



PROUD 3[®] Residual Control of Potato Aphids (*Macrosiphum euphorbiae*)

Research Report

SNELL Scientifics, LLC

Summary

Along with a control trial, 2 test pesticides were applied separately to collard (*Brassica oleracea* var. *viridis*) leaves and left to dry for 24 hours. Then 10 live potato aphids (*Macrosiphum euphorbiae*) per trial were left on the leaves for various time intervals and the number of alive, knocked down, and dead aphids was recorded.

Purpose

To determine the efficacy of HUMA GRO[®] PROUD[®] 3 when applied as residual treatment to the leaves of collard plants to control potato aphids (*Macrosiphum euphorbiae*).

Description

Test substances were: Control – Untreated, HUMA GRO[®] PROUD 3[®], and Ortho[®] MAX Garden & Landscape Insect Killer

Treatment surfaces were positioned on a cleaned tray into sets of 4 trials of the control, HUMA GRO[®] PROUD 3[®], and Ortho[®] MAX Garden & Landscape Insect Killer (as a replicate means of ensuring accurate data collection.) Plant leaves were placed on clean trays and both sides of the leaf were sprayed and saturated with each pesticide and then allowed to dry for 24 hours. The control leaves were left alone. Ten live insects were transferred to each leaf surface. The number of dead, knocked down, and alive insects per surface was recorded at 30 min, 1 hr, 2 hr, 4 hr, 24 hr intervals.

Definitions

Alive: Insects exhibit forward motion

Knocked Down: Insects exhibit some movement, but cannot crawl

Dead: Insects exhibit no movement even when stimulated

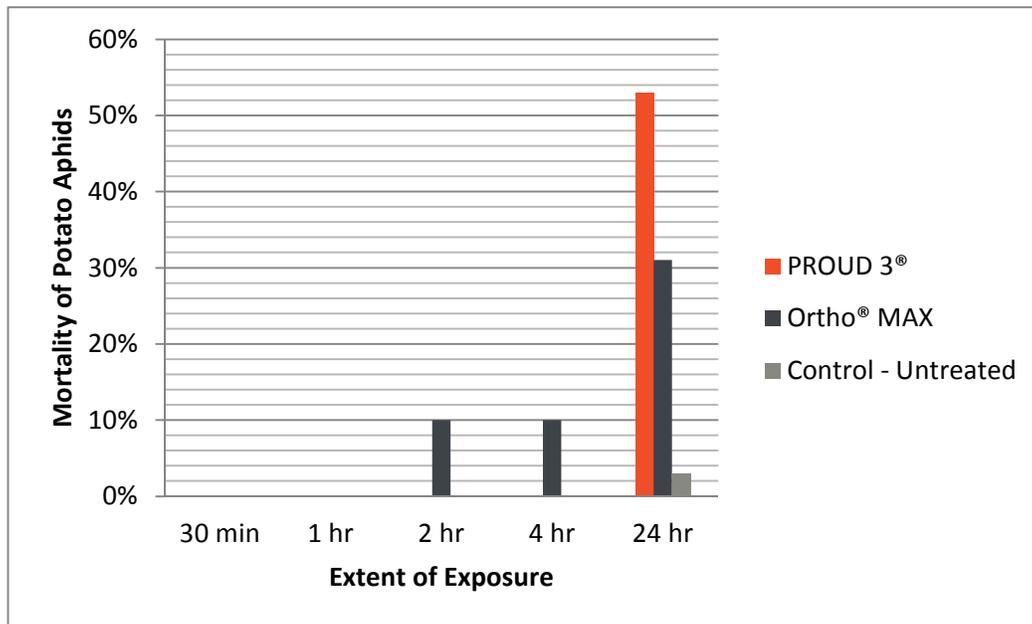
Results

Less than 55% mortality was shown with each of the test products evaluated. The residue of HUMA GRO[®] PROUD 3[®] applications on collard plant leaves showed a 53% mortality rate within 24 hours after exposure, while residue of Ortho[®] MAX resulted in only 31% mortality. The results of this study indicate that residue of HUMA GRO[®] PROUD 3[®] on collard plant leaves provided moderate control of potato aphids when tested under these circumstances. Residue of PROUD 3[®] showed 17.6 times more mortality of potato aphids than did the untreated control at the 24 hour observation.

Average Mortality of Potato Aphids

Treatment	30 min	1 hr	2 hr	4 hr	24 hr
Control - Untreated	0%	0%	0%	0%	3%
PROUD 3 [®] Residue	0%	0%	0%	0%	53%
Ortho [®] MAX Residue	0%	0%	10%	10%	31%

Potato Aphid Mortality, Percent



Conclusion

Exposure of potato aphids to HUMA GRO® PROUD 3® residue resulted in mortality that was 17.6 times greater than that of the untreated control after 24 hours when tested on collard plant leaves. Mortality of potato aphids achieved by exposure to residue of PROUD 3® 24 hours after application was 1.7 times more effective than mortality achieved by exposure to Ortho® MAX under the same condition.

Full research report available upon request.

PROUD 3® organic pest control is a safe, effective, organic foliar applied bactericide, insecticide, miticide and fungicide, when applied using recommended methods and rates. PROUD 3® is OMRI-listed for organic farming.



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Highly Efficient and Effective Due to Our Unique Delivery



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