

KREOTEC

Trial in corn, Spain: Reduced Nitrogen Application

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STUDY DETAILS

Crop:	Short Cycle Corn
Country:	Spain
Year:	2018
Product(s):	Kreotec
Trial Type:	Demonstration



STUDY AIMS

Evaluate if Kreotec could successfully replace 32% of the short season corn crops nitrogen requirements.

TREATMENTS

Treatments:	Control: Basal: 700kg/ha (NPK 8-14-14) = 56kg N/ha Top Dress: 550kg/ha Nitronova (NPK 40-0-0) = 220kg N/ha Total Applied N = 276kg/ha
	Kreotec: Basal: 700kg/ha (NPK 8-14-14) = 56kg N/ha Top Dress: 330kg/ha Nitronova (NPK 40-0-0) = 132kg N/ha Total Applied N = 188kg/ha
	Total N Reduction = 32%

SPECIFICS

Specific Location:	Huesca
Specific Trial Dates:	30 June 2018 – 15 December 2018
Trial Manager:	Antonio José Bernabé García
Distributor:	Symborg
Irrigation:	Unspecified
Previous Crop:	Unspecified
Basal Fertiliser:	See treatments
Kreotec Application Date:	20 July 2018
Application Growth Stage:	16 BBCH
Application Method:	Sulfation
Kreotec Application Rate:	450g/ha (2.2x10 ⁶ cfu/gr)
Water Rate:	250-350 litres/ha
Crop Variety:	DKC5032YG
Previous Treatments	Unspecified

RESULTS

Harvest Details

Harvest Date:	15 December 2018
Harvest Method:	Combine Harvester

Figure 1: SPAD measurements

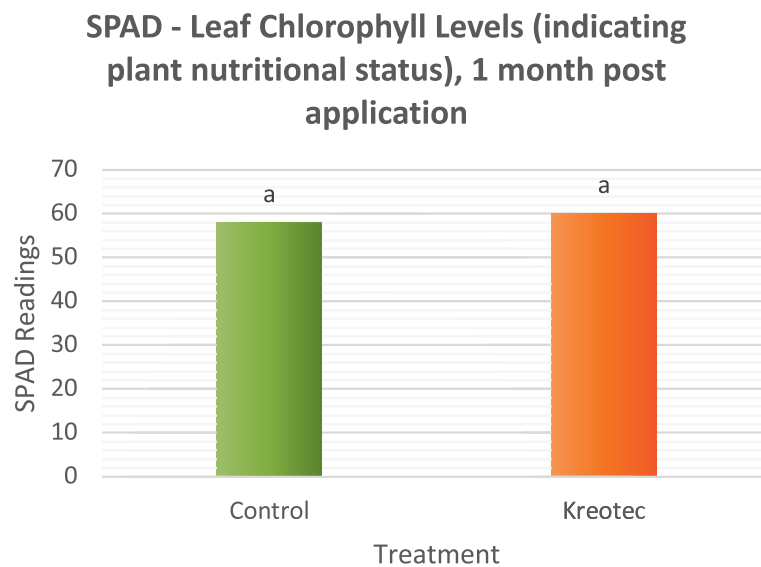
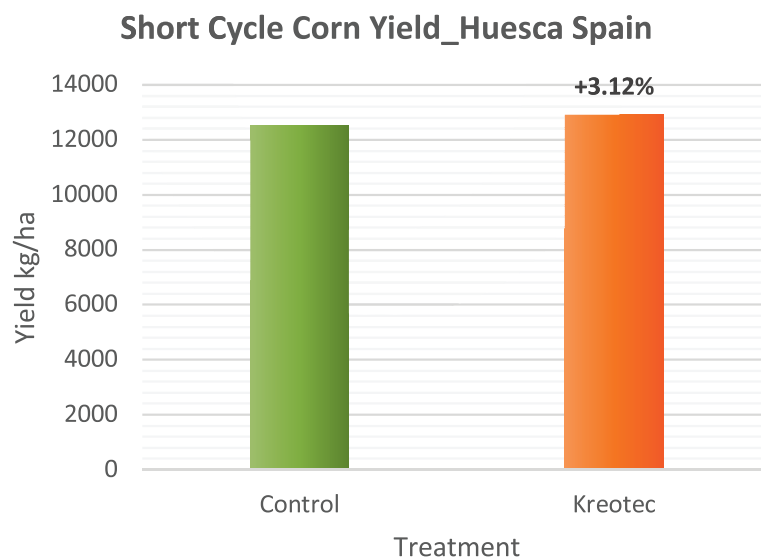


Figure 2: Yield



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)
- A yield reduction of 6.5% was experienced with the use of Kreotec in this trial, however there was a saving of 40% total applied nitrogen. As the trial was not replicated it is possible that this yield reduction was due to in-field variation and may be within statistical error values

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