

carnivory in phytophagous insects. The authors appeal for more careful and detailed study of such facultative carnivory since many instances of carnivory are either overlooked or not reported.

Another insightful and particularly enjoyable chapter also tackles the same theme, viz. plant defence against herbivores through tritrophic interaction. Whitman takes us on a fascinating journey into the world of plants and the elaborate strategies (nonchemical) employed by them to defend themselves against herbivores. The role of floral nectar, pollen, extrafloral nectaries, food bodies for ants, and domatia (shelters) in plant defence against herbivores by encouraging action of natural enemies is discussed in detail.

Interaction between gall-inducing insects and their host plants is reviewed by Raman in perhaps the toughest chapter, if one were to consider the extent of information published. The burgeoning literature on adaptional integration of host plant and galling insect species, host chemistry, chemical ecology of host selection, insect feeding, gall induction and the response of the host tissue is effectively summarized, but perhaps not sufficiently synthesized.

When two organisms are so closely linked as a plant and its insect pest/guest, the extinction of one is bound to increase the chances of extinction of the other. The issue of host specificity, metapopulations and conservation, using *Drosophila magnaquinaria* and its host plant as the model system, is addressed in the last chapter and the impact of small patches of host plants on the populations of the monophagous fruit fly is discussed.

All the chapters of this book, written by experts in their respective fields, are well researched. A more or less uniform presentation of chapters is also commendable for a multi-authored book as this one. The book, however, has its share of printer's devils. For instance, 'Lepidoptera' is spelt wrongly in the contents page and the legend to Figures on p. 253 is incorrect. Although each chapter can be read independently, they could still have been arranged into smaller subsections following a theme. Overall, the book offers a wealth of information to entomologists and will serve as an excellent companion volume to the recently published book on a related theme³. Undoubtedly, it should find a place on every library shelf. But unless publishers in

India produce inexpensive paperback editions to accompany hard-cover library editions, the habit of buying books for personal use will surely go extinct.

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2. Ehrlich, P R. and Raven, P. H., *Evolution*, 1964, **18**, 586-608.
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K. CHANDRASHEKARA
RAGHAVENDRA GADAGKAR*†

*Department of Entomology,
University of Agricultural Sciences,
GKVK, Bangalore 560 065, India.*

**Centre for Ecological Sciences,
Indian Institute of Science,
Bangalore 560 012, India.*

*†Jawaharlal Nehru Centre for
Advanced Scientific Research,
Jakkur P.O., Bangalore 560 064, India.*

The State of Food and Agriculture 1993.
FAO Agriculture Series No. 26, Food
and Agriculture Organization of the
United Nations, Rome, 1993. 306pp.

The State of Food and Agriculture 1994.
FAO Agriculture Series No. 27, Food
and Agriculture Organization of the
United Nations, Rome, 1994. 357pp.

The Food and Agriculture Organization of the United Nations (FAO), established in October 1945 for helping to achieve freedom from hunger and to disseminate widely data and information relevant to this basic goal, completes 50 years of service this year. Since its establishment, FAO has been publishing a wide range of journals, reports and books. Invariably, these are the most authentic sources of data available in the world concerning area, yield, production, prices, imports

and exports, and other relevant information relating to agriculture, forestry and fisheries. FAO has also an early warning system to draw attention to hot spots in the field of agricultural production so as to help in taking proactive steps to avoid famines. Early warning systems also exist in the case of pest epidemics. A good example is the locust warning system. As it celebrates its 50th Anniversary, FAO can look back with satisfaction on the varied services it has rendered to member nations and more particularly in the field of communication and publication. Most of the FAO publications, including the books under review, are now available as electronic products.

The books under review bring together in a very readable form the significant developments in agriculture during the preceding years. The reports are structured in a way that they contain generic information as well as specific data relating to regions and countries. In addition, one major issue is taken up for detailed analysis in each of the reports. For example, the 1993 report deals with water policies and agriculture, while the 1994 report pays specific attention to various development and policy dilemmas in the forestry sector. The reports give the reader in a capsule form the situation on the food front. FAO's definition of agriculture includes all land- and water-based occupations such as crop husbandry, animal husbandry, fisheries and forestry. Both production and trade issues are considered. The economic environment under which agriculture progresses is often dealt with in an objective manner.

The special sections on water and forests in the 1993 and 1994 reports have one point in common. They both emphasize the need for community participation in the sustainable management of these two essential foundations for sustainable advances in agricultural production. Unless there is equity in sharing the benefits, the requisite degree of public cooperation in managing these assets will not be forthcoming. Participatory water and forest management involves a paradigm shift in management culture, moving away from an entirely government-controlled management to the involvement of all the stake holders in both decision-making and implementation mechanisms.

On the occasion of the 50th anniversary of FAO, the question can be asked as

to why endemic hunger arising from undernutrition and malnutrition is still widely prevalent, although the founding fathers of FAO had felt even in 1945 that the world has the requisite technical and financial resources to make hunger a problem of the past. Is this situation due merely to a lack of the requisite will at the national and global levels to give operational content to the political slogan of 'food for all'?

On the basis of a recent study, the International Food Policy Research Institute (IFPRI), located in Washington, DC, USA, believes that by the year 2020 significant reductions can be made in poverty, food insecurity, malnutrition and micronutrient deficiencies and significant advances made toward efficient, effective and low-cost food and agricultural systems that are in harmony with the natural resource base. The fact remains that although today the world produces enough food to feed each and every person, nearly 800 million children, women and men remain food-insecure. The reasons for this tragic irony are to be found in the nonfood sector, such as lack of purchasing power and entitlements, poor sanitation and health care and non-availability of clean drinking water. It is, therefore, time that we redefine our concept of food security as '*livelihood security for the households and all members within, which ensures physical and economic access to balanced diets, including the needed micronutrients, safe drinking water, environmental sanitation, basic health care and primary education*'. Such a redefinition will help to articulate the public policy package needed to en-

sure food security at the level of each individual in a household. The emphasis on individuals rather than on families is important, since in many societies women and girl children tend to suffer more from undernutrition and malnutrition and there is a trend towards an increasing feminization of poverty.

How do we achieve this goal? In October 1995, a meeting of representatives of Member-Nations of FAO will be held at Quebec in Canada to commemorate the signing of FAO's Charter in that city in October 1945. This is an appropriate occasion to analyse why the Freedom from Hunger Campaign launched in the early sixties by the late Dr B. R. Sen when he was the Director-General of FAO is still to achieve its objectives. The 50th Anniversary of FAO is best commemorated by the adoption of a *Global Convention on Sustainable Food and Livelihood Security*. Such a convention can include the following major provisions:

1. Implement both in letter and spirit the plans of action agreed to at recent UN Conferences, particularly at Rio, Cairo and Copenhagen and take speedy action to implement the provisions of the Desertification Convention.

2. Ensure adequate support for research and development efforts designed to promote national and international public good, since the fast-spreading Intellectual Property Rights (IPR) environment is likely to promote greater investment only in short-gestation-period and profit-driven research. Integrating the dimension of sustainability in research objectives, however, involves location-specific and parti-

cipatory research with rural families. This kind of research is unlikely to attract adequate investment from the corporate sector.

3. Ensure the rapid dissemination of environmentally sound agricultural technologies, particularly among resource-poor farm families, who may have difficulties in gaining access to green technologies as a result of the provisions of the Trade-related Intellectual Property Rights (TRIPS) of the World Trade Agreement.

4. Promote increased trade in value-added agricultural commodities produced in developing countries by assisting them in improving post-harvest technology and sanitary and phytosanitary measures.

5. Contribute generously to global emergency food security reserves and to Food for Livelihood-Security Programmes through the World Food Programme and other appropriate global, regional and national protective social security programmes, so that every child, woman and man has the requisite entitlements for a healthy and productive life.

I would suggest that the State of Food and Agriculture Report for 1995 could include in its special topic section a discussion on the scope and need for such a global convention for the elimination of hunger.

M. S. SWAMINATHAN

*M. S. Swaminathan Research Foundation,
3rd Cross Street,
Taramani Institutional Area,
Madras 600 113, India.*