BIOCHAR AND LOW ORGANIC MATTER SOILS

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Field Study Details

- Plots at 3 field sites with low inherent soil organic matter
- Three replications of 0, 10 and 20 tons/acre of biochar applied in 10 foot by 10 foot plots at each site
- Each site planted to field corn, with normal agronomic operations
- Examined soil changes, yield
Site had been in alfalfa

Was plowed, with biochar then applied and tilled in

Site was hand seeded with Roundup Ready corn
Central Illinois Irrigated Growers plot (Mason County)

- Plot previously in field corn
- Plot irrigated
- Planted with Roundup Ready corn by farm operator
Site M (Jim Edgar Conservation Area – Cass County)

- Plot previously in soybeans
- Plot part of strip till field
- Planted to non Roundup Ready corn, by farm operator
Calhoun County Plots (Bushels/Ac) Harvested 9.13.12

- Control: 35 bushels/ac
- 10 tons/ac: 50 bushels/ac
- 20 tons/ac: 45 bushels/ac
Mason County Plots (Bushels/Ac) Harvested 9.11.12
Cass County Plots (Bushels/Ac) Harvested 9.6.12
Organic Matter July 2012

- Mason
- Cass
- Calhoun

- Control
- 10 tons/Ac
- 20 tons/Ac
Organic Matter October 2012

- Mason
- Cass
- Calhoun

Control
10 tons/Ac
20 tons/Ac
CEC values July 2012

Mason

Cass

Calhoun

- Control
- 10 tons/Ac
- 20 tons/Ac
CEC Values October 2012

Mason
Cass
Calhoun

Control
10 tons/Ac
20 tons/Ac
Will continue to monitor plots in 2013

Will take additional soil samples and do yield checks