Summary
The δ-endotoxin has considerable significance in terms of vector control and public health. It is important to find out an appropriate simple and easy method for quantitative assay of δ-endotoxin as well as to know its effect on biological systems.

A simple haemolytic assay method for quantitative estimation of the δ-endotoxin of *B. thuringiensis* subsp. *israelensis* (serotype H. 14) from a crude preparation has been developed.

Toxicity studies in inbred swiss mice envisage that δ-endotoxin reduced total count of erythrocytes, neutrophils, platelets, haemoglobin concentration, serum calcium level whereas it increased total count of leucocytes, lymphocytes and clotting time of whole blood. ESR and haematocrit values are also decreased. The δ-endotoxin caused massive bone marrow depression along with the elevation of splenic cells count. The functions and metabolism of liver are altered. Glycogen content of liver decreased and blood glucose level increased. Serum glutamate pyruvate transaminase and alkaline phosphatase levels increased whereas serum glutamate oxaloacetate transaminase decreased. Elevation of serum bilirubin content along with cholesterol and free fatty acids were observed.

The δ-endotoxin altered the function of kidney as increased level of non-protein nitrogen, blood urea and total protein and decrease of A/G ratio were observed. Catecholamines level in brain and liver were changed. Adrenaline in brain and adrenaline and non-adrenaline in liver were increased whereas dopamine and noradrenaline in brain and dopamine in liver were decreased. The δ-endotoxin caused embryocidal and possible fetotoxic effects in pregnant mice with a mutagenic effect in male mice. Histopathologically it has been observed that δ-endotoxin damages both liver and kidney.

Irritancy potential studies of δ-endotoxin in rabbits revealed a mild to moderate skin irritation and a reversible eye irritation.

It is concluded that δ-endotoxin at a dose level of 140 klu/kg to inbred swiss mice over a period of six weeks, is bone marrow depressant (haemotoxic), hepatotoxic, nephrotoxic, neurodepressant and toxic to reproductive system.