1. Record Nr. UNINA9910816884403321

Titolo	GIS applications in agriculture . Volume three Invasive species / / edited by Sharon A. Clay
Pubbl/distr/stampa	Boca Raton, FL, : CRC Press, ©2011 Boca Raton, Fla. : , : CRC Press, , 2011
ISBN	0-429-14682-5 1-4200-7881-X
Edizione	[1st ed.]
Descrizione fisica	1 online resource (448 p.)
Collana	GIS applications in agriculture ; ; v. 3
Altri autori (Persone)	ClaySharon A (Sharon Ann)
Disciplina	632
Soggetti	Agricultural pests - Control - Data processing Introduced organisms - Control - Data processing Noxious weeds - Control - Data processing Agricultural informatics Geographic information systems Agricultural mapping Agriculture - Remote sensing
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.
Nota di contenuto	Front cover; Contents; Series Preface; Preface; Acknowledgments; Editor; Contributors; Chapter 1. Introduction: Remote Sensing and GIS Techniques for the Detection, Surveillance, and Management of Invasive Species; Chapter 2. Obtaining Spatial Data; Chapter 3. Population Ecology Considerations for Monitoring and Managing Biological Invasions; Chapter 4. Integrating GPS, GIS, and Remote SensingTechnologies with Disease Management Principles to Improve Plant Health; Chapter 5. Mapping Actual and Predicted Distribution of Pest Animals and Weeds in Australia Chapter 6. Use of GIS Applications to Combat the Threat of Emerging Virulent Wheat Stem Rust RacesChapter 7. Online Aerobiology Process Model; Chapter 8. Site-Specific Management of Green Peach Aphid, Myzuspersicae (Sulzer); Chapter 9. Analysis of the 2002 Equine West Nile Virus Outbreak in South Dakota Using GIS and Spatial Statistics; Chapter 10. Designing a Local-Scale Microsimulation of Lesser Grain

	Borer Population Dynamics and Movements; Chapter 11. Geographic Information Systems in Corn Rootworm Management Chapter 12. Improving Surveillance for Invasive Plants: A GIS Toolbox for Surveillance Decision SupportChapter 13. Tracking Invasive Weed Species in Rangeland Using Probability Functions to Identify Site-Specific Boundaries: A Case Study Using Yellow Starthistle; Chapter 14. Using GIS to Map and Manage Weeds in Field Crops; Chapter 15. Adapting Geostatistics to Analyze Spatial and Temporal Trends in Weed Populations; Chapter 16. Using GIS to Investigate Weed Shifts after Two Cycles of a Corn/Soybean Rotation; Chapter 17. Creating and Using Weed Maps for Site-Specific Management; Back cover
Sommario/riassunto	While many ""alien"" plant and animal species are purposefully introduced into new areas as ornamentals, livestock, crops, and even pets, these species can escape into other areas and threaten agricultural and native ecosystems causing economic and environmental harm, or harm to human health. Increasingly, scientists are using Geographic Information Systems (GIS) to track and manage the invaders, mitigate the potential rate of spread and level of impact, and protect the native economy and ecosystem.Beginning with an introduction to the use of GIS technology to capture, store,