

## Abstract

The delta – endotoxin crystals containing insecticidal Cryproteins were isolated from 20 unidentified local *Bacillus thuringiensis* Berliner (Bt)isolates and a reference isolate Bt aizawai(Bta) using froth floatation and low speed centrifugation at KARI Biotechnology laboratories, NARL. The total protein was quantified using the Bradford assay method and protein yield from the nutrientbroths was estimated at 3.11 mg/ml  $\pm$ 0.938 mg/ml of nutrient broth culture with a purity level of 54.8%  $\pm$ 15.3% of the protein pellet. Leaf – dip bioassay was used to determine the efficacy of the isolates against *Chilo Partellus* (Swinhoe), a well-established and invasive stem borer in Kenya. Among the isolates, Bt44 and Bt48 had the most potent endotoxin crystals to 1stinstar *C. partellus*larvae. In addition, the efficacy of these two isolates was not statistically different ( $P>0.05$ ) from that of Btabased on LT50 values. The findings show that these two locally available unidentified Bt isolates could be used in management of *C. partellus*and their characterisation (Cryprotein) could aid in their utilization.