



# FY 2006-2007 Report on Progress

(September 1, 2006 – August 31, 2007)

## Texas Imported Fire Ant Research And Management Project

**Title of project: Fire Ant Education Program**

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### **Lay Summary of Major Accomplishments:**

- 1) Increased the number of community wide management programs in 2006/07 by 100% since 2005/06 (5 to 10). In the Wood Glen Subdivision (Round Rock) community wide project, the average homeowner cost for fire ant control was reduced by 57% from \$39.77 to \$17.12 per year, 100 percent of homeowners responding to a survey indicated they thought that community wide management was cost-effective and 113 of 114 homeowners supported their Community Association continuing the effort. In a similar project in a Bexar County subdivision, the number of fire ant mounds in common areas were reduced by 98% within 3 weeks after a bait treatment and fire ant activity as measured by fire ants responding to baited vials decreased by 75% while the number of native ant species responding increased.
- 2) Presented fire ant educational information in a wide variety of venues including news articles, newsletters, TV interviews, radio programs, county and multi-county meetings, websites, podcasts, home shows, recertification training meetings, the San Antonio livestock show and rodeo pavilion and other venues. In an evaluation survey of 44 north Texas area clients who attended an educational session, the percentage of clients who used the recommended Texas two step method to manage fire ants was 27% at the meeting but after hearing the presentation another 59% indicated that they intended to use the Texas two step method the next year. This indicates the effectiveness of the educational efforts.

The Extension Program Specialist in Dallas provides IPM information on fire ants and other topics for Neil Sperry's statewide e-newsletter expected to be viewed by more than 15,000 clients each month.

Extension faculty and volunteers conducted 109 meetings and other training sessions during 2006 and the first four months of 2007 which included over 3000 clients and over 6000 contact hours of training on fire ants.

The fireant.tamu.edu website had 2.867 million successful requests during 2006 which is an average of 7,856/day. Other 2006 statistics include the following: 409,514 successful requests for pages, 132,229 distinct hosts served and 80.96 gigabytes of data transferred.

- 3) Extension Program Specialists and Dr. Drees conducted applied research to evaluate a number of new fire ant treatments including baits, granules, liquid drenches and including a number of organic treatments such as "Dillo Dirt" which is a sewer sludge compost, dried molasses, orange oil, Spinosad, neem oil and others. Applied research included development

of: 1) new control approaches, 2) products and formulations. 3) development of performance data for products being introduced to the markets, and 4) designing, implementing and evaluating demonstrations of new technology. One ongoing project has led to EPA registration of Arinix® by Nix of America, a permethrin impregnated nylon which can be molded and sold in numerous forms to be used as barriers to prevent ant and other arthropod problems in electronic equipment. The barriers have a 3 to 5 year residual. It is currently being evaluated in transformer housings by the San Antonio utilities agency and a preliminary report of effectiveness has been submitted to the company to assist in their decision to begin marketing of the product. This product can potentially reduce the \$111 million annual impact of imported fire ants on electrical systems in Texas by providing extended (3 to 5 year) control, including the protection of air conditioner systems, traffic boxes and other sensitive electric components. Assessments of the pyriproxyfen fire ant bait, Esteem, have shown product performance in cattle pastures, allowing Valent U.S.A. to submit their registration packet to the EPA (with P. Nester, EPS, M. Heimer, County Extension Agent) in 2006. The 'skip swath' method of control using this product could reduce treatment cost in half, reduce the amount of insecticide applied, reduce treatment and labor costs and potentially deliver to Texas cattle producers the most cost-effective method for reducing the probability of ant problems

- 4) Biological control agents (*Pseudacteon tricuspis* and *P. curvatus*) were introduced to new parts of Texas (Burlleson, Denton/Wise, Polk, Bexar, Comal, Walker, Orange Counties) and are beginning to spread through releases made by this project and cooperators and through collaboration with USDA-APHIS, USDA-ARS, and the University of Texas.
- 5) Extension Program Specialists collaborated with Dr. Drees and other in acquiring funding from eXtension for 'Taking the sting out of IFA' (K. Flanders, Alabama CES and B. Drees) for FY2006 (\$65,915; \$28,000 for TCE) and with P. Nester (TCE) and P. Beckley (LSU) for FY2007 (\$49,932; \$20,545 for TCE). The Community of Practice (CoP) formed includes every IFA infested U.S. state. Frequently asked questions, basic information and management decision modules will be posted on <http://eXtension.org>.
- 6) Published the second edition of the Urban IPM Program demonstration handbook which includes reports of 15 applied research and demonstration projects on fire ants conducted by Extension Program Specialists, Extension Agents-IPM and specialists.

### **Technical Description of Progress on Individual Objectives:**

**Relevance to Achieving the Overarching Goals of the Texas Imported Fire Ant Research and Management Project** (see RFP guidelines): The activities of the Extension education project relate directly to the overarching goals of the Texas Imported Fire Ant Research and Management Project of eliminating the red imported fire ant as a major economic and medical pest in Texas by providing Texans information and demonstrations of the latest technology available. The project also collaborates with researchers, regulatory personnel, other agencies and organizations to help develop new technology to deliver to clientele and provides feedback from clientele to these agencies and organizations.

### **Manuscripts Published/In Press/Submitted:**

Publications revised:

Managing Fire Ants in Urban Areas- A regional publication for Alabama, Arkansas, California, Florida, Georgia, Louisiana, Mississippi, New Mexico, Oklahoma, South Carolina, Tennessee and Texas. 2006. L-6043. Texas Cooperative Extension. 21p

The Two-Step Method- Do-it-Yourself Fire Ant Control for Homes and Neighborhood. 2006. L-5070. Texas Cooperative Extension.

Electronic Publications and Fact Sheets Revised:

- FAPFS-011 Managing Red Imported Fire Ants in Electrical Equipment and Utility Housings
- FAPFS-014 Fire Ant Control Around Pets
- FAPFS-015 Community-Wide Imported Fire Ant Management Kit
- FAPFS-016 Managing Fire Ants in Texas School Yards and Butterfly Gardens.
- FAPFS-021 Red Imported Fire Ant Control Around Bodies of Water
- FAPFS-035 Broadcasting Ant Bait Products for Individuals with Limited Mobility or in Rough Terrain

**Invited and Submitted Presentations/Posters Presented at Scientific/Technical Meetings/Conferences:**

Nester, Paul and B. Drees. 2007. Aerial and Ground Application Technology for Large Area Imported Fire Ant Treatment Programs. International Pacific Invasive Ant Conference. Kaulua-Kona, HI

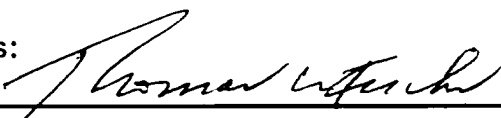
Brown, E. and T. Fuchs. 2007. Home Pest Management. Southwestern Branch ESA. Corpus Christi, TX.

Nester, Paul. 2006. Evaluation of Metaflumizone for Red Imported Fire Ant Control Southwestern Branch ESA. Austin. TX.

Nester, Paul. 2006. Aerial and Ground Application Technology for Large Imported Fire Ant Suppression Programs. Southwestern Branch ESA. Austin, TX.

Nester, Paul, W. Thompson and B. Drees. 2006. Results of 2005 Texas Aerial Applicators Survey. National Red Imported Fire Ant Conference. Mobile, AL

PI Signatures:

 7/30/07  
Signature Date

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Signature Date

**If this report is prepared by someone other than the Principal Investigator, please provide name and contact information:**

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**Deadline: August 1, 2007**