Excelis Maxx with Pre-Flood Urea

Rice

OBJECTIVE

To assess the yield response of adding Excelis Maxx nitrogen stabilizer (1 quart/ton) to 152 lbs of urea (70 lbs N) and 304 lbs of urea (140 lbs N) fertilizer application in rice 10 days before flood.

Site Location:
Crowley, LA

Researcher:
H. Rouse Caffey Rice Research Station
Louisiana State University

STUDY INFORMATION

Planting Date	2-Mar-2015
Harvest Date	3-Aug-2015
Variety	CL 111
Population	33 seeds/ft^2

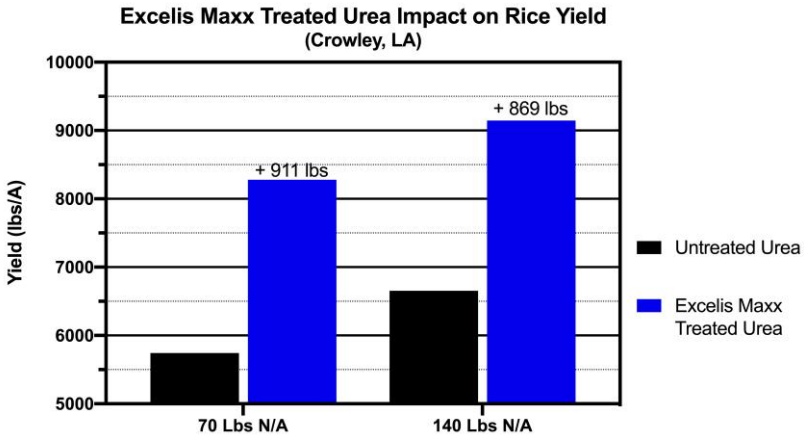
TIMAC AGRO PRODUCT

EXCELIS MAXX
RHIZOVIT-LCN

KEY FINDINGS

+911 lbs/ac
when Excelis Maxx applied with 70 Lbs N/Acre
ROI: **$109.31/ac**

+869 lbs/ac
when Excelis Maxx applied with 140 Lbs N/Acre
ROI: **$99.51/ac**



Graph: Excelis Maxx treated urea improved yield 911 and 869 lbs for main crop over untreated urea rates of 152 and 304 lbs, respectively. The Gross Revenue above was calculated at $12.50/cwt for rice with Excelis Maxx retail cost of $240/gallon.

APPLICATION

Treatment	Application Rate
Urea @ 70 lbs N/Acre	152 Lbs/A
Urea @ 70 lbs N/Acre treated w/ Excelis Maxx	152 Lbs/A + 1 Quart/Ton
Urea @ 140 lbs N/Acre	304 Lbs/A
Urea @ 140 lbs N/Acre treated w/ Excelis Maxx	304 Lbs/A + 1 Quart/ Ton

Trial ID: RT-15-DL-RIC-EM

MATERIALS AND METHODS

This study was conducted in a research station field with conventional tillage practices on a Crowley silt loam soil type. Recommended amounts of P & K fertilizer were applied at planting to address soil nutrient levels and soil pH was 7.57. The experimental design was a randomized complete block with 4 replications. Plots consisted of four 4.67 x 16 ft blocks, with row width at 8" and rows per plot at 7". Seeding population was 33 seeds/sq ft, and CL 111 was planted on March 20. Uniform seed treatments and IPM measures were used across both treatments. Water was managed with flush on April 1, flood on May 11 and drained on July 24. Pre-flood urea fertilizer application was applied May 1, 10 days before flood, at 70 and 140 lbs N/ac, respectively. Excelis Maxx was applied to fertilizer at labeled rate of 1 quart per ton of dry fertilizer, therefore using 2.4 oz/acre with 152 lbs of urea and 4.8 oz/acre with 304 lbs of urea. Plots were allowed to mature and harvested on August 3. Whole plots were harvested to calculate the lbs/acre on the main crop. For this trial, ratoon crop was not harvested. 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 CONCLUSIONS

Pre-flood urea treated with Excelis Maxx improved rice yield at 152 lbs of urea (70 lbs N) over untreated urea at same rate without a nitrogen stabilizer by 911 lbs/acre. This resulted in a ROI of $109.31/Acre. Excelis Maxx also improved rice yield at 304 lbs of urea ‡ (140 lbs N) over untreated urea at same rate without a nitrogen stabilizer by 869 lbs/acre. This resulted in a ROI of $99.51/acre.

RETURN ON INVESTMENT

Treatment	Main Crop Yield (lbs/ac)	Gross Revenue @ $12.50/cwt	Change from Control	Added Costs/ac	ROI
152 Lbs Urea (No Stabilizer)	5743	$717.88	-	$0.00	-
152 Lbs Urea treated w/ Excelis Maxx (1 Qt/Ton)	**6654**	**$831.75**	**$113.87**	**$4.56**	**$109.31**
304 Lbs Urea (No Stabilizer)	8278	$1,034.75	-	$0.00	-
304 Lbs Urea treated w/ Excelis Maxx (1 Qt/Ton)	**9147**	**$1,143.38**	**$108.63**	**$9.12**	**$99.51**

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3/17/2021