كلية الزراعة
قسم الميكروبيولوجيا الزراعية

جامعة الفيوم

البحث الثامن : **(مشترك مع آخرين من نفس التخصص– منشور)، (مستخلص من رسالة ماجستير)**

Seoudi, O.A., Attalla, K., and Abir, M. Helmy (2013). Bioconversion of some agricultural wastes into animal feed by *Trichoderma spp*. J. Am. Sci., 9(6): 203 - 212. **(Impact factor: 1)**	**عنوان البحث**

ABSTRACT

To improve the protein content and nutritional value of some agricultural wastes; tomato leaves, sugar beet leaves, sugar beet pulp, rice straw and sugarcane bagasse, Trichoderma viridi, T. harzianum and T. reesei were used. In this experiment, crude protein contents recorded 3.75, 5.62, 10.62, 14.31 and 15.12% of the raw cellulosic wastes sugarcane bagasse, rice straw, sugar beet pulp, tomato leaves and sugar beet leaves, respectively. Results showed that, pretreatment of wastes with acid (0.5 N H_2SO_4) and boiling for 60min. of tomato leaves increased crude protein content in fermented substrate using Trichoderma viridi, T. harzianum and T. reesei , 15.12 to 18.53, 18.52 and 18.25% after 5, 10 and 15 days, of fermentation time respectively. Where sugar beet leaves yielded the highest crude protein content (14.2%) after 5 days with T. reesei. Treated sugar beet pulp was the most efficient pretreatment for the production of maximum crude protein content (17.9%) with T. reesei after 5 days. Whereas, Rice straw supplemented with ammonium sulphate increased crude protein content to 7.92, 7.83 and 7.79% for T. reesei, T. viridi and T. harzianum, respectively after 10 days of fermentation period. From the biological assay in which albino mice were used, except for 40% which was not economically efficient ,it is recommended to use diet supplemented with 10, 20% of fermented cellulosic wastes to improve the nutritive value of the studied cellulosic wastes as animal feed .