

Native Plants and 3rd Crops for Water Quality

07 - 0579

BERBI 3rd Crop Producers 3rd Crop Demonstration Sites



3rd Crops Growing Our Communities

- 🌱 Economically
- 🌱 Socially
- 🌱 Environmentally



Greater Blue Earth River Watershed



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426 Winnebago Avenue, Suite 100, Fairmont, MN 56031*

Native Plants and 3rd Crops for Water Quality

BERBI 3rd Crop Producers

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3rd Crop Producer

Vern Arndt & Sons
47469 132nd St.
Lewisville MN 56060

Landowner

Vern Arndt

Location

County - Blue Earth
Township -Pleasant Mound
Section - 2

3rd Crop Planted

Native Grasses

Easement Length

10 Years

Field Size

10 acres

Vern Arndt

Project Overview

Vern Arndt, along with his two grown sons Troy and Todd, operates Arndt Farms just east of Lewisville MN. They farm a couple thousand acres of corn/soybeans in the Blue Earth River Watershed. Marble Creek is a small drainage ditch that runs through one of their farms. On either side of the creek is some Highly Erodible Land (HEL) based on slope and soil type. It is here where Vern and the boys thought the 3rd crop easement program could help the most. "Yeah we like to hunt quite a bit and on each side of that creek it was difficult to farm so we thought this program looked pretty good. Plus we can harvest it and keep the land in production", Vern explains.

Project Description

Seeding was done in spring of 2005. "I had a terrible time getting it seeded", Vern explains. The drill was supposed to be set up for these grasses but too much seed was being planted. What I had bought for the whole project ended up on the north side alone. I had to go to town and get more seed to finish the south side. I reset the drill, but this time it came out *too* slow. I was up in arms at that point so I left the drill settings alone and spent the rest of the day going over and over and over the south side until I ran out of seed. I must have made a dozen passes or so".



This buffer separates the corn field on the left from Marble Creek on the right.

When the seeding was complete Vern was left with an 80 ft. wide riparian buffer that runs parallel to Marble Creek all the way to the section on both the north and south sides. The seeding mix consisted of Switchgrass, Big Bluestem, Indian Grass, and Canadian Rye. The rye came up first and helped to keep some of the weeds down until the warm season grasses could establish. However, weeds were still a problem so mowing was done to keep them managed.

This year (06') the site is coming along very nicely. Bunches of grasses are prevalent and the weed pressure has been minimal. "I really think it looks good this year and I can't wait to hunt it this fall; should be lots of birds in there. It is excellent habitat", Vern says.

Outcome

With corn or soybeans above it and Marble Creek below it, the 3rd crop planting will make a nice buffer for slowing down any runoff from the row-crop acres and infiltrating the water before it gets to the creek.

Vern and the boys are content leaving the riparian buffers for wildlife habitat for the time being. Possibilities for the future include haying the grass (after nesting) to sell to a neighbor with cattle or harvesting the biomass for energy. Current research shows a higher yield of biomass in plantings that have many diverse species (polyculture) compared to just one species (monoculture).

3rd Crop Producer

Rodney Einck
54648 County Rd. 13
Bingham Lake MN
56118

Landowner

Rodney Einck

Location

County - Cottonwood
Township - Lakeside
Section - 24

3rd Crop Planted

Oats

Easement Length

10 Years

Field Size

10 acres

Rodney Einck

Project Overview

Rodney Einck is a self described "hobby" farmer of around 200 acres near Bingham Lake. A portion of the farm is old pasture that is now in the RIM program. The remaining ground was in corn/soybean production. Two parcels have steeper slopes and are sensitive to erosion but are still able to be farmed. One of the 10 acre parcels is above a wildlife management wetland. Reducing the sediment that reaches that wetland is important to good water quality.

"I heard from some neighbors about this program to grow 3rd crops for water quality. It sounded like a good idea so I got more information and found out it was a really good match for me. This corn-oats rotation has worked well for me, especially considering the landscape", Rodney says.

Project Description

Oats are drilled as early as possible in the spring.

"I get out there as soon as I can; late March to early April is good if the weather cooperates", Rodney explains. By seeding early he can be harvesting the oats by late July or early August.

An old John Deere 6600 combine with a 15 ft platform (bean) head is used to combine the oats directly. The oats are then augured into a bin with an aeration floor and some stirrers. Air is passed through the oats for several days giving it time to dry down.



A field of oats ready to be harvested.

This system works well for Rodney and allows him to manage his quality much better than if he were to swath the oats and let it dry down in the field. Letting the oats field dry increases the risk of the crop getting rained on.

The straw is baled after harvesting the oats. Cattle manure from a neighbor is spread and incorporated. "I like to use as much manure as possible, it is better and cheaper than having to buy and apply nitrogen.

Outcome

The straw is sold to a farmer who uses it as bedding for his cattle. That same straw may come back to Rodney in the form of manure the next year. The oats are marketed directly, if possible, with any extra being marketed to the local co-op. Horse owners have been good customers for Rodney in the past and he hopes to continue serving them by growing high quality oats. "Most horse owners are real high on quality. They treat their horses better than most pets and want only the best for them. I'm happy to keep them happy".

3rd Crop Producer

Joe Riihl
36351 575th Ave
Mountain Lake MN
56118

Landowner

Shirley Riihl &
Jim Nickel

Location

County - Cottonwood
Township - Midway
Section - 28

3rd Crop Planted

Alfalfa with Oats Cover
Crop

Easement Length

10 Years

Field Size

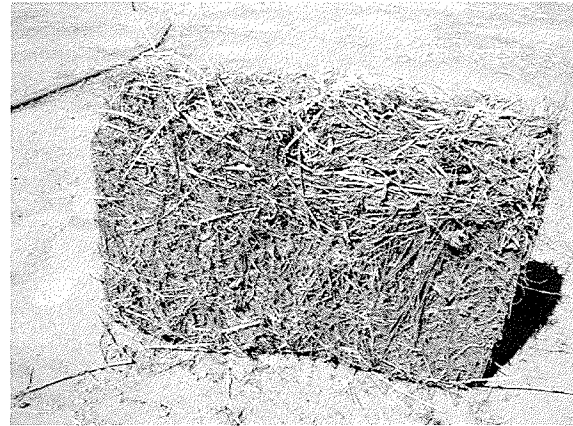
4 acres

Joe Riihl

Project Overview

Shirley Riihl & Jim Nickel of rural Cottonwood County agreed that each would be better served if they combined efforts to grow 3rd crops. "The little ½ acre that Jim owns is only accessible by going through Shirley's 3.5 acre tract, and both run right down into a little creek. By planting perennial cover on the combined 4 acres will really help reduce any sediment coming from the field", says Dave Bucklin of the Cottonwood County Soil & Water Conservation District.

The site only totals 4 acres making row cropping difficult with the large machinery used these days. By converting the corn/soybean acres to alfalfa the inputs will be significantly reduced. After the alfalfa stand is no longer viable oats will be seeded in the plot for a year before being planted right back into alfalfa.



The end of a large square bale is exposed to show the quality of the alfalfa. This is how price is determined.

Project Description

Alfalfa with an oats cover crop was chosen as the 3rd crop. Seeding took place in spring of 2004. The oats sprouted quickly and helped to smother any weeds. Oats will grow from 2-5 ft. in height and grow 3 to 5 tillers. These tillers result in more stems and oat heads, thus more yield.. The oats were harvested in July and one cutting of alfalfa was taken that fall.

Outcome

"I think this has been a very good program for us on this particular piece of land", says Shirley. The alfalfa that is harvested is baled in large square bales and sold to neighbors to feed cattle. The oats were also sold to a local farmer who fed it to his calves. Oats are a good grain to start calves on because it is easier on their digestive tracts and provides a good source of protein.

The cover provided by the alfalfa all year long will reduce the sediment reaching the creek from wind and water. The nitrogen fixed by the legume will be all the nutrients needed for the oats crop that will follow the 3-4 years of alfalfa meaning less risk of excess nutrients getting into the water.



Oats are seeded as a cover crop to keep weeds down and increase yield.

3rd Crop Producer

Marlin Zienke
Bingham Lake MN
56118

Landowner

Lovella Rempel

Location

County - Cottonwood
Township - Carson
Section - 5 & 7

3rd Crop Planted

Alfalfa

Easement Length

10 Years

Field Size

10 acres

Marlin Zienke

Project Overview

"Most of my fields are adjacent to the Watonwan River, wetlands that drain into the river, or open drainage ditches that run into the river and growing alfalfa really reduces the sediment flow into it", says Marlin Zienke; a forage farmer in rural Cottonwood County.

Marlin heard about the 3rd crop easement program from Dave Bucklin at the Cottonwood County SWCD office. "I was growing corn/soybeans and after talking to Soil & Water decided to go back to some alfalfa and small grains. When I milked cows we had lots of hay but once the cows go there is nothing to utilize the hay", Marlin explains.



Alfalfa is sometimes referred to as the "Queen of Forages"

Project Description

Alfalfa was seeded with barley in early April 05' using an airflow seeder. Establishment was good and the barley was looking really nice; just two weeks from cutting,

when Mother Nature came knocking. Severe storms in early July brought high winds that damaged a large portion of the barley. "The wind blew down some big patches and snapped off the tops of lots more, I cut it a couple of days later and sold it to a local dairyman for his cows", Marlin says.

Once the barley was cut, the alfalfa stand came through thick and lush. Marlin reported no winter-kill and the first cutting of 06' yielded 2 tons/acre. He expects to get 4 cuttings from the field and, depending on weather, the field should produce for 4-5 years before it will have to be rotated out of alfalfa for at least one year. "Alfalfa has an auto toxicity characteristic meaning you can't keep planting the same field to alfalfa over and over again. You need to get something else in that field for at least a year", Marlin explains.

Outcome

The composition of the farm is very different than just a few years ago. The ground with the steepest slopes was in CRP or old pasture and makes excellent habitat for many species of wildlife. The remainder of the farm was in row-crops. Now, the CRP and old pasture are still there but all the row-crop acres (except 11) are seeded to alfalfa. This switch keeps the farm almost entirely covered with permanent vegetation all year round; which reduces the potential for erosion from both wind and water.

The only exception is a small 11 acre plot that was alfalfa last year but is soybeans this growing season. After this year of beans Marlin may put it into corn or reseed it back to alfalfa. Marlin was able to make this switch because he had a good market for all the alfalfa he grows. He hooked up with a local producer that sells large square bales to some very big dairies in Wisconsin. "It just works better to grow alfalfa for me with the hilly ground I farm, not to mention the reduced inputs. I also work off the farm and the arrangement I have with my local guy selling to Wisconsin was the key to making this thing work. I couldn't be happier", explains Marlin.

3rd Crop Producer

Jim Haaland
Box 451
Frost MN 56033

Landowner

Jim Haaland

Location

County - Faribault
Township - Emerald
Section - 24

3rd Crop Planted

Native Grasses

Easement Length

10 Years

Field Size

10 acres

Jim Haaland

Project Overview

Jim Haaland of rural Frost describes himself as a FAV grower (fruits and vegetables). He has been working with Green Giant in Blue Earth MN to deliver high quality peas and sweet corn to the hungry masses for over 20 years. In a typical growing season he will have anywhere from 80-120 acres of sweet corn and 40-70 acres of either late peas or early peas. Jim needs to work closely with Green Giant on every aspect of the crop to ensure it is planted at the appropriate time and meets quality standards.

In those years he plants early peas it is possible to double crop the field. Early peas are planted in late April or early May and harvested about 60 days later making it possible to plant soybeans after the peas. "We'll plant soybeans after early peas and just hope we get something. Sometimes you get a crop sometimes not, even if you do get a crop it is usually pretty poor yields", Jim says.

Project Description

In the middle of Section 24, Emerald Township rises a sandy side-hill that posed a challenge for traditional row crops. "With the steeper slopes and the light sandy soil it wasn't very productive and when the wind blew- look out or you'd get your face sandblasted", Jim chuckles. "I'd spoken with Shane Johnson from the Faribault Soil & Water District (SWCD) and he told me about this 3rd crop program for water quality where I could convert that ground from corn/beans to a perennial crop. I chose a native seed mix for the wildlife and the deep root structures of those grasses to keep the soil in place", he says.



Jim stands in a field of sweet corn he grows for Jolly Green Giant

The site was seeded in spring of 05' and included a native mix of Switchgrass, Indian Grass, and Big Bluestem, some Side Oats Gramma and Blue Gramma Grass were added due to the dry growing conditions of the site. Jim's wife Judi even threw in some Coneflower seed she had collected, figuring it would add some color.

Outcome

"For now the 3rd crop site is mainly for environmental benefit and wildlife", Jim explains. "With an open drainage ditch nearby and the light sandy soils I knew I had to get some sort of cover on that sand hill and this 3rd crop program has been great for that", he says.

Once the natives get established and are thriving Jim plans on investigating the possibility of harvesting the site for native seed. That may offer a revenue stream to keep the site self sufficient after the easement runs out. He also thinks it may be feasible to harvest the site someday for biomass if a local market develops.

3rd Crop Producer

Bill Olson
923 Upper Valley Dr.
Blue Earth MN 56013

Landowner

Jane Olson

Location

County - Faribault
Township - Blue Earth
Section - 7

3rd Crop Planted

Side Oats Gramma
Prairie Brome

Easement Length

10 Years

Field Size

5.8 acres

Bill Olson

Project Overview

Bill Olson purchased Feder's Seed Company in Blue Earth MN several years ago. The seed-house grows local ecoregion forbs & grasses, as well as providing custom mixes for any project large or small. In fact, mixing up some custom orders for some 3rd crop easements got him curious as to what they were all about. "I kept seeing all these orders that were for 3rd crop plantings", Bill says.

He visited with his local SWCD representative and got the details on the BERBI 3rd crop easement program for water quality. He immediately identified a small chunk of ground his mother owned that would be perfect to convert from corn/soybeans to perennial crops. "This piece of ground lies adjacent to some big woods, which in turn run down into the Blue Earth River and I know how much work has gone into improving the water quality of the Blue Earth River", Bill explains. "Having those 6 acres covered with perennials all year will really slow that water down and infiltrate anything coming off the corn/bean field above it"



*Coneflower is one of the species
Bill sells in his seed mixes.*

Project Description

The 3rd crop planting is comprised of 4 acres of Side Oats Gramma and 2 acres of Prairie Brome. The easement borders heavy woods that run down to the Blue Earth River. Seeding was done in Spring of 05'. "The Side Oats Gramma came through good but the Prairie Brome was sparse, so we no-tilled some more seed down this (06) spring", Bill says. Perennials take time to get established and dominate over the weeds. "Most people don't have the patience to wait for the perennials to grow up and take over. Weeds will out compete the natives immediately and most folks will start spraying the weeds, which inevitably hits the natives as well; or they will pull the weeds out which also pulls out the small roots of the natives they're trying to establish. I tell folks to just mow the weeds down. Eventually the native grasses and forbs will come through, its just nature", he says.

Outcome

The Side Oats Gramma and Prairie Brome should be producing enough seed to start harvesting next year (07). The harvested seeds will be processed, cleaned, and added to custom mixtures that may end up in a CRP, CREP, or wetland plantings in Southern MN or Northern IA. Most of the seed Feder's produces goes into conservation planting mixtures. A typical mix may include 6 native grass species and maybe 15-20 forbs for added diversity.

3rd Crop Producer

Phil Bettin
2088 90th Ave
Trimont MN 56176

Landowner

Walt Bettin

Location

County - Martin
Township - Cedar
Section - 32

3rd Crop Planted

Native Grasses for
Rotational Grazing

Easement Length

10 Years

Field Size

10 acres

Phil Bettin

Project Overview

Phil Bettin, along with wife Sheila, and four children Emily, Lindsey, Killey, & Kelley live in rural Martin County and realized a couple years ago the dynamics of farming had changed. "I could see the writing on the wall. Our operation needed to go in a different direction in order to survive, I'm not saying organic is for everyone because it definitely isn't but you need to do something different than the next guy. The only other alternative is to get bigger or get out of the business and those weren't options for me", explains Phil.

He started the process by looking at how he was farming. "I was sitting here purchasing all these inputs; seed, chemicals, fertilizers, & diesel fuel and when I penciled everything out it just didn't add up. It wasn't sustainable."

Project Description

To make the farm operation more sustainable, and add value to the alfalfa he would be growing in order to be certified organic, Phil converted 10 acres that had been in a corn/soybean rotation to permanent pasture. The pasture is part of a rotational grazing system he uses to graze lambs and ewes. "The 3rd crop easement was really key in making all this work. The pasture allowed me to use the sheep to eat the hay I needed to grow to get my organic certification".



Phil Bettin rotational grazes lambs and ewes in Martin County.

The pasture was seeded in spring of 2005 and established well.

Phil did have to reseed an area, twice, due to drow out. The site was fenced to make two paddocks for the sheep to graze. The two paddocks can be further subdivided using temporary electric fence if the stocking rate would change.

Outcome

Phil is happy he made the decision to go to organic and graze sheep. To date he has 32 acres of certified organic ground and an additional 60 that will be certified by next year for a total of 90 acres. In the meantime he has around 100 acres in oats and alfalfa that is in the process of being certified organic.

The lambs are marketed to Wolverine Processor in Detroit Michigan. He sells to a more local buyer who consolidates loads before shipping the sheep up north. Phil would like to eventually transition his sheep herd to be certified organic, but before doing so is seeking a market for the organic meat.

3rd Crop Producer

Eric Bloomquist
110 Main St. E
Trimont MN 56176

Landowner

Wayne Bloomquist

Location

County - Martin
Township - Fox Lake
Section - 9

3rd Crop Planted

Native Grasses for
Rotational Grazing

Easement Length

10 Years

Field Size

10 acres

Eric Bloomquist

Project Overview

Eric Bloomquist grazes 10 beef cows, 2 horses and some Boer meat goats utilizing a rotational grazing system. Rotational grazing is a sustainable grazing system where livestock are moved to different pastures to allow rest and re-growth of forages. This management system can increase overall production and quality of forages grown. Other advantages include an extended grazing season and a more uniform distribution of forages grown. The meat goats were added to fill a niche market and do not count against the stocking rate as long as the goat total is below 20% of the total number of animals. The goats eat the weeds and plant species that other grazing animals won't.

Project Description

This 3rd crop easement site has a culvert on the eastern border that runs under a gravel road to an open drainage ditch approximately 1000 feet from the culvert. This culvert, and subsequent drainage ditch, receive water from portions of nine sections. Soil erosion is a problem on some steeper slopes which two years of ridding has not solved.



This long-horned cow was the first Eric purchased, and is what got Eric into grazing.

The site had been in a corn/soybean rotation for several years. "Some permanent cover was needed to slow the water and reduce the soil erosion. The water really runs hard on some of those steep slopes", Eric says. "I guess I could have hayed it but going to rotational grazing seemed the most sensible thing to do. Instead of all the work and worry of haying, now all I do is monitor the pasture, open a gate, & move the water buckets".

Seeding was done in the spring of 04'. Warm season native grasses- Big Bluestem, Little Bluestem, Side Oats Gramma, & Indian Grass were straight seeded along with a little alfalfa. "I did some research and could not find much about establishing warm season grasses in pasture so most of what I learned was from the DNR on CRP plantings", Eric states. The warm season grasses were slow to establish and Eric struggled with Marestail. After spot spraying a general area several times he has a sneaking suspicion it had become herbicide resistant since he could not kill it.

Seven individual paddocks, each about 2.5 acres in size, make up the rotational grazing system. Animals are turned out in early spring (April 15th this year) and are moved every couple of days to a new paddock before starting the cycle again.

Outcome

Eric is pleased with his rotational system but is always looking for improvements. He is thinking of seeding some cool season species into the paddocks. He thinks the grazing animals will keep the cool season species from taking over, thus allowing the warm season grasses to come through and thrive in the middle of the summer. The goats were an especially good investment since they are basically grazing for free eating weeds and species the cows won't. "Overall I have been very happy with how things went and how the system is working out. It really allowed me to address a resource problem on the farm with a truly innovative solution!"

3rd Crop Producer

Kermit Carlson
2256 70th Ave.
Trimont MN 56176

Landowner

Kermit Carlson

Location

County - Martin
Township - Galena
Section - 7

3rd Crop Planted

Native Grasses

Easement Length

10 Years

Field Size

6 acres

Kermit Carlson

Project Overview

Tile intakes drain ponded water from a basin or pothole in the field. The water runs through a series of subsurface tiles and surface ditches before being released into a major stream or river. This system has made modern agriculture possible by providing hundreds of thousands of additional agriculture acres. From a water quality perspective, tile intakes provide a direct conduit for surface waters that can carry excess nutrients, sediment, and other pollutants downstream.

Kermit Carlson of Trimont MN was concerned about just that issue; sediment and excess nutrients getting into the water system. To quell his concern he decided to act and visited his local Soil & Water Conservation District to see what he could do. "A representative from the SWCD told me about the 3rd crop program and it sounded interesting."



A perennial buffer around tile intakes can reduce excess sediment and nutrients from entering the drainage system.

Project Description

The 3rd crop buffer planting is 6 acres in size and was planted to Big Bluestem, Indian Grass, Switchgrass, & Western Wheatgrass

in spring of 2005. "I was a little surprised at how well it came up. I had heard it takes some time for those grasses to establish, but they are well on their way", says Kermit.

The buffer will provide an "island" of habitat throughout the year. In the winter, when the row-crop acres are bare, the perennial cover will provide upland birds cover from predators. In the spring & summer the buffer will be used for nesting and rearing offspring.

Outcome

"I have been pleased with the 3rd crop program and what it allows me to do", Kermit explains. Sedimentation has been reduced entering his tile system, as well as excess nutrient concentrations.

Kermit does have some hobby horses and may manage the buffer through some limited grazing or haying once all the grasses have been established to his satisfaction. A controlled burn could also be used every couple of years to manage the site and promote new growth.

3rd Crop Producer

Michael Gerken
2178 70th St.
Fairmont MN 56031

Landowner

Leon Gerken

Location

County - Martin
Township - Fairmont
Section - 33

3rd Crop Planted

Pasture Mix

Easement Length

10 Years

Field Size

10 acres

Michael Gerken

Project Overview

Mike Gerken farms about 1000 acres in Martin County. He has 10 acres of old pasture, about 40 acres of alfalfa with an oats cover crop, as well as a 10 acre 3rd crop easement planted to a pasture mix. The rest of his acres are split between corn and soybeans. In addition to the farm operation he also sells seed and finishes anywhere from 160-180 head of beef cows.

Mike heard about the program from the Martin County Soil & Water Conservation District (SWCD). "They explained everything real well and helped me with the paperwork", he says. "What I like most about the program is being able to manage it by haying or grazing."



Mike finishes between 160-180 head of beef cows in a year.

Project Description

Mike chose a site adjacent to an old gravel pit. The perennial cover will reduce overland water flow in heavy rain events and protect the soil when the wind blows. Organic matter will be increased over the life of the field and the legumes will fix nitrogen.

The pasture mix seeded in spring of 2004 included Alfalfa, Indian Grass, Brome, Sweet Clover, & Western Wheatgrass. "The Indian Grass and Brome didn't come up very well at all so I have been going through and re-seeding some Orchardgrass & Meadow Brome into the stand", Mike explains.

Outcome

Mike expects to get 2-3 cuttings per year from the 10 acres. Once the forage is cut and allowed to dry for several days it is baled in large square bales or chopped for silage and put up in the silo. The cows give Mike a value-added product to market and utilize the forage. The manure from the cows gets returned to the land for fertilizer and reduces the amount of inputs Mike purchases.

Mike is debating whether to continue haying the pasture or turning the cows out onto the pasture to graze. Ultimately market conditions will dictate which way he proceeds but to Mike it is nice to have the option. "I like having options on what to do with my own land. It allows me the flexibility while still doing the right thing."



Alfalfa is allowed to dry in the cut rows for several days before being baled.

3rd Crop Producer

Don & Judy Moritz
1256 230th Ave.
Fairmont MN 56031

Landowner

Don & Judy Moritz

Location

County - Martin
Township - Fairmont
Section - 2

3rd Crop Planted

Hybrid Hazelnuts
Woody Florals
White Clover

Easement Length

10 Years

Field Size

7 acres

Don & Judy Moritz

Project Overview

Don & Judy Moritz are owner/operators of DJ Veggie Market located just outside of Fairmont MN. They have a large production garden and market fresh produce at farmers markets as well as directly to consumers. Their garden encompasses over 2 acres and includes: potatoes, carrots, onions, beans, pumpkins, squash, sweet corn, beets, cabbage, spinach, tomatoes, and much more. The remainder of the agriculture land is rented to a local farmer. A small tract of land just north of their homestead was always wet and not very conducive to row-crops.

Don learned about hybrid hazelnuts by attending a meeting that highlighted hazels as a potential 3rd crop. "Hybrid hazelnuts seem a good fit for our operation and especially this tract of ground. The 3rd crop easement allowed me to take that problem spot and convert it to a higher use area both ecologically and hopefully economically once the hybrid hazels start producing"



Don & Judy in their large production garden. They sell at farmers markets and directly to consumers.

Project Description

This 7 acre site was planted to white clover with a nurse crop of oats. Don had planned on harvesting the oats, straw, & clover for a neighbor to use as cattle fodder but was never able to get into the site to get it cut. "Although I never got the oats or clover cut that first year they really kept the weeds down", he says. In July of 05' over 1000 hybrid hazelnut tublings were planted in east-west rows. The rows were spaced out alternately between 10 & 15 feet. "I spaced the rows alternately so I could still get a small tractor through the 15 ft. wide rows to access all plants". Spacing between plants was 5 ft. Planting began closest to the grove and continued toward the north. Don ran irrigation tape under the rows of hazels to provide moisture when needed. "I am a firm believer in irrigation tape, since I utilize it in the garden. I included it in this planting so when needed, I can simply turn on the hydrant, open some valves, and water is delivered to each plant".

Don used a garden tiller to till a strip where the tublings would be planted. Using a hand trowel, small holes were made for the tublings to slide into. Don used a water wand to give the newly planted seedlings some water but more importantly to remove any air pockets and settle the dirt around the newly planted tublings. "It is important to plant the tublings much like tomatoes, being careful not to pack dirt around the roots. It is very easy to damage and break the small roots if you start packing dirt around the green stemmed plants", he says.

Outcome

"Last fall I flagged those plants that didn't look like they would make it so I could check them this summer", Don says. "In July I will go back and see if those poor looking plants made it through the first year. I am encouraged to discover that if the root crown is still viable the plant will shoot up new growth even if it got nipped off by wildlife. I hope for 80% survivability".

Don does not expect to see any nuts for about 4 or 5 years. "I realize that the roots need to grow first before top-growth and eventually nuts are produced, but when they start producing I should be able to get around 3 lbs per plant. The hazels will be another nice product to include with our garden produce; I'm even putting in another 800 plants this year (06')".

3rd Crop Producer

Jon Olson
256 190th St.
Trimont MN 56176

Landowner

Llyod Olson

Location

County - Martin
Township - Cedar
Section - 32

3rd Crop Planted

Native Grasses for
Rotational Grazing

Easement Length

10 Years

Field Size

2.5 acres
7.5 acres

Jon Olson

Project Overview

Jon Olson used the BERBI 3rd crop easement to take his farm in a completely different direction. "We were growing corn/soybeans and had just a few hobby cattle (8-10 head), but things just weren't working out", he says. So he started looking into rotational grazing.

Jon had been renting some grazing ground for his cows but decided it made more sense to increase his pasture acres closer to home. This would allow him to increase his herd size and address a couple of resource concerns on his farm.

"Part of the farm is basically an old gravel pit that is always sandy & dry; a real challenge to get a good crop from", he says. On the opposite side of the farm, running along his driveway, is slightly over 7.5 acres that is characterized as rolling and receives all the runoff from the farmstead. "I was starting to get some gullies forming and needed to do something to address that problem, it was a no-brainer to put it in some sort of perennial cover", Jon explains.



Three wind turbines turn in the breeze behind Jon Olson's pasture for rotational grazing.

Project Description

The large 7.5 acre plot, as well as a smaller 2.5 acre plot that is in the gravelly area of the farm, was seeded to warm season native grasses in Spring of 2004. The seeding mix was composed of 60% Big Bluestem, 20% Switchgrass, & 20% Side Oats Gramma. Jon explains that the warm season grasses take some time to establish. The first two years Jon clipped both plantings to control weeds and grazed a few horses in the 2.5 gravel area. To compliment the pastures that are seeded to warm season grasses, 12 additional acres were seeded to a mix of Perennial Rye, Fawn Fescue, and Oats as a nurse crop this year. The oats will be cut, harvested, and baled for straw before the cattle will be turned loose to graze.

Outcome

Jon describes the BERBI 3rd crop easement program as a snowball effect. "The BERBI program really helped us by giving us the opportunity to transition to a more sustainable farming system, and the 10 acre easement was just the beginning. This year we converted an additional 12 acres, next year an additional 11 acres, the goal being to get as much ground around the homestead converted from row-crop to pasture so we can graze on our own land and not be forced to rent as much".

Since he started this project 2 years ago his herd has grown from 10 cows to over 30 and he has addressed some significant resource concerns on his farm. The soil erosion caused by water draining from the farm on the 7.5 acre site adjacent to the driveway is basically eliminated. The light sandy soils from the old gravel pit are protected all year round by living cover and grow great grass for the cows to graze on. The benefit Jon enjoys the most since he began his transition to rotational grazing is time. "I work off the farm as well and going to grazing really spread out the workload for me. I have more time to spend with my wife Julie and our 3 kids Reilley, Matraca, and Bailley".

3rd Crop Producer

Rich Perrine
402 S Lake St.
Sherburn MN 56171

Landowner

Ardis Perrine

Location

County - Martin
Township - Fraser
Section - 28

3rd Crop Planted

Native Grasses & Forbs

Easement Length

10 Years

Field Size

10 acres

Rich Perrine

Project Overview

Rich Perrine works in the Martin County Soil & Water Conservation District (SWCD) office. He also identifies, collects, and preserves native seeds from around Martin County. He has always had a passion for the native prairie. "Everywhere you look it used to be tall grass prairie, each locality had its own eco-type and now the eco-type across the whole Midwest is corn/soybeans. This does not leave any room for some of these native species to re-populate because their just isn't room on the landscape."

"I have been planning this project for quite some time, and when I heard about the 3rd crop easement program I jumped at the chance", Rich says. He converted 10 acres of row-crop land his mother owned into a native prairie restoration site that he is re-populating with native species from within the region.



Cream Wild Indigo is one of the species Rich is trying to increase in the area.

Project Description

Rich seeded native grasses and forbs in the spring. Weeds are controlled by mowing and spot spraying for thistles. Rich explains the importance of having early and late succession species. The early succession plants, like Canadian Rye or Black Eyed Susan, will grow vigorously and will dominate early on; but with time other species will come through and eventually take over in their own little niche area. This makes for a diverse prairie, which is what Rich is after.

Outcome

"The goal of this prairie restoration is to raise local seed for the local eco-type of native plants. Very little is being done within the county to preserve some of these native species" Rich explains. "I am establishing the more prevalent species first like Leadplant, Purple Prairie Clover, Big & Little Bluestem, and Golden Alexander. Then I will move to the rarer species that are in large decline around the county like Cream Wild Indigo or Prairie Phlox" he says.

Rich harvests as much of his own seed (from other small plots) as possible to repopulate his native prairie. In addition, he has received permission from several land owners throughout the county to harvest seed on partial remnants they own. When he can't find a species locally he gets yellow tagged seed. Yellow tagged seed is from within a 25 mile radius of the prairie site; this ensures the integrity of the local eco-type.

Eventually a business may spring forth from the restored prairie and reclaimed species he is collecting. Depending on the species, some native seeds sell for hundreds of dollars per ounce. "I got started with Rattlesnake Master and Swamp Milkweed and now have enough that I can sell seed to others, but for the most part all my seed goes into my own restoration project" Rich says. "It is a long term project but one that is fulfilling and I enjoy."

3rd Crop Producer

Craig Peterson
2277 70th Ave.
Trimont MN 56176

Landowner

Craig Peterson

Location

County - Martin
Township - Cedar
Section - 13

3rd Crop Planted

Native Grasses for
Rotational Grazing

Easement Length

10 Years

Field Size

10 acres

Craig Peterson

Project Overview

North Lake is a shallow lake located north of Trimont MN. The deepest point of the lake is a mere 4 feet. However, this little lake is a haven for wildlife in general and wildfowl like ducks and geese especially. Bordering the northeast corner of the lake is the farm of Craig Peterson. Craig, operates a cow/calf operation of about 45-50 cows. The remainder of the farm is in a corn/soybean rotation. When a neighbor mentioned the BERBI 3rd crop easement program to Craig he was a little skeptical. "I'm a small family farmer and I can't afford to be retiring land in a program, but when I got the details and found out the land can still be in production I did it and convert those corn/bean acres to perennial cover. That piece of ground slopes down to the lake pretty good so putting it in pasture will keep ridges and gullies from forming", Craig says.

Project Description

The 10 acre site was staked out and planted to native grasses. The seed mixture included Big Blue-stem, Indian Grass, Little Blue-stem, Side Oats Gramma, and Purple Prairie Clover. Craig seeded oats as a nurse crop with the grasses. "I cut and harvested the oats that first year and used the straw as bedding for the cows, but didn't have anything to graze", he says. "Last year (05') I turned the cattle loose in August and grazed as long as I could. This year I expect the natives to really come through strong and graze it again."



Many species of ducks and geese inhabit North Lake.

Craig installed fence to enclose the easement area and it is now one of the 5 paddocks that make up his rotational grazing system. The cows are allowed to eat the grass to a length of about 6-8 inches before they are moved to a different paddock giving the previously grazed paddock time to rest. By rotationally grazing his livestock he can achieve better quality and typically graze longer into the fall.

Outcome

Craig likes the 3rd crop easement program and says he would love to convert even more of his corn/soybean acres to pasture. "I have more cows than pasture right now so I do some additional haying, but it would be nice to get some more pasture. I like the cow/calf system and it has worked very well for me", he says.

The conversion from corn/soybean rotation to pasture has reduced the erosion potential from wind or rain and helps infiltrate any runoff that comes from the row-crop ground before it hits North Lake. In addition it makes for excellent habitat for nesting birds in the spring. "I can always hear pheasants cackling out there so I know they like it", Craig says.

3rd Crop Producer

Billeye Rabbe
1402 208th Ave
Fairmont MN 56031

Landowner

Billeye Rabbe

Location

County - Martin
Township - Rutland
Section- 29&32

3rd Crop Planted

Native Grasses/Forbs
& Tree/Shrub Barrier

Easement Length

10 Years

Field Size

10 acres

Billeye Rabbe

Project Overview

Development is a part of life. Cities and towns grow and thus need more space to accommodate the increasing urban population. This can create tension at the interface of this urban/rural landscape. Billeye Rabbe lives in one of these areas. 1 mile from the Interstate 90/Hwy 15 interchange, north of Fairmont MN, is her farm.

Plans for a Wal-Mart SuperCenter less than a ½ mile from her farm make future development almost certain. To mitigate the increased traffic & noise Billeye included a privacy/noise barrier consisting of lilacs, ash, and blue spruce, in her native prairie restoration. "I simply love lilacs, they smell and look so pretty and nothing reminds me of springtime more than lilacs."

Project Description

It was important for Billeye to include her two daughters, Casey & Angela, in the 3rd crop project. "The girls are very involved with the farm so I wanted their input as well", she says. As a family they decided on including several colorful forbs with the short grass mix so that the scenery would change throughout the seasons.



Billeye Rabbe planted native grasses & forbs as well as a living privacy fence to "hedge" against development

The prairie restoration took place on a 10 acre parcel that had previously been in a corn/soybean rotation. "The equipment is so large these days that it was kind of a pain to row-crop such a small area" Billeye says. "It ended up working perfectly for this project".

The grass and forbs were seeded in 2004 along with the 3 rows of trees. The outside row is blue spruce, ash in the middle, and lilacs on the inside row. "Billeye has a lot of different species on her prairie says Rich Perrine from Martin County Soil & Water (SWCD), who provided technical assistance on the project. "With it only being established in June of 04' it may take some time to see all of the species but they will come through eventually. The thing to remember is that this is a natural process of establishing a prairie that has been in a corn/bean rotation for so long."

Outcome

Billeye explains some of challenges on the project: "My two biggest challenges have been weed control and perception", Billeye exclaims. "I mowed the whole site 5 times the first year and have only had to mow between the tree rows since then. I don't want to spray the whole area because I don't want to kill the forbs but I have had to do some spot spraying for thistles" she says.

Along with the weed control challenges comes the added challenge of changing public perceptions. Many folks who drive past the site may get the impression that it is one giant weed patch. "Several people have expressed that I must be crazy to let the area go to weeds" Billeye says. "I have to continually remind folks that this is different than planting a pack of wildflower seeds from the local hardware store in your garden, nature has its' own way of working."

3rd Crop Producer

Orlin & Gene Bauman
14998 320th Ave.
Waseca MN 56093

Landowner

Orlin & Gene Bauman

Location

County - Waseca
Township - Otisco
Section - 4

3rd Crop Planted

Alfalfa & Oats

Easement Length

10 Years

Field Size

10 acres

Ole' & Gene Bauman

Project Overview

Orlin "Ole" Bauman and his brother Gene farm 150 acres south of Waseca MN. These former dairymen have focused their attention these days on the cattle operation. "Most everything we grow goes back to the cows", Ole says. "Alfalfa is baled in small squares, the corn gets ear picked and cribbed. We grind ear corn with some shell corn for the cows, same for the oats".

30-40 acres of the farm are in alfalfa, a few acres are in oats and soybeans, and the remaining acres are planted to corn. "The last couple of years we've grown some soybeans but while we were milking cows we never grew soybeans; it was always oats, alfalfa, and corn", Ole explains.

The cattle operation includes 16 beef cows, 30 steers, and 25 barn calves. Much of the ground they farm could be characterized as rolling hills with some areas having very steep slopes.



Ole & Gene rotate their alfalfa fields on the steeper slopes of the farm to protect from soil erosion.

Project Description

"With some of the steep slopes on the farm if we row cropped it every year we'd lose so much dirt we wouldn't have much to farm. That is why we have been so pleased with this 3rd crop program", Ole says. Both he and Gene converted 10 acres of corn/soybean ground to a 3rd crop. Alfalfa was seeded with oats as a nurse crop. Alfalfa is grown for 3 years and then a year of corn before alfalfa is seeded back down again in year 5.

Alfalfa, a perennial legume, keeps the soil in place through its root system and provides ecological service all year round even in the blowing winter and rainy spring. By rotating the alfalfa fields on the most environmentally sensitive areas of the farm, Ole and Gene will be able to target those areas that are of most concern.

Outcome

"With only 150 acres we need to have every tillable acre producing something for the cattle; we can't afford to set aside any acres solely for conservation. That is what we like so much about the 3rd crop program, we can use that alfalfa", Ole says.

The permanent cover has substantially reduced the potential for erosion coming from the steepest slopes on the farm. The ground is covered, water is slowed, and erosion minimized. The alfalfa will also provide valuable organic matter and fix nitrogen for the next crop in the rotation.

3rd Crop Producer

Paul Berry
62980 185th St.
Waseca MN 56048

Landowner

Paul Berry

Location

County - Waseca
Township - Freedom
Section - 15

3rd Crop Planted

Oats

Easement Length

10 Years

Field Size

10 acres

Paul Berry

Project Overview

Paul Berry farms 525 acres of mostly corn and soybeans in Waseca County. "I heard about the BERBI 3rd crop program from some neighbors who had just signed up some acres. The program sounded interesting so I got more information from the Waseca Soil and Water District and decided it was a good deal", he says.

Paul went with oats as a 3rd crop. The oats are seeded in early spring (March-April) so are growing much earlier in the year than corn/soybeans. The oats are rotated on some of the hillier pieces of ground Paul farms. This is good for decreased erosion potential and wildlife habitat.

Project Description

Oats are seeded in the early spring typically in late March if possible or early April. Oats are seeded shallow to allow them quick emergence and rapid growth. They thrive in cool wet springs and when used as a nurse crop with alfalfa do a good job of suppressing weeds while the alfalfa gets established.

The oats are harvested in July and the straw is baled to be used as bedding for the cows. That straw will eventually come back to the fields in the form of manure that will provide much needed organic matter, nutrients for the next crop, and improve overall soil health.



*This field of oats is just days from being cut.
It will be fed to weaned calves.*

Outcome

Oats are a good grain to use when starting calves on grain. The energy density is lower than other grains like corn but high in fiber and bulky. Eventually higher energy grains will be incorporated into the ration for optimum gain.

Paul gets in about 12 Jersey calves a week that he will feed for awhile before they are sent off to be finished. "I guess we do finish out some cows, but not very many", he says. The calves provide Paul a value-added product that can utilize the 3rd crop.

3rd Crop Producer

Howard Guse
18901 629 Lane
Waseca MN 56048

Landowner

Howard Guse

Location

County - Waseca
Township - Alton
Section - 18

3rd Crop Planted

Oats & Alfalfa

Easement Length

10 Years

Field Size

10 acres

Howard Guse

Project Overview

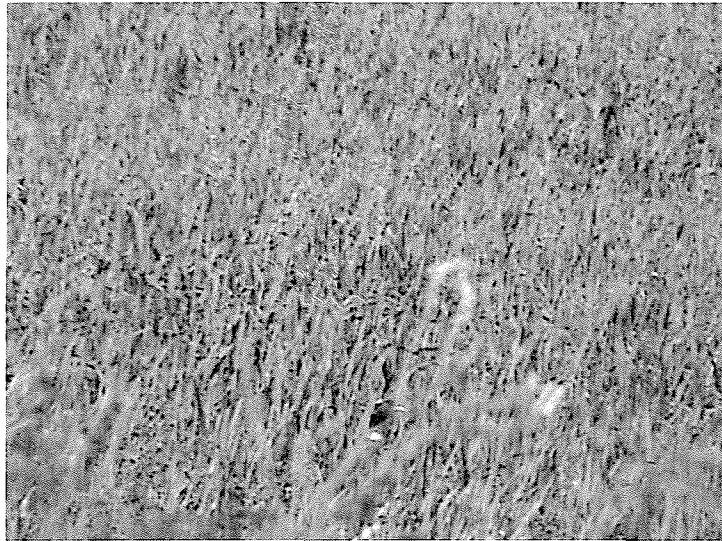
Howard Guse farms in rural Waseca County. He grows corn, soybeans, as well as oats & alfalfa. Parts of the farm are Highly Erodable Lands (HEL) and more sensitive to yearly row cropping. Depending on soil type and slope, soil loss on HEL ground can be severe when continually row-cropped year after year.

The oats/alfalfa mix provides perennial cover throughout all four seasons reducing problems such as wind erosion, water erosion, pest cycles, & nutrient leaching. It also benefits wildlife that nest in the alfalfa. Unlike grain oats which is allowed to fully mature and turn golden yellow, oats as part of a forage mix are harvested doughy and green.

Project Description

Oats and alfalfa are drilled in the spring. The oats shoot up quickly helping to suppress any weeds. Cool damp weather is best for the oats and by June will be headed out, yet still green. That is when it is cut into windrows and dried down for several days before being baled into large round bales.

The alfalfa, and some oats, will grow back for a second or third cutting to be baled. The forage is fed to some beef cows that are finished out. Howard also has some calves he raises to feeder cattle size before being sold as finishers. The oats/alfalfa mix makes for good fodder with the alfalfa providing protein and the oats energy.



The head of a pheasant is visible in the oat field which is only days away from being cut.

Outcome

"The livestock is what makes this program really work for us", says Howard. "Since we need the forage for the cows it makes sense for us to be growing it and not buying it from someone else". The alfalfa also fixes residual nitrogen for the next crop in the rotation which reduces the inputs he has to purchase.

3rd Crop Producer

Melvin & Russ Guse
Janesville MN 56048

Landowner

Melvin & Russ Guse

Location

County - Waseca
Township - Alton & Josco
Section - 4 & 19

3rd Crop Planted

Oats & Alfalfa

Easement Length

10 Years

Field Size

10 acres each

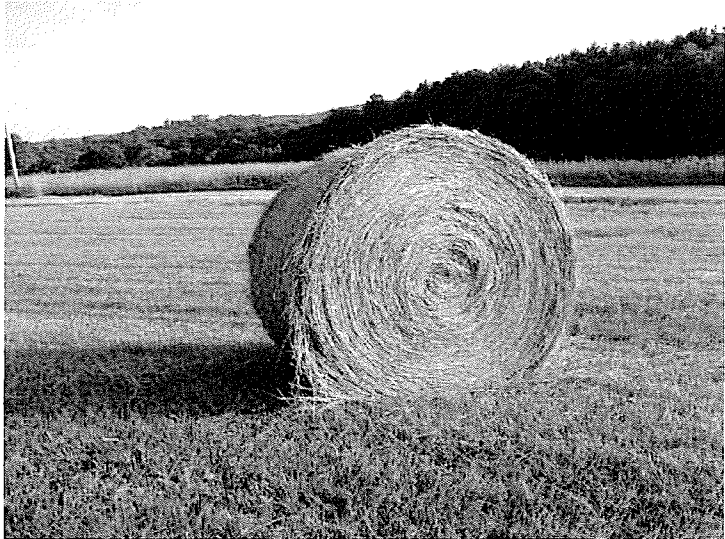
Melvin & Russ Guse

Project Overview

Melvin & Russ Guse are brothers who farm together in Waseca County. The two farm over 700 acres and raise Holstein steers. They go with an extended rotation that includes three years of forage and two years of grain crops on as many acres as possible. The cow numbers fluctuate depending on the market but they may be feeding anywhere from 90 to 200 beef cows.

“We heard about the 3rd crop program from Marla Watje in the Waseca Soil & Water office”, Melvin says. “She explained how the program worked and what we had to do on our end. Converting the corn/soybean acres to perennial cover makes a lot of sense if you’re trying to reduce erosion from wind and water”.

The brothers farm some parcels that have steeper slopes and border open water. “We decided to go with alfalfa so we could harvest it for our beef cows”, Melvin says. “It also reduces our inputs on the other crop acres. It is a good sustainable system”.



The alfalfa/oats mix is baled into large round bales.

Project Description

Russ and Melvin each seed 10 acres of alfalfa with an oats cover crop in the spring. “The oats really help keep the weeds down by growing rapidly and that leads to a better alfalfa stand”, Melvin explains. “The stand is cut when it is still green but the oats have headed out. We cut it, allow it to dry down for a few days, and then we bale it up in large round bales and feed it to the cows”. Each field will provide several cuttings of hay each year to feed to the cattle.

Outcome

Russ and Melvin both say they like the program and feel fortunate they heard about it. “With the livestock and everything we really need the forage and rotating those acres on our least productive corn/bean acres is a real bonus”, says Russ.

By going with the alfalfa/small grain mix and extending the rotation they are actually building soil health and organic matter while growing forage for profit.

3rd Crop Producer

Dave Krampitz Jr.
34159 Hwy 13
Waseca MN 56093

Landowner

Dave Krampitz Sr.

Location

County - Waseca
Township - Otisco
Section - 18

3rd Crop Planted

Native Prairie

Easement Length

10 Years

Field Size

10 acres

Dave Krampitz Jr.

Project Overview

Dave Krampitz Jr. is an avid outdoorsman. Whether he is stalking a trophy red stag in New Zealand or bringing down a bear in the woods he is well aware that conservation of habitat is important to any hunter.

"We have a field and some woods behind the house that run into the Le Sueur River. That is where we have focused most of our conservation attention", Dave says. "We've done several projects over the years enrolling acres in CREP, CRP, and now the 3rd Crop Program".

Project Description

The 10 acre easement of native grasses and forbs was seeded in 2004 and is a small part of a much broader wildlife habitat planting that includes a food plot of corn, a planting of clover, and an adjoining are of straight seeded switchgrass intermixed with hardwoods and some conifers. The 10 acre native mix includes Switchgrass, Indian Grass, Big Bluestem, and forbs like Black Eyed Susan and Coneflower.



This wildlife habitat planting lies adjacent to the Le Sueur River.

"I like having the native prairie grasses for nesting and cover for the birds. The prairie grasses stand up better in the winter under the weight of the snow. The straight Switchgrass seems to cave under the snow and mat down", Dave Sr. explains. "Plus the native grasses are so much thicker in there. In fact I found three dead deer in the prairie grasses this spring. That must be where they go to hide out if their hit during the season. I can see why; with it being so thick and the food plot right next to it".

Outcome

Deer, wild turkey, pheasants, song birds, meadow voles & field mice, are only some of the species that call this wildlife planting home. In addition to the great habitat that has been created, ecological function has been increased with the perennial crops growing throughout the plot.

The native prairie grasses and forbs provide much needed cover all year long to reduce soil erosion, and act as a buffer to infiltrate and clean any water coming from the row-crop acres above it before it hits the Le Sueur River. The hardwood and conifer trees are sucking carbon from the atmosphere and converting it to logs, as well as stabilizing an area that was previously prone to forming gullies.

3rd Crop Producer

John Malterer
7110 403rd Ave.
Waseca MN 56093

Landowner

John Malterer

Location

County - Waseca
Township - Iosco
Section - 20

3rd Crop Planted

Alfalfa

Easement Length

10 Years

Field Size

10 acres

John Malterer

Project Overview

Lake Elysian is a 2000 acre lake situated between the Minnesota towns of Elysian and Janesville. It is a valued recreational lake for fishing both locally and regionally. The watershed for Lake Elysian encompasses approximately 27,000 acres with Iosco Creek being the main tributary. The land use is dominated by row-crop agriculture (80%).

The local community is committed to improving the water quality of the lake in order to preserve this great fishery. John Malterer, along with his wife and 3 children Joe, Kate & Tim, are part of this community. They are the largest landowners in Iosco Creek with much of the farm land situated adjacent to the open water of the creek.



The hayfield behind John acts as a buffer between the small cattle feedlot and a wetland.

“We’ve been doing various projects on our own for several years to try improve the water quality in the lake, we’ve built a couple of water storage structures & grassed waterways, I’m always looking for projects to do”, John says.

Project Description

For his latest project John partnered with BERBI and the Waseca SWCD to plant a buffer between his barn/feedlot and a large wetland. He went a step further when he redesigned his feedlot of 30 cows to accommodate the alfalfa buffer. The barn/feedlot is situated on a sidehill. Rain that collects above the barn runs into some drainage pipes John designed to control and funnel the water around the feedlot and into the alfalfa buffer area. The water is filtered through the alfalfa before reaching the wetland. Runoff from the feedlot itself also runs into the alfalfa buffer.

John chose alfalfa as the 3rd crop on the 10 acres for a couple of reasons, as a former dairyman he has grown alfalfa for many years, and he can add value to the alfalfa by feeding it to his cows. “I feed all the hay back to my cows so it really works out well”, he explains.

Outcome

John figures he yields about 2 ton per acre on the alfalfa to feed back to his cows. Converting the 10 acres from corn/soybeans to a perennial crop like alfalfa has reduced sedimentation reaching the wetland. “This has been a great program, especially since you can keep the land in production with a perennial crop”, he says.

This project is merely one in many John has completed, is working on, or has “in the works”. With his great attitude and care for the land John is definitely part of the solution to improving the water quality of Lake Elysian.

3rd Crop Producer

Troy Schue
12691 240 Ave.
New Richland MN
56072

Landowner

Troy Schue

Location

County - Waseca
Township - New Richland
Section -

3rd Crop Planted

Native Grasses & Forbs

Easement Length

10 Years

Field Size

1.3 acres

Troy Schue

Project Overview

Troy Schue farms 1000 acres of corn/soybeans in Waseca County. He also owns and operates a successful trucking company. The 3rd crop planting on his farm compliments a seven acre CREP planting that was seeded in 2004. "I didn't get everything into CREP that I wanted to, so I visited with Marla Watje in the SWCD office and she told me about the 3rd crop program for water quality. The piece I was thinking of enrolling runs into Boot Creek and some perennial cover would buffer the creek from the rest of the row-crop acres", says Troy.

Since Boot Creek runs right through the CREP acres Troy decided to plant a native grass and forbs mix as well as hardwoods and shrubs. The riparian buffer will do a good job of trapping surface water and infiltrating it through the perennial cover before reaching the creek.

Project Description

The site is comprised of 1.3 acres that adjoins part of a riparian CREP planting. The native grass mix included Switchgrass, Big & Little Bluestem, Indian Grass, as well as several colorful forbs for added diversity. They were seeded in spring of 2004.

"The 3rd crop planting allowed me to square the area off nice and neat as well as improve water quality and wildlife habitat", Troy says.



Forbs were included in the native mix to add color and diversity to the 3rd crop planting.

Outcome

The native grasses and forbs are looking good and have established well. Troy did some clipping to maintain the site and keep the weeds down. He believes that the increased habitat from the CREP acres and 3rd crop acres is really paying off. "It seems to me that I have seen more pheasants and songbirds than ever before", Troy explains. He welcomes the increase in wildlife since he hunts pheasants and deer, when time permits. "I enjoy hunting but with the farm and the trucking I don't get out as much as I would like to."

Troy does not plan on harvesting the grasses and forbs for hay or seed. It is primarily a wildlife habitat planting that is also serving an ecological function of improving water quality.

3rd Crop Producer

Don Davis
36553 700th Ave
St. James MN 56081

Landowner

Don Davis

Location

County - Watonwan
Township - St. James
Section - 34

3rd Crop Planted

Native Grasses &
Hybrid Hazelnuts

Timothy

Easement Length

10 Years

Field Size

9 acres Timothy
1 acre Hazels/Natives

Don Davis

Project Overview

Don Davis is a retired dentist and farmer living in rural Watonwan County. He has been a lifelong conservationist and has over 100 acres of land devoted to conservation and improved ecological function. 3rd crops being grown on his land include alfalfa, hybrid hazelnuts, timothy, & native grasses. Larry Spitzner is a local dairyman who rents the farmland to grow crops for his dairy operation.

Project Description

"This project has two components" Jack Kreck of the Watonwan Soil & Water Conservation District says. "The first is a 9 acre site where straight timothy was seeded in spring of 2005.

The second component is a one acre site that buffers an open drainage ditch that includes native grasses and some rows of hybrid hazelnuts that were planted in spring of 04".

In addition to the added diversity each 3rd crop brings to the landscape, ecological function was an important reason for switching from a corn/soybean rotation to perennial system. The deep and expanding root structure of the multi-stemmed hazelnut bushes coupled with the dense root mat provided with the native grasses acts as a sponge to virtually eliminate any water runoff in a heavy rain event that could potentially enter the drainage ditch.

Outcome

Timothy makes good grass hay and is not as rich as alfalfa. It is fed to a herd of Holstein cows a neighbor milks. Timothy hay is prized by horse owners and they will typically pay a good price for high quality- dust free bales. A good export market to parts of Asia also exists.

The hazels are primarily for wildlife habitat but Dr. Don says if a good market exists he would love to harvest them once they start producing nuts in 4-5 years.

An additional role each planting plays is in providing good wildlife habitat. Dr. Davis enjoys hunting upland birds with his two Brittany dogs Kit & Skip and the large tracts of native grasses provide good habitat and cover for pheasants. The multi-stemmed hazels provide a safe-haven for baby pheasant chicks from soaring predators.



This one acre buffer of native grasses and hazelnuts lies next to an open drainage ditch.



9 acres of Timothy

3rd Crop Producer

Richard Flohrs
2378 90th Ave
Ormsby MN 56162

Landowner

Richard Flohrs

Location

County - Watonwan
Township - Long Lake
Section - 23

3rd Crop Planted

Native Grasses &
Woody Perennials

Easement Length

10 Years

Field Size

10 acres

Richard Flohrs

Project Overview

"This site is a real good fit for the 3rd crop program. The steeper slopes run down into the Watonwan River and keeping it in permanent cover will make a significant reduction in the sediment reaching the river", says Jack Krech of Watonwan Soil & Water Conservation District (SWCD).

The site is owned by Richard Flohrs of Ormsby. He decided to go with shrubs and bushes that are aesthetically pleasing and have some value. Woody florals like Redosier Dogwood, American Cranberry, Flame Willow, and Blue Arctic Willow have value in the woody floral industry if the stems are managed and of high enough quality.

Project Description

The 3rd crop planting is actually two separate pieces that are split by the Watonwan River. One measures 5.4 acres and the other 4.6 acres for a total of 10. A native mix of Switchgrass, Big Bluestem, Indian Grass, and Side Oats Gramma was seeded in 2005. Several rows of trees were planted a couple of weeks later.

Landscaping fabric was laid to keep the weeds from taking over within the rows of the trees and shrubs. The fabric is woven allowing air and moisture to permeate through. A 4-6 inch layer of mulch is typically spread over the fabric to eliminate sunlight.

Shrub and tree species included in the planting are Amur Maple, American Cranberry, Blue Arctic Willow, Flame Willow, Eastern Red Cedar, Black Hills Spruce, Rodosier Dogwood, American Plum, Siouxland Poplar, & Ponderosa Pine.

Outcome

The trees and shrubs will sequester carbon from the atmosphere as will the native grasses. The large perennial plants and their deep root structures will keep soil in place even in heavy rain events. Wildlife habitat is greatly improved with the native grasses and shrubs making for excellent upland bird nesting



Rows of trees and shrubs are planted along the contour of these slopes that run down into the Watonwan River.

3rd Crop Producer

Alice Voss Gaines
2809 Asbury Terrace
Greensboro NC 27408

Landowner

Alice Voss Gaines

Location:

County - Watonwan
Township - Nelson
Section - 35

3rd Crop Planted

Native Grasses &
Conifer Windbreak

Easement Length:

10 Years

Field Size:

7.2 acres

Alice Voss Gaines

Project Overview

Alice Voss Gaines was raised in rural Watonwan County but now resides in North Carolina for much of the year. She enjoys returning to "home" in the summer months. She loves the farm life and is pleased her daughter, who lives in New York, tracks the progress of things on the farm with equal enthusiasm.

Alice was astonished a few years back when she was showed a picture a family friend had taken during the winter. "The picture was the west road ditch of Highway 4 right next to one of my fields. The snow was drifted several feet and covered with black dirt. I couldn't believe it", she says.

Alice knew then she needed to protect the light soil from being blown away. "Alice did a number of things to reduce the wind erosion on that farm", says Jack Krech of Watonwan SWCD. "She planted the whole field to alfalfa and used the 10 acre easement to plant a windbreak of Black Hills Spruce and a native grass buffer between Hwy 4 and the rest of the field".



Flax was used as a cover crop for the alfalfa field next to the 3rd crop planting.

Project Description

The site is an L-shaped piece on the east and north end of the field adjacent to Highway 4. A row of Black Hills Spruce was planted in 04' for the windbreak. The native mix that was seeded contains Big Bluestem, Canada Rye, Indian Grass, Little Bluestem, Slender Wheatgrass, & Western Wheatgrass.

Establishment on the site has been slow. The windbreak of Black Hills Spruce looks very nice and is doing a good job of slowing the wind down. It has also proved to be a valuable tool for keeping snow from filling in the road ditch during winter.

Outcome

Alice could only enroll 10 acres into the 3rd crop program. The remaining acres she decided to plant alfalfa with a cover crop of flax. The alfalfa will provide year long landscape cover, thus reducing the potential for soil erosion. The flax was planted as a nurse crop more for aesthetic purposes than anything.

"I chose flax because I can remember driving in the countryside with my father when I was a child and looking out at the landscape and seeing all those beautiful "lakes" in the morning. We would drive past the same fields in the afternoon and the "lakes" had dried up. I didn't realize at the time that those "lakes" were actually fields of flax in full bloom with their unique blue flowers. Flax will bloom in the morning and lose its blue flowers in the afternoon, only to start the cycle again", Alice explains.

3rd Crop Producer

Dennis Hunstad
41315 715 Ave.
St. James MN 56081

Landowner

Dennis Hunstad

Location:

County - Watonwan
Township - Long Lake
Section - 23

3rd Crop Planted

Perennial Pasture Mix

Easement Length

10 Years

Field Size

10 acres

Dennis Hunstad

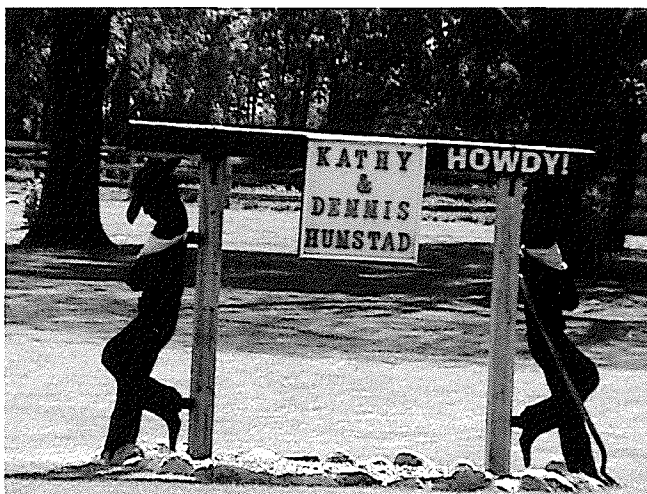
Project Overview

Riverview Acres sits along the Watonwan River south of St. James MN. Dennis Hunstad purchased the property in 2002. "The place had pretty much been in neglect for over a decade. We did a lot of work to the place and it has been a fun process", he says. The 22 acre property contains the acreage, some woods along the river and a 10 acre plot of what was row-crop.

"Right after I purchased the property I stopped by the Soil & Water Conservation District. They told me about a program to grow 3rd crops. That sounded great to me since I have some horses. So I signed right up", Dennis says. He decided on converting the 10 acres of row-crop to a pasture mix to graze some horses.

Project Description

The 3rd crop site had been in soybeans the previous year and was seeded to a pasture mix of perennial grasses and legumes in spring of 2005. The piece is relatively flat and sits in a strategic location between some neighbors' row-crop acres and the woods that buffer the Watonwan River. Any water from heavy rain events will be filtered through the perennial cover before reaching the Watonwan River. The easement acres were fenced to allow his horses to graze the paddocks.



This sign welcomes friends and neighbors to Riverview Acres in Watonwan County.

Outcome

Dennis has several horses that he pastures on the easement acres. A mini-pony, a saddle horse for riding, a buggy horse for his buggy, and a team of pulling horses for giving hayrides and bob-sled rides round out his stable. "I used to have some draft horses and participated in parades and other public events but I gave them up a while back", he says.

His love and long history of horses is evident by all the horse powered antique implements he has displayed at the farm. Manure spreaders, hay rakes, even an old well drilling rig that has a tree grown right up through it. "It's a hobby I enjoy", he explains. Another hobby is raising day old pheasants for 6-7 weeks and then releasing them to the wild. "Those little guys grow up so fast it is unbelievable."



A horse powered manure spreader.

3rd Crop Producer

Curt Olson
34944 710 Ave
St. James MN 56081

Landowner

Curt Olson

Location:

County - Watonwan
Township - St. James
Section - 14

3rd Crop Planted

Native Grasses

Easement Length

10 Years

Field Size

2.68 acres

Curt Olson

Project Overview

Curt and Lois Olson live on an acreage along County Rd. 113 not far from St. James Lake. "This acreage sits on an 80 that I sold a couple of years ago. Before selling it I got it surveyed and squared off for a total of 10 acres. I wasn't sure what I was going to actually do with the 2 small plots. It is a real pain try and farm with the large equipment. When my wife told me about growing 3rd crops I thought these 2 plots would be perfect to plant some native grasses for pheasant habitat", Curt says.

Project Description

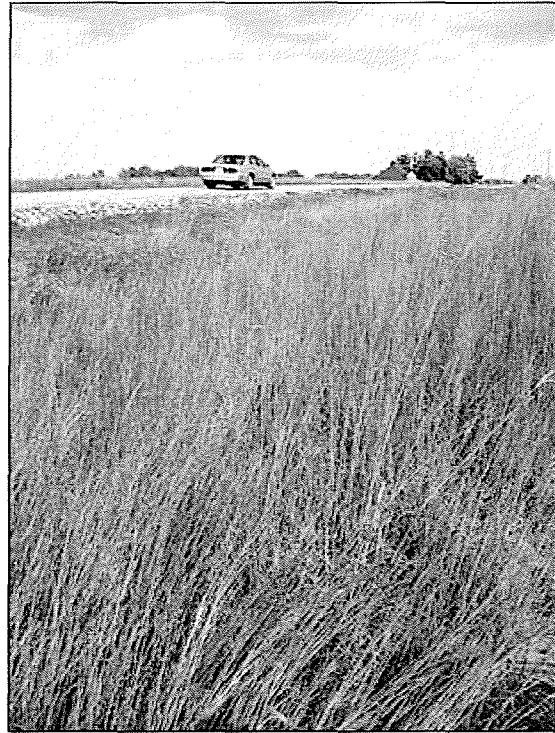
The native grass mix includes Little Bluestem, Canada Rye, Side Oats Gramma, and Slender Wheatgrass. The planting has been slow to establish but Curt is optimistic. "I know it will take some time to really get going but once it does it will make great nesting for birds."

The previous crop was soybeans so both pieces had been chisel plowed in the fall. Curt field cultivated several times in the spring preparing a nice seedbed to drill the seed into. Watonwan SWCD provided the equipment and Curt did the planting himself. "We got some rain shortly after we planted so couldn't ask for anything more.

Maintenance will consist of clipping the stand the keep weeds under control and from going to seed. Curt may have to do some spot spraying to control thistles. He is worried about the weed pressure in the county road ditch that adjoins one of the pieces.

Outcome

Curt is contemplating what to do after the native grasses start producing seed. He could continue to keep it as a wildlife planting but is quick to note that two additional wildlife habitat plantings will be going in this year. "Nine acres across the road was enrolled in CRP by my neighbor and my sister is enrolling another fourteen acres just to the north a ways." That has Curt thinking about harvesting the native grasses for seed, or perhaps even haying the area in a couple of years.



Little Bluestem is one of the native grasses included in Curt's wildlife planting.

3rd Crop Producer

Norm & Kathy Penner
30939 315th Ave.
Butterfield MN 56120

Landowner

Norm & Kathy
Penner

Location

County - Watonwan
Township - Adrian
Section - 29

3rd Crop Planted

Hybrid Hazels with
Alfalfa Cover Crop

Easement Length

10 years

Field Size

10 acres

Norman & Kathy Penner

Project Overview

Norm Penner has been farming in Watonwan County for over 40 years. He has seen, first hand, the changes that have taken place in agriculture. Norm can recall the days when farmers were leery to tryout soybeans. "Most farmers grew corn, wheat, oats, alfalfa, flax-around these parts, and pasture. Soybeans were the 3rd (alternative) crop of those days" he says. "It took guys a little time to buy into the whole soybean thing but eventually they adopted and adapted". For Norm and his wife Kathryn, adopting and adapting is simply a way of life.

Project Description

Norm's hazel/alfalfa 3rd crop site lies adjacent to the small community of Darfur. Rows of hybrid hazelnut bushes run east to west, starting on the north end of the field. "The alfalfa was seeded with oats as a cover crop in 04', it came up real well and we harvested the oats for the cattle. The alfalfa was a good stand and we got a cutting from it that first year", he says.

Hybrid hazelnut bushes from Badgersett Research Corporation near Canton MN were planted in early July. "Planting those little tublings was a real learning experience. I thought we had it planned out well. I would drill holes with a ground auger and Kathryn would come behind and plant the individual plants, we would have a regular ol' assembly line", Norm laughs.



This beautiful looking hazelnut should be producing nuts in two or three years.

Norm's plan was good but implementing it proved to be difficult. The ground auger made a much bigger whole than what was needed. "I would suggest no bigger than a 6" auger and get 4" if you can", he says. The dirt the auger churned up was wet and chunky, not the preferred fine and mealy. Planting the small plants in the rough soil makes for more air pockets and potential settling. Fine & mealy dirt settles around the tender roots and keeps them firmly in place.

In addition to being too large, many holes were too deep. "We watered to settle the dirt around the tublings. Around half dropped 6-8 inches down the hole. Some of the holes we had to actually dig out the plants and add more dirt underneath to prop them back up", Kathy notes.

Outcome

"I was told that the deer don't feed on the small plants and I think that may be true but the rabbits sure did nip a lot of plants off. I was pretty concerned that first year thinking we had lost the majority of the planting. But sure enough in the spring new growth shot out from below the nipped off point and even from the root crown on a few; that made me feel much better", Norm says with a smile.

Norman is cooperating with several partners to share his experiences growing hybrid hazelnuts and working to solve some of the challenges of commercial production. Eventually his full 10 acres will be planted to hazels making all Norms work worthwhile.

3rd Crop Producer

Mark Rentz
27439 750th Ave.
St. James MN 56081

Landowner

Mark Rentz

Location

County - Watonwan
Township - Riverdale
Section - 8 & 9

3rd Crop Planted

Alfalfa

Easement Length

10 Years

Field Size

10 acres

Mark Rentz

Project Overview

Mark Rentz, with wife Julie and children Ryan & Erin, live on a small family farm in Watonwan County. They milk 40 Holstein cows and farm 350 acres. Mark has been milking for over 20 years on his own and has been able to stay viable as a small dairyman in an era when many are leaving the industry. Minnesota currently has almost 6000 dairy farms in the state, down from 15,000 a mere decade ago.

Mark grows over 40 acres of alfalfa to feed his herd of heavy milkers. "You don't see many folks growing hay unless they have some livestock, but us dairy guys need to have good quality alfalfa", he says. "An average cow produces 23,000 pounds of milk per year. That means a cow is pumping out around 75 pounds of milk per day. That old girl needs a lot of protein to keep that production up."



Mark Rentz is a small family farmer milking 40 Holsteins in Watonwan County

Project Description

The 10 acre easement is part of a larger hay field (40 acres). Mark direct seeded alfalfa

with Pizza Grass, he did not use a cover crop. "It came up real well and I chose to throw in some of the Pizza Grass on the BERBI 10 acres to distinguish it from the other 30 acres", he says.

Mark will rotate his alfalfa fields to target the most environmentally sensitive areas of the farm. A hay field has a lifespan of about 3-4 years before it needs to be planted to something else like corn, soybeans, or some other grain. By rotating the hay fields he can ensure that sensitive land is covered in permanent vegetation for 3 out of 5 years.

Outcome

"This is the best program I have ever participated in", Mark says with a smile. The alfalfa reduces soil erosion, fixes nitrogen for the next crop, increases organic matter, and infiltrates any water runoff from the row crop acres of the field.

Mark will cut some of the hay for silage, which he bags, and will bale the remainder in large square bales. He expects to get 4 cuttings from the field depending on the weather. He cuts the alfalfa early to capture as much protein as possible in the young plant; it may reduce his tonnage a little but is better quality for the cows.

3rd Crop Producer

Wade Sagehorn
69502 440th St.
Ormsby MN 56162

Landowner

Wade Sagehorn

Location

County - Watonwan
Township - Long Lake
Section - 33

3rd Crop Planted

Native Grasses &
Woody Perennials for
A Living Snowfence

Easement Length

10 Years

Field Size

2 acres

Wade Sagehorn

Project Overview

Wade and Amy Sagehorn live on an acreage just outside Ormsby MN. The farm sits in the corner of an 80 acre parcel planted to a corn/soybean rotation. Three years ago the couple decided to square off the acreage and plant a windbreak on the east side of their property buffering the farm from the rest of the row-crop acres. "I first thought of just putting in some grasses but the more I thought about it the more I wanted some rows of trees", says Wade.

The Watonwan SWCD helped Wade select the grass mix and tree species to plant. "I originally wanted to go with just Switchgrass but ultimately decided on a grass mix of several species", he says. The native polyculture mix of several species provides increased diversity which wildlife favor.

Project Description

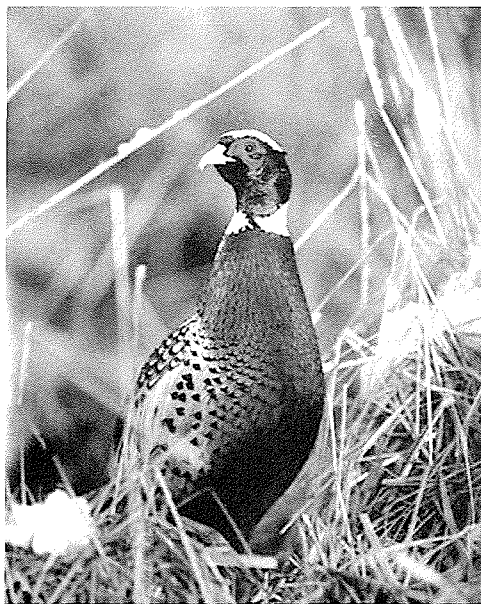
The grasses and rows of trees were planted in spring of 2005. Switchgrass, Indian Grass, Side Oats Gramma, and Western Wheatgrass were the species that made up the native mix. Several rows of Dogwood, Poplar, Ash, Maple, and some Pine trees were laid out, holes dug, and planted. Adequate water is always important to establishing woody plants successfully since they are typically planted as bare root dormant stock or potted plants.

The trees and shrubs remove carbon dioxide from the atmosphere which is a greenhouse gas and contributor to global warming. The CO₂ is converted into the biomass of the trees (trunk, branches, leaves, etc.). The grasses have deep roots and add organic matter back to the soil, in addition to providing protective cover for the soil during gusty winds.

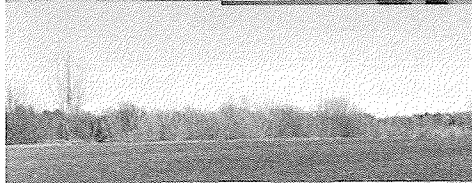
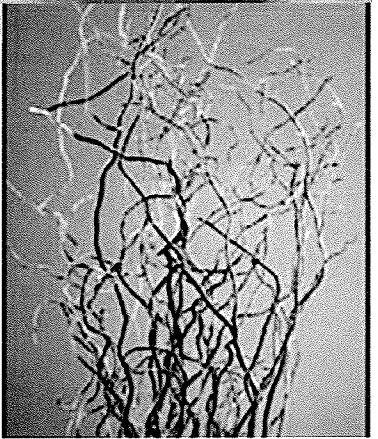
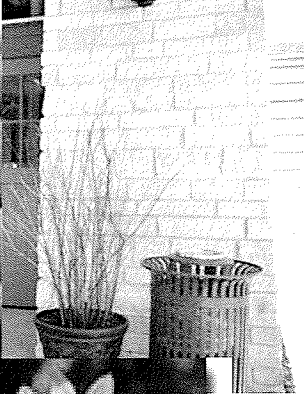
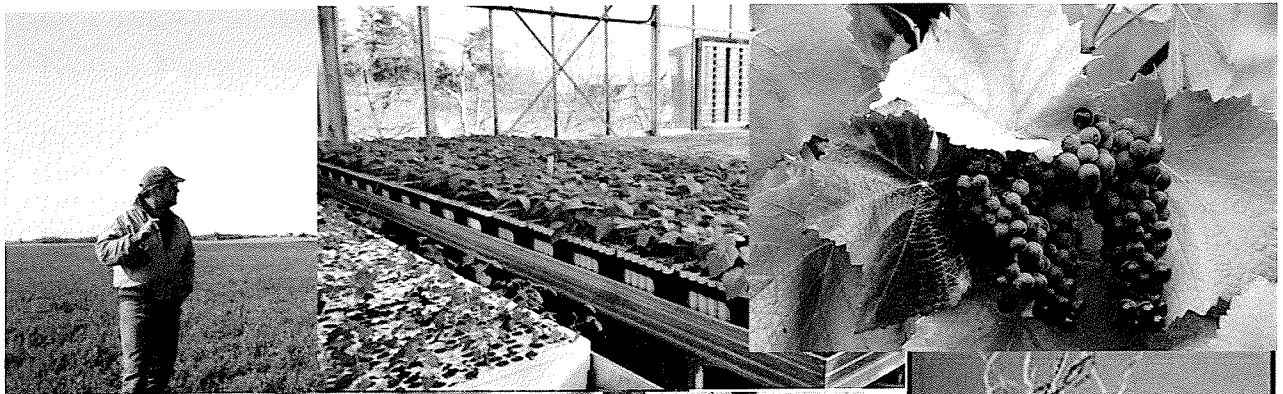
Mowing is used to control weeds and spot spraying has been done to manage some thistles. Once established, the grasses will provide great habitat for nesting birds and small mammals like voles, and mice.

Outcome

"The yard seams larger now that the trees, shrubs, and grasses have been added", explains Wade. "I think it is a good program taking some acres out of corn/beans for a perennial crop." Wade plans on keeping the added yard space as a wildlife planting and does not foresee doing any harvesting for seed or forage from the planting.



A mix of native grasses provides cover from predators and nesting habitat.



Native Plants and 3rd Crops for Water Quality -- Enrollment Criteria

BERBI LCMR Proposal – For implementation during July 1, 2003 through June 30, 2006

This describes, in further detail, the BERBI 3rd Crop implementation component of the LCMR proposal that will be carried out in the Greater Blue Earth River Basin Watershed. See the full proposal for other activities.

Background

The Greater Blue Earth River Watershed in south central Minnesota contains 2.3 million acres of highly productive farmland dominated by a corn/ soybean rotation and a strong, predominantly swine, livestock industry. Several aspects of the current corn/ soybean cropping system are not sustainable. Despite efforts to implement best management practices, soil and water quality continue to deteriorate and rural farming communities struggle to stay viable. Greater crop diversity is desperately needed, not only for the environment, but also to diversify farm economics and provide more value-added opportunities.

The Proposal

This proposal, through implementation and demonstration, is designed to create a more sustainable system by providing transitional and risk incentives for establishing greater crop diversity which will increase land stewardship; reduce environmental impacts; and accelerate economic opportunity within rural Minnesota.

A 3rd Crop program promotes the establishment and growing of crops other than corn and soybeans. This project would pay landowners a financial incentive to raise a 3rd Crop. Technical assistance and long term monitoring would be provided by the local SWCD. We have a broad definition of 3rd Crop that not only includes traditional agricultural crops, but also would promote the production of ecological and public goods such as hunting leases, recreation, birdwatching, eco-tourism, carbon sequestration, nitrogen farming and water storage. Most 3rd Crops could be income generating. This additional income could help maintain or establish new opportunities to maintain rural Minnesota's economic vitality.

Enrollment

Landowners meeting the following guidelines would be eligible to enroll.

- Areas planted must convert land that was planted to corn or soybeans during 2002 growing season, to a 3rd Crop. Cropping history can be verified with FSA aerial photos.
- Enrolled acres must be within the Minnesota portion of the Greater Blue Earth River Watershed.
- Acres enrolled must meet BERBI's priority area which is: 1] within 1000 feet of surface water; 2] within a flood plain; 3] within 1000 feet of an open tile intake; or 4] a high local priority. A high local priority will include pest reduction initiatives such as for control of soybean cyst nematode, aphids, rootworm, etc..
- No net loss. You cannot get paid for what you are already doing. If you are already growing a 3rd Crop, you can add more acres of a different crop but you must then maintain your original 3rd Crop acres throughout your contract.
- Technical assistance will be provided by the SWCD in the county where the project is located. The SWCD will be responsible for ensuring that the program criteria is maintained throughout the years of the project.
- Each agreement will have an operation and maintenance plan developed for the 3rd Crop. Annuals/ Perennials < 5 years can be rotated, if it is defined in your plan, among your acres to reduce disease and/or build soil health.

The 3rd Crop is not a land retirement program -- the land is expected to generate income. It is intended to create a working landscape that will build toward a more sustainable system

--- environmentally, economically and socially.

- Marketing of these alternative crops is a key component of the program. A person will be hired to assist with identifying existing markets, coordinate producers with those markets; and promote the development of new market opportunities.
- Agreements would be a 10 year *recorded* easement [comparable to BERBI Living Snowfence].
- Maximum size per easement is 10 acres.

3rd Crop Payment Matrix

3 rd Crop	<u>Length of Agreement</u> 10 year Easement
Annual, Non-Row Crops small grain, cover crops, rotations supporting soybean cyst nematode control, cropping for pesticide reduction, etc. You can rotate over your acres if in the plan.	40% of RIM Rate
Perennial, ≤ Five Years Native Plants, Alfalfa, Grass Hay, emerging varieties, etc. You can rotate over your acres if in the plan.	50% of RIM Rate
Perennial, ≥ Five Years Native Perennials, woody perennials, shrubs, pasture, fruits, Hazelnuts, etc.	60% of RIM Rate
Perennial, Long Term Native Perennials, Woody Perennials, Willow, Cottonwood, Living Snowfence, etc.	70% of RIM Rate
Perennial, Long Term Water Storage	75% of RIM Rate

www.thirdcrop.org
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426 Winnebago Avenue, Suite 100
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September 12, 2004

3rd Crop Demonstration Sites

Establishment of 3rd crop demonstration sites at four locations across Minnesota was one of the goals of the Native Plants and 3rd Crops for Water Quality LCMR project. To compliment on-going efforts by project partners, two acre demonstration plantings were to be established within the greater Blue Earth, Chippewa, Lower Minnesota and Roseau watersheds. Each site would demonstrate at least ten species of 3rd crops.

Sites have been established at the following four locations:

- ✦ Heritage Acres, Fairmont [Blue Earth Watershed]
- ✦ Magnusson Farm, Roseau [Roseau River Watershed]
- ✦ Prairie Horizons Farm, Starbuck [Chippewa River]
- Seven Stories Farm, Belle Plaine [Lower Minnesota Watershed]

Heritage Acres – The Heritage Acres site was established in the spring of 2004 and is located on the western shore of Lake Sisseton at the Heritage Acres Agricultural Interpretive Center. The site consists of 50 species of various crops in 30 foot rows on one acre and then approximately ten acres of small grain that is used annually for their threshing day. Annual 3rd Crop Field Days have been held at the site. In 2005 the North American Temperate Agroforestry Conference stopped at the site as part of an agroforestry tour in south central Minnesota.



Ag Producers learning about 3rd Crops.



Demo Site in the first year.

Species included at the Heritage Acres site include:

“Bison” Big Blue Stem	Switchgrass	“Itasca” Little Blue Stem
“Pierre” side oats grama	Buffalo grass	Purple Prairie Clover
Perennial flax	Buckwheat	Alfalfa [Fiber] CW 75046
Illinois bundleflower	Lead Plant	Wild Senna
Blue Wild Indigo	False Indigo	Milk Vetch
Canadian Wild Rye	Mesic Forb Mix	Slender wheatgrass
Bittersweet	Black Currents	Badgersett Hazelnuts
McDermond Pear	Juneberry	American Plum
Highbush Cranberry	Chokeberry	Forsythia

Black Chokeberry	Nanny berry	Cardinal Dogwood
Red Dogwood	Wild Grape	Golden Current
Wild Hazelnuts	American Cranbush	Sand Cherry
Buffalo Berry	Pin Cherry	French Pussy Willow
American Elderberry	Prairie Cordgrass	"Chinese" Lilac
"Maiden's Bush" Lilac [lite pink]	Magenta Lilac	"Sunday" Lilac [lite purple]
Common Purple Lilac	Common White Lilac	"Pekin" Lilac
"Villosa" lilac [legacy]	Common Lilac	

Magnusson Farm – In the fall of 2003 twenty five native species were planted on the Magnusson Farm northwest of Roseau to evaluate and demonstrate the potential seed production of those species in the region. There is also interest in the plant potential for biomass energy from natives. The plantings consisted of perennial grasses, forbs and woody species. A field day is held each year in June for farmers, agricultural industry representatives, bankers, insurance brokers, seed processors and state and federal agency representatives. Annual attendance is about 120 people.



Roseau Demonstration Site



False Indigo, a native legume, in the foreground.

Species included at the Magnusson Farm are:

False Indigo	Perennial flax	Blue Wild Indigo
Lead Plant	Wild Senna	Illinois Bundleflower
American Vetch	Showy Tick Trefoil	Canada Milkvetch
Pale pea	White Prairie Clover	Purple Prairie Clover
Round Headed Bush Clover	Prairie Indigo	Wild Lupine

Prairie Horizons Farm -- Luverne and Mary Jo Forbord operate Prairie Horizons Farm near Starbuck in the Chippewa River watershed. The planting was established in the spring of 2006. Mats were put down to assist with weed control at the site. Species planted at the site include:

Hardy Apricot	Buffalo grass	Indian grass
Big bluestem	Switchgrass	Buffalo berry
Nanking cherry	Black chokeberry	Chokecherry
Golden current	Badgersett Hazelnuts	Native Hazelnuts
Magenta Lilac	Usarian pear	Curly willow



Planting at Prairie Horizons Farm



Planting is 1320 feet long, 3 rows wide

Seven Stories Farm -- Heidi Morlock lives with her family on Seven Stories Farm between Belle Plaine and Jordan. The farm, owned by Heidi's mother, is a great example of a working third crop farm. The farm is set up to capitalize on the near by urban market utilizing local Farmer's Markets or sales on site. In addition they host a Day Camp for kids to get connected with nature and they also host small musical events on their farm. Crops demonstrated include:

Hazelnuts
Cut flowers
Korean Pine Nuts
Wetland Restoration
Raspberries
Music Events

Black Beans
Curly Willow
Strawberries
Black Walnuts
Native grasses
Several varieties of vegetables

Alfalfa [in rotation]
Dogwood
Blueberries
June Berry
Day Camps for Kids

