

Project #: 03-900

Project Name: Feasibility Assessment of Establishing the Ozark Poultry Litter Bank

Watershed: Illinois HUC #11110103, Lower Neosho (Spavinaw) HUC #11070209, Elk
(Little Sugar) HUC #11070208, Beaver Reservoir HUC #11010001

County: Washington, Benton, Madison, Carroll

Project Type: Planning

Pollutant: Nutrient

Project Summary

The most effective way to address the presence of surplus levels of phosphorus from poultry litter in the watersheds is to move this surplus poultry litter out of the area of concentrated production to other areas where the material can be beneficially used. One mechanism that has been proposed is the formation of a non-profit entity referred to herein as the Ozark Poultry Litter Bank (OPLB), whose primary purposes would be to coordinate removal of poultry litter from critical watersheds and provide record keeping and certification functions related to this poultry litter removal. The goal of this project was to determine the feasibility of establishing and operating the OPLB to coordinate one or more of a set of prescribed conditions to include: (1) raw poultry litter export; (2) pelletizing; (3) on-farm energy production and (4) centralized facility energy production. This project required a specific and detailed analysis of technical, financial, market and administrative feasibility.

To determine feasibility of an OPLB the following items were analyzed in detail: 1) assess total amounts of poultry litter produced in the Ozark Plateau to derive estimates of the quantities of poultry litter generated each year by type of poultry for all operations in the watershed, 2) Identify potential centrally located poultry litter aggregation points within the region that could serve as location sites for raw poultry litter transshipment or processing operations, 3) Develop site-price estimates for raw and processed (pelletized) poultry litter, 4) Evaluate existing transport networks available for raw or processed poultry litter shipment, 5) Identify potential impacts of poultry litter quality (bedding source, use of poultry litter amendments, type of poultry litter) on OPLB organization and management.

To ensure consistency and quality of data in how these items were analyzed a Quality Assurance Project Plan (QAPP) for data collection was developed. Once completed, the QAPP for data collection was submitted to ASWCC for review. Review comments from ASWCC were addressed and the QAPP was resubmitted to ASWCC and EPA. In addition a QAPP for poultry litter analysis was developed to ensure consistency and quality of poultry litter. The QAPP detailed how nutrient content was quantified and methods for poultry litter testing to determine the quantity of available nutrient content within poultry litter. Once completed, the QAPP for poultry litter analysis was submitted to ASWCC for review. Review comments from ASWCC were addressed and the QAPP was resubmitted to ASWCC and EPA (through ASWCC). All data analyzed through this project was submitted quarterly, annually and a final report was completed according to the grant requirements