

Foreword

The reader of this volume will experience a voyage of discovery with one of the finest guides available. James E. Lessenger has combined experience in private practice, preventive medicine, and public service in California's San Joaquin Valley, one of the most productive agricultural regions in the world. His experience and selection of chapter authors is, in every sense, a contribution to illuminating the art and science of agromedicine. As one examines the table of contents, one is impressed by the range of topics and the importance of each concern. Covering both injury prevention and environmental hazards, this innovative work is a practical guide for the family physician working in a rural area. The contents demonstrate the vitality of agromedicine and the vision and insight of the authors.

The chapters on farm chemicals provide thorough information about the many types of chemicals commonly used in the farm environment, how they are applied, and the principles of diagnosis and management for family physicians treating patients for toxic chemical exposure. These chapters underscore the fact that the use of farm chemicals is one of the things responsible for the increase in worldwide agricultural production and that risks can be managed through preventive measures.

The *Agricultural Medicine* represents a benchmark in the evolution of a concept begun in South Carolina over two decades ago called agromedicine. Several faculty members at two state-supported universities in South Carolina needed a shortened name for our closer partnership between the land grant campus of Clemson University and the Medical University of South Carolina at Charleston. In 1983 the agromedicine program was only an idea: how to provide an innovative public service program to benefit farmers and farm families with the most useful information on health, safety, nutrition, and preventive medicine. The new term *agromedicine* connotes an update of the traditional terms *agricultural health and safety* and *agricultural medicine*.

The need for the agromedicine partnerships is just as real now as it was in its inception. The target population of farmers, farm families, and consumers of food and fiber are underserved by direct and effective forms of preventive medicine. These forms include health education, patient motivation, and food safety. Dr. Lessenger's book addresses these issues as well as preventable disorders such as noise-induced hearing loss, ultraviolet light-induced skin cancers, heat and humidity syndromes, allergic anaphylaxis, zoonoses, injuries, and pulmonary disorders.

Complex agromedicine questions keep arising: How should we focus on the most practical health measures for the average hard-working rural farm

family and consumer? How should we react to illnesses resulting from hazards such as infectious rodents and ticks, noxious hog-farm odors, botanical toxins and dermatitis, pesticide residues measured in food at parts per billion or trillion, self-medication with herbal preparations, and excessive stress predisposing farmers to depression and suicide? How should we define the problem, select countermeasures, and communicate to farmers and farm families at risk?

The average farm family today differs from that of the 1980s. Rural patients and extension clients in the past were less oriented to the media and untouched by cyberspace. Today's farm family can be deluged with health information and misinformation. One constant issue is that health insurance is still an unmet need for many farm families. Chapters 1 and 2 of this book address the context of agricultural medicine and traditions that affect treatment. Health issues of migrant farm workers are also covered.

Our experience in South Carolina helped other southeastern states initiate similar interuniversity partnerships for their farmers and farm families. Naturally, priorities and methods of outreach vary with the types of agriculture. Grain farmers endure different hazards than orchard sprayers; the ergonomics of dairy farmers differ from those of vineyard workers; heat stress and cold injury vary with climate. Client-based research will lead to a broadened range of preventable health problems, whether they involve food bioterrorism, the Norwalk virus in oyster beds, immunodeficiency in poultry workers, asthma in hog-confinement operations, or anaphylaxis from fire ant stings.

In South Carolina, in the 1980s, client-based research led us into medical entomology and epidemiology: How many cases of Lyme-like illness are never reported? How can people protect themselves from unnecessary tick-borne disease? How can patients get specific antibiotic/antiinflammatory treatment early? How can primary care physicians offer earlier diagnosis and treatment? It is clear that agromedicine is not a subspecialty of occupational medicine seeking academic or grant recognition as it is a responsive programmatic approach to emerging rural health problems in exposed segments of the population.

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