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# Application of the arbuscular mycorrhizal fungi inoculant, organic and NPK fertilizers on the growth and yields of maize (*Zea mays* L.)

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## Abstract

The objective of this study was to examine the effect of Arbuscular Mycorrhizal Fungi (AMF) inoculant, NPK fertilizer, and organic fertilizers (chicken manure) on maize growth and yield. This study used a completely randomized design (CRD), with 8 fertilizer treatments, namely (1) control or without any fertilizer, (2) inoculation of AMF, (3) NPK fertilizer, (4) chicken manure (CM), (5) FMA + NPK, (6) FMA + CM, (7) NPK + CM and (8) FMA + NPK + CM. Each treatment was repeated 3 times. The results indicated that the fertilization treatment showed a significant and very significant effect for all variables, namely plant height, leaf number, fresh leaf weight, plant fresh weight per plant and per

plot, ear diameter with and without husks, cob number per plot, ear weight per plant and per plot and ear weight without husk per plant and per plot, and ears number per plant. The application of AMF + NPK + CM and NPK + CM fertilizers produced the highest maize growth and yields, while each of the AMF and control treatments produced the lowest growth and yield components.

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