

Crop Rotation on Organic Farms

A Planning Manual

Features

Problems and opportunities for 500+ crop sequences
Characteristics of 60+ crops and 70+ weeds
Crop diseases hosted by 80 weed species
Modes of transmission for 250+ diseases of 24 crops
Real Fields on Real Farms color plates: 13 sample four- and five-year vegetable and grain crop rotations
Managing Crop Rotation Chart with key tasks & steps
Sample worksheets and calculations
150+ pages

Outcomes

A knowledge of how experienced organic farmers plan their crop rotations
Understanding of the principles and strategies behind planning good crop rotations
Ability to assess individual farms and plan appropriate rotations for specific field conditions, histories, and crops
Know-how about the variety of tools and strategies that can prevent crop rotation problems
Access to resources to guide decision-making and work processes

Contributors

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The many benefits of crop rotation are understood scientifically and widely acknowledged by farmers, but implementing an effective crop rotation schedule is difficult. The upcoming book from NRAES, *Crop Rotation on Organic Farms: A Planning Manual*, provides a comprehensive view of the factors that affect crop rotation and outlines its many applications, such as improving soil quality and health, and managing pests, diseases, and weeds. The authors consulted intensively with expert organic farmers to develop crop rotation guidelines and strategies that can be applied under various field conditions and with a wide range of crops.

The results include a step-by-step procedure for determining crop rotation plans for individual farms; a detailed table presenting the problems and opportunities of different crop sequences; tables outlining potential diseases and management possibilities; sample worksheets; and numerous examples of successful crop rotation sequences from expert organic farmers. In addition, the book includes instructions for making crop rotation planning maps using Microsoft Excel and discusses intercropping and crop rotation during the transition to organic farming. The manual will be a valuable resource for organic farmers, educators, students, and professional advisors interested in the do's, don'ts, how's, and why's of organic crop rotation. *Crop Rotation on Organic Farms* is most applicable for the Northeastern United States and Eastern Canada, but is also useful in other parts of the U.S., Canada, and even Europe.

For chapter list and ordering information, turn page over

Contact NRAES for more information: phone (607) 255-7654 or email NRAES@CORNELL.EDU

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Financial support from SARE (Sustainable Agriculture Research & Education) resulted in a 30% reduction in the price.

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Chapter List

Introduction

How Expert Organic Farmers Manage Crop Rotations

- Why Rotate Crops?
- Basics of Crop Rotation
- Crop Rotation and Farm Management
- The NEON "Managing a Crop Rotation System" Chart

Physical and Biological Processes in Crop Rotation

- Crop Rotation and Soil Tilth
- Crop Rotation Effects on Soil Fertility and Plant Nutrition
- Managing Plant Diseases with Crop Rotation
- Management of Insect Pests with Crop Rotation and Field Layout
- The Role of Crop Rotation in Weed Management

Crop Sequences from Expert Farmers' Fields

- Reading the "Real Fields on Real Farms" Tables
- Observation on the Sample Sequences

A Crop Rotation Planning Procedure

- Tips for Sequencing Crops
- A Complete, Step-by-Step Rotation Planning Guide
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- Transition from Conventional Cropping on a Farm with Forages
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- Appendix 5: Crop Disease Pathogens Hosted by Common Agricultural Weeds
- Appendix 6: Linking a Field Map and Spreadsheet in Microsoft Excel

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