Insect Repellents: Principles, Methods, and Uses
Edited by Mustapha Debboun, Stephen P. Frances and Daniel Strickman (2006)
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In Australia, where our love of the outdoor life exposes us to a range of biting insects including mosquitoes, biting midges and ticks, the use of repellents is commonplace. However, the selection of an appropriate repellent can often be difficult with a wide range of products available, all claiming to provide effective protection from biting insects.

It is crucial that medical entomologists and health professionals are able to provide the most practical advice on the selection of repellents to the general public but it is also crucial that there is an understanding of the processes involved in the development and testing of new active ingredients and formulations. There is a plethora of articles in the scientific literature investigating insect repellents but there is a great disparity in the methodologies used by researchers making it difficult to evaluate and compare results between studies.

‘Insect Repellents: Principles, Methods, and Uses’ draws together information previously scattered across the scientific and commercial literature into a single volume that covers the history, development, evaluation and use of insect repellents. The three editors, Debboun, Frances and Strickman have made a significant contribution to our understanding of insect repellents and the list of contributors reads as a ‘who’s who’ of insect repellent research over the last 30 years.

The textbook is divided into chapters dealing with specific topics, each of which is grouped into one of four parts, ‘Principles’, ‘Methods’, ‘Products and Active Ingredients’ and ‘Uses’. The ‘Products and Active Ingredients’ section contains a comprehensive coverage of the various repellents ranging from botanically derived products through to synthetic products currently common in insect repellents sold in Australia including Deet and Picaridin. This section, coupled with chapters dealing with repellent history and the perception and use of repellents by the general public provides invaluable advice on suitable repellents that would be useful for both individuals and health professionals.
Most importantly, there is a section devoted specifically to the evaluation methods used to test the effectiveness of repellents that is crucial for researchers planning to undertake repellent research or review current scientific literature. These chapters highlight the complexity involved in designing and carrying out repellent bioassays and provides strategies to minimise the variation in results that may be caused by abiotic and biotic factors.

This textbook contains an impressive coverage of the topic and will no doubt come to be considered the definitive reference book for those researching insect repellents in years to come.

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