

Cover Crops



Why Cover Crops?

- Keep the ground covered
- Sequester Carbon
- Provide nitrogen for following crop
- Provide extra feed for grazing livestock
- Increase SOM over time
- Improve Soil Quality over time

History of Cover crops on our farm

- 1980's- applied manure in Fall after soybean harvest and planted rye which was disked under the following spring
- Flew Hairy Vetch on soybeans at leaf yellowing and ridge-planted corn the following spring
- Planted Hairy Vetch at second cultivation through planter boxes mounted on cultivator
- Planted Rye and Vetch on ridges in Fall after soybean harvest with pull-type drill and plugging holes not on ridge area

Other uses of cover crops on our farm

- Planting of turnips, vetch, and rye for grazing after oats and barley harvest. Planted to corn the following spring
- Planting of sorghum-Sudan grass for extra forage
- Buckwheat following oats and barley

Buckwheat



Cover crop trial in corn-2009



Red Clover, Turnips, Hairy Vetch cover crops

- Planted three different cover crops in standing corn on June 20, 2009 at second cultivation
- Used a “Hurd” seeder mounted on front of tractor
- Cover crops consisted of: A= 0 cover, B=Red Clover @6-8 lbs./acre, C= Turnips @5-6 lbs./acre, D= Hairy Vetch @ 20-25 lbs./acre
- There were three replications with 16 rows in each strip with the center four rows harvested in each strip

Observations from cover crop trial

- We had an extremely wet June, very difficult to get cultivating done correctly. We managed to cultivate all of the corn 2x's and planted the three cover crops. The turnips came up quickly however all but disappeared during a dry September. The hairy vetch and red clover came up and did fairly well. The Hairy Vetch definitely had the most bio-mass. This was close to being significant but there was a high variation between the hairy vetch and the red clover. We will be planting more hairy vetch and red clover combination next year and at a higher rate

Hairy vetch in corn -2009



2009 cover crop trial yields

- Avg. yields in the trial were in the 185-190 bushel/acre range for each strip. There were no significant differences between the four variables of no cover, turnips, vetch and Alta Swede Mammoth Red clover
- 7 ton of composted manure
- In year 3 of 6 year rotation of Corn, Soy, Corn, Small Grains, Hay, Hay



Field Peas and Buckwheat –Oct. 20, 2009



Field Peas and Buckwheat



Hairy Vetch and Fall Triticale

- Planted Hairy Vetch and Fall Triticale in early September of 2009 for harvest in summer of 2010.
- Will separate the Hairy vetch from the Triticale to plant as a cover crop in following years.
- Goal-save on cover crop seed cost (Have done before with annual rye)