



FARM DESCRIPTION: Nearly 3,000 irrigated acres, including 1,400 acres of sugar beets, 1,400 acres of malt barley and about 200 acres of alfalfa.

GROWER:
Ric Rodriguez
(right)

LOCATION:
Powell, Wyoming

RETAIL FACILITY:
JR Simplot Company

CROP ADVISOR:
Joe Bridges *(left)*

RETAILER LOCATION:
Powell, Wyoming

WHAT RIC SAYS ABOUT THE 4Rs:

"We've been using a 4R-type program for years. With our sandy loam soil, it's critical that we get the right amount of fertilizer put down at the right time. By conducting extensive soil tests, we have developed a nutrient zone or range we need for sugar beets and malt barley. We can get custom applications rates to get the kind of yields we need. About half our acres are under center pivots. We've been able to cut our watering rates and use less water. That all helps in our 4R program."

WHAT JOE SAYS ABOUT THE 4Rs:

"Our area is unique to a lot of other cropping systems, based off our flood irrigation. We have enough readily available water, so guys have been slow to adopt some of the newer practices. 4R has helped us to bring about some of the newer technologies to be better stewards of the ground and more cost effective and still be as productive as we have been in the past. With Ric putting in center pivots, which provide more variability, he is seeing the benefits and advantages of being more conservative with fertilizer needs. It has become extremely beneficial to our area."

ADVOCATE PROFILE 2016

ECONOMIC MEASURE OF SAVINGS:

Pivot irrigation uses about 33 percent less water than flood irrigation, which reduces N leaching. The amount of fertilizer used on his malt barley has been reduced by 42 percent, from 257 lb/ac to 149 lb/ac, and on his sugar beets by 20 percent, from 556 lb/ac to 448 lb/ac. These savings have lowered N usage by 50 units/ac. Increased uniformity in production has led to the best yields ever on many fields.

BEST MANAGEMENT PRACTICES IMPLEMENTED ON THE FARM:

- Center pivot irrigation decreases water usage and N leaching
- Uses Simplot SmartFarm® technology to monitor fields
- Pivot irrigated fields are mapped using an EM38. It generates a soil-type field map that breaks the field down into zones to develop zone-specific fertilizer programs.
- Soil samples are taken for each field zone
- Uses SmartFarm high-resolution satellite imagery to monitor fields
- Imagery allows for in-season adjustments, including foliar and other sprinkler-applied fertilizer
- Phosphate uptake increased by 20 percent with use of Avail
- Twin-bin applicators from Simplot assure that exact fertilizer amounts are applied
- Nutrisphere-N technology helps reduce N leached out of the plant root zone. With its application, the amount of urea N applied has been reduced by 15 percent. There has been a 50 percent reduction of N under pivots and a 15 percent reduction of N on flood-irrigated acres.
- Precision agriculture has helped improve production efficiency

FORMS OF NUTRIENTS APPLIED

11-52-0 is treated with Avail®. Urea with Nutrisphere-N applied.