Cover Crops and Soil Health

Bill Robertson
Bill, is that you?
Pink Tie Guy
Breast Cancer Survivor
Raised Money
Donated Hair
Healthy Soil

Soil Composition

- Mineral: 45%
- Organic Matter: 5%
- Water: %
- Air: %
One acre of healthy soil contains about 10,000 lbs of healthy biological material - from fungi to bacteria to earthworms and all else in between - about the same weight as two African elephants. - Dr. Jerry Hatfield
@USDA_ARS #EarthDay #SoilHealth
If you want your soil to be healthy, you shouldn’t be able to see it very often.

CoverCropInnovators.com

COVER CROPS: DOING WHAT CAN’T BE DONE - AGAIN
A Sponsor-Free, Farmer-Led Workshop

Covering all aspects of cover crops, from establishment, to planting, and beyond, this event will provide valuable insights and practical solutions for farmers and researchers alike. Learn from leading experts and practitioners in the field, including strategies to enhance soil health and productivity despite challenging economic and weather conditions.

Speakers:
- Loran Stienledge, West Union, IA
- Woody Van Ards, Dresden, Ont.
- Dave Delhotal, West Brooklyn, IL
- Marc Hasenick, Springfield, MI
- Joel Layman, Dowagiac, MI
- Justin Krick, Frankenmuth, MI
- Stephanie Smith, Waldron, MI
- Tom Van Wagner, Adrian, MI
- Tim Boring, Stockbridge, MI
- Jake Faist, Leslie, MI
- Jay Williams, Waldron, MI
- Rich D’Arcy, Kingston, MI

An informal event to hear producers sharing the innovative practices working on their operations.
Dec. 13 & 13, 2018
Bavarian Inn Lodge, Frankenmuth, MI

Covering a range of innovative practices, including strip-till, no-till, relay cropping, intercropping, and precision technology, this event is an invaluable resource for anyone looking to improve their farming practices and stay ahead in a rapidly evolving market.

Underground Innovations
Featuring information on cover crops, strip-till, no-till, relay cropping, intercropping, inverteversing, and precision technology.
Brand Engagement in Sustainability

- Walmart
  - Soil health
  - Water sensor
  - Traceability
  - Fieldprint Calculator use

- Wrangler
  - Soil health project in Texas

- Louisiana Fieldprint Calculator Project
Hurdles to Adoption of Soil Health Practices

- Perception
- Peer Pressure
- Human Nature
- Don’t seem to have time to learn new things
- More Research Needed
Cereal Rye Termination Study

- Early-Boot
- Mid-Boot
- Late-Boot
- Full Panicle Exertion
- Anthesis
Early-Boot Termination
Mid-Boot Termination
Late-Boot Termination
Heading Termination
Anthesis Termination
Visual Root Evaluation (1-5)

Root Mass Evaluations – St. Francis Termination Study

- Early Boot
- Late Boot
- Anthesis

0-6 inches
6-12 inches
12-18 inches
18-24 inches
24-30 inches
30-36 inches

Visual Root Evaluation (1-5)
2018 St. Francis Termination - Early Boot

Soil Suction, Centibars (Kpa)

Rainfall/Irrigation (in)

- Irrigation
- Rainfall
- 6"
- 12"
- 18"

Irrigation
Rainfall
6"
12"
18"
Termination Timing Lint Yield

- Early-Boot: 1,390 lb/A (b)
- Mid-Boot: 1,573 lb/A (a)
- Late-Boot: 1,473 lb/A (ab)
- Heading: 1,625 lb/A (a)
- Anthesis: 1,371 lb/A (b)

Legend: Termination Timings
A Healthy Soil

• Has increased internal drainage due to improved soil structure and biological activity

• Requires less emphasis on external drainage for crop health as internal drainage improves

• Reducing tillage and employing the use of cover crops greatly enhances health of the soil

• Assess soil health: biological, chemical, and physical analysis
“It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is the most adaptable to change.”

CHARLES DARWIN

- WEALTHYGORILLA.COM