Record Nr. UNISA996212497603316 Autore Zimdahl Robert L Titolo Weed-crop competition [[electronic resource]]: a review / / Robert L. Zimdahl Oxford, UK: Ames, Iowa, Blackwell Pub., c2004 Pubbl/distr/stampa **ISBN** 1-282-11244-9 9786612112447 0-470-29022-6 0-470-29010-2 Edizione [2nd ed.] Descrizione fisica 1 online resource (234 p.) Disciplina 632.5 Soggetti Weeds Plant competition Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Includes bibliographical references. Nota di bibliografia Nota di contenuto Weed-Crop Competition; Contents; Preface; 1 Introduction: An Historical Perspective: 2 Definition of Plant Competition: 3 Competition in the Community; Plant Communities; Agricultural Communities; Levels of Competition: Density: Community Composition: Theories of Competition; 4 Influence of Competition on the Plant; Density; Competitive Ability; General Principles; Competitive Success; 5 The Effect of Weed Density; Alfalfa; Barley; Corn/Maize; Cotton; Oilseed Crops; Flax; Rapeseed/Canola; Safflower; Sunflower; Peanut/Groundnut; Potato; Rice; Sorghum; Soybean; Sugarbeet;

Sugarcane; Vegetables
BeanLentil and Chickpea; Onion; Pea; Pepper; Tomato; Other Vegetable
Crops; Wheat; Other Small Grain Crops; Studies of Diverse Crops;
Weed-Weed Interference; 6 The Effect of Competition Duration; 7 The
Elements of Competition; The Role of Temperature; Competitive
Interactions for Nutrients; Competitive Interactions for Light;
Competitive Interactions for Water; Competition for Other
Environmental Factors; 8 Weed Management Using the Principles of
Competition; Plant Arrangement in the Community; Monoculture Versus
Polyculture; Tillage; Rotation or Crop Sequence; Shade

The Role of Crop GenotypeFertility; The Importance of Weed Biology and Ecology; 9 Methods Used to Study Weed-Crop Competition; 10 Models and Modeling; Conceptual Models; Simulation (Analytical) Models; Mechanistic or Empirical Models; Time of Emergence; Leaf Area Models; Multispecies Competition; The Extrapolation Domain of Models; Decision-Aid Models; Spatial Distribution; The Effect of Variability on Decisions; Thresholds; Conclusion; 11 Conclusion: The Complexity of Competition; Appendix; Index

Sommario/riassunto

For the past 20 years, the first edition of this text has been widely cited as authoritative academic reference. The latest edition continues the tradition set by the original book, and covers weed science research that has been published since 1980. This book aims to reduce the instance of research duplication-saving scientists and supporting institutions time and money. Not only does the second edition of Weed Crop Competition review, summarize, and combine current research; it critiques the research as well. This text has the potential to accelerate advancements in weed crop c