In this issue

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Received: 21 June 2013 / Accepted: 24 June 2013 / Published online: 6 July 2013
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This issue consists of eleven original papers and three book reviews. The first paper by Lauren Sneyd and co-authors addresses the occurrence of food riots, a result of people not having food security. They point out that urban Africa experienced more instances of such riots than any other part of the world and, in an analysis of 14 African countries where these occurred, showed that international and local perceptions of their drivers differed. Internationally, these were seen as poverty, hunger and global profiteering, whereas local perceptions were of citizen dissatisfaction and local merchant profiteering.

The next two papers are concerned with the physical environment for growing plants, but at the extremes of scale. Whereas Qin Yuanwei and co-authors describe the spatial-temporal changes of cropland and productivity, which have taken place in a large area of northern China during 1990–2010, Kazushi Takahashi investigated the reasons for the poor uptake of the System of Rice Intensification (SRI) in a small and poor area of South Sulawesi, Indonesia. Both papers highlight problems with water supply. The Chinese authors point out that the major expansion of cropland has been in the arid northwest but here the average precipitation has decreased over the 2 decades from 422 to 258 mm per annum and has become more variable. SRI, which was developed in Madagascar in the 1980s, has been reported to increase yields dramatically and was double in one of the results described in the current paper. Typically, it involves transplanting younger and fewer seedlings and spacing them more widely than conventionally, but the most critical factor is alternate wetting and drying of the crop. Despite the potential yield benefits, more than half of the farmers who had used SRI in 2009 had given it up by 2011. This disappointing result was ascribed to lack of control of irrigation, for which timing is critical and which requires co-operation among farmers, and the extra labour involved.

The three following papers deal with the contamination of food or feedstuffs. In the first of these, Rose Mboya shows that most stored maize (93 %) from 130 subsistence farm households in the Rungwe district of Tanzania was infested by weevils, moths or both. Although there was considerable variation in the numbers of insects, the average after storage for 5 months was 1,555 per Kg of grain. The author concludes that such high levels of infestation made vulnerability to food insecurity inevitable and that farm households should be encouraged to use air-tight storage bags, provided that the maize is dry enough for storage at harvest. Also, maize lines resistant to these pests should be developed. The other two papers essentially deal with the contamination of feed for animals by mycotoxins and the possibility that this may lead to contamination of food for human consumption. In the first of these, Alireza Khosravi and co-workers show high variation in the concentration of aflatoxin M₁ in milk in Iran, dependent on the season. More than one third of over 2,000 samples exceeded the European Union limit of 50 ng.l⁻¹, presumably reflecting the different seasonal contamination of the cows' feed with aflatoxin B₁. Carolina Rossi and co-workers found that 94 % and 72 % of broiler chicken feed in the northern part of Paraná State, Brazil was contaminated by fumonisin mycotoxins and aflatoxin, respectively. These two studies demonstrate how mycotoxins can enter the food chain leading to a potential human hazard rather than the more direct consumption of contaminated food.

The next two papers highlight the importance of disaggregating countrywide data in order to define those regions and households that are vulnerable to food insecurity. Muhammad Bashir and Steven Schilizzi found, in a study of the Punjab province of Pakistan, that food security of different household categories and micro-regions were statistically different from each other. Also, household categories differed in their food security status even within regions. Thus a "one size fits all" approach to food security in the province is inappropriate and policies should be adjusted to take into account regional and household differences. Asif Anik and co-workers point out that corruption is usually reported at the

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macro level but this obscures its differential effect on households differing in expenditure levels. Unsurprisingly, in their study in Bangladesh, they found that low expenditure households were worse affected and that here corruption could force compromise of the food budget.

The last three papers all concern whether or not consumers are willing to pay premiums for quality food. Anwar Naseem and co-authors found that consumers in Benin were willing to pay a premium for rice with good physical qualities such as long grains with a low incidence of breakage, few if any impurities and whiteness. They also paid a premium for imported rice despite the local production of NERICA (new rice for Africa) varieties. These are the result of crossbreeding African rice varieties (*Oryza glaberrima*), already adapted to the local environment, and Asian varieties (*O. sativa*) with high yield potential. They are also considered to have better grain quality, taste, milling characteristics and less grain breakage compared to traditional varieties. There is therefore clearly a need to increase the competitiveness of domestic rice relative to imported rice. Philemon Chelang'a and co-authors point out that traditional African leafy vegetables (ALV) can be a valuable contribution to diet, particularly in respect of iron and vitamin A, but that they have been neglected in plans to strengthen the agricultural sector. In Eldoret Town, Kenya, they found that consumers preferred ALVs to exotic leafy vegetables and were willing to pay prices approaching double for them. The title of the final paper by Marc Cohen may be translated from the Haitian Creole, *Diri Nasyonal ou Dir Miami?* as *Which do you prefer, local or imported US rice?* The answer was the local rice because *it looks better, smells better, tastes better, and is better for you*. Nevertheless, they bought the US rice

because it is much cheaper. This throws into relief what the author refers to as the incoherence between US agricultural assistance on the one hand and US agricultural trade policy on the other, viz, while agricultural policy in Haiti is boosting agricultural development and food security, trade liberalization is being aggressively promoted, depressing agriculture development, with the result that the country is now the second largest market for US rice exports!

The first of the books reviewed, "Successful Agricultural Innovation in Emerging Economies: New Genetic Technologies for Global Food Production" is an authoritative, multi-authored volume, which has been beautifully produced. It consists of four parts with the titles "The issues of plant science and food security", "New genetic crops across the emerging world", "Lessons learned about implementing new genetics crops in policy" and "Social, legal, ethical and political issues." Each part has an introduction and is followed by from 5 to 8 chapters. One small quibble I do have is the short shrift given to pathogen-derived resistance. This is a GM technique that has already proved its worth, for example with resistance to papaya ringspot virus, and is sure to be of value as a means of defending our crop plants in the future against at least some of the many diseases that affect them. Al Gore's book which, although simply called "The Future", appears to cover a vast canvas and, according to Iain Gillespie's review, is an important book and perhaps even a great one. "The Global Farms Race" is a witty title but the suffix is altogether more serious "Land Grabs, Agricultural Investment, and the Scramble for Food Security". Steve Yearley, in his review, concludes that the book, although not definitive, sets out a helpful agenda.