

Effects of Metalosate® Multimineral on Yield and Tuber Size on Lady Crystal Potatoes in Egypt

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Introduction

A field trial on Lady Crystal Potatoes took place at Daltex farm in Egypt. Daltex grows table potatoes for export to Europe. These potatoes are grown for use on the fresh market. This study compared yield and tuber size differences on Lady Crystal potatoes between two plots, one treated with Metalosate® Multimineral applied as a foliar spray, with the other plot receiving the grower's standard practice. This field trial took place on a crop planted in sandy soil. These soils

have a pH of 8.0 or greater with very low organic matter and micronutrient content.

Materials and Methods

One pivot with an area of 110.0 acres (42 Ha) was selected for the trial. Half of the field (52 acres, 21.0 Ha) was treated and the other half was left untreated as the control. Both the treated and control sides received similar fertilizer and plant protection programs. The treated side received Metalosate® Multimineral applied through the irrigation system to the foliage as the source of micronutrients. The control side received the farm's usual source of micronutrients. The potatoes were planted on October 24, 2004. Applications were made on November 20, 2004 (26 days) and again on December 14, 2004 (50 days). Each application rate was 16 oz/acre (1.2 liters/Ha). Sampling was done by randomly selecting 19 rows in each side of the field and then


digging 3.3 feet (1 meter) of each row. The tubers harvested from each plot were counted and weighed. Estimates of yield per acre (Ha) were then calculated.

Results

Table 1 shows the estimated yields for the growers' standard side compared to the Metalosate® Multimineral side of the field. The results show an increase in yield on the treated side of 27.9% over the control. The increase in yield in the treated side comes from an increase in the number of large tubers.

Table 1. Calculated Potato Yield

Treatment	Calculated Yield
Grower's Standard	11.69 Tons/acre 26.51 Metric tons/Ha
Metalosate® Multimineral	14.96 Tons/acre 33.90 Metric tons/Ha

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Collecting Yield Data from One of the Potato Test Plots

