

BOOK REVIEW

***Food Additive Toxicology,* edited by Joseph A. Maga and Anthony T. Tu**

Marcel Dekker, New York; 1994; 552 pp.;

\$175.00; ISBN 0-8247-9245-9

A food additive can be defined as a compound, or mixture of substances, that is added to food to improve production, processing, storage, packaging, or preparation. Additives such as smoke, alcohol, vinegar, and spices have been used for centuries to aid in the preservation and flavor enhancement of foods. Additives can be grouped and classified in several ways. For example, they can be added to foods intentionally or unintentionally. The first category includes those added to serve some function, such as to provide nutrition, preserve freshness, improve some sensory quality, or aid in processing. The unintentional additives often are those associated with the production and storage of food, such as agricultural pesticides and packaging materials.

There are several thousand natural and synthetic compounds approved for use as additives to improve the flavor, color, convenience, stability, and nutritional qualities of foods. Certainly, some of the most important additives are those that relate to the safety of foods, such as the antimicrobial agents that reduce the risk of food poisoning. On the other hand, food additives, e.g., MSG and sulfites, can have potential toxicological implications, especially for certain hypersensitive individuals. Here is where food additive toxicology comes into play. The setting of food additive tolerances or "safe" levels, especially when extrapolated from nonhuman tolerance data, has led to many controversies based on moral and legal considerations.

Although this book does not deal with these aspects of toxicology or, for that matter, toxicology per se, it does provide an excellent compendium of the toxicological properties of food additives. The 11 well-written chapters contain few errors and cover the subject areas of: types of food additives, food acidulants, antioxidants, food colors, curing agents, flavoring agents, flavor potentiators, salts, modified food starches, incidental food additives, and antimicrobial agents. Although not intended as a textbook, this volume will, however, be a useful reference book for food scientists and others concerned with the toxicology of food additives.

Richard A. Durst
*Analytical Chemistry Laboratories
Department of Food Science and Technology
Cornell University, Geneva, NY*