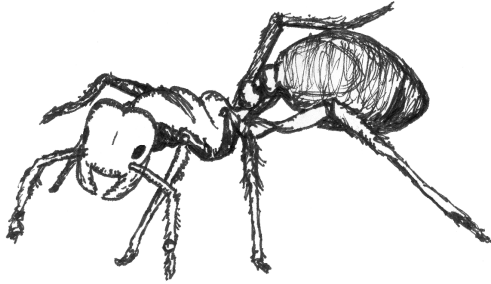


## COPING WITH FIRE ANTS

### An Imported Pest

#### Pasquotank County Center, NC Cooperative Extension



South American Imported Fire Ants were accidentally brought into the USA in the port of Mobile, AL early in the last century. They have been moving northward and westward ever since, spreading a few miles every year. They have been spreading steadily in Pasquotank County ever since the first report of them in June 1993. They now permanently inhabit areas all through the county. **Residents are urged to learn more about them. They fly in winged swarms 3-6 times per summer so even one mound in your neighborhood can grow into 20-30 mounds by year's end.**

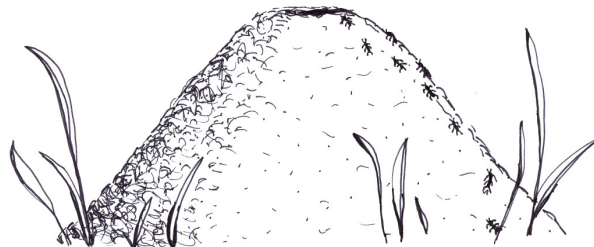
**Fire ants bites can be painful and can become infected. A 30-year-old Marine in Virginia Beach was killed in 2006 because he was bitten a few times and was allergic to the fire ant. So fire ants present a nuisance and a danger.**

Fire ants are the size of normal, tiny house ants, more or less, and have red-brown bodies towards the head. The rear body part is black and slightly more rounded than other ants of similar size. If they contact skin, they bite hard with their jaws and then inject acid from their abdomen. Each ant will continue to sting in this manner, over and over, until it is brushed, shaken, or washed off. The strong acid burns your skin and can produce welts, which itch like a poison ivy rash for one to several weeks. **A few people who are highly allergic may die from a reaction to the stings. In rare cases, animals such as deer, quail, domestic livestock, and pets can be injured, blinded, or killed by fire ants.**

**Teach all of your family and neighbors to recognize fire ant mounds.** Mounds begin when queen ants fall from the sky, lose their wings and tunnel deep underground where they begin to lay up to 1,600 eggs per day for up to seven years. At first, young mounds are not noticeable, lying under grass, at the edge of pavement, next to walls or trees, under plastic mulch, underground utilities or even in sand boxes or under the bases on a baseball field. Mounds spread sideways then begin to rise above the ground as much as one or two feet. They often have many holes in the top, leading down to ant tunnels and to the queen chamber, which is located one to two feet underground. After months, an undisturbed mound may look like a small, bare mountain two feet tall. Or it may be long and skinny, alongside walkways, etc.

Scratching the top of a mound lightly with a stick will cause dozens or even hundreds of ants to boil out of the mound in seconds. Each fast moving ant is searching aggressively for something to attack.

Without disturbing the mound, use a fine lime powder to dot around the mound to show you've found it and treated it. This can help you keep track of new fire ant mounds which pop up on your property. Let native ants live since they will compete with invading fire ants all through the year. Keep NATIVE ants out of your house, but allow them to live in your lawn and landscape features.



### Using Insecticides For Fire Ant Control

*Always read the label first!!* Apply all baits gently on top of and around the edges of mound. **It is important not to disturb the mound when treating it.** Disturbed ants may move their queen sideways underground to a new location several feet away. Treat individual mounds where practical. Use the correct amount as labeled on the container. The larger the mound, the more chemical needed.

**Granular baits** should be sprinkled around mound edges and over top.

**Granular poisons** should be sprinkled over the top of mound, then watered in deeply.

**Liquids** should be diluted in water and sprinkled with a watering can or slowly poured from a bucket. Soak the soil around the mound, then spiral inward over the mound. Use one gallon of liquid mixture for every six inches across the top of mound.

Broadcast only when many mounds are widespread. Broadcasting kills other ants and ground beetles that compete with fire ants. So we do not recommend broadcasting unless you have many mounds. Baits and labeled pesticides applied as instructed on container will not kill surrounding plants. Bleach, boiling water, fuel, or other unlabeled chemical will kill plants, may pollute soil and ground water, and may injure the person applying them. ***Do not rely on only one pesticide active ingredient, as this may result in the fire ants building a resistance to that chemical over several years of use.***

#### CONTACT POISONS

TRADE NAMES	ACTIVE INGREDIENT	CONTROL
Citrex	Limonene	Fast
Over N' Out, Top Choice	Fipronil	Slow
Organic Solutions	Pyrethrins	Immediate
Orthene, Hi Yield F.A. Bait	Acephate	Moderate
Spectracide Pro, Ambush	Permethrin	Fast
Sevin	Carbaryl	Moderate
Bonide Rotenone	Rotenone (botanical)	Slow

#### BAITS

TRADE NAMES	ACTIVE INGREDIENT	CONTROL
Amdro Ant Block / Bait, Maxforce	Hydramethylnon	Mod-Slow
Ascend, Varsity, Affirm	Abamectin	Mod-Slow
Award, Logic, Advion	Fenoxycarb, Indoxacarb	Mod-Slow
Conserve, Eliminator,	Spinosad	Mod-Slow
Esteem, Spectracide Once & Done	Pyriproxyfen	Slow
Extinguish	Methodprene	Slow

## Other Resources

Your local NC Cooperative Extension Service  
<http://www.ces.ncsu.edu>

NCDA & CS – Plant Industry Division  
<http://www.ncagr.gov/plantindustry>

### Courtesy of the

Pasquotank County Center  
NC Cooperative Extension



### Compliments of the

North Carolina Department of Agriculture  
& Consumer Services  
Structural Pest Control & Pesticides Division

Steve Troxler, Commissioner



*Use of trade names of products in this publication are for educational purposes only and do not constitute endorsement of said products nor non-endorsement of similar products labeled for like purposes.*

4/8/2010

## A Monthly Calendar for the Integrated Pest Management of South American Imported Fire Ants in North Carolina

by Tom Campbell, Pasquotank County Center, NC Cooperative Extension

Dry baits require no water to haul and cost 10 cents to 60 cents to treat small to large mounds. Baits should be applied in the grass **AROUND THE EDGE OF MOUNDS SO AS NOT TO DISTURB THE MOUND MUCH**. As baits deteriorate, use up baits with neighbors and friends who are less able to kill mounds, since any mounds near you will release winged fire ants which will invade you! **Use up all bait by early winter** and buy fresh to store for use in late winter and early spring. Do not break the vacuum seal on these bait containers until they are needed to kill fresh mounds.

Contact granular chemicals and liquid chemicals often require hauling water but act faster than baits. They may be cheaper or more expensive to apply per mound than baits, depending on the product chosen and how it is used. However they may require more labor and time to apply. They can be quite toxic to handle, so use with caution.

**DO NOT USE GASOLINE OR KEROSENE** to drench fire ant mounds. It poisons all nearby plants and poisons the soil for many months thereafter. Eventually these liquids filter down and poison groundwater. They are less effective than many legally labeled fire ant insecticides and **ARE THE MOST EXPENSIVE WAY TO TREAT**, costing as much as over \$ 2 – \$ 4 to treat a single mound deep enough to kill all queens.

To check a mound for activity, **DO NOT DISTURB IT IN ANY WAY IF YOU ARE NOT PREPARED TO TREAT IT WITHIN SECONDS**. If you step on a mound, mow the top, or disturb it by scratching or kicking the top, or pouring too little chemical into it, the surviving ants **IMMEDIATELY** tunnel in new directions underground to carry the queens to safe new locations, then resurface. Instead, assemble your bait, granular, or liquid drench chemicals and then perform a **LIGHT** touch test on the crust of the mound at one edge with a tool or stick. If boiling ants emerge, begin treatment **RIGHT AWAY**. Baits, put out in late afternoon (after 4 PM) will be taken in right away as disturbed ants settle down and take it underground. Chemical granules, water soaks, and drenches of liquid chemicals must begin in seconds and be thorough enough to penetrate to all the queens to be successful.

You may check again with the light scratch test in 3-5 days to see if re-treatment is needed. If you have previously marked the mound with lime you may do so again as you retreat. Some mounds will be less easy to kill than others.

**January through early May** – Fire Ants are underground on cold days, aboveground active and foraging **AND WILLING TO ATTACK** on warm sunny days when air temperatures rise above 50 degrees Fahrenheit. Very cold rainy winters may kill many fire ant mounds naturally.

**Scout for mounds every week** on sunny southern and western exposures of ditches, curbs, slopes facing the sun, and edges of sidewalks, driveways, and building walls that face the sun.

Detect ants out foraging with a few crushed potato chips left on the mound on calm days or a sliver of hot dog left on mounds on windy days. When foraging ants are detected bait them around the edges of the mound. Apply the bait mid-day after dew has dried and while temperatures are warm while the sun shines. **WINGED SWARMS** do not often occur in these cool months. Poke mounds gently to see if ants are still present and if soil is warm enough for them to be active.

Mark all mounds after treating them using several cheap small scoopfuls of fine white powdered lime available at many hardware stores, garden centers, and the garden departments of big box chain stores. Spots of white lime stand out for several weeks, alerting people to the mound while these “mound markers” let you know which mounds you’ve already discovered and treated and which are new mounds in your yard. The lime eventually fades into the soil where it does good to plant growth. **DO NOT IMPLANT FLAGS OR STICKS IN MOUNDS OR VERY CLOSE TO MOUNDS**. **GREAT DISTURBANCE TO THE MOUND, INCLUDING THE WAVING OF A METAL WIRE FLAG, MAY BE ENOUGH TO TRIGGER THE ANTS TO TUNNEL UNDERGROUND UP TO 120 FEET IN ANY DIRECTION TO MOVE THE QUEENS**. **MOUNDS WITH SEVERAL QUEENS MAY MOVE THEM IN DIFFERENT DIRECTIONS SPLITTING MOUNDS INTO SEVERAL NEW MOUNDS**.

**May through June – Scout every three days** for Fire Ant mounds begin to grow and spread. The warmer the weather the faster their mounds grow and spread. This is a critical time to bait mounds and treat mounds, because every mound killed **INCLUDING THE QUEENS IN THE BOTTOM OF THE MOUND**, the fewer mounds that will create **WINGED SWARMS** later in the summer. Preserve native ant mounds since all other ants will attack winged fire ant queens and compete for food with fire ant colonies. Preserve other native enemies of fire ants such as small snakes, lizards, the velvetine ant and other docile solitary wasps that hover near the ground all summer.

**June – early November – Scout Your Property Every Day ! Fire ants are more apt to swarm on the wing in rainy periods than dry periods**, but they can build up and swarm without warning in any year. **Keep your preferred chemical controls handy at all times and treat mounds promptly when you first notice them**. Spots of **mound marker lime** are a cheap and not disturbing way to alert people to the presence of mounds and signal to yourself and others that that mound has been treated or re-treated. Treat after 4 PM for best results.

**Be aware that fire ants exit their nests in summer flood waters and float as a living raft of thousands of stinging ants**. This is especially important to know in hurricanes. **During and after hurricanes, emergency personnel may not be able to respond promptly to help persons with many bites or who suffer anaphylactic shock from only a few bites**.

**November – December Scout your property every week** and kill new mounds you haven’t previously treated and marked. Perform the light scratch test with a key or a pen on the crust of the mound at its edges to make sure all mounds are totally dead by winter’s arrival.

