BOOK REVIEW

Integrated Pest Management for Potatoes in the Western United States, 2nd Edition
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This book is the second, updated edition of Integrated Pest Management for Potatoes in the Western United States, and it is a useful and beautifully executed contribution to the numerous books on potato management. It was written for use by growers, pest control advisors, crop managers, and county agents in the Western United States, but it is a valuable reference for potato producers in other parts of the world as well. The sections on specific pests are tailored to pest managers and growers in the Western United States, so readers from other areas must treat the recommendations for pest control with caution. The book is divided into equal sections devoted to particular groups of pests or problems: insects, diseases, physiological disorders, nematodes, and weeds. The audience of this book will not only learn about integrated pest management (IPM) practices for potatoes but also will gain important details on the biology of pests, the understanding of which is an important component of resistance management. Most outstanding in this publication are the vibrant photographs, largely taken by Jack Kelly Clark, and the informative and meticulous pencil drawings, tables, and graphs. Practical information is provided throughout the book in the form of step-by-step guides on practices routinely used in pest management (for example, monitoring for different nematode species). Some features, like the tape-measure (in inches and centimeters!), on the inside edge of the back cover invoke the feeling of a field guide, but the handling of this book is better suited for a laboratory or an office setting because of its large size, fine paper quality, and binding. In general, the book format is sometimes unsure; aspects reflective of a quick and practical field-guide switch back-and-forth throughout detail-laden textbook styles. A possible justification for this is that IPM relies on detailed understanding of basic biotic and abiotic factors of plant production and the incorporation of this information into management practices. This book was clearly not designed as a key to identify pests, and the lack of a unifying structure within the sections dealing with particular pest species makes it hard to use as a quick reference. Without some prior knowledge of the pests this publication becomes complicated to use. Another example of the lack of structure is the multiple, scattered, short sections titled “Biological Control” throughout the book; a topic that well deserves a chapter on its own highlighting the importance of this method in IPM. The melding of these small sections into fewer, larger sections could help to avoid repetitions such as the comment on the devastating effects that broad-spectrum insecticides (such as DDT) had on natural enemy communities.

The introductory section gives an adequate background on the current statistics and general pest management problems of potato production in the Western United States. The following six pages deal with potato growth and development regardless of geographic constraints. Here, the textbook-like minutiae on physiological parameters of plant development provide more information than would be required in the scope of this publication. The highlight of the next chapter on “Managing pests in potatoes” is a large table that summarizes the management activities important for controlling pests in potatoes. Tables with up-to-date report on pest resistance and the timing of pest monitoring (with references to text pages containing further details) will become useful guides for pest managers. The clarity and practicality of these tables make some of the surrounding text superfluous.

The following 25 pages are devoted to insects and related pests, starting with the biological control agents. The biology of the most abundant and important natural enemies in the Western United States is provided, but information on the enhancement of natural enemy species and communities is lacking. Pest species are grouped based on feeding mode and the section on insects in which chewing mouthparts is further divided according to whether damage is inflicted to the foliage or tubes. This kind of organization is effectively fitted to users regardless of level of proficiency in biology. Within each section on insect pests, the text gives information on biology, morphology, identification, monitoring and control methods. The photographs of insects and the life-size scales and sketches accompanying them make this section outstandingly user-friendly. In the case of some economically important insect pests a helpful step-by-step instruction for monitoring is included.

The most organized and well-illustrated section of the book is the chapter on weeds. It begins with background information in text and table format and this is followed by short, easy to understand sections on the specifics of each weed species. Plants often look entirely different in the seedling stage than when fully grown; therefore each weed species is presented in two photos, one photo of the seedling and the other photo of the mature plant, making identification easier.

This book could be made even more useful if it was accompanied by a pocket guide to IPM scouting in potatoes. The guide could contain excerpts from this book, with individual pages devoted to the common pest species with ample photographs but few tables and other illustrations. The pocket version could be carried to the field, used as an in situ diagnosis tool, and the book could be used as an in-office, more detail