Products to Control LFA

There are many products which claim to be for "fire ants". However, there are many different species of fire ants in the world, and not all products will work on all species! Little fire ants (*Wasmannia auropunctata*) do not build mounds, and live in super colonies with many queens and nests all working together, which can span large areas from tree tops to rock walls. Their unique ecology requires a special approach to treatment in Hawaii. BIISC relies on the results of years of scientific tests from University researchers at the Hawaii Ant Lab and Cooperative Extension service to inform our recommendations for treatment of LFA on the Big Island.

There are multiple products which have been shown to be effective in treating for LFA. However, the most important thing to keep in mind is that there is no "one-step" method to eradicating an LFA infestation. Colonies can recover after a single application, so any effective plan will involve multiple applications, timed for best impact. Whatever bait product you choose, plan to treat your property with a bait every 4-6 weeks for a year in order to wipe out all of the nests!

There are several different types of products that you can use to control LFA. Your personal plan will depend on your landscape, amount of area, and type/amount of vegetation. Be sure to carefully read all the label requirements of any product you choose to use.

Baits:

Ant baits are disguised as attractive food, encouraging the worker ants to share the pesticide with the rest of the colony, including queens and developing larvae. There are two different types of action for the recommended LFA products: *toxicant* and *growth regulation*.

Toxicant Baits: These kinds of baits are meant to kill insects a short time after ingestion. Normally worker ants die a few days after taking the bait. Toxicant baits that work on LFA will contain one of these active ingredients: *hydramethylnon*, *indoxacarb*, and *metaflumizone*. Please note while all of

these products are safe for mammals and birds, they are not approved for use in all types of vegetation (for instance, some are not labeled for use in fruit trees, while others may be labeled for use in avocado or citrus trees only). Please read the label to ensure you have the right product for your landscape. Below are some examples of toxicant baits:

1. Toxicant granular baits: Granular baits are normally made of corn grit that is infused with oil and the active ingredient. Worker ants suck the oil out of the corn grit and share the food with the queen and the rest of the colony. Good for spreading on lawns or open areas, for "short" trees and vegetation. For fruit trees/food crops, check

label! Do not get granular baits wet, or they will lose attractiveness to the ants. Try to apply on a day when it appears you will have a few hours of dry weather.

Amdro Brand (granular bait)

Active: Hydromethylnon

Amdro is a big company and has many different kinds of pesticides. Make sure to read the label to make sure that you're buying an ant bait.

- Amdro Fire Ant Bait Kills Fire Ants EPA Reg No.73342-1
- Amdro Ant Block Home Perimeter Ant Bait EPA Reg No.73342-2
- Amdro Pro EPA Reg No.241-322

Siesta (granular bait)

Active: Metaflumizone EPA Reg No.7969-232 Can be used in citrus, stone, pome, and nut trees <u>Label SLN</u>

MaxForce Complete (granular bait)

Active: Hydramethylnon EPA Reg No.432-1255

Altrevin (granular bait)

Active: Metaflumizone EPA Reg No.7969-270

Can be used for citrus and nut trees

Antixx (granular bait)

Active: Spinosad *Spinosad is an organic active ingredient but this product is not organically certified*
EPA Reg No. 67702-56
Can be used for tropical fruits and other crops

Firefighter (granular bait)

Active: Spinosad *Spinosad is an organic active ingredient but this product is not organically certified*

EPA Reg No. 67702-56-70051

Can be used for tropical fruit and other crops

2. Toxicant gel bait: Mix the product with the peanut butter/oil/xanthum gum recipe designed by the Hawaii Ant Lab. <u>Provaunt Recipe here.</u> Good for applying to thick vegetation, tall trees, and in areas where there is frequent rainfall.

Provaunt (powder, needs to be mixed into bait)

Active: Indoxacarb

EPA Reg. No. 100-148 Label and SLN

The products will decompose (break down) within a couple of days of application. Applications should be 5-6 weeks apart.

3. Insect Growth Regulator (in a bait): Unlike toxicants, IGRs don't kill the pests, but disrupt their life cycle. These products reduce or stop the egg production of queens, and prevent eggs and larvae from developing, thus weakening the colony. IGRs are not poison and will not kill adult workers (these are the ones that sting). Since IGRs have no impact on non-reproductive ants, the product will take some time to take effect: workers have a lifespan of about 3-4 months, and the impacts will be seen once the workers start to die off. IGRs contain the active ingredients *methoprene* or *pyriproxyfen*. However, only Tango (methoprene) has been approved to be mixed into the gel bait developed by HAL. *Tango bait recipe cards*.

Tango (liquid, mix into a bait)

Active: S-methoprene EPA Reg No.2724-420 Can be used on edible crops and fruit trees

This bait is good for areas with lots of fruit trees, as it is labeled to use on/around food crops. One gallon of bait will generally treat 1 acre (you may go up to 2 gal/acre for very, very heavy vegetation). Tango is recommended to begin your treatment, as several months will weaken the colony and make it vulnerable to a later toxicant regimen.

B. Barrier Treatments:

Barrier treatments can be used when you have infestations occurring on neighboring properties or stretches of land where control is not taking place. You may want to spray around the base of your house and all entryways to prevent ants from coming in to your house, while you are also baiting the ants outside in your yard to get rid of the colonies.

Do not apply a barrier treatment and bait at the same time in your yard! The barrier may prevent workers from reaching the bait or keep them from returning to the colony, which would be a waste of time and money for you. It's best to use a barrier treatment once your infestation is under control. If you are using a barrier around your house to prevent ants form coming inside, do not apply on the same day as you bait.

This is the type of product used by pest control companies who spray to prevent ants from entering or forming colonies inside your home. If you would prefer to apply these treatments yourself, know that they come as a granular or a liquid. Unlike bait products, these granulars must be mixed with water to be effective. Products may contain the active ingredients *bifenthrin*, *cyfluthrin*, and *cypermethrin*.

Examples of Barrier Treatments:

Talstar Brand

Active: Bifenthrin (and zeta-cypermethrin in some products)

- Talstar P (Talstar One) EPA Reg No.279-3206
- Talstar PL Granular EPA Reg No. 279-3168
- Talstar XTRA Granulars EPA Reg. No. 279-9552

Over N Out Advanced Fire Ant Killer

Active: Bifenthrin and zeta-cypermethrin

EPA Reg No.279-3344-71004

Ortho Home Defense Insect Killer for Indoor and Perimeter

Active: Bifenthrin

EPA Reg. No. 239-2699

Upstar Gold

Active: Bifenthrin

EPA Reg No. 70506-24

Bifen

Active:Bifenthrin

- Bifen XTS EPA Reg No. 53883-189
- Bifen IT EPA Reg No. 66222-190

C. Contact Pesticides:

Substances like Raid, Sevin, and Orange Guard fall into this category.

These are made to kill a wide range of insects and bugs, which includes beneficial insects if they also come in contact with the spray. These pesticides are only a short term fix, and are mainly used for keeping ants out of a certain area. Using contact pesticides will not kill the colony, only the ants that come in contact with the spray. These are best used in the house where you just need to get rid of the few that are biting you. Baiting is the only sure way to eliminate little fire ants.