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Book Review

Weeds of the Midwestern United States & Central Canada.

Edited by Charles T. Bryson and Michael S. DeFelice. 2010. University of Georgia Press, Athens, Georgia. 427 pages + x. \$44.95 (paper). ISBN 978-0-8203-3506-3.

This volume is the culmination of work by more than 40 weed scientists and botanists. Its stated purpose is to help identify the great diversity of weedy and invasive plants that interface with agriculture, industry, and natural ecosystems in central North America. The geographic range covered by this book extends from southeastern Saskatchewan to eastern Kansas, northern Kentucky, northwestern Pennsylvania, and southwestern Quebec. This is a welcome edition because a current book on unwanted plants has not been available for the eastern two-thirds of this region. The book is arranged taxonomically by family and alphabetically by species within each family. Scientific nomenclature follows the accepted names specified by the Weed Science Society of America rather than the most current taxonomic treatments. This treatment focuses on weed identification rather than management recommendations.

The book covers the identification of about 350 species. A brief introduction is followed by a nine-page illustrated terminology depicting parts of a dicot stem, parts of a monocot collar, leaf shape and arrangement, flower parts, inflorescence types, root types, and stem types. A key to the families follows. The key is relatively simple, but a person using it will need some botanical knowledge. In my opinion, the key is not an important feature of the book.

Each species is presented on a single 7.5 by 10-inch page with a distribution map of the continental United States, Alaska, and Canada, rather than the region covered, and two to five photographs in color. Principal photography was done by Arlyn W. Evans and Michael S. DeFelice. Photographs usually are of the inflorescences/flowers, leaves, seedlings, and seeds. Photographs of the seedlings and seeds set this apart from most weed identification books. An illustration of the collar region is provided to assist with the identification of the grasses. The most widely used English common name is followed by a section which includes alternate common names, French common names, and synonymous botanical names. Many common botanical synonyms have been excluded while some obscure synonyms and others not used for decades are included. This section is followed by details of plant growth habit and life cycle, important vegetative and reproductive characteristics, special identifying features, and toxic properties. The book concludes with a glossary, bibliography, and index.

The process for selecting plants to include in this guide is not described, but I wonder how native prairie species such as porcupinegrass (*Hesperostipa spartea*) and purple

coneflower (*Echinacea purpurea*) made the list. The distribution maps are very good, although detail varies from one map to the next. A few of the distribution maps are not indicative of actual distribution. An example is purple coneflower which is shown restricted to the Midwest but occurs also to the west across the Great Plains. Closer attention could have been paid to origin. An example is common yarrow (*Achillea millefolium*) which is listed as a native to Europe. This is correct, but it is native also to much of North America.

The index is another concern. I was interested in reading about garlic mustard. I was unable to find it in the index under "garlic" and had to go to "mustard, garlic" to find the page number. This reverse style is followed throughout the index.

Most users will leaf through the book looking at the photographs to identify the weeds growing on their properties. They will be aided by the excellent quality of nearly all of the 1,423 photographs. The photographs, as well as the brief descriptions of the plant characteristics, are the greatest strengths of this book. Photographs of seedlings and seeds will be of interest to some; however, they may not be an important aid to identification. Photographs of grass seedlings are not definitive, but the illustrations of grass collars are excellent and will be helpful in identification. Most of the photographs of grass florets are mislabeled as caryopses. I went back to *Weeds of the South*, an earlier regional book edited by Bryson and DeFelice (2009, University of Georgia Press, Athens, Georgia. 469 pages. ISBN 978-0-8203-3046-4) and found that the photographs of florets were mislabeled as seeds.

Overall, *Weeds of the Midwestern United States & Central Canada* is an excellent publication. It will be a valuable guide for plant identification to producers, homeowners, and weed professionals.—James Stubbendieck, Department of Agronomy and Horticulture, University of Nebraska, Lincoln, NE 68583-0915.