Abstract

Corn and soybean meal are the main ingredients of poultry diets. Therefore, their contamination with aflatoxin is critical for public health. Feed samples were collected from poultry houses of Saravan, Suran and Zaboli and their aflatoxin content was measured using TLC technique. Result showed that in this area soybean meal samples were more polluted than corn samples. One sample was selected for aflatoxin removal using propionic acid, citric acid and acetic acid and treated with 2.5, 5, 10, 20 and 40 percent acid as well as floating with this acid. floating with acid removed higher aflatoxin than other groups and after that 40, 20, 10, 5 and 2.5 percent acid had highest aflatoxin removal ability, respectively. Result of this experiment revealed that propionic acid and citric acid could effectively been used for aflatoxin removal of poultry feeds.

Key words: Aflatoxin, Poultry feeds, Propionic acid, Citric acid, Acetic acid, Saravan, Suran, Zaboli



University of Zabol Faculty of Agriculture Department of Animal Science

The Thesis Submitted for the Degree of M.Sc In the field of animal nutriment

Title:

Study of aflatoxin B₁ contamination in animal feedstuffs in Saravan, Suran and Zaboli, and *in vitro* aflatoxin removal of contaminated feeds

Supervisors:

Dr. F. Bagherzadeh Kasmani

Advisors:

Dr. M. Mehri

Dr. M. Rokooei

By:

A. Amrashstan

May 2014