

2014 Crop Management Diagnostic Clinic

Jim MacDonald

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Corn Silage and Distillers

Feedlot performance of cattle fed diets with two levels of corn silage (CS) and two levels of modified distillers grains plus solubles (MDGS)

	20% MDGS		40% MDGS	
	15% CS	45% CS	15% CS	45% CS
DMI	26.1	26.9	26.4	26.7
ADG	4.26	4.19	4.42	4.22
F:G	6.13	6.42	5.98	6.33

85% Feed value of CS relative to corn grain
83% 81%

Diets with no distillers included feed value of CS 74% of corn grain

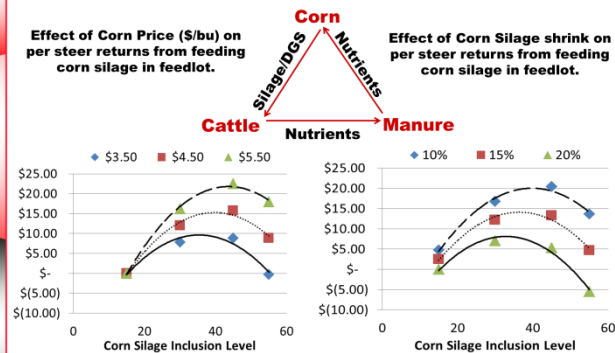
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Corn silage, cattle, manure system

Effect of Corn Price (\$/bu) on per steer returns from feeding corn silage in feedlot.

Effect of Corn Silage shrink on per steer returns from feeding corn silage in feedlot.



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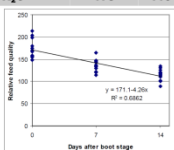
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Rye as a Forage/Cover Crop Nutrient Removal and Subsequent Yield

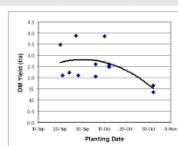
Item	Average	Range
Yield (ton/acre)	2.37	1.34 - 3.88
RFQ	180	149 - 205
CP (%)	16.2	13.3 - 19.0
P (%)	0.39	0.29 - 0.48
K (%)	3.05	2.1 - 4.4
Nutrients Removed (lb/acre)		
N	121	69 - 178
P ₂ O ₅	42	29 - 71
K ₂ O	178	110 - 344

Crop (3 yr average)	NO Cover	Rye-Cover
Corn	140	127
Soybeans	45	46

Crop 2004 only	Rye-Forage	Rye-Cover
Corn	110	145
Soybeans	46	47



Shan et al., University of Wisconsin



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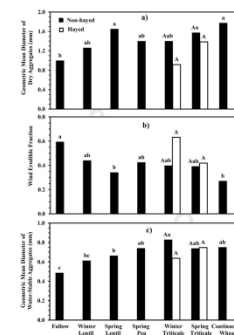
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Does Forage Removal Negate the Benefits of Cover Crops?

Soil Organic Carbon (top 3 inches) due to use of Triticale as a Cover Crop or Forage Crop

Item	2007	2012	Change
Fallow	4.01	3.92	-0.09
Winter-Cover	3.97	4.19	0.22
Winter-Hay	3.97	4.41	0.44
Spring-Cover	4.01	4.64	0.63
Spring-Hay	4.01	4.41	0.44

*Tons/acre; Blanco-Canqui et al., 2013



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Potential for double cropping





Fall forage or **Spring forage**

- **Winter Oat/Turnip Mix**
 - Plant August to early September
 - Seed 3 lb and 30 lb oats
 - Purple top turnip
 - Early maturing oat
 - Seed cost \$15/ac
 - Fertilizer 50 to 90 lbs N/ac
 - Fertilizer cost \$13-23/ac
 - Start grazing October to early November
 - Yield 0.5 to 2 tons DM/ac
 - Will winterkill
- **Winter Rye**
 - Plant mid to late September
 - Plant mid to late August may get fall grazing (0.5 tons DM/ac)
 - Seed 90-120 lbs (Elbon)
 - Seed cost \$30-40/ac
 - Fertilizer 30 to 60 lbs N/ac
 - Fertilizer cost \$8-16/ac
 - Harvest
 - Grazing April to mid May
 - Silage early boot (mid of May)
 - Yield 2-3 tons DM/ac

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Double cropping demonstration

<p>Wheat and Radish Planted September 23</p>  <p>October 3</p>	<p>Wheat harvested on May 7 Wheat sprayed May 16</p>  <p>May 7</p>
<p>Wheat yield 1.4 tons DM/acre</p>  <p>May 7</p>	<p>Corn planted May 19 Fertilized with 200 lbs N May 30</p>  <p>June 2</p>

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