

A photograph of a rural landscape. In the foreground, a dirt road winds through a grassy field. Several horses are grazing in the field. In the background, there is a forested hillside with a dirt road visible on the slope. The sky is overcast.

Spavinaw Creek 319 Education BMP Demonstration Project

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Program Background

- 319 Project- Oklahoma State University, Oklahoma Conservation Commission, University of Arkansas
- BMP Implementation on private land for producer demonstration purposes
 - Producer tours prior to BMP installation
- Educational Goals- Three year program to educate ag producers in the basin on the proper use of BMPs for the optimum environmental and financial benefit.

Educational Goals

- Integrated approach to holistic ranch mgt. (profitable production/real estate appreciation)
- Nutrient Management
 - Nutrient utilization
 - Forage utilization
- Riparian Management
 - Stream Bank Stabilization
 - Riparian Buffers
 - Stream Crossing Stabilization
- Woodlot/wildlife habitat improvement

Cody Bill Smith Ranch

- 194 acre working cattle ranch
- Eastern Delaware County Oklahoma
- Brush Creek Watershed(sub basin of Spavinaw Creek)
- Previously continuously grazed cow/calf operation
- Perennial warm season and cool season improved forage base, tall grass, timber

Best Management Practices

- Rotational Grazing Plan
 - Moderate stocking rate
 - Cross fencing
 - Improved forage establishment
- Riparian Exclusion
 - Alternative water sources
 - Riparian Buffer
 - Wildlife Habitat Improvement
- Nutrient Management
 - Soil Testing
 - Legume introduction/prescribed fire
 - Confined feeding facility









Test Plots

- Poultry Litter vs. Commercial Nitrogen
 - Total dry matter yield
 - CP TDN RFV
 - Full season yield over multiple harvests

Educational Mechanisms

- Youth Water Quality Camps
 - Producer Tours
 - Individual Producer Visits
 - Woodlot Management Tour
 - Individualized Producer Forage Plans
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Additional Planned Projects

- Runoff flumes- P concentration
- Soil test variability on litter fertilized pasture
- Rainfall Simulator Demonstration