Soil health for apple orchard systems

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Orchards have different soil requirements than annual crops

Fewer opportunities to add organic matter

High-density orchard systems with shallow root systems

Increasing desire among producers to minimize fertilizer input

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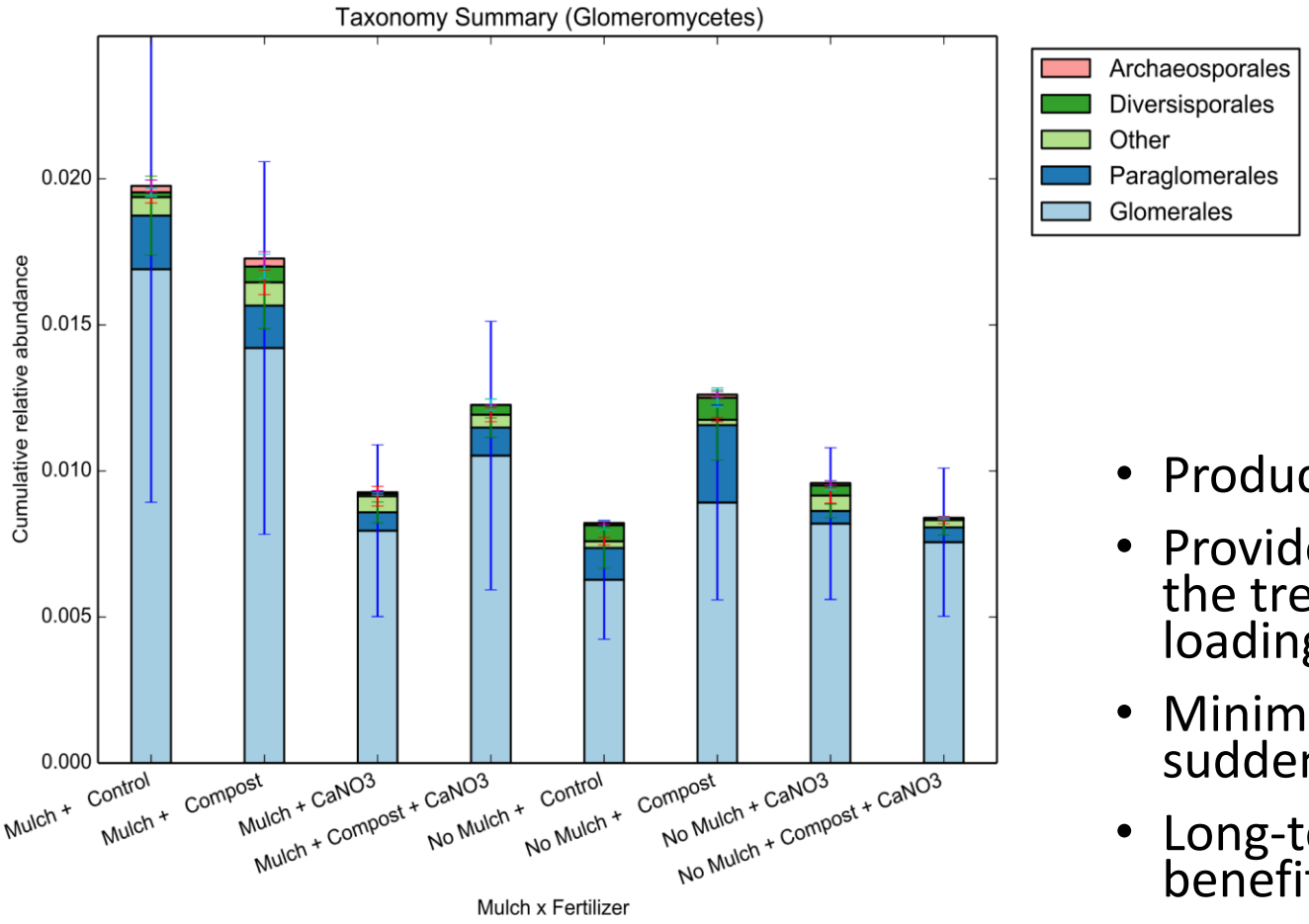
NEW YORK SOIL HEALTH

Mulching studies

- Increase in tree growth and yield is inconsistent
- Increase soil organic matter
- Increase water holding capacity, making the orchard more resilient to drought
- Increase soil biological activity
- Increase plant available minerals
- Increase disease suppression
- Reduce soil erosion in hillside plantings
- Increase weed suppression, especially in organic systems
- Reduce leaching of nutrients (nitrate) and pesticides



Soil Health Metrics Are Needed for Orchards

- Productive and profitable
- Provide sufficient nutrients to the trees without over loading the system
- Minimize replant disease and sudden apple decline
- Long-term environmental benefits

Foster beneficial microbial communities

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