

Bovey, R.W.: **Woody Plants and Woody Plant Management. Ecology, Safety, and Environmental Impact.** – Marcel Dekker, New York – Basel 2001. ISBN 0-8247-0438-X. 564 pp., USD 195.00.

Managing woody plants is sometimes very challenging, and requires judicious use of the best management practices in balancing recreation, wildlife needs, watershed yield, livestock use, economics, conservation of resources, and human needs and goals. The author of the book—an Adjunct Professor in the Department of Rangeland Ecology and Management, Texas A&M University, College Station—brought together the most significant literature and data on this topic, scattered throughout many diverse sources.

The book contains 16 chapters. The first two chapters deal with the significance and botanical nature of woody plants (characteristics, encroachment), and the history and development of woody plant management (use of fire, biological, mechanical, and chemical control methods, combinations of these methods). In the next two chapters, herbicide development (screening, tests required for pesticide registration, production), and chemistry and properties are examined (benzoics, bipyridiums, phenoxy, pyridine herbicides, sulfonylureas, triazines, ureas and uracils, other organic herbicides and herbicide combinations).

In individual herbicides, further chapters summarise in detail how herbicides are applied (sprays, cut-surface and injection treatments, soil treatments, wipers, *etc.*, preparation and cleaning equipment), and discuss the problem of residues and their impact on the environment (persistence and breakdown in soil, plant, water sources, runoff, *etc.*), and herbicide toxicology and safety. Chapter 8 provides an update of the phenoxy herbicide controversy (the so-called Agent Orange).

Next four chapters are devoted to the fate and activity

of herbicides in plants (foliar absorption, root penetration and translocation), and their effects on plants and animals (ecological impact on forage plants, herbaceous vegetation, forest trees, aquatic organisms, insects and nematodes, birds, small and large animals). The response of over 370 woody plants to commercially available herbicides is presented in Chapter 12 (trade and common names, formulations, approximate costs, and manufacturers of 45 herbicides, application methods, environmental protection, *etc.*). Further chapter discusses the economics of woody plant control.

Useful information can be found in the Chapter 14 dealing with nonchemical methods of woody plant control (bulldozing, grubbing, chaining, riling, chopping, mowing and shredding, root plowing, disking). Interesting is biological control including control of woody plants and herbaceous weeds with insects, control with plant pathogens, selective grazing, plant competition, control with fire, *etc.* Growing woody plants for experimental purposes (growing from seed, propagation of transplants, field nursery), as well as future research needs and recommendations are discussed and summarised in the last two chapters.

Generally, the book is an excellent source of information on the field treated. Each chapter contains a list of references (together over 1250 citations). The book is well produced, and is provided by a detailed subject index. It will surely find a numerous readership among biologists, ecologists, plant and soil scientists, technicians, and growers interested in wood plant management.

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