2014 Crop Management Diagnostic Clinics – Soil and Water Nick Ward

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"Soil Health"

a new way to look at soil testing

- Gauge soil fertility and biology
- Traditional look at mineral NPK and explore organic nutrient content
- Assessments of soil microbiological activity
- A systems approach

2014CMDCSoil&Water-WARD (1)

- H3A Extract
 - Organic acids simulate root zone activity
 - Acids are a food source for microbes
 - Malic, Oxalic,
 Citric Acid
 solution
 - NO₃, NH₄⁺, PO₄³⁻
 K⁺, Ca²⁺, Fe²⁺,
 Al³⁺, Total and organic P

- Microbial Activity
 - Solvita CO₂ burst test
 - Drying and wetting cycle mimics natural



2014CMDCSoil&Water-WARD (3)

Haney Test

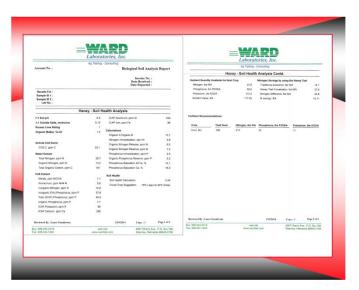
- Multiple tests and methods for a single report and recs
 - H3A Extract
 - Microbial Activity
 - Water soluble nutrients
 - C:N Balance

2014CMDCSoil&Water-WARD (2)

Nature's Solvent – H₂O

- Water Extract
 - Organic C, Total N, NO₃-, NH₄+
- Calculated
 - Organic N, Organic C:N,
 Mineralizable N, Organic N
 release, Soil health score

2014CMDCSoil&Water-WARD (4)



2014CMDCSoil&Water-WARD (5)