

# Crop Management

## Diagnostic Clinics – Soil & Water

N. Ward

### **Use & Copyright**

The materials in this document were developed by and for use by University of Nebraska–Lincoln Extension in the Institute of Agriculture and Natural Resources. The materials are copyrighted by the Board of Regents of the University of Nebraska–Lincoln on behalf of the University of Nebraska-Lincoln Extension. All rights are reserved. Copies may be printed for individual personal use; however, these materials cannot be republished in print, on another Web site or used commercially without prior written permission. To seek permission to print a publication for educational use, please email us at [dpittman1@unl.edu](mailto:dpittman1@unl.edu).

### **Disclaimer**

Reference to commercial products or trade names in these publications is made with the understanding that no discrimination is intended and no endorsement by University of Nebraska-Lincoln Extension is implied.

© 2013 University of Nebraska–Lincoln

## Soil Testing with Solvita

- **Assess potential N mineralization of soil**
- **Monitor effectiveness of soil amendments over time**
- **Identify management problems that harm soil microbes**
- **Evaluate “Soil Health”**

2013CMDCSoilWater-N WARD (1)

## Predicted N Mineralization

Carbon Value (ppm CO <sub>2</sub> -C)	Predicted N (lbs N ac <sup>-1</sup> yr <sup>-1</sup> )	Soil Health Rating
160	105	High
70	75	Moderate
30	45	Moderate-Low
12	25	Low
5	Less than 15	Very Low

2013CMDCSoilWater-N WARD (2)

## Nutrient Ratio in Organic Matter

- **Carbon 100**
- **Nitrogen 10**
- **Phosphorus 1**
- **Sulfur 0.5**

2013CMDCSoilWater-N WARD (3)

## Sample Calculation 8" of soil 3.0 % Organic Matter

- **3600 lbs of organic N**
- **360 lbs of organic P**
- **180 lbs of organic S**
- **Release per year = 1.5%**
  - N = 54 lbs
  - P<sub>2</sub>O<sub>5</sub> = 12.4 lbs
  - S = 2.7 lbs

2013CMDCSoilWater-N WARD (4)