

Red Imported Fire Ants: A Threat to Nursing Homes and Day Care Centers

Bastiaan M. Drees, Texas Imported Fire Ant Project Director, Professor and Extension Entomologist, Nathan Riggs, Extension Agent - Integrated Pest Management (Fire Ant Project) and Dr. Roger Gold, Professor of Entomology and Endowed Chair

NURSING HOMES

The Threat: The red imported fire ant, *Solenopsis invicta* Buren (Hymenoptera: Formicidae), now infests about two-thirds of the eastern part of Texas and isolated western counties (Midland, Ector, El Paso and Lubbock Counties). Although primarily a pest found in outdoor sites, like turf grass areas, flower beds and ornamental plantings, they can migrate indoors in search of food, moisture and nesting sites. In a few instances, large numbers of ants have been found to forage or nest in nursing homes and there have been cases in Texas (Houston, Abilene)and elsewhere (Florida and Mississippi) where hundreds of ants have been found in the beds of patients causing multiple stings and medical complications or death. Thus, the ants present a medical threat to immobile patients and a potential legal liability.

Contract Pest Control Services: Managers of nursing homes and convalescent centers are urged to recognize the red imported fire ant threat and take appropriate actions to assure the safety of their patients by contacting licensed pest control operators and discussing ant control options with them. If separate companies have been contracted to manage insect pests indoors and outdoors, these companies must be aware of the control tactics being used for this and other pests. Red imported fire ants and other ant species easily move through small cracks and crevices in foundations and around windows, and if the ants are not controlled outdoors, will easily and often suddenly migrate indoors. Controlling them outdoors before they enter the building is the best preventive action. Study the contracts with pest control and lawn care companies to assure a plan is included for managing the ants both indoors and outdoors.

Prevention: Conduct regular inspections for ant activity or ant colonies both outside and inside the premises and correct conductive conditions and potential problems. A dedicated, trained staff member or a contracted professional pest control operator can provide for at least weekly inspections, because of the ability of ants to quickly infest or re-infest patient areas. Sanitation within the care rooms must be carefully controlled to include elimination of food sources from the bedside tables, clothing drawers and other storage areas within rooms. Finally, procedures for caring for patients must be constantly reviewed to make sure patients who are incapable of turning are "direct turned" frequently so that ants do not go undetected.

Diagnose Ant Problems: Certain weather conditions can initiate ant colony movement indoors. In very hot, dry weather, colonies may migrate indoors in search of a more suitable nesting site, whereas heavy rains may cause the ants to seek dry nesting sites indoors to escape flooding conditions. Ants that suddenly appear in the beds of immobile patients may be seeking moisture or food for colonies located outdoors or be exploring the patents bed as a colony possible nesting site. Foraging ants recruit additional foragers to suitable food sources, but colonies can migrate en masse in a matter of hours. It is often impossible to determine why ants suddenly appear on a patient, but if developmental stages (larvae and pupae) are present along with worker ants, it is likely that a colony migrated to a new location.

Take Specimens for Identification: Should ants be found indoors, collecting them in a vial of alcohol using a cotton swab or tweezers will help diagnose the problem and can be useful for the pest control operator to determine the most appropriate course of control. These specimens can also be useful in documenting any problems that may result from their presence or activities.

DAY CARE CENTERS

The Threat: Insects hold a dear place in the hearts and minds of children. To a child, an insect is an interesting creature that causes very little, if any, fear. Ants probably receive the attention of most children because they are easy to find and can be watched for long periods of time. Most ants in the daycare's playground setting are harmless, either because they lack a stinger or because they don't use them. Red imported fire ants, on the other hand sting more children each year than all other insects combined. Children are stung on their arms, hands, feet and legs during close inspection of fire ant trails or mounds, or because they do not know they are standing on or near one of these areas. Fortunately, most children are not allergic to fire ant stings and eventually recover on their own. For some, fire ants stings represent a real danger and may require emergency medical attention. Whatever the situation, fire ant control for daycare operators is a difficult, expensive, and ongoing problem that must be dealt with to ensure the safety of the children in their care.

Contact Pest Control Services: By law, all pest control operations in a daycare must be performed by a pest control operator licensed by the Texas Structural Pest Control Board. These operations can be aimed at weeds, insects, rodents, pest birds, plant diseases and all other similar situations.

Prevention: Treating fire ants in these areas can be as costly or inexpensive as the situation demands. In many instances, daycare playgrounds may contain areas of hardened bare soil, wood mulch, pea gravel and sparse grasses. These conditions usually discourage fire ants from building mounds, but do not prevent them from inhabiting these areas. Children are frequently stung by fire ants without any warning or indication of an ant mound. When faced with a situation where ant mounds are not visible, there are some viable, inexpensive and environmentally friendly strategies that will reduce fire ants by up to 95% for extended periods of time.

Whatever the situation, one fact is clear: fire ant stings to children are unacceptable. They can cause painful blisters and even serious medical problems. Treating daycare playgrounds is a sensitive issue and must be approached with forethought and careful planning.

Call your local County Extension Agent for more information or consult the additional resources below.

For more information regarding fire ant management, see Extension publications B-6043, *Managing Red Imported Fire Ants in Urban Areas*; B-6076, *Managing Red Imported Fire Ants in Agriculture*; B-6099, *Broadcast Baits for Fire Ant Control*; or L-5070 *The Texas Two-Step Method Do-It-Yourself Fire Ant Control for Homes and Neighborhoods*. Also visit our web site at http://fireant.tamu.edu. Also see:

Nursing Home Training Presentation Slideshow

Texas Fire Ant Plan Fact Sheet #23, "Medical Problems Associated with the Imported Fire Ant" Texas Fire Ant Plan Fact Sheet #20, "Fire Ants and the Texas IPM in Schools"

Texas Department of Protective and Regulatory Services Website: www.tdprs.state.tx.us

The information given herein is for educational purposes only. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by Texas Cooperative Extension or the Texas Agricultural Experiment Station is implied.

Educational programs conducted by Texas Cooperative Extension serve people of all ages regardless of socioeconomic level, race, color, sex, religion, disability or national origin.

Appendix VII

Vernon's Annotated Civil Statues Article 135 B-6*

Citation of Act

Section 1. This Act may be cited as the Texas Structural Pest Control Act.

Definitions

Section 2.

- (a) For the purpose of this Act a person shall be deemed to be engaged in the business of structural pest control if the person engages in, offers to engage in, advertises for, solicits, or performs any of the following services for compensation, including services performed as a part of the person's employment:
 - (1) Identifying infestations or making inspections for the purpose of identifying or attempting to identify infestations of:
 - (A) arthropods (insects, spiders, mites, tick, and related pests), wood-infesting organisms, rodents, weeds, nuisance birds, and any other obnoxious or undesirable animals which may infest households, railroad cars, ships, docks, trucks, airplanes, or other structures, or the contents thereof, or
 - (B) pests or diseases of trees, shrubs, or other plantings in a park or adjacent to residence, business establishments, industrial plant, institutional building, or street:
 - (2) Making inspection reports, recommendations, estimates, or bids, whether oral or written, with respect to such infestations; or
 - (3) Making contracts, or submitting bids for, or performing services designed to prevent, control, or eliminate such infestations by the use of insecticides, pesticides, rodenticides, fumigants, or allied chemicals or substances or mechanical devices.
- (b) As used in this Act:
 - (1) "Person" means an individual, firm, partnership, corporation, association, or other organization, or any combination thereof, or any type of business entity.
 - (2) "Restricted-use pesticide" means a pesticide classified for restricted or limited use by the administrator of the federal Environmental Protection Agency.
 - (3) "State-limited-use pesticide" means a pesticide classified for restricted or limited use by the state commissioner of agriculture.

Prohibited Acts; Work on Own or Employer's Premises

Section 5.

- (a) No person may engage in the business of structural pest control after the effective day of this Act unless he meets the standards set by the board and possesses a valid Structural Pest Control Business License issued by the board.
- (b) An individual without a license may, on his own premises or on premises in which he owns a partnership or joint venture interest, or on the premises other than an apartment building as defined in Section 4B of this Act, day-care center, hospital, nursing home, hotel, motel, lodge, warehouse, food processing establishment, or school or educational institution, of an employer by whom he was hired primarily to perform other services, use insecticides, pesticides, rodenticides, fumigants, or allied chemicals or substances or mechanical devices designed to prevent, control or eliminate pest infestations unless that use is prohibited by state law or rule or by rule of the United States Environmental Protection Agency or unless the substance used is labeled as a restricted-use pesticide or a state-limited-use pesticide.

^{*} Taken from Day-Care Center Minimum Standards & Guidelines, Texas Department of Protective and Regulatory Services, Stock Code 20310-000, July 1999, Chapter 11, Page 16. Also found at www.tdprs.state.tx.us in "PDF" format.