1. Record Nr. UNINA9910768193203321 Advances in Research on Fertilization Management of Vegetable Crops Titolo // edited by Francesco Tei, Silvana Nicola, Paolo Benincasa Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2017 **ISBN** 3-319-53626-5 Edizione [1st ed. 2017.] 1 online resource (XI, 302 p. 32 illus., 13 illus. in color.) Descrizione fisica Advances in Olericulture, , 2367-4091 Collana Disciplina 635.04 Soggetti Plant physiology Plant biotechnology Agriculture Sustainability Plant Physiology Plant Biotechnology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Includes bibliographical references at the end of each chapters and Nota di bibliografia index. Nota di contenuto Chapter 1: The role of research for a sustainable fertilization management in vegetables: future trends and goals -- Chapter 2: Tools and strategies for sustainable nitrogen fertilisation of vegetable crops -- Chapter 3: Organic matter mineralization as a source of nitrogen --Chapter 4: Fertilizers: criteria of choice for vegetable crops -- Chapter 5: Crop Rotation as a System Approach for Soil Fertility Management in Vegetables -- Chapter 6: Localized Application of Fertilizers in Vegetable Crop Production.-Chapter 7: Water and nutrient supply in horticultural crops grown in soilless culture: resource efficiency in dynamic and intensive systems -- Chapter 8: Plant breeding for improving nutrient uptake and utilization efficiency -- Chapter 9: Water management for enhancing crop nutrient use efficiency and reducing losses -- Chapter 10: An economic analysis of the efficiency and sustainability of fertilization programmes at the level of operational systems, with case studies on Table tomato, Carrot and Potato in Central Italy.

Sommario/riassunto

This book is a review of the recent literature on the key scientific and technical subjects of fertilization management in vegetable crops. In the last decades, research on fertilization management in vegetables was aimed at producing economical yields with reduced fertilizer inputs by the development and implementation of cropping systems, nutrient management approaches and crop varieties. Examples of the interventions in cropping systems included adequate crop rotations, inter-cropping, double cropping, and other strategies for a better soil organic matter management; nutrient management approaches included modelling, Decision Support Systems, crop nutritional status testing and precision agriculture technologies; amelioration of crop varieties has been directed toward higher nutrient/fertilizer use efficiency.