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**Poster presentation**

**Detection of fungi and fungal toxins from animal feed in central province of Sri Lanka**

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**Background/Objective:** Animal feed is a vital component that directly impacts on animal husbandry. However, quality of these animal feeds should be monitored frequently as it can be a source of fungi and mycotoxins that influence the health of animals and subsequently human health. Accordingly, the current study was conducted to monitor the fungal contamination of animal feed obtained from central province of Sri Lanka.

**Methods**: A total of fifty-four feed samples from goat, horse and cattle owners were collected from the central province of Sri Lanka. Fungal isolation was carried out with Sabourauds Dextrose agar and lactophenol cotton blue stain. Morphological identification was conducted using macromorphological features including colony color and texture and micromorphological characteristics of mycelia, fruiting head, and conidiophores. In addition, fungal contaminated feed samples were analyzed for the presence of aflatoxins using a commercial Elisa kit for detection of total aflatoxins.

**Results:** Results revealed contamination of feed with either bacteria or fungi in 96.4% (52/54) samples where 70.37% (38/54) was bacteria only, 11.11% only fungi (6/54), and 14.82% (8/54) with both fungi and bacterial contamination. Further, cattle, goat and horses showed a fungi isolation rate of 0%, 36% and 38% respectively. The majority of isolated fungi belongs to *Aspergillus flavus* (40%) while Yeast, Zygomycetes and Fusarium spp. accounted for 13% each. Also, aflatoxin analysis revealed the presence of aflatoxins above 20ppb in 54.5% (6/11) and above 100ppb in 9.09% among the feed that contained toxicogenic fungi.

**Conclusions:** Therefore, our study points out the existence of potentially harmful fungi and aflatoxins in the animal feed in central province. In conclusion, it warrants the importance of implementing stringent regulation and surveillance of animal feed quality. Furthermore, we are planning to perform molecular identification of isolated fungi.

**Keywords:** Fungi, aflatoxins, animal feed