nutrient stewardship

ADVOCATE PROFILE

GROWER:

Clint Wortman (right)

LOCATION:

Quitman, Georgia

RETAIL FACILITY:Crop Production Services

CROP ADVISOR:
A. J. Radford (left)

RETAILER LOCATION:Moultrie, Georgia

Jackson Wortman, LLC is a 3500-acre cattle and crop farm with irrigated and non-irrigated production land growing silage corn, cotton, peanuts, soybeans, rye, ryegrass, Bermudagrass, pecans and triticale.

CROPPING SYSTEM GOALS:

To maximize asset utilization and spread risks through diversification and to maximize yield with minimum fertilizer and chemical input by reducing pests, weeds and disease through crop rotation and environmentally sound practices.

ADVOCATE PROFILE



BEST MANAGEMENT PRACTICES IMPLEMENTED ON THE FARM:

- Grid sample fields in two-acre blocks to determine lime and fertilizer needs
- · Develop and utilize soil and fertility maps
- · Develop nutrient recommendations based on yield goals and soil fertility
- · Variable rate lime, phosphorus and potassium application to reduce over-application costs
- For corn, split apply nitrogen through a blend of 11-37-0 and 24-0-0-3 at 2"x 2" adjacent to the row followed by three subsequent applications through irrigation to reduce leaching and volatilization and to increase use efficiency
- · For cotton, sidedress nitrogen after stand establishment
- For corn and cotton, tissue sample during the season and apply foliar fertilizer in field areas with nutrient deficiencies
- Utilize manure when available from local dairies as a low cost nutrient source and to add organic matter to the soil
- 1700 acres of winter cover crop or grazing to reduce erosion, increase crop residue and increase land use efficiency
- Overseed 130 acres of crimson clover in pecan orchard as cover crop and soil amendment
- Remain knowledgeable of seed varieties and available chemistry to maintain successful operation

FORMS OF NUTRIENTS APPLIED:

11-37-0, 24-0-0-3, dairy manure, KCL, DAP and foliar minor elements

NUTRIENT USE EFFICIENCY:

For Corn Silage 1.2 lb N/bu, 0.56 lb P/bu, and 1.2 lb K/bu

AVERAGE YIELD FOR EACH CROP:

• Corn Silage: 27 tons/acre • Cotton: 1,200 lbs/acre

Peanuts: 5,000 lbs/acre
 Soybeans: 50 bu/acre (double crop)

ECONOMIC MEASURE OF SAVINGS:

For corn, with split application of nitrogen, we have reduced nitrogen usage by 20%. For variable rate application of phosphorus and potash, we have achieved 10–15% reductions in fertilizer use. For variable rate lime, we have achieved up to 30% reductions.