Impact of QuickRoots® on Corn

Study ID: 0085141201805
County: Platte
Soil Type: Janude fine sandy loam 0-1% slope; Lawet silt loam occasionally flooded
Planting Date: 4/30/18
Harvest Date: 10/3/18 and 10/4/18
Population: 34,680
Row Spacing (in): 30
Hybrid: Dekalb® DKC 60-88
Reps: 15
Previous Crop: Soybean
Tillage: No-Till
Herbicides: ***Pre:*** 2 qt/ac Degree Extra®, 40 oz/ac Roundup®, and 6 oz/ac Sterling Blue® in mid-May
Post: 56 oz/ac Halex®, 1 pt/ac Atrazine, and 16 oz/ac Roundup® in mid-June

Seed Treatment: Acceleron® Basic 500
Fertilizer: 100 lb/ac MicroEssentials® SZ™ 12-4-0-10S-1ZN; 130 lb/ac N from sidedress UAN 32%
Irrigation: Pivot, Total: 5”
Rainfall (in):

Introduction: The objective of this study was to evaluate Acceleron® QuickRoots® microbial seed inoculant on corn. The product was applied to the seed at a rate of 16 grams per unit of seed. The minimum guaranteed analysis is at right.

QuickRoots® WP
Corn Multi-Crop Inoculant

Microbial seed inoculant for improving nutrient availability for increased yield potential.

MINIMUM GUARANTEED ANALYSIS
ACTIVE: 3.1 x 10^8 viable cfu/g *Bacillus amyloliquefaciens*
7.4 x 10^7 cfu/g *Trichoderma virens*
INERT: wettable powder, 79%

NONPLANT FOOD INGREDIENT
Not a fertilizer substitute

Product information from: http://www.acceleronsas.com/Documents/Labels/114018S5-87_QuickRootsWPCornMC_Specimen_Post.pdf

Results:

	Moisture (%)	Yield† (bu/ac)	Marginal Net Return‡ ($/ac)
Check	18.77 B*	267 A	861.32 A
QuickRoots®	18.84 A	266 A	852.27 B
P-Value	0.051	0.403	0.009

*Values with the same letter are not significantly different at a 90% confidence level.
†Yield values are from cleaned yield monitor data. Bushels per acre corrected to 15.5% moisture.
‡Marginal net return based on $3.23/bu corn and $15/unit of corn for QuickRoots (resulting in cost of $6.50/ac at a planting rate of 34,680 seed/ac).

Summary:

- Grain moisture was higher for QuickRoots® than for the untreated check.
- There was no difference in yield between the two treatments.
- The QuickRoots® treatment had a lower net return due to the increased cost of production.

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In Partnership with: Nebraska Corn Board; Nebraska Soybean Checkoff; Nebraska Corn Growers Association; Nebraska Dry Bean Commission