

BOOK REVIEW

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LE CONTRÔLE DES MOUSTIQUES—MOSQUITO CONTROL. Proceedings of the International Seminar on Mosquito Control held at the University of Quebec at Trois-Rivières, Quebec, Canada (1973). Editors: A. Aubin, J. P. Bourassa, S. Bellonck, M. Pellissier and E. Lacoursière. Published by Les Presses de l'Université du Québec, Montréal.

The proceedings of this seminar contain 10 papers by well-known scientists, all of whom are highly knowledgeable in different areas of research in mosquito control. The proceedings are presented in 3 parts.

Part 1, Ecological Aspects, consists of one contributed paper: "Mosquitoes of Quebec, Their Medical, Veterinary, and Economic Importance and the Necessity of a Mosquito Control Program" by R. G. Harrison and G. Cousineau, 18 pp. (in French). This paper lists the species of mosquitoes that are known from Quebec, and discusses their distribution, economic importance, and their potential as vectors of human and livestock diseases.

Part 2, Chemical Control, contains 3 papers. The first, "Chemicals for the Control of Mosquitoes" by G. S. Cooper, 11 pp., discusses the parameters that are important in choosing the proper chemical for a particular job. The chemical materials that may be used in Canadian control programs are listed. The second paper, "The Chemical Battle against the Mosquito: Control with a Larvicide," by G. Ain, G. Pautou, A. Maire, B. Gilot, and R. Gruffoz, 13 pp. (in French), describes a larviciding program in the Rhône-Alps area and discusses this program as a means of mosquito control. The last paper on chemical control is titled "A Review of Progress in the Practical Application of Insect Developmental Inhibitors as Mosquito Control Agents" by C. H. Schaefer, 41 pp. The author reviews the early work with growth regulators and describes field and laboratory studies with the compound Altosid® as a mosquito control agent. Laboratory tests and field observations on the effects of this compound on a wide variety of aquatic nontarget organisms are also presented.

Part 3, Biological Control, contains 6 papers as follows: "Virus Pathogens of Mosquitoes and their

Potential Use in Mosquito Control" by B. A. Federici, 43 pp; "*Bacillus thuringiensis* and its Possible Use in a Program in the Fight against Mosquitoes" by W. A. Smirnov, 6 pp. (in French); "Fungal Infections of Mosquitoes" by D. W. Roberts, 51 pp; "Nematode and Protozoan Parasites of Mosquitoes and their Potential Use for Control" by H. C. Chapman, 11 pp; "Potential of the Radiation-Sterilization Method in the Control of Mosquitoes" by W. F. Baldwin, 16 pp; and "Genetic Control of Mosquitoes" by G. C. LeBrecque, 14 pp. All of these authors have made excellent presentations of their subject matter, however, the chapter on mosquito viruses by Dr. Federici is outstanding. This paper consolidates highly pertinent information from many scattered sources on all of the known mosquito viruses. Electron micrographs and diagrammatic illustrations of different types of viruses that cause disease in mosquitoes are also presented. The chapter by Dr. Roberts on fungal diseases is also excellent in that a great deal of information from many sources is brought together. All of the major groups of fungi which infect mosquitoes are discussed, and there is an extensive bibliography.

Some readers may feel that this seminar has given too much emphasis on the biological control of mosquitoes. However, the papers in this section represent relatively new areas of research, and it would seem that a thorough review of this research is warranted. Two additional biological or physical control methods are conspicuous by their absence. These are use of predators (such as mosquito fish) and water management. Both of these methods are well known, and in certain situations, have been proven to be effective for the control of mosquitoes.

The book contains a few typographical errors, but otherwise seems to be well edited and organized. The English summaries of the papers presented in French could be more detailed. The book is recommended, especially for those interested in recent and current research on control of mosquitoes by biologic methods. Darrell W. Anthony, Agricultural Research Service, USDA, Insects Affecting Man Research Laboratory, Gainesville, Florida 32604.