

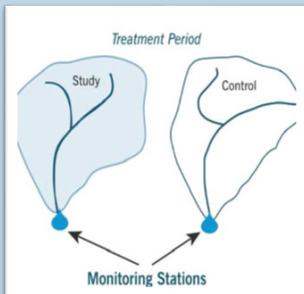
# Agricultural Water Quality Monitoring Program

*Measuring the effectiveness of voluntary soil and water conservation practices in Missouri.*

## Program Objectives and Outcomes

1. Evaluate the effectiveness of conservation practices.
2. Document benefit from investments in voluntary conservation.
3. Document grower's continual improvements.
4. Improve the performance of cropping systems in Missouri.

## Conservation Practices



### Water Quality Data

- Runoff flow/volume
- Sediment (TSS)
- Nitrate ( $\text{NO}_2\text{-N} + \text{NO}_3\text{-N}$ )
- Total Nitrogen (TKN)
- Total Phosphorus (TP)

### Real Time/Continual Climate Data

- Wind speed and direction
- Precipitation
- Barometric pressure
- Temperature
- Relative humidity
- Solar radiation

17 monitoring stations in six counties

# Case Studies

## Livingston County Study

Crops: Continuous soybean  
 Practice: Cover crops and tile drain terraces  
 Control Area: No cover crop  
 Study Area: Annual cover crop



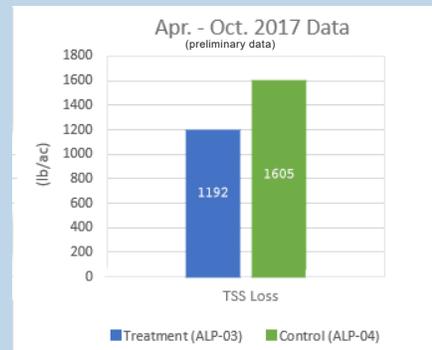
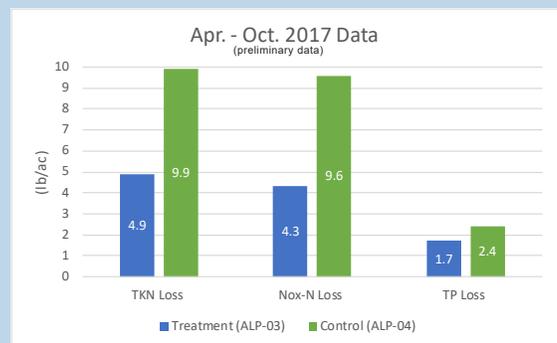
## Marion County Study

Crops: Corn / soybean  
 Practice: Cover crops and grass waterway  
 Control Area: No soil conservation practice  
 Study Area: Cover crop and grass waterway



## Cooper County Study

Crops: Corn / soybean  
 Practice: Terrace and grass waterway  
 Control Area: In field at terrace outlet  
 Study Area: In grass waterway



For more information please visit the Missouri Corn Growers Association website at [www.mocorn.org/resources/water-quality](http://www.mocorn.org/resources/water-quality).

Nothing in this document may be used to implement any enforcement action or levy any penalty unless promulgated by rule under chapter 536 or authorized by statute.



The Environmental Protection Agency Region 7, through the Missouri Department of Natural Resources, has provided partial funding for this project under Section 319 of the Clean Water Act.