

Tropentag, October 7-9, 2008, Hohenheim

"Competition for Resources in a Changing World: New Drive for Rural Development"

First Isolation of Aspergillus flavus from a Calf with Eye Infection in Sudan

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Abstract

This study was performed in Sudan as a part of a study research project about infectious bovine keratoconjunctivitis, the most economically important disease in dairy farms. We realised that there was annual outbreak of the disease in dairy farms in Khartoum state– Sudan after each rainy season, that could be due to the increasing number of insects.

There was no published data about the prevelance and incidence of the disease. However, we observed that the outbreaks among cattle in Khartoum state were very common and the percentage of infected calves reached up to 60% at one farm .

In this individual case, *Aspergillus flavus* was isolated from a 4 months old calf with eye infection characterised by bilateral keratoconjunctivitis, corneal opacity, corneal ulcer and loss of vision.

No bacterial growth realised after inoculation into blood agar, but there was a fungal growth, then an eye swabs were inoculated into Sabouraud dextrose agar, after incubation for 72 hours there was a fungal growth on the medium.

Microscopic slides were prepared and stained using lactophenol cotton blue to demonstrate the fungal parts which were typically *Aspergillus flavus*.

As a finding, *Aspergillus flavus* could –separate or mixed with bacteria– be one of the causative agents of infectious bovine keratoconjunctivitis in Sudan. The disease leads to a drop in milk yield, accidents due to loss of vision and deterioration of meat quality and thus, decreasing the individual's income and increasing the poverty specially in rural areas where people mainly depend on their animals as a main source of nutrition and income.

Keywords: Aspergillus, bovine, eye infection

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