of papers were the first to define that HLB is caused by a bacteria. His lab developed monoclonal antibodies that differentiate between strains of Asian and African HLB and later developed PCR primers to do the same as well as universal HLB PCR primers for detection and differentiation. His recent collaboration with colleagues in Fundecitrus in Brazil led to the discovery of *C*. Liberibacter americanus and development of PCR primers specific for that species.

Prof. Bovè is a fellow of the American Phytopathological Society, a member of the Academy of Agriculture of France, a corresponding member of the French Academy of Science and has served in multiple roles including chairman of the International Organization of Citrus Virologists and the International Organization of Mycoplasmatology.

Prof. Bové is an excellent and provocative speaker and has organized, led, and participated in a vast array of international conferences, meetings and workshops, where he has stimulated and educated many of us. Since retiring he has not slowed down a bit and continues to make highly significant contributions to understanding and controlling HLB worldwide.

Israel Citrus Pathology in Arts and False Psorosis Symptoms

Moshe Bar-Joseph Dear Friends,

I wrote recently a popular article on the plant pathology/ viroidology behind two different stories written by two local famous writers and I would like to extend this to other episodes involving citrus that were written either in prose or poem by writers or composers of other nationalities.

Assume Tristeza must have been mentioned many times, but it is not the romantic phase of this term that I look for, but anything that mentions lost trees or sad researches.

There was a movie on a grower losing trees because of canker, that I would like to trace. Hope someone in the IOCV community may know something on it.

A local fruit trees Growers newsletter (ALON HANOTEA) recently published the attached pictures of the false Psorosis in a manuscript describing several other incidences of disease like symptoms caused by non-pathogenic agents including mites, scales and lead poisoning of banana apical leaves due to hunter bullets that missed their rabbit targets and hit the banana trunks. Enjoy and please send me any information at: mbjoseph@gmail.com





Mandarins showing severe bark scaling, without much gum and mostly above the graft union, but not at the branches above the stem. This damage was induced by herbivores. Photo: M. Bar-Joseph

India

Molecular characterization of *Citrus* tristeza virus isolates from different geographical regions of India: an evidence of genetic recombination

Susheel Kumar Sharma, Kajal Kumar Biswas and Avijit Tarafdar

Citrus tristeza virus (CTV), a member of the genus Closterovirus (family Closteroviridae), is one of the most destructive pathogens worldwide including India.

Samples from nine citrus orchards of Delhi were tested for the presence of *Citrus tristeza virus* (CTV), by direct antigen coated enzyme-linked immuno-sorbent assay (DAC-ELISA) and reverse transcriptase polymerase chain reaction (RT-PCR). The Sweet orange (*Citrus sinensis*) orchards were susceptible, while Kinnow mandarin (*C. reticulata*), Kagzi kalan (*C. limon*), and Pumello (*C. paradisi*) were free from infection. CTV isolates from Delhi were biologically indexed and was found to infect Kagzi lime (*C. aurantifolia*), sweet orange, Darjeeling mandarin (*C. reticulata*) and sour orange (*C. aurantium*).

Partial genome (8.4 kb from 3'end) (comprising 10 open reading frames) of three Indian CTV isolates, B5 (Bangalore), D1 (Delhi) and Kpg3 (Darjeeling hills) was sequenced. A total of ten open reading frames (ORFs) with varied length of 156 nt (ORF3) to 1785 nt (ORF4) were identified.

Indian isolates shared 95-98% and 88-93% nucleotide sequence identities among them and with other CTV isolates respectively and were differentiated in to six clusters. The present Indian isolates formed a separate cluster. The incongruent phylogenetic relationships in different ORFs suggested possibility of frequent recombination events, supported by recombination detecting method, and by split decomposition phylogenetic network. Recombination hot spots and non-recombinant unique sequences were identified in Indian CTV genomes. The sequences of Indian isolate B5 was unique and isolates D1 and Kpg3 were recombinant which has evolved through different evolutionary pathway.

The Authors work at the Advanced Centre for Plant Virology, Division of Plant Pathology, Indian Agricultural Research Institute, New Delhi, India, 110012.

CONFERENCES / MEETINGS / PUBLICATIONS / ANNOUNCEMENTS

12th International Citrus Congress 2012-International Society of Citriculture

Luis Navarro

On behalf of the International Society of Citriculture (ISC) and the Organizing Committee of the 12th International Citrus Congress (ICC 2012) I am very pleased to invite citrus scientists, especially those from IOCV, and producers worldwide to attend the ICC 2012 that will be held in Valencia, Spain, from November 18th-23th, 2012, under the theme "Citrus and Health".



The Congress is being organized by the "Instituto Valenciano de Investigaciones Agrarias" (IVIA), with the collaboration of the "Universidad Politécnica de Valencia" (UPV), the "Universidad Jaime I de Castellón" (UJI), the "Instituto de Agroquímica y Tecnología de Alimentos" (IATACSC), the "Fundación de la Comunidad Valenciana para la Investigación Agroalimentaria" (AGROALIMED) and the active involvement of citrus private industries.

Being the third largest city of Spain, with a population of 800.000 thousand inhabitants and over 2.000 years of history. Valencia is a city for encounters and contrasts. The legacy left by cultures and civilizations having reached these shores in the past still remains alive in the city's monuments and streets, not to mention in its people's hearts. Business and trade coexist with leisure and culture. Valencia is a city that never sleeps, with an extensive cultural line-up star-studded at any time of

year with festivals, concerts, shows and exhibitions. Thanks to the excellent climate and the attractive cityscape, outdoor activities include enjoying the cafe terraces, parks and gardens, strolling complacently by the seaside and through the city, combining both urban life and outings to the surrounding nature areas.

When visitors arrive in Valencia, the city seems to be decked out to greet them. Discovering Valencia is a true pleasure for the senses. And reaching the city from any part of the globe is easy and comfortable, thanks to a modern network of links with world business centers, including air communications, high-speed trains and freeways. We are sure that participants will enjoy the experience of Valencia.

Citrus has a long history in Spain. Citron was introduced in the Vth century, sour orange and lemons in the Xth century, pummelos in the XIIIth century, sweet oranges in the XV century and mandarins in the XIX century. Today Spain has 330.000 hectares of citrus, with a production of 6.3 million tons, with sweet orange representing 48%, mandarins 35% and lemons 16%. Spain is the first exporting country of fresh fruit, with more than 50% of the production being commercialized abroad. Citrus plantings are located along the Mediterranean coast in the provinces of Tarragona, Castellón, Valencia, Murcia, Almeria and Málaga, in the Guadalquivir river valley in the provinces of Córdoba and Sevilla and in the Atlantic coast in the province of Huelva. One important characteristic of the Spanish citrus industry is that it has been completely renewed in the last 30 years with healthy certified nursery trees originally recovered by shoottip grafting in vitro, and today graft and vector transmitted diseases do not pose significant problems.

The congress will have plenary and ordinary sessions, workshops and poster display, addressing every issue and specialization of citrus and will be an excellent forum to establish new links and collaborations among participants. In addition, those attending pre, post and mid Congress tours will have the opportunity to see both the traditional and the modern Spanish citrus industries, including nursery operations, cultural practices, varieties, packing houses, juice factories, and research institutes.

We are waiting to see you at the ICC 2012. You may find further details at:

http://www.citruscongress2012.org/

2nd International Workshop on Citrus Quarantine Pests August 15-19, 2011 Santiago, Colima, México

Pedro Luis Robles García In August 15-19, 2011 the 2nd International Workshop on Citrus Quarantine Pests will be held in Santiago, Municipio de Manzanillo, Colima, México

This workshop will focus on the preparation of technical staff in the management of HLB, leprosis, canker, citrus variegated chlorosis, black spot, sweet orange scab and citrus tristeza.

















2nd International workshop on citrus quarantine pests

The tentative program includes:

Importancia de la difusión para lograr la participación de los productores, viveristas y residentes en el control de plagas cuarentenarias de los cítricos / Importance of awareness to growers, nursery growers and residents for the control of citrus quarantine pests.	Universidad de California, EUA / University of California, USA Chester Roistacher Universidad de California, EUA / University of California, USA	
Importancia de los programas de cuarentena, saneamiento y certificación para prevenir plagas cuarentenarias de los citricos / Importance of quarantine, sanitary and certification programs to prevent citrus quarantine pests.		
Etiología, historia, situación mundial y control del virus tristeza de los citricos y sus vectores / Etiology, background, worldwide situation and control of citrus tristeza virus and its vectors.		
Determinación de razas del virus tristeza de los cítricos en México y su diseminación por el pulgón café (<i>Toxoptera citricida</i>) / Identification of races of citrus tristeza virus in Mexico and its spread by brown citrus aphid (<i>Toxoptera citricida</i>).	Gustavo Mora Aguilera Colegio de Postgraduados, México / School of Graduate Studies, Mexico	

Etiología, historia y situación mundial de la leprosis y sus vectores / Etiology, background and worldwide situation of leprosis and its vector. / L. Manejo de la leprosis a través del control de los vectores / Management of leprosis through vector control.

Pedro Yamamoto
Universidad de Sao Paulo, Brasil
/ University of Sao Paulo, Brazil
José Carlos Rodríguez
Universidad de Puerto Rico, PR /
University of Puerto Rico, PR

Áreas regionales para el manejo del HLB en Texa / Citrus Greening Management Areas in Texas.		
Manejo de HLB en Sao Paulo; del manejo local a manejo regional / HLB management in Sao Paulo from local to regional management		
Situación actual, regulación y perspectivas direas regionales para el manejo del HLB e México / Current situation, regulation ar perspectives of citrus greening management area in Mexico.	SENASICA, México / Mexico	
Avances en la investigación sobre HLB y su vector y perspectivas / Progress on research on HLB ar its vector, and its perspectives.		
Modelo preventivo de plagas cuarentenarias de los cítricos / Preventive model for citrus quarantine pests	Thiago lost Citrofruit, México / Mexico	
Situación actual, manejo e impacto económico de la mancha negra de los cítricos en Argentina / Current situation, management and economic impact of citrus black spot in Argentina.	Beatriz Stein Estación Experimental Obispo Colombres, Argentina / Experimental Station Obispo Colombres, Argentina	
Situación actual, manejo e impacto económico de la mancha negra de los citricos en Florida, EUA / Current situation, management and economic impact of citrus black spot in Florida, USA.	nico de David Lowe EUA / USDA, APHIS, EUA / USA	
Situación actual, manejo e impacto económico de la sarna del naranjo dulce en Argentina / Current situation, management and economic impact of sweet orange scab in Argentina.	acqueline Ramallo tancho San Miguel, Argentina <i>I</i> san Miguel Ranch, Argenti <mark>n</mark> a	
Situación actual, manejo e impacto económico de la clorosis variegada de los cítricos en Brasil / Current situation, management and economic impact of citrus variegated chlorosis in Brazil.	Silvio Lopes Fundecitrus, Brasil / Brazil	
Situación actual, manejo e impacto económico del cancro de los cítricos en Brasil / Current situation, management and economic impact of citrus canker in Brazil.	Franklin Behlau Fundecitrus, Brasil / Brazil	
Situación actual, manejo e impacto económico del cancro de los citricos en Florida, EUA / Current situation, management and economic impact of citrus canker in Florida, USA.	David Lowe USDA, APHIS, EUA / USA	
Programa de exportación de cítricos a la Unión Europea de zonas con presencia de cancro en Argentina / Citrus export program to the European Unión from areas with canker in Argentina.	Jacqueline Ramallo Rancho San Miguel, Argentina / San Miguel Ranch, Argentina	
Etiología, historia y situación mundial de Huanglongbing / Etiology, background an worldwide situation of Huanglongbing		
Epidemiología del HLB y sus implicaciones para e manejo de la enfermedad / Epidemiology of HLi and its implications on disease management		
Experiencias en el uso de nutrición para el manejo del HLB – Una revisión de la experiencia en China con referencia a la práctica en Florida / Experience in the use of nutrition for the management of HLB Review of experience in China with reference to Florida's practices	Universidad Estatal de Carolina del Norte, EUA /	
Manejo de huertas con HLB y su vector en EUA Management of orchards with HLB and its vector in		
the USA		

For more information you can contact:

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Hemipteran-Plant Interaction Symposium July 11-14, 2011 Piracicaba, SP - Brazil

Joao Lopes & Organizing Committee



We are preparing a very interesting program covering the most recent findings on Hemipteran-Plant-Interactions (a list of invited speakers at: http://www.infobibos.com/hemipteran/oral_session.html).

The main topics to be covered include: Phloem physiology and phloem-feeding insects, Xylem physiology and xylem-feeding insects, Other modes of piercing-sucking feeding (e.g., parenchyma feeders, lacerate & flush feeders, Heteroptera, Thysanoptera), Plant physiological and molecular responses to hemipteran feeding and counterresponses by hemipterans, Plant pathogen - vector interactions, specifically those relating to pathogen inoculation, acquisition, and retention.

The Hemipteran-Plant Interactions Symposium (HPIS), to be held on the campus of ESALQ/University Sao Paulo in Piracicaba, Brazil on July 11-14, 2011, will build on the success of two previous symposia in Barcelona, Spain (2003) and Wageningen, The Netherlands (2008), which were focused primarily on phloem-insect interactions. HPIS will cover a larger diversity of hemipteranplant interactions, not just those of phloem-feeders, but also those of specialized xylem-feeders, parenchyma-feeders, and lacerate-and-flush feeders.

We strongly recommend to register for the meeting before May 15, 2011, and send the abstracts as soon as possible in order to to take advantage of discounts. Students and young scientists from developing countries and United States may apply for travel support from NSF.

Do not hesitate to contact us if you need more information before deciding to join us.

Please use the e-mail address: hemipteran@terra.com.br for all symposium matters.

For further information on the symposium and submission of abstracts, please visit our homepage:

http://www.infobibos.com/hemipteran/index.html

The Organizing Committee:
Alberto Fereres, Instituto de Ciencias
Agrárias/CSIC, Madrid, Spain
Joao Spotti Lopes, Departamento de Entomologia e
Acarologia -ESALQ/University of Sao Paulo,
Piracicaba, SP - Brazil
John Reese, Department of Entomology, Kansas
State University, USA
Greg Walker, Department of Entomology,
University of California, Riverside, USA.

Obituaries

Dr. Veridiana Victoria Rossetti October 15, 1917 - December 26, 2010

Josy Bovè

I have known Veridiana Victoria Rossetti for 56 years. I saw her for the last time, resting peacefully in her bed, on November 17, 2010, even though since 2006 she was unable to recognize me or anybody else.

I saw her for the first time in 1954 in Versailles, near Paris, at the tissue culture laboratory of Georges Morel, INRA, France, where she wanted to gain some experience. Her relationship with France was influenced by Agesilau A., her laboratory director and mentor at the Insituto Biologico in São Paulo. Dr. Bitancourt had spent the 25 first years of his life in Paris and, in the frame of his higher education, he attended the "Institut National Agronomique", the most famous school of Agronomy in France, located in the Latin Quarter of Paris. Victoria herself was an Agricultural Engineer, having graduated from the Luiz de Queiroz school of Agriculture in Piracicaba and joining the O Biologico in 1940. Bitancourt had also ties with the USA where he worked on Psorosis with H. S. Fawcett and J. M. Wallace in the 1940s. With H. S. Fawcett, he visited tristeza-affected orchards in Argentina in 1937. A. Bitancourt is sometimes called the "Father of Plant Pathology in South America".



Veridiana Victoria Rossetti First Lady Agricultural Engineer in Brazil

My next encounter with Victoria was in Brazil. At the time we were both in Morel's laboratory in Versailles, she had invited me to visit São Paulo. I happily accepted the invitation and, five years later at the age of 30, I showed up in São Paulo in May 1959, immediately after my three-year-long stay in Berkeley, California, where I worked on photosynthesis, protein synthesis etc, but having never seen a single citrus tree, except when I

accompanied Henri Chapot (working on citrus in Morocco), to the first Conference on Citrus Virus Diseases in 1957 in Riverside, California. So, it was really Victoria who introduced me to citrus and citrus diseases during my two-week-long stay in São Paulo State in 1959. This also gave me the opportunity to meet Dr. Bitancourt, argue with him in French and give a talk at the O Biologico on ... "the role of chloride ions in photosynthesis" (!). At this first visit in SP, I also met Nicky Naday at Sete Lagoas and saw the famous "Sete Lagoas Orchard" being planted. Alvaro Costa, Sylvio Moreira, Ody Rodrigues, the young Ary Salibe were other "virologists or citrologists I was proud to meet.

Victoria was a faithful supporter of the International Organization of Citrus Virologists (IOCV). I saw her again in November 1960 in Florida (Lake Alfred and Orlando) at the occasion of the 2nd IOCV conference on citrus virus diseases, the first conference having been the 1957 meeting in Riverside at which the IOCV was founded. Victoria became soon very active in the frame of the IOCV.

She, Ary Salibe and their colleagues organized the 3rd IOCV conference in Brazil (Campinas and São Paulo) in September 1963. At the business meeting, in recognition of her work, Victoria was elected as chairperson to succeed T J. Grant. A post-conference trip was made to Rio de Janeiro (Federal Agricultural Research Center). Some of the conference participants also took a post-conference tour to citrus growing regions of Argentina (Delta, Entre-Rios).

After the post-conference tour in Argentina, I came back to São Paulo and stayed there five more months on the invitation of the Instituto Biologico, teaching a course in biochemistry at the O Biologico and looking at citrus diseases with Victoria and her group, driving around in her little "combi". I spent many weekends with Victoria at the farm house of her brother, Sergio, who was in charge of a huge sugar-plant in the middle of São Paulo State. To get there, we would take the...train. Of all my Brazilian friends of today, I am probably the only one who has ever taken a train in São Paulo! Other weekends were spent at Guaruja on the coast, where Victoria's family head a beach house and Dr. Bitancourt and his wife Christiane owned an apartment high up in one of those sky scrapers aligning the beach. Guaruja was a fantastic place, but the way to get there was a disaster. From São Paulo it took hours and hours to get there, most of the time standing on line and waiting to get onto one of the several ferryboats needed, in those days, to cross some odd rivers or water channels!



Bitancourt & Bovè. Photo: C. Roistacher

In 1965, Victoria accepted to work at FAO, Rome, having in mind the organization of the 4th IOCV conference in Italy in 1966. With her Italian friends and colleagues, she managed to organize one of the

most elaborate conferences we ever had. We travelled by bus, boat and plane. The formal papers were given in Rome (FAO), Palermo (University) and Catania (University). I travelled several times between Bordeaux and Rome, and helped Victoria organize a post-conference tour to Corsica, Nice (French Riviera), Spain (Valencia) and Morocco (all major citrus growing areas). Those were real good, long post-conference tours, attended by many IOCV members eager to discover odd places, which they would never have seen without the IOCV. Victoria was a great supporter of these tours.

In the following years, the IOCV conferences and post-conference tours would give Victoria and me new opportunities to meet. A few months before the meeting, Victoria would ask: "Are you going to the IOCV? I would say "yes", but then she would start complaining, implying that nobody would help her financially to take the trip. Each time, however, she would happily show up however far the IOCV conference would be. She had a particular talent, a cute one, with a little smile on her face and almost a few tears in her eyes, to convince the big companies that they had to help her to attend this unique meeting. One day she spent several hours in the waiting room, not giving up, until the big boss would show up. He showed up and she got what she wanted! And it was well deserved. She had the same convincing attitude, full of kindness and friendly stubbornness to ask the private sector for research funds. She would look at the big guys with her most innocent face and say: "Look, this is so very little for you, but it represents so much for the citrus industriy: you cannot say no". So, little by little people began to know her unique personality, but also her outstanding research achievements, and it became more and more difficult to say no to her. After having retired, she remained so fond of her IOCV family that she used her own resources to join the gang.

Victoria, as a professional person, was thoroughly devoted to citrus and science, but her horizon went far beyond the bench and the orchard: She was a cultured person. She spoke Italian, Portuguese, Spanish, French, and even some German. She was fond of Art and her niece Martha (who passed away in the early 2000s) was curator at the museum of Modern Art of São Paulo. Being myself attracted by Art, I could always count on Victoria to strongly support pre- or post-conference tours, which, in

addition to citrus orchards, would also include visits to near-by, world famous places, such as, to cite only a few, the exquisite, ancient Greek theatre at Taormina, Sicily (4th IOCV conference, Italy, 1966), the unique Khmer temples of Angkor in Cambodia (post-conference, 5th IOCV conference, Japan, 1969), the Baobab forest at Morandava, Madagascar (post-conference, 6th IOCV conference, Mbabane, Swaziland, 1972), the two dismantled and reconstructed Egyptian temples at Abou Simbel. Egypt (post-conference, 7th IOCV conference, Athens, Greece, 1975), the Sydney opera house and the Great Coral Reef Barrier (8th IOCV conference, Australia, 1979), the roaring Iguazu falls (9th IOCV conference, Argentina, 1983), the Alhambra in Granada (post-conference, 10th IOCV conference, Valencia Spain, 1986), Disney World (11th IOCV conference, Orlando, USA), the Taj Mahal, symbol of everlasting love (12th IOCV conference, New Delhi, India), the Buddhist grottos and sculptures at Dazu (post-conference, 13th IOCV conference, Fudzou, China, 1995), etc.

The 8th IOCV meeting took place in Australia in May 1979. My friend and colleague Robert Vogel (1929-2002) had discovered tristeza disease in French Polynesia in 1979 and so we decided, he and I, to make a stopover in Tahiti to see the disease on our way to Australia for the 8th IOCV meeting. There are several routes to get from France to Papeete, the capital of Tahiti. We choose an exotic one: the one via Easter Island in the middle of the Pacific Ocean! We wanted to have a look at the most famous and gigantic Easter island Statues, the monolithic "Moais". One boards the plane in Santiago, Chili, and gets off on Easter Island. While walking to the boarding gate here came...Victoria Rossetti, Ralph Schwarz and his friend Maria Theresa, Ody Rodrigues and his wife. They were also on their way to Sydney via Easter Island. So, we toured the island all together for three days, having to eat lobsters for breakfast, lunch and dinner (chicken being too expensive!), until the next plane would take us to Papeete and Sydney. Those were unforgettable days...

In the frame of the Indo-French Center for the Promotion of Advanced Research, my laboratory had a three year-long research project with Prof. A. Varma's group at the Indian Agricultural Research Institute, New Delhi, from 1990 to 1992 during which Monique Garnier (1949-2003) and I surveyed all corners of India for HLB using molecular

diagnostic techniques for the first time. Knowing India well, we were able to help Prof. Varma to organize the 12th IOCV conference in New Delhi. The conference was preceded by an IOCV preconference tour to the sultanate of Oman to see Witches' broom Disease of Lime. Victoria had already some difficulties walking, but she had to come to Oman. She convinced her niece "Dulce" to accompany her to the IOCV meetings and to be, so to say, her walking stick. It worked well! Coming back from Oman to New Delhi, it turned out that Victoria, Dulce, Nuria and Monique failed to get a room. Eventually, there was only one little suite left, with the queen-size bed for Dulce, the tiny couch for Victoria and one single sofa for both Nuria and Monique. Apparently, there was drying laundry all over the place. But the four girls had lots of fun together. When I asked Victoria (used to fancy hotels):"How is it?" she answered with a little smile: "Well, it's different"! Later, during the postconference tour (Yes! In those days there were pre AND post conference tours!) in the Coorg area, West of Bangalore in southern India, some of us (quite a few) decided to squeeze into the program the visit of some of the most beautiful temples of southern India (Belur and Halebid). Victoria was the first to say: "Let's go"! On the way to these temples, we came through Sravanabelgola, famous for the monolithic, 1000-year-old, 17m-high statue of a Jaïn Saint, erected on top of a hill, several hundred steps high. Victoria had to go to see this Saint. As she could not walk well enough, we had to hire four men and a portable chair to get her up there, and down again! She was delighted!

In the 1990s and 2000s, I have had a project with Nepal to change their citrus industry from seedling trees to grafted trees. After the post-conference tour in southern India, my wife Colette and I flew to Nepal in the frame of the citrus project. Walking on the Durbar square in! Kathmandu, whom did we run into? Victoria and Dulce, touring Nepal...



In 2008 IOCV honored Victoria Rossetti

This is not the place to mention the many collaborations between Victoria's group and the Bordeaux lab. Victoria came several times to Bordeaux, in particular in March 1988. We took a trip to the Pyrénées and were almost snowed in! The year before, in 1987, abnormal sweet orange trees had been observed in the northern part of São Paulo State (SPS), in particular in Macaubal, Colina and Jaborandi. The leaves of these trees showed conspicuous variegation and chlorosis patterns similar to zinc deficiency symptoms, hence the name "Citrus Variegated Chlorosis" (CVC). These leaves reminded Victoria of the mottled leaves characteristic of citrus greening disease. She knew that the Bordeaux laboratory used electron microscopy (EM) routinely to diagnose greening and therefore she asked me if we would be willing to look at some symptomatic leaf samples from the affected trees in northern SPS. We agreed of course. Monique Garnier examined immediately leaf midribs and fruit axes from healthy and infected trees in the EM at Bordeaux. The samples had been collected by Victoria, Julia Beretta, José Quaggio, Ana Regina Rocha Teixeira and José Dagoberto de Neri. The results came out clear-cut. No bacteria were found in the phloem of affected samples and thus greening was not involved. However, filamentous bacteria were found in the xylem of all affected samples, but not in the xylem from symptomless samples. In collaboration with C. J. Chang on a sabbatical stay in our lab, we identified the xylem-restricted bacteria associated with CVC as *Xylella fastidiosa* and fulfilled Koch's postulates. One of the phytopathogenic strains of *X. fastidiosa* obtained in Bordeaux was later used in Brazil to establish the genome sequence of the CVC bacterium.

Victoria was a rigorous scientist. Her work was neat and clean. Her work was her life. She was eager to always be at the forefront of her field. Enthusiasm was her driving force. She was a pleasant person, she was a good person. She was faithful to her friends. A couple of anecdotes will say more about her than long dissertations. My field of work was somewhat more molecular than hers. When I would have given a talk with some molecular stuff, Victoria would come to me and say, in her cute little way: "you gave a fantastic talk, but I didn't understand a thing"! Victoria loved French fried potatoes! So do I. But she would never order French

fries: "I have to lose weight" she would say. Hence, she would sit next to me and eat my French fries! Between us, we only spoke French. Victoria never called me by my fist name, "Josy" She always called me "Bové". Bové, come here! Bové where are you? She will never say "Bové" again and I feel very depressed.



"Josy Bovè on his way to pay a visit to Victoria after the IOCV Conference found the time to inspect Murraya plants in the streets of Sao Paulo where of course he was able to find a Diaphorina citri!!!"

By Nuria Duran-Vila