#### Minnesota Agricultural Water Quality Certification Program

# CASE STUDIES



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As part of my "boots-on-the-ground" work with Sustainable Farming Association and the Minnesota Agricultural Water Quality Certification Program, I started this Case Study project in 2021.

Case studies are beneficial to other farmers who are looking to implement practices on their

operations. Farmers like to hear what other farmers are doing and how it has worked for them. It's also important for farmers to see how Ag Water Quality Certification could benefit them and their farm operation.

My goal was to talk to a variety of farmers around the state about their operations. I wanted to know what kind of soil health practices they have



BY ANGIE WALTER SFA Ag Water Quality Certification Project Outreach Coordinator angie@sfa-mn.org

implemented and what motivated them to get Ag Water Quality Certified.

I hope you enjoy reading these farm case studies as much as I enjoyed meeting these farmers and learning what they are doing. I have a lot of renewed hope in our farm community after hearing many of their stories.





## Bryan Biegler

#### Biegler Farms Lake Wilson

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**Products produced and sold off the farm:** Corn, soybeans,
and cereal rye to sell at the
local elevator or feed mill.

**Location:** Murray County

**Acres:** 2,500

Soil health management practices: The soil on Bryan's farm is a little bit of everything. He does not have irrigation, has been strip tilling for 10 years and has also done no-till beans, as much as possible, in the last seven years. Bryan has been integrating cover crops into his rotation for the last eight years. He has tried camelina, turnips, radishes, oats, and wheat.

Bryan has noted better water infiltration since using cover crops and has also seen a lot less wind erosion by using no-till and strip-till practices. The soil is grid sampled every four years. Bryan has noted some improvement in organic matter of his soils since implementing soil health practices. Bryan has seen more wildlife on his land since using cover crops and he believes that he is saving money with no-till and strip-till practices.

**Background:** Bryan grew up on this farm and is the fourth generation to farm here. The farm was established in 1886. Some of his 2,500 acres are owned and some leased. Bryan employs one full-time



employee and does custom strip-tilling for other area farmers. Bryan does not have livestock but says a lot of his products go to area beef and hog farmers. Bryan hopes his children will someday be involved in the operation.

**Certification:** Bryan was certified in August 2016. Danielle Evers helped him with the application process.

**Endorsements:** None.

Have you used the Best Management Practices or Farm Business Management grants?: Bryan used the BMP grant the first year of certification to put in tile and plant cover crops. He is not enrolled in FBM.

Why do you recommend the program to other farmers? Bryan wanted to be certified in the program to set a benchmark for himself and to improve his soil health.



# Rye Carlson Fresh Starts Farm Mora

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Products produced and sold off the farm: Produces organic grains to sell as chicken and hog feed to livestock farmers.

Location: Kanabec County

**Acres:** 220 leased acres all certified in the Ag Water Quality Program

Soil Health Management Practices: You won't find black dirt on Rye's farm - he keeps his soil covered at all times, and he's seen many benefits to keeping his ground covered with cover crops and grains. Rye does mostly no-till and uses minimal tillage on his farm, where the soil is silty or sandy loam. He recently started experimenting with planting buckwheat into his corn and also plants cereal rye for soybeans and some peas/radish. Rye tests every fall to ensure that his soils are not depleted like they were when he took over management of his land. Rye does not currently have any livestock on his farm. Rye sees erosion issues on many farms around him but states that, because of his practices, he does not see any on his own land.

**Background:** Rye's land has been owned, but not farmed, by his family for years –



most recently, it was rented to a row-crop operation. After graduating from college with degrees in food systems and food justice, Rye wanted to make a living and improve the family farm by building soil health. He leased the land from his dad and started a hobby farm with veggies, chickens and hogs, but quickly realized it was too labor-intensive to do on his own; after a few years, he switched to growing organic grains. A voracious reader, Rye is focused on soil health principles, and already has seen his dedication to soil health and no-till pay off with less labor, no insect pressure and increased earthworm populations. He plans to continue learning about advancing soil health by reading and attending conferences.

**Certification:** Rye was certified in the Minnesota Ag Water Quality program in 2021. He worked with Ryan Clark.

**Endorsements:** Soil Health

Have you used the BMP or FBM grant?: Rye has not used the BMP money but would like to in the future.

Why do you recommend the program to other farmers? Rye says certification makes you take a look at soil health, which is important in his area where soil is relatively unproductive. He believes soil health is the key to a productive farm and he hopes others will see what he is doing and want to participate. Rye also wanted to be certified because he believes in doing what he can to prevent climate change.



# Dorian Gatchell Gatchell Farm Granite Falls

320-321-3615 dhgatchell@protonmail.com

Products produced and sold off the farm: Beef, corn, soybeans and pork

Location: Yellow Medicine

County **Acres:** 40

Soil Health Management Practices: Dorian raises corn, soybeans and alfalfa and is experimenting with small grains in his clay/loam soil. Using more cover crops has helped his soil infiltration rates, and he uses as little tillage as possible. To prevent wind erosion he does not till in the fall, and other strategies he's employed are using cattle to terminate alfalfa ground and grazing cornstalk stubble. Dorian would like to increase his use of cover crops and is interested in learning to "plant green," or planting cash crops into living covers. Dorian does some soil DNA testing.

**Background:** The land has been farmed since 1873, and Dorian is the third generation of his family to farm it; his father is still involved in the operation. The farm consists of 40 acres where they plant soybeans, corn and alfalfa. Dorian is a full-time agronomy consultant which dovetails with his lifelong farm ambitions.

Dorian believes that the Minnesota Ag Water Quality Certification has enhanced his business and helped him communicate



better with farmers looking to improve their soil health. Dorian raises beef and swine on his farm in addition to the crops. Since Dorian started farming, he has become more conservation-minded.

**Certification:** Dorian was certified by Danielle Isaacson around 2018.

**Endorsements:** None.

Have you used the BMP or FBM grant?:
Dorian has not used the FBM grant but has

used the BMP grant to put up fencing for grazing and to revitalize his pastures.

Why do you recommend the program to other farmers? Dorian says Ag Water Quality Certification was good P.R. for his consulting business and he appreciated the regulatory certainty period of 10 years. Dorian thinks other farmers like to see him "speaking their language" about improving soil health.



# Caroline Hegstrom The Boreal Farm Duluth

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**Products produced and sold off the farm:** Full-share CSA
selling vegetables, fruits, and
flowers. Also selling pastureraised broiler chickens.

**Location:** St. Louis County **Acres:** 25 certified organic

Soil health management practices: The Boreal Farm uses regenerative practices and selects heirloom and open-pollinated seeds. Roots are left in the ground after harvest to limit soil compaction. Caroline buys compost from a local grass-fed beef farm. The soil on the farm is silty, loam, glacial till. They have no tractors and do not use irrigation. They don't use plastic, only woven weed barrier which has a five- to seven-year life. They have around six percent of their land set aside for pollinators. When they cleared the land they wood-chipped the trees and put it back on the land or used it to heat the house and then put the ashes on the land. They do leaf testing to see what the plants are telling them. The farm buys local eggs, bakes the shells and puts them on the soil. They try to leave as much green matter behind as possible (i.e. take leaves off the cauliflower). They have tried many farming practices, see how they work and then adapt, with the ultimate goal of building soil health.



Background: Caroline and her husband, Jay, purchased their 25-acre farm in 2014. They both were from the Twin Cities and decided they wanted to try something different. They raise over 30 different kinds of fruit and vegetables along with 150 to 200 pasture-raised broiler chickens; all their products are certified organic. They have two girls who help on the farm when needed and also work with interns through University of Minnesota-Duluth.

In 2021, they built a root cellar in partnership with the U. of M. Regional Sustainable Development Partnerships to determine whether long-term storage on farms could increase profitability.

**Certification:** The farm was Ag Water Quality Certified in 2018 by Ryan Clark.

**Endorsements:** Soil Health, Wildlife, and Integrated Pest Management

Have you used the Best Management Practices or Farm Business Management grants?: No, but has interest in using the BMP grant to do some projects on the farm. Also interested in FBM.

Why do you recommend the program to other farmers? Radically transparent when it comes to their farm and practices, Caroline and Jay are working to build a self-sustaining system and realize they do not own the land but are borrowing it from future generations. Caroline said, "Farming has affected me most as a person next to childbirth." Being Ag Water Quality Certified lets their customers know that they are doing what they can to protect the land and the water.



### Dan Janski

#### Janski Farms South Haven

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Products produced and sold off the farm: Milk, beef, eggs, canning peas, hemp, oats, rye, corn, soybeans, alfalfa

**Location:** Stearns County

**Acres: 4,000** 

Soil health management practices: Thanks to minimizing soil disturbance and other soil building techniques, the Janskis have eliminated issues with water and wind erosion. Less than 10 percent of the farm's acres are tilled and the farm has planted up to 25 species of cover crops while keeping most of the ground covered in the fall. Their 25-cow beef herd is allowed on the land to graze, and chickens are raised on pasture using chicken tractors. The Janskis' typical planting rotation is corn-soybeans-small grains. Their soils vary from clay to sand to loam to peat to gravel; they have irrigation on most acres. Janski Farms conducts a Haney soil test every two years to monitor soil health.

**Background:** Alongside his brother, cousin and parents, Dan Janski is the fourth generation to work this family farm. They milk 200 cows with four robots, have steers and raise 170 chickens, hemp, canning peas, oats, rye, corn, soybeans and alfalfa. A quarter of the

feed raised is fed to the animals: the rest is sold off the farm. Dan has never worked off the farm and loves the family-centric nature of the business - he and his wife. Bridgette. live on the farm and have a 1-year-old son. Other family members are within three miles and each has a collective role on the farm – every person helps as needed. Dan grew up in it and has enjoyed being able to spend time with his grandparents on the farm each day and, now, his own family.

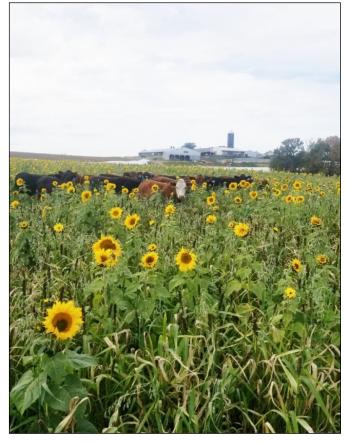
**Certification:** Dan was certified in 2021 by Mark LeFebvre.

**Endorsements:** None.

Have you used the Best Management Practices or Farm Business

Management grants?: Dan has not used the BMP grant but will in the future. He is not enrolled in FBM.

Why do you recommend the program to other farmers? Dan said the MN AG Water Quality Certification Program dovetailed nicely with other NRCS-endorsed techniques the farm already practiced. Dan found the program simple to complete and recommends it to other



farmers. Dan believes the soil health practices he does on his farm benefit wildlife; he is an outdoorsman who enjoys walking his fields and viewing birds and other fauna. Being Ag Water Quality Certified has opened Dan's eyes to many more soil health benefits. He said the program benefits his farm and everyone in the community, and that "he wants to leave the ground better than he found it."



## Andre LaSalle

# Foragescape Farm Onamia

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Products produced and sold off the farm: Pasture-raised non-GMO pork, chicken, turkey, and eggs. 100-percent grass-fed beef and lamb. All products are directly marketed online and delivered or sold at farmers markets.

**Location:** Mille Lacs County **Acres:** 120 certified organic

**Soil health management practices:** Andre rotationally grazes all animals on his farm. He has separate paddocks that he rotates the animals through allowing the grass to rest in between. His land is all no-till and is planted into perennial pasture.

The soil is heavy clay. In the winter, cattle are bale grazed and chickens move to a high tunnel. Andre is really interested in regenerative agriculture and building up his soils. He wants to keep increasing the organic matter in his soils and plans to monitor that with soil testing.

**Background:** Andre and his wife, Morgan, purchased this farm from the owner who was a dairy farmer in 2016. Andre is originally from southern Minnesota and Morgan is from



California. Andre was working as a marine diesel mechanic but had an interest in food and sustainable agriculture so he decided to look for a Minnesota farm. They knew they couldn't afford land too close to the metropolitan area. The LaSalles have two children who help on the farm when they can. They are excited about what they do and they are willing to explain it to their consumers.

The land on their farm is certified organic but the products are not. They do not use any chemicals or synthetic fertilizers. Andre delivers products to the twin cities with a delivery van. The LaSalles believe you should feel good about the meat you eat and how it was produced.

**Certification:** Certified in 2017. Learned about the program through the local soil and water conservation district.

Endorsements: Soil Health & Wildlife

Have you used the Best Management Practices or Farm Business Management grants?: Andre was unaware of the BMP or FBM grant but plans to look into it.

Why do you recommend the program to other farmers? Andre feels the Minnesota Agricultural Water Quality Certification Program is a great tool for a person who sells directly to consumers. He said it was very easy to complete the certification. Andre pointed out that you can get many certifications for your farm but this one is completely free. It is a "nobrainer" for direct selling. Andre is interested in learning more about climate change and what can be done to prevent it. He believes programs like this help farmers be sustainable with their practices.



# Desiree & Ryan Nelson

### Nelson Grass Farm Ogilvie

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Products produced and sold off the farm: Pasture-raised chicken, pork and eggs.

**Location:** Kanabec County

**Acres:** 76

Soil health management practices: The Nelsons are passionate about the importance of soil health and their goal is to mimic nature as much as possible. They believe taking care of the soil will result in healthy animals that provide nutritious food. Chickens and pigs are grazed on pasture and fed a supplemental grain mix. They do not till their land, all of which is planted as a basic pasture mix, and they give the pastures adequate time to recover. Soil is heavy clay.

The Nelsons became interested in soil health and kickstarted their journey by reading Joel Salatin and joining the Sustainable Farming Association. Ever since implementing soil health principles, the Nelsons have seen an increase in soil biology and productivity.

**Background:** Ryan grew up on a crop and beef farm in Northwestern Minnesota and has a degree in entrepreneurial business. He used to work on a farm in Bloomington, Minn. Desiree grew up loving animals and has a biology degree; at one point through the U. of M. she



worked on a farm with goats. Desiree and Ryan managed a sheep farm together before buying their land in 2012 and starting their own farm, an achievement they once thought impossible. Their first pastured broiler chicken was sold in July of that year, first eggs in September and pork in November. They raised 200 broiler chickens, 50 laying hens and eight pigs. That year consisted of more prepping and tending the land before they were able to sell their product. Currently, they raise about 2,000 broiler chickens and have 400 layers, several dozen pigs and three cows. The Nelsons sell all of their products online and use a delivery van to deliver to a drop-off location.

**Certification:** The Nelsons received certification in 2019 by Ryan Clark.

**Endorsements:** Soil Health and Integrated Pest Management.

Have you used the BMP or FBM grant?: No, but they would like to use the BMP grant in the future.

Why do you recommend the program? The Nelsons recommend getting Ag Water Quality Certified to help educate consumers about your practices and believe that for their farm to be sustainable, they need to focus on soil health. The Nelsons also liked that building a relationship with the certifier would give them the option to have funding priority for future farm projects.



# Kari Olson

### Olson Farm Hawley

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**Products produced and sold off the farm:** Corn, soybeans
and spring wheat. The Olsons
sell some of their products to
the local elevator and do
some futures trading.

**Location:** Clay County

Acres: The Olson farm is comprised of 2,300 tillable acres. Kari's dad owns 1,600; she owns 250 and rents 450. All acres owned and rented are Ag Water Quality Certified.

Soil health management practices: The Olsons started using no-till practices 18 years ago after hearing about it through NDSU. Kari's dad did some strip till for corn and liked it, but it required a lot of labor. They have been fully no-till for the last six years and have been planting cover crops for the last seven to eight years. The Olsons use chemicals for weed control. Since switching to no-till, the weed spectrum has switched from perennial to annual. The Olsons inject hog manure after the wheat crop and then plant cover crops to hold in nutrients. They are adding more diversity by planting cover crops in the 20-inch corn

rows. Kari now has pollinators on 50 non-productive acres and plans for more. Their current rotation is corn, soybeans, and wheat, but Kari is hoping to add more diversity including oats and possibly the neighbors' beef cattle to graze covers.

Background: Kari, the fourth generation on the Olson family farm, is learning more about sequestering carbon and practices that help the environment. After earning a degree in ag economics from North Dakota State, Kari got involved with the farm because she enjoys the freedom of being her own boss. She farms alongside her dad, sister and one parttime employee. After her dad had a cancer scare awhile back, Kari realized she wants to work toward purchasing

the entire farm so her dad can retire.

Certification: Certified in 2020.

Endorsements: None.

Have you used the Best Management Practices or Farm Business Management grants?: Kari did not know about the BMP program but has used the FBM grant.

Why do you recommend the program to other farmers? Kari believes the government is starting to lean toward



prioritizing environmentally friendly practices such as no-till, cover crops, water quality, etc. Right now, it's hard to compete with conventional farmers on land rents, but Kari thinks people will eventually realize the value of taking care of their land, and the related benefits for future generations. Then, they may prioritize renting to someone like her who can build soil health and keep their land in great condition rather than simply getting the highest dollar.



# Polly & Dave Perkins

#### L'etoile du Nord Parkers Prairie

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**Products produced and sold off the farm:** Grow grapes to
make wine. They sell wine at
the farm and online.

**Location:** Douglas County

Acres: 40

Soil Health Management Practices: The Perkins farm is made up of complex soil, with clay, gravel and a little bit of black dirt and clay knobs. They do not plan to till their soil where the winery is located. The Perkins plant a pollinator mix of fescue and clover between the rows of vines. The vines are spaced eight to 10 feet apart and their roots are 15 to 20 feet deep. The Perkins do not irrigate. They do use some fungicides when needed and use Roundup occasionally for weed control. They do leaf tissue testing to see what the plant is trying to communicate. They have no livestock but see lots of animals on their land including bears, foxes, and deer. The winery is protected from wind erosion by several rows of trees/forest. Dave said that you taste the soil to tell how good your crop

**Background:** Polly grew up on 40 acres on Lake Irene and, when her father died in 2008, she inherited the farm. At the time, Polly and Dave both had jobs in the



Twin Cities. After discussion with family, visiting other wineries and learning about locally grown grapes at a State Fair booth, Polly and Dave decided to make the leap; they started with 550 plants in 2011 on one acre of land. Another acre was added in both 2013 and 2017. It takes 15 pounds of grapes to make one bottle of wine. They hire local folks to help with harvesting.

They sell their wine directly to consumers in their tasting room or online and currently ship wine to 33 states. Polly and Dave are also doing a harvest host program as an additional way to make money; people can come and camp on their land for a fee.

**Certification:** Polly and Dave were certified in the MN Ag Water Quality program in 2017 by Grant Pearson.

**Endorsements:** Soil Health, Wildlife and Integrated Pest Management

Have you used the BMP or FBM grant?: No, but would like to in the future. They are not enrolled in the FBM program.

Why do you recommend the program to other farmers? Polly and Dave believe that being Ag Water Quality Certified is very important to their operation. They want their consumers to know they are good stewards of the land for future generations to enjoy. They talk about the importance of soil health to consumers who come to their winery. Their land includes 500 feet of lakeshore and they believe their farming practices will affect the lake and everyone who is south of them. Polly and Dave believe this conservation mindset is a great tool to use in marketing their product to consumers.



## White Barn Acres

#### Tentis Farms Kellogg

Matt Tentis 507-208-3101 tentisfarms@gmail.com

Cover image also courtesy White Barn Acres

**Products produced and sold off the farm:** Soybeans and corn for canning, beef, rye for seed, and cover crops.

Location: Wabasha County

**Acres:** 300

Soil Health Management Practices: Since Matt and his brother have implemented sustainable farming practices, they have seen better water infiltration, more wildlife, and soil that is more pliable. They are hoping to improve their woodland areas and try silvopasture. Half of their land is owned and half is rented; Matt said he wished the landlords understood or wanted to know more about soil health practices. He stated, "I know these soil practices work because I am seeing it and I know that our bottom line is better because of it."

The farm is 300 acres, of which 100 are tillable and the rest is woodland and pasture. The soil is sandy loam. Matt and his brother had average organic matter when they took over the farm and through reduced tillage have seen improvements each year. They grow winter rye for seed and soybeans and sweet corn for canning, and have planted cover crops for nearly a decade. They are currently



trying to grow Kernza. As part of a project with the U. of M. Forever Green, Matt and his brother grew camelina last year with soybeans; the camelina did well but the soybeans did not.

White Barn Acres does Haney soil tests and has hired a company to work with them on building soil health. Water testing has found high nitrogen levels, so they are trying to reduce chemical inputs. The land does not have tile and is not irrigated. They refuse to irrigate the land and know water infiltration will improve by building soil health.

Background: Matt and his brother are the third generation on the family farm, which started as a dairy in 1938 and transitioned to corn and soybeans in the 2000s. Matt and his brother both have off-farm jobs and families, so since purchasing the farm they have striven to allow their personal lives to thrive while the farm remains profitable. Matt and his brother have a 50-cow beef herd, practice managed grazing and graze late

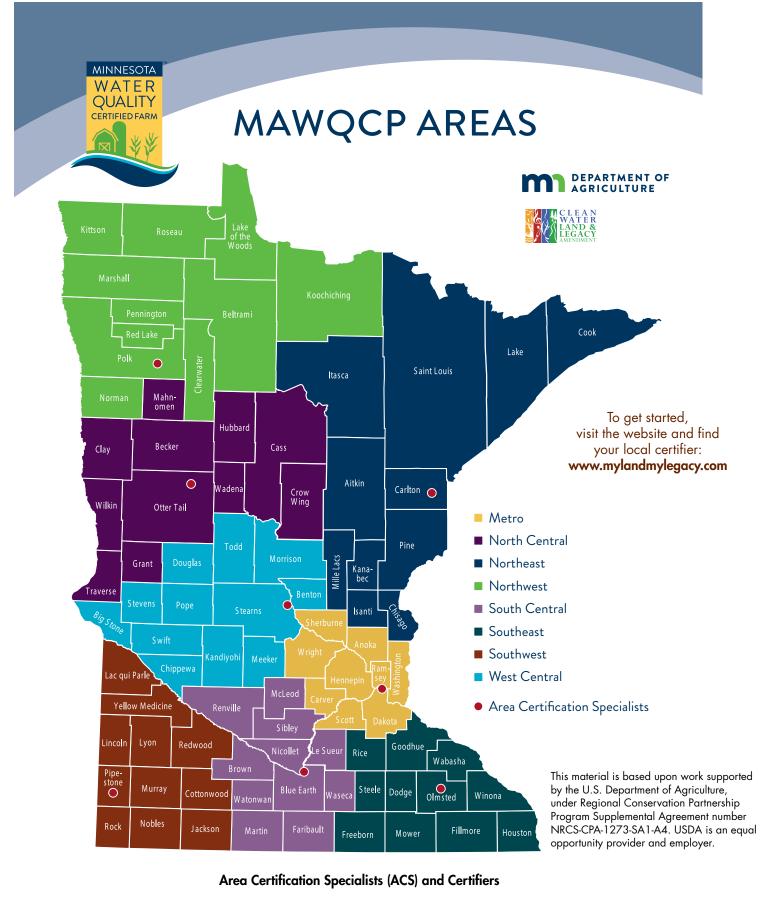
into the season. They usually graze cover crops into November. The cows are finished on grain. They sell 25 head per year directly to consumers.

**Certification:** Certified in 2020. Mark Root from Olmstead County helped with the process.

**Endorsements:** No endorsements but will be looking into it.

Have you used the BMP or FBM grant?: White Barn Acres has used the BMP grant for cover crop planting and for grazing infrastructure such as water lines. They are not enrolled in the FBM program but are interested.

Why do you recommend the program to other farmers? Matt stated that he is a firm believer in the Ag Water Quality Certification program and it is worth a farmer's time to go through the straightforward, easy-to-follow certification process. Matt believes these practices will help their farm survive through the next generation.



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