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
Additional Planned Projects

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