

Factors affecting toxicity of both aflatoxins and ochratoxins produced from fungi separated from rains in some markets in Jeddah city in Kingdom of Saudi Arabia

This thesis dealt with one of the most important problems facing grains and legumes stored in Kingdom of Saudi Arabia, and the presence of fungi in these grains indicates bad storage, in this thesis, it was noticed the dominance of storage fungi and some of the isolated fungi produce dangerous fungal toxins due to processing of grains and legumes under wrong storage circumstances, from the separated toxins the aflatoxins with types B<sub>1</sub>, B<sub>2</sub>, G<sub>1</sub> and G<sub>2</sub>, also the ochratoxins, the study dealt with the physical, chemical and biological factors affecting the production of aflatoxins and ochratoxins and their effects on chicken eggs embryo.

**\* Results :**

During isolation and definitions of fungi polluting the grains and legumes, appeared the dominance of some fungi, *A. niger*, *Rhizopus*, *A. flavus*, also some other species are isolated *Glicolaium*, *Fusarium*, *Chaetomium*, and *Botryodiplodia*, on testing the ability of the separated fungi to produce aflatoxins and ability of fungi *A. ochraceus* and *Penicilium* to produce ochratoxin, and by studying the factors affecting production of both toxins, it showed that the best suitable temperature (25°C), the natural environments is more suitable for production of toxins than the artificial environments, also the best percentage of humidity for production of aflatoxins and ochratoxins is (93%), the production is better in acidic media compared to alkaline or neutral media.