

RED IMPORTED FIRE ANT MANAGEMENT IN A SOUTH LOUISIANA CITRUS ORCHARD

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Introduction

Area wide management has worked effectively in communities and subdivisions. Application of this management system was demonstrated in a citrus orchard in South Louisiana. RIFA management in agricultural systems would enable farmers to reduce both direct and indirect costs.

Objective

The purpose of our demonstration, was to test the long term effect of a bait treatment on the established population of red imported fire ants in a Louisiana Citrus orchard. Baits have been a successful management tool in other settings, such as area wide programs (communities/subdivisions) but not in commercial citrus orchards in Louisiana.



Methods

The citrus orchard selected in LaRose, Louisiana was 15 acres and produced primarily Satsuma. The Orchard was divided up into four treatment blocks (average size 2.2 Acres each and two untreated control blocks (average size 2.7 acres each).

Active fire ant mounds were counted and recorded by block. This was done each month to monitor active colony growth.

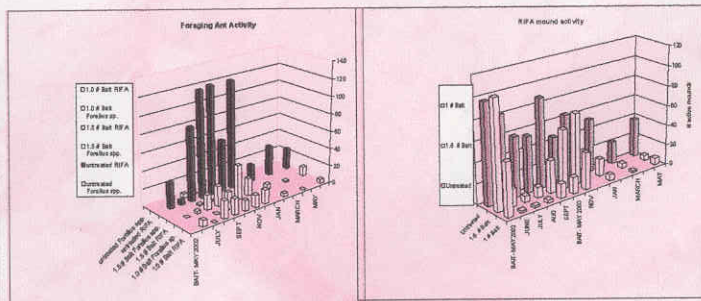
Ten open glass vials containing a 1/2 inch cube of Vienna sausage were placed evenly within each block A total of 60 vials were placed under the trees throughout the treated and untreated plots. The vials were picked up after 1 hour. The number of ants in each vial were identified & counted in order to monitor foraging activity for one year.

Extinguish Fire ant bait was applied to the 4 blocks using a 4 wheeler and spreader mounted on the back. The bait was applied at 1 1/2 lbs per acre in block A & C, and applied at 1 lb/A in blocks B & D.

The first bait treatment and first active mound and foraging ant count began on May 28, 2002. The second bait treatment was applied in the Fall, October 2, 2002.

Results

The density of the RIFA population was reduced by the bait treatments. Both the 1 lb and 1.5 lb rate worked effectively. Counts between the two rates of bait fluctuated due to heavy rain fall. The plots with the 1.5 lb rate started out with higher mound counts, then along with poor drainage kept the area wet. The end result was less problems with ants in the orchard equipment, less stings to the orchard workers and less exposure to pesticides due to the application of Extinguish growth regulator bait.



The other species of ant trapped in the vials was identified as *Forelius spp.* They are considered to be a competitor species.

Summary

Extinguish treatments at both rates lowered RIFA populations. Due to this success, several growers began using this program to manage RIFA populations in orchards. The third application was not made due to limited access to the orchard and problems with owner/leaser.

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|-----------------------------|-----------------------------|
| Untreated control 1 | Untreated control 2 |
| Drainage ditch | Drainage ditch |
| Block D 1 lb Bait/A | Block B 1 lb Bait/A |
| Block C 1 1/2 lbs Bait/A | Block A 1 1/2 lbs Bait/A |

