

Conservation Technical Assistance

The Environmental Programs and Services (EPS) team annually works with farmers to engage them in identifying opportunities for enhanced conservation on the farm. This process can include conservation assessments, on-farm testing and monitoring, and evaluating alternative management practices.

Conservation technical assistance helps farmers by:

- *Establishing conservation baselines and identifying priority areas for improvement;*
- *Providing in-field testing of soil health and water quality; and*
- *Helping to establish research trials that evaluate alternative management practices.*

In 2018, members of the EPS team created conservation assessments for approximately 40 Iowa farmers. Each assessment involves at least two on-farm visits. Spending time on each farm enables the EPS team to customize the assessment to the farmer's goals and needs. Depending on the time of year, the farm visit often results in driving or walking fields to see any conservation issues firsthand, which is very helpful as staff evaluate the data away from the farm to determine impacts and alternatives.

Over the past two years, the EPS team has combined the individual on-farm assessments with the watershed planning process. Local farm visits done to complete the assessments help to strengthen relationships and engagement with farmers participating in the watershed planning process. It also allows for the inclusion of watershed goals and priorities in each individual assessment. This symbiotic process works to further conservation practice adoption within a watershed.

In the past year conservation assessments have been implemented in the Swan Lake Branch, Charles City, Upper Crane Creek, Holland Creek and Howard Creek watersheds. Additional assessments have been completed for farmers within the larger HUC 8 priority watersheds of the North Raccoon, Lake Red Rock, South Skunk and Middle Cedar watersheds.

The EPS team also engages with farmers to evaluate in-field conservation management practices. An ongoing project with six farmers focuses on reducing cost and risk of utilizing a rye cover crop ahead of a corn crop. The project uses replicated strip trials to evaluate alternative seeding practices and seed placement. This three-year evaluation — currently in its second crop season — involves drilling or planting rye but off-setting the cover crop rows from the following corn row. The project outcomes will hopefully determine if using planting equipment already on the farm reduces the cost of cover crop seeding, which could result in broader cover crop adoption; and whether off-setting the rye from the corn row reduce yield risk or allow for later termination of the cover crop.

Another form of on-farm evaluation is sub-field profitability mapping. In the past 18 months, eight farmers participated in a project utilizing the EFC Systems Profit Zone Manager (PZM) software. These farmers used the online software to evaluate sub-field profitability over multiple years on 68 fields covering more than 4,000 acres. The purpose of this project was to evaluate the use of the PZM software and help farmers to identify areas within fields that may benefit from alternate management. The farmers also participated with individual conservation assessments.



Above: An in-field cover crop replicated strip trial is being conducted on six farms. The rye cover crop is planted in rows offset from where the next season's corn rows will be planted.