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EDITORIAL

In this issue

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First two pieces of good news—Food Security was awarded an Impact Factor of 1.658 in June, only 27 months after publication of the first issue in March 2009. Also, congratulations to **Frank Dikötter** on being awarded the 2011 BBC Samuel Johnson Prize for his book "Mao's Great Famine" which was reviewed by **Steven Yearley** in the March 2011 issue of this journal.

Reviews of staple crops

This issue contains two further reviews in the series "Crops that Feed the World", sweetpotato and maize. Sweetpotato is reviewed by **Swapan Mukhopadhyay** and associates from Krishi Viswavidyalaya Agricultural University in West Bengal, India. China is by far the greatest producer of the crop at over 81 million tonnes per annum and with a yield of just over 21 t/ha. Apart from the USA, where yields are 22.5 t/ha but production just under 900,000 t, the Chinese yield per unit area is the highest achieved by any country, the nearest rivals being Kenya at 12.0 t/ha, Indonesia at 11.2 t/ha and India at 9.0 t/ha. Yields documented for other countries (mostly African) by the authors are around 4–6 t/ha. The success of China may be laid at the door of breeding and the adoption of modern varieties by farmers. Mass propagation of disease-free planting material has also contributed to this impressive figure for yield. There is therefore considerable scope for improvements in yield of this nutritious crop in some areas, particularly sub-Saharan Africa. Furthermore, through the Vitamin A Partnership for Africa Programme, orange-fleshed varieties that are rich in highly bio-available β-carotene, a vitamin A precursor, are now available in this region where there is great potential for counteracting the all too prevalent deficiency in this vitamin.

Bekele Shiferaw and associates from the International Maize and Wheat Improvement Center (CIMMYT) point out that maize is a major contributor to the diets of more than 4.5 billion people and is a particularly important source of food calories in parts of Africa and Mesoamerica. However, these are the areas where productivity is low—<2.0 and 2.9 t/ha, respectively. How far these yields fall short of the potential of the plant is illustrated by the fact that yields in West Asia and North America combined with other developed countries are 6.3 and 9.9 t/ha, respectively. What are the reasons for these huge discrepancies? Shiferaw and his colleagues draw attention to the lack of adequate extension services but also point out the need for breeding plants which are high-yielding, stress-tolerant and adapted to a wide variety of environmental conditions. This they suggest will be achieved by a judicious combination of conventional and molecular breeding.

Original papers

Vanessa Herrera Campo and associates discuss the threat of two pests and two diseases of cassava that currently cause considerable damage but whose geographical range may increase. These are whiteflies, cassava green mites, cassava mosaic virus and cassava brown streak disease. Their work identified areas in which conditions are conducive to these problems but where the pest or disease had not yet been identified. They suggest that such areas require intensified monitoring, evaluation and research in order to prevent losses and to ensure food security.

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Jonathan Crush and colleagues point out that 70% of the global number of people living with HIV (PLHIV) are found in sub-Saharan Africa with the proportion of the adult population infected exceeding 15% in seven countries. They argue that there are complex interactions between the effects of PLHIV who are located in rural areas and those who live in cities. For example, PLHIV in rural areas are less able to work and therefore less able to produce nutritious food while those who have migrated to the cities are also less able to work and therefore earn less with the result that they are unable to send money back to their rural families. Moreover, when the disease develops to full blown AIDS they go back to their rural families where their requirement for nursing diverts people from agriculture work.

Emily Levitt and colleagues report attempts to improve household nutrition in Afghanistan by harmonizing the agriculture and health sectors. Unfortunately, public nutrition and food security have a tendency to be marginalized owing to people focusing on their constituents such as increasing productivity and investment in agriculture rather than considering agriculture, nutrition and food security as a whole. The authors conclude that there is a need for continued advocacy and capacity-building in Afghanistan and in the international community in order "to garner and sustain governmental commitment and support for implementation of nutrition and food security policies and programs".

The paper by **J. Alberto Garcia-Salazar** and colleagues concerns a programme for direct assistance to Mexican farmers with the acronym PROCAMPO (Programa de Apoyos Directos al Campo). Farmers receive payments, mostly for maize, that compensate them for subsidies received by foreign competitors. As noted above in the review of maize as a staple crop, it is a particularly important source of food calories in Mesoamerica which includes southern Mexico as well as Guatemala, Belize, El Salvador, western Honduras, and the Pacific lowlands of Nicaragua and northwestern Costa Rica. According to a spatial and temporal model, the annual average production of maize in Mexico would have been lower and imports 40.5% higher without PROCAMPO. Consequently, the authors recommend that payments under the scheme to maize producers should be continued "in the interest of Mexican national food security".

Conference reports

Two plant pathology conferences took place in April this year. The first of these was in Lleida, Spain and was specifically devoted to the important subject of postharvest pathology. The second was in Darwin, Australia and was the Inaugural Joint 4th Asian Conference on Plant Pathology and 18th Australasian Plant Pathology Society Conference and had the title "New Frontiers in Plant Pathology for Asia and Oceania". Readers of this journal unfamiliar with the subject of plant diseases may care to take a look at the reports which give some idea of the ravages wrought by plant pathogens on our crops in storage as well as in the field. Their control would do much to alleviate hunger in some of the more deprived areas of the world.

Book reviews

This issue contains three book reviews, the first two of which are concerned with the effects of environmental changes on food security. **Peter Gregory** reviews "Climate change and food security in South Asia", a book of 35 chapters which arose out of a conference on the subject held in Dhaka, Bangladesh in August 2008. "Food Security and Global Environmental Change" is a synthesis of the work of the Global Environmental Change and Food Systems project (GECAFS) and related work which took place over 10 years from April 2001-March 2011. As the reviewer, **David Elphinstone**, states, the book demonstrates the complexity of the issues faced by the world as we work towards food security. Finally, **Jonathan Healey** reviews Ian Morris's book "Why the West rules—for now: the patterns of history and what they reveal about the future". The reviewer, although arguing against some of the premises of the book, nevertheless found it stimulating and suggests that it provides a valuable context to the problems now facing the globe, including food security.