

KREOTEC

Trial in Rice, Spain: Reduced Nitrogen Application

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STUDY DETAILS

Crop:	Rice
Country:	Spain
Year:	2018
Product(s):	Kreotec
Trial Type:	Demonstration



STUDY AIMS

Evaluate if Kreotec successfully replaces 47% of the rice crop's nitrogen requirements.

SPECIFICS

Specific Location:	Sollana, Albufera de Valencia
Specific Trial Dates:	7 May 2018 – 14 September 2018
Trial Manager:	Antonio José Bernabé García
Distributor:	Symborg
Irrigation:	Yes
Previous Crop:	Unspecified
Basal Fertiliser:	See Treatments
Kreotec Application Date:	29 June 2018
Application Growth Stage:	21-23 BBCH
Application Method:	Sulfation
Kreotec Application Rate:	450g/ha (2.2x10 ⁶ cfu/gr)
Water Rate:	250-350 litres/ha
Crop Variety:	Sirio
Previous Treatments	Unspecified

TREATMENTS

Treatment	<p>Control: Basal: 408kg/ha Urea (NPK 46-0-0) = 187kg N/ha Top Dress: 175kg/ha Urea (NPK 46-0-0) = 80.5kg N/ha Total applied N = 267.5kg/ha</p>
	<p>Kreotec: Basal: 207kg/ha Urea (NPK 46-0-0) = 95kg N/ha Top Dress: 103kg ha Urea (NPK 46-0-0) = 47kg N/ha + Kreotec Total applied N = 142kg/ha</p> <p>Total N Reduction = 47%</p>

RESULTS

Harvest Date:	14 September 2018
Harvest Method:	Combine Harvester

Figure 1: SPAD measurements

SPAD - Leaf Chlorophyll Levels
 (indicating plant nutritional status),
 1 month post application

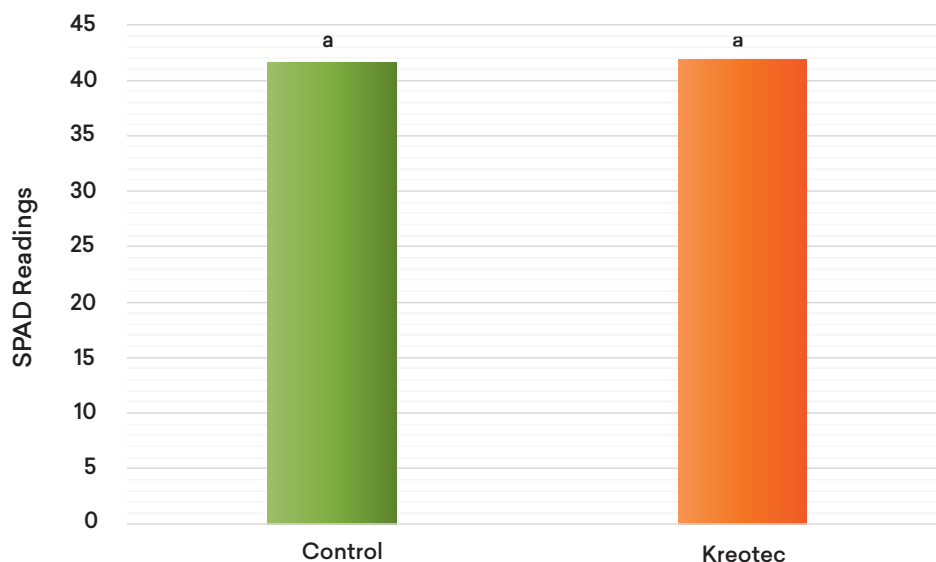
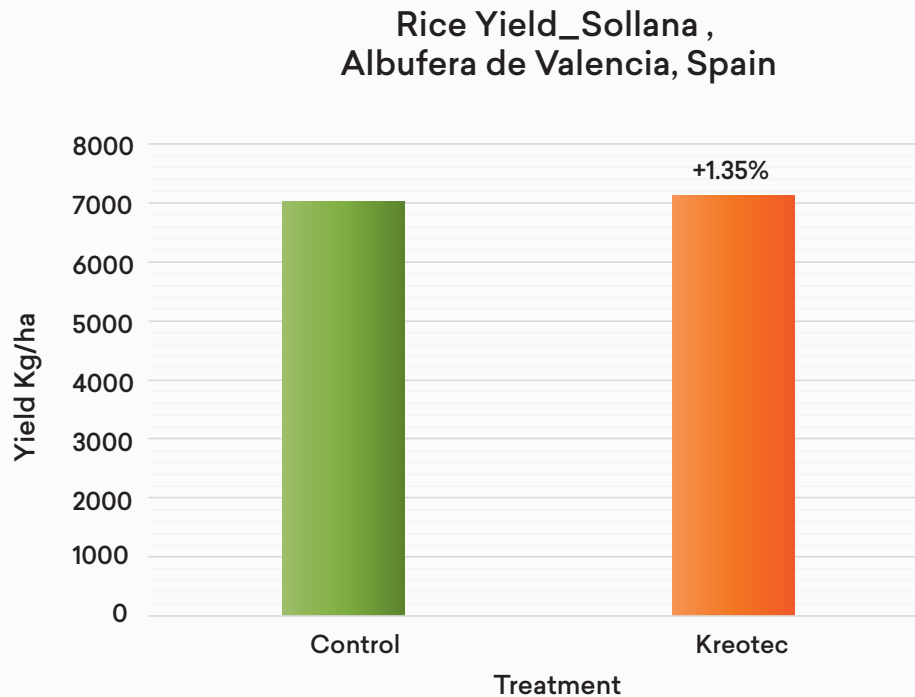


Figure 2: Yield



KEY FINDINGS

- Kreotec successfully inoculated the plant with the microbes which persisted throughout the growing period. Kreotec maintained a level of SPAD (Chlorophyll), plant health and plant canopy density equal to the control (conventional fertilization).
- **Harvested yields between treatments were very similar. Using Kreotec saved 47% total applied nitrogen.**

Additional information in relation to this trial is available by contacting Thinkbio

Thinkbio would like to acknowledge the work undertaken by Antonio José Bernabé García