

EFFECT OF CALCIUM NITRATE FERTILIZATION ON YIELD AND SOME QUALITY ATTRIBUTES OF POTATOES

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ABSTRACT

This study was conducted to determine the effect of $\text{Ca}(\text{NO}_3)_2$ fertilization on the yield and quality traits of potatoes at Ödemiş, İzmir. Asonia, a medium late variety, was grown in Randomized Complete Block Design with four replications. 0-10-20-30 kg/da $\text{Ca}(\text{NO}_3)_2$ (0-2.65-5.30-7.95 kg CaO/da) were applied to the plots. Additionally 25 kg N/da, 15 kg P_2O_5 /da and 35 kg K_2O /da were applied to all blocks.

There was a linear increase in accordance with Ca levels in the yield at 7.69, 15.08 and 29.25 % levels respectively, compared to the control plots. Calcium applications resulted in a marked increase in the starch and dry matter contents of the tubers while reducing sugar and calcium contents declined with increasing levels of calcium. The potato chip quality varied significantly among the treatments and it was positively affected by the calcium applications. The Ca applications had no significant effect on the N,P,K and Mg contents of the tubers.