

# 2021 University of Nebraska Corn Trial with Free Phos 24

## FREE PHOS<sup>24</sup>

The 2021 University of Nebraska Corn Trial, conducted in York County, Nebraska, compared the efficacy of two starter fertilizers: Free Phos 24 (8-24-0-0.25 Zn) and 10-34-0, applied at a rate of 3 gallons per acre.

Planted on May 3rd and harvested on September 23rd, the trial revealed a slight yield advantage for Free Phos 24, producing 276 bushels per acre, while 10-34-0 yielded 272 bushels per acre. This statistically significant difference at a 90% confidence level suggests a modest improvement with Free Phos 24 at a comparative rate.

Free Phos 24 is a unique blend that contains 100% orthophosphate, making it immediately available for plant uptake. This feature is particularly beneficial for early plant growth stages, ensuring a robust start. Additionally, the product is designed to enhance soil biology, which aids in the long-term release of soil nutrients that are otherwise inaccessible to plants. It's suitable for use in a wide range of pH soils and can be applied as a pop-up or foliar fertilizer.

### TRIAL DETAILS

Crop: Pioneer® Corn  
 Location: York County, Nebraska  
 Plant Date: 4/29/2021  
 Harvest Date: 10/14/2023  
 Tillage: Spring tillage, Row cultivation  
 Variety: P1185Q

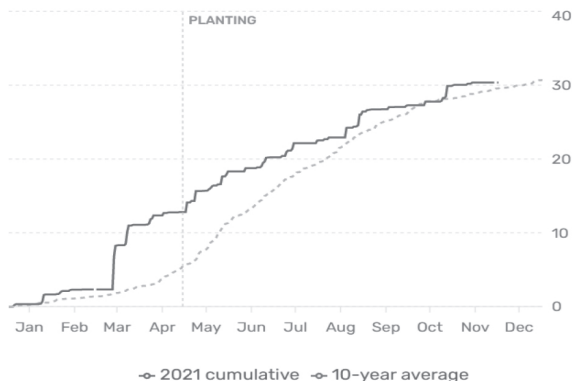
### Soil Tests: (October 2020)

pH	BpH	OM LOI %	Nitrate – N ppm N	Mehlich P-III ppm P	Ammonium Acetate (ppm)				CEC me/100g	% Base Saturation				
					K	Ca	Mg	Na		H	K	Ca	Mg	Na
6.6		3.4	5.7	22	390	2023	306	41	13.8	0	7	73	18	1
6.8		3.2	6.2	14	355	2193	317	46	14.7	0	6	74	18	1

### CHECK

#### 3 gal/acre - 10-34-0 in-furrow at planting

190 lbs/acre of Nitrogen as anhydrous ammonia  
 200 lbs/acre of MESZ®  
 2 qt/acre - Medal® II ATZ at planting (herbicide)  
 5 oz/acre - Cavallo™ at planting (herbicide)  
 8 oz/acre - Lorsban™ (foliar insecticide)  
 15.2 oz/acre - XYWAY™ in furrow (foliar fungicide)



### TREATED

#### 3 gal/acre - Free Phos 24 in-furrow at planting

190 lbs/acre of Nitrogen as anhydrous ammonia  
 200 lbs/acre of MESZ®  
 2 qt/acre - Medal® II ATZ at planting (herbicide)  
 5 oz/acre - Cavallo™ at planting (herbicide)  
 8 oz/acre - Lorsban™ (foliar insecticide)  
 15.2 oz/acre - XYWAY™ in furrow (foliar fungicide)  
 4 oz/acre - Ethos® XB (seed treatment)  
 4 oz/acre - Battalion™ in furrow (seed treatment)

### AVERAGE YIELD

Check Average Yield: 272 bu/acre

Free Phos 24 Yield: 276 bu/acre

	Early Season Stand Count (plants/ac)	Harvest Stand Count (plants/ac)	Stalk Rot (%)	Greensnap (%)	Moisture (%)	Yield (bu/ac)†
10-34-0	31,000 A*	30,300 A	1 A	3 A	16.7 A	272 B
FREE PHOS 24	31,300 A	31,000 A	2 A	1 A	16.7 A	276 A
P-Value	0.745	0.184	0.749	0.338	0.476	0.012

\*Values with the same letter are not significantly different at a 90% confidence level.

†Yield values are from cleaned yield monitor data. Bushels per acre corrected to 15.5% moisture.