Sulfammo as Nitrogen Source

Potato

OBJECTIVE

To compare the yield response in potato using Sulfammo as 50% recommended rate of N source with 50% from urea against 100% recommended rate of N from urea.

Site Location:
Coudersport, PA

Researcher:
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LABServices, Inc. (CRO)

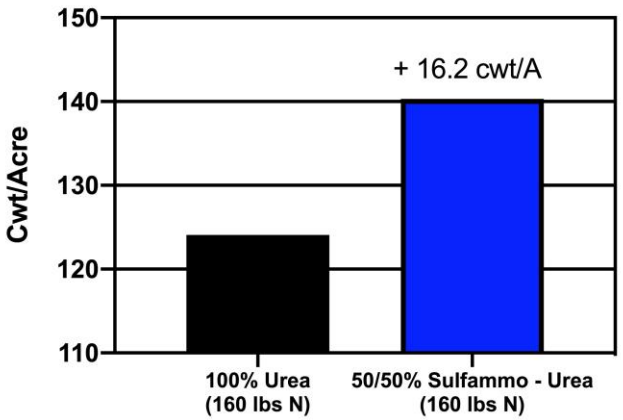
TIMAC AGRO PRODUCT

SULFAMMO
N-PROCESS

STUDY INFORMATION

Planting Date	14-June-2017
Harvest Date	10-Nov-2017
Variety	Lamoka
Population	18,000

Effect of Nitrogen Source on Potato Yield
(Coudersport, PA)



Graph: Sulfammo as 50% of recommended N source improved yield over 100% of N from urea alone by 16.2 cwt/acre. The Gross Revenue above was calculated at $9.00/cwt for potatoes with Sulfammo retail cost of $749/ton and urea at $400/ton.

KEY FINDINGS

+16.2 cwt/ac
with Sulfammo as 50% N source over 100% N from Urea

$80.89/ac
Return with Sulfammo as 50% N source over 100% N from Urea

APPLICATION

Treatment	Application Rate
Urea (100% N)	347 lbs, (160 lbs N)
Urea (50% N) + Sulfammo (50% N)	173 Lbs (80 lbs N), 266 lbs (80 lbs N)

Trial ID: DT-17-NE-POT-SM

MATERIALS AND METHODS

The potatoes were planted in four row blocks, with 34” x 10” spacing. The study was conducted with a randomized complete block design in plots measuring 11.5’ x 30’. The variety was a high quality late senescing chipper potato variety Lamoka sourced from Potter County, PA planted on June 14. The study was conducted on a grower’s farm with conventional tillage practices on a silt loam soil with a pH of 6.7. Sulfammo was blended with pre-plant P & K fertilizer according to soil samples and with N to match production goals. Fertilizer was incorporated in the randomized complete block design. All the plots were treated identical and well managed for disease. Plots were allowed to mature and harvested on November 10. Whole plots were harvested to calculate the lbs/acre. The results were analyzed using SAS using Proc GLM and significance was determined using a LSD test to make pair wise comparisons of the treatments at the 0.05 level of significance.

RESULTS AND DISCUSSION

The trials were initiated in south western Pennsylvania during a year with rainfalls measuring 6 inches above the 10-year average. Due to the wet weather and low emergence, the yields were lower than anticipated. There were no statistically significant yield responses observed in the trial but there was a numerical increase in the number of cwt per acre when Sulfammo was used as 50% of nitrogen source (added 16.2 cwt per acre). While this raised the overall cost of the pre-plant nitrogen fertilizer, the treatment still showed a return on investment of $80.89 per acre over 100% N supplied from urea. The Gross Revenue above was calculated at $9.00/cwt for potatoes with Sulfammo retail cost of $749/ton and urea at $400/ton.

RETURN ON INVESTMENT

Treatment	Yield (cwt/ac)	Gross Revenue @ $9.00/cwt	N Fertilizer Costs/ac	Gross minus Fertilizer $	Return Over 100% N from Urea/Acre
Urea, 347 Lbs (160 Lbs N)	124.1	$1,116.90	$69.40	$1,047.50	-
Urea, 173 Lbs + Sulfammo, 266 Lbs (160 Lbs N)	**140.3**	**$1,262.70**	**$134.31**	**$1,128.39**	**$80.89**

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