

**Over-the-Counter Insecticides for Home, Yard and Garden Use**  
**2015 Survey, Fort Collins, Colorado**  
**(Products arranged by active ingredient)**

The following insecticides were recorded from the shelves of 3 local nurseries, 3 hardware stores, and 3 “box stores” during a survey of Fort Collins, 22-29 May, 2015\*. The number of times the product was found among the nine surveyed locations is in parentheses ( ).

**ACEPHATE (Orthene)**

Bonide Systemic Insect Control (2)

**ACETAMIPRID**

Ortho Bug B Gon Garden Insect Killer Ready-to-Use (1)  
Ortho Bug B Gon Systemic Insect Killer (1)  
Ortho Flower, Fruit and Vegetable Insect Killer Ready-to-Use (4)  
Ortho Flower, Fruit & Vegetable Ready-to-Spray (4)  
Ortho Flower, Fruit and Vegetable Insect Killer Concentrate (2)  
Ortho Rose and Flower Insect Killer Ready-to-Use (5)  
Ortho Rose & Flower Insect & Disease Control Ready-to-Use (with triticonazole) (5)  
Ortho Rose & Flower Insect & Disease Control Concentrate (with triticonazole) (1)

**ALLETHRIN/TRANS-ALLETHRIN**

Ace Flea & Tick Killer for Pet and Home (1)  
Ace Wasp & Hornet Killer<sub>3</sub> (with lambda-cyhalothrin) (2)  
Ace Ant, Roach & Spider Killer<sub>2</sub> (allethrin, lambda-cyhalothrin) (2)  
Eliminator Wasp and Hornet (with lambda-cyhalothrin) (1)  
Green Thumb Foaming Wasp & Hornet Killer (with lambda-cyhalothrin) (1)  
Green Thumb Wasp & Hornet Killer (with lambda-cyhalothrin) (2)  
Hot Shot Flying Insect Killer (with permethrin) (1)  
Raid House and Garden (with d-phenothrin) (2)  
Real-Kill Ant & Roach Killer<sub>4</sub> (with lambda-cyhalothrin) (1)  
Ultra Kill Ant & Roach Killer (with lambda-cyhalothrin) (1)

**AVERMECTIN/ABAMECTIN**

Enforcer Ant Max Bait Stations (1)  
HomePlus Ant Killer (1)  
Raid Max Double Control Small Roach Baits (with hydroprene) (1)  
Raid Ant Baits III (3)  
Raid Max Double Control Ant Baits (with hydroprene) (1)

**AZADIRACTIN (NEEM EXTRACT)**

BioNeem (3)  
Safer Grub Killer Ready-to-Spray (1)

**BACILLUS THURINGIENSIS (var. *KURSTAKI*)**

Bonide Thuricide Concentrate (1)  
ferti-lome Dipel Dust (3)

Hi-Yield Thuricide Concentrate (2)  
Monterey B.t. Ready-to-Use (1)  
Safer Caterpillar Killer (1)  
Safer Garden Dust (1)

***BACILLUS THURINGIENSIS (var. ISRAELENSIS)***

Biological Mosquito Control/Mosquito Dunks (7)  
Summit Mosquito Bits (3)

**BIFENTHRIN**

Amdro Kills Ants & Spiders Granules (1)  
Eliminator Ant, Flea and Tick Killer II Granules (1)  
Garden Tech Over 'n Out Advanced Fire Ant Killer (with zeta-cypermethrin) (1)  
Ortho Home Defense Max Termite and Destructive Bug Killer (1)  
Ortho Home Defense Max Insect Killer for Indoor & Perimeter<sub>1</sub> (with zeta-cypermethrin) (6)  
Ortho Home Defense Max Insect Killer for Lawns & Gardens Ready-to-Spray (with zeta-cypermethrin) (1)  
Ortho Home Defense Max Insect Killer for Lawns & Gardens Concentrate (with zeta-cypermethrin) (1)  
Ortho Home Defense Max Ant and Roach Killer (1)  
Ortho Home Defense Max Insect Killer Granules (3)  
Ortho Bug B Gon Max Insect Killer for Lawns (3)  
Ortho Bug B Gon Insect Killer for Lawns & Gardens Ready-to-Spray (with zeta-cypermethrin) (3)  
Ortho Bug B Gon Insect Killer for Lawns & Gardens Concentrate (with zeta-cypermethrin) (3)  
Ortho Max Bug B Gon Lawn & Garden Insect Killer<sub>1</sub> Ready-to-Spray (1)

**s-BIOALLETHRIN**

Bonide Termite and Carpenter Ant Killer (with deltamethrin) (1)  
Spectracide Commercial Wasp & Hornet Killer<sub>3</sub> (with lambda-cyhalothrin) (1)  
Spectracide Bug Stop Flying & Crawling Insect Killer (with lambda-cyhalothrin) (1)

**BORIC ACID/BORAX/ORTHOBORIC ACID/SODIUM TETRABORATE TETRAHYDRATE**

Eaton's Answer Kills Roaches (1)  
Harris Famous Roach Tablets (1)  
Hot Shot Max Attrax Roach Killing Powder (2)  
Terro Ant Killer<sub>II</sub> (5)  
Terro Liquid Ant Baits (2)  
Terro Liquid Ant Baits Outdoor (3)  
Terro Outdoor Liquid Ant Bait Sticks (1)  
Terro Multi-Purpose Insect Bait (2)

**CARBARYL (Sevin)**

Bayer Complete Insect Killer for Gardens (1)  
Bonide Fruit Tree Spray (with malathion, captan) (4)  
Garden Tech Sevin Ready-to-Use Bug Killer (6)  
Garden Tech Sevin Ready-to-Spray Bug Killer (5)

Garden Tech Sevin Concentrate Bug Killer (7)  
Garden Tech Sevin 5 Ready-to-Use 5% Dust Bug Killer (6)  
Garden Tech Sevin Lawn Insect Granules (4)

### **CHLORANTRANILIPROLE**

Scott's GrubEx (1)

### **CHLORPYRIFOS**

Hot Shot MaxAttrax Roach Bait (2)

### **CHLOTHIANIDIN**

Bayer Advanced Tree & Shrub Protect & Feed Concentrate II (with imidacloprid) (4)  
Bayer Advanced Tree & Shrub Protect & Feed Ready-to-Use Granules (with imidacloprid) (2)

### **CYFLUTHRIN/BETA-CYFLUTHRIN**

Bayer Advanced Carpenter Ant & Termite Killer Plus Concentrate (1)  
Bayer Advanced Carpenter Ant & Termite Killer Plus Ready-to-Spray (1)  
Bayer Advanced Garden Power Force Multi-Insect Killer, Ready-to-Spray (1)  
Bayer Advanced Garden Power Force Multi-Insect Killer, Ready-to-Spread Granules (1)  
Bayer Advanced Complete Insect Killer for Soil and Turf Ready-to-Spray (with imidacloprid) (4)  
Bayer Advanced Complete Insect Killer Soil & Turf Concentrate (with imidacloprid) (5)  
Bayer Advanced Complete Insect Killer for Soil and Turf Ready-to-Spread Granules (with imidacloprid) (2)  
Bayer Advanced Dual Action Rose & Flower Insect Control Continuous Spray (with imidacloprid) (2)  
Bayer Advanced Home Pest Plus Germ Killer Ready-to-Use (with antiseptic) (3)  
Bayer Advanced Home Pest Control Indoor & Outdoor Insect Killer Ready-to-Use (2)  
Bayer Advanced Home Pest Insect Killer All-Purpose Continuous Spray (with imidacloprid) (1)  
Bayer Advanced Rose & Flower Insect Killer Ready-to-Use (with imidacloprid) (4)  
Bayer Advanced Rose & Flower Insect Killer Ready-to-Spray (with imidacloprid) (3)  
Bayer Advanced Rose & Flower Insect Killer Continuous Spray (with imidacloprid) (1)  
Bayer Advanced Vegetable & Garden Insect Spray Concentrate (2)  
Bayer Advanced Vegetable Garden Insect Spray Ready-to-Spray (1)  
Raid Yard Guard Insect Fogger (with prallethrin) (1)

### **CYHALOTHRIN (gamma-cyhalothrin, lambda-cyhalothrin)**

#### **Gamma-cyhalothrin**

Hot Shot Bedbug & Flea Killer<sup>3</sup> (with prallethrin) (2)  
Spectracide Bug Stop Home Barrier Ready-to-Use (4)  
Spectracide Triazicide Insect Killer for Lawns & Landscapes Concentrate (5)  
Spectracide Triazicide Insect Killer for Lawns & Landscapes Ready-to-Spray (2)  
Spectracide Triazicide Insect Killer for Lawns & Landscapes Ready-to-Use (1)  
Spectracide Insect Killer for Lawns Granules (4)

#### **Lambda-cyhalothrin**

Ace Wasp & Hornet Killer<sub>3</sub> (with allethrin) (2)  
Ace Ant, Roach & Spider Killer<sub>2</sub> (with allethrin) (2)

Black Flag Spider and Scorpion Killer<sub>3</sub> (with prallethrin) (2)  
Eliminator Wasp and Hornet (with allethrin) (1)  
Cutter Backyard Bug Control Spray Concentrate (5)  
Eliminator Wasp and Hornet (with allethrin) (1)  
Enforcer Ant Kill Plus Insect Barrier Treatment (with tetramethrin/neo-pynamen) (1)  
Green Thumb Foaming Wasp & Hornet Killer (with allethrin) (1)  
Green Thumb Wasp & Hornet Killer (with allethrin) (2)  
Hot Shot Ant & Roach Plus Germ Killer (with prallethrin) (2)  
Hot Shot Bedbug and Flea Insect Killer<sub>2</sub> (1)  
Hot Shot Home Insect Control Clear Formula<sub>2</sub> (2)  
Spectracide Immunox Fungus Plus Insect Control for Lawns (with propiconazole)(1)  
Spectracide Triazicide Insect Killer for Lawns Granules (1)  
Spectracide Termite and Carpenter Ant Concentrate (2)  
Spectracide Ant Shield Insect Killer Aerosol (with prallethrin) (2)  
Spectracide Ant Shield Insect Killer Granules (3)  
Spectracide Bug Stop Flying & Crawling Insect Killer (with s-bioallethrin) (1)  
Spectracide Carpenter Bee and Ground Nesting Yellowjacket Foaming Aerosol (with prallethrin) (1)  
Spectracide Extended Reach Tree Insect Killer Concentrate (1)  
Spectracide Commercial Wasp & Hornet Killer<sub>3</sub> (with s-bioallethrin) (1)  
Spectracide Wasp & Hornet Killer<sub>3</sub> (with prallethrin) (4)  
Ultra Kill Ant & Roach Killer (with prallethrin) (1)

#### **CYPERMETHRIN/ZETA-CYPERMETHRIN**

Amdro Quick Kill Lawn & Landscape Insect Killer Ready-to-Spray (1)  
Black Flag Concentrated Fogger (1)  
Black Flag Home Insect Control Plus Germ Killer<sub>1</sub> (with pyrethrins) (1)  
Eliminator Insect Fogger (1)  
Enforcer Bug Max Fogger (1)  
Hot Shot Fogger with Odor Neutralizer (with tetramethrin) (2)  
Hot Shot No Mess Fogger<sub>3</sub> with Neutralizer (with tetramethrin) (3)  
Ortho Ant & Roach Killer<sub>1</sub> (with pyrethrins) (1)  
Ortho Home Defense Max Insect Killer for Indoor & Perimeter<sub>1</sub> (with bifenthrin) (6)  
Ortho Home Defense Max Insect Killer for Lawns & Gardens Ready-to-Spray (with bifenthrin) (1)  
Ortho Home Defense Max Insect Killer for Lawns & Gardens Concentrate (with bifenthrin) (1)  
Ortho Bug B Gon Insect Killer for Lawns & Gardens Ready-to-Spray (with bifenthrin) (3)  
Ortho Bug B Gon Insect Killer for Lawns & Gardens Concentrate (with bifenthrin) (3)  
Raid Wasp & Hornet Killer<sub>33</sub> (with prallethrin) (2)  
Real-Kill Indoor Fogger<sub>5</sub> (1)  
Spectracide Bug Stop Insect Fogger (with tetramethrin) (1)  
Raid Concentrated Deep Reach Fogger (3)  
Raid Ant and Roach Killer<sub>17</sub> (with imiprothrin) (5)

#### **DELTAMETHRIN**

Black Flag Home Insect Control Concentrate (1)  
Black Flag Home Insect Control Ready-to-Spray (1)  
Bonide Termite & Carpenter Ant Killer Ready-to-Use (1)

Bonide Termite & Carpenter Ant Killer Dust (1)  
Bonide Termite and Carpenter Ant Killer (with s-bioallethrin) (1)  
Green Light Multi-Purpose Dust (1)  
Raid Max Indoor/Outdoor Bug Barrier (1)  
Raid Max Bug Barrier (3)  
Spectracide Commercial Wasp & Hornet Killer<sup>3</sup> (with s-bioallethrin) (1)  
Spectracide Bug Stop Flying & Crawling Insect Killer (with s-bioallethrin) (1)  
Terro Ant Dust (3)  
Terro Spider Killer<sup>3</sup> (with pyrethrins) (2)

#### **DIATOMACEOUS EARTH/SILICON DIOXIDE**

Eaton's Answer (1)  
Garden Safe Crawling Insect Killer (1)  
Harris Bedbug Killer (1)  
Natural Guard Diatomaceous Earth Crawling Insect Control (2)  
Safer Ant & Crawling Insect Killer Diatomaceous Earth (4)  
Soil Minder Crawling Insect Killer (1)

#### **DICHLORVOS**

Hot Shot No-Pest Strip (1)  
Hot Shot No-Pest Strip<sub>2</sub> (2)

#### **DINOTEFURAN**

Hot Shot Ultra Liquid Ant Bait (1)  
Hot Shot Ultra Clear Liquid Ant Bait (2)  
Ortho Tree & Shrub Insect Control (1)

#### **D-LIMONENE/CITRUS EXTRACTS**

Orange Guard (2)  
Safer Wasp & Hornet Killer (with pyrethrins and insecticidal soap) (3)  
Safer Ant & Roach Killer (with pyrethrins and insecticidal soap) (2)  
Safer Flying Insect Killer (with pyrethrins and insecticidal soap) (2)

#### **ESFENVALERATE**

Ortho Bug B Gon Max Lawn & Insect Killer (1)  
Terro Ant Killer Spray<sub>2</sub> (with prallethrin) (1)

#### **FIPRONIL**

Combat Ant Killing Bait Strips (1)  
Combat Outdoor Ant Stakes (1)  
Combat Roach Killing Bait Strips (1)  
Combat Source Kill A2 Ant (2)  
Combat Source Kill Max R3 Roach (3)  
Combat Source Kill Max R2 Large Roach (1)

#### **GAMMA-CYHALOTHRIN (See Cyhalothrin)**

## **HYDRAMETHYLNON**

- Amdro Ant Block Home Perimeter Ant Bait (4)
- Amdro Kills Ants Ant Killing Bait (5)
- Combat Source Kill4 Ant (1)
- Grant's Kills Ants & Roaches (1)

## **IMIDACLOPRID**

- Bayer Advanced 2-in-1 Systemic Rose & Flower Care Ready-to-Use Granules II (4)
- Bayer Advanced 3-in-1 Insect, Disease and Mite Control Concentrate (with tau-fluvalinate, tebuconazole) (2)
- Bayer Advanced 3-in-1 Insect, Disease and Mite Control Ready-to-Spray (with tau-fluvalinate, tebuconazole) (3)
- Bayer Advanced 3-in-1 Insect, Disease and Mite Control Ready-to-Use (with tau-fluvalinate, tebuconazole) (1)
- Bayer Advanced All-in-One Rose and Flower Care Concentrate (with tebuconazole and chlothianidan) (4)
- Bayer Advanced All-in-One Rose and Flower Care Granules (with tebuconazole) (4)
- Bayer Advanced Complete Insect Killer for Soil and Turf Ready-to-Spray (with beta-cyfluthrin) (4)
- Bayer Advanced Complete Insect Killer Soil & Turf Concentrate (with beta-cyfluthrin) (5)
- Bayer Advanced Complete Insect Killer for Soil and Turf Ready-to-Spread Granules (with beta-cyfluthrin) (2)
- Bayer Advanced Dual Action Rose & Flower Insect Control Continuous Spray (with beta-cyfluthrin) (2)
- Bayer Advanced Fruit, Citrus and Vegetable Insect Killer (3)
- Bayer Advanced Home Pest Insect Killer All-Purpose Continuous Spray (with beta-cyfluthrin) (1)
- Bayer Advanced Rose & Flower Insect Killer Ready-to-Use (with beta-cyfluthrin) (4)
- Bayer Advanced Rose & Flower Insect Killer Ready-to-Spray (with beta-cyfluthrin) (3)
- Bayer Advanced Rose & Flower Insect Killer Continuous Spray (with beta-cyfluthrin) (1)
- Bayer Advanced Tree & Shrub Protect & Feed Concentrate II (with chlothianidin) (4)
- Bayer Advanced Tree & Shrub Protect & Feed Ready-to-Use Granules (with chlothianidin) (2)
- Bonide Annual Tree & Shrub Control (2)
- Bonide Systemic Houseplant Insect Control (4)
- Bonide Systemic Insect Spray (1)
- Bonide Rose Rx Systemic Drench (with tebuconazole) (1)
- ferti-lome Tree & Shrub Systemic Insect Drench (2)
- ferti-lome 2-N-1 Systemic (with tebuconazole) (1)
- Hi-Yield Grub Free Zone II (2)
- Hi-Yield Systemic Insect Granules (1)
- Ortho Bug B Gon Year-Long Tree & Shrub Insect Control (3)
- Ortho Rose & Flower Insect Control Plus Miracle-Gro Granules (2)

## **IMIPROTHRIN**

- Black Flag Ant & Roach Killer (plus lambda-cyhalothrin) (1)
- Raid Ant and Roach Killer<sub>17</sub> (with cypermethrin) (5)

## **INDOXCARB**

MaxAttrax Ant Bait<sub>2</sub> (1)  
Spectracide Ant Shield Outdoor Killing Stakes (1)  
Spectracide Ant Shield Ant Bait (1)

### **IRON PHOSPHATE**

Bayer Advanced Snail & Slug Killer Bait (1)  
Bayer Advanced Natria Snail & Slug Killer Bait (1)  
Bonide Slug Magic (1)  
Corry's Slug and Snail Killer (sodium ferric EDTA) (1)  
Earth-tone Slug & Snail Control (1)  
Earth-tone Bug & Slug Killer (with spinosad) (1)  
Eliminator Snail & Slug Killer (sodium ferric EDTA) (1)  
Miracle-Gro Nature's Care Slug & Snail Control (1)  
Monterey Ant Control (with spinosad) (1)  
Sluggo (3)  
Sluggo Plus (with spinosad) (2)  
Whitney Farms Slug & Snail Killer (1)

### **LAMBDA-CYHALOTHRIN (See cyhalothrin)**

### **MALATHION**

Bonide Fruit Tree Spray (with carbaryl, captan) (4)  
Hi-Yield 55% Malathion Spray (2)  
Ortho Max Malathion Insect Spray Concentrate (2)  
Spectracide Malathion Insect Spray Concentrate (6)

### **METALDEHYDE**

Ortho Bug-Geta Snail and Slug Killer<sub>1</sub> (1)

### **METHOMYL**

Starbar Golden Malrin (1)

### **NAPHTHELENE**

Enoz Old Fashioned Moth Balls (2)

### **NEEM (see Azadirachtin)**

### **NEEM OIL (see Oil, Neem)**

### ***NOSEMA LOCUSTAE***

Nolo Bait (2)

### **OILS, ESSENTIAL (mints, clove, cinnamon, garlic, etc.)**

Bonide Mosquito Beater Ready-to-Spray (includes cedar oil, citronella oil, geranium oil, lemongrass oil) (F)  
Cutter Natural Bug Control Spray Concentrate (lemongrass oil, potassium sorbate) (1)  
Dr. Earth Final Stop Fruit Tree Insect Killer (rosemary, sesame, peppermint thyme, cinnamon, garlic) (1)  
Dr. Earth Final Stop Rose & Flower Insect Killer (rosemary, sesame, peppermint thyme,

cinnamon, garlic) (2)  
Dr. Earth Final Stop Vegetable Garden Insect Killer (rosemary, sesame, peppermint thyme, cinnamon, garlic) (2)  
Dr. Earth Final Stop Yard and Garden Insect Killer (rosemary, sesame, peppermint thyme, cinnamon, garlic) (2)  
EcoSmart Flying Insect Killer (peppermint oil, cinnamon oil, sesame oil) (2)  
EcoSmart Botanical Insect Killer Garden Soap Formula (peppermint oil, rosemary oil) (1)  
EcoSmart Ant & Roach Killer (peppermint oil, rosemary oil) (1)  
EcoSmart Organic Insect Killer for Lawn and Landscape (sodium lauryl sulfate, eugenol, thyme oil, sesame oil) (3)  
EcoSmart Organic Home Pest Control (clove oil, rosemary oil, peppermint oil, thyme oil) (1)  
EcoSmart Organic Insect Killer Granules for Lawns and Landscape (eugenol, thyme oil) (1)  
EcoSmart Mosquito Fogger (geraniol, rosemary oil, peppermint oil) (1)  
Hot Shot Natural Flying Insect Killer (lemongrass oil) (1)  
Rescue WHY Spray (lemongrass oil, clove oil, rosemary oil, geranium oil) (3)  
Victor Poison-Free Wasp & Hornet Killer (mint oil) (1)

#### **OILS, MINERAL/HORTICULTURAL (refined petroleum distillates)**

Bonide All Seasons Horticultural & Dormant Spray Oil (5)  
Bonide All Seasons Horticultural & Dormant Spray Oil Ready-to-Use (2)  
Bonide All Seasons Horticultural & Dormant Spray Oil Ready-to-Spray (4)  
ferti-lome Horticultural Oil Spray (1)  
Hi-Yield Dormant Spray (1)

#### **OIL, NEEM\***

Bayer Advanced Natria Neem Oil (1)  
Bonide Bon-Neem (with pyrethrins and piperonyl butoxide) (2)  
Bonide Neem Oil (3)  
Bonide Neem Oil Ready-to-Spray (1)  
Bonide Neem Oil Ready-to-Use (1)  
Bonide Rose Rx 3-in-1 (2)  
ferti-lome Fruit Tree Spray (with pyrethrins) (1)  
ferti-lome Triple Action Plus, Ready-to-Use (with pyrethrins, piperonyl butoxide) (5)  
ferti-lome Triple Action Plus II (with pyrethrins, piperonyl butoxide) (2)  
ferti-lome Triple Action (with pyrethrins) (1)  
ferti-lome Triple Action Ready-to-Spray (with pyrethrins) (1)  
Monterey 70% Neem Oil (2)  
Natural Guard Neem (2)  
Natural Guard Neem Ready-to-Use (2)  
Natural Guard Neem Py (with pyrethrins) (1)  
Southern Ag Triple Action Neem Oil (1)

\*All the above products are described as "clarified hydrophobic extract of neem oil". These apparently are the oil fraction of neem seed extracts. *They do not contain as an active ingredient azadirachtin, the primary insecticidal compound associated with neem seed extracts.*

#### **OILS, VEGETABLE (Soybean, cottonseed, canola, sesame)**

Earth-tone Insect Control (canola oil, pyrethrins) (2)



ecosense brand indoor insect killer aerosol (soybean oil) (1)  
Lilly Miller Vegol Year-Round Pesticidal Oil (canola oil) (1)  
Organocide 3-in-1 Garden Spray (sesame oil, fish oil) (1)

### **ORTHOBORIC ACID (See Boric Acid)**

### **PARADICHLOROBENZE**

Enoz Moth Bar Cedar Scented (1)

### **PEPPER, HOT**

Bonide Hot Pepper Wax Ready-to-Use (capsaicin active ingredient) (2)

### **PERMETHRIN**

Ace House & Garden Bug Killer<sup>2</sup> (with allethrin) (1)  
Ace Soil & Turf Insect Control Concentrate (1)  
Bayer Advanced Complete Insect Dust for Gardens Ready-to-Use (1)  
Bengal Roach Spray II (2)  
Blast (with tetramethrin) (1)  
Bonide Eight Insect Control Yard & Garden Ready-to-Spray (1)  
Bonide Eight Insect Control Vegetable, Fruit & Flower Concentrate (3)  
Bonide Eight Insect Control/Garden and Home, Ready-to-Use (3)  
Bonide Eight Insect Control Garden Dust Ready-to-Use (4)  
Bonide Mosquito Beater, Ready-to-Spray (1)  
Bonide Spider & Ground Bee Killer (2)  
Enforcer Mosquito and Flying Insect Killer II (1)  
Enforcer Wasp & Hornet Killer (with tetramethrin) (2)  
ferti-lome Indoor/Outdoor Multi-Purpose Insect Spray (2)  
Hi-Yield D.I.Y. Indoor Pest Control (with pyrethrins) (2)  
Hi-Yield Total Release Fogger (with pyrethrins) (1)  
Hi-Yield Indoor/Outdoor Broad Use Insecticide (1)  
Hi-Yield Kill-A-Bug II Lawn Granules (1)  
Hi-Yield Turf, Termite and Ornamental 38 Plus (3)  
Raid Fumigator (3)  
SLA Cedar Scented Spray (with pyrethrins) (1)  
Spectracide Immunox 3-in-1 Insect and Disease Control Plus Fertilizer (with myclobutanil)(1)  
Terro Ant Killer Outdoor (with tetramethrin) (1)

### **PHENOTHRIN**

Cutter Backyard Bug Control Outdoor Fogger (with tetramethrin) (5)  
Ortho Home Defense Max Wasp & Hornet Killer (with tetramethrin) (2)  
Raid Flying Insect (with prallethrin) (3)  
Raid House and Garden (with allethrin) (2)  
Raid Multi Insect Killer<sup>7</sup> (with prallethrin) (1)

### **POTASSIUM SALTS OF FATTY ACIDS (See Soaps, Insecticidal)**

### **PRALLETHRIN**

Black Flag Spider and Scorpion Killer<sup>3</sup> (with lambda-cyhalothrin) (2)

Hot Shot Ant & Roach Plus Germ Killer (with lambda-cyhalothrin) (2)  
Raid Flying Insect (with d-phenothrin) (3)  
Raid Multi Insect Killer<sub>7</sub> (with d-phenothrin) (1)  
Raid Wasp & Hornet Killer<sub>33</sub> (with cypermethrin) (2)  
Raid Yard Guard Insect Fogger (with cyfluthrin) (1)  
Spectracide Ant Shield Insect Killer Aerosol (with lambda-cyhalothrin) (2)  
Spectracide Carpenter Bee and Ground Nesting Yellowjacket Foaming Aerosol (with lambda-cyhalothrin) (1)  
Spectracide Wasp & Hornet Killer<sub>3</sub> (with lambda-cyhalothrin) (4)  
Terro Ant Killer Spray<sub>2</sub> (with esfenvalerate) (1)  
Ultra Kill Ant & Roach Killer (with lambda-cyhalothrin) (1)

## **PYRETHRINS**

Bayer Advanced Natria Insect, Disease & Mite Control Ready-to-Spray (with sulfur) (3)  
Bayer Advanced Natria Insect, Disease & Mite Control Ready-to-Use (with sulfur) (1)  
Bayer Advanced Natria Rose & Flower Insect, Disease & Mite Control Ready-to-Spray (with sulfur) (1)  
Bonide Bon-Neem (with pyrethrins and piperonyl butoxide) (2)  
Bonide Bug Beater Yard & Garden Fog (1)  
Bonide Garden Dust (with sulfur, copper) (1)  
Bonide Tomato and Vegetable Ready-to-Spray (with sulfur) (2)  
Bonide Tomato and Vegetable Ready-to-Use (with sulfur) (2)  
Country Vet Metered Fly Spray (1)  
Doktor Doom Total Release Fogger (1)  
Earth-tone 3-in-1 Disease Control (with sulfur) (1)  
Earth-tone Insect Control (with canola oil) (2)  
Enforcer Bed Bug and Flea Fogger (1)  
ferti-lome Fruit Tree Spray (with neem oil) (1)  
ferti-lome Triple Action Plus, Ready-to-Use (with neem oil) (5)  
ferti-lome Triple Action Plus II (with neem oil) (2)  
ferti-lome Triple Action (with neem oil) (1)  
ferti-lome Triple Action Ready-to-Spray (with neem oil) (1)  
Fox Farms Don't Bug Me (2)  
Garden Safe Houseplant & Garden Insect Killer Ready-to-Use (2)  
Garden Safe Multipurpose Garden Insect Killer (1)  
Garden Tech Worry Free Concentrate (1)  
Garden Tech Worry Free Ready-to-Use Dust (1)  
Hi-Yield D.I.Y. Indoor Pest Control (with permethrin) (2)  
Hi-Yield Total Release Fogger (with permethrin) (1)  
Hot Shot Kitchen Bug Killer<sub>2</sub> (1)  
Hot Shot Bedbug and Flea Fogger (3)  
J T Eaton Kills Bedbugs, Fleas, Brown Dog Ticks (2)  
Miracle-Gro Nature's Care 3-in-1 Insect, Disease & Mite Control (with sulfur) (2)  
Natural Guard Neem Py (with neem oil) (1)  
Ortho Bug B Gon 3-in-1 Rose & Flower Care (with sulfur) (1)  
Ortho Tree and Shrub Fruit Tree Spray (1)  
Ortho 3-in-1 Rose & Flower Care (with sulfur) (1)  
Safer Bug Patrol Ready-to-Spray (with insecticidal soap) (1)

- Safer EndAll Insect Killer (with insecticidal soap) (4)
- Safer Tomato and Vegetable Insect Killer II (with insecticidal soap) (3)
- Safer Yard & Garden Insect Killer II Ready-to-Use (with insecticidal soap) (2)
- Safer Wasp & Hornet Killer (with insecticidal soap and d-limonene) (3)
- Safer Ant & Roach Killer (with insecticidal soap and d-limonene) (2)
- Safer Flying Insect Killer (with insecticidal soap and d-limonene) (2)
- SLA Cedar Scented Spray (with permethrin) (1)
- Terro Spider Killer<sup>3</sup> (with deltamethrin) (2)
- Whitney Farms 3-in-1 Rose and Flower Care (with sulfur) (1)

**SEVIN (See Carbaryl)**

**SILICON DIOXIDE (See Diatomaceous Earth)**

**SOAP, INSECTICIDAL (Potassium Salts of Fatty Acids)**

- Earth-tone Insecticidal Soap (3)
- Garden Safe Insecticidal Soap Insect Killer (2)
- Miracle-Gro Nature's Care Insecticidal Soap (2)
- Safer Bug Patrol Ready-to-Spray (with pyrethrins) (1)
- Safer 3-in-1 Garden Spray (with sulfur) (4)
- Safer EndAll Insect Killer (with pyrethrins) (4)
- Safer Fruit & Vegetable Insect Killer V (1)
- Safer Insect Killing Soap Concentrate II (3)
- Safer Insect Killing Soap with Seaweed Extract (5)
- Safer Rose & Flower Insect Killer II Ready-To-Use (1)
- Safer Tomato and Vegetable Insect Killer II (with pyrethrins) (3)
- Safer Yard & Garden Insect Killer II Ready-to-Use (with pyrethrins) (2)
- Safer Wasp & Hornet Killer (with pyrethrins and d-limonene) (3)
- Safer Ant & Roach Killer (with pyrethrins and d-limonene) (2)
- Safer Flying Insect Killer (with pyrethrins and d-limonene) (2)

**SODIUM TETRABORATE TETRAHYDRATE (See Boric Acid)**

**SPINOSAD**

- FB Bonide Captain Jack's Dead Bug Brew Flower & Vegetable Insect Dust (2)
- FB Bonide Captain Jack's Dead Bug Brew Concentrate (2)
- GL Bonide Captain Jack's Dead Bug Brew Ready-to-Use (2)
- FB Bonide Captain Jack's Dead Bug Brew Ready-to-Spray (2)
- G Earth-tone Bug & Slug Killer (with iron phosphate) (1)
- DCFG ferti-lome Borer, Bagworm, Leafminer & Tent Caterpillar Spray (4)
- B Monterey Ant Control (with iron phosphate) (1)
- CFBG Natural Guard Ready-to-Spray Spinosad Landscape & Garden Insecticide (4)
- FB Sluggo Plus (with iron phosphate) (2)

**SPINOSYNS (See Spinosad)**

**SULFUR**

- Bayer Advanced Natria Insect, Disease & Mite Control Ready-to-Spray (with pyrethrins) (3)
- Bayer Advanced Natria Insect, Disease & Mite Control Ready-to-Use (with pyrethrins) (1)
- Bayer Advanced Natria Rose & Flower Insect, Disease & Mite Control Ready-to-Spray (with pyrethrins) (1)

Bonide Garden Dust (with pyrethrins, copper) (1)  
Bonide Tomato and Vegetable Ready-to-Spray (with pyrethrins) (2)  
Bonide Tomato and Vegetable Ready-to-Use (with pyrethrins) (2)  
Earth-tone 3-in-1 Disease Control (with pyrethrins) (1)  
Ortho Bug B Gon 3-in-1 Rose & Flower Care (with pyrethrins) (1)  
Ortho Bug-Geta Snail & Slug Killer<sub>2</sub> (1)  
Safer 3-in-1 Garden Spray (with insecticidal soap) (4)  
Whitney Farms 3-in-1 Rose and Flower Care (with pyrethrins) (1)

### **SUMITHRIN**

Hi-Yield Wasp and Hornet Spray (with tetramethrin) (1)  
Enforcer Wasp & Yellow Jacket Foam (with tetramethrin) (2)  
Hi-Yield Wasp and Hornet Spray (with tetramethrin) (1)  
Ortho Hornet and Wasp Killer<sub>6</sub> (with tetramethrin) (1)

### **TAU-FLUVALINATE**

Bayer Advanced 3-in-1 Insect, Disease and Mite Control Concentrate (with imidacloprid, tebuconazole) (2)  
Bayer Advanced 3-in-1 Insect, Disease and Mite Control Ready-to-Spray (with imidacloprid, tebuconazole) (3)  
Bayer Advanced 3-in-1 Insect, Disease and Mite Control Ready-to-Use (with imidacloprid, tebuconazole) (1)

### **TETRAMETHRIN**

Ace Flying Insect Killer (with phenothrin) (2)  
Black Flag Extreme Flying Insect Killer (1)  
Blast (with permethrin) (1)  
Cutter Backyard Bug Control Outdoor Fogger (with phenothrin) (5)  
Enforcer Wasp & Hornet Killer (with permethrin) (2)  
Enforcer Wasp & Yellow Jacket Foam (with sumithrin) (2)  
Hi-Yield Wasp and Hornet Spray (with sumithrin) (1)  
Hot Shot Fogger with Odor Neutralizer (with cypermethrin) (2)  
Hot Shot No Mess Fogger<sub>3</sub> with Neutralizer (with cypermethrin) (3)  
Ortho Home Defense Max Wasp & Hornet Killer (with phenothrin) (2)  
Ortho Hornet and Wasp Killer<sub>6</sub> (with sumithrin) (1)  
Spectracide Wasp & Hornet Killer (cypermethrin) (1)

### **TRICHLORFON**

Bayer Advanced 24 Hour Grub Killer Plus Granules (1)

### **ZETA-CYPERMETHRIN (See Cypermethrin)**

#### **\*Locations in Survey (Date of Survey)**

D	Ace Hardware Downtown (May 27)	B	Bath Nursery (May 22)
C	Clay's Ace Hardware (May 26)	F	Fort Collins Nursery (May 22)
G	Gulley Greenhouse and Garden Center (May 28)	H	Home Depot (May 28)
J	JAX Ranch and Home (May 29)	L	Lowe's (May 28)
W	Wal-Mart (May 27)		

## SUMMARY

A total of 607 products located on store shelves were included in this survey. These included 237 different products, many of which included two or more active ingredients. As in previous surveys, the most common insecticides found were pyrethroid/pyrethrins insecticides which were included in 38% of the products (Table 1). Neonicotinoid insecticides were in 16% of the products; paraffinic/vegetable/neem oils in 10.5%.

**Table 1.** Number of different insect/mite/mollusk control products found on retail shelves, arranged by pesticide class. A total of 237 different products were located on during this survey (22-29 May, 2015) of nine retail stores.

Pyrethroids (90)  
Neonicotinoids (38)  
Oils (vegetable, neem & paraffinic) (25)  
Oils (essential) (16)  
Insecticidal soaps (15)  
Iron phosphate (12)  
Carbamates (11)  
Spinosad (9)  
Organophosphates (9)  
Boric acid/Orthoboric acid (8)  
*Bacillus thuringiensis* var. *kurstaki* (6)  
Diatomaceous earth (6)  
Fipronil (6)

Among all packages examined, the most common active ingredient found was pyrethrins, included in 12% of the products on shelves (Table 2). The majority of the pyrethrins products (54.8%) were combined with other active ingredients, including various oils, insecticidal soaps and/or various pyrethroids. Other common active ingredients encountered on shelves, and the percentage of examined packages containing the active ingredient, were imidacloprid (11.5%), cyhalothrin (9.6%), various mineral/paraffinic/vegetable/neem oils (7.4%), insecticidal soaps (6.4%), permethrin (6.4%), cypermethrin (6.1%), beta-cyfluthrin (5.8%), and carbaryl (5.4%).

Some products that were found exclusively, or primarily, at certain types of outlets. Most specialty garden products – oils, spinosad, azadirachtin, *Bacillus thuringiensis* var. *kurstaki* and the 38% permethrin product for borers and bark beetles - were only carried by garden centers/nurseries or hardware stores. On the other hand, box stores carried a wider selection of the persistent pyrethroids (e.g., bifenthrin, lambda-cyhalothrin, cypermethrin, deltamethrin). Fipronil baits also were primarily found at box stores.

**Table 2.** Most common specific active ingredients found among insect/mite/mollusk control products found on retail shelves, arranged by number of times products were found on shelves. A total of 607 on-shelf packages were examined, involving 237 different products. Next to active ingredient is indicated (x/x) the number of products found containing the active ingredient and the number of times products were present with the active ingredient. (Note: Many products contained two or more active ingredients and these were separately recorded and reported.)

Pyrethrins (43/73)  
 Imidacloprid (27/70)  
 Cyhalothrin (gamma, lambda) (29/58)  
 Oils (vegetable, neem & paraffinic) (25/45)  
 Insecticidal soaps (15/39)  
 Permethrin (23/39)  
 Cypermethrin (18/37)  
 Cyfluthrin (17/35)  
 Carbaryl (7/33)  
 Bifenthrin (13/26)  
 Oils (essential) (16/23)  
 Tetramethrin (12/23)  
 Acetamiprid (8/23)  
 Prallethrin (11/20)  
 Spinosad (9/20)  
 Deltamethrin (12/17)  
 Boric acid/Orthoboric acid (8/17)  
 Iron phosphate (12/15)  
 Malathion (4/14)  
 Allethrin (10/14)  
 Phenothrin (5/13)  
 Diatomaceous earth (6/10)  
*Bacillus thuringiensis* var. *kurstaki* (6/9)  
 Fipronil (6/9)

The specific products most commonly encountered are listed in Table 3.

**Table 3.** Brand name products most commonly encountered during the 2015 survey of over-the-counter insect/arachnid/mollusk control pesticides. Active ingredients are in parentheses.

---

<i>Found in 7 of 9 Stores</i>
Biological Mosquito Control/Mosquito Dunks ( <i>Bacillus thuringiensis</i> var. <i>israelensis</i> )
Garden Tech Sevin Concentrate Bug Killer (carbaryl)
<i>Found in 6 of 9 Stores</i>
Ortho Home Defense Max Insect Killer for Indoor & Perimeter <sub>1</sub> (bifenthrin, zeta-cypermethrin)
Garden Tech Sevin Ready-to-Use Bug Killer (carbaryl)
Garden Tech Sevin 5 Ready-to-Use 5% Dust Bug Killer (carbaryl)
Spectracide Malathion Insect Spray Concentrate
<i>Found in 5 of 9 Stores</i>
Ortho Rose and Flower Insect Killer Ready-to-Use (acetamiprid)
Ortho Rose & Flower Insect & Disease Control Ready-to-Use (acetamiprid, triticonazole)
Terro Ant Killer <sub>II</sub> (orthoboric acid)
Garden Tech Sevin Ready-to-Spray Bug Killer (carbaryl)
Spectracide Triazicide Insect Killer for Lawns & Landscapes Concentrate (gamma-cyhalothrin)
Cutter Backyard Bug Control Spray Concentrate (lambda-cyhalothrin)
Amdro Kills Ants Ant Killing Bait (hydramethylnon)
Bayer Advanced Complete Insect Killer Soil & Turf Concentrate (imidacloprid, beta-cyfluthrin)
Bonide All Seasons Horticultural & Dormant Spray Oil (paraffinic oil)

ferti-lome Triple Action Plus, Ready-to-Use (neem oil, pyrethrins, piperonyl butoxide)  
Cutter Backyard Bug Control Outdoor Fogger (phenothrin, tetramethrin)  
Safer Insect Killing Soap with Seaweed Extract (insecticidal soap)

*Found in 4 of 9 Stores*

Ortho Flower, Fruit and Vegetable Insect Killer Ready-to-Use (acetamiprid)  
Ortho Flower, Fruit & Vegetable Ready-to-Spray (acetamiprid)  
Spectracide Wasp & Hornet Killer<sub>3</sub> (prallethrin, lambda-cyhalothrin)  
Raid Ant and Roach Killer<sub>17</sub> (cypermethrin, imiprothrin) DCHL  
Bonide Fruit Tree Spray (carbaryl, malathion, captan)  
Garden Tech Sevin Lawn Insect Granules (carbaryl)  
Spectracide Bug Stop Home Barrier Ready-to-Use (gamma-cyhalothrin)  
Spectracide Insect Killer for Lawns Granules (gamma-cyhalothrin)  
Safer Ant & Crawling Insect Killer Diatomaceous Earth (diatomaceous earth)  
Amdro Ant Block Home Perimeter Ant Bait (hydramethylnon)  
Bayer Advanced 2-in-1 Systemic Rose & Flower Care Ready-to-Use Granules II (imidacloprid)  
Bayer Advanced All-in-One Rose and Flower Care Concentrate (imidacloprid, tebuconazole, chlothianidan)  
Bayer Advanced All-in-One Rose and Flower Care Granules (imidacloprid, tebuconazole)  
Bayer Advanced Complete Insect Killer for Soil and Turf Ready-to-Spray (imidacloprid, beta-cyfluthrin)  
Bayer Advanced Rose & Flower Insect Killer Ready-to-Use (imidacloprid, beta-cyfluthrin)  
Bayer Advanced Tree & Shrub Protect & Feed Concentrate II (imidacloprid, chlothianidin)  
Bonide Systemic Houseplant Insect Control (imidacloprid)  
Bonide All Seasons Horticultural & Dormant Spray Oil Ready-to-Spray (paraffinic oil)  
Bonide Eight Insect Control Garden Dust Ready-to-Use (permethrin)  
Safer EndAll Insect Killer (pyrethrins, insecticidal soap)  
Safer 3-in-1 Garden Spray (insecticidal soap, sulfur)  
ferti-lome Borer, Bagworm, Leafminer & Tent Caterpillar Spray (spinosad)  
Natural Guard Ready-to-Spray Spinosad Landscape & Garden Insecticide (spinosad)

---

**Changes in products since 2012 survey.** Only a single active ingredient was found in this survey that was not found in the 2012 survey; chlorantriprole was the active ingredient in the latest formulation of Scotts GrubEx. (This product contained halofenozide in 2012.) Also worthy of note is that the Summit Mosquito Bits product, found at 3 stores, now has label language that allows use for fungus gnats.

Some minor shifts in the incidence of certain pesticides were noted. Permethrin products, formerly dominant, appear less commonly on shelves than earlier, and seem to have been supplanted, in part by longer persisting pyrethroids (e.g., bifenthrin, lambda-cyhalothrin, cypermethrin, cyfluthrin, deltamethrin). Acetamiprid, first noted in 2012, is considerably more widespread, found in two-thirds of the survey stores; it appears to have almost completely replaced acephate, which was only found in two stores. Also almost completely absent is metaldehyde, used for slug and snail control; iron phosphate products appear to have replaced metaldehyde and were more widely available than earlier. Propoxur products for ant control were not found at any outlets, although a couple of chlorpyrifos ant baits were found.

June 9, 2015 draft

Whitney Cranshaw  
Department of Bioagricultural Sciences and Pest Management  
Colorado State University

Whitney.Cranshaw@ColoState.EDU

.