Science and Technology of Organic Farming


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Science and Technology of Organic Farming is intended to be read by farmers and those interested in the practical implementation of organic farming either to add to their knowledge as a currently certified organic producer or to provide the basis for understanding what might be needed or expected if conversion were to be undertaken. The information presented will be of increasing value in all farming systems given the likely increases in prices for manufactured agricultural inputs such as fertilizers, herbicides, and pesticides. This book seeks to provide a scientific introduction to all aspects of crop production—despite the title, there is no coverage of livestock management issues, beyond the handling and use of farm manures for crops. The text is comprehensive in its coverage of crop production including crop storage issues, as befits the author’s breadth and wealth of practical knowledge and teaching experience. The text is clear and easy to follow and gives a good introduction to the scientific basis and practical implementation of a range of low-input and organic farm practices. It could, therefore, also be useful as an introduction to the range of farm practice for agricultural scientists with limited practical experience of low-input cropping systems.

Unfortunately, the focus on a U.S. farm readership immediately restricts the book’s wider value. For example, the units used in tables and figures throughout are designed to be immediately intelligible to U.S. farmers (e.g., lbs per acre) but consequently immediately lose an international readership. A table of conversions is provided as an appendix, but this is devoid of references. It is disappointing that the bibliography is quite short for a book of this breadth (only 26 reference sources) and consists largely of textbooks that might be recommended for introductory classes in plant pathology, horticulture, soil science and plant nutrition. Some other similar texts providing an introduction to organic farming practices are included, but there is little or no reference to the scientific literature directly, not even via review papers. This is a missed opportunity, especially when so much material can now be obtained via the Internet in homes across the world for free or at reasonable cost.

As a short and accessible introduction to low-input options for crop management in the United States, this book is to commend it; however, it feels a little like a missed opportunity to provide a stepping stone for farmers to develop their scientific literature. And, please, can the rest of the world have one too?