

AFLATOXIN PRODUCTION BIOREACTOR USED FOR PURIFICATION OF AFLATOXIN IN AGRICULTURAL EXPERIMENTS

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Abstract

Given the importance of pesticides in cereals and a variety of diseases that are caused by the toxins of various fungi in Medityk research company to manufacture a device for purification of the poison was. It was succeeded by various experiments. This addition of purified toxin, aflatoxin, toxins in grains and other fungi due to various other causes, and it does seem to be purified. This paper summarizes the methods listed in this article and the device is located. Major target for the herbicide used in various experiments by researchers in the country.

Keywords: aflatoxin, bio-reactors, grain

Introduction

Aspergillus group of fungi has spread worldwide and caused widespread contamination of nuts, corn, cotton, wheat, barley and soybeans, which are typically used in livestock and poultry rations. Storage conditions and improper storage of raw food materials, production of various types of fungi and fungal toxin that makes them possible, so the possibility of contaminating food raw materials for poultry feeds and the preparation of a variety of mycotoxins Aflatoxine there. Efforts to minimize the detrimental effects of aflatoxin poisoning (AF) in poultry flocks, herds, while reducing economic losses due to efficiency losses and other adverse effects of this type of poisoning, it can also help to ensure public health to. Among the most important mycotoxins are aflatoxins mainly by two strains of the *Aspergillus flavus* *Aspergillus* and *Parasiticus Aspergillus* are produced (1). Aflatoxin-producing fungi on different materials and under different conditions of moisture, PH and temperature on growth and proliferate. Aflatoxin B1 Aflatoxins are derived from over twenty of their most toxic (2). Over the past 40 years extensive research to determine the toxic effects of aflatoxins on animals and has a farm. The main effects of aflatoxins on poultry performance loss, liver damage, negative effects on carcass quality and egg shell, suppress the immune system and cause cancer has been noted (3). Reports on the effect of increasing the relative weight of organs such as liver, kidney, heart, proventriculus, gizzard, spleen and pancreas of broilers (31 and 4). Aflatoxins can also specify the activity of some enzymes in blood serum aspartate aminotransferase, alanine aminotransferase, lactate dehydrogenase, which are associated with cell damage caused Aflatoxinosis are affected (4). It seems that the negative effects of aflatoxin on broiler performance, as well as the amount and duration of exposure to aflatoxins depends on (1). Nowadays, the desire to understand the effects of low levels of aflatoxin in feed for farm animals Hzvrtvlany on performance and production is increasing (3). The purpose of the experiment F. The effect of low levels of aflatoxins B1 in the diet for four weeks, the performance of some enzymes in the blood and internal organs of the body weight of the broilers.

Materials and Methods

Production of aflatoxins (mold) in the context of a matrix of the system are fixed. Within the area of temperature control system keeps the temperature constant inside. Produce the required gas mixture through a gas injector located at the bottom of the carrier matrix is sent to the chamber and the valve chamber was removed and the amounts of the compounds will be

reviewed. Aflatoxin production of feed material and solvent for solution for injection nozzles into the system and then collected and removed from the system . These solutions contain aflatoxin tied off , the unused amount of the food that is produced and must be separated from the carrier matrix . Production factors and matrix components of the solution are filtered from the solution remaining ingredients and mix Aflatoxin is also out .Add the required catalyst and electrolysis isolated as aflatoxin concentration to the final product .

Conclusions

Given the above, with the spraying machine can do the work of its net The adverse impact it has on the body of laboratory animals and We find the right treatments for each pesticide. It is with the help of this device need to import pesticides for research work is the high price and the optimal use of the high cost of research work are.

Resources

Books and research papers related to the harmful effects of aflatoxins and healthy animals.