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## **ABSTRACT**

This study was conducted to survey the seed- borne fungi of faba bean collected from the market, and previously sown in Dongola and Ethiopia. The seeds were tested for seed-borne fungi and effectuated the seed health testing which included Dry

Seed Inspection, Blotter Method and Agar Plate Method.

The first method (Dry Seed Inspection), revealed presence of few ratios of malformed, broken and discolored seeds.

The 2<sup>nd</sup> method (Blotter method), showed that fungi were isolated from seeds subjected to sterilization by Sodium hypochlorite and also from non-sterilized seeds. The number of infected seeds were decreased by surface sterilization.

In the 3<sup>rd</sup> method (Agar Method), the same Fungi were detected as in the Blotter Method but in less count due to surface sterilization. The detected Fungi were:-

*Aspergillus niger*, *A. flavus*, *A. terreus*, *Fusarium spp*, *Fusarium oxysporum*, *Eurotiom sp*, *Curvularia lunata*, *Alternaria alternata*, *Penicillium sp*, and *Rhizopus sp*.

## ملخص الاطروحة

تم اجراء هذه الدراسة لحصر الفطريات المحمولة علي او داخل بذور الفول المصري المزروعة في دنقلا واثيوبيا التي جلبت من السوق . حيث تم فحص هذه البذور لمعرفة مدي اصابتها بالفطريات واجريت اختبارات صحة البذور التي شملت اختبار البذور الجافة واختبار ورقة الترشيح وطريقة بيئة الاجار . اظهرت الطريقة الاولى ( الفحص الجاف ) ان هذه البذور تحتوي علي نسب قليلة من البذور المشوهة والمكسورة والبذور التي تغير لونها الاصلي . ووضحت الطريقة الثانية ( ورقة الترشيح ) ان الفطريات تم عزلها من البذور سواء كانت البذور غير معقمة السطح او تم تعقيم سطحها بواسطة هايبيو . كلوريد الصوديوم الا ان عدد البذور المصابة يقل قليلا عند تعقيم البذور . اما الطريقة الثالثة طريقة ( بيئة الاجار ) اوضحت ايضا العديد من الفطريات وهي نفس الانواع التي ظهرت في طريقة ورقة الترشيح لكنها بنسب اقل :  
نتيجة للتعقيم السطحي . الفطريات المتحصل عليها هي :

*Aspergillus niger*, *A. flavus*, *A. terreus*, *Fusarium sp*, *Fusarium oxysporum*, *Eurotiom sp*, *Curvularia lunata*, *Alternaria alternata*, *Penicillium sp*, and *Rhizopus sp*.