



Leaving the Land Better: Measuring your Impact

Kevin Dietzel, Lost Lake Farm; Dr. Lisa Schulte-Moore, Iowa State University; & Dr. Lee S. Tesdell, Tesdell Century Farm

Saturday, January 19, 2019
2:30-3:40 pm

PRACTICAL FARMERS OF IOWA

2019 ANNUAL CONFERENCE

AMES, IA

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- ▶ Tesdell farm fact sheet shows current practices.

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My wish list is a comprehensive tool kit of measurements that includes

- ▶ water quality data (ISA),
- ▶ erosion data (SoilCalculator),
- ▶ soil health data (Haney),
- ▶ yield (yield monitor),
- ▶ drone cover crop health data (Heartland Coop),
- ▶ and direct observations (CC, soil temps, wildlife counts, prairie plant identification),
- ▶ and, of course, PEWI

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Using PEWI to simulate Tesdell Century Farm. Our goal is the Ecosystem Services Indicator.

- ▶ 60 acres row crop
- ▶ 20 acres hay, prairie strips, CRP, waterway
- ▶ What does the ESI tell us?

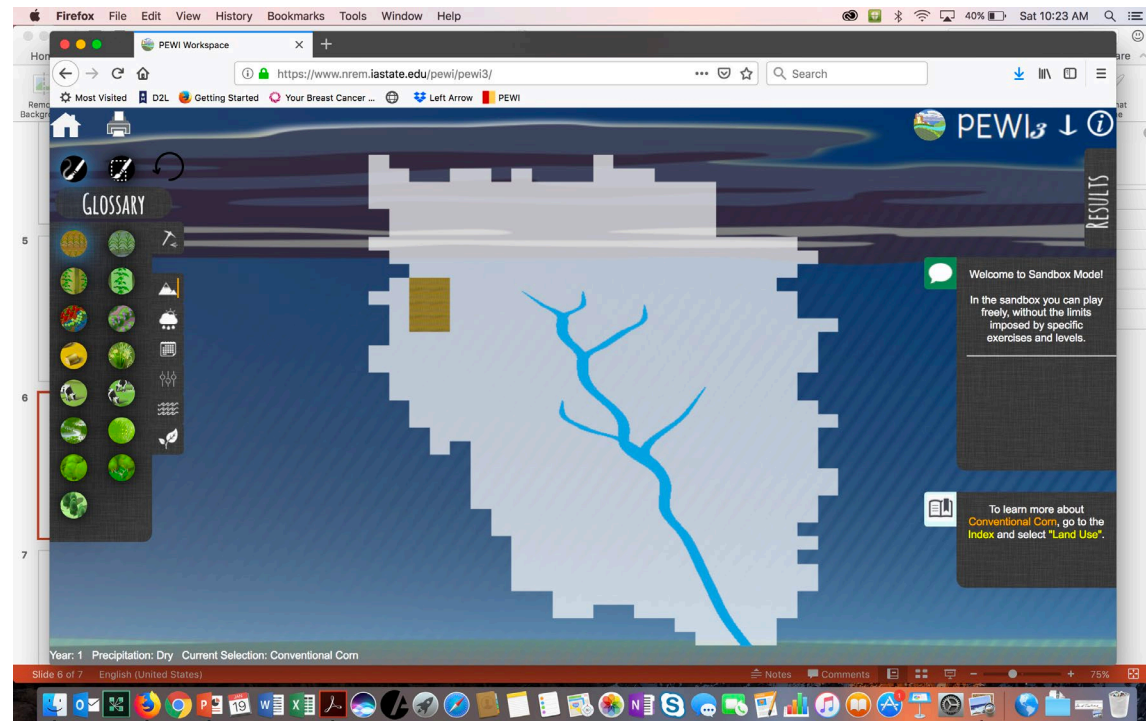
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- ▶ 7 modules in PE/WI → 16 ES indicators
 - ▶ Biodiversity
 - ▶ Game Wildlife
 - ▶ Carbon Sequestration
 - ▶ Nitrate
 - ▶ Phosphorus
 - ▶ Erosion & Sedimentation
 - ▶ Yield

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Ecosystem Service Indicator / Measurement	Y1	Score	Y1	Units (English)	Y1	Units (Metric)
Habitat						
Game Wildlife	35	(out of 100)	3.5	pts	3.5	pts
Biodiversity	30	(out of 100)	3	pts	3	pts
Soil Quality						
Carbon Sequestration	12.1	(out of 100)	20.3	tons	18.4	Mg
Erosion Control / Gross Erosion	89.2	(out of 100)	139.1	tons	126.2	Mg
Water Quality						
Nitrate Pollution Control / In-Stream Concentration	84.6	(out of 100)	6.2	ppm	6.2	mg/L
Phosphorus Pollution Control / In-Stream Loading	87.3	(out of 100)	0	tons	0	Mg
Sediment Control / In-Stream Delivery	94.6	(out of 100)	6.5	tons	5.9	Mg
Yield						
Corn Grain	56.1	(out of 100)	10042.5	bu	255.1	Mg
Soybeans	0	(out of 100)	0	bu	0	Mg
Mixed Fruits and Vegetables	0	(out of 100)	0	tons	0	Mg
Cattle	0	(out of 100)	0	animals	0	animals
Alfalfa Hay	0	(out of 100)	0	tons	0	Mg
Grass Hay	0	(out of 100)	0	tons	0	Mg
Switchgrass Biomass	0	(out of 100)	0	tons	0	Mg
Wood	0	(out of 100)	0	board-ft	0	m³
Short Rotation Woody Biomass	0	(out of 100)	0	tons	0	Mg
Other Parameters						
Precipitation	24.58	inches	62.4	cm		
Year: 1 Precip						
Slide 6 of 7 English (United States)						

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