

CONSERVATION *Showcase*

Grazing Management Improves Water Quality on a Columbia County Dairy Farm

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Ken Ryman Jr. and his family operate a 50 cow dairy operation in Columbia County. Along with the 50 dairy cows, the Ryman's raise 45 replacements heifers, 15 dry cows and a few beef steers. Additionally, they grow grass and alfalfa hay, oats, and corn for silage and grain. Most of the field crops grown are used on farm for the dairy animals.

Ken began working with NRCS about 3 years ago when he requested a conservation plan update. The Ryman farm had several challenges to deal with when NRCS first began working with the Ryman's. The farm is located near several fresh water bodies including a large stream-fed pond, a spring-fed pond, and two separate reaches of stream that are within the pastures. To make things

even more challenging, the soils in the existing pastures near the pond and around the barn are poorly drained, often times causing the pastures to be bare, muddy, and degraded during the early spring, fall, and winter months.



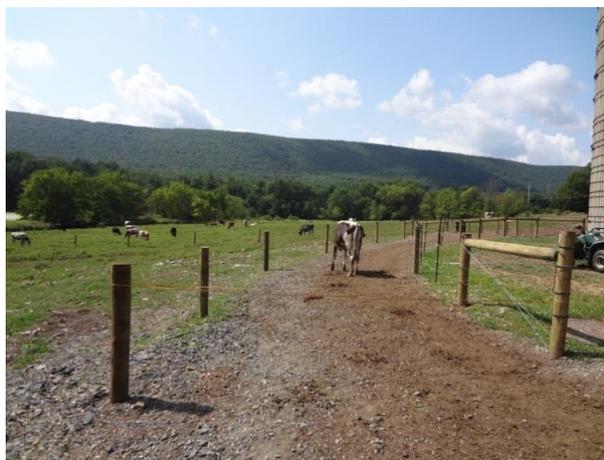
The runoff water from the barn area and pastures had very little filter area to run through before nutrient and sediment laden water entered the nearby ponds and streams. In addition to poorly drained soils and fresh water bodies in the existing pastures, two groups of

heifers and a group of dry cows are fed outside year round. In the summer there simply was not enough pasture available to meet the forage requirements of the heifer and dry cow groups on pasture. As a result of the lack of pasture, the animals were supplemented with round bales and green chop feed daily in the pastures, making management even more challenging.

Considering the effects of all the challenges mentioned above, there was a significant water quality issue on the Ryman farm prior to working with NRCS. With assistance through the EQIP

program the Ryman's have been able to convert 20 acres of cropland to pasture where their heifers can graze, and have also implemented best management practices near the dairy barn facility that have made a significant improvement to water quality on the farm. Stabilized animal trails and walkways along with a frost free water trough and several frost free hydrants were installed to provide off stream/pond watering for the cattle.

The Chesapeake Bay Foundation (CBF) partnered with NRCS to assist Ken with ideas about forested stream buffer management in the areas where cattle were excluded from water bodies. CBF also designed the livestock water system and the animal trail and walkways. The partnership with CBF was invaluable to this project as it allowed the implementation schedule to be met. In addition to the water development and walkways, fencing was installed to exclude animals from over 1,000 ft. of streambank on two different sections of stream, as well as exclude cattle from a smaller pond. When the fencing was installed along the large pond, the buffer was widened to improve the filtering of the farmstead runoff. Fencing around the barn helped to develop several smaller paddocks to allow greater control and grazing management of these areas and allow animals to be confined in periods when it is necessary, which ultimately allowed the Ryman's to reduce the size of the earthen feeding area in the pastures.



NRCS is currently working with Ken on refining his prescribed grazing plan and assisting with the implementation of a rotational grazing system for the heifers. Another goal of the Ryman's with this project is to provide additional forage for the heifers as well as get cattle outside during the grazing season. This will help to reduce time and expense spent feeding while having a positive impact on cattle health and production over the long term. At the same time the Ryman's were addressing water quality and grazing management issues on the farm, they also had a CNMP developed through the EQIP program and they are currently considering addressing manure handling and storage concerns in the future.