

KINETICS AND TRANSLOCATION OF PHOSPHORUS UPTAKE IN MAIZE HYBRIDS SUBMITTED TO DIFFERENTS PHOSPHORUS LEVELS. V. M. C. ALVES¹, R. F. NOVAIS², M. F. G. OLIVEIRA² and R. SANT'ANNA², ¹EMBRAPA/CNPMS, P. O. BOX 151, CEP 35.701-970, Sete Lagoas, MG, ²Universidade Federal de Viçosa, CEP 36.571-000, Viçosa, MG.

The objective of this work was to study the P absorption and P translocation in maize hybrids, grown under two P levels. Plants of three maize hibrids grown in nutrient solution with 0.02 mM and 0,10 mM of P, were tested in a P depletion experiment and a P translocation experiment. The kinetic parameters (Imax, Km and Cmin), P content, the weight of xylem exudate and the P translocation were evaluated. The P reduction in nutrient solution increased Imax without changes in Km e Cmin. Phosphate starvation decreased the weight and the P content in xylem exudate and decreased P transport from the roots to the shoots in all hybrids. The hybrid H1 (BR 201) had a higher net influx rate, Imax and P content in xylem exudate at low P level when compared to the other hybryds.

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