



Field Trial Report

2012 Plant Stress Input Study

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Field Information

Location: Southeast Research and Extension Center, Landisville

Field Name: X

Acres: 5

2011 Crop: Corn

Tillage: No-till

Planting Date: 4/26/2012

Variety: Pioneer 93M11

Seed Treatment: Trilex/Gaucho (all) Planter: JD 1250 Drill

Planting Depth: 1 inch

Seeding Rate: 180,000

Herbicide: Glyphosate/Canopy f/b Glyphosate/Dakota

Harvest Date: 10/09/2012

Combine: 15 foot JD

Design: Randomized Complete Block

Replications: 4



Treatments

1. Untreated (Trilex/Gaucho) plus Cell Tech 2.1 oz/50lb
2. Optimize 400 on seed 2.5 oz/100lb of seed
3. Ratchet 4 oz/acre V6-late R1 plus Cell Tech 2.1 oz/50lb
4. Optimize 400 2.5 oz/100lb of seed f/b Ratchet V6-R1
5. Bio Forge ST 4 oz/100lb of seed plus Cell Tech 2.1 oz/50lb
6. Bio Forge 1 pint/acre R1 plus Cell Tech 2.1 oz/50lb
7. Tag Team 2.8 oz/100lb of seed
8. Tag Team 2.8 oz/100lb f/b Ratchet 6/14/2012 4 oz/acre

Results

	Yield	Moisture	Plant N	Height	Plant pop.
	Bu/ac	%	%	in.	Plants/acre
Untreated Cell Tech	65.5	15.9	5.7	24.3	108900
Optimize 400	67.1	15.9	5.8	26.2	109626
Cell Tech f/b Ratchet	64.3	16.0	5.9	25.3	107206
Optimize 400 f/b Ratchet	65.0	15.4	5.6	25.3	100430
Cell Tech +Bio Forge ST	62.5	15.7	5.8	24.5	94380
Cell Tech f/b Bio Forge @ R1	66.6	15.1	5.7	23.8	116644
Cell Tech+ Bio Forge ST f/b Bioforge @ R1	64.6	15.3	6.1	24.0	96558
Tag Team	64.4	15.4	5.4	25.7	107690
Tag Team f/b Ratchet	64.8	15.4	5.7	26.2	93896
Significance	ns	ns	P=0.10	ns	ns
CV	4.3	4.0	5.3	15	15
LSD	-	-	0.3	-	-

Comments

There is interest in the use of growth regulators such as Optimize, Ratchet, Tag Team and Bioforge used in this study to enhance soybean growth and yields. This field experienced some drought stress in June and then had reasonably good conditions for growth in late July and August. Populations may have been reduced in some treatments due to excessive seed treatment application and may have reduced flow through the drill. We were unable to detect any significant differences among treatments in this study for yield, moisture or plant height, despite having a relatively low CV for yield. Plant N was increased for one of the Bioforge treatments compared to the check.