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Effect of an extract of the brown alga Ascophyllum nodosum on the fruit retention of Tahiti lime (Citrus latifolia) managed organically

Carlos Flores-Torres, J. Pablo Morales-Payan, Ruben Velez, Alejandro Segarra, and Bryan Brunner.

Department of Crops and Agro-Environmental Sciences, University of Puerto Rico-Mayagüez Campus. morales.payan@upr.edu

The fruit yield response of Tahiti lime to foliar applications of a commercially available extract of brown alga *Ascophyllum nodosum* was studied in 5-year old orchard in Lajas, Puerto Rico, in 2010. A randomized complete block design with 2 trees per treatment and 6 replications was used. The extract (StimplexTM, Acadian Seaplants Ltd., Canada) was sprayed on the trees in aqueous solutions, covering the canopy and delivering 0 (check treatment), 6 or 12 ml of the extract per tree. Applications were performed every 21 days from January-March (from the pre-flowering stage through full bloom) or January-April (from the pre-flowering stage through the fruit set stage). Fruit number per tree was assessed periodically until mid-May. Fruit retention was not significantly affected by applications of the extract at the rate of 12 ml per tree, regardless of the application times. Applying the extract at the rate of 6 ml per tree through full bloom did not increase fruit retention either. However, application of the extract at the rate of 6 ml per tree through the fruit set stage resulted in fruit retention increasing by 68% over check trees. Hence, both extract rate and crop phenology were important factors in eliciting a significant fruit production response in Tahiti lime treated with the *Ascophyllum nodosum* extract.

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