REDUCING BACTERIA WITH BEST MANAGEMENT PRACTICES FOR LIVESTOCK

FILTER STRIPS
NRCS CODE 393

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Description:
A strip or area of herbaceous vegetation established between cropland, grazing land, or disturbed land that removes contaminants from overland flow.

Benefits to Producer:
- Reduces stream bank destabilization and associated sedimentation.
- Maintains and improves surface and/or subsurface water quantity and quality.
- Reduces accelerated soil erosion and maintains or improves soil condition.
- Decreases runoff volume and velocity.
- Reduces concentrations of pollutants including sediment, nutrients, and bacteria.
- Provides and maintains food, cover, and shelter for wildlife.
- Increased infiltration and groundwater recharge.
- Enhances aesthetic value of the land.
- Reduces soil and water loss from land.

Bacterial Removal Efficiency:
- Filter strips resulted in the following bacterial reductions based on scientific research:
  - Cryptosporidium parvum: 93 to 99%
  - E. coli: 58 to 99%
  - Fecal coliform: 30 to 100%
  - Fecal enterococci: 99.8% - 99.97%
  - Fecal streptococci: 68 to 83%
  - Giardia: 26%
  - Total coliform: 67 to 99%

Other Benefits:
- Reduced overland flow, increased infiltration, reduced erosion and transport of soil and its constituents.
- Reduced runoff by 52% and soil loss by 53% under no-tilled conditions with use of filter strips.
- Increased sediment trapping efficiencies from 41% to 100% and infiltration efficiencies from 9% to 100%.
- Increased trapping efficiencies for total phosphorus between 27% and 96%.
- Increased trapping efficiencies for nitrate-nitrogen between 7% and 100%.
- Increased herbicide retention contained in runoff by 38%.
- Reduced atrazine concentrations between 56% and 99%.
Estimated Installation Costs:
• $257/acre to $310/acre depending on use of native or non-native vegetation.
• Cost information obtained from the Texas NRCS Electronic Field Office Technical Guide for Zone 4; costs may vary for other zones.

Practice Life Span:
• 10 years

Available Cost-Share Programs:
• EQIP (up to 75% cost-share).
• CRP (up to 50% cost-share).

For More Information:
• Contact your local County Extension Agent, Soil and Water Conservation District (http://www.tssweb.state.tx.us/swcdis) or the Natural Resources Conservation Service (http://www.usda.nrcs).