

Soybean Response to Selected Foliar Inputs, Carrington

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An irrigated field trial was conducted at the NDSU Carrington Research Extension Center to examine the performance of soybean with selected foliar inputs. Experimental design was a randomized complete block with six replications. A fall 2013 soil test indicated 17 ppm P (Olsen), 44 lb/A sulfur (0-24" depth), 3.5% organic matter and 5.6% pH (0-6" depth). Previous crop was soybean. Dairyland Seed 'DSR0404' Roundup Ready soybean was planted in 22-inch rows at 200,000 seeds/A on June 5. Treatments included Ascend growth promoter (Winfield), MAX-IN Ultra ZMB fertilizer (Winfield; 3.6% S, 0.1% B, 3.0% Mn and 4.0% Zn) and Priaxor fungicide (BASF). The foliar treatments were applied on July 30 at R1-2 (flowering) soybean stages with a hand-boom plot sprayer with 8001 flat-fan nozzles delivering 14 gpa at 35 psi. Seed was harvested with a plot combine on October 14.

Time from planting to physiological maturity increased 1 to 2 days with the foliar inputs compared to the untreated check (Table). Seed yield statistically was similar among treatments although yield tended to increase with the foliar fertilizer and 3-input combination compared to the untreated check. Seed size increased slightly with the foliar fungicide and 3-input combination.

Table.

Number	Treatment		Physiological Maturity Jday	Seed				
	Product	Product rate fl oz/acre		Test		Number /lb	Oil %	Protein %
				Yield bu/A	Weight lb/bu			
1	untreated check	X	272	44.8	57.2	3475	14.0	34.9
2	Ascend	4.5	273	41.3	57.4	3415	14.0	35.1
3	MAX-IN Ultra ZMB	32	273	47.6	57.3	3465	14.1	34.9
4	Priaxor + NIS	4 + 0.25%	274	44.6	57.1	3310	14.1	34.8
5	Ascend + MAX-IN Ultra ZMB + Priaxor + NIS	4.5 + 32 + 4 + 0.25%	274	47.2	57.2	3355	14.1	34.9
C.V. %			0.3	9.8	0.4	2.4	1.7	1.1
LSD (0.10)			1	NS	NS	80	NS	NS