

# 2014 Crop Management Diagnostic Clinics – Soil and Water

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## Soil Health Keys

- Conserve Soil Organic Matter
- Minimize Erosion
- Balance Production and Environment
- Better Use of Renewable Resources



2013CMDCSoilWater-KUCERA (1)

## Soil Health Management System

- Keep the soil covered
- Avoid disturbing the soil
- Keep plants growing throughout the year
- Diversify using crop rotation & cover crops



2013CMDCSoilWater-KUCERA (2)

## Soil Quality Bucket Tests

[http://cropwatch.unl.edu/web/cropwatch-youth/soil\\_lessons](http://cropwatch.unl.edu/web/cropwatch-youth/soil_lessons)



2013CMDCSoilWater-KUCERA (3)

## Soil Health Indicators (SOM and Erosion Control)

- Soil Organic Matter monitoring (color chart)
- Visual assessment of erosion
- Infiltration test
- Soil depth and compaction assessment



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## Soil Health Indicators (Production & Environment)

- Nitrate and Phosphate Test Strips for assessing Nutrient Capture/Cycling
- EC measurement for salinity, nutrient balance/losses
- Assess soil compaction, aggregation, and infiltration test

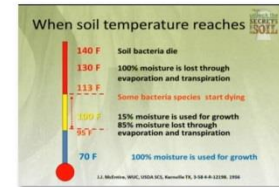


2013CMDCSoilWater-KUCERA (5)

## Soil Health Indicators

### (Efficient Use of Renewable Resources)

- Soil EC/Temperature to determine optimal conditions for biological activity, and plant growth
- Soil & Water Nitrate Test for nutrient cycling, balances, losses, etc.
- pH test to determine acidity and nutrient tie-up



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## Soil Health Indicators (Production & Environment)

- Nitrate and Phosphate Test Strips for assessing Nutrient Capture/Cycling
- EC measurement for salinity, nutrient balance/losses
- Dig a hole assess soil structure, compaction, biological activity
- Assess aggregate stability & infiltration rate



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