

EFFECT OF ORGANIC FERTILIZER LEVELS AND WATER STRESS ON SOME SOIL PROPERTIES.

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ABSTRACT

An experiment was conducted at Horticulture Department Field – Agriculture College – Baghdad university , at silt clay loam soil to study the effect of the decomposed organic fertilizer levels (cow ,sheep ,poultry) manures at percent of (1:1:1:) at levels (0 , 5 and 10) % of furrow size.(M0 ,M1 and M2) ,and water stress (550,450 and 350)mm of potato requirement of water ,(S1 ,S2, and S3). on aggregate stability and bulk density at maturing stage of potato and on electrical conductivity and soil reaction (pH) ,at tuber initial and maturing stage of potato . Randomized Complete Block Design was used at three replicates ,potato tubers were sown on 18 December 2012 . Results showed that organic fertilizer levels , water stress levels and their interactions increased aggregate stability and decreased bulk density significantly at the end of season . All organic fertilizer levels and water stress levels and their interactions increased electrical conductivity significantly at the two stages of plant growth . while these factors decreased soil reaction (pH) at the two stage of plant growth.

Keywords : organic matter ,water stress, Chemical physical properties, potato .

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