International Poultry Production's
Poultryhealth BYTES
YOUR OWN REFERENCE SOURCE ON POULTRY HEALTH

058 – Mycotoxins V

Ochratoxin A

Identified in 1965 this mycotoxin is one of the most toxic for poultry and it is produced by several species of Aspergillus and Penicillium fungi. At least three types of ochratoxin are known and the most important one is ochratoxin A, which is found in a wide variety of feedstuffs around the world – both in tropical and temperate regions.

Conditions

Ochratoxin A basically damages the kidneys, that is, it is nephrotoxic. Its consumption results inn depressed feed intake, depressed growth rate, poor FCR, poor feathering and depressed egg production. Among the mycotoxins, ochratoxin A is the greatest depressor of body weight.

Badly affected birds show urate deposits in their joints and body cavities as a consequence of the associated kidney damage. A common clinical sign associated with this is excessive drinking and, on the basis of 'what goes in must come out', wet litter.

Birds affected by ochratoxin A have a lowered disease resistance and increased mortality.

Young birds are more sensitive to ochratoxin A and older birds less so. In layers shell quality can be adversely affected. Shells can have a characteristic yellow staining and the incidence of meat spots can increase, dose dependent, with ochratoxin in the feed. Ochratoxin A can delay sexual maturity.

Turkeys

High levels of ochratoxin A can cause high mortality in turkeys.

Immunosuppression

Ochratoxin A has an adverse effect on immunity and this is mainly the cellular immunity with a lesser secondary effect on humoral immunity.

Residues

Ochratoxin A binds to plasma proteins and so easily accumulates in the body where it has a long half-life.