

CONSERVATION *Showcase*

Conservation Practices Transform Dairy into a Modern-Day Operation

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Returning home from college after completing a dairy science degree, Jimmy Harris was faced with facilities that were ill-equipped to handle the demands of a modern day dairy operation. His farm, located in central Bucks County, Pennsylvania, housed approximately 50 replacement dairy heifers and dry cows in an old, existing, livestock barn. The aging facility had no manure collection system, so manure was stacked on an uncontrolled, earthen surface located within 50 feet of the East Branch of the Perkiomen Creek. In addition, the earthen barnyard was within 100 feet of the farm pond, as well as an unnamed tributary to the creek to which the animals had free access. The farm's cropland was experiencing erosion, and manure was applied to the cropland without a nutrient management plan.



The NRCS Environmental Quality Incentives Program (EQIP) helped Jimmy Harris install a complete system of conservation practices on his dairy farm to safeguard his soil, water, and air resources.

Although Jimmy was well aware of these resource concerns, financially he was unable to address them. The NRCS Environmental Quality Incentives Program (EQIP) helped Jimmy install a complete system of conservation practices to safeguard his soil, water, and air resources. This system included a concrete heavy use area, a six-month waste storage facility, and a milk house waste water collection and waste transfer system, which protect both surface and ground water by preventing runoff, improve air quality by reducing particulate matter, and enhance animal health and wellbeing. Additionally, EQIP assisted him with implementing an animal walkway, stabilized stream crossing, and access control fence to protect water quality by excluding the livestock from the water bodies, and allowing the stream corridor to be managed with intensive prescribed grazing. Cropland erosion control practices including a waterway, rock outlet, and diversion were also installed. A nutrient management plan was developed and implemented to optimize the handling and application of manure nutrients to benefit soil quality.

With the assistance of the NRCS, Jimmy Harris was able to treat the resource concerns on his dairy farm as well as properly plan and install the practices needed to continue to protect the delicate natural resources of the cropland and stream as his dairy business moves forward. As a result of all his hard work and dedication, he was recognized as the Bucks County Farmer of the Year in 2012.

Jimmy's conservation stewardship didn't end with these practices. Two years ago, he invited the NRCS to evaluate several newly acquired neighboring fields for a conservation plan. The fields were in long-term hay that Jimmy planned to convert to corn silage. This change in rotation required several practices to prevent erosion, including contour farming and several permanent grass contour buffer strips that he installed. Realizing that a long-term grass hay field is the perfect time to plant corn using no-till, it was suggested that Jimmy try no-till planting. He did so with success, and continued again the following year on different field with similar results. Consequently, he is now working on an EQIP no-till contract. The financial incentive provided by EQIP to no-till plant his entire crop rotation will afford Jimmy the opportunity to

purchase a no-till grain drill. In turn, he will be able to plant a complete no-till crop rotation and realize all the soil quality benefits of the no-till cropping system, such as reduced erosion and runoff due to higher infiltration, improved soil structure with increased organic matter, and increased efficiency in farm operations.

Conservation success stories, like Jimmy's, happen every day all across Pennsylvania and the United States. NRCS is proud of its success in working with landowners to protect our natural resources through voluntary compliance, and its ability to offer resource knowledge and technical expertise to help plan and implement high-quality, comprehensive, conservation systems.



A heavy use area (left) and a six-month manure storage facility (right) help enhance animal health and well-being, protect both surface and ground water by preventing runoff, and optimize the handling and application of manure nutrients to benefit soil quality and improve farming efficiency.