

Soybean Response to POST Sulfur, Cathay, 2009

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The trial was conducted to measure soybean response to POST sulfur in a commercial field exhibiting light-green color and general lack of vigor. The reduced-till 'P90Y20' soybean were grown on previous corn ground on the Richard Lies farm. Plant tissue analysis indicated N at 2.1% (deficient) and S at 0.14% (low), while other nutrients were sufficient except Cu (low). POST treatments were applied using a CO₂ -pressurized hand-bloom sprayer delivering 21 gal/A at 30 psi with 8002 flat-fan nozzles (foliar treatments) or TeeJet SJ3-015 stream nozzles (UAN). Treatments were applied on August 11 at 82° F, 46% relative humidity, clear skies, and moist soil surface to R4 stage soybean. Plant color was visually evaluated on August 28 at the R5 growth stage using the scale: 0 = yellow, 9 = dark green. The trial was harvested with a plot combine on November 3.

Plant color, and seed yield and quality were similar among treatments including the untreated check (Table).

Table. Soybean Response to POST Sulfur.

Fertilizer		Plant Color	Yield	Test Weight	Protein	Oil
Source ¹	Rate/A	(0-9)	bu/A	lb/bu	%	%
untreated check	x	4	18.5	56.2	27.2	22.3
UAN	1.4 gal	4	17.5	56.4	27.2	22.4
AMS	5 gal	6	19.6	56.3	28.1	22.4
ZNS	32 fl oz	4	19.0	56.7	27.4	22.5
ZNS	64 fl oz	4	16.7	56.4	26.4	22.4
C.V. (%)		24.2	15.6	0.7	5.6	1.8
LSD (0.05)		NS				

¹AMS = Cornbelt Amstik; ZNS = 9.5% N, 10% Zn, 4% S chelate (NWC, Emerado, ND).