

University of Missouri Rice Trial 2011

Objective: To determine the effect of protocols featuring OceanSolution™ combined with different rates of nitrogen on rice yield, chemical composition, and taste.

Principal Investigator: Won Kyo Jung Ph.D.

Test Location: University of Missouri Delta Research Center

Methods: Experiments used Jupiter (medium grain) rice in Sharkey heavy clay soil, and plots were managed utilizing drill seeding, conventional flooding, combine-harvesting, and university recommended synthetic applications.

Results:

Yield-According to Dr. Jung, “Research showed that OceanSolution treatment increased rice yield by about 15% compared to control.”

Treatment	Yield (15% Moisture) Lbs/acre	Culm Length inch	Plant Height inch	Panicle Length inch	Spikelet number/ Panicle	Mature Rate %	Milling Yield %
Control	6,975	31	39	8	314	52	69
Ocean Grown	7,997	30	38	8	232	46	69

Chemical Composition- “OceanSolution treatment slightly lowered grain protein content, which is preferred by table rice consumers and processors.”

Taste- Dr. Jung says, “Consumer rice taste preference was performed using 4 different medium-grain rice samples including OceanSolution and N treatments at the University of Missouri. Target audience was Asian and frequent rice consumers. Total of 32 participants were involved in the test. A standard protocol of rice sensory test was applied. Generally, the lower N rate of the rice sample, the better the taste preference. Rice taste preference test results showed that the rice sample with the 50% reduced N rate with OceanSolution added was found to be the highest consumer taste approval.”

Conclusions: The 2011 rice trial indicates that OceanSolution protocols have the potential to increase yield, optimize protein content, and improve taste relative to standard N-based protocols.





December 26, 2011

OceanGrown,

I am writing this letter to submit the research report on my 2011 rice trial of OceanSolution. I tested OceanSolution and Nitrogen fertilizer rates at the University of Missouri Delta Research Center rice research farm. Jupiter (Medium grain rice) was selected for agronomic trial and consumer preference test. Rice plots have been managed drill seeding, conventional flooded, combine harvesting, and University recommended chemical applications. Research showed that OceanSolution treatment increased rice yield by about 15% compared to control. Continuing trials may provide statistical significance. The Highest rice yield was observed at the 75% of Nitrogen fertilization plot. OceanSolution treatment slightly lowered grain protein content, which is preferred by table rice consumers and processors. Consumer rice taste preference was performed using 4 different medium-grain rice samples including OceanSolution and N treatments at the University of Missouri. Target audience was Asian and frequent rice consuming people. Total of 32 participants were involved in the test. A standard protocol of rice sensory test was applied. Generally, the Lower N rate of the rice sample, the better the taste preference. Rice taste preference test results showed that the rice sample of 50% reduces N rate with OceanSolution treatment was found the highest consumer taste preference. Continuing trials and increasing participant number may provide statistical significance. I would be very happy to be contacted for any questions.

Thanks again for your support. I look forward to my continuing research with OceanSolution.

Sincerely,

Won Kyo Jung

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