Fence line feeding systems offer an alternative to traditional in-field bale feeding during the wet winter conditions that Kentucky often experiences. These structures reduce the impact of winter-feeding on pastures and improve the operational efficiency of a winter-feeding area.

Extension Partners with Kentucky Beef Network to Promote Best Practices in Livestock Operations

Eden Shale Farm hosts on-farm tours, field days, and an on-line virtual tour to advocate for reducing soil and nutrient loss. The loss of these resources reduces producer profits and increases unnecessary costs.
Since the 2015 installation of best management practice sites at the farm, attendance at on-farm events has increased by 28%. Similar increases are expected to continue as additional practices are installed. Surveys will be distributed to field day participants starting in 2017 to track changes in producer knowledge and behavior as a result of participation in Eden Shale Farm’s programming.

Eden Shale Farm is a 961-acre farm located in Owen County, Kentucky owned by the Commonwealth of Kentucky and operated by the Kentucky Beef Network, LLC. (KBN). The farm is located in the Eden Hills region of Kentucky, characterized by steep slopes and highly erodible soils. Specialists from the University of Kentucky Department of Biosystems and Agricultural Engineering collaborate with the KBN to identify problem areas throughout the farm and improve conditions by installing best management practices (BMPs) to reduce manure/nutrient runoff and soil erosion.

Installation of multiple water quality BMPs occurred through the combined efforts of UK and KBN staff. These BMPs were installed not only to improve on-farm natural resource management, but also to be utilized for training state/federal agency staff and to provide demonstration and education opportunities for cattle producers throughout the state. BMPs include filter strips, water harvesting, feeding and heavy use area management, alternative water system installation, winter-feed area improvement, stormwater diversion, alternative energy source utilization, and an improved fencing system for rotational grazing.

The Kentucky Agricultural Water Quality Act requires that the operator of any property of 10 acres of more used for agricultural activities must develop and implement an Agricultural Water Quality Plan (AWQP). An AWQP is a management document designed to address potential on-farm water quality issues and catalog currently implemented BMPs. The BMPs, programs, and associated resources at Eden Shale Farm serve as a resource for agricultural producers to learn more about agricultural water quality BMPs to improve production and environmental conservation on their operation.

The virtual tour provides photos, descriptions, and a geo-referenced layout of the installed BMPs at Eden Shale Farm. Producers can observe the initial challenges experienced at Eden Shale Farm and view BMPs implemented to address these issues. The overall goal of the tour is to increase AWQP development and water quality related BMP implementation by raising awareness of the benefits and providing a reliable source of examples and potential guidance on implementation. This virtual tour will continue to serve as a resource to display new practices as implemented at the Eden Shale Farm. The virtual tour became available online (http://arcg.is/1Q7li5k) in February 2016 and has been accessed over 2,400 times.

Funding for this project was provided in part from a grant from the U.S. Environmental Protection Agency under Section 319 (h) of the Clean Water Act and the Governor’s Office of Agriculture Policy.