## HOME LAWN INSECT CONTROL

The following table provides home lawn insect control recommendations with pesticides for use by the homeowner and with pesticides for use by licensed professionals only. All chemical information provided below is given with the understanding that no endorsement of named products is intended nor is criticism implied of similar products that are not mentioned. Individuals who use pesticides are responsible for ensuring that the intended use complies with current regulations and conforms to the product label. Before purchasing or using any pesticide, always read and carefully follow the label directions.

Insecticides listed below are identified by common chemical name. Pesticide labels for commercial and homeowner products that are currently registered for use in Arkansas may be found through the Arkansas Department of Agriculture/State Plant Board website by clicking on the following link: https://agriculture.arkansas.gov/crops-industry/pesticides/pesticide-registration/

| Pest | Insecticide and Formulation | Amount Per 1,000 Square Feet | Precautions and Remarks |
|---|---|---|---|
| **Ant** (also see **Red Imported Fire Ant**) | bifenthrin 0.3% (Ortho) | See label. | |
| | bifenthrin 0.058% + carbaryl 2.3% (Duocide) | 4-8 lb | Product must be watered in immediately after application to lawns. DO NOT apply more than 4 times per year to lawns. The minimum reapplication interval to lawns is 7 days. Will only kill pests present at the time of application. Pest must be directly contacted to be effective. |
| | carbaryl (GardenTech Sevin) | See label. | Treat mounds and surrounding area or apply broadcast. |
| | clothianidin + bifenthrin (Aloft)<br>SC<br>G | <br>0.27-0.54 fl oz<br>1.8-3.6 lb | Toxic to fish and aquatic invertebrates. DO NOT apply near or allow runoff into surface waters or intertidal areas. |
| | cyfluthrin 0.75% (Bayer Advanced) | See label. | |
| | gamma-cyhalothrin 0.08% (Spectracide) | See label. | |
| | hydramethylnon* (Maxforce G) | See label. | |
| | lambda-cyhalothrin 0.5% (Bonide) | See label. | |
| | other pyrethroids* (DeltaGard, Scimitar, Talstar, Tempo) | See label. | |
| | permethrin 10% (Hi-Yield) | See label. | |
| | pyrethroids* (Advanced Lawn, Bug-B-Gone, Deltagard, Scimitar, Talstar, Tempo, Wisdom and others)<br>Some ants are susceptible to fire ant products | See label. | Many pyrethroids are toxic to fish and aquatic invertebrates. Apply these products only as specified on the label. |
| | zeta-cypermethrin + bifenthrin + imidacloprid (Triple Crown T&O, Triple Crown Golf) | 0.46-0.80 fl oz | Triple Crown Golf is a **Restricted Use Pesticide**. |
| **Ant, Red Imported Fire** | **Apply all bait products when ants are active and soil temperature is above 60 degrees F. DO NOT treat if rain is anticipated within 6 hours.** | | |
| | abamectin B1* (Ascend, Award II) 0.011% bait | 5-7 Tbsp/mound<br>1 lb/acre | Mound-to-mound treatment rate.<br>Broadcast rate. |
| | acephate*<br>(Orthene T, T&O) 75 S<br>(Ortho Orthene Fire Ant Killer1) 50 S | <br>1-2 tsp/mound<br>1 Tbsp/mound | Distribute uniformly over mound. For best results, apply early in the morning or late afternoon. |
| | bifenthrin 0.058% + carbaryl 2.3% (Duocide) | 4-8 lb | Product must be watered in immediately after application to lawns. DO NOT apply more than 4 times per year to lawns. The minimum reapplication interval to lawns is 7 days. Will only kill pests present at the time of application. Pest must be directly contacted to be effective. |
| | carbaryl (GardenTech Sevin) | See label. | Use as a mound drench. |
| | clothianidin + bifenthrin (Aloft LC SC) | 2.3-3.6 lb | Toxic to fish and aquatic invertebrates. DO NOT apply near or allow runoff into surface waters or intertidal areas. |
| | d-limonene (Orange Guard) | See label. | Mound treatment (acceptable to organic growers). |

*Several trade names available. Check label for active ingredient. Always follow label instructions.

| Pest | Insecticide and Formulation | Amount Per 1,000 Square Feet | Precautions and Remarks |
|---|---|---|---|
| **Ant, Red Imported Fire** (cont.) | **Apply all bait products when ants are active and soil temperature is above 60 degrees F. DO NOT treat if rain is anticipated within 6 hours.** | | |
| | fipronil 0.0143% granular insecticide (Quali-Pro Fipronil, Taurus G, Top Choice) | 2 lb **OR** 87 lb/acre | Broadcast only. |
| | fipronil (Maxforce FC) bait | See label. | Apply as a mound treatment or broadcast bait. |
| | fipronil + bifenthrin + lambda-cyhalothrin (Taurus Trio G) | 2 lb | Apply as a broadcast. Irrigate prior to treatment. |
| | hydramethylnon (Amdro, Amdro Pro, Maxforce Fire Ant Granular Bait) | 2-5 Tbsp/mound<br>1.0-1.5 lb/acre | Mound-to-mound treatment rate.<br>Broadcast rate. |
| | indoxacarb (Advion, Ortho Fire Ant Killer Mound Bait)) | See label. | |
| | metaflumizone (Siesta Fire Ant Bait) 0.063% | 1.0-1.5 lb/acre<br>2-4 Tbsp/mound | Broadcast rate.<br>Mound-to-mound treatment rate.<br>DO NOT exceed 6.0 lb/acre total or 4 applications in a one-year period. |
| | pyrethroids (various brands)<br>bifenthrin (Ortho MAX Fire Ant Killer Broadcast) Granules, Over 'n Out, Talstar)<br>cyfluthrin (Bayer Advanced Lawn Fire Ant Killer, Tempo)<br>deltamethrin (DeltaGard G, D-Fense SC)<br>lambda-cyhalothrin (Spectracide Fire Ant Killer Granules) | See label. | |
| | pyriproxyfen (Distance) | 1-4 Tbsp/mound<br>1.0-1.5 lb/acre | Mound-to-mound treatment rate.<br>Broadcast rate. This is an insect growth regulator (IGR). |
| | S-methoprene (Extinguish) | 3-5 Tbsp/mound<br>1.0-1.5 lb/acre | Mound-to-mound treatment rate.<br>Broadcast rate. This is an IGR. |
| | S-methoprene + hydramethylnon (Amdro Firestrike, Extinguish Plus) | See label. | Mound-to-mound and broadcast treatments. This is an IGR plus a toxicant. |
| | spinosad (Ferti-lome Come and Get It Fire Ant Killer) | See label. | Acceptable to organic growers. Follow label directions precisely. Repeat treatments usually required. Use fresh bait. |
| | thiamethoxam 11.6% + lambda-cyhalothrin 3.5% (Tandem) | See label. | Apply a single application of 28 fl. oz per acre or apply two applications of 14 fl. oz per acre on a 3 to 5-week interval. |
| | zeta-cypermethrin + bifenthrin + imidacloprid (Triple Crown T&O, Triple Crown Golf) | 0.46-0.80 fl oz | Triple Crown Golf is a **Restricted Use Pesticide**. |
| **Armyworm, Fall Armyworm, Cutworm** | azadirachtin* (Azatrol, Neemix, Turplex, etc.) | See label. | |
| | *Bacillus thuringiensis/B.t.* (various brands) | See label. | Small armyworms only. |
| | bifenthrin 0.3% (Ortho) | See label. | |
| | bifenthrin 0.058% + carbaryl 2.3% (Duocide) | 2 lb | Product must be watered in immediately after application to lawns. DO NOT apply more than 4 times per year to lawns. The minimum reapplication interval to lawns is 7 days. Will only kill pests present at the time of application. Pest must be directly contacted to be effective. |

| Pest | Insecticide and Formulation | Amount Per 1,000 Square Feet | Precautions and Remarks |
|---|---|---|---|
| **Armyworm, Fall Armyworm, Cutworm** (cont.) | carbaryl (GardenTech Sevin) | See label. | Apply as a coarse spray in sufficient water for good coverage. Treat when first injury noted. Repeat as needed. DO NOT water into soil. DO NOT cut grass for 1 to 3 days after treatment. |
| | chlorantraniliprole (Acelepryn)<br>SC<br>G | <br>0.046-0.092 fl oz<br>1.15-2.3 lb | |
| | chlorantraniliprole (GrubEx1) | See label. | |
| | cyfluthrin 0.75% (Bayer Advanced) | See label. | |
| | gamma-cyhalothrin 0.08% (Spectracide) | See label. | |
| | indoxacarb (Provaunt) WDG | 0.046-0.092 oz | |
| | lambda-cyhalothrin 0.5% (Bonide) | See label. | |
| | other pyrethroids* (DeltaGard, Scimitar, Talstar, Tempo) | See label. | |
| | permethrin 10% (Hi-Yield) | See label. | |
| | spinosad A and D (Conserve SC) | 0.25-1.25 fl oz | Rate varies with size and species. |
| | thiamethoxam 11.6% + lambda-cyhalothrin 3.5% (Tandem) | See label. | Apply a single application of 28 fl. oz per acre or apply two applications of 14 fl. oz per acre on a 3 to 5-week interval. |
| | trichlorfon* (Bayer Advanced) | See label. | |
| | various entomogenous nematode and *B.t.* products | See label. | |
| | zeta-cypermethrin + bifenthrin + imidacloprid (Triple Crown T&O, Triple Crown Golf) | 10-15 fl oz/acre | Triple Crown Golf is a **Restricted Use Pesticide**. |
| **Bee and Wasp** | bifenthrin 0.3% (Ortho | See label. | Most of these are parasitic on soil pests, especially grubs; therefore, they are beneficial. Sometimes there are so many bees and wasps burrowing in the soil that chemical treatments are necessary to prevent damage or reduce danger from stings. Spot spray ground nest openings. Bee, wasp and hornet sprays in pressurized cans are also effective. |
| | carbaryl (GardenTech Sevin) | See label. | |
| | cyfluthrin 0.75% (Bayer Advanced) | See label. | |
| | other pyrethroids* (DeltaGard, Scimitar, Talstar, Tempo) | See label. | |
| **Billbug** | chlorotraniliprole (Acelepryn)<br>G<br>SC | <br>1.15 to 2.3 lb<br>0.184 to 0.46 fl oz | Toxic to aquatic invertebrates. |
| | zeta-cypermethrin + bifenthrin + imidacloprid (Triple Crown T&O, Triple Crown Golf) | 10-20 fl oz/acre | Triple Crown Golf is a **Restricted Use Pesticide**. |
| **Chinch Bug** | *Beauveria bassiana** (Naturalis-T) | See label. | |
| | bifenthrin 0.3% (Ortho) | See label. | |

*Several trade names available. Check label for active ingredient. Always follow label instructions.

| Pest | Insecticide and Formulation | Amount Per 1,000 Square Feet | Precautions and Remarks |
|---|---|---|---|
| **Chinch Bug** (cont.) | bifenthrin 0.058% + carbaryl 2.3% (Duocide) | 2-4 lb | Product must be watered in immediately after application to lawns. DO NOT apply more than 4 times per year to lawns. The minimum reapplication interval to lawns is 7 days. Will only kill pests present at the time of application. Pest must be directly contacted to be effective. |
| | carbaryl (GardenTech Sevin) | See label. | |
| | chlorotraniliprole (Acelepryn)<br>G<br>SC | <br>1.15-2.3 lb<br>0.184-0.46 fl oz | Suppression ONLY. Toxic to aquatic invertebrates. |
| | clothianidin + bifenthrin (Aloft)<br>SC<br>G | <br>0.27-0.54 fl oz<br>1.8-3.6 lb | Toxic to fish and aquatic invertebrates. DO NOT apply near or allow runoff into surface waters or intertidal areas. |
| | cyfluthrin 0.75% (Bayer Advanced) | See label. | |
| | dinotefuran (Zylam 20 SG) | 1.0 fl oz | For suppression, make application prior to hatching of first instar nymphs. |
| | gamma-cyhalothrin 0.08% (Spectracide) | See label. | |
| | lambda-cyhalothrin 0.5% (Bonide) | See label. | |
| | other pyrethroids* (DeltaGard, Scimitar, Talstar, Tempo) | See label. | |
| | permethrin 10% (Hi-Yield) | See label. | |
| | thiamethoxam 11.6% + lambda-cyhalothrin 3.5% (Tandem) | See label. | Apply when insects are first observed. Repeat applications may be necessary. Highly toxic to fish and aquatic invertebrates. |
| | zeta-cypermethrin + bifenthrin + imidacloprid (Triple Crown T&O, Triple Crown Golf) | 20-35 fl oz/acre | Triple Crown Golf is a **Restricted Use Pesticide**. |
| **Earwigs, Pillbugs, Solitary Digger Wasps** | bifenthrin 0.3% (Ortho) | See label | |
| | carbaryl (GardenTech Sevin) | See label | |
| | cyfluthrin 0.75% (Bayer Advanced) | See label | |
| | gamma cyhalothrin 0.08% (Spectracide) | See label | |
| | lambda cyhalothrin 0.5% (Bonide) | See label | |
| | other pyrethroids* (Deltagard, Scimitar, Talstar, Tempo) | See label | |
| | permethrin 10% (Hi-Yield) | See label | |
| **Eriophyid Mites** (zoysiagrass mite and bermudagrass stunt mite) | azadirachtin (Azatrol) | See label. | Registered for use on eriophyid mites in turfgrass. |
| | bifenthrin (Allectus GC SC, Bifenthrin 2EC, Quali-Pro Bifenthrin, Talstar F) | See label. | Registered for use on eriophyid mites in turfgrass. |
| | deltamethrin (D-Fense SC) | See label. | Suppression ONLY. |
| | lambda-cyhalothrin (Quali-Pro Lambda GC-O, Scimitar) | See label. | Registered for use on eriophyid mites in turfgrass. |
| | zeta-cypermethrin + bifenthrin + imidacloprid (Triple Crown T&O, Triple Crown Golf) | 10-20 fl oz/acre | Triple Crown Golf is a **Restricted Use Pesticide**. |

| Pest | Insecticide and Formulation | Amount Per 1,000 Square Feet | Precautions and Remarks |
|---|---|---|---|
| **European Crane Fly** | bifenthrin (Ortho Bug-B-Gon MAX Insect Killer for Lawns) | See label. | |
| | bifenthrin 0.058% + carbaryl 2.3% (Duocide) | 4-8 lb | Product must be watered in immediately after application to lawns. DO NOT apply more than 4 times per year to lawns. The minimum reapplication interval to lawns is 7 days. Will only kill pests present at the time of application. Pest must be directly contacted to be effective. |
| | carbaryl (GardenTech Sevin) | See label. | |
| | chlorantraniliprole (GrubEx1) | See label. | |
| **European Crane Fly** (cont.) | gamma-cyhalothrin (Spectracide) | See label. | |
| | imidacloprid (Merit) (Advanced Season Long Grub Control) | See label. | |
| | lambda-cyhalothrin (Bonide) | See label. | |
| | zeta-cypermethrin + bifenthrin + imidacloprid (Triple Crown T&O, Triple Crown Golf) | 20-35 fl oz/acre | Triple Crown Golf is a **Restricted Use Pesticide**. |
| **Grasshopper** | bifenthrin 0.3% (Ortho) | See label. | |
| | bifenthrin 0.058% + carbaryl 2.3% (Duocide) | 2-4 lb | Product must be watered in immediately after application to lawns. DO NOT apply more than 4 times per year to lawns. The minimum reapplication interval to lawns is 7 days. Will only kill pests present at the time of application. Pest must be directly contacted to be effective. |
| | carbaryl (GardenTech Sevin) | See label. | |
| | cyfluthrin 0.75% (Bayer Advanced) | See label. | |
| | gamma-cyhalothrin 0.08% (Spectracide) | See label. | |
| | lambda-cyhalothrin 0.5% (Bonide) | See label. | |
| | other pyrethroids* (DeltaGard, Scimitar, Talstar, Tempo) | See label. | |
| | permethrin 10% (Hi-Yield) | See label. | |
| | thiamethoxam 11.6% + lambda-cyhalothrin 3.5% (Tandem) | See label. | Apply 10.5 fl oz per acre on a 3- to 5-week interval. |
| | zeta-cypermethrin + bifenthrin + imidacloprid (Triple Crown T&O, Triple Crown Golf) | 10-20 fl oz/acre | Triple Crown Golf is a **Restricted Use Pesticide**. |
| **Ground Pearls** | Maintain a vigorous lawn through proper fertilization, watering, mowing, etc. Good cultural practices will help the lawn outgrow damage. No practical, effective pesticide treatments are currently available. | | |
| **Grub, Green June Beetle (only)** (also see **Grub, White**) | bifenthrin 0.058% + carbaryl 2.3% (Duocide) | 4-8 lb | Product must be watered in immediately after application to lawns. DO NOT apply more than 4 times per year to lawns. The minimum reapplication interval to lawns is 7 days. Will only kill pests present at the time of application. Pest must be directly contacted to be effective. |
| | carbaryl (GardenTech Sevin) | See label. | |
| | imidacloprid (Merit) (Advanced Lawn Grub Control) | See label | |
| | thiamethoxam 11.6% + lambda-cyhalothrin 3.5% (Tandem) | See label. | Begin applications up to 45 days before the historical peak of adult flight to second instar grub of the species being targeted. For optimum control, treat from peak flight to peak egg hatch. Irrigate to move Tandem into the root zone. Full-season control of white grubs will be obtained with either a single 28 fl oz application or two 14 fl oz applications. |

*Several trade names available. Check label for active ingredient. Always follow label instructions.

| Pest | Insecticide and Formulation | Amount Per 1,000 Square Feet | Precautions and Remarks |
|---|---|---|---|
| **Grub, White** (Japanese beetle, southern chafer, European chafer, billbug, green June beetle) | bifenthrin 0.058% + carbaryl 2.3% (Duocide) | 4-8 lb | Product must be watered in immediately after application to lawns. DO NOT apply more than 4 times per year to lawns. The minimum reapplication interval to lawns is 7 days. Will only kill pests present at the time of application. Pest must be directly contacted to be effective. |
| | carbaryl (GardenTech Sevin) | See label. | |
| | chlorantraniliprole (Acelepryn) G | 1.15-2.3 lb | |
| | chlorantraniliprole (GrubEx1) | See label. | |
| | clothianidin (Arena) G WDG | See label. | Toxic to fish and aquatic invertebrates. DO NOT apply near or allow runoff into surface waters or intertidal areas. |
| | clothianidin + bifenthrin (Aloft)<br>SC<br>G | <br>0.27-0.54 fl oz<br>1.8-3.6 lb | Toxic to fish and aquatic invertebrates. DO NOT apply near or allow runoff into surface waters or intertidal areas. |
| | dinotefuran (Zylam 20 SG) | 1.0 fl oz | Make application prior to or during peak egg hatch. |
| | imidacloprid<br>(Merit)<br>(Advanced Lawn Grub Control) | See label. | |
| | imidacloprid + bifenthrin (Allectus) | See label | |
| | thiamethoxam (Meridian) | See label. | Highly toxic to aquatic invertebrates. |
| | thiamethoxam 11.6% + lambda-cyhalothrin 3.5% (Tandem) | See label. | Begin applications up to 45 days before the historical peak of adult flight to second instar grub of the species being targeted. For optimum control, treat from peak flight to peak egg hatch. Irrigate to move Tandem into the root zone. Full-season control of white grubs will be obtained with either a single 28 fl oz application or two 14 fl oz applications. |
| | trichlorfon* (Bayer Advanced) | See label. | |
| | various entomogenous nematode products | See label. | Must be *Heterorhabditid* species to be effective. |
| **Millipede** | bifenthrin 0.3% (Ortho) | See label. | |
| | bifenthrin 0.058% + carbaryl 2.3% (Duocide) | 4-8 lb | Product must be watered in immediately after application to lawns. DO NOT apply more than 4 times per year to lawns. The minimum reapplication interval to lawns is 7 days. Will only kill pests present at the time of application. Pest must be directly contacted to be effective. |
| | carbaryl (GardenTech Sevin) | See label. | |
| | gamma-cyhalothrin (Spectracide) | See label. | |
| | lambda-cyhalothrin (Bonide) | See label. | |
| | other pyrethroids* (DeltaGard, Scimitar, Talstar, Tempo) | See label. | |
| | permethrin 10% (Hi-Yield) | See label. | |
| | zeta-cypermethrin + bifenthrin + imidacloprid (Triple Crown T&O, Triple Crown Golf) | 10-20 fl oz/acre | Triple Crown Golf is a **Restricted Use Pesticide**. |

| Pest | Insecticide and Formulation | Amount Per 1,000 Square Feet | Precautions and Remarks |
|---|---|---|---|
| **Mole Cricket** | bifenthrin 0.3% (Ortho) | See label. | |
| | bifenthrin 0.058% + carbaryl 2.3% (Duocide) | 4-8 lb | Product must be watered in immediately after application to lawns. DO NOT apply more than 4 times per year to lawns. The minimum reapplication interval to lawns is 7 days. Will only kill pests present at the time of application. Pest must be directly contacted to be effective. |
| | carbaryl (various commercial bait formulations) | See label. | |
| | clothianidin + bifenthrin (Aloft)<br>G<br>SC | <br>1.8-3.6 lb<br>0.27-0.54 fl oz | Toxic to fish and aquatic invertebrates. DO NOT apply near or allow runoff into surface waters or intertidal areas. |
| | cyfluthrin 0.75% (Bayer Advanced) | See label. | |
| | dinotefuran (Zylam 20 SG) | 1 fl oz | Make application prior to or during peak egg hatch. |
| | fipronil (several products) | 2 lb | Apply as a broadcast. |
| | gamma-cyhalothrin 0.08% (Spectracide) | See label. | |
| | imidacloprid (Advanced Lawn Grub Control, Merit) | See label. | |
| | indoxacarb<br>(Advion Mole Cricket Bait)<br>(Provaunt) SC | <br>See label.<br>0.275 fl oz | |
| | lambda-cyhalothrin 0.5% (Bonide) | See label. | |
| | other pyrethroids* (DeltaGard, Menace, Scimitar, Talstar, Tempo) | See label. | |
| | permethrin 10% (Hi-Yield) | See label. | |
| | thiamethoxam 11.6% + lambda-cyhalothrin 3.5% (Tandem) | See label. | Apply from first egg hatch to peak egg hatch. Highly toxic to fish and aquatic invertebrates. |
| | various entomogenous nematode products | See label. | Requires irrigation. |
| | zeta-cypermethrin + bifenthrin + imidacloprid (Triple Crown T&O, Triple Crown Golf) | 25-35 fl oz/acre | Triple Crown Golf is a **Restricted Use Pesticide**. |
| **Slug, Snail** | iron phosphate (Natria) bait | See label. | Apply in late afternoon. |
| | Mesurol 2% B | 1 lb | Apply in late afternoon. |
| | metaldehyde | See label. | Apply in late afternoon. |
| **Sod Webworm (also Burrowing Sod Webworm)** | *Bacillus thuringiensis/B.t.* (various brands) | See label. | |
| | bifenthrin 0.3% (Ortho) | See label. | |
| | bifenthrin 0.058% + carbaryl 2.3% (Duocide) | 2 lb | Product must be watered in immediately after application to lawns. DO NOT apply more than 4 times per year to lawns. The minimum reapplication interval to lawns is 7 days. Will only kill pests present at the time of application. Pest must be directly contacted to be effective. |
| | carbaryl (GardenTech Sevin) | See label. | DO NOT water sprays into soil. Use 6 gal water plus the insecticide per 1,000 sq ft. Treat in late afternoon. DO NOT cut grass for 1 to 3 days after treatment. Granules must be watered into soil. |

*Several trade names available. Check label for active ingredient. Always follow label instructions.

| Pest | Insecticide and Formulation | Amount Per 1,000 Square Feet | Precautions and Remarks |
|---|---|---|---|
| **Sod Webworm (also Burrowing Sod Webworm)** (cont.) | chlorantraniliprole (GrubEx1) | See label. | |
| | cyfluthrin 0.75% (Bayer Advanced) | See label. | |
| | dinotefuran (Zylam 20 SG) | 1 fl oz | |
| | gamma-cyhalothrin 0.08% (Spectracide) | See label. | |
| | halofenozide (Natural Guard Grub Control) | 1.72 lb | DO NOT apply more than 3.4 lb (2 lb active ingredient) per 1,000 square feet per year regardless of pests controlled. |
| | lambda-cyhalothrin 0.5% (Bonide) | See label. | |
| | other pyrethroids* (DeltaGard, Scimitar, Talstar, Tempo) | See label. | |
| | permethrin 10% (Hi-Yield) | See label. | |
| | spinosad A and D (Conserve) SC | 0.25-1.25 fl oz | Rate varies with size and species. |
| | thiamethoxam 11.6% + lambda-cyhalothrin 3.5% (Tandem) | See label. | Highly toxic to fish and aquatic invertebrates. |
| | trichlorfon* (Bayer Advanced) | See label. | Use sufficient water for good coverage. |
| | various entomogenous nematode and *B.t.* products | See label. | |
| | zeta-cypermethrin + bifenthrin + imidacloprid (Triple Crown T&O, Triple Crown Golf) | 10-15 fl oz/acre | Triple Crown Golf is a **Restricted Use Pesticide**. |
| **Spittlebug and Leafhopper** | acephate* (Orthene T, T&O) 75 S | See label. | |
| | bifenthrin 0.3% (Ortho) | See label. | Cut grass to its recommended height and remove clippings prior to application. Various pyrethroid materials are available in a variety of homeowner formulations for use as broadspectrum contact insecticides. Common active ingredients include bifenthrin, cyfluthrin, cypermethrin, deltamethrin, lambda-cyhalothrin and permethrin. |
| | bifenthrin 0.058% + carbaryl 2.3% (Duocide) | 2-4 lb | |
| | carbaryl (GardenTech Sevin) | See label. | |
| | deltamethrin (D-Fense SC) | See label. | |
| | gamma-cyhalothrin (Spectracide) | See label. | For Duocide, the product must be watered in immediately after application to lawns. DO NOT apply more than 4 times per year to lawns. The minimum reapplication interval to lawns is seven days. Will only kill pests present at the time of application. Pest must be directly contacted to be effective. |
| | lambda-cyhalothrin (Bonide) | See label. | |
| | other pyrethroids* (DeltaGard, Scimitar, Talstar, Tempo) | See label. | |
| | permethrin 10% (Hi-Yield) | See label. | |
| | zeta-cypermethrin + bifenthrin + imidacloprid (Triple Crown T&O, Triple Crown Golf) | 10-20 fl oz/acre | Triple Crown Golf is a **Restricted Use Pesticide**. |
| **Ticks and Chiggers** | bifenthrin (Hi-Yield, Ortho) | See label. | |
| | bifenthrin 0.058% + carbaryl 2.3% (Duocide) | 2-4 lb (chiggers ONLY) | The maximum application rate to kill ticks is 1.15 lb product per 1,000 square feet. Duocide must be watered in immediately after application to lawns. DO NOT apply more than 4 times per year to lawns. The minimum reapplication interval to lawns is 7 days. Will only kill pests present at the time of application. Pest must be directly contacted to be effective. |
| | carbaryl (GardenTech Sevin) | See label. | |
| | cyfluthrin 0.75% (Bayer Advanced) | See label. | |
| | deltamethrin (D-Fense SC, DeltaGard G) | See label. | DeltaGard G registered for ticks only. |
| | imidacloprid 0.72%+ beta-cyfluthrin 0.36% (Bayer Advanced) | See label. | |
| | gamma-cyhalothrin (Spectracide) | See label. | |
| | lambda-cyhalothrin (Bonide, Martin's) | See label. | |
| | zeta-cypermethrin + bifenthrin + imidacloprid (Triple Crown T&O, Triple Crown Golf) | 20-35 fl oz/acre | Labeled for ticks **ONLY**. Triple Crown Golf is a **Restricted Use Pesticide**. |

*Several trade names available. Check label for active ingredient. Always follow label instructions.