CROPS BMP #16

Description:
A management system that is information and technology based, is site specific and uses one or more of the following sources of data: soils, crops, nutrients, pests, moisture, or yield, for optimum profitability, sustainability, and protection of the environment. The goal of precision agriculture is to optimize inputs for agricultural production according to the capability of the land. Careful consideration of productivity versus environmental impacts guides decisions in precision agriculture systems.

AWQA Minimum Requirements:
Use equipment, methods, and technology that support precision agriculture in a manner that addresses an environmental resource concern. This could include but is not limited to utilizing Global Positioning Systems (GPS), auto-steering, light bars, grid sampling, remote sensing, and variable rate application to reduce impacts to soil and water resources.

Recommendations:
- Develop a precision agriculture plan to define goals, identify environmentally sensitive areas, monitor inputs, evaluate yields, and optimize practices after review and analysis of collected data.
- Develop a record keeping system that contains georeferenced records relating to inputs, yield, and critical environmental factors.
- Utilize spatially referenced soil, water, yield, and other datasets to inform decisions and develop management zones on farm.
- Optimize nutrient, pesticide, and irrigation applications through variable rate application/irrigation and guidance system technology.
- Limit soil compaction by utilizing defined wheel tracks to travel within fields year after year.
- Utilize guidance system technology to plant buffer strips along contours to protect sensitive crops and reduce soil loss.
- Evaluate and revise precision agriculture plan after every growing season and address deficiencies and surpluses in the system as they are identified.

Technical References
University Publications
- University of Kentucky Precision Agriculture (PA) extension publication series

USDA/NRCS Publications
- Practice Code 590 Nutrient Management

Funding Assistance Options
State Cost Share
- See your local Conservation District to apply.

Kentucky Ag. Development Fund (KADF/KAFC)
- Select from available program options here.

NRCS Environmental Quality Incentives Program (EQIP)
- Select from available program options here.

Important Considerations
Water Quality Benefit (KEY: 0=good, 5=best; see STEPL Model)
- Contact the Kentucky Department of Fish and Wildlife’s Habitat Improvement Program on how to improve wildlife habitat with select BMPs (1-800-858-1549).

Wildlife Benefits
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