Planting Depth Effects on Corn Yield in Southern North Carolina

Trial Objective

- Determining an optimum planting depth for corn is essential for proper root development and to help prevent potential problems throughout the growing season.
- The objective of this field experiment was to evaluate the effects of three different planting depths on corn yield in Southern North Carolina.

Research Site Details

Location	Soil Type	Previous Crop	Tillage Type	Planting Date	Harvest Date	Potential Yield (bu/acre)	Seeding Rate (seeds/acre)
Maxton, NC	Sandy clay loam	Cotton	Conventional	04/06/18	08/24/18	N/A	32K

- The experiment was planted at the Regional Technology Center (RTC) in Maxton, NC on flat ground in two replications on 12 row strips that were 350 feet long with 20-inch spacing.
- Treatments included three different planting depths: 1-inch, 2-inch, and 2.5-inch.
- Each treatment was sub-irrigated and received 300 units of nitrogen. All other agronomic practices were per local standards.

Understanding the Results

Table 1. Average yields and economic analysis of the treatments.

Treatment	Planting Depth (inch)	Average Yield (bu/acre)	Average Bushels Lost per Acre	Average Dollars Lost per Acre at $3.45 per bu
1	1	197	-8	-$27.60
2	2	202	-3	-$10.35
3	2.5	205	0	$0.00

- As corn planting depth decreased, average yield per acre decreased at this location (Figure 1).
- The highest average yield per acre was observed at a planting depth of 2.5-inches.
- The average dollars lost per acre were from $10.35 to $27.60 at planting depths of 2-inches and 1-inch, respectively (Figure 2).

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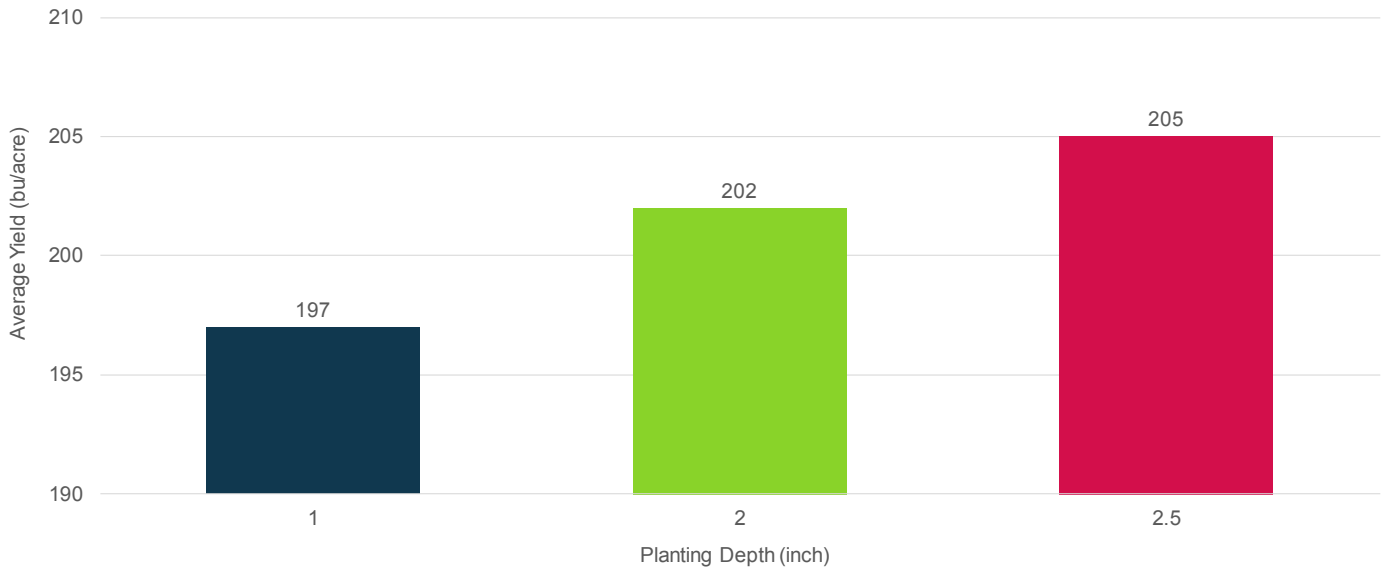

Figure 1. Average corn yield by planting depth.

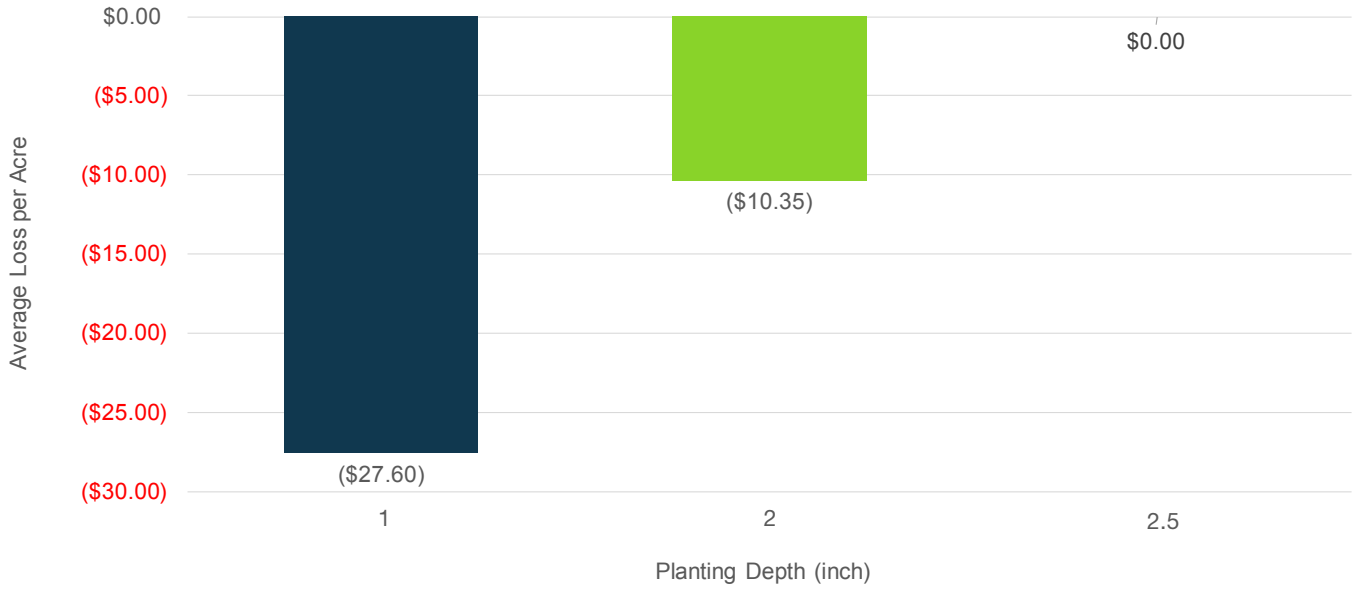

Figure 2. Average dollars lost per acre at $3.45 per bushel by planting depth.

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What Does This Mean for Your Farm?

- In this trial the average yield per acre decreased and average dollars lost per acre increased when corn was planted shallower than 2.5 inches at this location.

Legal Statements

The information discussed in this report is from a single site, replicated demonstration. This information piece is designed to report the results of this demonstration and is not intended to infer any confirmed trends. Please use this information accordingly.

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