

KREOTEC

Trial in Maize, Turkey: Yield Increase

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STUDY DETAILS

Crop:	Corn
Country:	Turkey
Year:	2020
Product(s):	Kreotec & Kreostim
Trial Type:	Replicated



STUDY AIMS

Determine if the addition of Kreotec and Kreotec plus Kreostim can increase yields when applied in addition to the standard fertiliser program.

TREATMENTS

Treatments:	<ul style="list-style-type: none"> Nil Fertiliser Standard Fertiliser Only Standard Fertiliser + 250g/ha Kreotec Standard Fertiliser + 250g/ha Kreotec + 250g/ha Kreostim
Standard Fertiliser:	Organic Manure Fertiliser 3000kg/ha (NPK 7-2-6)
Kreotec Application Date:	Not Specified
Application Growth Stage:	V6

SPECIFICS

Specific Location:	Bafra Trial Station
Specific Trial Dates:	May – October 2020
Trial Manager:	Black Sea Agricultural Research Institute
Distributor:	Obenbio Organic Agriculture and Industry Company
Irrigation:	Irrigated
Previous Crop:	Not Specified
Application Method:	Calibrated Rechargeable Knapsack Sprayer
Kreotec Application Rate:	250g/ha
Kreostim Application Rate:	250g/ha
Water Rate:	Not Specified
Crop Variety:	Gin Corn
Previous Treatments	Not specified

SOIL TEST RESULTS

Table 1:

Average content of Micro and Macro nutrients in soil (pre-application and post-harvest soil)

	Basal + Kreotec		Basal + Kreotec + Kreostim		No Fertiliser (Control)	
	Pre	Post	Pre	Post	Pre	Post
pH	7.71	7.76	7.70	7.90	7.79	7.69
Lime (%)	5.79	4.68	6.64	5.16	6.56	6.03
Ec	0.04	0.084	0.059	0.053	0.036	0.045
Phosphorus (kg/ha)	87.9	109.3	76.0	106.4	62.6	62.8
Potassium (kg/ha)	1610	1130	1910	1090	157	1100
Organic Matter (%)	2.22	2.69	2.17	2.48	2.03	2.44
Ca (%)	0.6006	0.8240	0.6055	0.7780	0.6006	0.8040
Mg (%)	0.1160	0.0780	0.1148	0.0880	0.1160	0.0800
Fe (ppm)	10.5	39.27	10.32	29.3	10.5	23.3
Cu (ppm)	2.39	6.24	2.42	5.07	2.39	4.62
Zn (ppm)	0.42	1.25	0.3	0.87	0.42	0.59
Mn (ppm)	4.53	10.8	4.86	10.42	4.53	8.26
%N	0.16	0.185	0.175	0.199	0.153	0.164

RESULTS

Harvest Date:	20th October 2020
Harvest Method:	Hand

FIGURE 1: CORN YIELD KG/HA

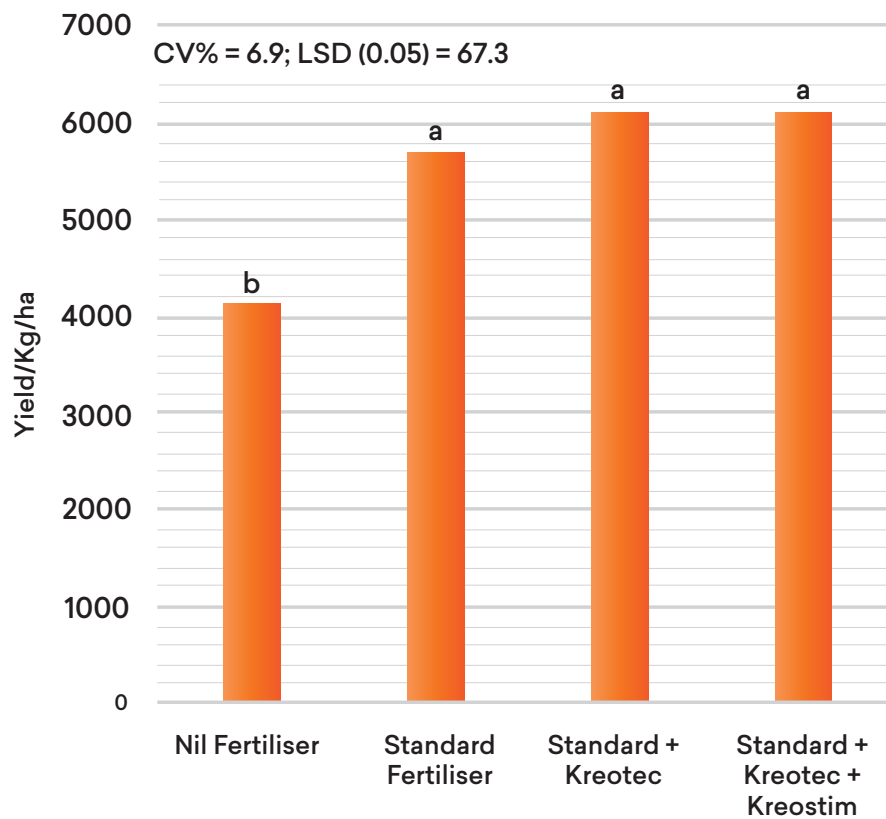


Table 2: Average content of Micro and Macro nutrients in plants after treatment application

TREATMENT	K (%)	Ca (%)	Mg (%)	P (%)	N (%)	Fe (ppm)	Cu (ppm)	Zn (ppm)	Mn (ppm)
Standard + Kreotec	1.49	0.61	0.20	0.22	2.21	72.81	3.85	20.82	31.92
Standard + Kreotec + Kreostim	1.49	0.53	0.19	0.21	2.53	71.99	4.24	22.09	32.73
Standard	1.51	0.57	0.21	0.21	2.50	65.40	3.91	23.40	33.07
Nil	1.37	0.58	0.17	0.20	2.45	69.91	3.70	20.78	30.13

KEY FINDINGS

- The yield data shows a statistically significant yield increase for all treatments which applied the standard fertiliser compared to the nil fertiliser control.
- Whilst not statistically significant the yield data shows a trend for increased yield with the addition of Kreotec over the standard fertiliser treatment.
- The addition of Kreostim appears to have had little impact on yield.

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

Thinkbio would like to acknowledge the work undertaken by the Black Sea Agricultural Research Institute on behalf of Obenbio Organic Agriculture and Industry Company