

Conservation and Environmental Stewardship

Situation Overview:

A. *How does this farm view their environmental responsibilities for both the farm and land? Please describe.* It's always been our belief that we need to be good stewards of our farm and land for the benefit of the next generation and our community.

B. *The following conservation and environmental best management practices (BMPs) have been incorporated into the farm the last 5 to 10 years:*

- Crop residue management
- No-till
- Conservation till
- Contour farming
- Contour strip cropping
- Conservation buffers
- Crop rotations
- Cover crops
- Grassed waterways
- Diversions
- Pasture and hayland plantings
- Stream bank protection
- Stream crossings
- Animal trails/Walkways
- Structure for water control
- Barnyard runoff controls/Heavy use area protection (i.e. Animal concentration areas)
- Water (manure) storages/Manure stacking
- Manure composter
- Animal mortality handling facility
- Milk house waste
- Roof runoff management
- Precision feeding/Feed management
- Agri-chemical handling facility

C. *Does the farm have a Nutrient Management Plan (NMP) or Manure Management Plan? Yes. Did this project change the way the farm handles animal manure? Please describe.* We tried to follow the guidelines for the amount of manure applied to our fields. Our manure handling has changed because of our separator system. We bed with separated solids and have less nutrients to spread on our fields, helping us meet our NMP requirements.

D. *Is manure applied in the winter months (generally December – February)? Is the manure applied in winter due to not enough storage or for other reasons such as timing, field conditions in spring, etc.? [if yes, for what particular reason(s):]* No liquid manure applied during the winter months. Some pen and bed pack is applied during the winter.

E. *Does the farm have a conservation plan or an agricultural erosion and sedimentation control plan? Yes. If yes, what are the key components?* Cover crops, crop rotation and no-till.

Conservation and Environmental Stewardship...continued

F. *Was the farm a CAFO (Concentrated Animal Feeding Operation) or CAO (Concentrated Animal Operation) before the grant project? No. After? Before the grant, we were not a CAFO. With our increase in cow numbers during this project, we became a CAFO.*

G. *Did a farm expansion require the development of an Odor Management Plan and any odor management Best Management Practices? Yes. How did you become aware of these requirements? Did you find enough experience private sector planners to assist? Yes, we completed an odor management study to secure a permit. Everything we do on the farm was adequate and fulfilled the requirements. We now have a formal odor management plan. We didn't need to look for assistance, as Team Ag, a member of our Transformation Team, had expertise in this area.*

H. *If this project included new conservation or environmental changes, how did they impact farm profitability? Please describe. Although there are no dramatic increases our profitability, the implemented changes did require more time, such as maintaining grass strips and retention ponds, and more detailed record keeping.*

We previously did a little cover cropping, but we've increased our acres to grow more feed. It's helped our yields and decreased soil erosion during the winter months.

In addition to more cover cropping, we also practice more no-till on our fields. No-till has increased our farm profitability.

I. *Can the farm quantify the environmental impact of the project? Please describe. Our new manure pit, installed during this project, provides expanded holding capacity and the retention pond catches a large amount of run-off during heavy rain. In part because we can visually see those environmental differences, we feel we've made improvements that will benefit those around our farm.*

J. *What is the most significant environmental/conservation improvement made on this operation within the last five years, and what improvement(s) did it result in? No-till and cover cropping are the most significant conservation improvements we've made on this farm. Those practices have decreased erosion, and produced higher quality forages and better yields.*