



# NITROGEN RATE STUDY

## 2X2X2

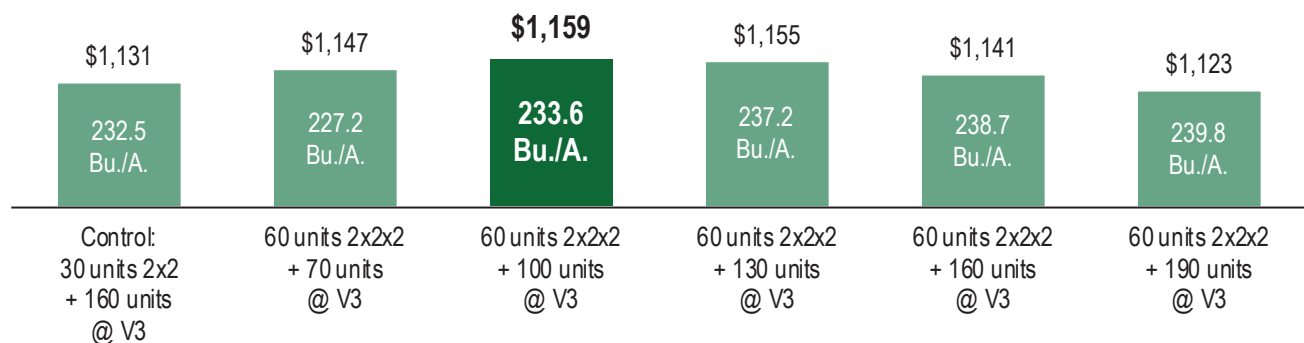
The purpose of this study is to determine the Economic Optimum Nitrogen Rate (EONR) when applying 60 units of nitrogen (N) in a 2x2x2 application at planting, and the remainder of N applied with a V3 sidedress application. Two interesting observations: first is that as we moved 30 more units of N up front in a 2x2x2 system, we increased our efficiency of nitrogen usage, but additional years of testing are required. The second observation was that every rate of nitrogen in a 2x2x2 system except the highest rate was more profitable than the 2x2 application.

### 2023 MULTI-LOCATION RESULTS

BRAND	NITROGEN RESPONSE	UAN TREATMENTS	TOTAL NITROGEN (UNITS/A.)	BU./A.	BU./A. DIFFERENCE	NET RETURN	RETURN ON INVESTMENT
6081AM™/6414V2P	N Efficient	Control: 30 units 2x2 + 160 units @ V3	190	217.4	--	\$1,102.11	--
		<b>60 units 2x2x2 + 70 units @ V3</b>	<b>130</b>	<b>213.5</b>	<b>-3.9</b>	<b>\$1,122.52</b>	<b>+\$20.41</b>
		60 units 2x2x2 + 100 units @ V3	160	214.9	-2.5	\$1,109.18	+\$7.07
		60 units 2x2x2 + 130 units @ V3	190	220.9	+3.5	\$1,122.02	+\$19.91
		60 units 2x2x2 + 160 units @ V3	220	222.9	+5.5	\$1,112.10	+\$9.99
		60 units 2x2x2 + 190 units @ V3	250	224.6	+7.2	\$1,100.47	-\$1.64
6041Q™/6585TCV2P	Higher N Response	Control: 30 units 2x2 + 160 units @ V3	190	231.8	--	\$1,184.04	--
		60 units 2x2x2 + 70 units @ V3	130	225.3	-6.5	\$1,189.66	+\$5.62
		60 units 2x2x2 + 100 units @ V3	160	228.8	-3.0	\$1,188.27	+\$4.23
		<b>60 units 2x2x2 + 130 units @ V3</b>	<b>190</b>	<b>235.4</b>	<b>+3.6</b>	<b>\$1,204.53</b>	<b>+\$20.49</b>
		60 units 2x2x2 + 160 units @ V3	220	237.0	+5.2	\$1,192.33	+\$8.29
		60 units 2x2x2 + 190 units @ V3	250	239.2	+7.4	\$1,183.55	-\$0.49

Corn \$5.69/Bu. UAN \$0.71/unit of nitrogen. These results are based on the disclosed study parameters and participating sites.

### 3-YEAR MULTI-LOCATION NITROGEN RATE - 2X2X2 NET RETURN



PARTICIPATING SITES





# NITROGEN SYSTEMS STUDY

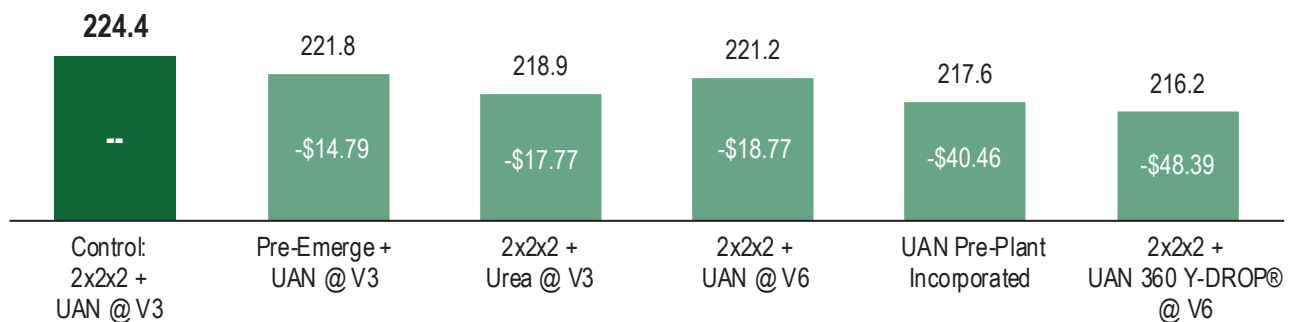
There are many different methods to apply nitrogen, and weather can certainly impact which system performs best in any given year. However, for multiple years, we have continued to see the best profitability by moving more nitrogen up front in a 2x2x2 system and applying the remaining portion at the V3 growth stage via a UAN application.

## 2023 MULTI-LOCATION RESULTS

BRAND	NITROGEN RESPONSE	FIRST APPLICATION	SECOND APPLICATION	BU./A.	BU./A. DIFFERENCE	RETURN ON INVESTMENT
4867D2/6064AM™/ 6081AM™/6414V2P	N Efficient	<b>Control: 60 units UAN 2x2x2</b>	<b>130 units UAN @ V3</b>	<b>211.8</b>	<b>--</b>	<b>--</b>
		60 units UAN Pre-Emerge	130 units UAN @ V3	206.3	-5.5	-\$31.29
		60 units UAN 2x2x2	130 units Urea @ V3	206.7	-5.1	-\$8.12
		60 units UAN 2x2x2	130 units UAN @ V6	208.6	-3.2	-\$18.21
		190 units UAN Pre-Plant Incorporated	--	208.7	-3.1	-\$17.64
		60 units UAN 2x2x2	130 units UAN 360 Y-DROP® @ V6	205.2	-6.6	-\$37.55
5077V2P/6041Q™/ 6296AM™/6585TCV2P	Higher N Response	<b>Control: 60 units UAN 2x2x2</b>	<b>130 units UAN @ V3</b>	<b>224.9</b>	<b>--</b>	<b>--</b>
		60 units UAN Pre-Emerge	130 units UAN @ V3	221.5	-3.4	-\$19.34
		60 units UAN 2x2x2	130 units Urea @ V3	217.3	-7.6	-\$22.34
		60 units UAN 2x2x2	130 units UAN @ V6	220.7	-4.2	-\$23.90
		190 units UAN Pre-Plant Incorporated	--	219.1	-5.8	-\$33.00
		60 units UAN 2x2x2	130 units UAN 360 Y-DROP® @ V6	218.1	-6.8	-\$38.69

Corn \$5.69/Bu. Urea \$0.60/unit of nitrogen. UAN \$0.71/unit of nitrogen. These results are based on the disclosed study parameters and participating sites.

## 2-YEAR MULTI-LOCATION NITROGEN SYSTEMS YIELD AVERAGE & RETURN ON INVESTMENT



PARTICIPATING SITES

