

AERIAL APPLICATION OF ULV SPRAYING ON (*HELIOTHIS ARMIGERA* HBN)

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Summary

This experiment is based on the study the effectiveness of ULV spray system on mortality of the Bollworm (*Heliothis armigera* Hbn) in comparison with conventional spray system, experiment was conducted in Gorgan (northern province of Iran) in 1974.

Spraying was done by Piper Super cub PA-18 fitted with four B-N Micronair AU 3000 compact rotary atomisers. The aircraft was calibrated for our experimental purpose. In conventional system the chemical were applied at a pump pressure of 40 Psi by 28 nozzles.

The chemical applied in conventional system was Toxaphen+DDT at a dose 2+1 Kg active material per hectar. In the ULV system Toxaphen+DDT and Tedion carbaril (at 4 liter per hectar) and Nuvacron combi (3.5 liter per hectar) were applied.

The experiment. design used was completely randomized block with four replication. The amount of infestation by the bollworm at spraying time was at least 4% damaged bolls, buds, and flowers.

Result

1. In ULV system Toxaphen+DDT & Nuvacron combi and Toxaphen+DDT by conventional system had an effectiveness of 89-98% within 5 days.
2. Tedion carbaril showed mortality of 54-78%. In all cases highest mortality was obtained on smaller & medium larvae.
3. Residual effect of all treatment was about the same up to 12 days after spraying.

References

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