



Innovative Cover Crop Strategies

Yahara WINS Meeting- 3/16/21

Dane County LWRD and Extension

Marie Raboin & Chelsea Zegler



What?

- Roller Crimper
 - Front Mounted- McFarland
 - Can plant while rolling (1 pass system)
 - Soybeans
 - \$8,400 + \$5,475 (3 pt mount)= \$13,944
 - In-row – Dawn Equipment Company
 - Between corn planting rows
 - No-till planting into bed pack
 - Foldable for easy transportation
 - \$10,900 (12 row - used)
- Actual Equipment Cost- \$24,844 (WINS Portion \$9,500 for equipment)



Who and Where

- Bruce and Karl Sime of Stoughton, WI
- Dairy until 2018 -> Steers and Cow/Calf Pairs
- 700 acres + custom work
- Badfish watershed
- Program participants
- Community Leaders
 - Lead farmer of Biological Farmer Friends (DATCP Producer Led Watershed Group)
 - Town board member
 - Influencer farm



Why?

- Allow cover crops to grow longer into season to continue erosion control
- Decrease number of passes associated with cover crops
 - 1 pass system- terminate cover crop and plant cover crop at same time
 - Decrease labor and fuel cost
 - Reduced herbicide use
 - Herbicide resistant weeds
 - Create thick mat for weed control (organic producers championed the technology)
- Soil Health- maintain living root 365
- Misconceptions about cover crops still exist





Results- Phosphorus Reduction - Ex. 1

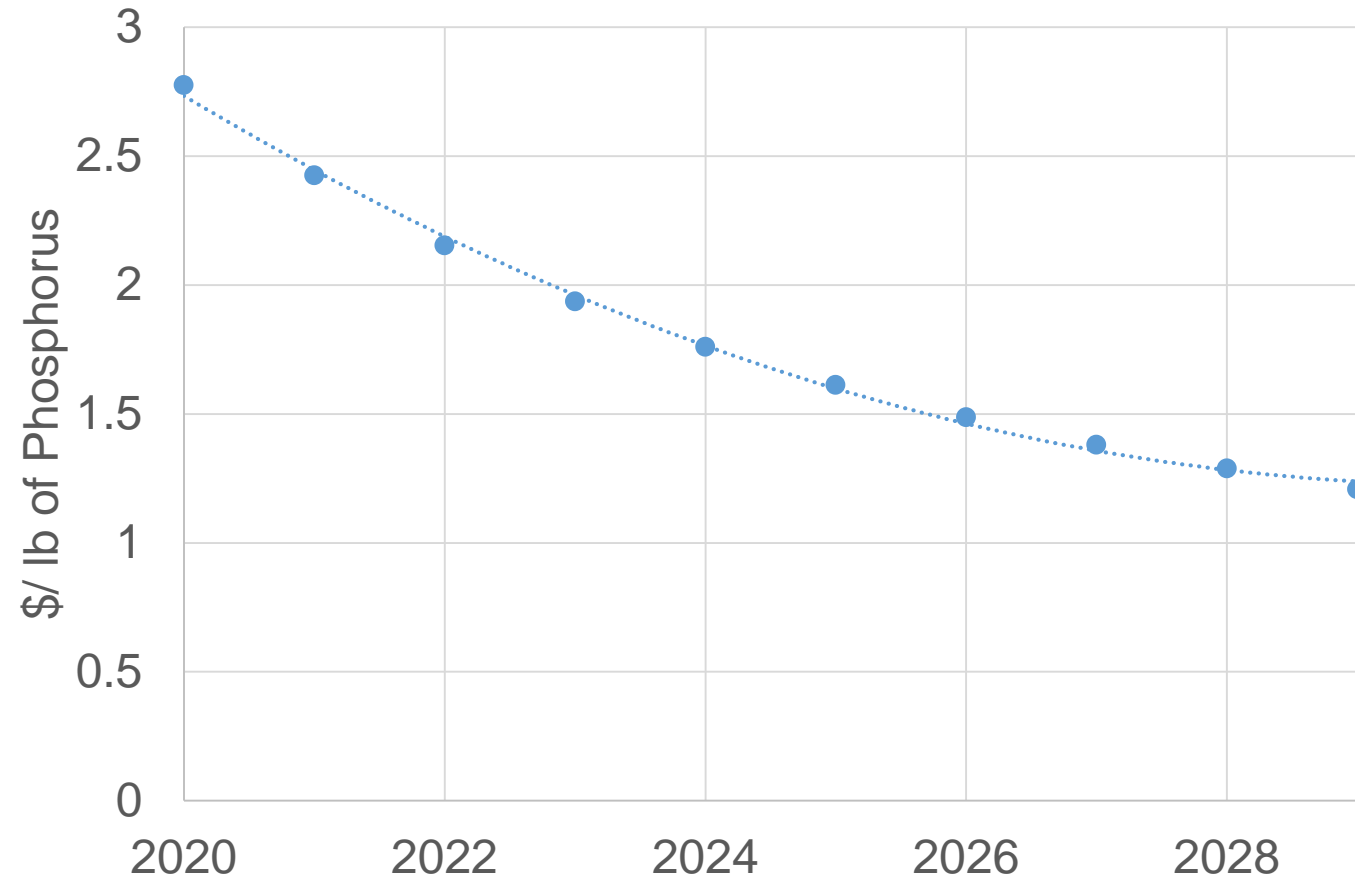
- Planting Green
 - 105 acres
 - Previous rotation was a traditional corn/soy rotation, including spring chisel plow
 - New rotation was a corn/soy rotation with aerial seeded cereal rye, terminated with the crimper, 100% no-till.
 - SnapPlus calculated a reduction in the PI from 8 to 1.
 - $105 \text{ acres} \times 7 \text{ lbs P/ac/year} = 735 \text{ lbs P/yr reduction}$

Results- Phosphorus Reduction – Ex. 2

- No-till Bedpack Manure Management
 - 20 acres
 - Previous rotation was a traditional corn silage/soy rotation with 10 tons/ac of bedpack manure applied in the spring and incorporated with a chisel plow and disk.
 - New rotation was 100% no-till corn silage/soy rotation. The roller crimper allowed for no-till planting into bedpack, which is traditionally incorporated.
 - SnapPlus calculated a reduction in the PI from 11 to 3.
 - $20 \text{ acres} \times 8 \text{ lbs P/ac/year} = 160 \text{ lbs P/ yr reduction}$

Results- Phosphorus Reduction

- Total
 - Pounds of P loss in 2020 = 895 lbs
 - Total \$/ lb P = **\$28/lb P** (\$24,844/ 895 lb P)



Future Plans

- Adaptive management
- Return on Investment Calculations
- Erin Silva (UW-Madison)- collaboration with EPPIC and Dodge Co Group
- FUSR Field day
- Cost share and funding dynamics????





Interseeding





A vibrant field of sunflowers with large yellow heads and green leaves, set against a bright blue sky filled with fluffy white clouds. The sunflowers are in various stages of bloom, and the overall scene is bright and cheerful.

Questions?

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