

**Case Report : A suspicion of cortico-cerebral necrosis in a Belgian Blue herd after ingestion of moulded silage**

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After ingestion of moulded beet pulp silage, cases of cortico-cerebral necrosis (CCN) and mortalities have been observed in a Belgian Blue (BB) herd. Contamination with *Paecilomyces spp.*, a mould that produces byssochlamic acid, malformins and patulin, has been proven. Among these toxins, patulin is known to have cancerogenic, immunosuppressive and tremorgenic effects, but also acts on the respiratory and digestive systems.

Twenty-five days after progressive introduction of beet pulp silage into the ration of a dual purpose BB herd, most of the animals showed diminished appetite, salivation and decreased milk production. All 35 cows were reluctant to consume the beet pulp silage, but continued to eat grass silage voluntarily. Seven of them showed anorexia and nervous symptoms, like head pressing and blindness. Four animals died within 1 week after onset of neurological symptoms. No necropsy has been performed, since legislation does not allow post-mortem examination of the central nervous system in the field. The three survivors had been treated successfully with thiamine (10 mg/kg, IV, TID) and recovered completely within five days. After the beet pulp silage had been identified as causative agent, it had been removed from the animals' ration and no more clinical case has been observed. Four weeks later, the same beet pulp silage has been reintroduced into the animals' ration and provoked again diminished appetite, salivation and a decrease in milk production in most of the animals. Clinical signs were also suggesting lead poisoning but any contact with lead containing material could have been excluded.

Silage was obviously moulded and analysis revealed the presence of 1.6 million CFU *Paecilomyces spp./g* of silage. Although no further investigation has been made to identify the mycotoxins, an intoxication with patulin has been suspected, since other mycotoxins produced by these species are less toxic. Although it has not been described that CCN can be induced by ingestion of *Paecilomyces spp.*, it seems that there is a close relation between ingestion of *Paecilomyces*-contaminated silage and observed clinical signs in this herd.