advocated throughout the book, they believe it is essential to adopt a systems approach. They also call for more effective coordination between agronomic and plant breeding experiments.

A 12-page index enhances the usefulness of the book. Literature citations in each chapter are thorough and current.

The contributors to this book bring many years’ experience to the challenge of genotype × environment interaction. The result is a valuable synthesis for plant breeders and research directors working in large or diverse geographical regions.

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This book addresses the concept of quality in cereal grains in general with individual chapters devoted to detailed descriptions of various specific qualities. It is intended to be a first point of reference for exploring cereal grain quality with the expectation that the literature reviews in individual chapters would serve as resources for pursuing a topic in depth. The contributors to each chapter were chosen for their expertise in particular areas.

Part One consists of seven chapters describing the major cereals: wheat, rice, maize, barley, sorghum, rye, triticale, and oat. Included in each chapter are the primary end-uses as well as the major definitions for each cereal. One of the greatest strengths of this book is that a clear definition of what constitutes quality for each cereal is described as well as the details of the experimental procedures necessary for those characterizations.

Part Two is comprised of three chapters related to the biochemical aspects of cereal grain quality. In this section are devoted to cereal grain proteins, carbohydrates respectively, and a third is devoted to lipids, inorganic substances, vitamins, and toxics or anti-nutrients in cereals. The two chapters devoted to carbohydrates are particularly valuable and well written. The prolamin proteins of barley, wheat, rice, and oats are especially well characterized with several gels as well as diagrams of structures included in this chapter.

Chapter 4: adaptation of crop plants to daylength, temperature, irradiance, and water stress; ecology of yield in relation to latitude, solar radiation, temperature, and rainfall.

Chapter 5 covers the physiological aspects of crop improvement. This is Evans’ forte and takes up one-fourth of the text. It is well documented with 93 pages of text. An extensive index provides access to specific topics.

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