

Little Arkansas River WRAPS

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Flickner Innovation Farm – Winter Meeting

What is the Flickner Innovation Farm (FIF)? The FIF is a unique partnership created to evaluate various irrigation technologies, precision agriculture techniques and types of imagery to identify efficient methods of conserving water while improving soil health and water quality. The FIF team includes members of the local farming community, industry, university researchers, agronomy specialists, state agencies and other stakeholders.

The Winter Meeting was held on January 12th in Inman, KS. Nearly 80 producers and professionals in agriculture gathered to hear updates on research and technological advances taking place at the FIF.

Mr. Ray Flickner opened the meeting with an overview of the Innovation Farm. Topics discussed included: a summary of long-term irrigation management, mapping soybean protein and oil quality in farm fields, how to utilize Kansas Mesonet and other data for farm management, an overview of the Little Arkansas River WRAPS project, how cover crops can positively affect soil health, groundwater nitrate dynamics at the FIF, as well as how NASA uses data and satellite imagery to benefit farmers. This five-hour event was well-evaluated and funded in-part by the City of Wichita's watershed education funds.



Harvesting Knowledge: Little Ark's Productive Producers

In this issue, we are finishing the 2-segment story featuring **Mr. Greg Goering**, and the **Goering Family Farm**. The Fall Newsletter, released last November, covered the background story of the Goering Farm. *If you missed that part of the story and are interested in reading it, please contact Amanda Schielke at aschielk@ksu.edu.*

The Goering's implement several best management/conservation practices to include No-till, Minimum-tillage, and Conventional-tillage. Greg says that they are moving more fields to no-till as time goes on. Approximately 500 acres have been in 100% no-till for about 10 years and the others are in minimum tillage, they are worked one time, herbicide and fertilizer applied, and then planted. Greg says that he assesses each field individually to determine the best management and tillage practice. He says he still has a few conventional tilled wheat/wheat acres where he disks in the wheat stubble, applies ammonia and then replants. In determining the best practices, Greg goes on to say that "in some cases, it comes down to timing or if we have used a particular field for livestock or not. Within the last 3+ years, I have used a 175-acre field for rotational grazing. The field has been cross-fenced into 40 acre pods and the cattle are fenced out of the natural creek so not to tear down the side wall of the water ways. We placed 4,000 ft of water line from a well drilled on the acreage to supply 4 tire [water] tanks so that each pod has two tanks for easy access to water. It works really great. Since we rotate from wheat/ crabgrass to corn or milo, we have year-round water and grazing in one spot. If we plant a row crop, we have winter feed with water close to home. This works really well for us!"

On the irrigated fields, Greg goes on to say that he likes a corn/soybean rotation, or dryland corn/soybean/wheat rotation. He states that rotational crop farming in any form seems to be a good management tool. Mr. Goering states that, "As agriculture producers we have always been doing some form of conserving! It comes down to what is the most economical for your operation. I like to think you need to look at each field individually and what is the best practice, leading to the most return." Goering goes on to say, "I also believe soil health is very important for the longevity of a farm. Not saying there may not come a time to do some deep tillage because of compaction or residue management." Goering recommends implementing BMPs. Greg has been involved in the Little Arkansas River WRAPS program for many years and feels that it is a very worth-while program. He says "if nothing else, it brings to mind how we as producers should be concerned with what we are putting on our fields! I am thankful for professionals that actually came to me and helped me understand the importance of the program and its cause."

When asked about his aspirations for the future and any advice he'd like to share with fellow producers in the watershed, Greg said, "I have young family members that want to continue our family farming tradition and my aspirations are for them to be successful. Technology will continue to drive much of the future of agriculture, and I hope they can keep up and adapt. I know we still need to produce food for the world and think this is a great culture to have families keep the faith, promote agriculture, and succeed. It is not a job; it is a way of life if you choose to do it! My advice is to never quit learning or exploring! Rather it be new technology, inputs, or practices, keep trying! Ask questions and find what works for you on your operation. Watch inputs, work with your bank and try to be as profitable as you can! The World Needs us ALL!" **Thank you, Greg Goering and Family, for your continued dedication to improving agriculture and protecting our water resources in the Little Arkansas River Watershed!**

WRAPS Program Accomplishment Update

The Little Arkansas River WRAPS program was hard at it in 2022 with BMP implementation taking place across the watershed. With the end of 2022, also came the end of the 3-year KDHE funded project and the beginning of a new 3-year project period. The new Nutrient Management and Livestock Programs were deemed successful, along with the other 3 pre-existing WRAPS programs. The WRAPS program made positive impacts in 2022, and as a whole with the 3-year funded project. All available BMP funds for each program offered were utilized. BMPs are summarized below with 2022 annual numbers, as well as 3-year project (2019-2022) total numbers.

- **Atrazine Program:** 130 BMPs were implemented on 18,676 acres in priority areas. Thank you to the City of Wichita for their continued financial support in providing \$70,256 for the implementation of these practices. Atrazine BMPs that were used in 2022 included: early application (23%), post emergent application (20%), reduced soil-applied rate (19%), split application (11%), and the utilization of no atrazine (26%). BMP implementation was predicted to reduce atrazine runoff with a total load reduction of 968.4 lbs a.i. in targeted acres. 3-year project total numbers: 361 BMPs on 54,442 acres for \$191,262. Load reduction of 2,521.5 lb a.i.
- **Sediment Program:** 17 BMPs were funded in 2022 on a total of 2,149 acres. These BMPs utilized WRAPS, EPA 319 funds in the amount of \$21,121. Sediment BMPs included the establishment of a buffer (6%), permanent vegetation (7%), terraces (13%), no-till (37%), and conservation crop rotations (37%). 3-year project total numbers: 21 BMPs implemented on 2,718 acres for \$51,442.
- **Nutrient Management Program:** This is the WRAPS' newest innovative program, rolled out in the fall of 2020. In 2022, 3 BMPs were funded on a total of 557 acres. These BMPs utilized WRAPS, EPA 319 funds in the amount of \$12,690 in 2022. 3-year project total numbers: 4 BMPs implemented on 774 acres for \$23,635.
- **Livestock Program:** This was also a new program offered by the WRAPS project, rolled out in the fall of 2020. Due to funding already being 100% allocated, no new BMPs were signed up in 2022. 3-year project total numbers: 5 BMPs were implemented, positively affecting 50 cattle pairs. These BMPs consisted of 4 alternative watering systems and cover crops on 163 acres. WRAPS EPA 319 funds were utilized in the amount of \$16,540.
- **Offsite BMP Program:** This program is funded by the City of Wichita. Since 2018, 28 BMPs have been implemented to include 14 BMPs, making up 810 acres of intensive crop rotations, and 14 BMPs making up 810 acres of no-till. These acres were BMP combinations, same acres but considered separate for the purpose of calculating load reductions. The City of Wichita has provided \$26,540 in funding for the implementation of these BMPs since the beginning of the project. The Offsite BMP program has an estimated load reduction of 2,592 tons of sediment.



New Program \$

If you are interested in any of the programs mentioned above, please use the contact information listed below and let one of us know! There are new program dollars available in each category to help you implement new BMPs!

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