SUMMARY

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This study was carried out to detect the causal fungi that cause grain mold of Zea maize in different locations of Egypt. Also this work was extended to examine the changes in some chemical compounds of maize grains infected with Fusarium moniliforme and Nigrospora oryzae, as were stored under various conditions of moisture content percentage as well as temperature for three storage periods. Obtained data led to the following results :

1- The most dominant ten fungi on maize grains isolated from different localities of A.R.E. could be arranged descendingly as follows: Fusarium moniliforme, Nigrospora oryzae, Fusarium graminearum, Penicillium spp., Aspergillus niger, Aspergillus flavus, Helminthosporium spp., Rhizopus sp., Mucor sp. and Alternaria spp.

2- It is worthy to mention that the infection percentage reached the highest values 90 days after storage as the grains were infected by either Fusarium moniliforme or Nigrospora oryzae under all tested temperature degrees as well as moisture content percentage.

3- The severity of infection by Fusarium moniliforme and Nigrospora oryzae increased due to prolonging the periods of storage under all levels of temperature or moisture content of corn grains.

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