

**PROCEEDINGS OF THE BROWN COUNTY
LAND CONSERVATION SUBCOMMITTEE**

Pursuant to Section 18.94 Wis. Stats., a regular & budget meeting of the **Brown County Land Conservation Subcommittee** was held on Monday, February 27, 2017 in Room 116, UW Extension, 1150 Bellevue Street, GB, WI

Present: Supervisors Norbert Dantine, Bernie Erickson, Dave Kaster, Dave Landwehr, Tom Sieber
Vacant: Citizen Rep
Also Present: County Conservationist Mike Mushinski, Assistant County Conservationist Jon Bechle,
Demonstration Farm Manager Brent Petersen, Director of Administration Chad Weininger

**Audio of the meeting is available by contacting the County Board office (920) 448-4015.*

I. **Call Meeting to Order.**

The meeting was called to order by Chairman Dantine at 6:00 p.m.

II. **Approve/Modify Agenda.**

Motion made by Supervisor Kaster, seconded by Supervisor Erickson to approve. Vote taken. MOTION CARRIED UNANIMOUSLY

III. **Approve/Modify Minutes of January 23, 2017.**

Motion made by Supervisor Sieber, seconded by Supervisor Landwehr to approve. Vote taken. MOTION CARRIED UNANIMOUSLY

Comments from the Public. None

Communications

1. **Open Position Report.**

Mushinski informed they still had the Agronomist position open; they were still working with federal funding coming through EPA.

Motion made by Supervisor Sieber, seconded by Supervisor Landwehr to receive and place on file. Vote taken. MOTION CARRIED UNANIMOUSLY

2. **Directors Report**

a. **FSA Representative Update.**

Mushinski talked to the FSA Director in Brown County and he stated there was no way they could pay for the FSA Representative. They were in the same position other than pay mileage. They had two people on that board but were unable due to the non-reimbursement.

Motion made by Supervisor Landwehr, seconded by Supervisor Erickson to receive and place on file. Vote taken. MOTION CARRIED UNANIMOUSLY

b. **Wildlife Damage Update.**

Jon Bechle provided handouts (attached) re: 2016 Wildlife Damage Abatement and Claims Program (WDACP) Update, which summarized the claims. With regard to the categories, the ones listed were the only ones covered. Sandhill cranes were not included even though there were complaints on crane damage. The program was administered by the State of Wisconsin

and there was some language stating it had to be a huntable species, currently Sandhill cranes were not huntable in Wisconsin. There were past efforts and an ongoing effort to get a season.

Bechle also provided a copy of the upcoming County Deer Advisory Council meeting agenda (also attached).

Motion made by Supervisor Landwehr, seconded by Supervisor Sieber to receive and place on file. Vote taken. MOTION CARRIED UNANIMOUSLY

c. Demonstration Farm Update.

Demonstration Farm Manager Brent Petersen presented a PowerPoint (attached) in which he went through with the committee.

Motion made by Supervisor Sieber, seconded by Supervisor Erickson to receive and place on file. Vote taken. MOTION CARRIED UNANIMOUSLY

Other

3. Such Other Matters as Authorized by Law.

Landwehr received a call from an area farmer and questioned if there were policies or procedures as to a time limit to get permits done when expanding their operations. Mushinski responded once they received the information needed to process a permit they could get it out very quickly. Sometimes it took time to get things back from consultants, etc. They tried to make them aware of everything needed but there were a lot of different people that provided information and it could be time consuming. Bechle believed the ordinance stated a time period. When the packet was complete there was a checklist provided with the permit as to what was needed. Sometimes they will make a revision to their plan or their consultant will and it needed to be reviewed again for adherence to the standards because it could have multiple affects to the plan.

4. Adjourn.

Motion made by Supervisor Sieber, seconded by Supervisor Kaster to adjourn at 6:25 p.m. Vote Taken. MOTION CARRIED UNANIMOUSLY.

Respectfully submitted,

Alicia A. Loehlein
Recording Secretary

2016 Wildlife Damage Abatement and Claims Program (WDACP) Update

*2016 WDACP Claims

13 Participants: 6 Claims filed

2016 COUNTY CROP DAMAGE REPORT

Enrollment Year: Enrollment County: Species:

Crop	No. of Claims	Assessed Damage	Appraised Acres	Damaged Acres	Loss on Yield
Alfalfa	5	\$10,842.65	431.3	169.5	119.15
Corn Grain	4	\$13,287.51	117.3	34.8	3,445.32
Small Grains	1	\$3,882.03	87.5	31	1,205.6
Soybeans	2	\$6,295.54	74.4	13.7	673.32
Total		\$34,307.74	710.5	249	5,443.39

Assessed Damage	Eligible Claims	Status	Acres Appraised	Acres Damaged	Deer Damage	Deer Acres	Bear Damage	Bear Acres	Turkey Damage	Turkey Acres	Goose Damage	Goose Acres
\$2,388.75	\$1,888.75	PENDING	59.4	26.5	\$0	0	\$0	0	\$0	0	\$2,388.75	26.5
\$4,326.92	\$3,826.92	PENDING	93.5	36	\$3,507.92	11	\$0	0	\$0	0	\$819	25
\$3,264.49	\$2,764.48	PENDING	65.2	14.3	\$2,906.41	11.19	\$0	0	\$194.28	1.11	\$163.8	2
\$7,965.12	\$6,972.09	PENDING	306.7	108.5	\$2,905.52	31.5	\$0	0	\$0	0	\$5,059.6	77
\$10,350.28	\$8,880.23	PENDING	166.2	53.7	\$0	0	\$0	0	\$0	0	\$10,350.28	53.7
\$6,012.18	\$5,409.74	PENDING	19.5	10	\$0	0	\$0	0	\$0	0	\$6,012.18	10
\$34,307.74	\$29,742.21		710.5	249	\$9,319.84	53.69	\$0	0	\$194.28	1.11	\$24,793.61	194.2

*2016 WDACP Shooting Permits

Deer – 5 permits; 25 deer harvested

Turkey – 1 permit; 5 turkeys harvested

Goose – 1 permit; 0 geese harvested

*2016 City of Green Bay Deer Management Program

10 deer harvested on Brown County Farm property sites

County Deer Advisory Council

March 2017 Meeting Agenda



The council will review and act on items listed on this agenda.

ORDER OF BUSINESS

1. Organizational Matters - *Chair*
 - a. Call to order
 - b. Roll call
 - c. Agenda approval or repair
 - d. Review the CDAC Charter
 - e. Meeting minutes review and approval
 - f. Review meeting and discussion etiquette
2. Review of 2016 deer season results and quota setting process - *Wildlife liaison*
3. Consideration of deer/forest interactions – *Forestry liaison*
4. Public appearances/comments
(Citizens who wish to speak to the council must sign up at the meeting prior to the beginning of the meeting. Comments will be limited to 3 minutes for each speaker.)
5. 2017 Deer Season Recommendations
 - a. Determination of preliminary quota and permit recommendations
 - b. Determination of additional season options, if available, in the county.
 - c. Complete Preliminary 2017 Deer Harvest Quota and Permit Recommendation Form
6. County specific issues/concerns
7. Council member matters
8. Adjournment

County Deer Advisory Council Charter

- Gather public opinion on deer populations and goals, antlerless quotas and herd management strategies.
- Review and consider scientific metrics on deer herd trends, impacts to habitat and agriculture and human-deer interactions.
- Provide the department with recommendations on deer population objectives, antlerless quotas and herd management strategies.

Demo Farm Networks Update 2-27-2017

Brent Petersen
Farm Demo Manager

In Cooperation with the following:

- The Great Lakes Commission
- Natural Resource Conservation Service
- Outagamie Land and Water Conservation
- Brown County Land and Water Conservation
- Demo Farms: Tinedale Farms, Brickstead Dairy, Greg Nettekoven, VanWychen Farms, VanderWettering Brothers, and New Horizons Dairy.
- Many other producers and agency in the area, Thank You everyone!

New Horizen Dairy Sept 8th 2016

Potential ways to get started with diverse cover crop mix, with manure.

Late Summer 2015

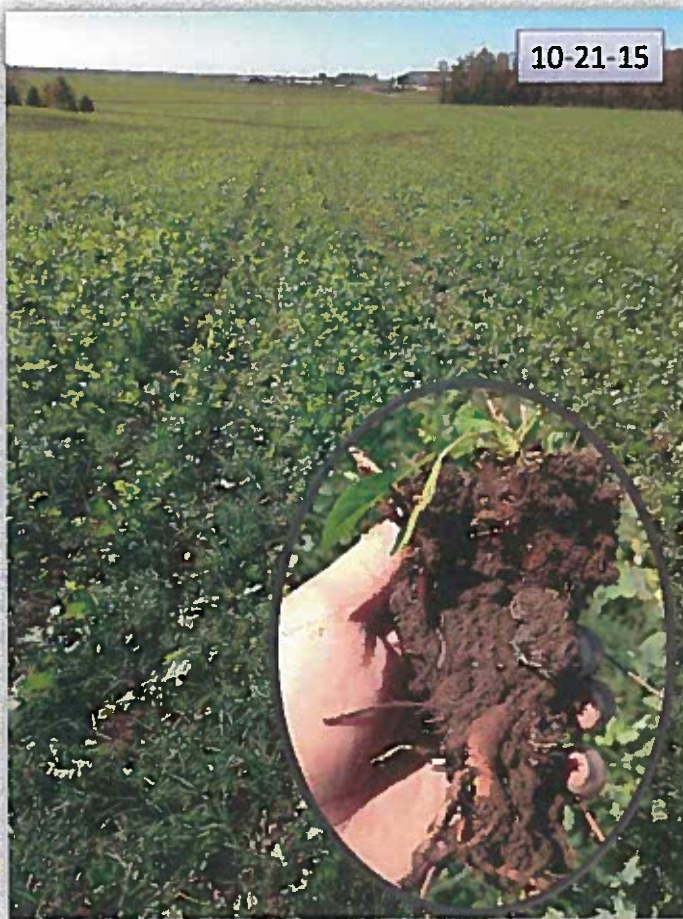
Sept-9-15

Oct-7-15

3rd cut harvested and 9 way mix no till planted into old alfalfa stand (Bricksted Dairy).



10-21-15



Brickstead Dairy starting fall of 2015

The goal is to plant corn into a green cover crop, but how will it work?

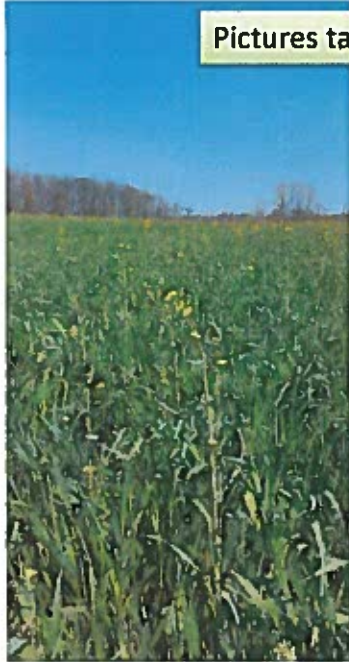
9 way mix with 6,000 gls manure applied fall of 2015. Application was done with Bazooka from Outagamie County LWCD.



Many might think – “This is never going to work in Northeastern Wisconsin; you’ve lost your mind!!”

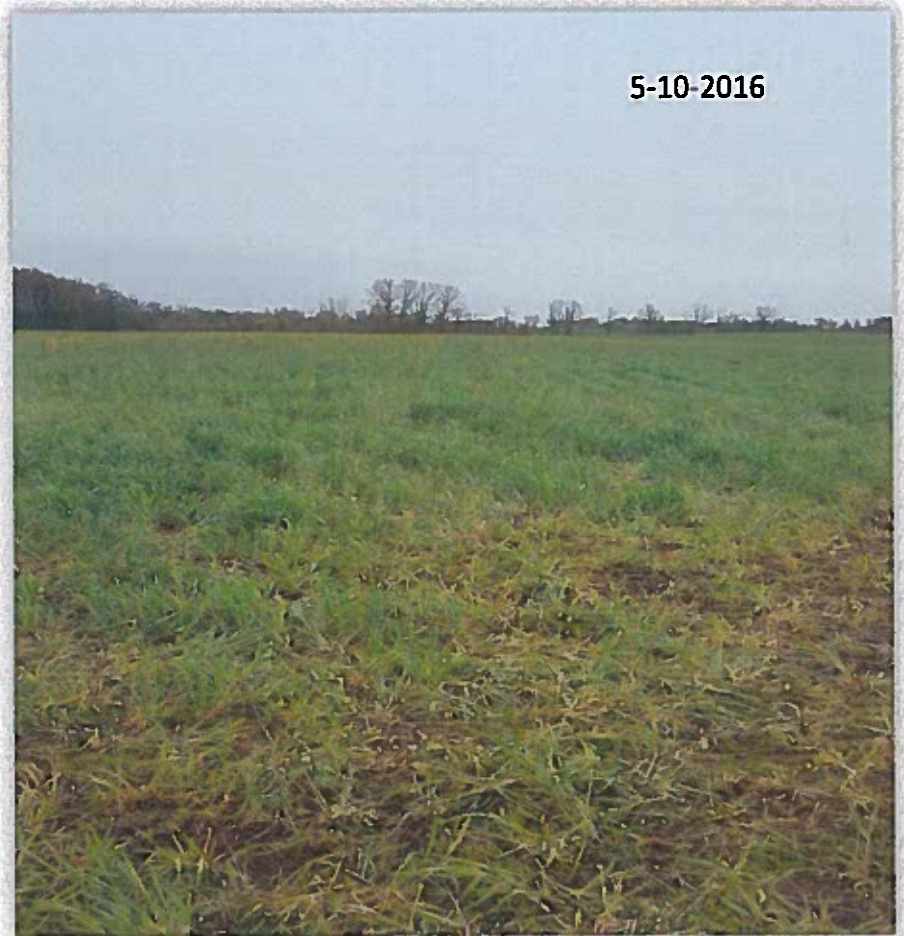
Plot with no starter or nitrogen vs. Starter (9-18-9) 5 gals plus additional nitrogen 30#'s.

Pictures taken 5-7-2016



3 days after planting, Cover crop dying off except Rapeseed. (note yellow flowers in background).

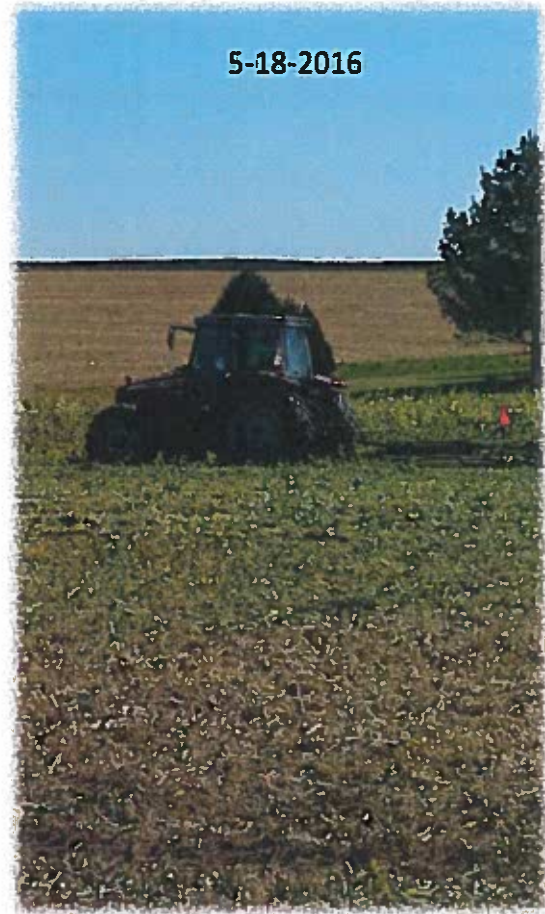
5-10-2016



Rapeseed escaped winter kill and became a challenge, (The rapeseed was flowering at planting time). We chose to mow the cover crop in order to stop the Rapeseed. Roundup had been used one day after planting. Corn was not up yet.

We would have left alone if not for Rapeseed!!

Dan mowing Rapeseed and cover



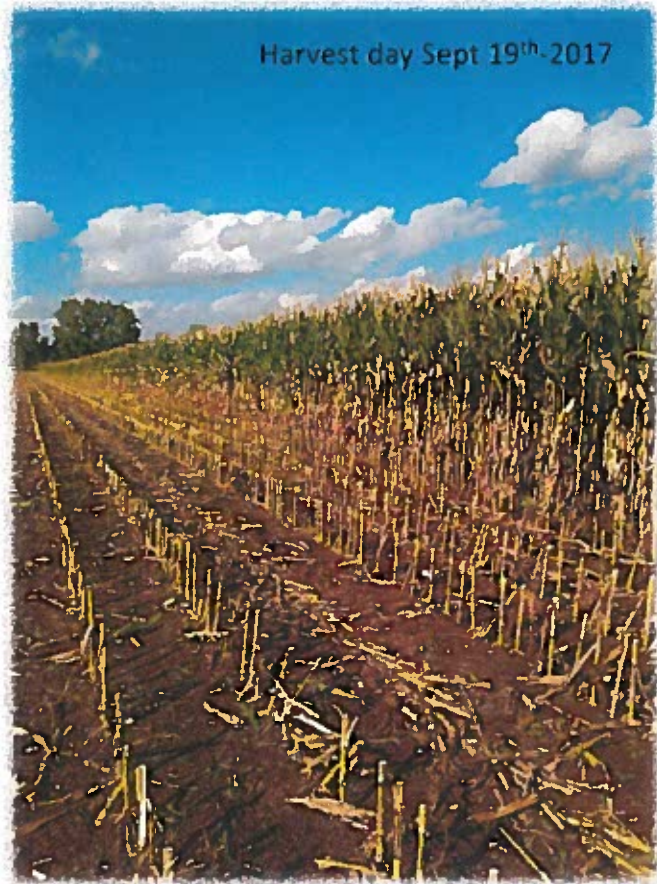
Here is a picture 13 days after mowing.

This field looked tough from the road, but looks can be deceiving.

No additional Nitrogen added to field beyond this point.



Notice how much cover crop remains after fall harvest. Biology has consumed and supplied nutrients to corn crop. Infiltration fantastic!



Alfalfa was sprayed off after 3rd cut, harvested and 9 way mix planted in 2015 Here are results.



Brickstead Dairy Sept 19th 2016

Fall of 2015 - Alfalfa with 9 way cover crop mix. No tilled to Corn Spring of 2016

No Starter or Nitrogen at planting

Plot is 24 rows and 1041 ft long = 1.43 acres

Load 1 = 22.99 wet ton

Load 2 = 23.96 wet ton

Total = 46.95 wet ton / 1.43 ac = 32.8 wet ton ac

Dry Matter basis Avg. = 11.8 ton/ac

Starter and 11 gls of 32% at planting

Plot is 24 rows and 1025 ft long = 1.41 acres

Load 1 = 18.35 wet ton

Load 2 = 21.41 wet ton

Total = 39.76 wet ton / 1.41 ac = 28.2 wet ton acre

Dry Matter basis Avg. = 10.16 ton/ac

Overall field average 363.8 ton of dry matter.

34.4 acres = 10.58 Dry Matter ton/ac

This is the two row inter seeder we have been using. Previous slide



VanderWetering Brothers

Annual Rye, Crimson Clover and Red Clover. Corn crop challenged here at this location, so more light available!

Inter seeding with 2 row inter seeder.
Nick Pelteir and Andrew Kiefer
"Plum/Kinkapot Creek Project".



Nov 17th 2016.



Inter seeding conclusions for 2016!!

- Sunlight is a must early! May even want to think about planting at 3rd to 4th leaf already in Northeast Wisconsin until comfort level rises. Mother nature beat us to the punch in Spring of 2016 (Warm temps with plenty of Moisture = Great growth early!).
- Good management fields should consider planting earlier (3-4 leaves).
- Herbicide must be chosen CAREFULLY! Some pre emerge herbicides VERY affective in taking out inter seeding.
- Select proven shade tolerant cover crops. (Must be able to withstand low light and low moisture. Favorites still include Annual Rye and Red Clover

Best fit may be in corn for grain:

In corn on corn = keep low carbon plants (Red Clover) or Early termination An. Rye

If soybeans follow corn then higher carbon cover plants okay = Annual Rye

New Water (Green Bay Metropolitan) and Brown County LWCD have received a grant from (The Fund of Lake Michigan) to purchase a unit similar to this. This unit will be available Spring of 2017. This is a 6 row unit that can be converted to a 15 ft no till grain drill for fall cover crop seeding. This unit will have the ability to apply 28% side dress. Please contact Brent Petersen 920-391-4643.



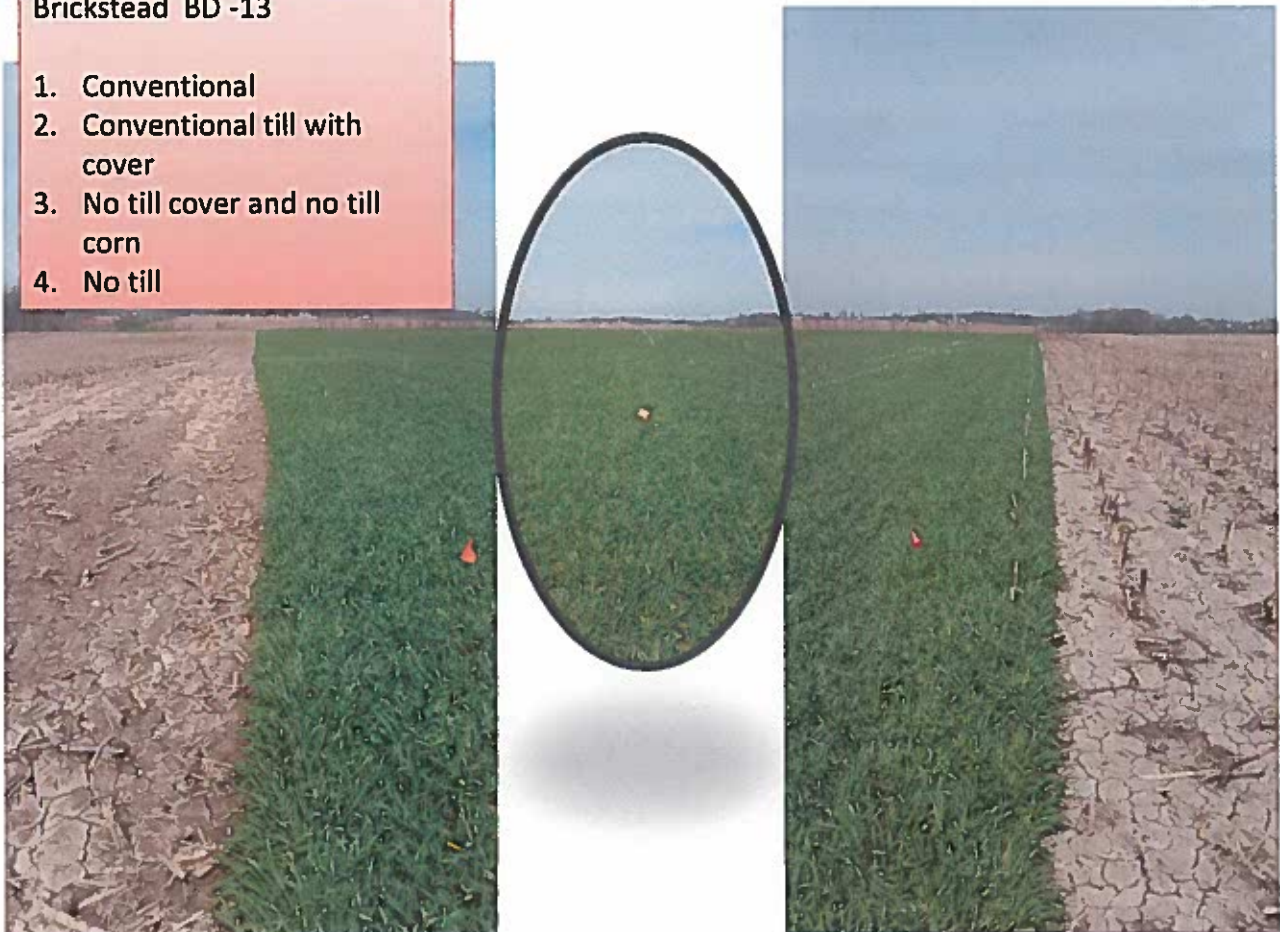
Triticale to
Corn silage

Two separate plots



Brickstead BD -13

1. Conventional
2. Conventional till with cover
3. No till cover and no till corn
4. No till



Brickstead Dairy

Corn planted 5-12-16 left side of plot.

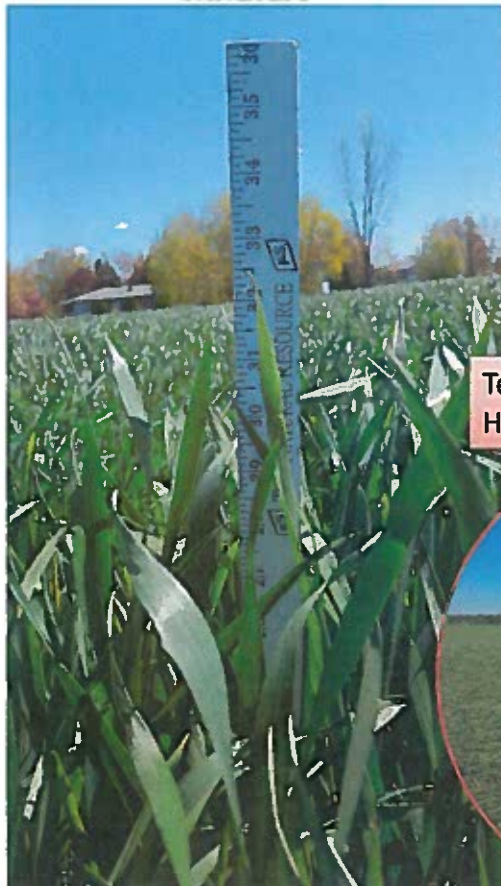


5-16-16 pictures taken at same site on the same day. Picture left conventional, and picture top right in Triticale.

Ground temps within a degree or 2.

5-16-16

5-18-2016



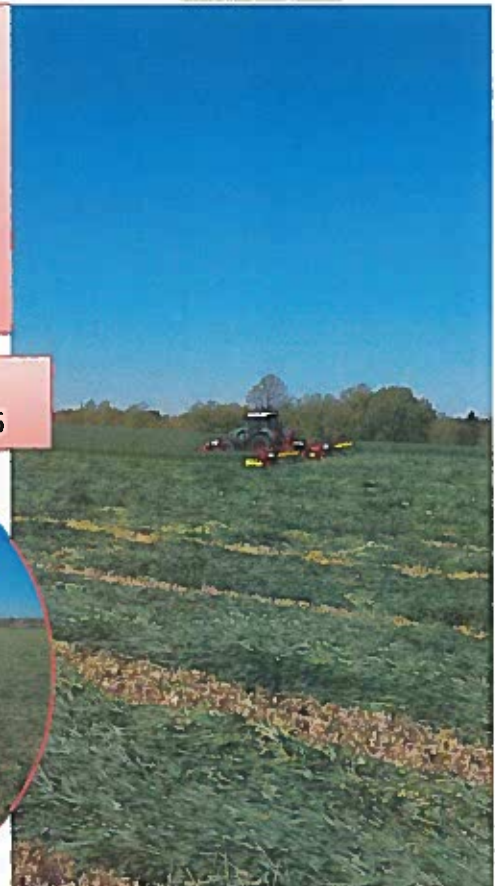
Triticale avg. 3.19 ton/ac. Dry matter.

Protein = 10%.

RFV = 120

RFQ = 174

Tethered 5-18-2016
Harvested 5-19-2016



DAIRYLAND LABS
 De Pere, WI 54115-1913
 Telephone 920-338-4521

Report date: 5/19/2016
 Sample number: 006-1605-006915

Triticale forage value

TO: Brickstead Dairy
 1734 Wayside Rd

ACCOUNT # 1479 (0)
 SAMPLED BY: Brickstead Dairy

Adjusted Crude Protein	%	10.33%
NFC	%	26.54%
RFV		120.12
RFQ		174.56
Van Amb.kd rate	%/hr	6.27%

		ADF	OARDC	MLK13
		-----	-----	-----
TDN 1x	%DM	66.30	59.97	66.89
Nel 3x	Mcal/cwt	68.38	61.33	65.94
Neg	Mcal/cwt	31.81	33.47	42.43
Nem	Mcal/cwt	57.67	59.49	69.42
Milk per ton	lb/ton DM			3157

		ADF	OARDC	MLK13
		-----	-----	-----
TDN 1x	%DM	66.30	59.97	66.89
Nel 3x	Mcal/cwt	68.38	61.33	65.94
Neg	Mcal/cwt	31.81	33.47	42.43
Nem	Mcal/cwt	57.67	59.49	69.42
Milk per ton	lb/ton DM			3157

Planting Day :

Corn was no tilled the same day it was harvested.

Dawn closing wheels used here. (See Below)



Continues to be a Favorite of mine in no till, on heavier soils for a number of reasons



After corn was planted 10,000 gls of dairy liquid manure was surface applied with dribble bar manure applicator on all triticale to corn fields.

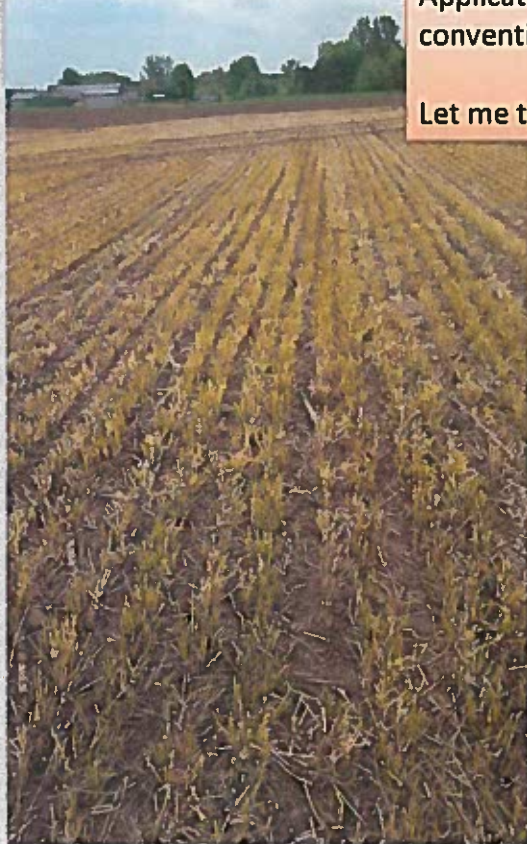
Manure movement was almost non-existent with dry conditions and great infiltration of cover crop no till soil. Infiltration complete within 15-20 seconds.

Conditioned soil critical with dribble bar.

5-20-2016



5-24-2016

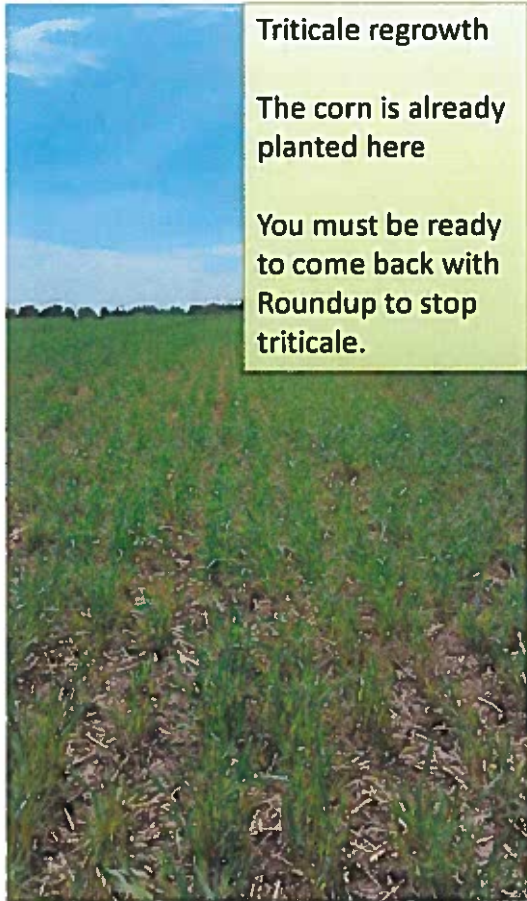


If looking to make surface manure Application, (with drag hose) on conventional tilled field.

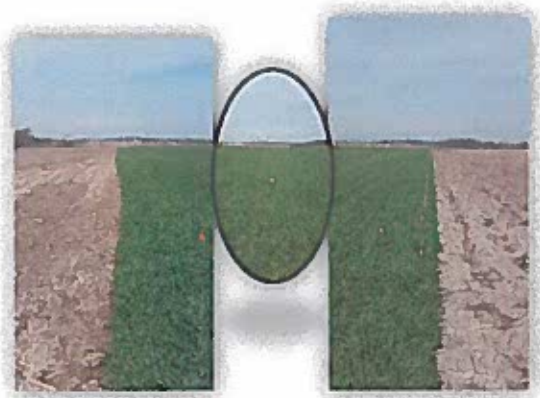
Let me talk you out of it!

5-24-2016





Harvest on Corn silage following Triticale. Picture of plot harvest on Sept 16th 2016.



Field BD-13

37.3 acres

Conventional tillage planted May 7th

Harvested 7.28 acres = 8.39 ton dry matter/acre (Issue with manure application!)

Conventional planted triticale/No till corn planted on May 20th

Harvested 10.18 acres = 8.72 ton dry matter/acre

No till Triticale/No till corn planted on May 20th

Harvested 5.72 acres = 8.68 ton dry matter

No till corn planted on May 20th

Harvest 4.55 acres = 7.56 ton dry matter

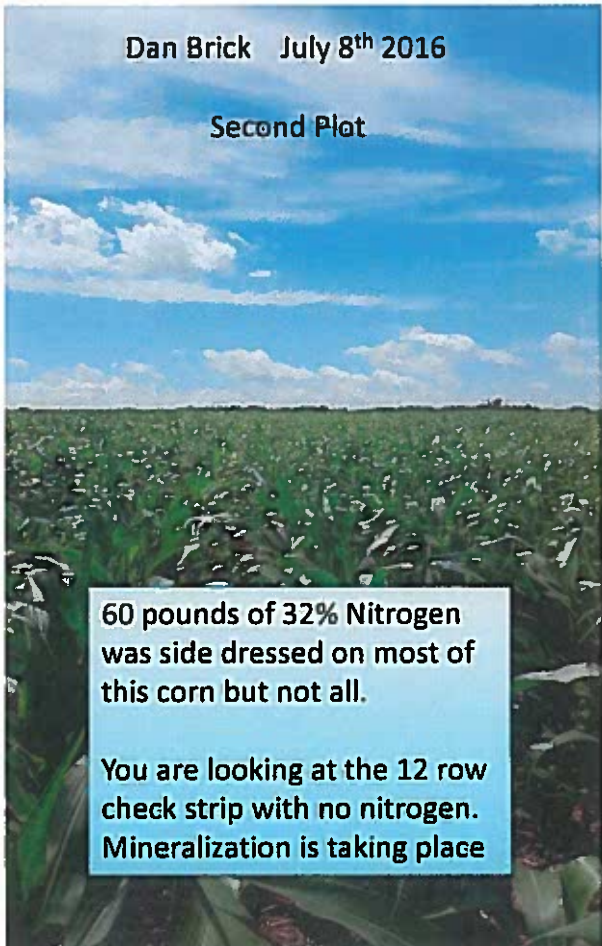
Whole Field Corn silage = 355.24 ton of dry matter on 37.3 acres or 9.52 Dry Matter (0% moisture) tons acre field avg. Keep in mind my measurements done with measuring wheel; calibration may be different from gps. So my acreage numbers may be more, thus lowering yield numbers on plots.

Whole Field Triticale avg = 117.6 dry matter tons or 3.15 dry matter tons/ ac (this is half his alfalfa 4 cut tonnage in one cutting.) Keep in mind not the same kind of quality.

So overall dry matter tons for the season = 12.67 tons/ ac of corn silage plus triticale. Plus the movement of 10,000 g/s manure early in spring.

\$ 48/acre to harvest Triticale (includes all harvest cost to feed bag), what's early manure application worth??

\$ 110/ac corn silage harvest/ac



Random ear samples pulled. 60#'s of nitrogen on left and no nitrogen on the right. Nitrate test indicated no need for nitrogen at 22.6 ppm. Did we have a shortage of nitrogen later in the season?



Brickstead Dairy

Field Burns 6 (Rocky Top) **Second Plot**

- Triticale harvested on May 19th 2016 3.1 ton dry matter/acre.
- Corn no till planted May 19th 2016 with 30# nitrogen 32% with planter; plus starter.
- 10,000 gls manure, (dribble bar) applied May 20th 2016
- Pre side dress nitrate test 22.6 ppm June 8th 2016
- Visual observation of corn showing Nitrogen Deficiency
- 60 #'s of additional Nitrogen Recommended (applied as 32%) coultter injector side dress.
- 12 rows left with no nitrogen application
- Ear visuals taken (pictures)
- Harvest of Corn Silage on Sept 15th 2016

Brickstead Dairy (Burns 6)

Corn Silage Plot with and without additional nitrogen

Plot with no additional Nitrogen = .62 acres = Yielded 7.46 ton of Dry Matter.

Plot with 60#'s of additional Nitrogen = 1.32 acres = Yielded 9.8 ton of Dry Matter.

The whole field averaged 9.57 ton/ac Dry Matter + 3.1 ton of Dry Matter from
Triticale = 12.67 ton/yr Dry Matter

Triticale harvest cost \$48 /ac this includes bag. What's the advantage of early
manure application worth?

Brickstead Dairy: One of the tougher clay fields as part of Dan's acreage. (McA Manawa soil type or silty clay loam). Summer 2015 Barley, Radish, and Red Clover over seeded into corn. Lack of moisture really hurt stands of inter seeding. Timing is everything with surface seeding.

7-10-2015



7-10-2015



8-5-2015



Same Brickstead field : Winter rye planted (with drill) after corn silage harvest in fall of 2015. Dan had applied 10,000 gals manure incorporated fall of 2015. The following picture are of the winter rye in spring of 2016. The winter rye roots are very well established in picture lower right. The rebuilding of this soil has begun.



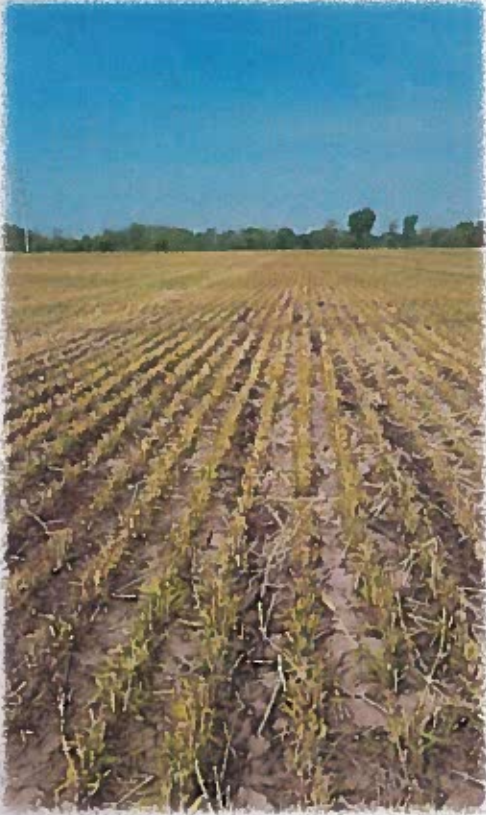
3-15-2016



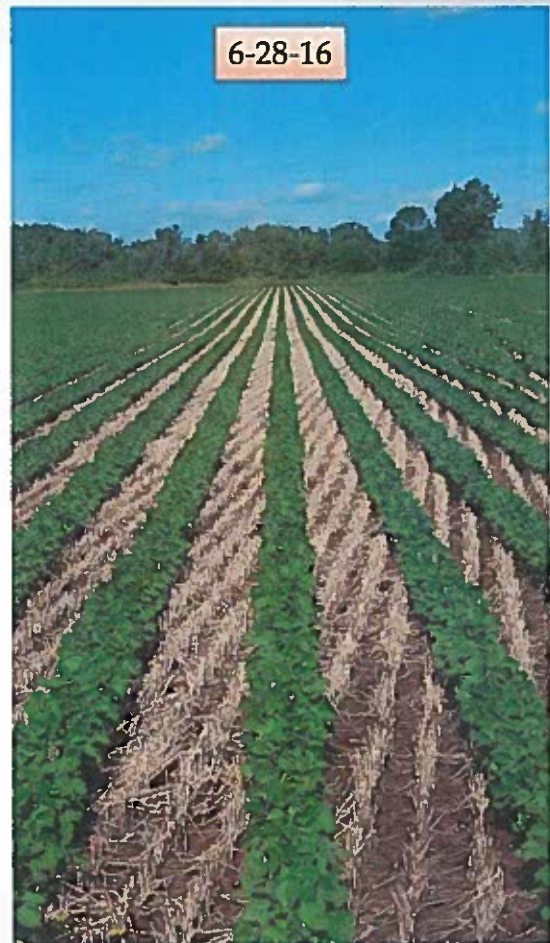
Winter Rye waiting for harvest at Brickstead



Winter Rye has been harvested, soybeans no tilled and 10,000 gls of manure applied on surface after planting. Same timeline as Triticale harvest.

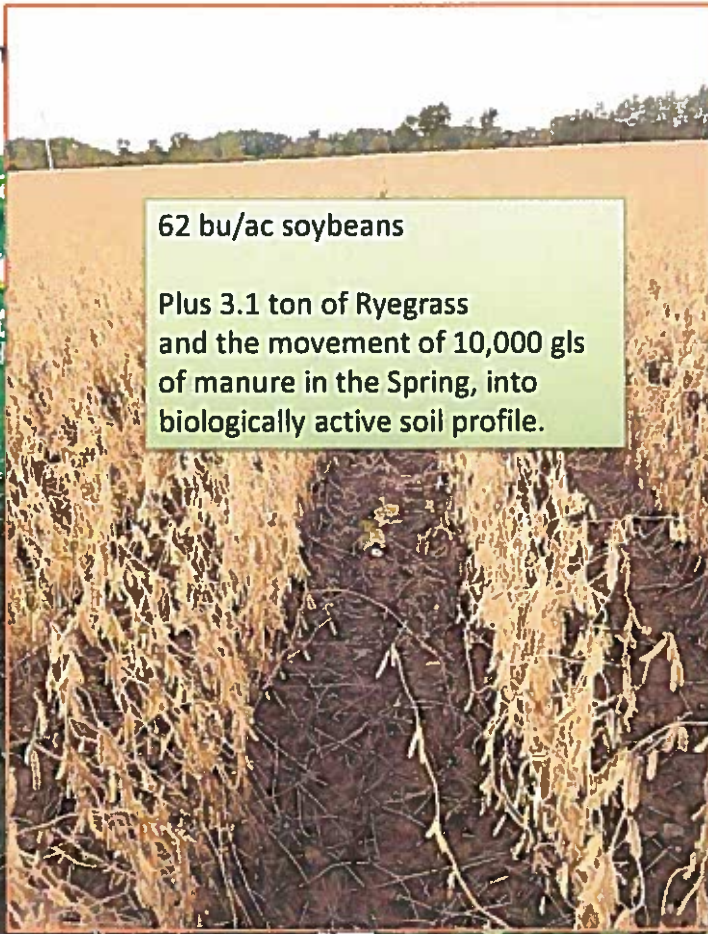


No till emergence fantastic into rye with surface manure. Glyphosate applied soon after emergence.



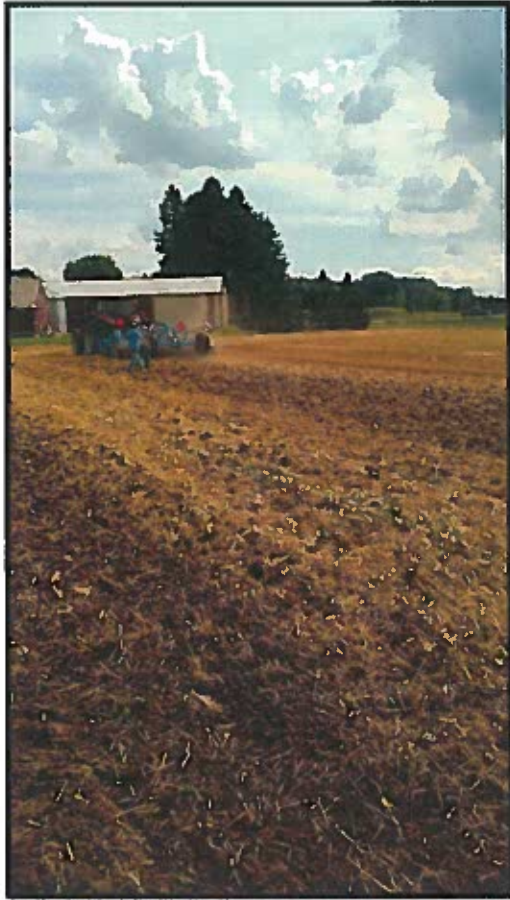


Very Nice even



62 bu/ac soybeans
Plus 3.1 ton of Ryegrass
and the movement of 10,000 gls
of manure in the Spring, into
biologically active soil profile.





Different ways to seed covers

Greg Nettekoven - Larsen Coop airflow broadcast then shallow incorporation with Lemkin vertical till.

Oats, Radish, Soybeans, and Volunteer Wheat,

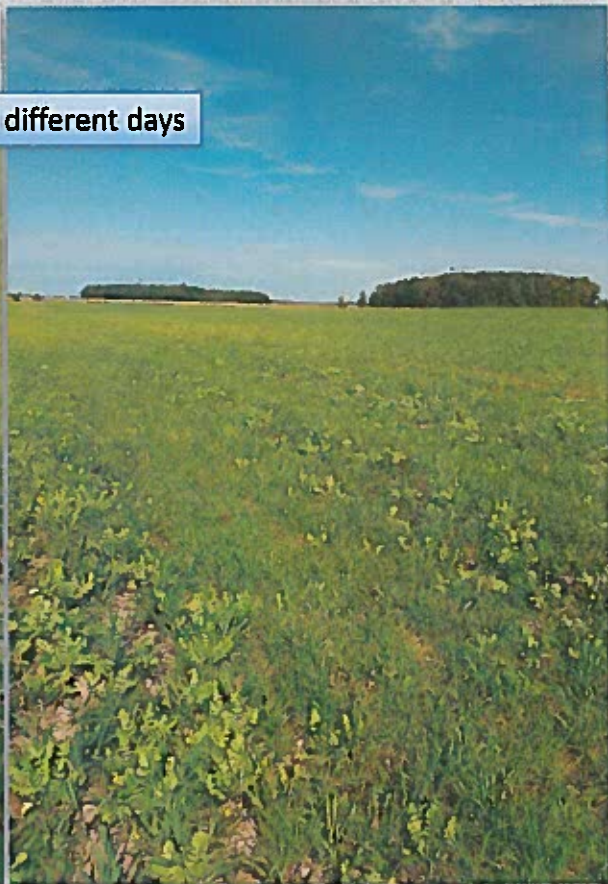
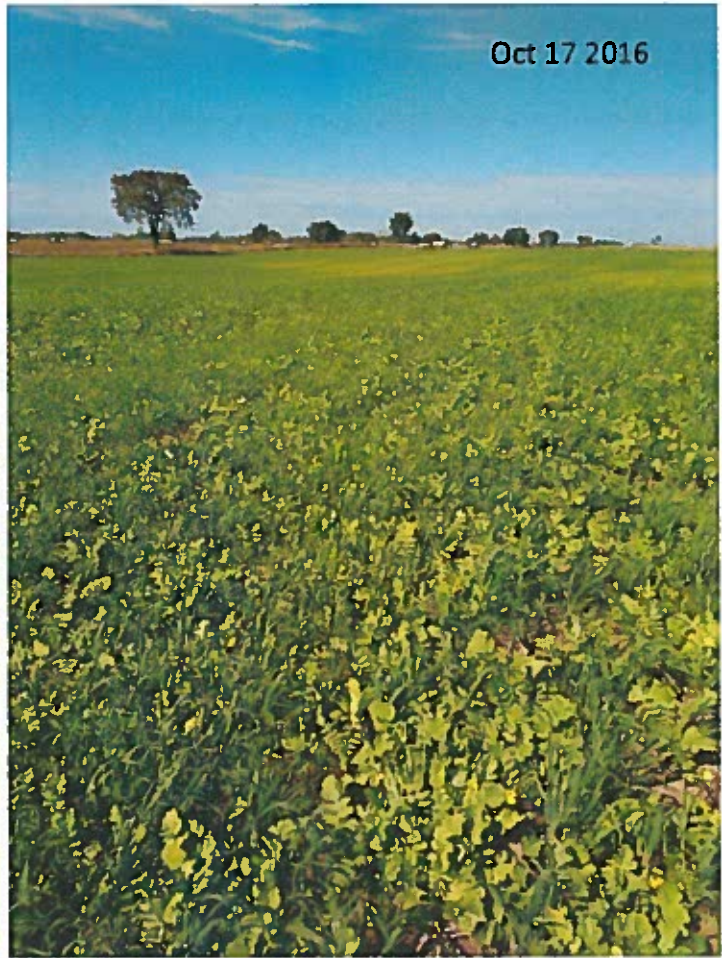


Similar to this unit but with drawbar and a rolling basket



The advantage of this system, is speed! You can plant very fast plus put down potential nutrients if need be. (Barley, Radish, Soybeans, and Clover).

Oct 17 2016



Same fields different days

Greg Nettekovens: Here water is very clear. Oats, radish, and Berseem Clover. Also, significant volunteer wheat. Does living cover create glue to hold fine soil particles? This following 3.5 inches of rain in Dec 2015. This is the same Lemkin as previous slides.

3-16-16



Weise built there own vertical till unit, similar to unit below.
Very fast economical way to establish cover crops fast after silage etc.

The Nature Conservancy (TNC) has donated a air seeder unit very similar to this for use within the Lower Fox River Basin. This unit attaches to your 3 point, and implement can be attached to it. Limitation 250 hp tractor.



Weise Brothers planted around 1200 acres of cover crops fall of 2016 most with this type of unit.

This is the same field from previous picture of silage harvest. Manure application started same day as harvest.



Think about getting cover crop planted then applying manure, its that important!



Planter closer importance: Greg Nettekoven's (Middle picture): We had some closing issues in no till, no issue with conventional (Left picture). Depending on situation; most closing issues come from too wet of conditions and/or the proper setup for conditions. Poor closer, (far right picture).





Dawn Curvtine



Martin + Smooth



Yetter 2 disk + wheel

New Horizons Dairy
 (No-till following winter Rye).
 Planting rate: 36,000 pp
Stand Counts 7 locations each :
Taken July 5 2016.

1. Dawn Curvtine
34,000 pp
2. Martin + Smooth
33,857 pp
3. Yetter 2 Disk + Wheel
33,857 pp
4. Yetter Spike + Smooth
33,285 pp
5. Pro-Stitch
33,142 pp
6. Posi (Schlagel Mfg.)
33,142 pp
7. Posi + Yetter Spike
33,142 pp
8. Martin + Cast Iron
32,857 pp
9. Extapa's
32,571 pp
10. Yetter Spikes
32,000 pp



4.



5.



6.



7.



8.



9.



10.



**Yetter spike +
Dawn Curvtine**
30,428 pp

The least significant difference (LSD) was 30,770 plants/ac. These combinations were considered less than acceptable.



**Dawn Curvtine
+ Posi**
29,000 pp

There was noticeable stand count difference when looking at the stand. Large gaps between plants; be careful if blending different closing units.

Different size's closing wheels work against each other in some cases.



Yetter + Pro-Stich
28,285 pp



20160621_162242.mp4

Dawn Curvtine
Visual 25 secs

Video's different closing
Options.



20160621_162156.mp4

Pro-Stitch
Visual 21 secs



20160621_163210.mp4

Yetter & Smooth
Visual 2 secs



20160621_162323.mp4

Extap's
Visual 5 secs



20160621_162453.mp4

Martin & Smooth
Visual 36 sec

Diverse Cover crops are great way
to get the neighbors to love YOU!

Appearance and Wildlife!

Plus the added advantages to hold
nutrients, even out mineralization,
and improve crop production.



**Brickstead Dairy
November 3rd 2016:**

Diverse cover crop mix
following winter
wheat: Fall of 2016

Barley, Common Vetch,
Sunflowers, Peas,
Sorghum Sudan grass,
Volunteer Wheat,
Radish, Crimson Clover
+ a few others.

Will probably need to
spray in Spring, so we
can stop Volunteer
Winter Wheat and
Clover.

A GREAT way to
weather proof nutrient
release, back to system
over time!!



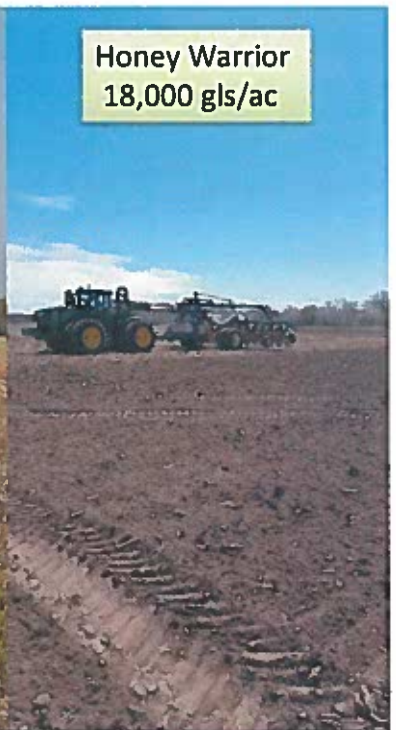
Pictures showing soil life minutes
after low disturbance manure
application. Great option following
Winter Wheat, this type of practice
can turn a field around in a hurry!

No till plant corn Spring of 2017 is
the plan.





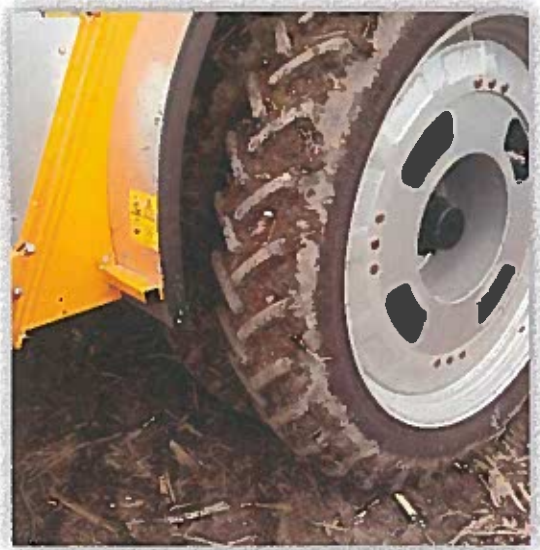
What types of Low disturbance applicators are available in area and into future.



Potential for side dress manure on corn or high grass systems .
"Veenhuis Rotomax." Hampton Shores Ontario, Canada. This unit is from the Netherlands.
Carey VanDerLoop (VanderLoop Equipment) is currently working on this option.
Picture below with different toolbar.



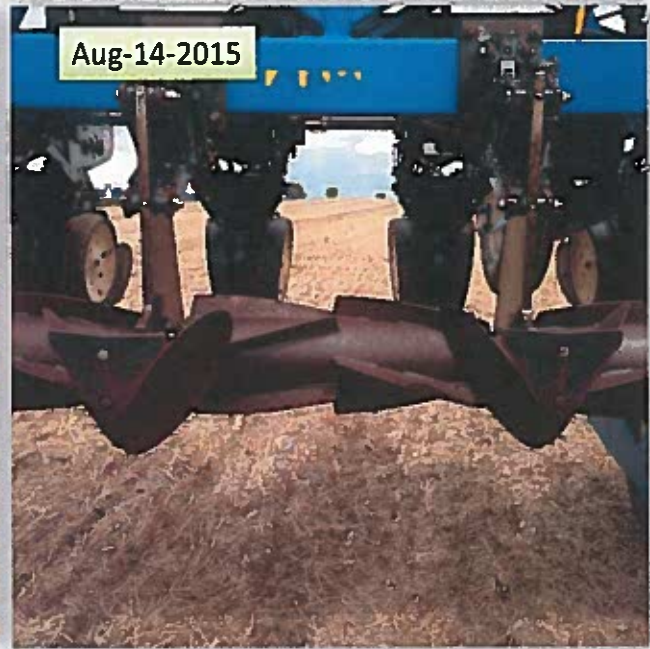
This tool bar is made for grass application with a Max of 7,000 gls acre with, "this tool bar."
Potential for other toolbars with different rates.



This unit can real manure hose up as it goes. Different tool bars can be used or developed. Carey is currently working on this.



Lucas Criswell's farm near Lock Haven, Pennsylvania has taken the steps to roll cover down with these types of units on a 12 row Kinze planter. This planter was used to plant soybeans and corn on Criswell's Farm. Many possibilities here, a couple of these planters coming your way in 2017.



Can we do this with taller material? A potential way to plant into heavy covers, with Dawn Biologic ZRX roller crimpers.

