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EFFECTOFINCUBATIONTIMONBIOLOGICALOXIDATIONFORAGRICULTURALSULFURINSOME CHEMICALPROPERTIESFORSILTYCLAYSOIL

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ABSTRACT

Anexperiment was carried out under laboratory condition using completely randomized design to study the effect of incubation time of agricultural sulfur biological oxidation. The sulfur was applied to silt clay soil with three levels: 0,1 and 2 gm S kg^{-1} dry soil, and incubated for 15,30 and 45 days at 28 $\pm$ 2C° kept at 60$\pm$2% of the W.H.C than some soil chemical properties were evaluated.

The results showed a significant effect for sulfur application on the soil properties, mainly at level 2gm Skg^{-1} soil, which decreased soil pH and increased soil EC, sulfate and available phosphorus concentrations in the soil. The incubation period also showeda significant effect on reducing soil pH,the minimum value was recorded after 30 days incubation, while highest values for EC, sulfates and available phosphorus content were found after 45 days of incubation.

Key Words: Agricultural sulfur: sulfur application level: sulfur incubation time: silt clay soil.