

Fire ant control:

When, how, and why to apply insecticide

BY ANDREA FRASSONI



Probably no insect has caused as much damage and personal injury in the United States over the past 20 years as the red imported fire ant. If you live and work in the southern U.S., fire ants are likely the toughest insect you face. Fire ants are a serious threat on sports turf and other grassy areas.

A single fire ant colony may have as many as 100 queens, each capable of laying up to 1,500 eggs per day for as long as 7 years. The average colony houses 100,000 to 500,000 workers. Fire ant mounds are commonly found in open sunny areas. Although they may look large on the surface, this is just a small portion of the entire nest, which can extend 20 feet into the ground and stretch out more than 8 ft. in all directions.

In the U.S., more than \$1 billion is spent on fire ant control every year. Unfortunately, much of that is wasted on ineffective treatments. Getting the best results requires choosing the right insecticide and timing the application correctly.

Weather matters

Like all insects, fire ants need a certain level of moisture, and they can't tolerate excessive heat or cold. Their intolerance to cold is the reason fire ants are only a problem in the southern states. Conversely, extreme heat and their need for moisture are the reasons fire ants seem to disappear during hot, dry conditions. In such weather,

they burrow deeper into the ground. It might appear that they have left the turf, however, they're only waiting for better conditions to appear at turf surface.

Insecticides applied at times like these will be less effective, because fewer ants will contact them. Even when ants are actively foraging, traditional contact insecticides typically reach only 10% of the members of a colony.

Fire ants are most likely to be active on and near the surface of the soil when the temperatures are moderate and surface moisture is present. This is the time to apply insecticides. See sidebar, "Chemical control methods" for additional information about treatment options. Ideal conditions are most likely to be present November through March. Applications made in the springtime are most likely to control the highest percentage of queens, because this is the time when the majority of new queens are mating.

Fire ant behavior can also be manipulated for control purposes. For example, irrigation is just as effective at bringing ants to the surface as rainfall. If temperatures are in the appropriate range, but the weather has been dry, timing an insecticide

application to follow thorough watering or irrigation may be effective.

ST

Andrea Frassoni is a writer with FCF Schmidt, which represents Chipco Professional Products, makers of TopChoice one-treatment insecticide and FireStar granular bait.



Fire ants are destructive and dangerous insects that cause property damage and demand control.

Chemical control methods

Individual mound treatments selectively control red imported fire ants. They generally require more labor and monitoring than other methods, and are not suggested for heavily infested areas.

Mound drenching is when an insecticide is diluted and spread into and around the mound and surrounding area. The mound is broken open and the insecticide is poured directly into the galleries. Mound drenches may involve handling insecticide concentrates, thus requiring a professional for application.

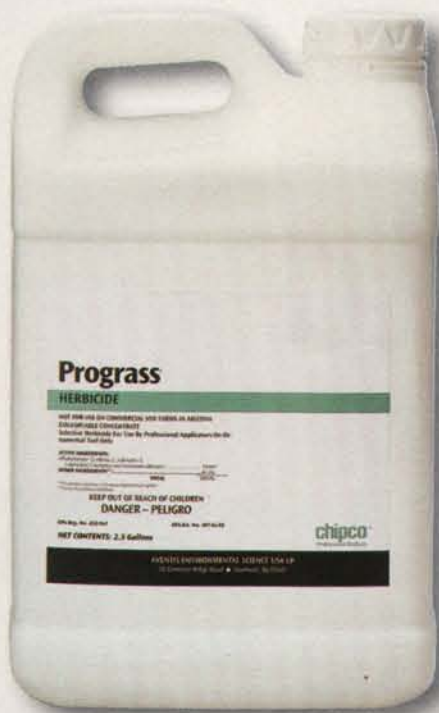
Applied in the middle to late afternoon, **dusts** must be used only when the soil is not excessively wet or dry, when rain is not expected, and irrigation can be delayed for 24 hours. Dusts leave surface residue. Often dusts are applied to the mound, but the mound is not the customary entry/exit point for fire ants, making this application ineffective.

Baits take several weeks to eliminate a fire ant colony. During hot weather it is best to apply in the late afternoon or early evening. Baits must be kept dry. If it rains within a day

of application, it will have to be reapplied.

Large fire ant mounds can be eliminated through **fumigants**. Only those professionals who have been specially trained should apply fumigants.

Broadcast treatments involve applying an insecticide over a large area rather than on specific mounds. One advantage of broadcast treatments is that newer colonies may be controlled before mounds even appear on turf. However, baits dissolve when they become wet making them useless.



COOL-SEASON POA ANNUA CONTROL

Prograss herbicide is an ideal Poa annua control product, says Chipco, because as a selective herbicide, it is both root and shoot absorbed, providing both pre- and postemergence control of Poa annua. This flexibility of application allows for Poa control during its germination and growth periods, any time from late summer through fall.

Applying Prograss in a customized program including non-chemical control techniques such as aerifying will achieve the best results in Poa control. Such a program should be determined based on the turf species and varieties being treated, as well as the percentage and location of Poa infestation.

Applications in the fall will coincide with the germination and growth periods and will control Poa before it can begin competing with the turfgrass.

Chipco/800-438-5837
For information, circle 161

NEW LABEL FOR MEDALLION®

Syngenta Professional Products' Medallion (fludioxonil) fungicide recently received a new label from the EPA for control of pink snow mold and the more difficult to manage gray snow mold for lawn and golf turf management; and for the control of Rhizoctonia, Cylindrocladium, Fusarium and Sclerotium on landscape ornamentals.

When the mercury-based products for control of pink and gray snow mold were taken off the market a few years back, superintendents were left with limited options for protecting their turf against these diseases.

As many turf managers have experienced, a case of snow mold during the winter months can mean dead turf the next year. Aside from the eyesore that is created, you ultimately have to spend more time and money reseeding and resodding.

"When applied at 0.5 oz per 1000 sq. ft. in the fall before snow cover, Medallion gives turf managers the just-in-time protection against snow mold that they've needed," says Dr. Mike Agnew, Syngenta field technical manager for turf.

Although Medallion is a contact fungicide, research in the Pacific Northwest, the Northeast and the Rocky Mountains shows that it actually controls the disease in the thatch and near the surface of the soil, delivering sound preventive disease control.

Medallion also is an excellent tank-mix partner with Banner MAXX®. "The Medallion/Banner MAXX combination offers a broader spectrum and higher level of control for a longer period of time. This is particularly true for snow mold and summer patch," said Agnew.

"Medallion also provides good control of leaf spot, dead spot of bentgrass, brown patch, summer patch and yellow patch, among other turf diseases."

Syngenta/800-395-8873
For information, circle 165



IMPROVED ORGANIFORM FORMULATION

Nu-Gro Technologies, Inc. announces the formulation improvement and increased production of Organiform controlled release nitrogen. The formulation improvement will meet and exceed environmental requirements for heavy metals content, says the company.

"The new formulation is based on ureaform technology but uses peanut shells as an organic base component," says Bill Walrath, manager of technical services. "The formulation change further reduces any concerns about metal content and provides improved economics for the end-user."

Organiform 30-0-0 is a reacted nitrogen product, similar to Nu-Gro's Nitroform (ureaform) and Nutralene (methylene urea). Organiform offers an intermediate release, up to 24 weeks. Based on carbon-linked polymer chains, Organiform has 55% WIN (water insoluble nitrogen), providing a slightly faster green up than Nitroform but slightly slower than Nutralene.

Nu-Gro Technologies/888-370-1874
For information, circle 164



PREVENTATIVE FUNGICIDE

PolarKote is a preventative fungicide that has proven effectiveness in controlling gray snow mold (*Typhula* spp.) and pink snow mold (*Microdochium nivale*), and it provides economical insurance to protect turf from winter disease activity. The new PolarKote products are available in 10G, a 10% granular formulation, and 4F, a liquid sprayable formulation. The granular product is available in 50-lb. bags and contains 5 lbs. of PCNB per bag. The flowable product is available in both 2.5-gal. containers and 30-gal. drums, and each contains 4 lbs. of PCNB per gal.

JR Simplot/800-688-7333
For information, circle 166

COMPASS™

STROBILURIN FUNGICIDE

Compass is a total package because it offers high efficacy and long-term control at reduced risk and the lowest rates available, says Bayer, making it affordable for use on large areas. A strobilurin fungicide, Compass controls brown

patch, gray leaf spot, anthracnose, leaf spot, red thread, rust, pink snow mold, and other diseases.

In addition, the formulation and packaging are easy to use alone or in a tank-mix. The product offers you that strobilurin option that exhibits no phytotoxic or thinning effect.

Bayer Corp./800-842-8020
For information, circle 170



PREPPING TURF IN THE WINTER

With the cold of the winter months upon us, two goals are deep within each landscape professional. First, preparation for a green beginning to the new season. Second, keeping warm. Depending on where you are your problems may vary.

Ron Parron of Barnes Nursery, Huron, OH, tells of his arch nemesis—clover, ground ivy, spotted spurge, and black medic. "Those four are my biggest headaches when dealing with turf throughout the year," he says.

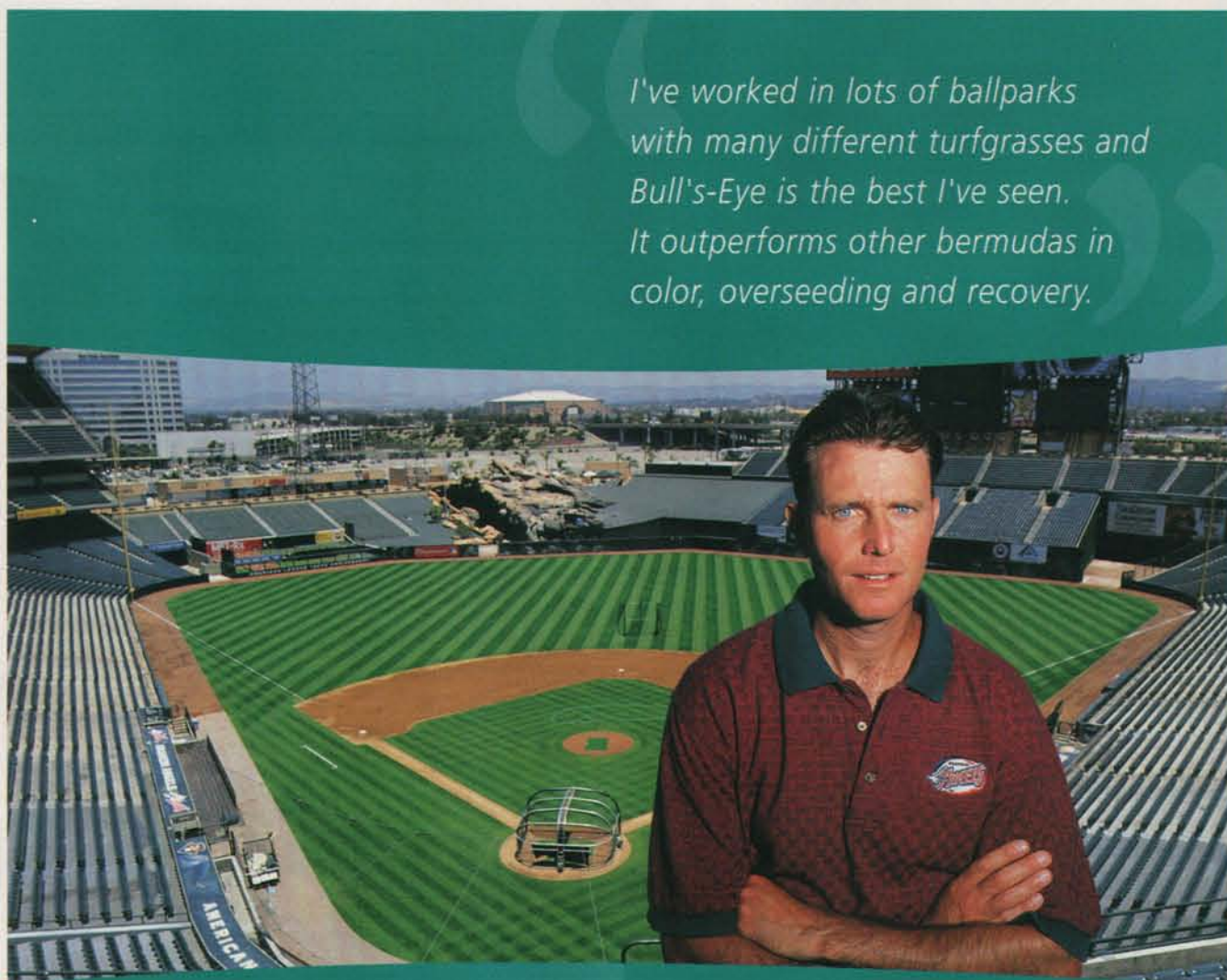
Parron used Strike Three ULTRA. He says, "Strike Three ULTRA showed amazing results on alleviating the turf of clover and ground ivy . . . absolutely amazing."

After discovering Strike Three ULTRA, Parron was armed and ready to battle a field that lay untreated for more than 2 years. "There was more yellow than anything in that field, covered in dandelions, but when I was through, the field was green," Parron says.

Mark Slavik of ProSource One says, "Spraying a herbicide early in the season is a key element to controlling weeds for the entire season."

Slavik recommends Strike Three ULTRA as a viable option for eliminating spurge, oxalis and clover. "With Strike Three ULTRA you have one product, no mixing, that quickly disposes of tough-to-control weeds," he says.

ProSource One/901-758-1341
For information, circle 168



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—Barney Lopas
Field Manager
Edison International Field,
home of the Anaheim Angels
Anaheim, CA.

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In & On the Ground



**NON-CHEMICAL
MOLE CRICKET
WEAPON**

MicroBio, a Becker-Underwood subsidiary, introduces Nematac S, a bio-pesticide that uses a natural enemy instead of chemicals to control the pesky mole cricket.

Nematac S is a nematode-based bio-pesticide formulated in a water-dispersed carrier that is applied as a high volume

spray. It is based on a specific beneficial nematode called *Steinernema scapterisci* that was identified as a pathogenic parasite by the University of Florida.

Exclusively licensed by MicroBio, a UK based company, the beneficial nematodes in Nematac S become active when applied to a soil profile and use mole crickets as hosts. The microscopic nematodes enter inside the mole crickets and release lethal bacteria. The mole cricket becomes a food source for the nematodes, which will reproduce and continue to attack the mole crickets infesting the turf. The nematodes in Nematac S attack only insects so they will have no ill effects on plants.

First introduced in the United States from Central America through ports in Florida, mole crickets quickly spread throughout the southeastern US and recently have begun showing up as far west as Texas. The mole crickets can grow to 3 in. in length and cause considerable damage to turf by burrowing into the soil and eating the roots of grasses. As a result, the grass dies and is replaced by weeds that readily infest and take over an entire area. The mole crickets are especially problematic at golf courses, sod farms, and park areas.

Nematac S does not pose the environmental risks associated with many of the current products being used, such as runoff into water basins or possible toxicity issues for applicators and other people coming in contact with the treated area.

Becker-Underwood/800-232-5907

For information, circle 163

**CONTROL CRABGRASS
WITH ONE APPLICATION**

Postemergence herbicides like Acclaim Extra are a necessity when controlling crabgrass outbreaks. Applications will eliminate crabgrass that still appears after preemergence treatment; and often you can avoid a preemergence application altogether by making postemergence treatments as crabgrass appears. A well-timed application provides effective crabgrass control for an entire season, says the manufacturer.

Acclaim Extra is absorbed primarily through weed foliage. Properly timed, it is one of the only postemergence herbicides that controls crabgrass in one application without damaging turf, making it the standard for postemergence crabgrass control.

Acclaim Extra won't affect overseeding. It can be used anytime during the growing season, providing effective crabgrass control from seedling to the five-tiller stage, especially at the tiller, stage of growth, when crabgrass becomes most evident in turf.

Chipco/800-438-5837

For information, circle 162



Acclaim Extra

HERBICIDE

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RESEARCH INDICATES FUNGICIDE'S EFFICACY

BASF's pyraclostrobin demonstrates broad-spectrum control of many turf diseases, including suppression of dollar spot.

A new report covering field trial results on Insignia™ fungicide, to be introduced early this year, indicates that it offers broad-spectrum control of a wide-range of turf diseases, in addition to significant suppression of dollar spot. Registration of pyraclostrobin by the EPA is pending. According to the research, trials in several U.S. sites have shown that pyraclostrobin is highly effective in controlling gray leaf spot (blast), anthracnose basal rot, Pythium foliar blight, brown patch, gray snow mold, pink snow mold, red thread, rusts, take-all patch, leaf spot and summer patch.

The new compound is a strobilurin, a class of systemic fungicide that has gained wide acceptance in the turf industry. Strobilurins feature low use rates and relatively longer application intervals.

BASF/800-545-9525

For information, circle 167



ANIMAL REPELLENT

The Repellex brand controls and repels a variety of pests including deer, rabbits, voles, squirrels, moles, gophers, and other burrowing animals. Depending on whether you choose systemic tablets, liquid concentrate, or ready-to-use spray, the product becomes active in 4-6 weeks or immediately.

The new mole and gopher repellent includes castor oil, the emulsifying agent lauryl sulfate and hot pepper resins and bitter agents, and is effective around all kinds of turf, flower beds, and ornamentals.

Gro-Power/800-473-1307

For information, circle 169

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GRANULAR INSECTICIDE

FMC Corporation has introduced a proprietary granular insecticide formulation that uses new technology for long lasting control of lawn pests, says the company.

Talstar EZ granular insecticide's new technology allows the particles to disperse upon wetting, providing increased coverage when applied. With excellent handling characteristics, Talstar EZ's larger particle size makes it easier to see where it's being spread, says FMC. The particles will not stain concrete or damage plants.

Talstar PL Granular Insecticide that is recommended for applications when a smaller particle size is preferred.

Both products have good handling characteristics and are broad spectrum offering long lasting control of pests, such as ants, centipedes, fire ants, mole crickets, ticks, pillbugs, sow bugs, fleas, and chinch bugs.

FMC Corp./ 800-321-1FMC

For information, circle 171

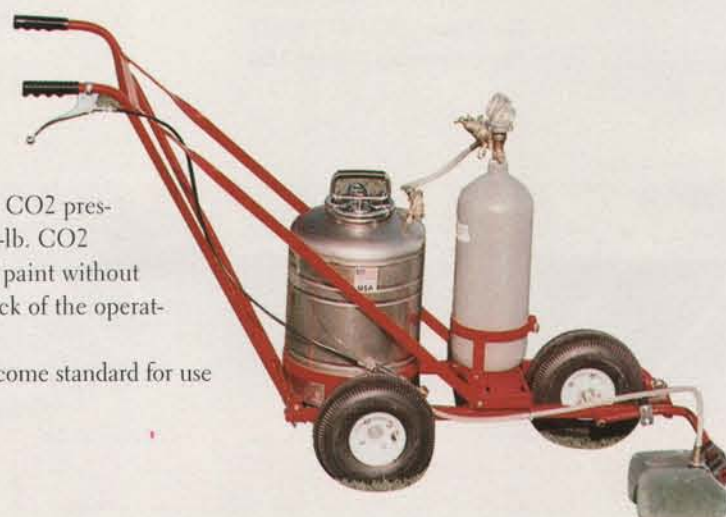
FIELD STRIPER

Brite Striper 1400 from Pioneer is simple to operate. Fill up the paint tank, turn on the CO2 pressure and start striping, says the company. Ten-lb. CO2 cylinder lets you stripe more than 30 tanks of paint without refilling, and a dual gauge regulator keeps track of the operating pressure in the paint tank.

A 12-ft. handhose and adjustable spray box come standard for use in end zones, out of bounds areas, and stencils.

Pioneer Manufacturing/800-877-1500

For information, circle 174



FIELD MARKING TRAILER

You can convert your tractor to a ride-on striper with Newstripe's ProSpray trailer. A universal hitch allows the self-contained unit to be connected to almost any small tractor or maintenance vehicle that is up to 60-in. wide.

The ProSpray features two, 12-gal. tanks with continuous paint agitation pressurized by either carbon dioxide or an engine and compressor. A bi-directional spray head mounted to a pneumatic swivel caster produces consistent 2-6-in. wide lines in one pass on any terrain. A handgun with 12-ft. hose is included for stencil work.

Newstripe/800-624-6706

For information, circle 173



OMNI-DIRECTIONAL SURFACTANT

Aqua-MAXX is an omni-directional surfactant with an enhanced kelp extract that scientifically puts down water, wetting agent, and growth stimulant in one application, says the manufacturer.

Field applications have shown that sod treated with the product knits down in one-third the time of untreated sod, so repairs take root faster. Users also have noted that this turf takes up more nutrients, recovers faster, and is more drought-resistant, says the company.

Pellets can be applied without measuring or mixing; the company's PRO-portioners can be connected to almost any water gun irrigation system. The product will not burn or discolor turf.

Aqua-MAXX/800-394-1551

For information, circle 175

MOLE CRICKET BAIT

FMC Corporation's has introduced Talstar insecticide mole cricket bait to help stop turf damage caused by large mole cricket nymphs and adults and reduce the overwintering adult population that will cause damage the following spring.

Product features include: pleasant odor, no phytotoxicity, and cost competitiveness.

Product specialists at FMC recommend a three-season treatment program. In spring, they recommend using either Talstar GC flowable insecticide/miticide or Talstar lawn & tree flowable insecticide/miticide to control overwintering adults. In summer, during peak egg hatching season, customers are encouraged to use either Talstar GC granular or Talstar PL granular insecticide. The new product is for use in specific areas or over wider areas during the late summer/early fall to control larger nymphs and adults.

FMC Corp./ 800-321-1FMC

For information, circle 172

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