

EFFECT OF PATTERN OF AGRICULTURE AND AM FUNGI AND ORGANIC MATTER IN GROWTH OF SORGHUM AND MILLET AT DIFFERENT SALINITY LEVELS.

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ABSTRACT

Pots experiment was carried out to study the role of mycorrhiza and organic matter and the pattern of agriculture on growth of the sorghum and millet at different salinity levels. The results showed a difference in the average of dry weights of sorghum and millet with the significant superiority of the pattern of bilateral agriculture.

Add Mycorrhiza led to a significant increase in dry weight by 38.6%, While the addition of organic matter increased the dry weight of 44.3%. It turns out that the highest value of the dry weights were for the treatment of bilateral pattern of agriculture at the treatment of each Mycorrhiza and organic matter at the level of salinity 8.0 dS.m^{-1} was $83.03 \text{ g. Pot}^{-1}$ while the lowest value of the plant dry weights of millet was in treatment of no added of both organic matter and mycorrhiza when the salinity level of 24.0 dS.m^{-1} and amounted to 5.93 g.Pot^{-1} .

The results show a low rate of infection roots by mycorrhiza with increasing levels of salinity and that the addition of organic matter increased the infection rate as the highest rate of injury found in the treatment of the level of salinity L1 when add all of the Mycorrhiza and organic matter to the kind of cultivation of bilateral with 87.5% and the lowest percentage of infection found in the level of L4 salinity in the absence of organic matter and mycorrhiza in millet with 1.2%. The data shown that the addition of organic matter has increased phosphorus content in the vegetation by 8.5, %, while the addition of the Mycorrhiza increased the content of phosphorus 33.5% and the addition of organic matter and Mycorrhiza with the pattern of agriculture SM has increased the phosphorus content in the vegetation compared to no addition of organic matter and mycorrhiza by 49.2% .

Key words: AM Fungi, Organic matter, Sorghum, Millet, Salt stress.