

Rye Grass Staggers

During the Autumn of 2001 there were many reports of Rye Grass Staggers in horses, particularly in the Waikato district. Horses develop this disease when they graze certain perennial ryegrass pastures. As the name suggests, affected horses lose their ability to walk properly and stagger. Some badly affected horses may fall and injure themselves and some may become recumbent. The disease is, however, not usually fatal and most affected horses recover if taken off perennial ryegrass pasture.

The cause of the disease is a fungus which lives inside the grass (it is referred to as an endophyte). These endophytes are found in their greatest concentration during summer and autumn in the grass stems and oldest leaves (those closest to the ground). Consequently, at this time of the year when horses have to graze close to the ground they tend to pick up more of the causative organism. High concentrations of the endophyte may also occur in perennial ryegrass hay.

Since the discovery of the cause of this disease in 1982 researchers from Agresearch NZ have developed various species of perennial ryegrass which have low levels of the endophyte. These grasses, however, suffer in comparison with the high endophyte ryegrasses in several ways. For example, the high endophyte varieties tend to produce more grass, are more competitive with clover and are more persistent. Also, in areas of New Zealand which are prone to Argentine Stem Weevil (an imported Ryegrass pest) the endophyte in the ryegrass protects it from attack by this bug.

So what can be done to prevent ryegrass staggers in your horses? The answer is several things. Firstly, since you now understand its cause and the pasture conditions under which it is most likely to occur (heavily grazed perennial ryegrass pasture in the summer or autumn) you can restrict grazing on such pastures or remove your horses from them. Secondly, you can sow some low endophyte ryegrass or other species of grass for feeding at that time of year. Thirdly, endophyte infection diminishes in stored ryegrass seed, which, if stored at room temperature, will eventually lose viable endophyte. So, before planting ryegrass you should ask what its endophyte level is and store it accordingly.

More information is available in "Pastures for Horses" by Dr Warren Hunt, available from the NZERF, and "Veterinary Clinical Toxicology" by Drs K Parton, AN Bruere and JP Chambers, available from Veterinary Continuing Education, Massey University.