



Seed Treatment Comparisons on Soybeans (20-802)

Experiment Info:

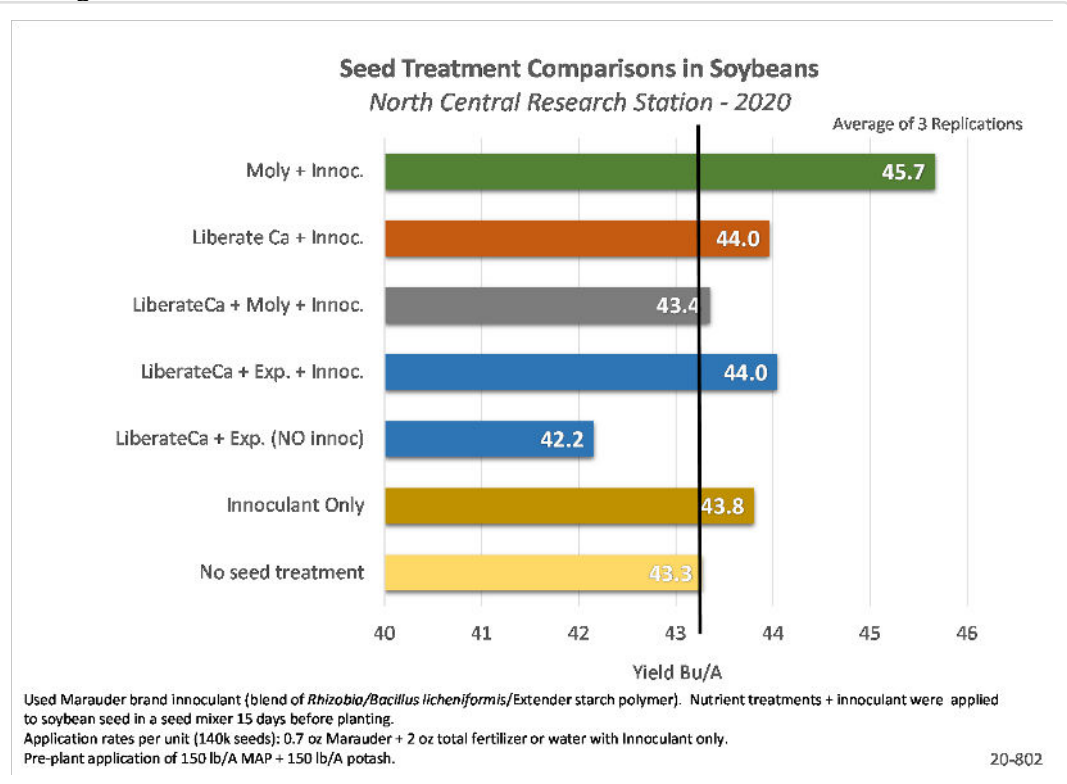
Planted:	6/4/2020
Harvest:	10/10/2020
Yield Goal:	60 bu/A
Target Fert.:	
Variety:	P20T64E
Population:	130,000
Row Width:	30"
Prev. Crop:	Corn
Plot Size:	15 x 530
Replications:	3

Soil Test Values (ppm):

pH:	6
CEC:	10.1
%OM:	2.3
Bray P1:	13
Bicarb P:	
K:	60
S:	6
%K:	1.5
%Mg:	15.6
%Ca:	67.4
%H:	15.2
Zn:	1
Mn:	4
B:	.3

Objective:

Seed treatments are an integral part of growing crops these days. Applications of crop protection inputs for insects and disease are common, but there is also interest in application of crop nutrition. Of course the main limitation is the low volume of fertilizer that can actually be applied to seed. Thus, the focus has been on a specialty type micronutrient that may be effective at a low volume rate, or on something that may influence the area around the seed itself. Molybdenum is an example of the former where it has been a part of some seed treatments for years. Molybdenum is used by certain enzyme systems in plants for nutrient conversions to usable forms. But responses are often hard to show. Calcium is another nutrient that has shown some response as a seed treatment, although the role is not as clear. An experiment was conducted to evaluate several nutrient seed treatments applied at a volume of 2 fluid oz per unit along with an inoculant. Seed was treated 2 weeks prior to planting to see if the fertilizer had an effect on the inoculant.



LSD(0.1)2.3 LSD(0.2)1.7 CV:7.7%

Conclusions:

- The Moly (1% molybdenum) seed treatment did result in a significant yield increase over that of Inoculant only. Yield increases are small, but give a very positive return on investment. Combination treatments here and previous are not as effective as the full rate of Moly. Moly rate is reduced with combinations as the maximum app rate is 2 oz per unit.
- Fertilizer did not reduce the effectiveness of the inoculant, as omission of inoculant from Liberate + Experimental resulted in a significant yield decrease. Although probably should have used Moly here.
- Moly proved to be an effective seed treatment.