

INSECT CONTROL

WARM-SEASON INSECT CONTROL

by Pat Cobb, Auburn University

Insect Calendar

*MONTHS DURING WHICH DAMAGE IS MOST LIKELY TO OCCUR (————);
 MONTHS WHEN INSECTICIDE TREATMENTS MAY BE RECOMMENDED
 (———— = 1ST CHOICE, ———— = 2ND CHOICE)

Insect	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Chinch bugs												
Bill- bugs												
Grubs												
Sod webworms												
Cut- worms												
Mole Crickets												
Spittle- Bugs												
Fall Armyworm												
Fire Ants (mound establishment)												

*Timing of treatments varies from one area to another, and is considerably different in south Florida. Check with Extension Agents in your area and monitor pest populations to determine exact timing of controls.

Use Summary of Some Common Turf Insecticides*

Common Name	Trade Name	Major Uses	Primary Use Site ***	Common Name	Trade Name	Major Uses	Primary Use Site ***
acephate	Orthene 75S	fire ants mole crickets	A, G, L, S	diazinon	Diazinon	billbugs chinch bugs fall armyworms fire ants grubs sod webworms spittlebugs	L
**bendiocarb	Turcam	grubs mole crickets	A, L	**ethoprop	Mocap 5G	grubs mole crickets	A, G, L, S
carbaryl	Sevin SL Sevinol	billbug (adults) cutworms fall armyworms green June beetle grubs grubs sod webworms	A, G, L, S	isofenphos	Oftanol	fire ants grubs mole crickets	A, G, L, S
chlorpyrifos	Dursban	billbug (adults) chinch bugs cutworms fall armyworms fire ants sod webworms spittlebugs	A, G, L, S	**isazofos	Triumph	chinch bugs mole crickets grubs	L (GAS in some states)
				trichlorfon	Dylox, Proxol	cutworms fall armyworms grubs sod webworms	A, G, L, S

*Fire ant baits (Afirm, Amdro, Logic, Pro-Drone) are not included above, but may be used in non-crop areas. ***A - athletic turf L - lawns
**Restricted Use G - golf courses S - sod farms

COOL-SEASON

by Harry Niemczyk, OARDC

Summary of Grub Control Tests in Ohio - 1971-1981¹

INSECTICIDE	LB AI/A	MEAN % CONTROL	(NO. OF TESTS) ²
ethoprop (Mocap)	5.0	83	(10)
isazofos (Triumph)	2.0	92	(20)
bendiocarb (Turcam)	2.0	83	(18)
isofenphos (Oftanol)	2.0	80	(37)
carbaryl (Sevin)	8.0	64	(14)
trichlorfon (Proxol)	8.0	81	(23)
diazinon	5.5	60	(16)
chlorpyrifos (Dursban)	4.0	43	(11)

1 Includes Japanese beetle, *Cyrtopertha* spp., 2 Each test replicated 3 or 4x. Generally, treatments applied late summer or early spring. Irrigated (1/4-1/2 inch) after application, thatch - 1/2 inch, readings taken ca. 4-8 weeks after treatment.-H.D. Niemczyk & K.T. Power. Phyllophaga spp. only.

Insect Control

COOL SEASON*	LATE WINTER	SPRING (April-May)	SUMMER (June-Aug.)	FALL (Sept.-Oct.)
CHINCH BUGS	When summer damage is expected preventative application of liquid or granular Dursban (1 lb. A/acre) Triumph ¹ (1 lb. A/acre) or Othanol (2 lbs. A/acre) may be used as soon as the insects become active.	Preventative applications of insecticides should be completed by the first week in May.	Treat before injury is severe with Dursban (1 lb. A/acre), diazinon** (2.5-5.5 lbs. A/acre), or other labeled insecticides.	Treat if necessary, but generally infestation levels are not high enough to warrant using insecticides.
BILLBUGS	Same as for chinch bugs.	Same as for chinch bugs.	Treat infestations at same rates as grubs with Triumph ¹ diazinon**, Turcam, Proxol or Sevin. Irrigate following application.	Treatment is usually not appropriate at this time.
GRUBS	Application of Othanol (2 lbs. A/acre) during March may provide control of overwintered grubs. This may not provide control into late summer.	A single application of Othanol (2 lb. A/acre) made in April may control overwintered grubs. Can also be controlled in May by spot or general treatment with Triumph ¹ (2 lb. A/acre) Turcam (4 lb. A/acre) or Sevin (8 lb. A/acre). Golf course superintendents can use Mocap (5 lb. A/acre) or Sevin (6-8 lb. A/acre) to control green June beetle. Irrigate with application.	Existing infestations found in July or Aug. may be treated with Triumph ¹ , Proxol, Turcam, Othanol, Sevin or Mocap (commercial turf only) at rates used in spring. Treat green June beetle with Sevin (6-8 lbs. A/acre).	Treatment can be made as late as Mid-September. Irrigate first if thatch or soil is dry.
SOD WEBWORMS	Treatment is not appropriate at this time.	When necessary, apply diazinon** (5 lb. A/acre) Triumph ¹ (1 lb. A/acre) Dylax or Proxol (6-8 lb. A/acre), Orthene (1-3 lb. A/acre).	Make application when larvae are present or two weeks after peak moth flight. Use Dursban (1 lb. A/acre), Triumph ¹ (1 lb. A/acre), diazinon** (5 lbs. A/acre), Sevin (6-8 lbs. A/acre) or Proxol (6-8 lbs. A/acre).	Larvae are small and cause little damage at this time. Treatments in September reduce population for next spring.
GREENBUGS	Treatment is not appropriate at this time.	Aphid numbers are too low to detect.	Use Orthene (1 lb. A/acre) or Dursban (1 lb. A/acre) or diazinon** (2.5 lbs. A/acre).	Severe infestations may occur as late as December. Use the same insecticides as in the summer.
BLACK TURFGRASS ATAENIUS	An application of Othanol (2 lb. A/acre) in March may prevent summer infestations of larvae, but it's best to wait until April.	Application of Othanol (2 lbs. A/acre) during April or May can prevent larval infestations during summer. Dursban (1-2 lbs. A/acre) applied to fairways in April also prevents infestations. Retreatment after 2 weeks may be necessary.	If preventative applications were not made, spot or generally treat with Triumph ¹ (2 lbs. A/acre), Proxol (8 lbs. A/acre), Turcam (2-4 lbs. A/acre), Sevin (8 lbs. A/acre) or Mocap (5 lbs. A/acre), as needed.	Undeveloped larvae die with frost.
CUTWORMS	Treatment is not appropriate at this time.	The insecticides effective against sod webworm are also effective against cutworms. Apply late in the afternoon. Do not irrigate following liquid applications unless specified on label.	Use Orthene (1-3 lb. A/acre), Dursban (1 lb. A/acre), Triumph ¹ (1 lb. A/acre), Proxol (8 lbs. A/acre) or Sevin (6-8 lbs. A/acre). Do not irrigate following liquid applications unless specified on label.	Same as for summer.
CLOVER MITES	Treatment is not appropriate at this time.	Liquid diazinon** (2.5 lbs. A/acre) or Dursban (1 lb. A/acre) may be used.	Treatment usually is not necessary.	Treat as needed with liquid diazinon** (2.5 lbs. A/acre) or Dursban (1 lb. A/acre).
WINTER GRAIN MITE	If needed, use spring treatment.	If treatment is necessary, use liquid diazinon** (2-3 lbs. A/acre) or Dursban (1 lb. A/acre). Avoid repeated use of Sevin.	Treatment is not appropriate, since mite is in egg stage.	Treatment is not appropriate since mite is in egg stage.

* For use only by commercial lawn pest control personnel except in states where Special Local Needs labeling permits use on golf course tees, greens and aprons, and on sod farms. A maximum of one application per year is permitted for the 2 lbs. A/acre rate. A maximum of two applications per year at least 60 days apart is permitted for the 1 lb. A/acre rate.

** See accompanying text for details; always follow label directions.

** Diazinon may not be used on golf courses or sod farms.