

PUBLICATIONS

1983

FRUIT AND ROSE RESEARCH - OVERTON, 1983

Research Center Technical Report 83-3

by

Lynn Brandenburger.....County Extension Agent, Smith Co.
Donald L. Cawthon.....Assistant Professor, Fruits
D. R. Earhart.....Research Associate, Vegetables
John Lipe.....Area Extension Horticulturist,
Fredericksburg
D. R. Paterson.....Professor, Vegetables, Roses
H. Brent Pemberton.....Assistant Professor, Roses
Stan Peters.....Technician I, Fruits
George Philley.....Extension Plant Pathologist
W. E. Roberson.....Technician I, Roses
James V. Robinson.....Extension Entomologist
G. A. Rowland.....Technician I, Vegetables
Ruth A. Taber.....Research Scientist, Plant Sciences
Liz Wellborn.....Research Assistant, Fruits

Texas A&M University Agricultural Research
and Extension Center at Overton

Texas Agricultural Experiment Station

Texas Agricultural Extension Service

Overton, Texas

June 15, 1983

Mention of trademark or a proprietary product does not constitute a guarantee or a warranty of the product by the Texas Agricultural Experiment Station or Texas Agricultural Extension Service and does not imply its approval to the exclusion of other products that also may be suitable.

FIRE ANT CONTROL DEMONSTRATION IN BLUEBERRIES

James V. Robinson, Extension Entomologist
Donald L. Cawthon, Research Horticulturist

Purpose: To determine the effectiveness of acephate (Orthene[®]) 75SP and Amdro[®]) fire ant insecticide to control fire ants in blueberry root balls.

Location: Six year old blueberry planting on the Overton Research and Extension Center farm.

Methods: Both materials were applied at 2 rates. Rate 1 of Orthene[®] was 1 ounce of the soluble powder mixed in 5 gallons of water. One gallon of the finished mixture was applied to the base of each bush within this treatment. Rate 2 of Orthene[®] was 2 ounces of the soluble powder mixed in 5 gallons of water. One gallon of the finished mixture was applied to the base of each bush within this treatment. Rate 1 of Amdro[®] was 2 tablespoons per bush and Rate 2 was 4 tablespoons per bush. In each treatment the Amdro[®] bait was evenly distributed within a four foot circle around each bush.

Each plant within each treatment was considered a replicate. All plants within each treatment were treated. However, only those plants having active fire ant infestation within each treatment were observed for effects. In reviewing the data, the following are the numbers of plants in each treatment that were infested: Control 19 of 20; 1 ounce

Orthene® 16 of 30; 2 ounces Orthene® 22 of 33; 2 tablespoons Amdro® 36 of 70; 4 tablespoons - 37 of 59.

Prior to treatment, fire ant activity was checked by probing at the base of each plant and the activity was recorded.

The plants were observed for fire ant activity 2 weeks and 6 weeks after treatment by probing at the base of each plant and recording ant activity.

Results: A review of Table 1 indicates that all treatments reduced fire ant activity after 2 weeks and that after 6 weeks, ant activity was reduced further in all treatments with no activity found in the high rates of both treatments. No phytotoxic symptoms were observed to the blueberries from any of the treatments.

NOTE: Neither Orthene® nor Amdro® are labeled for use in this manner. However, the companies may want to pursue these labels.

Table 1. Percent of blueberry root balls infested with fire ants before and after treatment with 2 rates of Orthene® drench and 2 rates of Amdro® bait. Rusk County, 1982.

| Observation | Percent of Root Balls Infested | | | | |
|-------------|--------------------------------|-----------------|-----------------|--------|--------|
| | | 1 ounce | 2 ounces | 2 Tbs. | 4 Tbs. |
| Date | Control | Orthene® drench | Orthene® drench | Amdro® | Amdro® |
| 9/22 | 100 | 100 | 100 | 100 | 100 |
| 10/5 | 100 | 18 | 14 | 19 | 12 |
| 11/2 | 100 | 6 | 0 | 6 | 0 |