Corn Residue Management for Soybeans (19-703)

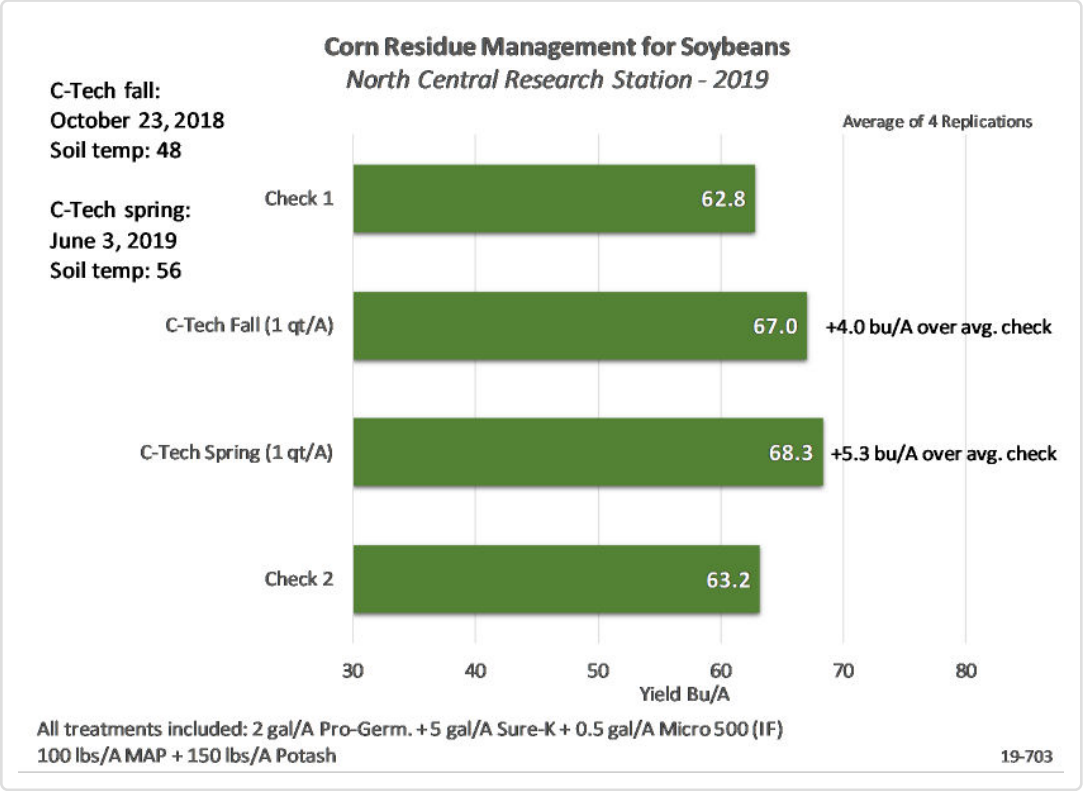
Experiment Info:	
Planted:	6/9/2019
Harvest:	10/25/2019
Yield Goal:	60 bu/A
Target Fert.:	0-88-104
Variety:	19GA02
Population:	140,000
Row Width:	15"
Prev. Crop:	Corn
Plot Size:	15 x 265
Replications:	4

Soil Test Values (ppm):	
pH:	6.4
CEC:	11.6
%OM:	2.1
Bray P1:	5
Bicarb P:	
K:	104
S:	6
%K:	2.3
%Mg:	16.5
%Ca:	71.8
%H:	9
Zn:	1.1
Mn:	7
B:	.3

Objective:

To evaluate the use of PrimAgro C-Tech in crop residue management.

PrimAgro C-Tech contains organic matter, live strains of beneficial fungi and bacteria that can promote biological activity. The intent was to measure the yield of a soybean crop after the application of 1 qt/A, as a broadcast spray, of PrimAgro C-Tech on standing corn stalks as either a fall or spring application. The fall application was made on October 23, 2018 with a soil temperature of 48 degrees F. Soil and air temperatures dropped off sharply following the application timing. The spring application was made ahead of planting on June 3, 2019 with a soil temperature of 56 degrees F. All treatments received 2 gal/A Pro-Germinator + 5 gal/A Sure-K + 2 qt/A Micro 500 in-furrow at planting and 100 lbs/A MAP + 150 lbs/A Potash dry broadcast pre planting to amend the soil. Soybeans were planted no-till at a population of 140,000 seeds/A in 15 inch rows on June 9th. Two checks were used for comparisons.



LSD(0.2)4.9, CV:9.8%

Conclusions:

• The spring application of 1 qt/A of PrimAgro C-Tech on standing corn stalks resulted in the highest yield. The significant yield increase of 5.3 bu/A over the average check signifies the possible oppurtunity to make a spring application of C-Tech to help breakdown corn stalk residue quicker and release nutrients back to the growing crop.

• The fall appliaction of 1 qt/A of PrimAgro C-Tech also provided a yield advantage over the checks. The 4 bu/A yield increase was non significant in this test, however it may point towards a possible fit in a growers crop management plan for residue. This application happened right before a cold period and one may expect different results if it was made in more conducive temperatures for bacteria to thrive, as in areas south of Michigan.