that fit into a preconceived outline for addressing scale and geographic issues influencing agrochemical fate and movement. The introductory chapter makes a valiant attempt to run a common thread through the chapters to show their significance and relationship to the overall objective of the book. However, roughly one-fourth of the chapters are not integrated into the overall picture and it is left for the reader to deduce their significance in relation to the whole. Answers to the questions, What are the effects of scale? and What significance does geographic region have on the fate and movement of an agrochemical?, and the interrelationship of the answers as reflected by some of the chapters are provided in the introductory chapter rather than a summary chapter focusing on these issues.

Because the chapters are organized by agroecoregions, the impact of regional geography is more readily deduced, whereas issues of scale are sporadically addressed. The discussion of fundamental concepts for addressing scale issues, such as aggregation and disaggregation of data, are not a concern of this book; consequently, the book’s instructional value in the area of scale effects is limited. The basic postulate of scale conveyed by the book is that scale of study is linked to geographic region. For these reasons, the book is of value primarily to researchers already familiar with the concepts and the tools used in addressing general issues of scale influencing agrochemical fate and distribution. The book serves more as a compendium of case studies of identified agroecoregions, which are examples for approaching nonpoint-source pollution problems resulting from the use of agrochemicals within a geographic region.

One factor that separates this collection of symposium papers from most others is the useful subject index. Another strength of the book lies in the quality of many of the individual chapters. The chapters by the keynote speakers typify how agrochemical studies differ in the three identified agroecoregions. One of the keynote chapters specifically addresses issues related to scale by studying watershed scale effects on agrochemical patterns in Midwestern streams. This chapter represents the most comprehensive look at scale effects of any chapter. Taken individually, the papers are technically sound and well written.

What the book lacks in integration and continuity, it makes up for in several well-designed individual experimental papers. The greatest number of chapters deals with NPS pollution of surface waters. The book provides several chapters that are useful from a pesticide monitoring and chemical analysis standpoint. Runoff studies both from a monitoring and modeling perspective are well presented. Some chapters, though informative, add little to meeting the objective of the book, such as a chapter describing the Management Systems Evaluation Areas (MSEA) Program.

An unexpected aspect of the book is the general lack of use of advanced information technologies such as geographic information systems (GIS) to address the NPS pollution problem. The greatest number of chapters deals with NPS pollution of surface waters. The book provides several chapters that are useful from a pesticide monitoring and chemical analysis standpoint. Runoff studies both from a monitoring and modeling perspective are well presented. Some chapters, though informative, add little to meeting the objective of the book, such as a chapter describing the Management Systems Evaluation Areas (MSEA) Program.

Modeling for All Scales: An Introduction to System Simulation


People learn best when they are entertained. The title of this book implies, Soil Resources are the Environment, and Economic Minerals. The latter chapters concentrate on some of the cases. The greatest number of chapters deals with NPS pollution of surface waters. The book provides several chapters that are useful from a pesticide monitoring and chemical analysis standpoint. Runoff studies both from a monitoring and modeling perspective are well presented. Some chapters, though informative, add little to meeting the objective of the book, such as a chapter describing the Management Systems Evaluation Areas (MSEA) Program.

The authors are distinguished systems ecologists, and many workers. The book uses object-oriented programming and intuitively well written. Programs seem to have been user-tested quite widely on university students, but they will probably be accessible to reasonably numerate high school students and useful to research workers.

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