

Thesis Title Chemical Application for Drought Resistance
 in Arabica Coffee

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ABSTRACT

Three chemicals, i.e. ZnSO_4 , KNO_3 and Adenine were applied on Arabica coffee (Catimor 1662) to increase drought resistance. The chemicals were sprayed to coffee trees after they had been exposed to complete water stress for 5 months. It was found that coffee trees sprayed with ZnSO_4 , KNO_3 and Adenine at a concentration of 0.2, 7 and 0.01% respectively had higher growth rates, both in terms of plant height and stem diameter, than those sprayed with distilled water. Furthermore, the chemicals had induced higher stomatal conductance, leaf water potential and chlorophyll content in the leaves. Nevertheless, proline content in the leaf showed no significant difference between control and chemical treatments.