Monitoring Water Quality to Assess the Impact of Agricultural Conservation Programs. (A08-fisher115743-Oral)

Authors:

- D.S.Fisher - *USDA-ARS, Watkinsville, GA*
- A.L.Dillard - *USDA-ARS, Watkinsville, GA*
- J.L.Steiner - *USDA-ARS, El Reno, OK*
- C.L.Neely - *UGA, SANREM CRSP, Watkinsville, GA*

Abstract:

Programs designed to improve water quality should be evaluated on the basis of a change in water quality. The Environmental Quality Improvement Program (EQIP) funds agricultural conservation practices that should significantly improve water quality. For over 2 years we have been sampling 18 sites for surface water quality in 2 areas previously designated as EQIP priority areas in the Upper Oconee Watershed of Georgia. Estimates of water pH, temperature, conductivity, turbidity, nitrate, ammonia, and phosphorus content as well as the most probable number for E. coli and enterococci bacteria were estimated every two weeks. Use of sub-watersheds with relatively good water quality as reference sites make it possible to detect relatively small shifts in water quality. The presence of large impacts from municipalities and other dischargers can complicate the analysis of benefits. Establishing the location and magnitude of the significant sources of nutrients in a watershed that will not be reduced by agricultural conservation practices is important to estimating impacts. Studies of the effects of impoundments will also contribute to better estimates of shifts in water quality.

Corresponding Author Information:

Dwight Fisher
USDA-ARS
1420 Experiment Station Road
Watkinsville, GA 30677-2373

phone: 706 769 5631x268
fax: 706 769 8962
e-mail: Dwight_Fisher@Scientist.com

Presentation Information:

Presentation Date: Tuesday, November 12, 2002
Presentation Time: 10:15 am

Keywords:
Water Quality, Conservation Practices