

IAPPS NEWSLETTER

Number III

March, 2013

3RD INTERNATIONAL VAVILOV CONFERENCE

The 3rd International Vavilov Conference dedicated to the 125th anniversary of N.I. Vavilov's birth was held November 6-9, 2012, in Saint-Petersburg (Russia). It was attended by 318 scientists and specialists from 22 countries representing different research and breeding institutions, genebanks, universities and other organizations.

Topics of the Conference:

1. N.I. Vavilov: "One ought to hurry as life is short".
2. Theory of crop origin and evolution: history of the problem and modern research trends
3. Applied botany from Vavilov to present days
4. Natural immunity of plants to harmful organisms
5. Plant genetic resources in the age of integration and molecular technologies
6. Plant breeding: science, art or technology?

Within these topics, participants discussed 7 reports in a plenary session (see picture on the right) and 101 reports in six breakout sessions as well as reviewed 53 posters. Both oral reports and posters represented in the framework of the conference strongly suggested that Vavilov's ideas are still relevant in the 21st century. Vavilov's scientific research was



marked by a chain of remarkable discoveries. He showed that cultivated plants pose Linnaeus species – dynamic systems that are closely connected with environment and habitat. Their genetic diversity is unevenly distributed on Earth – it is mostly concentrated in the ancient focal points – centers of origin. He postulated regularities of plant genetic variation and defined laws of natural immunity of plants to harmful organisms, justified theoretical fundamentals for breeding of

cultivated plants. During the session “Plant resistance to diseases” the problems of genetic diversity of cereal resistance to diseases, development of genetic collections of plants with resistance to different diseases and pests, resistance breeding of cereals to obligate and hemibiotrophic pathogens were discussed. The value of a collection of plant genetic resources of Vavilov’s Institute for detection of new genes of resistance was noted.

The strategy of a wide-scale research as well as collection of plant genetic resources accessions preserved at the N.I. Vavilov Research Institute of Plant Industry were generally recognized and realized as plant genetic resources genebank network worldwide. Creative development of N.I. Vavilov’s scientific legacy is determined by scientific and technological progress, new knowledge on many issues postulated by him. In today’s scientific context plant genetic resources are of a particular importance due to the need of ensuring food and environmental security, quality of life and well-being, creating conditions for developing bioindustry. Global climatic and social changes that take place in the world result in change and loss of plants genetic diversity, lower yields and product quality. In this respect studies on adaptability and stress resistance of cultivated plants to the most dangerous pests, extreme temperature, edaphic factors, de- and over-hydration became particularly relevant.

Vavilov’s tremendous contribution to modern biology and agriculture will always remain a milestone for many biologists and historians.

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RICE PLANTHOPPER NEWS

A recent workshop and conference in Hangzhou, China in November 2012 focused on strategies for dealing with the ongoing rice planthopper problems on Asia. As a final, major event in a 5 year program of research and implementation, the Conference was sponsored by the Asian Development Bank (ADB), the International Rice Research Institute (IRRI), Zhejiang University, and Zhejiang Academy of Agricultural Sciences. The Conference focused on Ecology, Management, Socio-economic and Policy issues regarding rice planthoppers. For further details concerning this project, visit the dedicated website at <http://ricehoppers.net>.

One component of the ADB-IRRI planthopper project is the analysis of the insect biodiversity in rice paddies and in the surrounding landscape. In Hainan Island, China, scientists have been astounded by the diversity of insects found and many new species have been discovered. One particular spider species has been named *Mallinella chengjiaani* Barrion, Barrion-Dupo & Heong, in recognition of the enormous contribution Professor Cheng Jiaan of Zhejiang University has made to plant protection sciences in China, and particularly to improving the ecological

management of rice insect pests, especially highly invasive rice planthoppers. A special presentation of a plaque was made during the Conference.



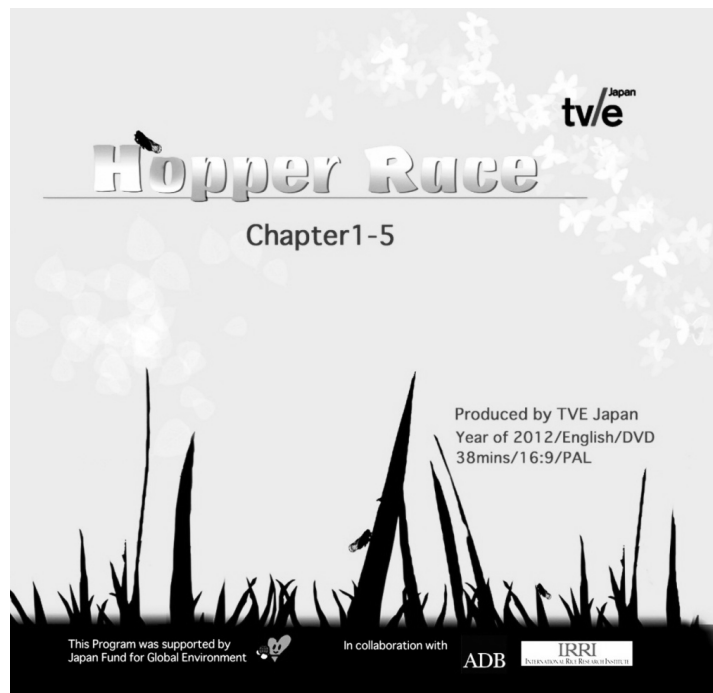
The presentation to Professor Cheng Jianan (second from the left) was made by Dr Bob Zeigler – Director General of IRRI (second from the right) and by Professor Zhang Guoping, Dean, Faculty of Agriculture, Zhejiang University (extreme right) and supported by

Dr KL Heong (extreme left), IRRI Entomologist and IAPPS representative for the SE Asia region.

The Rice Planthopper Conference was also the occasion when a new educational television program “*Hopper Race*” was launched. Produced by the non-profit organization, Television Trust for the Environment, Japan (TVE Japan), *Hopper Race* covers recent efforts in Asia to manage rice planthoppers. In the program you walk the paddies with scientists who are trying to restore biological control to the rice ecosystem: a talking rice planthopper guides you through the issues concerned with the search for sustainable solutions.

Hopper Race is available in DVD format in English; local language versions are being developed for Indonesia, Thailand, Vietnam, Laos, Cambodia and Myanmar and will be distributed by television broadcasts, film screenings and DVD distribution.

The program consists of a series of chapters which can be selected for specific audiences. You can view a trailer for “*Hopper Race*” by going to the following site – http://youtu.be/GPA-u_2kVgA.



For further information about *Hopper Race*, its distribution and possible use in education and

training programs, please contact TVE Japan at tvejapan@nature.email.ne.jp, or send a request form through the website: www.tvejapan.org.

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The IAPPS Newsletter is published by the International Association for the Plant Protection Sciences and distributed in *Crop Protection* to members and other subscribers. *Crop Protection*, published by Elsevier, is the Official Journal of IAPPS.

IAPPS Mission: to provide a global forum for the purpose of identifying, evaluating, integrating, and promoting plant protection concepts, technologies, and policies that are economically, environmentally, and socially acceptable.

It seeks to provide a global umbrella for the plant protection sciences to facilitate and promote the application of the Integrated Pest Management (IPM) approach to the world's crop and forest ecosystems.

Membership Information: IAPPS has four classes of membership (individual, affiliate, associate, and corporate) which are described in the IAPPS Web Site www.plantprotection.org.

The *IAPPS Newsletter* welcomes news, letters, and other items of interest from individuals and organizations. Address correspondence and information to:

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