Since its first reported occurrence in 1909 in eastern Scotland, grass sickness has appeared in most northern European countries and in South America. And, Pirie said, although “a vast array of etiological hypotheses have been proposed and addressed experimentally,” the disease’s cause remains unknown. Still, researchers have discovered several ideas on what could be causing EGS.

Researchers have pinpointed several factors that could potentially link EGS to Clostridium botulinum neurotoxin type C, which is the causative agent of botulism in this case. This type of botulinum toxin has been identified in the serum of horses with EGS, suggesting a possible link. However, Pirie noted that more research is needed to determine whether C. botulinum type C is directly involved in the pathogenesis of EGS.

While researchers have identified several factors that could potentially link EGS to the consumption of cyanogenic plants, such as cyanogenic glycosides, the evidence is not conclusive. Pirie said that while some studies have shown a correlation between cyanogenic glycosides and EGS, others have not. Furthermore, the role of cyanogenic glycosides in the development of EGS is not yet fully understood.

Another area of research focuses on the potential role of Clostridium botulinum type E, which is associated with botulism in humans and animals. However, research on this potential etiological factor has not been conclusive.

In conclusion, the current knowledge about EGS is limited, and many questions remain unanswered. However, researchers are continuing to investigate various factors that could potentially link EGS to different etiological factors. Further research is needed to determine the true cause of EGS and to develop effective prevention and treatment strategies.