

TOMATO PRUDICTIVITY UNDER INTEGRATED ACTIVATION SYSTEM. 2 . EFFECT OF PHOSPHATE , ORGANIC FERTILIZATION AND BIOFERTILIZER ON QUALITY SPECIFICATIONS FOR TOMATO FRUIT AND PHOSPHAT CONCENTRATION IN LEAVES .

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ABSTRACT

A field experiment was conducted on vegetable field - Horticulture department – College of Agriculture -Abu Graib , Tomato (Hybrid Jenan) cultivated in spring season of 2012 , phosphate fertilizer was added from TSP source on four levels (0,40,80 and 120 Kg P.ha⁻¹) ,three levels (0 , 6 and 12 Ton .ha⁻¹) from organic matter (ground corn cobs composting) and two levels from biofertilizer ,Mycorrhizae source (*G. mossea*) (without or with), All fertilizers was added in soil mixture , A factorial experiment with randomize completely blocks design with three replicates and twenty four treatments .The experimental results showed A high significant with a high levels from phosphate and organic fertilization with inoculation on fruit quality (percentage of total soluble solids and Ascorbic acid or vitamin C) and phosphate concentration on tomato leaves during three growth periods ,The best level was 80 Kg P.h⁻¹ and 6 Ton .h⁻¹ with mycorrhizae inoculation which gave increase on fruit quality was (34.64 and 33.76) % to above fruit quality respectively . The same level gave increase in phosphorus concentration for three growth periods up to 19.05% , 15.79% and 13.64% respectively compared with control .

Keywords: phosphate fertilization , organic fertilization , mycorrhizae, percentage of total soluble solids, vitamin C , phosphorus concentration ,tomato plant .