

BOOK REVIEW

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Review of: *Medicinal Plants of the World: Chemical Constituents, Traditional and Modern Medicinal Uses, Volume 3*

REFERENCE: Ross IA. Medicinal plants of the world: chemical constituents, traditional and modern medicinal uses, Vol. 3. Totawa, NJ: Humana Press; 2005.

Volume 3 of *Medicinal Plants of the World* follows the same format as the previous two companion volumes of the same title. Each of the 16 chapters of this book is dedicated to a single plant species identified by botanical name. The plants are ones with which we are acquainted and encounter on a daily basis, e.g., *Camellia sinensis* (tea), *Cannabis sativa* (marijuana), *Nicotiana tabacum* (tobacco) and *Olea europaea* (olive). The author points out that the plants discussed in Vol. 3 may be considered controversial in their classification as “medicinal” but appropriately explains that “many highly toxic materials used for lethal purposes have also found applications in modern medicine.” The content of each chapter is presented under the headings of common names (world wide origin); botanical description; origin and distribution; traditional medicinal uses; chemical constituents; pharmacological activities and clinical trials; and references.

The list of common names for each plant also includes the country with which the name is associated. The short botanical description is as one would expect and is simply and clearly written. The origin and distribution sections give varying amounts of historical information as well as geographical origin(s) of the plant. Chemical constituents of the plant(s) are listed alphabetically, some with concentration of the chemical given in some instances and each is referenced.

Traditional medicinal uses of each plant are discussed by country of use. For example, it is stated that in India, fresh leaf

juice of *C. sinensis* (tea) is used orally for abortion, and as a contraceptive and hemostatic. Dried leaves of *N. tabacum* (tobacco) is used as an insecticide. Decoction of dried leaf of *N. tabacum* is also taken orally to treat bronchitis and pneumonia in Haiti. Information in this section can be useful when toxicity is observed in areas where folk, home, or alternative medicines are used.

The Pharmacological Activities and Clinical Trials sections are literature surveys of the *in vitro*, animal and human scientific reports from the world literature. The material is presented by individual effect in alphabetical order. For example, there are 117 subtopic summaries presented that cite 250 references for *Coffea arabica*. Subtopic subjects are descriptive and include such issues as abortifacient effect, antibacterial activity, carcinogenic activity, cardiac mechanoenergetics, mood effects, toxicity, and others. The subtopics are relatively short and indicate whether a particular constituent(s) is active or nonactive.

Questions arise concerning the relationship of alternative medicines, especially herbal medicine, to their therapeutic use, drug-plant interactions, or toxicity. There are few medicinal plant or herbal books that easily offer useful scientific information to toxicologists, who face these issues. *Medicinal Plants of the World*, Vol. 3, along with its companion Vol. 1 and 2, provides an excellent starting point for information gathering for cases involving unusual or even the usual medical plant.

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