



Foliar applied potassium nitrate outperformed other K sources in terms of maize grain yield

A pot experiment in Thailand was conducted to find the most effective K-salt for foliar K-fertilization of maize plants (

*Zea mays*

L.) grown with sufficient K-supply to the soil. Glazed clay pots were filled with 23-25 kg soil (air dry), that had been classified as Pakchong series. Different treatment ratios were used to apply equal K concentration of 0,52%. Treatments were: control (no foliar), 1% KCl, 1,4% KNO<sub>3</sub>, 1,2% K<sub>2</sub>SO<sub>4</sub>, 1,8% KH<sub>2</sub>PO<sub>4</sub> and 1,2% K<sub>2</sub>HPO<sub>4</sub>. Sprays were applied on the third day after 50% tasselling (50% of tassels, male flowers, visible). Results showed that only the potassium nitrate spray caused a statistically significant increase in grain yield of 47% compared to the control.

In another pot experiment, maize was sprayed with different potassium nitrate concentrations, ranging from 0,5% to 5% KNO<sub>3</sub>. Maximum maize grain yield was obtained with 2,5% KNO<sub>3</sub> spray concentration, which resulted in 36% grain yield increase in comparison to the untreated control plot.