2015 Crop Year Fertilizer and Growth Regulator Field Trials

The nature of fertilizer and its application is not an exact science. We realize with variability between producers and cooperatives, every case is different. The overall results from this year's field trials show producers time and again doing more with less and accomplishing the same or better results as with previous production years. Soil sample requirements are the ideal requirement and seldom do producers fertilize to that extent. All tissue samples were normal and showed comparable deficiencies as full rate fields without using E3Expander™ Fertilizer or Fertigation formulas. As with any crop year, in areas where conditions were less than ideal in terms of late freeze and snow, this spring producers were able to hedge input costs and have less riding on yield to cover production cost.

Irrigated Hard Red Winter Wheat Trial Area 1

Soil samples showed needs for 100 lbs nitrogen, 65 lbs phosphorous and 20 lbs sulfur per acre with anticipated yield goal of 100 bushel. Note: poor soil and sandy conditions. If this were all applied it would cost $114 per acre assuming all liquid fertilizer cost.

Late freeze and snow in the spring of 2015 hurt wheat production yields in the general area. Given this variable, the agronomist recommended costs control measures drastically less than required by soil samples.

Applied 23 lbs of nitrogen and 5 lbs sulfur by center pivot fertigation using E3Expander™ Fertigation formula
Cost of $16.72 per acre for fertilizer and $25 per acre for E3Expander™ Fertigation formula. Yield 81 bushel per acre

Using E3Expander™ saved $72.28 per irrigated acre verses soil test requirements

Field Notes: while conditions for 2015 were yield limiting, the use of E3Expander™ helped to hedge input cost with decent production/yield results.

Irrigated Hard Red Winter Wheat Trial Area 2

Soil samples showed needs for 122 lbs nitrogen and 60 lbs phosphorous and 20 lbs sulfur per acre with anticipated yield goal of 100 bushel. Note: Poor sandy soil. If this were all applied it would cost $122 per acre assuming all liquid fertilizer cost.

Late freeze and snow in the spring of 2015 hurt wheat production yields in the general area. Given this variable, the agronomist recommended costs control measures drastically less than required by soil samples.

Applied 28 lbs nitrogen and 5 lbs sulfur by center pivot fertigation using E3Expander™ Fertigation formula.
Cost of $ 19.60 per acre for fertilizer plus $25 per acre for E3Expander™ Fertigation formula. Yield 79 bushel per acre.

Using E3Expander™ saved $ 77.40 per irrigated acre verses soil test requirements

Field Notes: while conditions for 2015 were yield limiting in general for winter wheat, the use of E3Expander™ helped to hedge input cost with acceptable production/yield results.

Irrigated Corn Using E3Expander™ In-furrow and Fertigation Formulas Area 1

Soil Samples showed need for 195 lbs nitrogen and 130 lbs Phosphorous per acre with anticipated yield goal of 200 bushel. Note: poor soil and Phosphorous deficient. If this were all applied it would cost $195 per acre assuming all liquid fertilizer cost.

Pre-Plant Fertilizer Application with E3Expander™ Fertilizer Formula for In-furrow/Sprayer Application.

1) Strip Tilled Soil and applied 30 lbs Phosphorous and 60 lbs nitrogen per acre using E3Expander™ Fertilizer formula at a cost of $53 per acre

2) During planting applied E3Expander™ Fertilizer formula with 30 lbs Phosphorous and 30 lbs nitrogen at a cost of $36 per acre

3) Applied 30lbs of nitrogen by center pivot fertigation using E3Expander™ Fertigation formula
Cost of $ 17 per acre

Using E3Expander™ saved $ 89 per irrigated acre verses soil test requirements

Field Notes: Fields averaged 216 bushel per acre using substantially less fertilizer with E3Expander™. Yield increase was 20% higher than average year production.

Irrigated Corn Using E3Expander™ In-furrow and Fertigation Formulas Area 2
Soil samples showed need for 184 lbs nitrogen , 78 lbs phosphorous, 23 lbs sulfur and 1 qt zinc per acre with anticipated yield goal of 200 bushel. Note: poor sandy soil. If this were all applied, cost would be $180 per acre assuming all liquid fertilizer cost.

Pre-Plant Fertilizer Application with E3Expander™ Fertilizer Formula for In-furrow/Sprayer Application.

1) No till Irrigated Soil

2) During planting applied E3Expander™ Fertilizer Formula for in-furrow application with 25 lbs phosphorous, 7 lbs nitrogen, 2 lbs potash and 1 qt zinc at a cost of $28 per acre

3) Applied 105 lbs nitrogen and 10 lbs sulfur by center pivot fertigation using E3Expander™ Fertigation formula
Cost of $ 91 per acre for fertigation plus $25 per Acre for E3Expander™ Fertigation Formula for a total cost of $116 per acre

Using E3Expander™ saved $36 per irrigated acre verses soil test requirements

Field Notes: Fields averaged 180 bushel per acre using substantially less fertilizer with E3Expander™. Yield average was less than goal but corn was late planted due to extremely wet conditions. Observed excellent cost control and corn was profitable to plant.

Irrigated Corn Using E3Expander™ In-furrow and Fertigation Formulas Area 3
Soil samples showed need for 161 lbs nitrogen, 60 lbs phosphorous, 22 lbs sulfur and 1 qt zinc per acre with anticipated yield goal of 200 bushel. Note: relatively poor sandy soil. If this were all applied it would cost $154 per acre assuming all liquid fertilizer cost.

Pre-Plant Fertilizer Application with E3Expander™ Fertilizer Formula for In-furrow/Sprayer Application.

1) No till Irrigated Soil

2) During planting applied E3Expander™ Fertilizer formula for in-furrow application with 25 lbs phosphorous, 7 lbs nitrogen, 2 lbs potash and 1 qt zinc at a cost of $28 per acre

3) Applied 65 lbs nitrogen and 10 lbs sulfur by center pivot fertigation using E3Expander™ Fertigation formula
Cost of $ 48 per acre for fertigation plus $25 per Acre for E3Expander™ Fertigation formula for a total cost of $73 per Acre

Using E3Expander™ saved $53 per irrigated acre verses soil test requirements

Field Notes: fields averaged 176 bushel per acre using substantially less fertilizer with E3Expander™. Yield average was less than goal but corn was late planted due to extremely wet conditions. Observed excellent cost control and corn was profitable to plant.

Dry land Corn
At planting E3Expander™ Fertilizer formula was applied side by side with 30 lbs of phosphorous and 30 lbs of nitrogen. This was the only fertilizer applied due to wet weather conditions. Cost per acre was $39 including the cost of E3Expander™. Yield average of 60 bushel yielding a substantial profit per acre and excellent input cost control.

Dry land Yellow Peas Using Growth Regulator Ascend
Full Rate: 6.4 oz. of Ascend per acre applied in furrow during planting. Cost $13.25

50% less Ascend or 3.2 oz. per acre applied with E3Expander™ in-furrow at 7.5 Gallon per acre (cost of Ascend $6.63 and E3Expander $2.37 per acre). Total cost $9 per acre.
==========
Total Savings Per Acre using E3Expander™ Formula for Chemical Application: $4.25 per acre
==========