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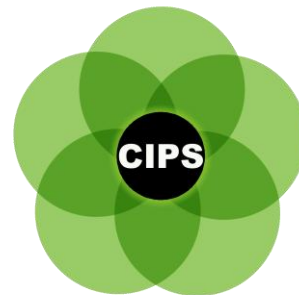
Deepa Ramsinghani

PROJECT SPONSORS

USDA special fruit grant
Gerber
Michigan Agricultural Experiment Station



First day apple trees planted on the ground. Varieties planted were Gala, Goldrush and Golden Delicious

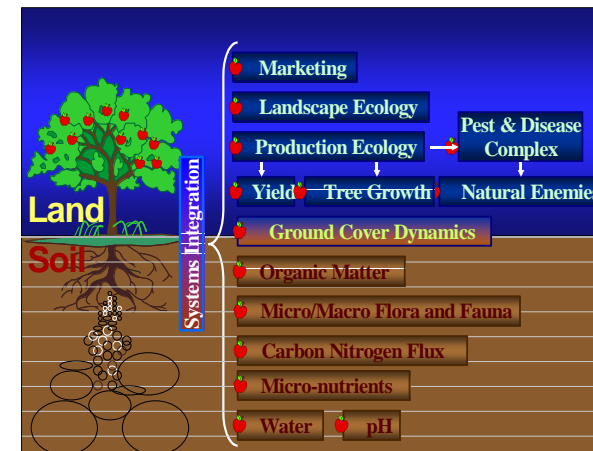


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Production Ecology Research and Education of Michigan Organic Apples



Clarksville Horticulture Experiment Station

MICHIGAN STATE UNIVERSITY

Introduction

Sales of U.S. organically grown produce-products currently exceed \$5.0 billion annually. The domestic market for organic produce grew at an annual rate of about 20% from 1990 through 1999. To take advantage of this market opportunity, there is a distinct need for improved organic apple production practices and marketing strategies in Michigan. Numerous disease and pest problems associated with both organic and conventional apple productions have put this agricultural industry at risk. Ironically, there is currently limited information about organic apple production pest and disease management practices. Research and education information from this project will be of value to both the organic and conventional apple production communities.

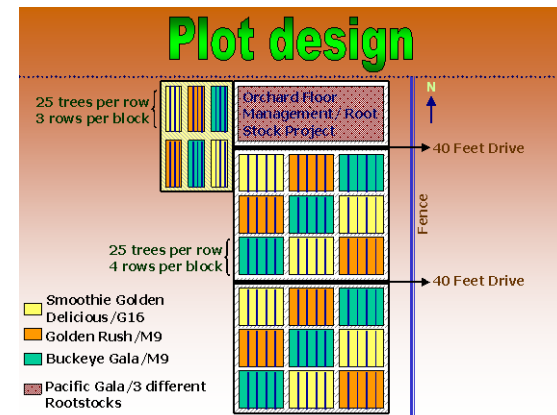


Planting trees in boxes

Organic agriculture has its fundamentals in soil quality; however, relatively little is known about the changes in soil quality that take place during the transition from conventional to organic apple systems. Hence, apple growers in Michigan lack information about critical phases of both the transition process and subsequent management strategies required for successful organic production. Very few formal organic agricultural research projects have been conducted by Land Grant Institutions. The organic community has relied mainly on on-farm research and farmer to farmer education initiatives. This project provides a unique opportunity to utilize the expertise of Michigan State University and the organic farming community in a formal organic apple production/marketing research and education initiative.



Buck wheat planted in summer



Objectives

1. To determine the temporal characteristics and rates of organic matter mineralization, soil foodweb structure, nematode community ecology, micro and macro arthropods and carbon/nitrogen budgets required for successful organic apple production with a minimum of risk to beneficials.
2. To compare the performance of intensively managed trees when grown on 3 different rootstocks (3 tree vigor levels) influenced by 3 ground floor management schemes.
3. To conduct a comparative production, marketing and economic assessment of the three organic apple varieties.
4. To provide an education and participation opportunity for the Michigan organic apple production community, extension personnel, and conventional apple growers transitioning to organic farming.



Propane flamer destroyed weeds effectively