AFLATOXIN PROBLEMS IN POULTRY FEED AND ITS RAW MATERIALS IN INDONESIA[1]

MASALAH AFLATOKSIN PADA PAKAN DAN BAHAN PAKAN UNGGAS DI INDONESIA

Sjamsul Bahri

Balai Penelitian Veteriner (BALITVET) Departemen Pertanian RI, Jl. R.E. Martadina No. 30, Bogor INDONESIA

ABSTRACT

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Contamination of aflatoxins in animal feeds is one of a major problem in the development of poultry industry in Indonesia. Aflatoxins may lead to losses in animal productivity, aflatoxicosis and residue in animal products. A series of investigation on aflatoxin contamination in animal feed in poultry had been carried out at Research Institute for Veterinary Science (Balitvet) between 1984 to 1995. It showed that more than 80 % of commercial chicken feeds were contaminated by aflatoxin B1 (AFB1) within a wide range of concentration. Besides AFB1, other aflatoxins such as AFB2, AFG1 and AFG2 were also found. The level of AFB1 more than 200 ppb was found in 13.5 % out of 193 feed samples, whilst 23.3 % and 63.2 % of samples showed concentration 100-200 ppb and <100 ppb respectively. It had approved from the investigation that corn was the most frequent foodstuff contaminated by aflatoxins compared to other animal foodstuff. Most of corn used for chicken feeds appeared to be the major source of aflatoxin contamination, where it could be indicated visually in bad or good kernel appearance. The levels of AFB1 contamination seemed to be higher in the wet season (39.5 ppb) than in the dry season (19.5 ppb) as well as at the lower altitude (39.8 ppb) was higher than at the higher altitude (24.13 ppb). Based on this view, further studies are required to control of the aflatoxins problems in poultry feed in Indonesia.

Key words: aflatoxins, animal feeds, poultry

ABSTRAK

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Cemaran Aflatoksin pada pakan unggas merupakan salah satu masalah utama yang dapat menghambat perkembangan industri perunggasan di Indonesia. Hal ini dikarenakan aflatoksin dapat menghambat produktifitas ternak, kesehatan dan meninggalkan residu pada produk-produknya. Serangkaian penelitian terhadap pencemaran aflatoksin pada pakan unggas telah dilakukan di Balai Penelitian Veteriner (Balitvet) Bogor antara tahun 1984 sampai 1995. Hasil-hasil yang diperoleh menunjukkan bahwa lebih dari 80 % pakan unggas komersial terkontaminasi oleh aflatoksin B1 (AFB1) pada berbagai kadar. Selain AFB1, aflatoksin lainnya seperti AFB2, AFG1 dan AFG2 juga diketemukan. Kadar AFB1 lebih dari 200 ppb dijumpai sebanyak 13,5 % dari 193 contoh pakan unggas yang diperiksa, sedangkan 23,3 % dengan kadar 100-200 ppb dan 63,2 % dengan kadar <100 ppb. Pada pengamatan tersebut juga dapat dibuktikan bahwa jagung merupakan bahan pakan yang dominan tercemari aflatoksin daripada bahan pakan lainnya. Jagung-jagung yang tercemar aflatoksin tersebut secara kasat mata dapat dibedakan dari kondisi/keadaan fisik biji jagung tersebut. Kadar pencemaran AFB1 tampaknya lebih tinggi pada keadaan musim hujan (39,5 ppb) dibandingkan pada keadaan musim kering (19,5 ppb). Demikian juga ketinggian tempat yang lebih rendah kadar AFB1 (39,8 ppb) lebih tinggi daripada dataran tinggi (24,13 ppb). Berdasarkan tinjauan ini, penelitian-penelitian lebih lanjut masih diperlukan untuk mengatasi masalah-masalah aflatoksin pada pakan unggas di Indonesia.

Kata-kata kunci: aflatoksin, pakan, unggas

INTRODUCTION

Poultry industry in Indonesia has been developed rapidly in the last decade. The poultry number has been increased year by year. In the year 1993, the poultry population was 17.6 million animal unit, where 65.9 % were