

From [8<sup>th</sup> International Congress of Plant Pathology](#), Christchurch, February 2003

## **GLOBAL FOOD SECURITY**

“The global community confronts an enormous task: stimulating economic growth in rural areas where 75% of the very poor currently reside and ensuring the nutritional security of a world population that is growing in size and evolving in consumption patterns, without intensifying environmental degradation, social inequity, or adverse consequences for human health.

“This challenge is not only great; it is urgent. Today, access to food – sufficient, safe, and nutritious food – is the primary problem for nearly 800 million chronically undernourished people. .... Over the next 50 years the global population will increase to 8-10 billion, requiring advances in scientific knowledge across a broad range of agricultural endeavours – developing more productive food and commodity cultivars, improving nutritional quality of crop and livestock products, reducing food and commodity yield losses due to pests and diseases, ensuring healthy livestock, developing sustainable and responsible fisheries and aquaculture practices, optimising the use of forests, managing water more efficiently, protecting and improving land productivity, and conserving and managing genetic diversity.”

*World Bank issues paper: An international assessment on the role of agricultural science and technology in reducing hunger and improving rural livelihoods, September 2002.*

## **PLANT PATHOLOGY AND GLOBAL FOOD SECURITY**

Plant pathology will continue to provide a key role for nutritional security for the world. Plant diseases can cause severe production losses in food and commodity crops, and may drastically affect plant products through postharvest degradation. The management of plant disease requires continued development of appropriate technologies, access to knowledge, and direct engagement with growers and managers of supply chains. This must be coupled with a greater understanding of the wider social and economic constraints they face. Furthermore, production and quality standards in trade greatly influence approaches to disease control, and market needs can override production sustainability. We must help ensure economic and sustainable food supply as humanity faces the challenges of the 21<sup>st</sup> century.

Agricultural technologies can contribute greatly to reducing losses caused by plant disease, but many of these carry implications for the environment and food safety. Pesticides can present actual and perceived risks to operators, non-target organisms and consumers. Plant pathogens can produce metabolites that are toxic to humans. Recent attention has focused on the impact of molecular biology and biotechnology in controlling disease problems, and the advantages and disadvantages of using living modified organisms is a matter of major public debate. Organic production offers potential sustainability, but efficient disease management presents particular problems for organic systems. Technology is only part of the answer; involving farmers and communities in understanding the implications and options for change are required if sustainable management of diseases is to be achieved.

## **THE ICPP2003 GLOBAL FOOD SECURITY FORUM**

This forum will continue the International Society for Plant Pathology initiative on Global Food Security. The speakers are recognised leaders in nutritional security and plant pathology. They will present information and challenges highlighting the pressing problems facing the world. They will also address the part that must be played by science in general, and plant pathology in particular, to help humanity cope with the unprecedented requirement for increased food production to support

the burgeoning human population.

Chaired by Dr Peter Scott, President, International Society for Plant Pathology

**Dr Ren Wang**

Deputy Director-General (Research), International Rice Research Institute, the Philippines

***The global food security picture; food surplus versus food deficit and the role of research***

**Dr Paul Teng**

Deputy Director-General (Research), World Fish Center, Malaysia

***The role of public/private partnerships to develop and transfer technologies for improving global food security***

**Prof Zhangliang Chen**

President, China Agricultural University.

Vice President, Beijing University, Peoples' Republic of China

***Feeding a quarter of humanity; challenges and the role of modern technology***

**Dr MS Swaminathan & Dr M Velayutham (the R Glenn Anderson Lecture)**

UNESCO Chair in Ecotechnology, MS Swaminathan Research Foundation, India.

National Co-ordinator, Sustainable Management of Natural Resources, MS Swaminathan Research Foundation, India

***Addressing the needs and problems of resource-poor farmers in marginal lands as a key contribution to food security***

**Dr Peter Scott**

President, International Society for Plant Pathology. CABI, United Kingdom

***Changing public policy and opinions on global food security: challenges for ISPP***

**Open forum discussion**

*This meeting was open to the public*