Acute toxicity studies

In this guide

14. In a study by Nakata and Kimura (1985) Wistar rats were given reduced feed for 48 hours before being fed 5 g of diet food with 25 mg Con A. The study demonstrated that intestinal enzyme activities remained the same or were reduced after Con A exposure, when compared to the control subjects, while the activity of enzymes such as sucrase and leucine aminopeptidase were shown to increase. The authors considered that Con A binds to the surface of the small intestine and disturbs the brush border membrane. A study by Larue-Achagiotis et al. (1992) exposing Wistar rats to Con A reported reduced food consumption when animals were given an equivalent dose of 3600 mg/kg bw.

15. There were no acute studies on PHA or soybean agglutin (SBA) available.

16. The lectins evaluated by EFSA exhibited similar toxic effects, i.e. as a result of lectin consumption animals demonstrated reduced body weight gain or reduced feed intake. EFSA highlighted that reduced body weight gain may be a side effect of reduced feed intake or digestibility. The studies also indicated that the retention of nitrogen may be lowered which could contribute to antinutritive effects.