



Texas Imported Fire Ant Research and Management Plan

Method Demonstration Showcase Study:

**Jade Oaks Neighborhood Association, San Antonio, TX.
1998-1999**

**Nathan L. Riggs, Extension Agent - IPM (Fire Ants)
Texas Agricultural Extension Service - Bexar County**

The Jade Oaks Neighborhood Association is the first homeowner association in Texas to be selected as a “Showcase” Program by the Texas Imported Fire Ant Research and Management Plan. In agreeing to be a showcase program, the neighborhood will be studied on a closer level regarding biological surveys of ant species in the area at various times before and after treatments, resident surveys of fire ant impacts in the neighborhoods, and treatment histories of the neighborhood.

The Neighborhood and It’s Residents

The Jade Oaks neighborhood is located in northwest San Antonio and bordered on the east by Prue Road and on all other sides by open mesquite/live oak savannah. When the showcase program began, the neighborhood was composed of 91 homes inhabited by upper middle-income earners of a diverse ethnic background. Lot sizes average 7,000 to 10,000 square feet including the home. Homes range in age from new to 5 years. Most lots contain mature and immature oak, ash, hackberry, cedar, and mesquite trees and have St. Augustine, bermuda, or Zoysia grass lawns. Based on a community-wide survey developed by the Extension Service, homeowners replied that they spent anywhere from \$1 to \$100 per year on fire ant treatment chemicals and other ant-related problems.

Biological Surveys and Mound Counts

Prior to initiation of the study in September 1998, 15 lawns were selected as locations for biological survey data collection. Four small plastic condiment cups were placed in the front lawns of each selected location and baited with fish-flavored soft cat food. Cups were allowed to remain undisturbed for at least 30 minutes before being collected and capped. Any cups containing ants were retained and placed in a freezer to kill the ants for later ID. Cups were given a unique ID# for each location. Table 1 outlines the results of the pre-treatment biological survey and fire ant mound counts for the front and back lawns of the location.

Table 1. Biological Survey Results and Fire Ant Mound Counts Prior To Treatment

Location	Turf Type	Ant Species*	# of Fire Ant Mounds
1A	Xeriscape	IFA	5
1B	St. Augustine	IFA	3
1C	St. Augustine	None Trapped	6
1D	St. Augustine/Bermuda	None Trapped	5
1E	St. Augustine	IFA, PI	5
2A	St. Augustine	IFA, PI, PA	5
2B	St. Augustine	IFA, PI	6
2C	Zoysia "El Toro"	IFA, PA	6
2D	Zoysia "El Toro"	PI	2
2E	Bermuda/Weeds/Bare	IFA, FS	5
3A	Zoysia "Emerald"	PI	3
3B	St. Augustine	IFA	4
3C	St. Augustine	IFA	6
3D	St. Augustine	IFA, BHA	5
3E	St. Augustine	IFA	5

* The names of the ant species are abbreviated as follows: IFA=Red Imported Fire Ant (*Solenopsis invicta*); PI=False Honey Ant (*Prelolepis imparis*); FS=Formica Ant (*Formica* spp. (*schaufussi*)); PA=Pavement Ant (*Tetramorium caespitum*); BHA=Big Headed Ant (*Pheidole* spp.)

Organizing the Program

Friday, September 19, 1998 was selected as the neighborhood "Fire Ant Day" during Texas' first annual Fire Ant Awareness Week. Organizers of the program advertised the program in the association newsletter, displayed signs throughout the neighborhood and set up a canvas tent on a vacant lot in the neighborhood as a central gathering area. Bret Royal, a local sales representative from American Cyanamid, provided cases of 6oz Amdro® fire ant bait packages for residents to purchase. Cost per lawn was \$5 for 6oz of bait. The 2-Step Method was selected as the application strategy and applications were calculated based upon lot size in acres using a 1 lb/acre rate for the bait. A number of EZ Handspreaders by Republic and Easy™ Hand-Held

spreaders by Scotts® were loaned to the association by Mr. Royal for use in this effort. A short time after the Fire Ant Day, surveys were mailed to each of the 91 homeowners in the neighborhood to gather background information on fire ant problems and costs.

Results

Once the day (and weekend) had ended, 85 homes had participated in the “Fire Ant Day.” One participant commented that the “cost of such an easy method to kill fire ants was almost ridiculously cheap,” but didn’t believe such small amounts of fire ant bait would successfully control the fire ants in their lawn.

Post treatment biological surveys were conducted on October 3, 1998, and April 16, 1999. Table 2 outlines the results of the biological survey and mound counts in the same 15 selected lawns.

Table 2. Results of Post Treatment[†] Biological Surveys and Fire Ant Mound Counts

Location	October 3, 1998		April 16, 1999	
	Ant Species*	# of Ant Mounds	Ant Species*	# of Ant Mounds
1A	None Trapped	0	None Trapped	0
1B	None Trapped	0	None Trapped	0
1C	None Trapped	0	None Trapped	0
1D	None Trapped	0	None Trapped	0
1E	None Trapped	0	PI	0
2A	None Trapped	0	PA	0
2B	None Trapped	0	None Trapped	0
2C	None Trapped	0	None Trapped	0
2D	None Trapped	0	None Trapped	0

2E	IFA, FS	3	None Trapped	0
3A	IFA	0	None Trapped	0
3B	None Trapped	0	None Trapped	0
3C	None Trapped	0	None Trapped	0
3D	None Trapped	0	None Trapped	0
3E	None Trapped	0	None Trapped	0

* The names of ant species are abbreviated as follows: IFA=Red Imported Fire Ant (*Solenopsis invicta*); FS=Formica Ant (*Formica* spp. (*schaufussi*))

† Initial treatment occurred on September 19, 1999.

Jade Oaks Fire Ant Day #2

As the first Fire Ant Day was underway in Jade Oaks, several homes in the neighborhood were under construction with more lots being cleared for development. By the time the second Fire Ant Day was held on May 7, 1999, the total number of homes in the neighborhood had risen to 123 - an increase of 32 homes. A central location was established in the newer part of the neighborhood to give the newer homeowners an opportunity to obtain Amdro[®] fire ant bait for broadcasting in their own lawns. Participation in this second Fire Ant Day was limited primarily to the newer homeowners because homeowners who had participated in the September Fire Ant Day reported that did not have any fire ants to treat as they came to purchase fresh bait. It was also the opinion of the organizers that the location change of the central gathering spot made things less convenient to homeowners in the older parts of the neighborhood. Approximately 30% of the households participated in the spring effort. No surveys were distributed to homes built since the initial Fire Ant Day.

Plans for the Future

Another biological survey is planned for September 1999 and plans for a fall Fire Ant Day have not been finalized at the time of this report. Surveys to assess impact after treatment are under development as well.

Acknowledgments

The Texas Agricultural Extension Service would like to thank Mardell Murrow and Billy Lawton of the Jade Oaks Neighborhood Association for their leadership in organizing this very successful program and rallying neighborhood support. The Extension Service also thanks Bret Royal of American Cyanamid for providing handspreaders and Amdro[®] fire ant bait in support of this project.

Texas Agricultural Extension Service programs serve people of all ages regardless of sex, national origin, socioeconomic level, color, religion, or disability.