

ADVOCATE PROFILE



The Pat Scates and Sons Farm is a 17,000-acre corn, soybean, grain sorghum and wheat operation.

Grower: John Scates (right)
Location: Shawneetown, Illinois
Retail Facility: Wabash Valley Service Company
Crop Advisor: Mike Wilson (left)
Retailer Location: Grayville, Illinois

What John says about the 4Rs: “The soil is our most important asset. Pat Scates and Sons use the 4Rs to help protect the farming operation and the environment. This translates into using only what we need yet maximizing our profit and our efficiency. The 4Rs also help our farm to convey a positive message to our peers and our consumers that we are conscientious about the environment in which we farm.”

What Mike says about the 4Rs: “The 4Rs have always been an important component of how our crop specialists address nutrient management with our growers. Now, with Illinois’ KIC 2025, the 4Rs are even more critical to helping our growers adhere to guidelines to ensure good water quality in our watersheds.”

CROPPING SYSTEM OBJECTIVES:

Our primary objective is to apply the nutrients where our data shows we need them. We’ve found doing the right thing and being as efficient as possible with our nutrient inputs pays off both economically and environmentally.

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BEST MANAGEMENT PRACTICES IMPLEMENTED ON THE FARM:

- Use soil test data, tissue testing and veris information to determine variable rate soil fertility recommendations
- Utilize a multiple pass program including broadcast, banding and foliar applications for N, P, K as well as secondary and micronutrients
- Use preplant applications of anhydrous ammonia stabilized with N-serve and broadcast DAP
- Use sidedress UAN solution stabilized with Instinct
- Foliar applications of slow release N at V5 and VT, and in 2012 a V7 broadcast application of ammonium sulfate using a high clearance dry spreader
- Map fertilizer applications and correlate them to yield results to track recommendations
- Use soil and tissue testing for remediation during the growing season and for consideration of applications for the following crop
- Use different combinations of cover crop grasses and legumes to sequester nutrients in the root zone for the winter fallow periods
- Manage irrigation for increased water use efficiency
- Utilize on-farm trials to evaluate new management schemes and practices (including nutrients, herbicides, insecticides, fungicides, seeds and seed treatments)

FORMS OF NUTRIENTS APPLIED:

Preplant: Anhydrous ammonia stabilized with N-serve, diammonium phosphate (DAP), muriate of potash (KCL), Dolomitic lime, K-Mag, ProValley MME micro pack

At planting: In furrow row starter, Trafix Zn, Axilo BMZ

Sidedress: UAN stabilized with Instinct, Ammonium Sulfate, Urea stabilized with Agrotain

Foliar: CoRoN, Axilo BMZ

NUTRIENT USE EFFICIENCY: 1 lb N/bushel

Average Yield for Each Crop:

Corn (dry land) 165 bushels/acre; Corn (irrigated) 200 bushels/acre

Soybean (dry land) 55 bushels/acre; Soybean (irrigated) 68 bushels/acre

Milo (dry land) 150 bushels/acre; Milo (irrigated) 180 bushels/acre

Economic Measure of Savings: Research on our farm shows the savings vary from year to year depending on what mother nature throws at us. Using BMPs with the 4R framework has increased our efficiency and helped us to reduce our total amount of fertilizer. We have more up-front costs in multiple applications and inputs in the cover crops, but our higher yields and better stewardship of the soil and the environment has shown that this approach is the most efficient and most profitable path for the future of our farm.