

Influence of Ammonium Sulfate and Ammonium Sulfate Nitrate in a Rotation of Potatoes, Winter Wheat  
Double Dropped Soybeans, Notill & StripTill Corn and Single Crop Soybeans  
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**Potato Treatments and Yields for 2009**

Treatment #	Fertilizer Materials Applied in Pounds/acre Preplant and @ Sidedress(Hilling)		Yields in lbs/a	
	Pre Plant	Sidedress before Hilling	StripTill	Notill
1.	200 lbs/a Calcium Nitrate(15-0-0-19) 217 lbs/a of Triple Super Phosphate 0-46-0 150 lbs/a of Muriate of Potash 0-0-60	160 lbs/a Calcium Nitrate(15-0-0-19) 50 lbs/a of Muriate of Potash(0-0-60)	21393	19070
2.	200 lbs/a Calcium Nitrate(15-0-0-19) 217 lbs/a of Triple Super Phosphate (0-46-0) 150 lbs/a of Murate of Potash (0-0-60) 148 lbs/a of Urea(46-0-0)	160 lbs/a Calcium Nitrate(15-0-0-19) 50 lbs/a of Murate of Potash(0-0-60) 126 lbs/a of Urea(46-0-0)	24369	25507
3.	200 lbs/a Calcium Nitrate(15-0-0-19) 217 lbs/a of Triple Super Phosphate (0-46-0) 150 lbs/a of Murate of Potash (0-0-60) 324 lbs/a of Ammonium Sulfate(21-0-0-24)	160 lbs/a Calcium Nitrate(15-0-0-19) 50 lbs/a of Murate of Potash (0-0-60) 126 lbs/a of Urea(46-0-0)	24999	26790
4	200 lbs/a Calcium Nitrate(15-0-0-19) 217 lbs/a of Triple Super Phosphate(0-46-0) 150 lbs/a of Murate of Potash(0-0-60) 200 lbs/a of Ammonium Sulfate(21-0-0-24) 57 lbs/a of Urea (46-0-0)	160 lbs/a Calcium Nitrate(15-0-0-19) 50 lbs/a of Murate of Potash (0-0-60) 40 lbs/a of Urea(46-0-0) <b>214 lbs/a of Ammonium Sulfate Nitrate (26-0-0-14)</b>	28266*	30540*

Tom and Mercedes, here are the potato results from the 2009 University of Maryland Vegetable Research Farm. There was a response to both AMS(21-0-0-24) and ANS(26-0-0-14) over Urea. However there was an even greater response from the ASN over the AMS used in treatment 3. I did make a mistake in the total N applied in treatment 4. I have 16 more total lbs N/a in treatment 4 than in treatments 2 and 3. Instead of 40 lbs/a of Urea at sidedress it was suppose to be 10 lbs/a. I don't think the additional 16 lbs/a of N would have contributed to such a large yield increase when comparing treatment 4 to either 3 or 2. The **Ammonium Sulfate Nitrate** must have made the larger difference.

I will get the corn data to you later today. Please call if you have any questions.

I hope we can repeat this study in 2010. *I propose that we make the change for 2010 to include Ammonium Sulfate Nitrate in treatment 4 for all the crops in this study.*

Ron