FLOOD PLAIN STAGGERS: AN INTOXICATION IN CATTLE DUE TO THE INGESTION OF BLOWN GRASS (*AGROSTIS AVENACEA*)

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Flood plain staggers syndrome in cattle was first reported from the Mungindi, Gongolgon and Bourke districts of New South Wales in October 1990. Affected cattle showed central nervous system signs including ataxia, tremors, tetany and convulsions. Morbidity varied widely but cattle that developed clinical signs rarely recovered. Sheep were also affected. Comprehensive investigations indicated an intoxication as the cause and that the toxin was plant related or in soil crust. Two samples of blown grass, *Agrostis avenacea*, and one sample of soil crust from affected paddocks in the Gongolgon district were collected and used in a feeding trial with eight hereford heifers.

The clinical signs of flood plain staggers were induced in the animals fed on the samples of blown grass. The results indicated that the toxin was concentrated in the folicular parts and/or the inflorescence. Clinical signs and pathology were identical to those reported by McIntosh et al. (1967) in cattle affected with Annual Rye Grass Toxicity (ARGT). As with ARGT a nematode and a *Clavibacter sp* bacterium were identified in *Agrostis* seed heads (McKay et al. 1981) and a cornynetoxin was extracted from associated bacterial galls (Cockrum and Edgar 1985).

There are no previous reports of *A. avenacea* being toxic to livestock. The results of this multidiscipline investigation show that further research is necessary to further our understanding of the associations between nematode, bacterium and plants that give rise to livestock intoxications.

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