Determination of the efficacy of *Bacillus thuringiensis aizawai*, against *S.litura* on *Ludwigia repens*

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ABSTRACT

Bacillus thuringiensis is a biocontrol agent that is specific to the pest belongs to order Lepidoptera. *Bta* is recommended to Army worm. *Bacillus thuringiensis subsp. aizawai* ABTS-1857 is one of the new strain released by Xentari bio agent. To check the efficacy of *Bacillus thuringiensis subsp. aizawai* ABTS-1857 against *S.litura*, this study was conducted.The nature of damage and lifecycle of the *S.litura* on *Ludwigia* spp were studied. Efficacy of *Bta* against larvae of *S.litura* was checked using commercial formulation powder. Concentration of 0.5g/L, 1g/L, 1.5g/L, 2g/L and 3g/L caused 41.66%, 50.0%, 83.33%, 97.2% and 100% of mortality of fifth instar larvae of *S.litura* respectively. In the case of second instar larvae, the highest mortality observed in all the concentrations was 100% in 96 hours except in 0.5g/L which showed the mortality percentage of 97.917%.The concentrations of commercial *Bta* formulation required to kill 50% of the second and fifth instar larvae of *S.litura* were 0.66g/mL and 1.99g/ml, respectively.

KEY WORDS : *Bt*, *Spodoptera Litura*, Commercial formulation, lifecycle