



On-Farm Research Report

2018-05

Battle Park Farm
Culpeper Co VA
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The following are corn yield results from the Battle Park Farm nitrogen test conducted by Mr. Don Meek and the Inskeeps and coordinated by Mr. Carl Stafford. Nitrogen was applied at 40, 80, and 120 lb N/acre in strips at planting. Corn was no-till planted.

Soil at 0-4" depth was collected prior to the experiment on Rapidan silty clay loam (Fine, mixed, semiactive, mesic Typic Hapludults). Soil-test biological activity (STBA) was determined as 100 mg CO₂-C kg⁻¹ soil 3 d⁻¹. Based on previous research in North Carolina and surrounding states, this soil-test value would translate into ~32 lb N/acre supplied via mineralization of organic matter.

Corn grain yield was determined from hand harvest of a 12' 9" row length in the western, middle, and eastern thirds of the field. Estimates were obtained from every 6th row across the field (NNW to SSE). ~20-25 ears were contained in each bag collected. Grain was shelled, dried in oven at 65 °C for several days, and yield estimated with adjustment to 15.5% moisture.

Results averaged over sections of field

N rate (lb N/acre)	Yield (bu/acre)
40	118
80	112
120	106
Average	112

Results by sections of field

N rate (lb N/acre)	Section of field		
	West	Middle (knoll)	East
40	120	104	129
80	121	107	109
120	105	93	120
Average	115	101	121

Results by individual strips in field (north to south)

N rate (lb N/acre)	Yield (bu/acre)
120	121
40	168
80	147
40	122
120	83
40	63
80	78
120	122
Average	112