1.	Record Nr.	UNINA9910298333303321
	Titolo	Trapping and the Detection, Control, and Regulation of Tephritid Fruit Flies : Lures, Area-Wide Programs, and Trade Implications / / edited by Todd Shelly, Nancy Epsky, Eric B. Jang, Jesus Reyes-Flores, Roger Vargas
	Pubbl/distr/stampa	Dordrecht : , : Springer Netherlands : , : Imprint : Springer, , 2014
	ISBN	94-017-9193-7
	Edizione	[1st ed. 2014.]
	Descrizione fisica	1 online resource (643 p.)
	Disciplina	338.1 338.927 570 577
	Soggetti	Entomology Agriculture Ecology Sustainable development Agriculture - Economic aspects Sustainable Development Agricultural Economics
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Description based upon print version of record.
	Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
	Nota di contenuto	TABLE OF CONTENTS Short I. INTRODUCTION -- 1.1 Fruit Fly Alphabets -- II. LURES AND TRAPS -- 2.1 Pheromones, Male Lures, and Trapping of Tephritid Fruit Flies -- 2.2 History and Development of Food-Based Attractants -- 2.3 Plant Odors as Fruit Fly Attractants -- 2.4 Interactions between Tephritid Fruit Fly Physiological State and Stimuli from Baits and Traps: Looking for the Pied Piper of Hamelin to Lure Pestiferous Fruit Flies -- III. ECOLOGY AND DETECTION -- 3.1 Trapping to Monitor Tephritid Movement: Results, Best Practice, and Assessment of Alternatives -- 3.2 Fruit Fly Invasion: Historical, Biological, Economic Aspects and Management -- 3.3 Fruit Fly Detection Programs: The Potentials and Limitations of Trap Array -- 3.4 Spatial Analysis of

Tephritid Fruit Fly Traps -- 3.5 Using Molecules to Identify the Source of Fruit Fly Invasions -- 3.6 Modeling Trapping of Fruit Flies for Detection, Suppression, or Eradication -- IV. ATTRACT AND KILL -- 4.1 Priorities in Formulation and Activity of Adulticidal Insecticide Bait Sprays for Fruit Flies -- 4.2 Recent Developments and Applications of Bait Stations for Integrated Pest Management of Tephritid Fruit Flies -- 4.3 Male Annihilation: Past, Present, and Future -- 4.4 Mass trapping for fruit fly control -- V. PHYTOSANITARY PROGRAMS AND REGULATIONS -- 5.1 Integrating Tephritid Trapping into Phytosanitary Programs -- 5.2 Trapping Related to Phytosanitary Status and Trade -- VI. CODA -- 6.1 The Complexities of Knowing What It Is You Are Trapping.

Sommario/riassunto

Tephritid fruit flies are among the world’s most notorious pests of commercially important fruits and vegetables, and with ever-increasing human and product movement and accelerated global warming, these flies will have an even greater impact in the future. Information gathered through trapping is crucial to understanding their ecology, controlling their populations, and developing international trade agreements. This volume is the first devoted exclusively to trapping tephritid fruit flies and adopts a comprehensive and global approach in describing key empirical and theoretical issues. The book consists of four major sections, which cover lures and traps, ecology and detection, attract-and-kill methods of control, and phytosanitary programs and regulations. Within this broad perspective, the authors focus on a diverse array of basic and applied topics, including the role of pheromones, food-baits, and plant odors as trap lures, dispersion and invasion biology, modeling detection programs, evaluation of bait stations, mass trapping, and male annihilation as control measures, and the role of trapping data in developing trade regulations. Representing 15 countries, the authors bring rich experience to the subject and ably describe current status as well as historical perspective and future direction of the selected topics. Useful manuals exist, but this book offers a much broader, academic, and international perspective to the core principles of tephritid trapping. The book’s audience will include researchers, teachers, animal and plant health administrators, and policy makers. Given the breadth of material covered and the exhaustive citation listing along with the increasing agricultural threat posed by tephritid fruit flies, this book will be an extremely valuable reference on the subject for many years to come. .