

PLANT NUTRIENTS

AdvanSix Sulf-N® Ammonium Sulfate

The Sulfur Advantage in Bromegrass

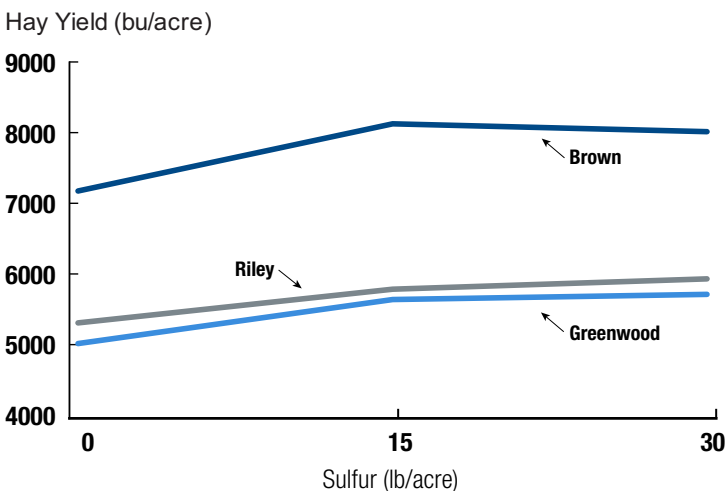
Objective

Evaluate the effects of sulfur (S) rates and sources — ammonium thiosulfate (ATS) and ammonium sulfate (as Sulf-N®) — on forage production and quality of smooth bromegrass.

Results

Sulfur Source	S Rate	Riley Co. (5-year avg.)			Brown Co. (1 year)			Greenwood Co. (3-year avg.)		
		Yield (lb/acre)	Protein (%)	Sulfur (%)	Yield (lb/acre)	Protein (%)	Sulfur (%)	Yield (lb/acre)	Forage N (%)	Forage S (%)
	0	5360	10.0	0.05	7150	8.9	0.07	5080	1.20	0.05
ATS	15	5840	10.3	0.09	8060	8.8	0.07	5760	1.09	0.07
ATS	30	5880	10.6	0.10	7790	9.6	0.08	5530	1.11	0.07
Sulf-N®	15	5820	10.6	0.09	8070	9.2	0.07	5660	1.16	0.06
Sulf-N®	30	5960	10.8	0.11	7970	8.4	0.09	5730	1.19	0.07

The Sulf-N® Advantage



Source: R. E. Lamond and D. A. Whitney, Kansas State Univ., 1991 Annual Kansas State Research Report

Methods

- Nitrogen (N) was balanced at 120 pounds of N per acre (N/acre) using ammonium nitrate during February each year.
- All fertilizer treatments were surface broadcast.
- Field research was conducted from 1987-1991 at three locations in eastern Kansas.

Conclusions

- Sulfur fertilization consistently and significantly increased forage yields and forage S concentrations.
- Sulfur fertilization had little effect on forage protein levels.
- Averaged across nine site-years, S increased bromegrass forage yields by nearly 600 pounds per acre per year, with 15 pounds of S per acre (S/acre).
- Both ATS and AS performed equally well in increasing yields and raising tissue S content.
- Net hay value of the sulfur response to the grower is approximately \$21.75 per acre per year, assuming that hay sells at \$100 per ton (T), sulfur cost is \$0.55 per pound, and application is made with the N application:

$$(0.3 \text{ T/acre} \times \$100/\text{T}) - (15 \text{ lbs S/acre} \times \$0.55/\text{lb S}) = \$30/\text{acre} - \$8.25/\text{acre} = \$21.75/\text{acre/year}$$

Contact AdvanSix

To learn more about the benefits of Sulf-N® Ammonium Sulfate, visit AdvanSix.com or SulfN.com or call: **1-844-890-8949** (toll free, U.S./Can.) **+1-973-526-1800** (international)

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