

## Abstract

Feed palatability is necessary for optimum feed intake and utilization in all animal species. The effects of consumption of a standardized preparation of an extract of *Macleaya cordata* (*M. cordata*), a herbaceous flowering perennial of the Papaveraceae family that contains isoquinoline alkaloids, has been evaluated when fed to chickens for 35 consecutive days from birth. The chicks were divided into 4 treatment groups (8 replicates of 10 birds/pen) and fed corn/soybean meal-based diets supplemented with a standardized *M. cordata* extract preparation at 0, 100, 500 and 1000 mg/kg feed. After the treatment period, eight animals/treatment were randomly selected for blood collection and necropsied after slaughtering.

Routine plasma biochemistry and a gross pathology examination were performed. Tissue and organ samples were analyzed for the isoquinoline alkaloids sanguinarine and chelerythrine. No statistical differences were found between treatment groups for live weight (LW), feed intake (FI) or average daily gain (ADG). Blood biochemical analyses showed significant changes in plasma creatinine and alkaline phosphatase levels, but these changes were not dose-dependent and not considered treatment-related. No treatment-related changes were found after necropsy of the selected organs and tissues. No chelerythrine was found in any tissues, while low levels of sanguinarine were found in two fat+skin samples in the 500 mg/kg feed and three fat+skin samples and one kidney sample in the 1000 mg/kg feed. The results of this study show that consumption of a standardized *M. cordata* extract preparation, at up to 1000 mg/kg feed, was well tolerated by chickens for 35 consecutive day