Book Review

Copping, L.G. 2001. The BioPesticide Manual. 2nd edition. The Crop Protection Council. Farnham, 528 pp. ISBN 1901396290. Price: £52.50.

This is a world compendium on biological and biotechnical active compounds and commercial products used for biological protection of plants against pests, pathogens and weeds. The fact that this compendium is published by the registered charity organization such as the British Crop Protection Council (BCPC) secures that all informations are accurate and scientifically and economically supported.

First forty pages provide the user/reader several useful advices how to use the compendium. Of special value are general information on integrated pests management and organic farming as they base on extensive or exclusive use of natural products.

The main part of the compendium is divided into five sections covering the five categories of plant protection products that contain as active ingredients: micro-organisms, natural-products, macro-organisms, semiochemicals, and genes.

The volume of information on each active ingredient and commercial product is very voluminous and refer to the following items: 1. Approved name. 2. Taxonomy or Structure. 3. Nomenclature (Approved name, Development code, Common name, Name of promoter of a gene). 4. Source. 5. Target pests. 6. Target crops. 7. Biological Activity (Biology, Mode of Action, Efficacy, Key literature). 8. Commercialization (Trade name). 9. Application. 10. Products Specifications. 11. Compatibility. 12. Mammalian Toxicity. 12. Environmental Impacts and Non-Target Toxicity.

Section 1. "Micro-organisms" (p. 1–154) reviews 96 baculoviruses, bacteria, protozoans and nematodes used for production of over 600 commercial biopesticides which are increasingly important in conventional plant protection as well as in integrated pest management and particularly in organic farming.

Section 2. "Natural products" (p. 157–234) contains description of 52 active ingredients derived from plants or microorganisms that are used for commercial production of nearly 300 trade products having fungicidal, bactericidal, insecticidal, acaricidal, herbicidal or attractant features.

Section 3. "Macro-organisms" (p. 235–313) contains characteristics of 51 species of insects and mites e.g. *Amblyseius* spp., *Aphidius* spp., *Trichogramma* spp. or *Phytoseiulus persimilis* broadly used in biocontrol of noxious arthropods.

Section 4. "Semiochemicals" (p. 315–396) contains description of 52 insect sex-pheromones that are used for monitoring or control of pests of field crops, forests, orchards and stored products.

Section 5. "Genes" (p. 399–427) contains description of 18 genes that are used in commercialization of plant varieties resistant to insects (e.g. *Bacillus thuringiensis* cryIIIA genes), to herbicides (e.g. EPSP synthase gene) or to virus diseases (e.g. potato leafroll virus coat protective gene).

The last part of the compendium contains: Glossaries of Latin-English and English-Latin names of pests and beneficial organisms (p. 431–471); Directory of companies producing commercial products (p. 475–490); Abbreviations and codes (p. 493–500).

Very detailed indexes, particularly index of approved names, common names, code names, and major taxonomic classes greatly facilitate using this highly valuable book that should be in each agricultural library.

Jerzy J. Lipa
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