

Considerations for the Development of Community-Wide Red Imported Fire Ant Management Programs

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The red imported fire ant, *Solenopsis invicta* Buren (Hymenoptera: Formicidae) is a serious pest throughout the eastern two-thirds of Texas and a nuisance that interferes with our daily lives. With their aggressive behavior and stings, worker ants from fire ant colonies threaten both humans and animals. Foraging ants and migrating colonies invade [gardens](#), [homes](#), [electrical equipment](#), and other structures.

For many years, attempts to eliminate fire ants from Texas have resulted in only limited, temporary success. Many insecticides are effective, but because of fire ants' great reproductive capability, the ants reinvade treatment areas and continue to be a major pest.

While eradication of this species is desirable, it is not realistic. The best alternative to reduce their impact is to develop and implement a plan to suppress fire ant populations in neighborhoods and communities. Community groups

and commercial pest control operators can work together to develop and implement successful fire ant management programs. With many different fire ant control methods available, each group can determine which approach is best for their situation.

FOR COMMUNITIES

Consider a Coordinated Effort

The first question you might have is, "Should I consider a neighborhood treatment program to tackle the fire ant problem?" The answer varies, depending on your circumstances. If you live in an urban area, it is important to work with neighbors to manage fire ants. If you eliminate fire ants from your property and your neighbor does not, any control you achieve will be temporary because fire ant colonies can quickly migrate, reproduce, and reinvade small, treated areas.

In Texas, most imported fire ant colonies contain more than one queen. Several hundred queens may exist in a large colony and each queen can produce up to 800 or more eggs per day. Coupled with the fact that fire ant colonies can have several mating flights a year, this means that new colonies can continually develop on your property and grow quickly.



In addition, all or some of the ants from one colony can migrate hundreds of feet to a new location and build a mound. If your neighbors do not manage fire ants, their property will serve as a continued source for repopulating adjacent properties. Coordinated treatments within a neighborhood will better manage fire ants. Homeowner's associations or similar groups can effectively coordinate neighborhood fire ant management.

If your neighborhood does not have such an organization, neighbors can still work together to control fire ants, resulting in [more effective and less costly control](#). If you and your neighbors manage fire ants together, you can remove major sources for reinfestation, making future treatments less extensive or intensive. Also, you can treat common, unoccupied areas and public access areas that serve as reservoirs of fire ants for the entire neighborhood.

Programs are more likely to be successful if you have complete cooperation in the neighborhood and if you contract with a commercial pest control service. If you live in a neighborhood where cooperation is not possible, you can, nonetheless, manage the fire ants on your property. Your management plan may be a continuous battle, but treatments can be made more efficient. If you live in a rural area where individual properties are much larger, it may not be cost effective to intensively treat your entire property. A more realistic goal is to manage fire ants in areas you consider most critical to keep relatively fire-ant-free and to do so cost effectively.

To plan for a successful fire ant management program, consider the following:

- 1) Determine which areas need treatment before designing a management plan. Some areas may have few fire ants but may harbor numerous native ants, which are beneficial to the environment and best left untreated. In these areas, these native ants may help control the fire ants.

- 2) Work with your neighbors to manage fire ants. Cooperation is the most efficient and cost-effective way to manage fire ants. However, if one or more neighbors do not want to be involved, respect their wishes and devise the best management plan for your situation.
- 3) Set realistic goals. Initially, achieving fire ant suppression may take several months, and properties at the borders of your management area will require more attention and time. Fire ants probably will not be totally eradicated from your neighborhood, no matter how good your management plan.
- 4) Follow pesticide laws and regulations. These rules help protect you and your environment. If your organization applies its own treatments, all individuals are responsible for treating their own yard. One person in the group cannot be hired to treat everyone's lawn unless he or she has a license to perform these services from the [Texas Department of Agriculture, Structural Pest Control Service](#). A professional service is helpful because these professionals ensure that all areas are treated correctly and thoroughly.
- 5) Before choosing a pest control service, consider your options carefully. Choose a reputable company with a reasonable bid and make sure it is knowledgeable in fire ant management and fully licensed by the Texas Structural Pest Control Service or the Texas Department of Agriculture. The Better Business Bureau can provide information about whether complaints have been filed against a company. However, even if a company has a complaint on file, not all complaints are legitimate, and each should be evaluated individually.
- 6) Understand treatment methods and remain informed about your management program. Research underway in Texas and

elsewhere may produce data that can be incorporated into your ongoing community-wide fire ant management program to make them even more cost-effective and environmentally sound.

Contracting a Commercial Pest Control Service

Your organization should decide whether or not a professional pest control service is needed. Many fire ant control products are available directly to consumers and a knowledgeable homeowner or group of cooperating homeowners can successfully implement a fire ant management plan. The advantages of a do-it-yourself management program are that you can reduce costs, closely monitor populations, and decide when treatments are needed. However, advantages of contracting a pest control service include:

- 1) A good pest control service will be staffed with professionals who understand fire ants and the most efficient tactics for controlling them in different situations.
- 2) Pest control professionals have access to additional products that may be more effective in some situations.
- 3) A pest control service can coordinate selected treatments with your neighbors. This makes management much more efficient and effective than uncoordinated, individual applications.
- 4) Having a pest control service in charge of treatments insures complete neighborhood coverage. This eliminates the possibility of individuals neglecting or forgetting to treat their property.
- 5) Contracting a pest control service is a convenient way to assure that a management plan is being followed in a timely manner.

If you or your homeowner's group decides to use a pest control service, select a reputable company. If you are unfamiliar with pest control services in your area, check the telephone

directory, consult your Better Business Bureau for service performance records, or contact the Texas Pest Control Association or the Structural Pest Control Service.

The key to successful fire ant management is to work together with nearby homeowners. Develop a plan and select the products most suitable for your situation, either through a homeowner's association or an informal organization of neighbors. For example, a coordinated program may require two bait treatments each year. Between these bait treatments, individual mound treatments will be needed to control colonies not eliminated by the baits. This approach is known as the [Two-Step Method](#).

Ask several pest control services to submit bids for applying treatments. Give them a set of uniform specifications so you can compare and evaluate bids. When developing a bid sheet, consider:

- 1) Treatment costs per given area
- 2) Product(s) to use
- 3) Frequency of service visits
- 4) Assessment procedure (ant population monitoring activities)
- 5) Cost of follow-up treatments
- 6) Cost to treat common areas such as parks and roadsides
- 7) Alternatives for neighbors uneasy about the use of pesticides
- 8) Reporting or information system between the service provider and the customer
- 9) Contact personnel (one person for the company and one person for the customer group)
- 10) Guarantee of re-treatments, if needed

It is important that the customer group provide the commercial pest control service companies a list of current pesticide-use patterns in the area where fire ants are to be managed.

Contact a certified pest control operator in your area by visiting the [Structural Pest Control Business License Search](#) site.

FOR PEST CONTROL OPERATORS

Working with the Community

Fire ant management can be more efficient with coordinated treatments within a neighborhood or community so that infested areas being treated, including common and unused areas, are treated and untreated areas that serve as reservoirs for reinfestation of treated ones are eliminated.

Benefits to Homeowners

Managing red imported fire ants on a community scale should result in less intensive control measures once the fire ant populations are reduced. Putting a commercial pest control operator service in charge of homeowners' management needs assures that treatments are performed efficiently at the correct times. This is not always the case when neighbors try to take care of their own treatment needs. Coordinated efforts allow for treating infested, unoccupied, or community properties that may otherwise remain untreated and serve as a reservoir for re-infestations. A large-scale treatment can be a cost-effective management plan because one large-scale treatment can take the place of many individual property treatments. These considerations make it attractive for a community of homeowners to form coalitions to accomplish fire ant management goals, and a commercial pest control service is the likely choice to coordinate and perform these services.

Benefits to Commercial Pest Control Companies

The advantage to commercial pest control companies is the prospect of acquiring large accounts and being able to more easily manage fire ants. The company that successfully secures the contract to manage fire ants in a neighbor-

hood or community will be visible to a larger number of customers who may also be interested in other services that company provides. For your company to become a successful part of a community-wide fire ant management plan, you will need to contact and convince potential customers that it is in their best interest to hire a professional to manage their treatment plan.

How to Help Organize a Community-Wide Fire Ant Management Program

To become a part of this opportunity, your company must first formulate an action plan to present to potential customers. The action plan should detail your ant monitoring efforts, treatment strategies, and costs to assure that fire ants in the treatment area will be sufficiently managed. It should include specific treatment strategies such as providing spring and fall broadcast applications of a bait-formulated insecticide with follow-up mound treatments for "nuisance" colonies not eliminated by the bait treatments. Another option might be to provide bait applications and allow homeowners to eliminate unwanted mounds found between these treatments (thus, at a lower cost to the homeowners).

Develop the plan to best fit the area you are proposing to manage. It should also include treating common areas and the costs involved. Give special considerations to managing ants around food crops such as [vegetable gardens](#) and [bodies of water](#). Groups contracting a pest control service will likely be taking competitive bids and may already have developed their own fire ant management plan on which to bid. Conversely, your management plan will be evaluated. Including your company credentials, such as your Structural Pest Control Operator's license number, will be helpful.

Considerations for Bidding for Community-Wide Fire Ant Management Programs

Dealing with large-scale treatment areas, such as neighborhoods or communities, does require some considerations. First, a successful man-

agement program should include treatment of all infested common areas. Second, the larger number of clients may allow for a slightly lower profit margin to help make a bid more competitive. Finally, the treatment of larger areas may increase the interval between follow-up treatments. Once initial control is achieved, there will be fewer incidences of colonies moving in from untreated areas. The outer margins of the treatment area, adjacent to untreated areas, will be the exception.

Coordinate With Other Pest Control Companies Working in the Community

For a successful program, coordinate treatments with other types of commercial and non-commercial pest control. Undoubtedly, many homeowners will have pest control needs for other pests, and all programs need to be coordinated so these programs will work together and not interfere with each other. An example is a yard that is being treated for chinch bugs or fleas. If treatments for these pests are made prior to a scheduled broadcast application of a fire ant bait product, any contact insecticide applied to the surface of the turf will prevent worker ants from foraging and successfully collecting the bait. This would cause a failure of the fire ant management effort, requiring re-treatment to control fire ant populations. For this reason, your company should be aware of any other treatment programs that will take place in the area.

Set Realistic Expectations

Your action plan should match your clients' expectations. In your offer, spell out any treatment option guarantees and limitations to support your fire ant management plan. This step includes educating your clients that the plan's goal is to manage (suppress, control) fire ants and, because of the biology and habits of the imported fire ant, eradication is not realistic. Reinvansion of treated areas will occur, particularly if treatment schedules aren't maintained. Acknowledge that the effects of some [broadcast-applied ant bait products](#) occur slowly.

Promote Your Plan

With an action plan developed, the next step is selling your program. One way is to contact homeowner's associations and give presentations about your plan and the benefits of managing fire ants on a community-wide basis. If no homeowner's group is organized, an option is to present your management plan to current customers and encourage them to tell their neighbors about the benefits of forming a neighborhood group. Another way is to advertise your neighborhood fire ant management plan in media outlets.

Schools: A Special Consideration

[Texas public schools](#) must comply with specific pest management regulations enforced by the Structural Pest Control Board. When a school is within the area of a planned fire ant management program, there will be special considerations. Not every pest control operator is qualified to apply treatments to school grounds. If the school administrators agree to include their grounds in the fire ant management program, the regulations for treating in these areas must be followed. Some insecticides can be used near schools more easily than others. These agents are on a "green list" and include products such as those containing insect growth regulators and biological agents. Other products, those on the "yellow list" and "red list," have use restrictions.

Use an Environmentally Friendly Program

An environmentally friendly management program has several benefits. Some homeowners will object to the use of chemicals on their property or prefer "[organic methods](#)" only. If this consideration keeps some homeowners from being part of a management program, managing fire ants in adjacent areas will be more difficult. The strength of a community-wide program is to involve everyone. Deal with this concern by relying on environmentally friendly methods and presenting your company's concerns and options

to homeowners. An environmentally friendly program can rely heavily on baits, which mainly target selected ants. Some bait products also use insect growth regulators that are relatively less toxic to mammals when properly used. These options are attractive to homeowners who may object to the use of more toxic chemicals.

Another consideration is to design a program that is friendly to **native ants**. Many native ants are beneficial insects and are the best competitors of imported fire ants. If these native ants are not highly impacted by a treatment program, they can provide biological resistance against high fire ant population levels. Where there are few fire ant mounds (less than 5 per ¼ acre yard) and native ants are present, treating individual mounds instead of broadcast baiting can have much less impact on native ants.

CHECKLIST FOR A SUCCESSFUL IMPORTED FIRE ANT MANAGEMENT PROGRAM

Survey treatment areas. Know the level of infestations in areas that are to be managed. Some areas may not have enough red imported fire ants to justify any treatment except a few single colony treatments, while some areas may be heavily infested. Maintain and encourage native ants wherever possible.

Respect homeowners' sensitivity. All potential customers don't have the same view about fire ants or their control. Some may be OK with living with a limited number of fire ants in order to reduce the amount of chemicals used on their properties, while others might not want to see any ants in their yards at all.

Educate customers and make them aware of management limitations. To alleviate problems that may stem from misconceptions, outline to customers the strengths and limitations of your management plan before treatments begin. Stress the time period that different treatments take to give results. Some people do not realize that baits

take time to bring about control, but this time is essential for their success. Customers should also be aware that there are no treatments that will provide permanent control. Fire ants will not be permanently eradicated, and, therefore, must be continually managed. Even when ants are eliminated from an area, there will be reinfestations from other areas from mating flights and colonies may move whenever favorable environmental conditions exist.

Explain costs and future treatment needs. For best results, managing the imported fire ant is a long-term, sustained effort. Explain this concept, along with its costs, to homeowners or homeowner groups so that once a program is started, it can continue without interruption. A continual effort usually means less-intensive treatments following the initial treatments if there are no gaps in the program that allow fire ants to fully re-establish.

Show that you are qualified. In the state of Texas, you must be licensed to legally receive compensation to treat pest insects. Be sure that your clients know you are licensed by the Structural Pest Control Service or the Texas Department of Agriculture.

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REFERENCES

Managing Fire Ants in Vegetable Gardens
u.tamu.edu/ento-015

ABC's of Fire Ants and Their Management
fireant.tamu.edu/files/2013/02/FAPFS005.2002rev.
pdf

*Managing Red Imported Fire Ants in Electrical
Equipment and Utility Housings*
u.tamu.edu/ento020

*Community-Wide Imported Fire Ant Management
Kit*
u.tamu.edu/ento-025

*Texas Department of Agriculture, Structural Pest
Control Service*
texasagriculture.gov/RegulatoryPrograms/
Pesticides/StructuralPestControlService.aspx

*Fire Ant Control: The Two-Step Method and Other
Approaches*
www.agrilifebookstore.org/product-p/ento-034.
htm

Structural Pest Control Business License Search
www.texasagriculture.gov/RegulatoryPrograms/
StructuralPestControlService/
PestControlBusinessLicenseWebSearch.aspx

*Red Imported Fire Ant Control around Bodies of
Water*
u.tamu.edu/ento-024

Broadcast Baits for Fire Ant Control
www.agrilifebookstore.org/products-p/e-628.htm

Fire Ants and the Texas IPM in Schools Program
u.tamu.edu/ento-017

*Natural, Organic, and Alternative Methods for
Imported Fire Ant Management*
u.tamu.edu/ento-009

*Survey-Based Management of Red Imported Fire
Ants*
u.tamu.edu/ento-007

Managing Red Imported Fire Ants in Urban Areas
www.extension.org/pages/11004/managing-
imported-fire-ants-in-urban-areas-printable-
version

*Management of Imported Fire Ants in Cattle
Production Systems*
www.agrilifebookstore.org/product-p/sp-196.htm

Broadcast Baits for Fire Ant Control
www.agrilifebookstore.org/product-p/e-628.htm

**For more information regarding fire ant management,
see Extension publications *Managing Red Imported Fire Ants in Urban Areas*,
Broadcast Baits for Fire Ant Control, or *Fire Ant Control: The Two-Step Method
and Other Approaches* posted on <http://AgriLifeBookstore.org>.**

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