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Saving Water in Spray Applications with Organosilicone Adjuvants

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Summary

Making agriculture more sustainable is one of the most important challenges today for formulators and growers. Such targets can be achieved using raw materials based on renewable inputs, like methylated seed oils, employing more environmentally friendly crop chemicals like biopesticides, optimizing applications with precision agriculture, maximizing the amount of spray that reaches and stay on target, using the right nozzle and adjuvant combination, and minimizing the use of water by a combination of modern spray systems and adjuvant technologies. Organosilicones are especially advantageous on the latter aspect because of their superior adhesion and superspreading capacity, where they can deliver up to ten times more coverage than conventional non-ionic surfactants. In this work we present a series of field trial examples, where the spray volume has been reduced by 30 to 70% with the use of organosilicones, delivering equivalent or superior control. For example, in a field trial conducted in Costa Rica, for the control of mealybug in pineapple, we observed superior insect control with ~30% reduction in the spray volume (Figure 1) and equivalent control versus the standard treatment with ~67% reduction in spray volume. The adjuvant use rate was also reduced by four times.

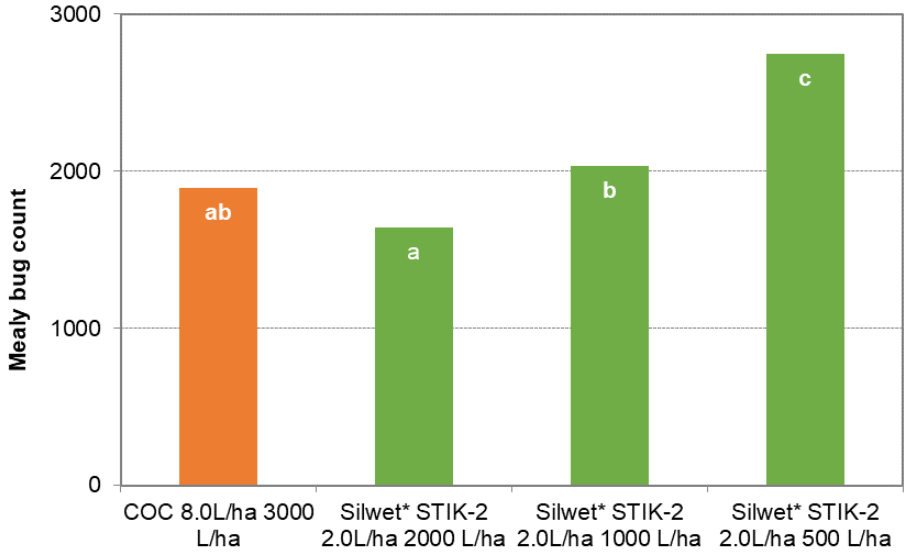

Figure 1. Control of mealy bugs in Pineapple (Costa Rica).

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