



# Phosphorus Fertilizer Comparison in Dryland Winter Wheat ( 21-601 )

## Experiment Info:

Planted:	9/25/2020
Harvest:	7/15/2021
Yield Goal:	80 bu/A
Target Fert.:	96-110-72
Variety:	SY-100
Population:	1.75 million
Row Width:	7.5"
Prev. Crop:	Soybeans
Plot Size:	15 x 330
Replications:	3

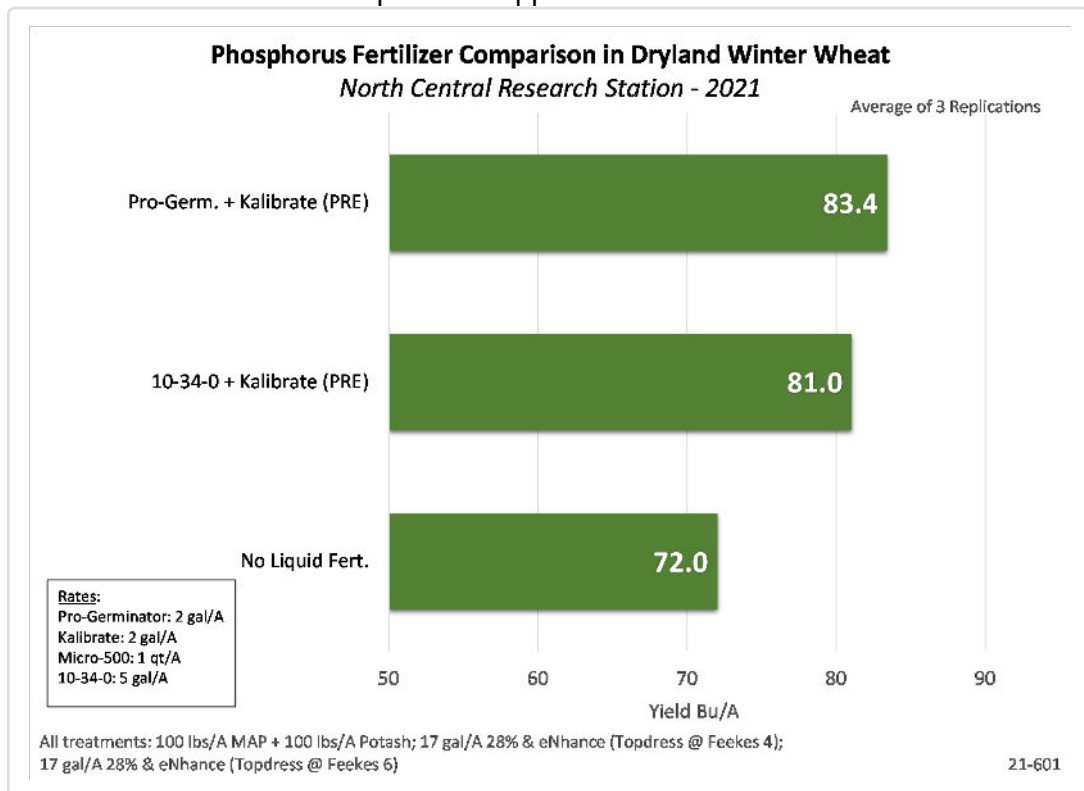
## Soil Test Values (ppm):

pH:	6.3
CEC:	5.8
%OM:	1.1
Bray P1:	13
Bicarb P:	0
K:	72
S:	4
%K:	3.2
%Mg:	16.2
%Ca:	69
%H:	10.9
Zn:	0.7
Mn:	5
B:	0.2

## Objective:

To evaluate the effect on yield of different phosphorus sources applied at planting may have on soft red winter wheat.

Drilling was completed on September 25th, 2020 in ideal conditions. All treatments had 100 lbs/A MAP + 100 lbs/A potash applied pre-plant and a split topdress application of a total 34 gal/A 28% UAN & eNhanse at Feekes 4 & 6 growth stage. The treatments of 2 gal/A Pro-Germinator + 2 gal/A Kalibrate or 5 gal/A 10-34-0 + 2 gal/A Kalibrate were applied with a broadcast spray application after planting. A check treatment, used for comparison did not have any liquid phosphorus or potassium applied. Plots were harvested with the CaseIH 5140 and Harvest Master GrainGage™ for accurate capture of yield and moisture information. Yields of the experiment appear below.



## Conclusions:

- Utilizing Pro-Germinator as a phosphorus source applied at the early planting date resulted in a 2.4 bu/A advantage over the conventional source and 11.4 bu/A better than the check treatment.
- Previous studies have showed the importance of phosphorus availability to the wheat seedling throughout the fall growth period.
- Sandy gravel soil conditions can limit yield on this field and did in this case. However the relative values should hold true in other soil types.