

Aquatic Invasive Species



The week of July 4th is the busiest boating period in Minnesota and with that comes the risk of invasive species infestations in our lakes. In Todd County, we are working hard to stop the spread of aquatic invasive species (AIS) by developing programs aimed at educating local citizens and visitors. Again this summer, along with other education and outreach projects, we have implemented a boater education and watercraft inspection program created to increase public awareness about AIS to reduce the potential for boaters to transport species between water bodies. From Fishing Opener through June 21st, our inspectors have already completed over 2300

inspections on entering and exiting watercraft at boat landings throughout the county.

Stories and foibles our inspectors have witnessed at the landings this year:

- This spring, a boat entered the lake with drain plug out and slowly started sinking about 100 yards from shore, woman jumped out of the boat and into the cold water to insert the plug, man and woman commenced fishing. Brrr!
- A beaver cut down a tree at boat landing parking area, tree fell on boater's truck while boater was out fishing and smashed his windshield and hood, he returned to find his truck damaged, and he hadn't caught any fish. Shucks!
- A boater mistakenly had his live well pump pumping water into his boat instead of his live well. Oops!

We are grateful for the many kind boaters we have already met this season and we thank you for your cooperation in helping to keep our lakes clean and free of invasive species.



As a reminder, Minnesota law requires boaters and anglers to:

- Clean aquatic plants and prohibited invasives off watercraft and trailers
- Drain all water by removing drain plugs and keeping them out during transport.
- Dispose of unwanted bait in the trash, not on the shore or in the lake.

More complete information can be found on pages 7-9 in the 2019 Minnesota Fishing Regulations Guide. **Submitted by Stephanie Johnson, Waterguards**





Todd SWCD Kicks off Partridge River Grant

On May 19, 2019 SWCD hosted "Pot & Pits", an informational breakfast for township leaders and residents residing within the grant boundaries. This event was held at **Granny's Café** in **Eagle Bend** and the SWCD would like to take this opportunity to **thank** Granny's for partnering with us to host this event! The SWCD documented over 200 unused pits within Todd County in the 2017 inventory. Some unused pits, particularly those constructed before the 1996 standards and setbacks to surface waters were put in place, provide ongoing concern for groundwater contamination. The Partridge River Grant focuses on potential bacterial contamination to surface waters via underground plumes for unlined pits within 400 feet of a surface water. However, other pits in the watershed are also able to qualify. (The Partridge River Watershed and Little Partridge have been listed as having significant bacterial impairments by the MPCA.) Many landowners are stepping up to the plate as a safety measure for family and others and to reclaim land that is currently unusable space. The grant covers up to 75% of the cost to close a pit. Todd SWCD has assisted with four pit closure processes in 2019. The grant remains open until 2021.



Left: Germania TWP.
Excavated pit. Landowner was able to bury a concrete silo and border trees. Picture below illustrates additional crop ground reclaimed after pit closure.



In related news, Todd SWCD acquired a second Phase 2 grant in the Partridge River Watershed beginning in 2020 for livestock exclusion

fencing, livestock crossings, and feedlot fixes . Bob Helle, landowner within the watershed, was surprised to learn that exclusion fencing does not restrict when or how many livestock a farmer puts on pasture. It does not determine the size of paddocks or require rotations. Exclusion fencing is put along areas bordering wetlands, rivers, ditches, and streams which typically serve as problem areas for livestock in the wetter periods. The grant helps to cover the cost for the fencing, labor, and alternative wa-



tering devices. Farmers can flash graze the excluded areas in drier periods. These grants are competitive allotments set aside by our legislatures to complete such projects. Todd SWCD works hard to obtain grants for Todd County residents; call **320-732-2644** today for more information.

Todd SWCD Nominates Rinde Farms, LLC as Todd County Conservation Farm of the Year



oger Rinde and wife, Bonnie, with their infant son, Justin, purchased their farm in 1982 moving from Leader, MN where Roger had farmed with his dad. Bonnie took a teaching position in the Special Leducation Department at Browerville Public Schools. Roger got busy milking 40 head of Holstein cows. Two more children came along and the farm did not expand for the next 25 years while the kids were growing up. Justin, who attended Central Lakes College in Staples for Heavy Equipment Operation and then went on to Omaha, came home to join the grain farm in 2002. Roger and Bonnie's second son, Jeff, was away at school in Fergus at that time, but it wasn't long before the call of the farm lead him back home, too. He

joined the dairy farm in 2006. By then Roger was already switching a dozen head of cows. In 2007, they built the first free-stall barn walking 72 milk cows back to the stanchion barn to be milked twice a day. In 2008, they retrofitted a Swing 8 parlor into the old stanchion barn.

Working as a veterinary technician at the time, daughter Kayla joined in the operation in 2009 eager to focus on calf and youngstock management. It was then that the farm transitioned to an LLC between Roger and all three of his children. Today, all three of Roger and Bonnie's children with their families live within a mile radius of the milking barn at Rinde Farms, LLC.



L-R: Justin, Roger, Bonnie Jeff, & Kayla

MINIMUM TILLAGE When asking the Rindes, who are known in the area for advancing conservation measures on their farm, what started them on this journey- Roger thought it may have all began on one highly erodible (HEL) pivot field about 20 years ago. Because the field was identified as HEL land, they could not moldboard plow the field. Moldboard plows deep bury any residue left setting the stage for heavy soil erosion on steeply sloping fields. The Rindes had little option so they just let the field set in the fall and planted into it in the following spring. Interestingly enough, the field still yielded well, year after year. A seed was planted, literally, for the concept of minimum tillage on the Rinde farm. Since then, the Rindes have evolved to no fall tillage with the rare exception of terminating alfalfa fields, for example. The Rindes have done many side by side field trials and have found no yield difference from the fields not tilled in the fall. Roger Rinde: "We changed our approach. We used to think it was critical to chisel every field and pull the rocks up. Now we know with minimum tillage, we get the same if not better yields off our ground." Jeff added, "The yields have gone up. I'm not going to tell you that the yields have gone up solely due to our minimum tillage philosophy, but we have definitely seen no yield drag, especially on our beans; corn yields have increased too. And with farming 2500 acres of corn, beans, wheat, and alfalfa, no fall tillage has saved us the cost of an entire seasonal employee, fuel, and equipment hours."

The challenge for no till corn, the Rindes admit, is the timing and placement of fertilizers. The Rindes grid sample most fields. For corn, they typically will do a two inch pass with the cultivator or now more commonly use a Sunflower Vertical Till (VT), split applying some N, P. and K, variable rate, out front. They plant and then side dress when the corn is about a foot tall. In the fall, they combine the fields and leave them to rest with the residue on the field for the remainder of the fall and winter. The residue left standing significantly reduces impacts of wind and water erosion. Unplowed fields left to rest for the winter also have shown significant gains in soil microbiology- once thought to be inactive in the winter months. In the spring, the VT equipment demonstrates the least soil disturbance next to no till and strip till while providing fast dry down and rapid surface warming for spring planting. VT equipment also boasts the anchoring of residue into the soil as opposed to leaving it loose on top. The residue remains in place and breaks down adding organic matter and available nutrients for the upcoming crop. "It's a little harsh on the trash whippers in some fields", Jeff added for practicality. The Rindes most appreciate the VT when terminating alfalfa. They run the VT equipment over the field once in the fall at about 2-3" and then again in the spring. "The composition of the soil is beautiful," Roger said, "The best corn comes out of those fields."

For beans, the Rindes no till between corn rows. "The beans just don't seem to care; by combine, they yield as well even when they are off to a slower start in spring", says Jeff. "Water is our most limiting factor. I believe our no till beans gain any lost ground in the hot dry months when the conventional beans slow down."

GPS systems installed as early as 2003 played a big role in Rinde conservation methods as well. They used RTK guidance for getting the seed placed in the row as close to the nutrient band as possible. In 2011 they outfitted a planter with variable rate and individual row shutoffs.

COVER CROPS The Rindes have been dabbling in cover crops for

No till soybeans planted April 24, 2019. Crop is doing well.

years. "Our challenge is that we don't have enough growing season compared to lowa, Missouri and the states south- even compared to southern MN most years," Roger said, "We have struggled to get the crop off in time to grow the cover

seed." Inter-seeding has proven a challenge for area farmers as the cover can be seeded in June but lies relatively dormant until fall, or the crop canopy is too mature to get any seed to soil contact if the seed is broadcast later in the summer. Rye has proven to be the simplest cover for this area of Minnesota which is planted immediately after harvest. The Rindes shared success stories of cover crops. They broadcast rye on a high moisture corn field. They barely had enough time to get the rye in and up before winter hit, but it grew back nice in the spring to about a foot and ½ tall. They sprayed it off and no tilled beans right back into it. "Soybeans do well in rye ground" says Roger. Rye cover on future corn fields is "iffy" due to timing the burn down. One year they waited too long and the growing rye nipped the corn. "It's trial and error," says Jeff. The Rindes also use oats as cover. Cover crops, when successfully established improve water filtration so the fields can dry up earlier in the spring, reduce soil erosion, reduce phosphorous loading during high precipitation events to nearby surface waters (the Rindes farm adjacent to the Turtle Creek), scavenge excess nitrogen to make available for next year's crops, improve soil microbiology and health, and in some crops provide food for early pollinators.

DOUBLE CROPS The Rindes went on to tell a story in double cropping. They took off first crop hay, no tilled corn, then sprayed down the field immediately after. When the corn came up, it provided further food for thought. Jeff and Roger shared a desire to experiment with strip till in which just a narrow band is tilled up creating a nice seed bed with no soil disturbance in between. "We could make an 8 row machine and experiment", Roger thought out loud, "might be good for early beans..." That is probably one of the more difficult aspects of conservation farming, transitioning over the equipment which can be very expensive. It's a conundrum of sorts. Until a farmer finds return in planting cover crops; it may be unfeasible to purchase the equipment to manage them. It's hard to manage cover crops without the right equipment. Some farmers, like the Rinde family, are innovators. But without the trials first, the innovation doesn't happen- and those trials can be an investment risk.

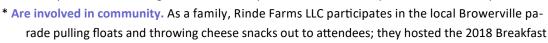
And for the reason of innovation in theory and practice, Todd SWCD Supervisors proudly nominate Rinde Farms, LLC as the 2019 Conservation Farm of the Year.

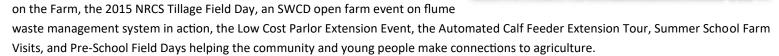
Along with their minimum tillage management and cover crops, Rinde Dairy, LLC:

- * Participate in the Natural Resource Conservation Services (NRCS) Conservation Stewardship Program (CSP) for the past eight years,
- * Installed only the second flume waste management system in the County in 2018 which recycles water used in the flush via a pontoon pump traversing across a newly installed two stage pit. The first stage separates the solids and holds them in tank one, the second stage receives the liquid wash. The water is pumped from the pit and recycled back to the freestall system over and over all year round in a closed system saving the need for constant water withdrawals. All sand is removed, dried, and reclaimed as bedding for the cows in the free-stall barn. They now have enough clean sand on site to last them to December after only one year. "This has turned a waste management system into a profit making system", says Jeff.



- * Work closely with their nutrient management specialist at Pro-Ag in Clarissa and have developed a Comprehensive Nutrient Management Plan for nutrient applications including manure.
- * Utilize Upper Midwest Pumping, innovators themselves, to inject manure via drag-line to better utilize nutrients and reduce potential for surface runoff. Upper Midwest uses a minimum till shank to incorporate manure on the Rinde acres. Rindes also use an Artex Vertical Spreader for solid manure "adding a fine layer of manure to the field for faster plant utilization."
- * Added upgrades to an pre- existing stacking slab/ weeping wall system draining to a newly HPDE lined and sized pit, to more efficiently capture and store manure from the heifer, dry cow, and youngstock barns
- * Constructed clean water practices to divert water away from open lots and spaces utilized by livestock and equipment, turning the farm into a no-discharge system- added protection to Turtle Creek which is directly across the road from the farm.
- * Received Farmers Assuring Responsible Management (FARM) recognition for the care of livestock-important to today's consumer. "We added new tunnel ventilation to our barns keeping the cows comfortable in the winter, cooler in the summer and free of flies; have a fully functioning sand bedded system improving cow comfort- There was an immediate 10 lb. increase in milk production when we moved the cows to the free-stall sand bedded system-said Jeff- and our somatic cell count (an indicator of overall cattle health) dropped to a steady, healthy level as opposed to spiking and dipping; we have added activity and rumination collars to the cows to help catch heat cycles and rumination problems such as ketosis. The Rindes now know immediately if a cow is altering her feed consumption and can address problems several days sooner.





Todd SWCD congratulates Rinde Farms, LLC on their many accomplishments and efforts towards conservation farming, uniting as a family farm, and promoting community engagement in agriculture. The Rinde family will be formally recognized at the Minnesota Association of Soil and Water Conservation Districts Annual Convention in Bloomington, MN, December 8-10, 2019 and at an awards dinner with Todd SWCD in October. Thank you Rinde Farms, LLC for representing Todd County in agricultural stewardship.

Next generation at Rinde Farms, LLC





Please meet Tim Ebnet, WCTSA Nutrient Management Specialist. Tim says:

grew up in Long Prairie and after high school I attended North Dakota State College of Science for Land Surveying and Civil Engineering Technology. After that I continued onto Ridgewater College for a Precision Ag degree. I have worked for CHS in Castleton, North Dakota as a YieldPoint Specialist and Pro Ag Farmers Coop in Clarissa, Minnesota as a Precision Ag Specialist. I currently live on a farm a few miles northwest of Long Prairie with my wife, Kayla.

I am looking forward to working with all of you!

Tim is housed in Todd County with ability to work in any county in the Area 2 region (Benton, Big Stone, Chippewa, Douglas, Kandiyohi, Meeker, Morrison, Pope, Stearns, Stevens, Swift, and Todd County). This position works closely with the UMN Extension, NRCS, SWCD, USDA, LGUs, private industry & farmers.



Commissioners, thank you for your support and partnership with Todd County Soil & Water

September 2019: Don't Forget to Order Trees....

http://www.co.todd.mn.us/departments/soilwater/trees

Please meet Reba Van Beusekom, Todd SWCD Farm Conservation Technician. Reba says:

on a farm and was in 4H. After high school, I went to University of Wisconsin – Eau Claire for two years and was a thrower on the Blugold Track and Field Team. I transferred to finish my bachelor's degrees at the University of Minnesota – Twin Cities in Environmental Science, Policy, & Management and Chemistry. After that, I went for a year of Environmental Engineering School at the University of Connecticut-Storrs. I went out East to work with farmers and

tracking nitrogen through watersheds, but my project did not get funded, so no more Connecticut. I then transferred to the University of Montana – Missoula where I earned my Master's Degree in Interdisciplinary Sciences with an emphasis in Chemistry, Aquatic Ecology, and Engineering. I currently live in Long Prairie with my German Shorthair, Dasher. We like to get outside as much as possible to fish, camp, hunt, and bike.



Thank you to Mary Ostrowski, John Stuckel, Meryl Wegner, Ione Krause, Charles Wegner, Lawrence Lieder, Greg Ostrowski, Donald Maus, & Scott Becker, our volunteer climatologists.

Monthly total averages of rainfall for June:



ditches.

Buffer Cost Share Available Through August 2019

Buffers on DNR Protected Waters & Public Ditches

Most Todd County landowners know vegetative buffers were required on public waterways November 1, 2017 and on county ditches by November 1, 2018. This is very important considering Todd County spans out over almost 1,000 square miles, has 123 public lakes, 380 miles of public streams, and 379 miles of county

Todd County SWCD has completed a county wide buffer inventory on all public waters and public ditches. Many landowners have already contacted the SWCD and have installed compliant buffers. If buffer compliance is not observed, Todd County will assess fees to the property owner.

Todd County SWCD recognizes that in 2018 cold temperatures and early snowfall are to be considered when requiring buffer compliance. Due to this, the SWCD is offering funding for those who were unable to install buffers in the fall of 2018. A payment of \$300 per acre of required buffer installed is available to landowners who are currently non-compliant. Due to wet field conditions we have extended the deadline to sign up for buffer funding to August 1st, 2019.

Todd County is making excellent progress toward being compliant with the state buffer initiative (currently greater than 99% compliant), but there is still some work to be done. If you feel buffers on your property may be affected or if you have any questions regarding buffers in Todd County, please contact the SWCD at 320-732-2644.

For more information about the Governor's buffer law, please visit: bwsr.state.mn.us/buffers/



TODD SOIL & WATER

Tim Stieber
Deja Anton
Sarah Katterhagen
Lew Noska
Kevin Brown
Reba Van Beusekom

PHEASANTS FOREVER
FARM BILL BIOLOGIST

Tim Ebnet

Luke Thoma

TODD SWCD BOARD

Leland Buchholz

Dale Katterhagen Kenneth Pesta

Dan Whitney

Tom Williamson

TODD COMMISSIONERS

Barb Becker Rod Erickson David Kircher Gary Kneisl

Randy Neumann

The Todd SWCD Board is made up of 5 members, each elected to a 4 year term. SWCD boards set overall policy and long-term objectives for the district while working with SWCD staff to ensure plans are implemented. The goal is wise use of natural resources, with an eye toward the future.





130 farmers were in attendance at this year's Milk Fever Feedlot Meeting! The 2020 event will return to CLC in Staples. Thank you to all our sponsors who make this annual event possible: Advantage One Insurance, Unity Bank, Big Iron, Central Minnesota Credit Union, Compeer Financial, American Heritage Bank, First International Bank, Minnesota National Bank, Todd Livestock Advisory, & MN Association of County Feedlot Officers.

Quote of the Year: I took my granddaughter to the 2015 Feedlot Meeting to hear the presentation on cattle handling. Because of that exposure and opportunity in Todd County, she plans to attend UMN and study in a field she never knew existed.

Watershed & % land area	Impairments	Percent of County Impairments	Lakes of Biological Significance	# of lakes w/ Phosphorous Sensitivity	Impairment Concentration Index
Long Prairie 49%	6 (E. coli/ Nutrients)	22%	9	11	45
Sauk River 22%	14 (E.coli/ Mercury/ nutrients)	48%	7	16	218
Mississippi/ Brainerd 13%	4 (Mercury/ Fecal Coli./ nutrients)	14%	11	9	108
Crow Wing 11%	2 (Mercury/ E.coli)	7%	0	1	64
Red Eye 5%	1 (E. coli)	3%	0	0	60
Mississippi/ Sartell <1%	2 (Mercury)	<7%	/2	1	700
Todd County 100%	29 total	100%	Watershed	Factoids	100 mean







Todd SWCD is proud to have partnered with these area groups and associations to provide research, input, and educational outreach in 2019:

- Swan Lake Association
- Long Lake Association
- Todd County Annual Township Meeting
- Todd County 2019 Breakfast on the Farm Wagon Tour
- Sauk Centre Lions—Fairy Lake
- Todd County AIS Committee

- Todd County Water Plan Committee and Local Work Group "A Trek Through Todd"
- City of Clarissa
- City of Long Prairie
- Bruce Township
- Mound Lake
- Contact Todd SWCD 320-732-2644 to inquire about similar opportunities for your group!



Todd SWCD Water Planner, City of Long Prairie, MDH, Commissioner Erickson, and Bayerl Water Resources look over a map at a wellhead meeting for Long Prairie in June 2019.