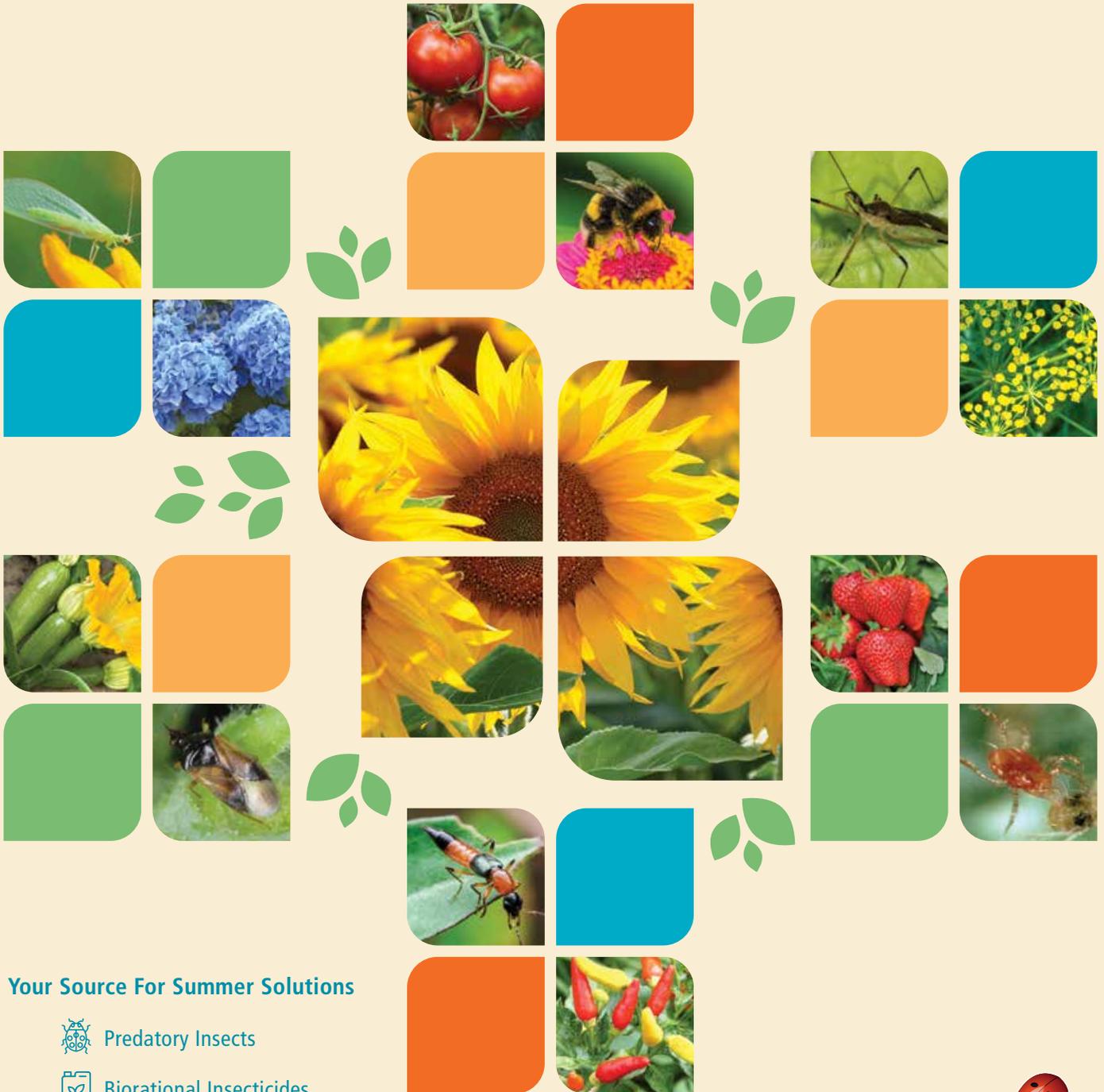


# ARBICO *organics*<sup>®</sup>

NATURAL & ORGANIC IPM SOLUTIONS

SUMMER CATALOG 2021



## Your Source For Summer Solutions



Predatory Insects



Biorational Insecticides



Amendments & Fertilizers



Weed & Disease Control



Serving Growers Since 1979.

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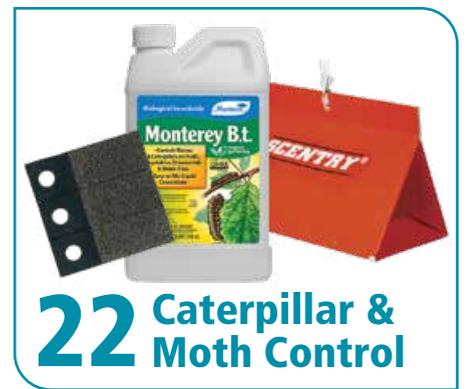
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**800-827-2847**  
[www.arbico-organics.com](http://www.arbico-organics.com)  
[customercare@arbico.com](mailto:customercare@arbico.com)

## POWERFUL PEST CONTROL



The Assassin Bug is a hardworking predator that feeds in all life stages. Great for greenhouse and indoor cultivations with wide temperature range activity and varied pests. Free Shipping!

### ADVANTAGES

- Predatory in all life stages
- Wide variety of pests consumed
- Active in high temperatures/low humidities
- Not attracted to artificial light

## Assassin Bug - *Zelus renardii*



**These Voracious Ambush Predators Will Stay In Your Crops & Devour A Wide Variety Of Pest Insects!**

**TARGET:** Leafhoppers, aphids, early instar caterpillars, flies, mites in conjunction with mite predators, and most other pests.



**DESCRIPTION:** These hardworking ambush predators are an excellent addition to any growing area, large or small. Feasting on a variety of pests, assassin bugs stay put in order to knock out an infestation. With an approximate two-month lifespan, these generalist predators will live, eat and reproduce in the area of release. *Zelus* start eating immediately after hatching, and by the second instar they produce a resin on their legs, which turns them into a walking sticky trap. Once captured, their prey is pierced with their rostrum and a digestive enzyme is injected into the prey and the insect is quickly killed. This method of predation allows for *Zelus* to take out prey much larger than themselves. These generalist predators are voracious and can be used efficiently in gardens, fields, orchards and greenhouses.

**SUGGESTED USE (Depending upon level of infestation):** Use 500 eggs in a 2,000-3,000 sq. ft. area every 2-3 weeks. Release preventively or at the first sign of an infestation. For heavy infestations, release 500-1,000 eggs weekly in no more than 2,000 square feet. Release 5-10 thousand eggs biweekly per acre. Shipped as eggs, assassin bugs will typically hatch in under a week.

**Temperature:** 55-110°F

**Relative Humidity:** 10-75%

<b>1000105</b>	≈250 Eggs	<b>\$25.00</b>
<b>1000106</b>	≈500 Eggs	<b>\$40.00</b>
<b>1000107</b>	≈1,000 Eggs	<b>\$65.00</b>

Larger sizes available.

\*FREE SHIPPING in the contiguous 48 states. Ships Monday - Thursday via 2nd Day.



## Minute Pirate Bug - *Orius insidiosus*

**Excellent General Predator In Field Crops & Greenhouses.**

**TARGET:** Thrips, whiteflies, spider mites, aphids, psyllids, small caterpillars, insect eggs and others.

**DESCRIPTION:** Minute Pirate Bugs (*Orius spp.*) also known as flower bugs, are one of the most common general predators in field crops. Their diet consists of a variety of small pests. They are also known to attack adult thrips.



**SUGGESTED USE (Depending upon level of infestation):** Sold as adults. For maintenance, release 1 to 2 *Orius* per plant in greenhouses or 1 to 4 *Orius* per plant in hot spot areas outdoors. When treating a serious whitefly, aphid, thrips or other pest infestation, we recommend releasing up to 500 *Orius* per 250 sq. ft. area. For field crops, we recommend releasing between 100 and 2,000 *Orius* per acre, depending on the level of infestation.

**Temperature:** 64-82°F

**Relative Humidity:** Moderate ≈60%

<b>1117001</b>	≈500 Count	<b>\$53.00</b>
<b>1117003</b>	≈1,000 Count	<b>\$88.00</b>
<b>1117004</b>	≈2,000 Count	<b>\$154.00</b>

**Overnight Shipping Required**

## Green Lacewings - *Chrysoperla rufilabris*, *Chrysoperla sp.*



Referred To As "Aphid-Lions," These Generalists Have Amazing Dispersal Abilities!

**TARGET:** Aphids, mealybugs, spider mites, leafhopper nymphs, moth eggs, scale thrips, whiteflies and more.

**DESCRIPTION:** Green lacewings are available in all three life stages: egg, larva and adult. Green lacewing larvae paralyze their prey with venom and then draw out the body fluids of the pest into their large hollow jaws. Each lacewing larva will devour 200 or more pests or pest eggs a week during their two to three week developmental period.



**Temperature:** Minimum: 60°F Best: 75-90°F **Relative Humidity:** 30-50%  
**Release Rate:** Every 7-10 days

1110011	≈5,000 Eggs	\$27.00
1110016	≈10,000 Eggs	\$37.80
1110100	≈5,000 Eggs on Cards	\$28.50
1110102	≈10,000 Eggs on Cards	\$45.00
1110105	≈25,000 Eggs on Cards	\$90.00
1110005	Larval Frames ≈400 Larvae	\$25.00**
1110010	≈1,000 Larvae in Bottle	\$24.00**
1110006	≈100 Adults	\$44.00**
1110004	≈250 Adults	\$90.00**
1110007	≈500 Adults	\$170.00**

### Green Lacewing Eggs Programs:

1110002	≈1,000 Eggs/week for min. 3 shipments (Price Per Shipment)	\$15.60
1110003	≈5,000 Eggs/week for min. 3 shipments (Price Per Shipment)	\$24.30
1110023	≈10,000 Eggs/week for min. 3 shipments (Price Per Shipment)	\$33.75

### SUGGESTED USE (Depending upon level of infestation):

Eggs	Larvae
Gardens & Greenhouses	Gardens & Greenhouses
≈1k-2k Eggs/1,000 sq. ft.	≈2-4/sq. ft.
Farms	Farms
≈2,000-40,000/Acre	≈1,000-2,000/Acre
Adults	
Gardens & Greenhouses	Farms
≈1-3/sq. ft., 100/Tree	≈200-500/Acre

### Larvae & Adults Require OVERNIGHT Shipping

\*FREE SHIPPING in the contiguous 48 United States. Quantities of 1,000-25,000 eggs ship via USPS Priority only. Quantities of 50,000-250,000 ship via FedEx 2nd Day Air only. Expedited shipping available for an additional fee.

\*\*FREE SHIPPING does not apply to Green Lacewing Adults, Green Lacewing Larval Frames and Green Lacewing Larvae in Bottle.



## Ladybugs & Generalists in General

Everyone loves a ladybug; but, unfortunately, they are not always commercially available. Mother Nature is the ultimate decision-maker as whether or not we will have a steady supply. For this reason, if you are interested in ladybugs, we encourage you to consider one of our other generalist insects. Generalists are predatory insects that eat a wide variety of insects and we have several great options for you to choose from. **Assassin Bugs, Green Lacewings and Minute Pirate Bugs** are all general predators. When choosing a generalist, some things to consider are ambient temperatures and humidity levels and the different life stages we offer. For example, if choosing Green Lacewing *eggs*, allow time for them to hatch and achieve their maximum efficacy. For assistance in selecting a generalist, please call us for a free consultation.

## Ladybugs - *Hippodamia convergens*

Ladybugs Consume A Vast Quantity Of Soft-Bodied Insects.

**TARGET:** Aphids, chinch bugs, asparagus beetle larvae, thrips, alfalfa weevil larvae, bean thrips, grape root worm, Colorado potato beetle larvae, whiteflies, mites and many other soft-bodied insects and eggs.

**DESCRIPTION:** One of the most common of all beneficial insects, ladybugs are shipped to you in the adult stage. Each adult consumes about 5,000 aphids. The number of ladybugs per shipment is approximate.

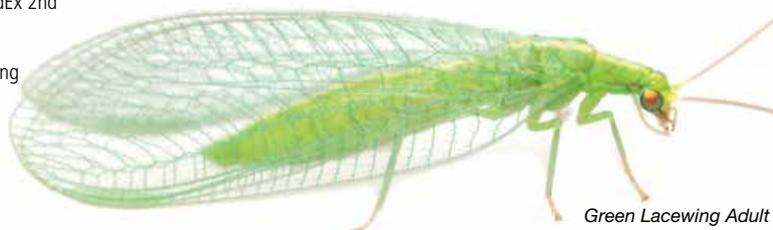
**SUGGESTED USE (Depending upon level of infestation):** Shipped as adults. Release prior to or at the onset of infestation. Use more or less depending on your level of infestation and crop.

**Temperature:** Moderate: 62-88°F **Relative Humidity:** Minimum 40%

1112500	≈500 Adults	\$12.95
1112525	≈1,500 Adults	\$19.95

Larger sizes available.

**Subject to seasonal availability.**  
**Expedited Shipping Required**



## Aphid Predator - *Aphidoletes aphidimyza*

**This Aphid Predator Attacks & Feeds On Over 60 Different Species Of Aphids.**

**TARGET:** Over 60 different aphids, including green peach aphids (*Myzus persicae*) and hemlock woolly adelgid (*Adelges tsugae*).

**DESCRIPTION:** Predacious to aphids, these insects will inject a paralyzing toxin into pest's legs and feed on aphid body contents, causing eventual death.

**SUGGESTED USE (Depending upon level of infestation):** Apply to existing infestations weekly, until pests subside. Use ≈1-3/10 sq. ft., ≈2-3/10 sq. ft. or ≈4,500/acre.

**Temperature:** Warm 64-77°F      **Relative Humidity:** Moderate ≈70%

<b>1101001</b>	≈1,000 Pupae	<b>\$80.00</b>
<b>1101003</b>	≈3,000 Pupae	<b>\$207.00</b>
<b>1101002</b>	4 x 250 Pupae in Blister Packs	<b>\$60.00</b>

**Overnight Shipping Required**



*Aphidoletes aphidimyza*

## Aphid Parasite - *Aphidius colemani*

**Exceptional In Greenhouses Producing Vegetables & Ornamentals.**

**TARGET:** Aphids, especially melon and cotton aphids (*Aphis gossypii*).

**DESCRIPTION:** These tiny (1/8") parasitic wasps specifically target aphids to provide food and a place to oviposit. The adults respond to alarm signals from plants to locate the aphids and, once there, they feast on the honeydew produced by the aphids. The females will then lay their eggs inside aphid nymphs. The larvae will hatch and devour the aphid from inside, turning it into a mummy. The parasites are shipped to you in this stage; simply place them where the infestation is. Once mature, the adult wasp will chew its way out of the mummy and begin hunting aphids.

**SUGGESTED USE (Depending upon level of infestation):** Apply to existing infestations weekly, until pests subside. Use ≈1-8/1 sq. yd. or ≈500-3,000/acre.

**Temperature:** 70-77°F      **Relative Humidity:** High ≈80%

<b>1101302</b>	≈500 Mummies	<b>\$43.00</b>
<b>1101301</b>	≈1,000 Mummies	<b>\$54.00</b>
<b>1101303</b>	≈5,000 Mummies	<b>\$189.00</b>
<b>1101304</b>	≈10,000 Mummies	<b>\$340.00</b>

**Overnight Shipping Required**



*Aphidius colemani*

## Aphid Parasite - *Aphelinus abdominalis*

**These Ravenous Predators Will Eat & Parasitize Aphid Nymphs!**

**TARGET:** Aphids, including potato (*Macrosiphum euphorbiae*), foxglove (*Aulacorthum solani*), green peach (*Myzus persicae*), California laurel (*Euthoracaphis umbellulariae*), cotton (*Aphis gossypii*), melon (*Aphis gossypii*), bird cherry-oat (*Rhopalosiphum padi*), cereal (*Sitobion avenae*), and alfalfa aphids (*Acyrtosiphon pisum*).

**DESCRIPTION:** Not great fliers, these parasitic wasps nevertheless can hunt down and destroy large numbers of aphids. These predators will not only lay their eggs in aphid nymphs, they will eat those that they don't parasitize. This secondary method of killing has a powerful effect on the aphid population and provides females with additional protein to develop more eggs. As the larvae matures inside the nymph, they feed on it, turning it into a mummy. The parasites are shipped in this stage; simply place them where the infestation is. The mature adult will chew a hole in the back of the mummy and emerge. This species is better able to handle high temperatures than the *Aphidius* species.

**SUGGESTED USE (Depending upon level of infestation):** Apply before the onset of infestation. Use ≈250/5,000 sq. ft. or ≈1,000-4,000/acre.

**Temperature:** 70-77°F      **Relative Humidity:** Low-High ≈60-80%

<b>1101101</b>	≈250 Mummies	<b>\$83.00</b>
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**Overnight Shipping Required**



*Aphelinus abdominalis*

## Aphid Parasite - *Aphidius ervi*

**This Non-Stinging Parasitic Wasp Attacks Larger Aphid Species.**

*Image Citation: Alex Wild*

**TARGET:** Aphids, especially potato (*Macrosiphum euphorbiae*), glasshouse potato (*Aulacorthum solani*), green peach (*Myzus persicae*), foxglove (*Aulacorthum solani*) and pea aphids (*Acyrtosiphon pisum*). Also attacks greenbug/wheat (*Shizaphis graminum*), yellow rose (*Rhodobium orientis*), English grain (*Sitobion avenae*) and other aphids.

**DESCRIPTION:** These mini-wasps (1/8") are vigorous fliers and will aggressively seek out aphid populations, no matter how small. Once they find the aphids, they feed on the honeydew produced by the aphids and lay their eggs inside the aphid nymphs. As the larvae feed on the nymphs from the inside, the nymph turns into a mummy. The parasites are shipped to you this stage; simply place them where the infestation is. Once mature, the adult wasp will chew its way out of the mummy and begin its own search for aphids.

**SUGGESTED USE (Depending upon level of infestation):** Apply to existing infestations weekly, until pests subside. Use ≈1-3/10 sq. ft. or 1-8/sq. yd.

**Temperature:** 64-75°F      **Relative Humidity:** Moderate ≈70%

<b>1001001</b>	≈250 Mummies	<b>\$65.00</b>
<b>1001002</b>	≈500 Mummies	<b>\$100.00</b>
<b>1001003</b>	≈1,000 Mummies	<b>\$150.00</b>

**Overnight Shipping Required**



*Aphidius ervi*



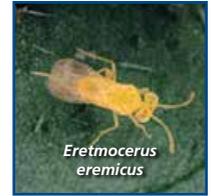
## Integrated Pest Management of Whiteflies

1. Carefully inspect new plants before transplanting.
2. Dip foliage and root ball in soapy water, or hydrogen peroxide solution, to clean and kill any existing whitefly eggs, nymphs or adults.
3. Monitor pest thresholds with yellow sticky traps or ribbons.
4. Release Green Lacewings preventatively before infestation becomes severe.
5. Consider specialist parasites and predators for targeted whitefly infestations.
6. For quick knockdown control, consider sprays with a low environmental impact such as *Beauveria bassiana* products (see page 28) or Neem based sprays.
7. Clean tools and equipment as well as greenhouse structures between growing seasons. See Cleaning & Sanitizing on page 52.

## Whitefly Parasite - *Eretmocerus eremicus*

**Better Adapted To Higher Temperatures, Including Temperatures That Fluctuate Day & Night! Good For Desert Climates.**

**TARGET:** Greenhouse whiteflies (*Trialeurodes vaporarum*), sweet potato whiteflies (*Bemisia tabaci*), silverleaf whiteflies (*Bemisia argentifolii*), and banded-winged whiteflies (*T. abutiloneus*) and others.



**DESCRIPTION:** The whitefly parasite (parasitoid) is a tiny wasp that host feeds and parasitizes the scale (nymphs) of whiteflies. The time from egg laying to adult emergence is approximately 22 days. Can be used with Green Lacewings.

**SUGGESTED USE (Depending upon level of infestation):** For prevention: use 1,000/10,000 sq. ft. Light infestations: 1,000/1,000 sq. ft. Heavy infestations: use 5,000/1,000 sq. ft. Hang squares with parasitized pupae on plant foliage at first sign of infestation. Order weekly for approximately 2-6 weeks until control is achieved. Call to set up your customized weekly program.

**Temperature:** Moderate 62-82°F **Relative Humidity:** Minimum 40%

**1000703** 20 Blister Packs (≈250 Pupae Per Pack) **\$94.95**

**Overnight Shipping Required**

## Whitefly Parasite - *Encarsia formosa*



**Save Your Plants From The Ravages Of Destructive Whiteflies! Good For Greenhouses.**

**TARGET:** Greenhouse whiteflies (*Trialeurodes vaporarum*), sweet potato whiteflies (*Bemisia tabaci*) and approximately 15 other species of whitefly.



**DESCRIPTION:** The whitefly parasite (parasitoid) is a tiny wasp that host feeds and parasitizes the scale (nymphs) of whiteflies. The time from egg laying to adult emergence is approx. 25 days. Can also be used with Green Lacewings.

**SUGGESTED USE (Depending upon level of infestation):** **For prevention:** Use 500-1,000/15,000 sq. ft. **Light infestations:** (less than 1 adult whitefly per 50-100 plants) Use 1,000-2,000/5,000-10,000 sq. ft. for minimum of 3 weeks or until control is achieved. **Heavy infestations:** Use 3,000/3,500 sq. ft. for a minimum of 3 weeks or until control is achieved. Hang squares with parasitized pupae on plant foliage at first sign of infestation. Order weekly for approximately 2-6 weeks until control is achieved. Please call to set up your customized weekly program.

**Temperature:** Moderate 76-85°F **Relative Humidity:** Moderate ≈50-70%

<b>1132001</b>	≈1,000 Count	<b>\$32.50</b>
<b>1132002</b>	≈3,000 Count	<b>\$46.00</b>
<b>1132003</b>	≈5,000 Count	<b>\$60.00</b>

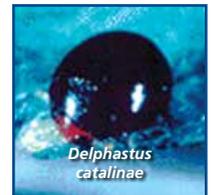
**2nd Day Shipping Required**

\*FREE SHIPPING in the contiguous 48 states. Ships via 2nd Day Only. Ships only on Monday, Tuesday and Wednesday.

## Whitefly Predator - *Delphastus catalinae*

**These Tiny Brown Beetles Consume Several Hundred Pests Daily!**

**TARGET:** Aphids, scale, thrips, and especially greenhouse and outdoor sweet potato whiteflies and other soft-bodied insect pests.



**DESCRIPTION:** Females lay ≈3-4 eggs daily and adults live for approximately one month. Adult beetles capture prey with their mandibles, inject paralyzing venom & feed on pest body fluids. Shipped as adults, they should be used at the first signs of infestation.

**SUGGESTED USE (Depending upon level of infestation):** Upon arrival, release at sundown. May be stored at temperatures between 50-60°F for 1-2 days. Can be combined with other whitefly parasites.

**Temperature:** Moderate 65-90°F **Relative Humidity:** High ≈70% & Higher

<b>1126001</b>	≈100 Count	<b>\$50.00</b>
<b>1126003</b>	≈200 Count	<b>\$90.00</b>
<b>1126002</b>	≈1,000 Count	<b>\$190.00</b>

**Overnight Shipping Required**

**If You're Unsure Which Beneficial Insect Or Predator Is Right For Your Conditions, Call One Of Our Specialists At 1-800-827-2847.**



## Integrated Pest Management of Fungus Gnats

1. Monitor and trap with yellow sticky traps to assess the severity of infestation.
2. Control soil moisture by providing proper drainage, avoiding standing water and allowing media to dry between waterings.
3. Circulate air and prune plants to ensure adequate air flow.
4. Prevent and treat infestations with *Bacillus thuringiensis israelensis* (see page 36).
5. Apply NemAttack *Steinernema feltiae* Beneficial Nematodes to parasitize fungus gnat larvae as well as thrips.
6. Rove beetles (*Dalotia coriaria*) are excellent predators that can establish in growing environments and control multiple soil dwelling pests.
7. Spray *Beauveria bassiana* to the foliage or drench growing media, where permitted.

## Rove Beetle - *Dalotia coriaria* (= *Atheta coriaria*)

### For Indoor Control Of Soil Dwelling Pests!

**TARGET:** Fungus gnats (sciarid flies), thrips and shore flies.

**DESCRIPTION:** "Rove beetles" will feed on small soil-dwelling pest larvae and eggs. Adults are a brown-black color, 3-4 mm long and winged. They are predacious in all stages and develop from egg to adult in about 21 days; passing through three larval instars prior to pupation and adulthood. Adults consume about 150 pest fungus gnat eggs per day. Compatible with *Stratiolaelaps scimitus* (= *Hypoaspis miles*). Winged adults have high dispersal and colonization rates and are not recommended for outdoor use.



**SUGGESTED USE (Depending upon level of infestation):** Use season-long, in covered crops such as ornamentals, cucumbers, strawberries and mushrooms. Apply directly to growing medium surface. Apply approx. 1-5 predators per sq. ft. For high infestation, increase application rate and consider pairing with another suitable predator or parasite like *S. scimitus*, beneficial nematodes, or specific mite predators.

**Temperature:** Moderate 55-80°F **Relative Humidity:** 50-80%

1101330	≈500 Adults	\$54.00
1101331	≈1,000 Adults	\$78.00
1101332	≈3,000 Adults	\$170.00
1101334	≈5,000 Adults	\$250.00

**Overnight Shipping Required**

## Fungus Gnat Predator - *Stratiolaelaps scimitus* (= *Hypoaspis miles*)

### Stop Destructive Fungus Gnats & Thrips In Their Developing Soil Stages.

**TARGET:** Fungus gnats, western flower thrips, springtails, mold mites, spider mites, cactus root mealybugs, strawberry root weevils and black vine root weevils.



**DESCRIPTION:** This tiny brown mite naturally inhabits the top layer of soil where larvae and pupae dwell. Female predatory mites lay their eggs in soil and the nymphs and adults feed on pests.

**SUGGESTED USE (Depending upon level of infestation):** ≈5,000-10,000 mites treat approximately 1,000 sq. ft. Release ≈25,000-50,000/acre depending on level of infestation. Apply weekly until infestation subsides. Weekly release programs available. Please Call. Trap adult infestations using Blue Sticky Traps. Reinforce with applications of beneficial nematodes.

**Temperature:** Moderate 60-74°F **Soil Conditions:** Moist soil. Not too damp.

1154000	≈12,500 Count	\$19.00
1154002	≈25,000 Count	\$30.00
1154005	≈50,000 (2 x 25,000)	\$50.00
1154010	≈125,000 in 5 Liter Bag	\$130.00

**Overnight Shipping Required**

## Control Fungus Gnat Larvae Using *Bacillus thuringiensis israelensis*

Include applications of Bti in your fungus gnat IPM plan. Bti works to control larvae, the stage fungus gnats are most damaging to plant roots.

It can be used in conjunction with Beneficial Nematodes and Fungus Gnat predators as part of an IPM plan. [See page 36.](#)



## Thrips & Whitefly Predator - *Amblyseius swirskii*

**For Use On A Variety Of Pest Mites, Thrips & Whiteflies.**

**TARGET:** Western flower thrips, onion thrips, broad mites, hemp russet mites, glasshouse whiteflies, tobacco whiteflies or silverleaf whiteflies.

**DESCRIPTION:** These predacious mites feed on various pest insects in their developing adult stages, pollen and mold. They may consume about 10 thrips or whitefly larvae a day and up to about 20 whitefly eggs per day. They will not undergo diapause, and can be used in protected crops in cooler growing areas.

**SUGGESTED USE (Depending upon level of infestation):** Introduce before the onset of infestation, when temperatures are no lower than 60°F. Apply at a rate of 10 mites per sq. ft every other week as needed, or apply continuous release sachets every 2-4 weeks. Use 1 sachet per plant, or 1 per 3 plants if canopy is touching. Use sachets on sticks during propagation or where canopy cannot support hooks. Not recommended for use on infestations in tomato crops.

**Temperature:** Moderate 77-85°F      **Relative Humidity:** 70%

**BULK SIZES:**

<b>1101312</b>	≈25,000 in Tube	<b>\$68.00</b>
<b>1101319</b>	≈50,000 in Tube	<b>\$120.00</b>
<b>1101311</b>	≈125,000 in 5 Liter Bag	<b>\$240.00</b>
<b>1101309</b>	≈200,000 Bulk	<b>\$340.00</b>

**CONTROLLED RELEASE:**

<b>1101317</b>	≈50,000 in 200 Mini Sachets w/Hooks	<b>\$135.00</b>
<b>1101308</b>	≈62,500 in 250 Mini Sachets w/Hooks	<b>\$170.00</b>
<b>1101318</b>	≈62,500 in 500 Mini Sachets on Sticks	<b>\$230.00</b>
<b>1101306</b>	≈125,000 in 500 Mini Sachets w/Hooks	<b>\$250.00</b>
<b>1101316</b>	≈125,000 in 1,000 Mini Sachets w/Hooks	<b>\$350.00</b>
<b>1101314</b>	≈125,250 in 6 x 328 ft. Strips of Sachets	<b>\$475.00</b>
<b>1101315</b>	≈250,000 in 1,000 Mini Sachets w/Hooks	<b>\$480.00</b>

**Overnight Shipping Required**



## Thrips Predator - *Amblyseius cucumeris*

**These Beneficial Mites Consume Vast Quantities Of Thrips.**

**TARGET:** Prefers greenhouse and western flower thrips. They will also eat spider mites, russet mites and pollen.

**DESCRIPTION:** Tan colored adult females lay about 35 small white eggs throughout their lifespan of about 30 days. During the 7-10 day nymph stage, predation begins. Adults will consume about 1 pest a day. Predators are shipped as adults.

**SUGGESTED USE (Depending upon level of infestation):** For best results, apply before onset of thrips infestation. For prevention, use at a rate of 10-20 mites per sq. ft at weekly intervals. Use continuous release sachets at 1 per 3 sq ft. for 3-6 weeks. Spot treat with 10-40 mites per sq. ft. weekly until infestation subsides. Monitor with blue sticky traps (see page 21).

**Temperature:** Moderate 66-80°F      **Relative Humidity:** Moderate 65-72%

**BULK SIZES:**

<b>1152207</b>	≈25,000 in Bran/Vermiculite Mix	<b>\$30.00</b>
<b>1152204</b>	≈50,000 in Bran/Vermiculite Mix	<b>\$38.50</b>
<b>1152224</b>	≈50,000 in Vermiculite	<b>\$45.00</b>
<b>1152205</b>	≈100,000 in Bran	<b>\$60.00</b>
<b>1152206</b>	≈250,000 in Bran/Vermiculite Mix	<b>\$115.00</b>
<b>1152223</b>	≈250,000 in Vermiculite	<b>\$120.00</b>
<b>1152209</b>	≈500,000 in Bran/Vermiculite Mix	<b>\$200.00</b>

**CONTROLLED RELEASE:**

<b>1152225</b>	≈125,000 in 500 Mini Sachets on Sticks	<b>\$105.00</b>
<b>1152201</b>	≈200,000 in 200 Sachets w/Hooks	<b>\$90.00</b>
<b>1152221</b>	≈200,000 in 400 Mini Sachets w/Hooks	<b>\$80.00</b>
<b>1152222</b>	≈250,000 in 1,000 Sachets w/Hooks	<b>\$135.00</b>
<b>1152226</b>	≈250,000 in 1,000 Mini Sachets on Sticks	<b>\$140.00</b>
<b>1152228</b>	≈500,000 in 500 Sachets w/Hooks	<b>\$185.00</b>
<b>1152227</b>	≈500,000 in 2,000 Mini Sachets on Sticks	<b>\$275.00</b>
<b>1152220</b>	≈1,602,000 in 6 x 525 ft. Strips of Sachets	<b>\$600.00</b>

**Overnight Shipping Required**



### NemaSeek™ Sf Beneficial Nematodes

Sf Beneficial Nematodes interrupt thrips reproduction and reduce local populations leading to fewer adults and less resulting damage. Use in conjunction with predatory insects as part of an integrated pest management program. Apply with a watering can, hose end sprayer (See page 57) or backpack sprayer. **See pages 17-19 for more information.**



## Mite Predator - *Amblyseius andersoni*

**Great For Pre-Emergent Control Of Pest Mite Infestations!**

**TARGET:** Various pest mites including broad mites, cyclamen mites, two-spotted spider mites, red spider mites, tomato russet mites and rust mites.

**DESCRIPTION:** This predatory mite is less than 1mm long and light brown. Adult females lay about 35 eggs in a lifetime, arranging eggs onto leaf hairs. This predatory mite feeds on all stages of pest mites, thrips, pollen and honeydew.

**Temperature:** Moderate 42-100°F **Relative Humidity:** High if in higher temps.

**BULK SIZES:**

<b>1101324</b>	≈25,000 in Tube	<b>\$140.00</b>
<b>1101327</b>	≈50,000 in 1 Liter Bottle	<b>\$165.00</b>
<b>1101321</b>	≈125,000 in 5 Liter Bag	<b>\$375.00</b>

**CONTROLLED RELEASE:**

<b>1101323</b>	≈25,000 in 200 Mini Sachets w/Hooks	<b>\$150.00</b>
<b>1101350</b>	≈25,000 in 200 Mini Sachets on Sticks	<b>\$162.00</b>
<b>1101325</b>	≈62,500 in 250 Sachets w/Hooks	<b>\$225.00</b>
<b>1101355</b>	≈125,000 in 1,000 Mini Sachets on Sticks	<b>\$690.00</b>
<b>1101322</b>	≈125,250 in 6 x 328 ft. Strips of Sachets	<b>\$670.00</b>

**Overnight Shipping Required**



## Mite Predator - *Mesoseiulus longipes*

**Originating In South Africa, This Predatory Mite Is Known For Its Quick Hunting Skills In Warmer & Very Dry Conditions.**

*Image Citation: Photo by Merritt Singleton, University of Wisconsin - Madison, Dept. of Entomology*

**TARGET:** Spider mites, two spotted spider mites; various mites.

**DESCRIPTION:** An excellent choice for dry, western states. The female mite predator will lay approx. 50 eggs during a lifespan of approx. 13-40 days. Consumption of pests is dependent upon temperatures and infestation conditions. Use in greenhouses and with taller plants growing under warm lights.

**Temperature:** 65-90°F **Relative Humidity:** 40-60%

<b>1151203</b>	≈1,000 Count	<b>\$38.50</b>
<b>1156301</b>	≈5,000 Count	<b>\$80.00</b>
<b>1156401</b>	≈10,000 Count	<b>\$142.00</b>

**Subject to seasonal availability.**

**Overnight Shipping Required**



## Mite Predator - *Galendromus occidentalis*

**Excellent For Hot & Dry Inland Areas!**

*Image Citation: Photo by E. Beers, WSU- TFREC*

**TARGET:** Two spotted spider mites, russet mites, eriophyid mites, prunus rust mites, blister mites, European red mites; various mites.

**DESCRIPTION:** Early stages are white, turning red or brown depending on pest host consumed. Adults feed on about 6 pest eggs or 1-3 pest adults per day. Females lay approx. 20 eggs in a 30 day lifecycle. Eggs hatch in a few days, and development to adulthood takes about 7-14 days. Ideal for use on fruit trees, vegetables, grapes and field crops.

**Temperature:** Hot 80-110°F **Relative Humidity:** Low 40%

<b>1151202</b>	≈1,000 Count	<b>\$43.00</b>
<b>1151218</b>	≈5,000 Count	<b>\$90.00</b>
<b>1151220</b>	≈10,000 Count	<b>\$160.00</b>
<b>1151221</b>	≈50,000 Count	<b>\$450.00</b>

**Subject to seasonal availability.**

**Overnight Shipping Required**



## Mite Predator - *Neoseiulus (=Amblyseius) californicus*

**Good For Areas Where Temperatures Fluctuate Greatly Such As Deserts.**

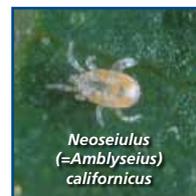
**TARGET:** Various spider mites, cyclamen mites, broad mites and russet mites.

**DESCRIPTION:** This tiny, ivory, pear-shaped predatory mite feeds on a variety of pests on crops including: cucumbers, tomatoes, strawberries, tropical foliage plants, and greenhouse roses. Although adults consume prey at a relatively slow rate of about one egg per day, they can survive longer under starvation conditions. During their lifetime of about 20 days, females will lay approx. 1-3 eggs per day. Eggs hatch within a few days and adulthood is reached in about 4-12 days.

**Temperature:** Warm 50-105°F **Relative Humidity:** 40-80%

<b>1151208</b>	≈2,000 Count	<b>\$43.00</b>
<b>1151209</b>	≈5,000 Count	<b>\$65.50</b>
<b>1151210</b>	≈10,000 Count	<b>\$106.00</b>
<b>1151212</b>	≈25,000 Count	<b>\$128.00</b>
<b>1151215</b>	≈25,000 in 200 Mini Sachets	<b>\$162.00</b>

**Overnight Shipping Required**



## Mite Predator - *Neoseiulus (=Amblyseius) fallacis*

An Excellent Mite Predator For Control Of Many Different Types Of Mites.

Image Citation: Photo by Dr. Art Agnello, Cornell University

**TARGET:** Two spotted spider mites, broad mites, cyclamen mites, hemp russet mites; various mites.

**DESCRIPTION:** This predatory mite effectively suppresses cyclamen mites in strawberry fields, broad mites in greenhouse crops, European red mites and two-spotted spider mites in orchards, spider mites on roses and vegetable crops in greenhouses and general mite problems on mint and hops in northern climates. Eggs and nymphs are difficult to see as they are small and almost transparent. Adults are pear-shaped and ivory until feeding, when they take on the red or brown coloration of their prey. Adult females consume around 2-16 pest mites per day and lay ≈20-60 eggs during a 14-60 day life-cycle. The transition from egg to adult stage takes about 7-9 days.

**Temperature:** Moderate 50-80°F **Relative Humidity:** Minimum 50%

1151401	≈1,000 Count	\$39.95
1151402	≈2,000 Count	\$52.00
1151403	≈5,000 Count	\$86.75
1151404	≈10,000 Count	\$152.00
1151405	≈25,000 Count	\$350.00

**Overnight Shipping Required**



## Spider Mite Destroyer - *Feltiella acarisuga*

We Recommend This Predator When Spider Mite Infestations Are Widespread & Severe.

**TARGET:** Two spotted spider mites, carmine spider mites, European red mites; various mites.

**DESCRIPTION:** The entire life cycle is about 15 days. Adults are about 2 mm long, pinkish-brown, and have long legs. Adults do not prey on spider mites, but drink water and nectar. The female adult gall-midges actively search for spider mite colonies and deposit eggs next to them for about 5 days. Eggs laid are .1 x .25 mm in size and are shiny and translucent. They hatch in 2 days. The larvae that hatch from the eggs are .2-2 mm in length and are orange-brown. They feed on all stages of the spider mite for 4-6 days, depending on the temperature, humidity and abundance of spider mites. Larvae pupate inside a white cocoon, usually on the underside of leaves along the veins. It takes 4-6 days to produce an adult.

**Temperature:** Moderate 60-77°F **Relative Humidity:** High 50-90%

1155701	≈250 Count	\$144.00
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**Overnight Shipping Required**



## Mite Predator - *Phytoseiulus persimilis*

The Mite Predator With The Highest Consumption & Dispersal Rate.

Image Citation: Photo by David Janzen. All rights reserved to BioBee Sde Elyahu Ltd.

**TARGET:** Two spotted spider mites and various other mites.

**DESCRIPTION:** These orange and bright red predatory mites have high consumption rates, feeding on approx. 5-20 pests and pest eggs per day! Females will lay about 60 eggs throughout their 50-day lifespan. They will not enter a diapause stage in enclosed or greenhouse settings; making them active year round.

**Temperature:** Moderate: 68-90°F **Relative Humidity:** High: 60-90%

1151204	≈2,000 Count	\$23.00
1151205	≈4,000 Count	\$40.00
1151206	≈6,000 Count	\$54.00
1151207	≈10,000 Count	\$85.00

**Overnight Shipping Required**



## Spider Mite Destroyer - *Stethorus punctillum*

Predatory In Both Larval & Adult Stages. Consumes All Life Stages Of Spider Mites.

**TARGET:** Two spotted spider mites, European red mites, spruce spider mites, southern red mites; various mites.

**DESCRIPTION:** Using smell, this tiny ladybug is an effective locator and as an adult will consume more than 40 mites per day. Females lay up to 15 eggs per day. Development to the adult stage takes around 18 days at a temperature of 70°F and the total lifespan of the predator is about 9 weeks. They are known to survive temperatures over 100°F in field crops.

**Temperature:** Moderate 73-77°F **Relative Humidity:** High 60%

1113301	≈100 Count	\$98.00
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**Subject to seasonal availability.**

**Overnight Shipping Required**



## Mealybug Parasitoid - *Anagyrus spp.*

**Stop Destructive Mealybugs With This Beneficial Parasitoid.**

*Image Citation: All rights reserved to BioBee Sde Eliyahu Ltd.*

**TARGET:** Citrus mealybugs, grape mealybugs, vine mealybugs, cypress mealybugs, obscure mealybugs, longtail mealybugs and most *Planococcus* and *Pseudococcus spp.*



**DESCRIPTION:** These solitary parasitoid wasps of mealybugs are shipped as mummies, hatch within five days of arrival and immediately begin to oviposit. Once the egg is laid inside the mealybug, the larva develops and consumes the mealybug. One female will parasitize nearly 50 mealybugs.

**SUGGESTED USE (Depending upon level of infestation):** Release 1 wasp per 5 sq. ft. every two weeks and or field application use about a minimum of 2,000 mummies/acre monthly. Keep at room temperature to ensure emergence. Remove bottle top, place near infested areas and let wasps emerge on their own. DO NOT use near ants as they will inhibit wasp parasitism & reproduction.

**Temperature:** Moderate 65-93°F **Relative Humidity:** Moderate ≈40-60%

<b>1132060</b>	≈100 Mummies	<b>\$75.00</b>
<b>1132061</b>	≈200 Mummies	<b>\$80.00</b>
<b>1132072</b>	≈500 Mummies	<b>\$120.00</b>

Currently only available for sale within the state of CA.

**Overnight Shipping Required**

## Mealybug Destroyer - *Cryptolaemus montrouzieri*

**These Tiny Ladybird Beetles Devour Pest Mealybugs In Both The Larval & Adult Stages.**

*Image Citation: Nijel Cruz*

**TARGET:** Mealybugs, aphids, mites, thrips, whiteflies, and other soft-bodied insect pests.



**DESCRIPTION:** *Cryptolaemus* is a small dark brown ladybug with an orange head and tail (*elytra*). The larvae are up to 13 mm long and are white with a wax-like covering. The pupae are found around stems, the underside of leaves, greenhouse structures and other sheltered areas. Shipped as adults and most effective in severe infestations.

**SUGGESTED USE (Depending upon level of infestation):** 250-1,000/acre every 2 weeks, 2-3 releases. Use indoors and outdoors. Weekly release programs available. Please call.

**Temperature:** Low-High 64-81°F **Relative Humidity:** Moderate ≈70-80%

<b>1114702</b>	≈100 Adults	<b>\$75.00</b>
<b>1114703</b>	≈250 Adults	<b>\$95.00</b>
<b>1114704</b>	≈500 Adults	<b>\$180.00</b>
<b>1114705</b>	≈1,000 Adults	<b>\$350.00</b>
<b>1114710</b>	≈5,000 Adults	<b>\$1,000.00</b>

**Overnight Shipping Required**

## Red Scale Parasite - *Aphytis melinus*

**Use These Parasitic Wasps On A Variety Of Armored Scale Pests!**



**TARGET:** California red scales, citrus red scales, oleander scales, San Jose scales, ivy scales, yellow scales and other armored scale varieties.

**DESCRIPTION:** Shipped as adults. Females lay their eggs in host scale. Larvae hatch inside host bodies and consume and kill scale. One adult will kill about 30 scale insects in one generation. Adult parasites live approximately 26 days.

**SUGGESTED USE (Depending upon level of infestation):** Release about 1-2 wasps per sq. ft. or about 5,000/acre. Release weekly and 1-3 applications are usually required depending upon infestation.

**Temperature:** Moderate 76-85°F **Relative Humidity:** Moderate ≈40-50%

<b>1122001</b>	≈10,000 Adults	<b>\$75.00</b>
<b>1122002</b>	≈25,000 Adults	<b>\$80.00</b>
<b>1122003</b>	≈50,000 Adults	<b>\$150.00</b>

**Overnight Shipping Required**

## Purple Scale Predator - *Rhyzobius (=Lindorus) lophanthae*

**Voracious Adults & Larvae Feed On Scale & Other Pests!**



**TARGET:** Specializes in purple scale, relatively thin scale covered insects and immature stages of soft scale until honeydew forms. Also predate on mealybug and other small insects.

**DESCRIPTION:** Also known as the Australian Ladybird Beetle. Adults are small, shiny black lady beetles. Their larvae is grey and alligator shaped. Both adults and larvae feed on target pests.

**SUGGESTED USE (Depending upon level of infestation):** Apply about 100/250 sq. ft. for light infestations, 100/100 sq. ft. for heavy infestations, 5 to 10 per heavily infested large plant and 20-40 per tree.

**Temperature:** Moderate 73-86°F **Relative Humidity:** Low-High ≈20-90%

<b>1121501</b>	≈100 Count	<b>\$85.50</b>
<b>1121502</b>	≈250 Count	<b>\$160.00</b>

**Overnight Shipping Required**



Mealybug Destroyer - *Cryptolaemus montrouzieri*

## LEAFMINER CONTROL

### Leafminer Parasite - *Diglyphus isaea*

Helps Stop Leafminers From Leaving Their Mark On Your Plants!

Image Citation: Joseph Berger, Bugwood.org

**TARGET:** Leafminers.

**DESCRIPTION:** These tiny wasps lay eggs near leafminer larvae in the first and second stages, which they sting and paralyze. The egg hatches with the larvae feeding on the paralyzed leafminer. Under optimal conditions (68-80°F), each female can lay up to 300 eggs.



*Diglyphus isaea*

**SUGGESTED USE (Depending upon level of infestation):** Best used to treat low level infestations or preventively. Ideal for warm climates or spring/summer releases where leafminer control has proven difficult with pesticides. Use ~500-1,000 per acre every 2 weeks, they are most effective with 2-3 separate releases.

**TEMPERATURE:** Moderate 50-80°F      **Relative Humidity:** High 60-90%

<b>1112901</b>	~250 Adults	<b>\$82.00</b>
<b>1112904</b>	~500 Adults	<b>\$160.00</b>
<b>1112903</b>	~1,000 Adults	<b>\$315.00</b>

**Overnight Shipping Required**

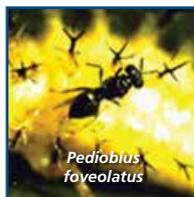
## MEXICAN BEAN BEETLE CONTROL

### Mexican Bean Beetle Parasite - *Pediobius foveolatus*

Most Effective When Introduced At The First Sign Of Mexican Bean Beetles.

**TARGET:** Mexican bean beetles (*Epilachna varivestis Mulsant*).

**DESCRIPTION:** The Mexican bean beetle is a major insect pest of beans. The adults and larvae will eat the undersides of leaves, causing lacing of the foliage and extensive damage. This type of damage can significantly reduce your bean yields. *Pediobius foveolatus* is a small beneficial wasp that will parasitize 2nd through 4th instar larvae of the Mexican bean beetle. These parasites also attack the same stages of squash beetle larvae, a closely related species. These insects are shipped to you as mummies, inside the Mexican bean beetle pupae. Once they emerge from the pupae, the females deposit their eggs in the larvae of the Mexican bean beetle.



*Pediobius foveolatus*

**SUGGESTED USE (Depending upon level of infestation):** Order as soon as pests begin to hatch. Release one mummy per 70 sq. ft. There are approximately 20-25 wasps per mummy and you can expect ~400-500 wasps per 20 mummies.

**Temperature:** Moderate 64-75°F      **Relative Humidity:** High ~50-90%

<b>1102002</b>	20 Mummies	<b>\$117.00</b>
<b>1102201</b>	80 Mummies	<b>\$385.00</b>

**Overnight Shipping Required**

## Universal Release Box

Provides An Easy Release Space And Protection For Your Beneficials.

**DESCRIPTION:** This simple 2" x 2" cardboard box will give your beneficials a place to safely hatch out of reach of most predators. Hang directly on plant, crop canopy, tree or pole in a shaded location close to the pest infestation that you are treating. Once they hatch, the beneficials will head over to where you need them.



**SUGGESTED USE:** Use in/on/near orchards, row crops, vineyards, nurseries, greenhouses, grow rooms, hydroponics, aquaponics, interiorscapes, container plants and houseplants.

<b>1555501</b>	Universal Release Box	<b>\$2.00</b>
<b>1555510</b>	Universal Release Box - Bundle of 10	<b>\$12.50</b>

## Integrated Pest Management (IPM)

Integrated Pest Management (IPM) is a process that is used to control pest populations while minimizing the impacts on people and the surrounding environment.

Focusing mainly on long-term pest prevention, a successful IPM program utilizes a combination of control methods including biological control, habitat manipulation, changes to cultural practices and use of resistant plant varieties.



**Planning & Record Keeping**



**Trap & Monitor**



**Cultural Controls**



**Mechanical Controls**



**Biological Controls**



**Natural Pesticides & Botanicals**

**Read more & find additional IPM resources at [arbico-organics.com](http://arbico-organics.com)**



## Natupol Bumblebee Hives

**Put These Portable Hives Where You Need Them Most To Greatly Improve Pollination.**

**TARGET:** For use indoors in greenhouses, hoopouses and other indoor growing, as well as smaller gardens and orchards.

**DESCRIPTION:** By introducing gentle bumblebees to your crops, you can improve fruit quality, increase productivity, save labor costs by reducing hand pollination and provide pollination that is independent of weather conditions. These hives house the *Bombus impatiens* species of bumblebees and contain a colony with a queen, workers and brood (pupae, eggs and larvae). The Natupol Excel and Natupol Excel Startup hives replace the now-discontinued Natupol Class-A, Class-B & Class-C hives. These new hives have carefully considered innovations in design that keep the bees comfortable inside their hives and make it easier for them to enter and exit. Both have been also developed for use under artificial light and in warmer conditions to serve crops with large numbers of flowers per sq. ft.

### SUGGESTED USE:

**Natupol Excel:** Replaces the Natupol Class-A & Class-C hives. An ideal choice greenhouses that operate consistently; especially so if they are at the beginning of the planting cycle before full bloom. Also excellent for consistently growing hydroponic operations. This hive may take longer to reach its maximum efficiency level than the Natupol Excel Startup, but will retain optimum performance over the course of time.

Covers 1,000-15,000 sq. ft. and last for about 9 weeks.

**Natupol Excel Startup:** Replaces Natupol Class-B hives. This larger size colony will provide intense pollination from day 1 and reach maximum efficiency rapidly, great for those crops that need heavy pollination in a short period of time. A wonderful choice for greenhouses that are near to or in full bloom and need thorough pollination immediately.

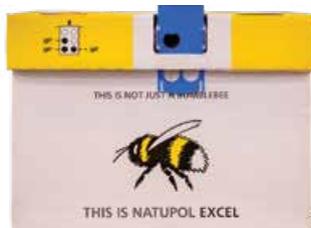
Covers 1,000-15,000 sq. ft. and last for about 9 weeks.

<b>1530111</b>	Natupol Excel	<b>\$230.00</b>
<b>1530112</b>	Natupol Excel Startup	<b>\$165.00</b>

**UPS Next Day Shipping Required**

**Cannot be shipped to the following states:** HI, OR, PR, VA

Shipments to California require that a permit application be filled out & sent to the California Department of Food & Agriculture. Please call if more information is needed.



## Bee-Scent™

**Bring More Bees To Your Crops With This WSDA Certified Organic Attractant.**

**TARGET:** Honeybees.

**DESCRIPTION:** Applying this non-toxic, pheromone-based liquid attractant to your plants will entice honeybees to linger and forage on them. This swell in bee activity boosts pollen transfer, leading to enhanced pollination. Initial application imprints a foraging pattern on bees and they will return if their pollination window was shortened by weather. Bee-Scent contains no hive or bee products. Environmentally sound for bees, crops and applicators.



**SUGGESTED USE:** Apply with standard ground or aerial application units; no additives or equipment modifications needed. Two applications are recommended: first at early bloom (5-30% bloom) and second 5-8 days later (70-100% bloom). On long-blooming crops, treatments at regular intervals throughout the flowering season may be necessary. Early morning application is important. Weather must be favorable to bee flight – sunny and warmer than 60°F, with winds less than 15 mph. Standard application rate is 2 qts/acre.

<b>1231200</b>	Bee-Scent - 4 oz.	<b>\$8.00</b>
<b>1231202</b>	Bee-Scent - 8 oz.	<b>\$12.00</b>
<b>1231204</b>	Bee-Scent - 16 oz.	<b>\$19.00</b>

Case sizes available.

## SMALL HIVE BEETLE CONTROL

### *Heterorhabditis indica*



**Protect Your Hives From Small Hive Beetle.**

*Image Citation: Jessica Louque, Smithers Viscient*

**TARGET:** Small Hive Beetles (*Aethina tumida*).

**DESCRIPTION:** Now, more than ever, it is important to protect our bees and other pollinators. Using Beneficial Nematodes to control hive beetles is cost effective and eco-friendly.



***Heterorhabditis indica*** is a heat tolerant, entomopathogenic nematode that attacks pre-pupal stages of small hive beetle in the soil. By suspending the nematodes in water and applying to the soil below and around the hive, the nematodes quickly seek out the pupal stage and attack, typically entering the pest and killing it within 24-48 hours. *H. indica* are a virulent and aggressive species of nematodes and work best when the strength of the hive is maintained.

**SUGGESTED USE:** Remove bag from outer package and fill with water. Once filled, agitate the gel and strain over pint sized container. Once over the container, pour another half pint of water over gel to ensure all nematodes strain out. Take pint of liquid and mix into 5 gallons of water, agitate and apply to infested area. Irrigate after treatment. Use 5 million for every 10 hives.

<b>1220200</b>	<i>Heterorhabditis indica</i> - 5 million	<b>\$36.00</b>
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\*Free shipping in the contiguous 48 United States. 2nd day shipping required.

## Enoz® BioCare® Ladybug Lures



An Ingenious Clip-On Lure.

**TARGET:** Ladybugs and other beneficial insects.

**DESCRIPTION:** Aphids are one of the most destructive pests you'll find on your plants. Luckily, aphids are also a favorite food of ladybugs. These easy-to-use pheromone lures draw ladybugs and keeps them hanging around. These red, disc-shaped lures snap easily around a plant's stem to get the ladybugs right where they are needed.

**SUGGESTED USE:** Do not use with pesticides. Cut open pouch and, while wearing gloves, cut through lure to the center. Attach lure directly onto plant stem. Use 1 lure every 3 feet throughout garden or greenhouse. Replace every 3-4 weeks, or as needed.



1281607 Enoz BioCare Ladybug Lures - 4 Pack \$6.99

## Honey Bee Magnet

Increase The Number Of Pollinators Coming To Your Area.

**TARGET:** Honey Bees.

**DESCRIPTION:** The Honey Bee Magnet attracts both honey bees and mason bees with non-toxic natural attractants – fruit volatiles that researchers identified as pheromone lures for bees. When placed where blooms are starting, the Honey Bee Magnet will increase the number of pollinators that come to your area. If you want increased pollination – which means increased fruit, berry and vegetable production – just hang one lure per large fruit tree or one lure per 200 sq. ft. in your garden or field at the start of bloom. The Honey Bee Magnet will last for 2 weeks.



**SUGGESTED USE:** This simple lure has several advantages over a liquid spray: No mess or cleanup – No need to reapply if bloom lasts 2 weeks or less – No need to reapply if it rains after 1-3 days.

1231317 Honey Bee Magnet - 2 Lures \$7.00  
1231318 Honey Bee Magnet - 10 Lures \$23.00

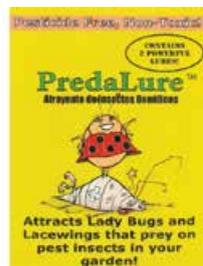
## Predalure™

Attract Ladybugs, Green Lacewings & Many Other Beneficial Insects Into Your Garden.

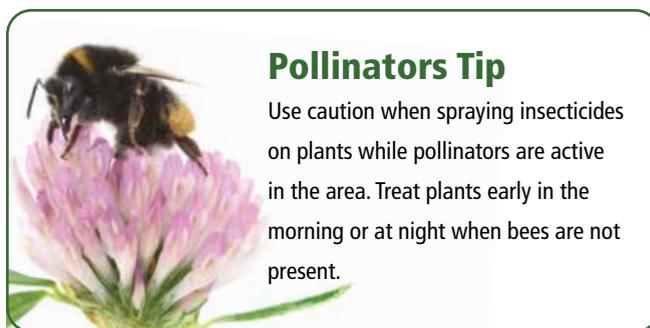
**TARGET:** Attract predatory beneficial insects such as green lacewings, ladybugs, etc.

**DESCRIPTION:** This lure uses a special combination of pheromones and botanicals to attract and keep desirable beneficial predators in your garden.

**SUGGESTED USE:** Hang one at crop height in your garden or in a tree. Lures last approximately one month.



1231319 Predalure - 2 Pack Lures \$9.25  
1231320 Predalure - 10 Lures \$38.00  
1231321 Predalure - 25 Lures \$82.00



### Pollinators Tip

Use caution when spraying insecticides on plants while pollinators are active in the area. Treat plants early in the morning or at night when bees are not present.

## ARBICO Organics® Good Bug Power Blend

Flowering Beneficial Insect Habitat – Good for People, Too!

**TARGET:** Help keep your beneficial insects from flying away.

**DESCRIPTION:** Provide beneficial insects with a source of pollen and nectar year-round in order to feed and reproduce. ARBICO's Good Bug Blend is a combination of yellow, red, crimson, rose, white clovers, grizzly alfalfa, white alyssum, nasturtium, white yarrow, carrot, dill, daikon and celery seeds.

**SUGGESTED USE:** 1 lb./2,000 sq. ft. or 20 lbs./acre. The first blooms will appear within 45-90 days.



1134000 Good Bug Power Blend - 1/2 lb. Bag \$5.95  
1134001 Good Bug Power Blend - 1 lb. Bag \$9.75  
1134002 Good Bug Power Blend - 10 lb. Bag \$67.95  
1134003 Good Bug Power Blend - 50 lb. Bag \$289.00

## ARBICO Organics® Good Bug Power Meal

Beneficial Insect Attractant & Food.

**TARGET:** Attract and sustain beneficial insects and butterflies.

**DESCRIPTION:** Attract and keep beneficial insects in your garden with this balanced food supplement that is composed of proteins, fats, fibers, ash, calcium, phosphorus, sodium, amino acids, vitamins, lactose and sucrose.

**SUGGESTED USE:** Dry or wet application can be made. For dry applications you can directly dust your plants. For wet applications, mix 4 oz. /1 gal. of water to treat 3,000 sq. ft. using a garden sprayer. For 1/2 acre, mix 1/2 lb. in 5-10 gal. of water. This product can also be applied as a paste or slurry. Simply add water until desired consistency is reached and use a clean foam or bristle paintbrush to apply to plants. As a nectar source, mix 1 oz. with 1 qt. of water and place in butterfly feeders.



1133001 Good Bug Power Meal - 1/2 lb. Bag \$6.50  
1133002 Good Bug Power Meal - 1 lb. Bag \$11.50

# Your Multi-Pest Solution For Optimal Growing

## Protect Your Farm & Garden From Soil Developing Pests By Applying Beneficial Nematodes



**NemaSeek Hb  
Beneficial Nematodes™**

**NemAttack Sf  
Beneficial Nematodes™**

**NemAttack Sc  
Beneficial Nematodes™**

### Apply To Soil For Control Of Target Pests:

- Beetle Grubs
- Borers
- Caterpillars
- Fungus Gnats
- Flea Beetles
- Leafminers
- Rootworms
- Thrips
- Weevils & More!



Beneficial Nematodes are live, microscopic organisms (non-segmented roundworms) that occur naturally in soil throughout the world.

They are parasitic to insect pests that typically have a developing (larval or pupal) stage of life in the soil; however, they have been known to also parasitize above ground stages of adults, nymphs and larvae.

**See pages 17-19 for more information.**



## What Are Beneficial Nematodes?

Beneficial Nematodes are live, microscopic organisms (non-segmented roundworms) that occur naturally in soil throughout the world.

They are parasitic to insect pests that typically have a developing (larval or pupal) stage of life in the soil; however, they have been known to also parasitize above ground stages of adults, nymphs and larvae.

## How Do Beneficial Nematodes Work?

Beneficial Nematodes are applied to soil where they locate pests, enter through orifices or body walls and infect pests with toxic bacteria. Once inside, it is not the nematode that actually kills the pest, but bacteria inside the nematode.



The bacteria kills pests within 24 to 48 hours. Beneficial Nematodes then feed on bacteria and host insect tissue. Adult stages of Beneficial Nematodes produce hundreds of thousands of new juveniles.

New infective juveniles emerge loaded with "pest killer" bacteria and begin their search for a new host. As long as their is a suitable host, the Beneficial Nematodes will continue to parasitize. Beneficial nematodes can be used around and will not harm mammals, aquatic life, birds, reptiles or amphibians.

## Apply To Soil For Control Of Target Pests:

- Beetle Grubs
- Rootworms
- Leafminers
- Flies
- Thrips
- Worms
- Fungus Gnats
- Weevils
- And more!

## How Do I Choose the Right Beneficial Nematodes?

Use the Selection Chart on the next page to choose the proper species by pest(s). If you are unsure which nematode to use or your target pest is not listed, please call and one of our bio-control specialists can assist. Remember Beneficial Nematodes control soil-dwelling life stages.

## When & How Often Should Beneficial Nematodes Be Applied?

Use beneficial nematodes whenever larvae or grubs are present. As pest larvae feed on plant roots beneath the soil surface, severe damage can be done before you realize you have a pest dilemma. If adult insects are present, their eggs, nymphs, larvae and pupa will soon be developing.

**FOR TREATMENT:** Apply nematodes every 7-10 days until pest infestation subsides.

**FOR PREVENTION:** Apply at least 2-4 times per year in the spring, summer, fall and winter as needed.

Nematodes should be applied when *soil* temperatures are 42° - 95° F.

## When Will I See Results?

Beneficial Nematodes are considered to be one of the most lethal parasites known to kill plant pests. Depending upon the pest(s) you are treating and the method of application, it can take from 2-30 days for you to see results.

It is important to remember that Beneficial Nematodes disintegrate pests from the inside out. You will not see dead insect bodies as you would with a chemical knockdown. Instead you will notice less of the pest(s) over time.

Like all insects and organisms, some nematodes will survive the winter in a dormant state; however, we recommend re-applying at least 2-4 times on an annual basis to ensure that your pests do not get out of hand again.

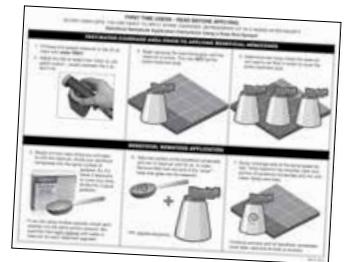
## How Do I Apply Beneficial Nematodes?

**DO NOT OPEN PACKAGE UNTIL YOU ARE READY TO APPLY**

Beneficial Nematodes are applied to the soil mixed with water. Since they are alive and sensitive to light, apply early in the morning or at dusk. It's easy to apply nematodes.

Before applying, make sure the soil is moist. Mix Beneficial Nematodes with enough water for coverage area.

Apply pre-dawn or at dusk with a hose end sprayer (See sprayer options on page 57), backpack sprayer, pump sprayer or watering can. Lightly water again after application.



Keep area moist for at least 2 weeks. Complete nematode application instructions available online and in the package.

## Foliar Applications:

Beneficial Nematodes should be applied to the foliage in higher humidity and plants should be kept moist for 3 or more hours. Spray thoroughly to cover all surfaces of the leaves while avoiding runoff. Reapply weekly. Use in conjunction with soil applications.

## How Long Can Beneficial Nematodes Be Kept Before Use?

Beneficial Nematodes should be used as soon as possible. If you need to store them, it is best to store them **unopened** in a refrigerator for no longer than 2 weeks. Once opened, use immediately and entirely.

# BENEFICIAL NEMATODES

## NemaSeek™ *Heterorhabditis bacteriophora* (Hb) Beneficial Nematodes ▲

NemaSeek actively seeks out larval pests and is most effective against sedentary pests, such as queen ants, asparagus beetles, bagworms, banana moths, banana weevils, berry root weevils, bill bugs, borers, carrot weevils, chafers, fleas, grubs and more!



## NemaSeek™ *Heterorhabditis indica* (Hi) Beneficial Nematodes ◀

NemaSeek actively seek out larval pests and has been shown to be effective against small hive beetle, fungus gnats, root weevil, western flower thrips and select grubs.



## NemAttack™ *Steinernema feltiae* (Sf) Beneficial Nematodes ■

These nematodes are known to wait for passing pests, such as cabbage maggot, humpbacked flies, onion maggots, pill worm, raspberry crown borer, root maggots, scarids, shore flies, thrips and more!



## NemAttack™ *Steinernema riobrave* (Sr) Beneficial Nematodes ★

These nematodes are known to wait for passing pests. NemAttack *S. riobrave* is most effective against grubs of various beetles, citrus weevil and other weevil grubs, small hive beetle and more.



## NemAttack™ *Steinernema carpocapse* (Sc) Beneficial Nematodes ●

These nematodes are known to wait for passing pests. NemAttack is most effective against mobile pests such as fleas, cutworm, fly larvae, termites and more!



## NemaSeek™ *Steinernema kraussei* (Sk) Beneficial Nematodes ◆

NemaSeek actively seek out larval pests in the soil. *S. kraussei* has been shown to be effective at cooler soil temperatures (37-86°F) against the developing stage of weevils (especially black vine weevils) and sawflies.



## NEMATODE SELECTION CHART – Choose Variety By Pest

Pest	Variety	Pest	Variety	Pest	Variety	Pest	Variety
Ants - Queen	▲	Colorado Potato Beetles	▲	Grubs	▲ ◀	Roaches-American, Asian, German	●
Armyworm	● ★	Corn Earworm	● ■ ★	Hive Beetles	★ ◀	Root Maggots	■
Artichoke Plume Moth	●	Corn Rootworm	▲	Humpbacked Flies	■	Root Weevils	▲ ◀
Asparagus Beetles	▲	Cotton Bollworm	●	Indian Meal Moth	★	Scarabs	▲
Bagworm	▲	Cranberry Girdler	●	Iris Borers	▲	Sclarids	■
Banana Moth	▲	Cranberry Root Weevils	▲	Japanese Beetles	▲ ★	Shore Flies	■
Banana Weevils	▲	Cucumber Beetles	● ■ ▲	Large Pine Weevils	●	Sugarcane Stalk Borers	▲
Beet Armyworm	● ■	Cutworm	●	Leafminers	● ■	Strawberry Root Weevils	● ★
Berry Root Weevils	▲	Diaprepes Root Weevils	★	May/June Beetles	▲ ★	Subterranean Termites	★
Bill Bug	▲	Fall Armyworm	●	Mint Flea Beetles	●	Sweet Potato Weevils	■ ▲
Black Cutworm	● ■ ★	Flea Beetles	▲	Mint Root Borers	●	Thrips	■
Black Vine Weevils	● ▲ ★ ◆	Fleas - Larvae, Pupae	●	Mole Crickets	● ★	Ticks	■ ▲
Bluegrass Weevils	●	Fleas - Adult	▲	Navel Orangeworm	●	Tobacco Budworm	●
Cabbage Maggot	■	Fly Larvae	●	Onion Maggots	■	Tobacco Cutworm	■
Carrot Weevils	▲	Fruit Flies	● ■	Pill Worm	■	Vine Borers	▲
Caterpillars	●	Fungus Gnats	■ ▲ ◀	Pink Bollworm	★	Webworm	●
Chafer - European, masked	▲ ★	Gall Midges	▲	Plum Curculio	★	Western Flower Thrips	■ ◀
Citrus Root Weevils	▲ ★	Grape Root Borers	▲	Raspberry Crown Borers	■	Wireworm	●
Codling Moth	● ■	Greater Wax Moth	★	Red Flower Beetles	★	Wood Borers	●



## Beneficial Nematodes

- ▲ = NemaSeek™ *Heterorhabditis bacteriophora* (Hb)
- = NemAttack™ *Steinernema feltiae* (Sf)
- = NemAttack™ *Steinernema carpocapsae* (Sc)

- ★ = NemAttack™ *Steinernema riobrave* (Rr)
- ◆ = NemaSeek™ *Steinernema kraussei* (Sk)
- ◐ = NemaSeek™ *Heterorhabditis indica* (Hi)

SINGLE SPECIES		
SKU	Size	Price
▲ NemaSeek <i>Heterorhabditis bacteriophora</i>		
1220300	≈5 million	\$36.00
1220301	≈10 million	\$42.95
1220302	≈50 million	\$72.00
1221703	≈250 million	\$198.00
1221706	≈500 million	\$270.00
■ NemAttack <i>Steinernema feltiae</i>		
1220309	≈5 million	\$36.00
1220310	≈10 million	\$42.95
1220311	≈50 million	\$72.00
1221701	≈250 million	\$198.00
1221704	≈500 million	\$270.00
● NemAttack <i>Steinernema carpocapsae</i>		
1220319	≈5 million	\$36.00
1220320	≈10 million	\$42.95
1220321	≈50 million	\$72.00
1221702	≈250 million	\$198.00
1221705	≈500 million	\$270.00
★ NemAttack <i>Steinernema riobrave</i>		
1220410	≈5 million	\$36.00
◆ NemaSeek <i>Steinernema kraussei</i>		
1220420	≈5 million	\$36.00
1220421	≈10 million	\$42.95
1220422	≈50 million	\$72.00
1220423	≈250 million	\$198.00
1220424	≈500 million	\$270.00
◐ NemaSeek <i>Heterorhabditis indica</i>		
1220200	≈5 million	\$36.00

COMBO PACKS		
SKU	Size	Price
▲● NemaSeek Hb & NemAttack Sc		
1220331	≈10 mil. per species	\$60.00
1220332	≈50 mil. per species	\$125.00
1221699	≈250 mil. per species	\$340.00
1220335	≈500 mil. per species	\$500.00
▲■ NemaSeek Hb & NemAttack Sf		
1220333	≈10 mil. per species	\$60.00
1220334	≈50 mil. per species	\$125.00
1221700	≈250 mil. per species	\$340.00
1220336	≈500 mil. per species	\$500.00
■● NemAttack Sf & NemAttack Sc		
1220340	≈10 mil. per species	\$60.00
1220341	≈50 mil. per species	\$125.00
1220342	≈250 mil. per species	\$340.00
1220343	≈500 mil. per species	\$500.00

TRIPLE THREAT COMBO		
SKU	Size	Price
▲■● NemaSeek Hb, NemAttack Sf & NemAttack Sc		
1220328	≈5 mil. per species	\$61.00
1220330	≈10 mil. per species	\$80.00
1220329	≈50 mil. per species	\$142.00
1220327	≈250 mil. per species	\$405.00
1220326	≈500 mil. per species	\$700.00

### SIZE & COVERAGE CHART

QUANTITY	COVERAGE
≈5 mil. nematodes	Treats ≈1,600 sq. ft.
≈10 mil. nematodes	Treats ≈3,200 sq. ft.
≈50 mil. nematodes	Treats ≈1 acre
≈250 mil. nematodes	Treats ≈5 acres
≈500 mil. nematodes	Treats ≈10 acres

Application rates vary based on pest, infestation levels and environment. For specific coverage recommendations, please call **800-827-2847**.



- ▲ = NemaSeek™ *Heterorhabditis bacteriophora* (Hb)
- = NemAttack™ *Steinernema feltiae* (Sf)
- = NemAttack™ *Steinernema carpocapsae* (Sc)

## OMRI Listed Beneficial Nematodes



OMRI LISTED SINGLE SPECIES		
SKU	Size	Price
▲ NemaSeek Pro Hb Beneficial Nematodes		
4004010	≈10 million	\$52.00
4004050	≈50 million	\$90.00
4004250	≈250 million	\$250.00
4004500	≈500 million	\$325.00
■ NemAttack Pro Sf Beneficial Nematodes		
4006010	≈10 million	\$52.00
4006050	≈50 million	\$90.00
4006250	≈250 million	\$250.00
4006500	≈500 million	\$325.00

OMRI LISTED SINGLE SPECIES		
SKU	Size	Price
● NemAttack Pro Sc Beneficial Nematodes		
4005010	≈10 million	\$52.00
4005050	≈50 million	\$90.00
4005250	≈250 million	\$250.00
4005500	≈500 million	\$325.00

TRIPLE COMBO		
SKU	Size	Price
▲■● NemaSeek Pro Hb Beneficial Nematodes, NemAttack Pro Sf Beneficial Nematodes & NemAttack Pro Sc Beneficial Nematodes		
4007010	≈10 mil. per species	\$125.00
4007050	≈50 mil. per species	\$225.00
4007250	≈250 mil. per species	\$630.00
4007500	≈500 mil. per species	\$880.00

\*Free shipping in the contiguous 48 United States. 2nd day shipping required for the 5 million - 50 million sizes. Expedited shipping available for an additional fee. The 250 million & 500 million sizes require next day shipping during summer months, 2-day shipping otherwise. Orders ship Monday - Thursday; excluding holidays.



## ARBICO Organics® Yellow Insect Traps

Monitoring + Trapping = Effective Pest Control

**TARGET:** Use against aphids, bean beetles, California laurel aphids, flea beetles, fungus gnats, greenhouse whiteflies, leafminers, psyllids, shore flies, silverleaf whiteflies, sweet potato whiteflies and more.

**DESCRIPTION:** ARBICO Organics Yellow Insect Traps are 5" x 7" gridded, 2-sided adhesive traps for a wide range of crawling and flying insect pests.

Insects are drawn in by the bright color and are caught on the glue. Once they are trapped, the gridded surface makes it easy to count just how many have landed. Having the insects immobilized on the trap also makes it easy to identify them. There is a very low risk to beneficials, but some may become caught by accident.

**SUGGESTED USE:** For use indoors and outdoors to trap and monitor insect pests. Traps may be hung virtually anywhere, placed on the ground or anchored to a stake (not included). If hung, traps should be slightly above the plant canopy. Avoid hanging too close to sprinklers.

- For trapping in the greenhouse or garden, use roughly one trap per 25-50 sq. ft.
- For monitoring, use roughly one trap per acre.



1254501	ARBICO Organics Yellow Insect Traps - 5 Pack	<b>\$4.25</b>
1254502	ARBICO Organics Yellow Insect Traps - 10 Pack	<b>\$8.00</b>
1254503	ARBICO Organics Yellow Insect Traps - 25 Pack	<b>\$18.75</b>
1254504	ARBICO Organics Yellow Insect Traps - 50 Pack	<b>\$35.00</b>
1254510	ARBICO Organics Yellow Insect Traps - 100 Pack	<b>\$65.00</b>

## Sticky Traps

Monitor & Trap For Best Pest Identification!

**DESCRIPTION:** These 4" x 7" traps reverse fold to capture insect pests on both sides and include a twist tie and punched hole for easy hanging. All natural and weatherproof.

**Aphid/Whitefly Yellow Sticky Traps:**

**TARGET:** Whiteflies, aphids, leafhoppers, fungus gnats, spittlebugs, flies and more.

**Thrips/Leafminer Blue Sticky Traps:**

**TARGET:** Thrips, leafminers.

**SUGGESTED USE:** Greenhouses, orchards, row crops, barns and more. Hang or attach to stake approximately every 7 ft. at the end of each row or per tree. Use more for trapping.



1254001	Package of 5 Yellow Traps	<b>\$4.49</b>
1254101	Package of 5 Blue Traps	<b>\$5.50</b>

## Stiky™ Strips Yellow Insect Traps

These Basic Traps Come With A Handy Wire Hanger.

**TARGET:** Whiteflies, aphids, fungus gnats, leafminers, thrips, and more.

**DESCRIPTION:** This non-gridded yellow sticky trap is versatile enough to use virtually anywhere you are growing. Many insects find this particular yellow hue irresistible and, with glue on both sides, these traps will grab them coming and going. The adhesive is UV resistant, which keeps it from drying out.

**SUGGESTED USE:** For use in homes, gardens, greenhouses, nurseries and fields. Included wire hangers can also be used as plant stakes.

1254301	Stiky Strips Yellow Sticky Traps - 9 Pack	<b>\$5.49</b>
1254302	Stiky Strips Yellow Sticky Traps - (5) 9 Packs	<b>\$25.00</b>
1254303	Stiky Strips Yellow Sticky Traps - (10) 9 Packs	<b>\$45.00</b>



## Pest Wizard Blue-Yellow Card Trap

A Trap With Two Special Colors – To Attract Even More Pests!

**TARGET:** The blue side will attract aphids and thrips. The yellow side attracts whiteflies, hoppers, beetles, fruit flies, psyllids and more!

**DESCRIPTION:** Blue on one side, yellow on the other. These dual-duty traps will capture an array of pests using specific color wavelengths and MessyLess™ non-toxic adhesive that won't stick to your fingers. Each pack contains 4 rectangular traps, 8 hangers and instructions. Traps are weather resistant and measure 8" x 3.5".

**SUGGESTED USE:** Hang traps on branches in trees and roses. Hang on stakes near vegetable row crops, shrubs and container plants.

- For Monitoring: ≈1 trap/1,000 sq. ft.
- For Trapping: ≈1 trap/20-50 sq. ft.

1254201	Blue & Yellow Card Trap - 4 Pack	<b>\$8.99</b>
1254202	Blue & Yellow Card Trap - 10 Pack	<b>\$16.00</b>



## Yellow Stiky™ Tape

**Longer Length Tape To Cover Even More Area.**

**TARGET:** Whiteflies, aphids, leafhoppers, fungus gnats, froghoppers (spittlebugs), flies and more.

**DESCRIPTION:** When you have an insect population in a large area that you need to monitor and trap, this sticky tape is the choice for you. It will work well against aphids, thrips, flies, gnats and many others. Pre-coated with adhesive on both sides, this yellow tape is 530' long and comes in 4 convenient widths (2", 6", 10" & 12"), making it perfect for a variety of locations. You'll also find that the extra thick cardboard flanges and heavy duty plastic plugs make these rolls easy to work with and the product easy to dispense. You can loop these along the perimeter of fields, inside greenhouses, barns, corrals, stalls or any other area where you need insect control. Any unwanted pests or other residue can be removed with vegetable oil or CitraSolv® (available online).

**SUGGESTED USE:** Loop along the perimeter of fields, inside greenhouses, barns, corrals, stalls or any other area where you need insect control.

<b>1259610</b>	Yellow Stiky Tape - 2" wide x 530' long	<b>\$44.00</b>
<b>1259611</b>	Yellow Stiky Tape - 6" wide x 530' long	<b>\$90.00</b>
<b>1259612</b>	Yellow Stiky Tape - 10" wide x 530' long	<b>\$132.00</b>
<b>1259613</b>	Yellow Stiky Tape - 12" wide x 530' long	<b>\$180.00</b>

\*Larger quantities available.



## FlyWeb® Insect Monitor Cards

**Made To Be Used In Different Ways For Maximum Trapping Capabilities.**

**TARGET:** Thrips & Leafminers are drawn to the blue; Aphids, Whiteflies & Fungus Gnats like the yellow.

**DESCRIPTION:** These sticky traps have been designed to be used in a number of ways: flat, folded into a triangle Delta trap, or torn into smaller sizes. With these format options and the insect-attracting colors, you can trap and monitor a wide range of insect pests. Traps come in yellow/yellow and yellow/blue. They are 4" x 8" and double-sided, with a 1" square grid. Cards are perforated and can easily be torn into mini sizes for smaller spaces and plants.

**SUGGESTED USE:** Fold or tear into desired format. Peel protective cover from one or both sides of the trap. Place or hang trap close to plants. When used in large areas, traps should be placed 10-15 ft apart. Monitor and replace as needed.

<b>1254005</b>	Insect Monitor Cards - Yellow/Blue - 10 Pack	<b>\$10.50</b>
<b>1254006</b>	Insect Monitor Card - Yellow/Yellow - 10 Pack	<b>\$11.00</b>



## ARBICO Organics® Blue Insect Traps

**Add Blue To Your Pest Control Arsenal & Cover All Your Bases.**

**TARGET:** Thrips, leafminers.

**DESCRIPTION:** ARBICO Organics Blue Pest Traps are 5" x 7" gridded adhesive traps that are the perfect shade of blue to make them irresistible to Thrips and Leafminers. The color lures them in and the sticky surface holds them tight. These traps have adhesive on both sides to grab insects no matter which direction they're coming from. If you are monitoring, the gridded surface and bright color allow for easy identification and counting. When used in conjunction with the ARBICO Organics Yellow Sticky Traps, you will have the right colors to attract most common insect pests. There is a very low risk to beneficials, but some may become caught by accident.

**SUGGESTED USE:** For use indoors and outdoors to trap and monitor insect pests. Traps may be hung virtually anywhere, placed on the ground or anchored to a stake (not included). If hung, traps should be slightly above the plant canopy. Avoid hanging too close to sprinklers.

- For trapping in the greenhouse or garden, use roughly one trap per 25-50 sq. ft.
- For monitoring in a greenhouse, use roughly one trap per 25-50 sq. ft.
- For field crop monitoring, 1 trap per 10,000 sq. ft. or as needed.

<b>1254551</b>	ARBICO Organics Blue Insect Traps - 5 Pack	<b>\$4.25</b>
<b>1254552</b>	ARBICO Organics Blue Insect Traps - 10 Pack	<b>\$8.00</b>
<b>1254553</b>	ARBICO Organics Blue Insect Traps - 25 Pack	<b>\$18.75</b>
<b>1254554</b>	ARBICO Organics Blue Insect Traps - 50 Pack	<b>\$35.00</b>
<b>1254560</b>	ARBICO Organics Blue Insect Traps - 100 Pack	<b>\$65.00</b>



## Blue Sticky Strips

**Use Blue For Monitoring & Trapping A Wide Range Of Thrips Species!**

**TARGET:** Male and female western flower thrips as well as other species of *Frankiniella*.

**DESCRIPTION:** Thrips find this particular tone of blue extremely attractive. For best results, place just above crop canopy and use early in the season before pest populations grow. Monitor regularly and replace after 6 weeks of use or when surface is mostly covered or dirty. Complete instructions included. Traps feature no mess "dry touch" adhesive. Each pack includes 10 - 4" x 9 1/2" 2 sided traps and 10 twist ties.

**SUGGESTED USE:** If used for pest suppression in glasshouses: At least 1 trap per 10 sq. meters, adjusting amount as needed for severity of problem. If used just for monitoring pest populations: Use 1 trap per 100-1000 sq. meters depending on the crop and/or the size of the glasshouse.

<b>1254401</b>	Blue Sticky Traps - 10 Pack	<b>\$9.50</b>
<b>1254402</b>	Blue Sticky Traps - 10 Pack (Bundle of 5)	<b>\$45.00</b>



## EGG CONTROL

### Moth Egg Parasites - *Trichogramma spp.*



#### Prevent Worm Pest Damage On Crops!

**TARGET:** Egg stages of more than 200 pests, including: borers, webworms, loopers, leafminers, fruitworms, cutworms, bollworms and armyworms (excluding beet armyworm).



**DESCRIPTION:** *Trichogramma spp.* lay their eggs in the pest eggs, killing them. Adults emerge 2-3 days after release. They live 7-75 days depending on temperature and moisture. *Trichogramma* are shipped in the parasitized host egg. Each tab has been inoculated with ≈2,400 eggs per tab.

**SUGGESTED USE (Depending upon level of infestation):** Use ≈1 tab/300 sq. ft.; 1/2-2 cards/acre weekly for 2-6 weeks. Release at first flight of moths and every 7-10 days thereafter until infestation subsides. Place tabs where moths are seen. Use traps for monitoring and trapping adult moths.

**Temperature:** Minimum 50°F      **Relative Humidity:** Moderate

SKU #	Amount & Weight	Price
<b><i>Trichogramma brassicae</i> - European cabbage butterfly, cutworm, corn earworm, European corn borer, cabbage looper, armyworm</b>		
1131910	3 Tabs	\$15.00
1131903	6 Tabs	\$20.00
1131911	1 Card (30 Tabs)	\$32.00
<b><i>Trichogramma minutum</i> - trees, bogs, more common on the East Coast</b>		
1129001	3 Tabs	\$15.00
1129003	6 Tabs	\$20.00
1129010	1 Card (30 Tabs)	\$32.00
<b><i>Trichogramma platneri</i> - orchards, more common West of the Rockies</b>		
1130001	3 Tabs	\$15.00
1130003	6 Tabs	\$20.00
1130030	1 Card (30 Tabs)	\$32.00
<b><i>Trichogramma pretiosum</i> - row crops, vinyards</b>		
1131021	3 Tabs	\$15.00
1131003	6 Tabs	\$20.00
1131022	1 Card (30 Tabs)	\$32.00

See online for volume & program prices.

**Free 2nd Day Shipping**

\*FREE SHIPPING in the contiguous 48 states. Ships Monday - Thursday via 2nd Day. Please allow for a minimum of 24 hours to process orders. Orders received after 8:00 AM on Thursday will ship the following Monday. Upgraded Overnight shipping will incur a \$10 upcharge.

## CATERPILLAR CONTROL

### BT NOW®



#### An Extremely Effective Biopesticide That Controls Crop-Damaging Caterpillars.

**TARGET:** Armyworms, bagworms, borers, budworms, caterpillars, earworms, leafrollers, loopers, Gypsy Moth larvae, webworms and more.



**DESCRIPTION:** Uses a strain of *Bacillus thuringiensis kurstaki* to provide broad spectrum control for a long list of *Lepidopteran* pests that feed on a wide variety of plants. Carefully monitor your crops to identify target pest infestations and apply as soon as insects are found or when there are first signs of feeding. Water-based formula, stabilized with UV inhibitors with low resistance potential. Won't harm pollinators or beneficials. 4-hour REI. Compatible with many commonly used fertilizers, pesticides and adjuvants.

**SUGGESTED USE:** Apply when larvae are small, newly hatched and actively feeding. Do not apply through any irrigation system. Can be used diluted or un-diluted. Dilution with minimal amounts of water will improve coverage. The amount of water needed for a diluted application will depend on crop size, weather, spray equipment and local experience. Please see manufacturer's label for pest and crop specific application rates and guidelines.

1201220      BT NOW - 1 Gallon Concentrate      \$79.99

Cannot be shipped to the following states: CA, HI, DC

### DiPel® DF



#### OMRI listed & WSDA approved *Bacillus thuringiensis v kurstaki (Btk)* to control most *Lepidoptera* insects.

**TARGET:** Caterpillars, armyworms, bagworms, budworms, loopers, Gypsy Moth larvae, earworms and webworms.



**DESCRIPTION:** This dust-free, flowable powder bioinsecticide works quickly; pests will stop feeding within the hour and die in a few hours to 3 days. It is best used when the larvae are actively feeding but before the plants are heavily damaged. People, beneficials, birds, fish and wildlife are not affected by DiPel.

**SUGGESTED USE:** Can be used indoors and outdoors. Best if used while larvae are actively feeding but before plants are damaged. Small scale applications: Mix 1/2-4 tps./gal. of water. Or use 1/4-2 lbs./acre. Repeat applications every 3-14 days. Add a spreader-sticker on hard-to-wet crops and to improve spray efficacy in poor weather conditions.

1207006      DiPel DF - 1 lb.      \$24.75

1207004      DiPel DF - 5 lbs.      \$119.50

## Monterey B.t.



### An Easy-To-Use Solution For Controlling Caterpillars, Loopers & More!

**TARGET:** Cabbage looper, imported cabbage worm, tomato hornworm and bagworm, spring cankerworm, fall cankerworm, gypsy moth, tent caterpillar, elm spanworm and fall webworm on trees and ornamentals.

**DESCRIPTION:** This biological insecticide contains *Bacillus thuringiensis* subspecies *kurstaki* strain SA-12 solids, spores and *Lepidopteran* active toxins that when eaten by worms or caterpillars will halt feeding, resulting in death. When used as directed, it will not affect birds, earthworms or beneficial insects such as honeybees and ladybugs.



**SUGGESTED USE:** Apply when infestations are in first stages, making applications every 5-7 days until control is reached. Apply directly to all sides of foliage that is being affected by target pest. Fully mix with water and continue agitation during applications and reapply if heavy rain occurs after application. For fruits and vegetables, mix about 2-3 fl. oz. per gallon of water for about 1,000 sq. ft. For ornamentals and trees, mix about 2 fl. oz. per 3 gallons of water. Now available in no-dilute Ready-To-Use and Ready-To-Spray versions.

1201213	Monterey B.t. - 32 oz. RTU	\$14.49
1201214	Monterey B.t. - 32 oz. Hose-End RTS	\$24.49
1201210	Monterey B.t. Concentrate - 1 Pint	\$13.99
1201211	Monterey B.t. Concentrate - 1 Quart	\$22.99
1201212	Monterey B.t. Concentrate - 1 Gallon	\$79.99

Cannot be shipped to the following states:

SKUs 1201210, 1201211, 1201212, 1201214: ND, WY and SKU 1201213: AR, ND, WY

## BONIDE® Thuricide

### *Bacillus thuringiensis var. kurstaki*

**TARGET:** Control of caterpillars.

**DESCRIPTION:** Use Thuricide to control caterpillars that are causing excessive damage. This easy to mix and easy-to-use liquid can be sprayed on any plant that you would like to protect. Can be used on fruits, vegetables and ornamentals and can be used up to the day of harvest. Use weekly until the infestation is under control.

**SUGGESTED USE:** Easy-to-use for all spray applications, just mix 1-4 tsp. per gallon of water and apply to plants. It is important to target the underside and top of leaves to ensure good coverage. The mix rate you use is dependent on the level of infestation – there is no harm to the plant if you use a stronger mix rate.



1201201	BONIDE Thuricide Liquid Concentrate - 8 oz.	\$10.97
1201202	BONIDE Thuricide Liquid Concentrate - 16 oz.	\$14.99
1201205	BONIDE Thuricide RTU - 1 Quart	\$12.49
1201206	BONIDE Thuricide RTU - 1 Gallon	\$38.99



Gypsy Moth

## ADULT MOTH CONTROL



### Large Plastic Delta Trap

This Work-Horse Of A Trap Will Last & Last!

1230435	Large Plastic Delta Trap - Pack of 5	\$35.00
1230436	Large Plastic Delta Trap - Pack of 10	\$66.50

### Scentry Wing Trap

You'll Get Options & Economy With This Trap!

1230440	Scentry Wing Trap - Pack of 5	\$19.00
1230441	Scentry Wing Trap - Pack of 10	\$35.00

### Delta Trap

Catch Those Pests With Ease!

1230426	Delta Trap - Pack of 10	\$21.50
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### Gypsy Moth Trap

Moth Pests Disappear With This "Milk Carton" Trap!

1230430	Gypsy Moth Trap - Pack of 5	\$10.45
1230431	Gypsy Moth Trap - Pack of 10	\$18.99

## BIOLOGICAL GRUB CONTROL

### NemaSeek™ Hb Beneficial Nematodes

Beneficial Nematodes are one of nature's most powerful weapons available for managing Japanese Beetle infestations. Along with parasitizing the beetles in their larval, underground damaging stages, they also parasitize the larval states of other pest grubs, weevils, fleas, leafminers and more. Apply with a watering can, hose end sprayer or backpack sprayer. **See pages 17-19 for more information.**



### Milky Spore Powder

**Specific, Long Lasting Larval Control.**

**TARGET:** Japanese beetle grubs.

**DESCRIPTION:** Contains *Bacillus popilliae* bacterium, lethal to soil-borne grub stages of Japanese beetles. Grubs that normally feed on roots of grass and vegetables will ingest the bacterium, which will cause death in about 1-3 weeks. As grubs decompose they re-release bacteria spores. The spores can remain in the soil for about ten years, and in some cases up to 20 years.

In warmer climates, control can occur in 1-3 years (after one application) and in cooler climates, 3-5 years. Can apply with other fertilizers, will not harm animals and can be applied to food crops. For best results, apply with **NemaSeek Hb Beneficial Nematodes** (see pages 18-19), which will aid in spreading the bacterium to grubs. Store in a cool dry place to maintain shelf life.

**SUGGESTED USE:** Use All-Purpose Dispenser Tube for easy application (see online). White chalk carries the bacterium, and the resultant treated area should resemble a checkerboard. Water within about 48 hours for about 15-20 minutes to permeate into soil and do not mow or rake until thoroughly soaked.

Apply about 1 tsp., every 4 ft., in rows 4 ft. apart. 10 oz. covers ≈2,500 sq. ft., 40 oz. covers ≈1/4 acre, 50 lbs. covers ≈4.5 acres.

- 1216001** Milky Spore Powder - 10 oz. - Covers ≈2,500 sq. ft. **\$28.60**
- 1216040** Milky Spore Powder - 40 oz. - Covers ≈1/4 acre **\$83.50**
- 1216045** Milky Spore Powder - 25 lb. Drum - Covers ≈2.25 acres **\$800.00**
- 1216052** All-Purpose Dispenser Tube **\$14.50**

**Cannot be shipped to the following states:** CA, OR, WA

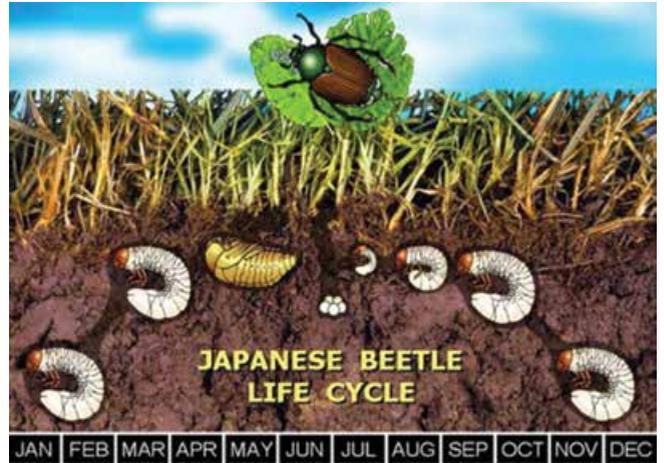


Photo Credit: UNL Entomology Department

### Where Are Japanese Beetles Found?

Japanese Beetles are native to Japan. They were first found in the United States in 1916 in New Jersey and it is believed they arrived before inspections of commodities entering the country were required. Since then, they have spread to many states in the United States including: AL, AR, CT, DE, GA, IA, IL, IN, KS, KY, MA, MD, ME, MI, MN, MO, MS, NC, NE, NH, NJ, NY, OH, OK, PA, RI, SC, SD, TN, TX, VA, VT, WI, WV. If you are unsure if Japanese Beetles have invaded your county, please contact your County Extension Agent to find out.

### Milky Spore Granular

**A New Formulation For Use In A Drop Spreader**

**TARGET:** Japanese beetle grubs.

**DESCRIPTION:** Contains spores of the bacteria *Bacillus popilliae*, which work specifically against the grub stage of the Japanese beetle. Once Milky Spore is in the soil, grubs will ingest the bacterium as they feed on roots. The spores will then multiply inside the grub, leading to its death in 1-3 weeks. As the grub decomposes it will release the spores in their increased numbers back into the soil. Will not harm people, animals, plants or beneficial insects.

**SUGGESTED USE:** For best results, apply with a drop spreader (available online) in the spring, summer and fall for 2 consecutive years. This allows the Milky Spore to build up in the soil. After that, the spores will work on their own for several years. After the 6th application, control can last up to 10 years. 1 lb. of material will cover 350 sq. ft. and 20 lbs. bag will cover 7,000 sq. ft.

- 1216070** Milky Spore Granular - 20 lb. Bag **\$48.00**
- 1216071** Milky Spore Granular - 20 lb. Bag, Pallet of 21\* **CALL**
- 1216072** Milky Spore Granular - 20 lb. Bag, Pallet of 42\* **CALL**

\*Call for freight quote.

**Cannot be shipped to the following states:** OR, WA





## Sluggo® Plus



### Save Your Plants From Slugs!

**TARGET:** Kills earwigs, cutworms, sowbugs (roly poly), pillbugs, crickets, slugs and snails.

**DESCRIPTION:** This easy-to-use pellet formula kills insects, slugs and snails outdoors. Contains iron phosphate and Spinosad (created from the soil bacterium, *Saccharopolyspora spinosa*) that is toxic to a variety of insect pests and other pests, including slugs. Use on vegetable gardens, fruit trees, lawns, flowers, shrubs and non-commercial greenhouses.



**SUGGESTED USE:** Apply bait on the soil around/close to the targeted plants at a ratio of  $\approx 1/2$ -1 lb./1,000 sq. ft.; Wet ground before applying bait; do not use more than 3 times in a 30-day period; do not apply within 3 days of harvest; best when applied in the evening.

1271114	Sluggo Plus 2.5 lb. Jug	<b>\$22.75</b>
1271116	Sluggo Plus 10 lb. Jug	<b>\$69.99</b>

## Slug Gone

### Innovative & Sustainable Slug Control Using Waste Wool.

**TARGET:** Slugs and snails.

**DESCRIPTION:** This ingenious product comes to us from the UK, where they know a thing or two about slugs and wool. As it turns out, Gastropods can't tolerate wool. It draws moisture from their foot as they move across it and the scratchiness of the hooks and barbs in the wool fibers is extremely irritating to them. Faced with crossing this sort of barrier, slugs and snails will happily move on without being harmed. Produced from 100% waste wool (the bits of wool that are left over after a sheep has been sheared), this product is biodegradable, helps save water, keeps roots cool, acts as a soil conditioner as it biodegrades, and will not harm children, pets or edibles. This inventive way to use wool that would otherwise be discarded has been highly acclaimed in Britain and has won many green industry awards there.



**SUGGESTED USE:** Apply once per season in a 4-5" wide band around base of plant, about 1/2" deep. Ensure there are no gaps. Water well. The wool will absorb the water and swell up to form a felted mat that will not wash out or blow away. Material will biodegrade in place in about 6-14 months. Can be used in containers, flower beds, gardens and hanging baskets. One 3.5 liter bag should cover 6-15 pots depending on diameter.

1272020	Slug Gone - 3.5 Liter Bag	<b>\$16.99</b>
1272025	Slug Gone - 3.5 Liter Bag - Case of 6	<b>\$84.00</b>

## Sluggo®



### Wipes Out Slugs & Snails!

**TARGET:** Snails and slugs.

**DESCRIPTION:** Made from a mix of biodegradable wheat gluten attractant and naturally occurring iron phosphate, this product will help control pest snails or slugs. Once consumed, it interferes with calcium metabolism which inhibits feeding and causes death in about 3-6 days.

**SUGGESTED USE:** Apply about 0.5-1 lb./1,000 sq. ft. or 20-40 lbs./acre.

1271109	Sluggo 2.5 lb. Jug	<b>\$15.75</b>
1271108	Sluggo 10 lb. Bottle	<b>\$58.49</b>
1271104	Sluggo 40 lb. Bag	<b>\$138.95</b>

Larger quantities available.



## BONIDE® Slug Magic

### Control Slugs With This Easy-To-Use & Convenient Size Of Iron Phosphate.

**TARGET:** Slugs & snails.

**DESCRIPTION:** This is a biodegradable product that consists of a naturally occurring mineral – iron phosphate. Once slugs or snails ingest Slug Magic, they stop eating and die within days. It can be used in fruit and vegetable gardens up to the day of harvest.

**SUGGESTED USE:** 1 lb. treats 1,000 sq. ft., the pellets remain active for 2 weeks – rain or shine.

1271101	BONIDE Slug Magic - 1 lb.	<b>\$11.29</b>
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## MULTI-PURPOSE

### Organic JMS Stylet-Oil®



**Smother Overwintering Insect Pests & Mites With This Food Grade Dormant Oil!**

**TARGET:** Powdery mildew, mites, whiteflies, leafminers and insect transmitted diseases.

**DESCRIPTION:** Use this multi-purpose, year-round fungicide, insecticide and antiviral spray oil in greenhouses, on field crops and on fruit trees. Kills powdery mildew on contact and prevents occurrence for up to 14 days and controls mites, whiteflies and leafminers. Made from paraffinic oil and is colorless, tasteless and odorless. 4-hour re-entry interval; no pre-harvest interval.



**SUGGESTED USE:** For gardens, apply approx. 3 Tbsp./gal. water with a sprayer. For larger areas, apply about 1-2 gal./100 gal. water and use 25-150 gal. of dilute/acre depending on crop, timing and desired treatment. Apply weekly or bi-weekly depending on severity of condition. Begin at the onset of plant growth, fungus emergence, disease and insect infestation. See label online for detailed rates and instructions.

- |                |                                      |                |
|----------------|--------------------------------------|----------------|
| <b>1274107</b> | Organic JMS Stylet-Oil - 1 Gallon    | <b>\$38.50</b> |
| <b>1274108</b> | Organic JMS Stylet-Oil - 2.5 Gallons | <b>\$58.00</b> |

\*Call for freight quote. Larger sizes available.

**Cannot be shipped to the following states:** AR, DC, IL, IN, IA, KS, KY, LA, MN, MS, MT, PR, RI, SD, TN, UT, WV, WI, WY (15 and 30 gallon drum sizes not available to OR)

### M-Pede®



**A Highly Effective, Organic Version Of Insecticidal Soap.**

**TARGET:** Adelgids, aphids, caterpillars, earwigs, lace bugs, leafhoppers, leafminers, mealybugs, mole crickets, plant bugs, psyllids, sawfly larvae, scales, spider mites, tent caterpillars, thrips, whiteflies, gypsy moth & chinch bugs. Curative control for powdery mildew.

**DESCRIPTION:** This organic foliar spray insecticide/miticide/fungicide is made from potassium salts of naturally derived fatty acids (aka insecticidal soap) and can be used on a wide range of crops grown organically or conventionally in fields, greenhouses, or interiorscapes. M-Pede works in all life stages of mites, aphids and whiteflies – with other listed insect pests, the effects are limited to early growth stages and eggs. 12-hr REI & 0-day PHI.

**SUGGESTED USE:** This product may be applied with most types of ground or aerial spray equipment, but **DO NOT** use with pulse/thermal fogger applicators or apply through any type of irrigation or hydroponic system. M-Pede rates as low as 0.25% v/v or as high as 4% v/v may be used. The 2% v/v rate is the most frequently used stand-alone rate. **Do not** mix with sulfur or use within 3 days of a sulfur application. To avoid any possible plant injury do not make repeat applications at less than 7-day intervals, or make more than 3 sequential applications at 7- to 14-day intervals

- |                |                                  |                 |
|----------------|----------------------------------|-----------------|
| <b>1247650</b> | M-Pede - 2.5 Gallons             | <b>\$130.00</b> |
| <b>1247652</b> | M-Pede - 2.5 Gallons - Case of 2 | <b>\$250.00</b> |



### PureCrop1

**Plant-Based Biostimulant, Insecticide & Fungicide.**

**TARGET:** All sap sucking insects (mites, thrips, aphids, whiteflies, leaf hoppers), mold, mildew and diseases (*Botrytis*, *Fusarium* wilt, powdery mildew and more).

**DESCRIPTION:** PureCrop1 uses advanced biochemistry to eliminate pests, mold and mildew, while increasing plant health. Although it's active ingredients are corn and soybean oil, it is in fact NOT an oil. Through the use of Nanotechnology, it is a rearrangement of molecules to create a colloidal micelle. Due to its small size and electrical properties, PureCrop1 is a natural surfactant, carrier of nutrients and increases sugar levels. When applied as a foliar spray or root drench, it leaves no residue behind and tests clean parts per billion. This product can be used on all stages of growth even up to day of harvest.



**SUGGESTED USE:** As a preventative foliar spray, 1 oz. per gal. every 7-10 days. For knock down foliar spray, 2 oz. per gal. every 2-3 days until desired results. To maintain long term biostimulant benefits spray, 2 oz. per gal. once a week. As a root drench or general surfactant spray, 1.24 oz. per gallon of water.

- |                |                         |                 |
|----------------|-------------------------|-----------------|
| <b>1274200</b> | PureCrop1 - 16 oz.      | <b>\$38.00</b>  |
| <b>1274201</b> | PureCrop1 - 1/2 Gallon  | <b>\$100.00</b> |
| <b>1274202</b> | PureCrop1 - 1 Gallon    | <b>\$190.00</b> |
| <b>1274203</b> | PureCrop1 - 2.5 Gallons | <b>\$475.00</b> |

Larger sizes available.

### The Amazing Doctor Zymes Eliminator

**Use This Year Round For Pest & Mildew Free Plants.**

**TARGET:** Aphids, thrips, fungus gnats, mites, root aphids and whiteflies. Also eliminates fungus, molds and mildew.

**DESCRIPTION:** This OMRI listed product is made with naturally occurring organic materials and citric acid to produce a multiple action fungicide/miticide. As a miticide, it works by interfering with the pest's ability to breath, fatally breaking down protein and organic materials in eggs and acting as a deterrent. As a fungicide, the citric acid destroys the biomass of the spores and alters the pH to create an environment hostile to growth. Best when used preventatively.



**SUGGESTED USE:** Dilute with warm water. Larger volume applications: 1/2 cup/gal water. For severe infestations: 1/2 cup/gal water every 3rd day. Powdery Mildew/weak solution: .5 oz/31.5 oz water. Soft bodied insects/medium solution: 1-1.5 oz/31 oz water. Infestations/strong solution: 2-2.5 oz/30 oz water. Preventative: seeds/transplants: .5-1 oz/qt water; soil amendment: 1 cup/5 gal water; foliar spray: 1/2 cup/1 gal water.

- |                |   |                 |
|----------------|---|-----------------|
| <b>1459200</b> | The Amazing Dr. Zymes Eliminator - Quart RTU    | <b>\$13.95</b>  |
| <b>1459201</b> | The Amazing Dr. Zymes Eliminator - Quart Conc.  | <b>\$32.95</b>  |
| <b>1459202</b> | The Amazing Dr. Zymes Eliminator - Gallon Conc. | <b>\$115.95</b> |

Larger sizes available.

**Cannot be shipped to the following states:** AL, CT, DC, ID, IN, KS, LA, ME, MS, NE, NM, ND, SD

NEEM OIL & BOTANICAL OILS

Rango™



Three Types Of Control Delivered Through Superior Suspension.

**TARGET:** Soft-bodied insects, beetles, borers, caterpillars/moths, leafhoppers, maggots/grubs, leafminers, psyllids, True Plant Bugs, weevils, wireworms & more. Diseases: *Alternaria*, anthracnose, blights, *Botrytis*, mildews, *Fusarium*, molds, *Pythium*, *Rhizoctonia*, rust, scab, sour rot and more. Nematodes: Dagger, Lance, Lesion, Reniform, Root Knot, Soybean Cyst and Sting.

**DESCRIPTION:** OMRI listed Rango is an emulsifiable concentrate made of 70% cold pressed Neem Oil and works as an insecticide, fungicide and miticide. It works as a suffocant on contact, is toxic if ingested, it repels, is an anti-feedant and interferes with the molting process. For disease control, it works by inhibiting mycelial growth. It can be applied in a foliar spray or soil application on a wide range of crops. Do not apply to sensitive plant species like certain ornamentals and flowers.

**SUGGESTED USE:** No additional surfactant is needed. Insecticide/miticide foliar application: Use a concentration of 0.625 - 1.25% v/v for normal pest and crop conditions. Use a concentration 1.8% v/v for heavier infestations. Use no more than 3 qts/acre. Fungicide foliar application: Use a concentration of 1.25 - 1.8% v/v every 10-14 days. Up no more than 6 qts/acre. Soil application: Use a concentration of 1.25 - 2.4% v/v. Use no more than 7.25 qts/acre.

- 1450570 Rango - Concentrate - 32 oz. \$34.95
  - 1450572 Rango - Concentrate - 1 Gallon \$89.95
  - 1450573 Rango - Concentrate - 2.5 Gallons \$174.95
- Case sizes available.



Earth's Ally® Insect Control



Insect Control That's Safe For People, Pets & The Planet.

**TARGET:** Mites, aphids, whiteflies, mealybugs, leafrollers, scale insects, and other soft-bodied insects.

**DESCRIPTION:** This is an organic blend of rosemary, clove and peppermint oils that works as an insecticide, miticide and repellent. It will knockdown, kill and repel soft-bodied insects. Can be used on all plants and trees grown indoors and outdoors and leaves no harmful residues. 0-day PHI. FIFRA 25(b) exempt.

**SUGGESTED USE:** 1 qt concentrate makes up to 5 gals. RTU: Thoroughly spray all plant parts until runoff. Avoid spraying in the heat of the day and do not apply at temps over 90°F. If a second application is needed, wait at least 5 days before reapplication. For use as a repellent, apply every 7-10 days. Avoid use when pollinators are active, otherwise this product is bee safe. Concentrate: Mix ¾ cup (6 fl. oz.) of concentrate with 1 gallon of water and follow same instructions as RTU.

- 1459310 Earth's Ally Insect Control - 24 oz. RTU \$12.99
- 1459311 Earth's Ally Insect Control - 1 Quart Conc. \$39.99



BONIDE® Neem Oil

Three Great Products In One – A Fungicide, Insecticide, & Miticide.

**TARGET:** As an insecticide/miticide on eggs, larvae and adults of aphids, spider mites, scale, whiteflies, beetles, leafrollers and more. As a fungicide on various diseases including powdery mildew, black spot, downy mildew, anthracnose, rust, leaf spot, *Botrytis*, needle rust, scab, twig and tip blight and *Alternaria*.

**DESCRIPTION:** Derived from the Neem seed, this concentrated oil is an excellent pest and disease control choice for use on many plants including roses, flowers, vegetables, herbs, spices, houseplants, trees, turf and shrubs. Can be used on contact for existing pests/diseases and as a dormant spray to control overwintering pest eggs. Can be used until day of harvest.

**SUGGESTED USE: Insecticide:** Mix 2-4 tablespoons (1-2 fl. oz.) per 1 gallon of water thoroughly and spray all plant surfaces, including underside of leaves, until completely wet. **Fungicide:** For present disease, use at 7-14 day intervals, and for prevention and continued control use at 14 day intervals. **Caution:** This product is toxic to bees exposed to direct treatment.

- 1246602 BONIDE Neem Oil RTU -1 Quart \$11.89
- 1246605 BONIDE Neem Oil RTU - 1 Gallon \$31.25
- 1246603 BONIDE Neem Oil Concentrate -1 Pint \$18.49

Cannot be shipped to the following states: DC



Monterey 70% Neem Oil

Effective Against Indoor And Outdoor Insect Pests & Fungal Diseases!

**TARGET:** Use as an insecticide/miticide and/or fungicide on a wide range of ornamental plants, vegetables, trees and shrubs, as well as fruit and nut crops.

**DESCRIPTION: Insecticide/Miticide Use:** Controls spider mites, aphids, whiteflies, scale, beetles, leafrollers and other insect pests. **Fungicide Use:** Effective against powdery mildew, black spot, downy mildew, anthracnose, rust, leaf spot, *Botrytis*, needle rust, blights and *Alternaria*.

**SUGGESTED USE: Insecticide/Miticide Use:** Mix rate: 1-2 oz./gallon of water. Thoroughly spray all plant surfaces (including the undersides of leaves) until wet. **Fungicide Use:** Apply every 7-14 days; for heavy infestation, apply every 7 days. Use 1 oz./gallon of water & thoroughly spray all plant surfaces until wet. Apply on a 7-14 day schedule until control is achieved.

- 1555615 Monterey 70% Neem Oil - 32 oz. RTU \$14.49
- 1555616 Monterey 70% Neem Oil - 16 oz. RTS \$29.49
- 1555613 Monterey 70% Neem Oil - 8 oz. Conc. \$15.99
- 1555614 Monterey 70% Neem Oil - 1 Pint Conc. \$24.99
- 1555618 Monterey 70% Neem Oil - 1 Gallon Conc. \$144.49

RTU (1555615) cannot be shipped to the following states: ND, WY, OR



## BEAUVERIA BASSIANA

### BioCeres® WP



**This Versatile Biopesticide Can Be Used In A Tank Mix Or As A Stand-Alone.**

**TARGET:** Aphids (*Aphidoidea*), whiteflies (*Aleyrodoidea*), thrips (*Thysanoptera*), plant bugs (*Lygus lineolaris*), spotted wing drosophila (*Drosophila suzukii*), borers, beetles and weevils.

**DESCRIPTION:** This OMRI Listed biopesticide uses the power of *Beauveria bassiana* to control insects in developing and adult stages. Upon application, the spores will adhere to and begin penetrating the insect's outer shell. Once inside the insect, the spores will continue to multiply until they reach its hemolymph (blood). When the spores encounter the blood they will begin feeding on it. Death will occur in 7 to 14 days. 0 pre-harvest interval and 4-hour REI.

**SUGGESTED USE:** Repeat at 5-7 day intervals as needed. Apply 1-3 lbs. per acre, according to the density of the insect population. For conventional air and ground applications, use at least 50 gallons of spray volume per acre. Thoroughly cover plant foliage with spray solution, but not to runoff.

**1332890** BioCeres WP - 1 lb. Bag **\$80.00**  
**1332892** BioCeres WP - Case of 1 lb. Bags/12 ct. **\$880.00**

Cannot be shipped to the following states: CA



### *Beauveria bassiana*

*Beauveria bassiana* is an entomopathogenic fungi that causes white muscadine disease in a range of insects including whiteflies, aphids, thrips, grasshoppers and certain types of beetles. *B. bassiana* spores simply need to come in contact with a host. Once the host insect is infected, the fungus rapidly grows inside of the insect, feeding on the nutrients present in the host's body and producing toxins in the process. When the host dies, the *B. bassiana* covers the carcass in a layer of white mold that produces more infective spores.

### BotaniGard® ES & 22WP *Beauveria bassiana* Strain GHA

**Controls A Wide Variety Of Soft-Bodied Insects In Greenhouse, Field & Nursery.**

**TARGET:** A wide variety of soft-bodied insects such as whiteflies, thrips, aphids, psyllids, mealybugs, scarab beetles, plant bugs and weevils.

**DESCRIPTION:** BotaniGard ES is a natural contact insecticide that contains a liquid emulsified suspension of the mycoinsecticide – *Beauveria bassiana* Strain GHA, which controls many varieties of soft-bodied insects in greenhouse, field and nursery crops.

**SUGGESTED USE:** Thorough coverage is required to achieve control. Apply in 7 day intervals. However, if pest population is high, it can be applied in 3-5 day intervals totaling 3 applications.

#### Application Rates of BotaniGard ES

- For whiteflies and aphids, use about .5-1 quarts per 100 gallons of water.
- For thrips, use about 1-2 quarts per 100 gallons of water.
- For other insects, use about .5-2 quarts per 100 gallons of water.
- If applying as a high or low volume spray, use up to 3 quarts per 100 gallons of water to cover an area of 5,000-20,000 sq. ft.

#### Application Rates of BotaniGard 22WP

- For whiteflies and aphids, use .5-1 lb. of BotaniGard 22WP per 100 gallons of water.
- For thrips, use 1-2 lbs. of BotaniGard 22WP per 100 gallons of water.
- For other labeled insects, use .5 to 2 lbs. of BotaniGard 22WP per 100 gallons of water.
- Rate depends upon infestation level, consult package instructions before application.

#### BotaniGard ES

**1332801** BotaniGard ES - 1 Quart **\$85.00**  
**1332799** BotaniGard ES - 1 Gallon **\$269.00**

#### BotaniGard 22WP

**1332800** BotaniGard 22WP - 1 lb. Powder **\$90.00**

Case sizes available.

**Shipping Restrictions:** Cannot ship via US Mail.



### Mycotrol® WPO



**A New Formulation For A Reliable Favorite!**

**TARGET:** Adult and immature stages of whiteflies, thrips, aphids, psyllids, weevils, mealybugs, leafhoppers/plant hoppers, scarab beetles and plant bugs (*Heteroptera*) and more.

**DESCRIPTION:** Mycotrol WPO is a wettable powder mycoinsecticide that contains live spores of the naturally occurring fungus, *Beauveria bassiana*. In fact, this formulation contains the highest concentration of any insecticide containing *Beauveria*. These spores adhere to the host insect and use enzymes to attack and ultimately dissolve the cuticle that surrounds and contains the body cavity. This fungal penetration will ultimately kill the unwanted insects but will not harm beneficials.

**SUGGESTED USE:** For use in greenhouses, nurseries, landscape and interiorscape settings. Mycotrol WPO can be used for a wide range of vegetables, fruits and berries, herbs and spices, ornamentals, ground covers, trees and turf. Apply Mycotrol WPO using hand-held, ground spray equipment and/or low volume application equipment.

**1332785** Mycotrol WPO - 1 lb. **\$108.00**  
**1332795** Mycotrol WPO - 1 lb. (Case of 12) **\$1,166.40**

Ships via UPS Ground & FedEx Ground ONLY.



## OTHER BIORATIONAL

### Grandevo® CG & Grandevo® WDG

Get Widespread Control With This Multi-Action Microbial-Based Insecticide/Miticide.

**TARGET:** Aphids, whiteflies, thrips, mealybugs, mites, armyworm, Asian Citrus Psyllids, leafhoppers, *Lygus*, cutworms, beetles, *Drasophila*, loopers, moths, sharpshooters, earworms, caterpillars and more.

**DESCRIPTION:** Grandevo uses the bacterium *Chromobacterium subsugae* strain PRAA4-1<sup>T</sup> to provide long-lasting, reliable broad spectrum control of a long list of labeled pests. Its mode of action is multi-faceted; it is toxic when ingested, it repels and it reduces insect reproduction. This OMRI listed and NOP compliant organic pesticide/miticide can be a valuable part of any IPM program. Can be used on a wide range of edible crops in field and greenhouse applications.

**SUGGESTED USE:** In greenhouses: Use 1-3 lbs./100 gals. of water sprayed until just before point of runoff. Ground & aerial application: Use sufficient water to provide thorough coverage plant parts. For tank mix programs: Apply 1-2 lbs./acre For rotational programs: Apply 2-3 lbs./acre when alternating.

1332953	Grandevo CG - 1 lb.	\$37.50
1332954	Grandevo CG - 4 lbs.	\$130.00
1332952	Grandevo WDG - 6 lbs.	\$155.00



### Entrust™ SC Naturalyte® Insect Control

Because The Cost Of Saving Your Crops Is Never Too High.

**TARGET:** Apple maggots, armyworms, bagworms, beetles, borers, caterpillars, codling moth, fireworms, grasshoppers, leafminers, leafrollers, moths, red imported fire ants, sawflies, spider mite, thrips, webworms, and many more.

**DESCRIPTION:** This easy-to-use liquid organic product contains the naturally occurring soil bacterium, Spinosad, in a much higher percentage (22.5%) than comparable Spinosad insecticides. It works on contact and by ingestion. Can be applied to row crops, orchards, nurseries and greenhouses. Does not persist in the environment; any overspray or residues on foliage will breakdown within days to weeks. Low toxicity to beneficials and excellent for IPM.

**SUGGESTED USE:** Mix with water and apply as a foliar spray. Application rates: 1.5-10 fl oz/acre. Active ingredient equivalents: 0.023-0.156 lb ai/acre. Acres per gallon: 85-13. Can be used with adjuvants. Spray tank pH 6.0-9.0 is recommended. Extensive crop and pest specific instructions on label.

1271150	Entrust Sc Naturalyte Insect Control - 1 Quart	\$585.00
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### NoFly™ WP

This Aggressive Fungus Controls Soft-Bodied Insects & Hard-To-Kill Livestock Pests.

**TARGET:** Aphids, Bagrada bugs, beetles (including darkling, litter, carrion & hide), fungus gnats, gnats, grasshoppers, leaf hoppers, locust, lygus bugs, mealybugs, mites (including russet, spider & chicken), Mormon crickets, northern fowl mites, plant bugs, psyllids, red poultry mites, thrips, weevils, and whiteflies.

**DESCRIPTION:** This organic wettable powder mycoinsecticide contains spores of the entomopathogenic fungus *Isaria fumosoroseus* strain FE 9901. This naturally occurring fungus is a common and aggressive predator of insect pests but is not a plant pathogenic organism and will not adversely affect beneficials (including bees). When the spores come into contact with the insect pest, they will immediately attach themselves to the body. As they grow, they will penetrate the host insect's body and disrupt the normal functions of the insect's internal organs and tissues. It will stop feeding within 24 hours and die in 3-7 days. Effective against all life stages of insect pest.

**SUGGESTED USE:** Can be used as a foliar, soil or hydroponic application. Rates for crops: Foliar: 1/2-2 lb/ acre or 2-8 oz/ 11,000 sq ft at a minimum of 0.1% solution. Soil: 14-28 oz/100 gals water at a rate of 1 gal of solution per cu ft of growing media or 6-12 oz/5-10 gals water/yard of soil. Hydroponics: 6-16 oz/100 gals water. Rates for turf: 1/2- 2 lb/ acre or 2-8 oz/11,000 sq ft applied at a minimum of 0.1% solution. Rates for poultry houses & livestock barns: 1-3 oz/12 gals water.

1332875	NoFly WP - 8 oz.	\$67.78
1332876	NoFly WP - 2 lbs.	\$225.99

Cannot be shipped to the following states: AK, DC



### Venerate® CG & Venerate® XC

This Unique Bioinsecticide Fits In Any IPM & Resistance Management Program (RMP).

**TARGET:** Caterpillars, foliage feeding *Coleopteran*, aphids, whiteflies, Asian Citrus Psyllids (ACP), leafhoppers, stink bugs, mites, *Lygus* and more.

**DESCRIPTION:** Venerate uses killed cells of the *Burkholderia spp.* strain A396 and spent fermentation media to kill insects in fields and greenhouses. It's toxic when ingested and works on contact to cause enzymatic degradation of exoskeletal structures and fatal interference with the molting process. Not harmful to fish, birds, most beneficials and honey bees.

**SUGGESTED USE:** Mix with water and apply as a foliar spray. Apply 1-4 qts./ acre on a 7-day interval. Smaller scale applications: 2-4 Tbsp./gal. Can alternate with another product on a 7-day interval. No limit on number of applications per season. No spray buffer needed.

1332957	Venerate CG - 1 Quart	\$58.00
1332956	Venerate CG - 1 Gallon	\$134.00
1332960	Venerate XC - 2.5 Gallons	\$260.00

Venerate XC - 2.5 Gal. (1332960) cannot be shipped to the following states: CA



## AZADIRACTIN

### AzaSol™



**This Non-Oil Based & Water Soluble Powder Controls A Myriad Of Insect Pests.**

**TARGET:** Whiteflies, aphids, caterpillars, mushroom flies, phorid flies, leafminers, mealybugs, psyllids, weevils and many more.

**DESCRIPTION:** Azasol contains Azadirachtin, a product of the Neem tree. In production, the Neem oil from the seeds of the trees is transformed into a yellowish-white, water-soluble amorphous powder suitable for spraying. When used as directed it is effective on adult insects, larvae and pupae. It will vigorously repel insects, kill them when they come in contact with the spray or feed on sprayed plants and interrupt their life cycles. This powder quickly dissolves in water and won't clog equipment or leave an oily residue or discoloration on plants. Won't burn leaves or block photosynthesis. Can be injected in trees for quick results..



**SUGGESTED USE:** Apply as a foliar spray or soil drench to soil or soil-less media. A wetting agent may be used. To repel adult flies, use fogging equipment. Use from 1-4 tsp./1000 sq. ft depending on pest infestation levels, application method and growing environment. For optimum results, 2-3 applications made at 7-10 day intervals is recommended.

<b>1457620</b>	AzaSol - .25 oz.	<b>\$19.99</b>
<b>1457621</b>	AzaSol - .75 oz.	<b>\$46.99</b>
<b>1457622</b>	AzaSol - 6 oz. (8 x 0.75 oz.)	<b>\$329.99</b>
<b>1457625</b>	AzaSol - 2 lb. Jug	<b>\$1,297.99</b>

### AzaGuard®



**This OMRI Listed Product Works On A Wide Range Of Ornamental, Forestry, Food & Non-Food Crops.**

**TARGET:** For controlling and repelling over 300 listed insect species, including aphids, beetles, armyworms, fungus gnats, leafhoppers, caterpillars, mealybugs, webworms, plant parasitic nematodes and root knot nematodes.

**DESCRIPTION:** Azadirachtin, extracted from the neem tree, is the active ingredient here. Insects are repelled by the taste and smell of neem, but azadirachtin also works as a molting/growth disruptor. This Insect Growth Regulator (IGR) disrupts the life cycle between larval, pupal and nymphal stages by impeding the metabolism of ecdysone. Ecdysone is necessary for molting, without which the insect cannot mature into its next growth stage and will, ultimately, die. NOP Compliant.

**SUGGESTED USE:** Apply using a power or pump sprayer or a hand-held trigger type sprayer. Spray when pests first appear and repeat at 5-7 day interval as required. A sticker agent may be added to product for more complete coverage on waxy or pubescent plant surfaces. Do not exceed the rate of 22.5 fl. oz. (20 g.) per acre per application.



<b>1222204</b>	AzaGuard - 32 oz.	<b>\$159.00</b>
<b>1222206</b>	AzaGuard - 1 Gallon	<b>\$570.00</b>

### Azera® Gardening



**This Unique Mix Of Azadirachtin & Pyrethrins Offers Exceptional Insect Control.**

**TARGET:** This product will kill the larval, pupal and adult stages of a broad spectrum of over 200 listed insects.

**DESCRIPTION:** This organic gardening pesticide couples two plant-based powerhouses (Azadirachtin and Pyrethrins) to fight both hard-bodied and soft-bodied insects. Hard-to-kill insects will not get past Azera; they will succumb to the quick knock-down kill or perish more slowly once they ingest it. One of these two processes will kill all stages of an insect's life (larval, pupal and adult), effectively eliminating all future generations. This OMRI listed product is soft on the environment and can be applied the same day of harvest.

**SUGGESTED USE:** Apply Azera as soon as insects appear; do not wait until plants are heavily infested. Apply with any powered or manual pesticide application equipment. The most commonly used rate of application is 2 pints per acre (32 fl. oz. = 946 ml.) Higher populations of adults and/or hard to kill insects may require 3 pints per acre (48 fl. oz. = 1.42 L) or 3.5 pints per acre (56 fl. oz. = 1.66 L).



<b>1288740</b>	Azera Gardening - 8 oz.	<b>\$39.00</b>
<b>1288750</b>	Azera Gardening - 32 oz.	<b>\$96.00</b>
<b>1288760</b>	Azera Gardening - 1 Gallon	<b>\$350.00</b>

### Molt-X™



**An Excellent Knockdown Spray With Multiple Modes Of Insecticidal Action!**

**TARGET:** Aphids, whiteflies, thrips, fungus gnats, leafhoppers, leafminers, leafrollers, sawflies, webworms, mealybugs, scale, root knot nematodes and cutworms.

**DESCRIPTION:** An emulsifiable concentrate containing **3% Azadirachtin**. While it is derived from neem seed, it is not a neem oil. Works primarily as an Insect Growth Regulator that disrupts the molting process of the insect. Acts as an insect repellent, antifeedant and deters egg-laying.

**SUGGESTED USE:** Rates: For outdoor crops, vegetables and ornamentals use Molt-X at a rate of 8 to 10 ounces/acre and 15 ounces/acre for nematode control. The rate may be increased up to 22.5 oz/acre if pest pressure is extremely high or if plant canopies are very dense. For greenhouse, shadehouse, interiorscape and nursery crops use Molt-X at a rate of 8 to 10 ounces/100 gallons.



<b>1332770</b>	Molt-X - 1 Pint	<b>\$125.00</b>
<b>1332771</b>	Molt-X - 1 Quart	<b>\$200.00</b>
<b>1332772</b>	Molt-X - 1 Gallon	<b>\$570.00</b>

**Shipping Restrictions:** Cannot ship via US Mail.  
**Cannot be shipped to the following states:** AK, DC

PYRETHRINS

PyGanic® Gardening



Rapid Knockdown & Kill For Outdoor Pests In Your Garden.

**TARGET:** Over 100 listed pests, including aphids, beetles, caterpillars, crickets, fruit flies, fungus gnats, mites and thrips.

**DESCRIPTION:** This updated version of PyGanic offers the same ingredients and results as the former PyGanic 1.4. Pyrethrins, the active ingredient here, is made from a daisy extract and has been used effectively for a millennia. This formulation can be applied in a variety of ways, making it easy to use no matter the size of your garden. Spraying should begin when the insects first appear, not when they are already heavily infested. Thoroughly cover all plant surfaces. This OMRI listed, NOP compliant insecticide can be used throughout your growing season and up to the day of harvest.

**SUGGESTED USE:** For use on outdoor gardens and growing areas. Not for use indoors. Not for use on plants grown for sale. Do not exceed the maximum application rates of 1.4 fl. oz. per 1,000 sq. ft. or 59 fl. oz. per acre.

<b>1288710</b>	PyGanic Gardening - 8 oz.	<b>\$22.00</b>
<b>1288720</b>	PyGanic Gardening - 32 oz.	<b>\$51.00</b>
<b>1288730</b>	PyGanic Gardening - 1 Gallon	<b>\$192.00</b>



BotaniGard® MAXX

Beauveria bassiana & Pyrethrins Make A Powerful Team!

**TARGET:** Whiteflies, aphids, thrips, psyllids, spider mites, mealybugs, leafhoppers, weevils, borers and other leaf-feeding insects.

**DESCRIPTION:** This potent biorational formulation provides a quick knock-down of insect and mite pests. The two active ingredients, *Beauveria bassiana* and Pyrethrins, work independently, yet in harmony, to provide multiple mechanisms to kill harmful insects. The pyrethrins will attack the nerve cells of the insect and the *Beauveria bassiana* strain GHA fungal spores penetrate an insect's protective cuticle and destroy it from within.

**SUGGESTED USE:** Can be applied at a rate of up to 2 quarts per 100 gallons of water, however most target insects can be controlled at a rate of 1 quart per 100 gallons of water, 1/2 quart per 50 gallons of water or 1 pint per 25 gallons of water. For best results, use as soon as insect pests are spotted, before their population becomes too large. Results can generally be seen within 2-5 days after the first spraying. Do not reapply within 3 days, unless the infestation is extreme. If this is the case, wait 24 hours for reapplication.

<b>1332820</b>	BotaniGard Maxx - 1 Quart	<b>\$85.00</b>
<b>1332821</b>	BotaniGard Maxx - 1 Gallon	<b>\$280.00</b>
<b>1332822</b>	BotaniGard Maxx - 2.5 Gallons	<b>\$640.00</b>

Case sizes available.

**Shipping Restrictions:** Cannot ship via US Mail.



Monterey Take Down Garden Spray

A Mix Of Pyretherins & Canola Oil For Affordable, Effective Insect Control!

**TARGET:** Aphids, beetles, caterpillars, ants (except fire ants, harvester ants, carpenter ants & pharaoh ants), mealybugs, mites, leafhoppers, scale, whiteflies, adelgids, plant bugs, fungus gnats, thrips, sawfly larvae, psyllids, spittlebugs & phylloxera.

**DESCRIPTION:** This spray works on a broad spectrum of insect pests and will attack ALL stages of insect life – eggs, larvae & adults. With canola oil and pyrethrin as active ingredients, you have a spray that will knock them down and hold them down. Can be used as a dormant or growing season spray and does not persist in the environment. Safe to use up to the day of harvest.

**SUGGESTED USE:** With concentrate formula, mix in either 1% or 2% solution as follows. **1% Solution:** Mix 2 tsps. of concentrate with 1 qt. water or 1 fl. oz. of concentrate with 3 qts. of water. **2% Solution:** Mix 4 tsps. of concentrate with 1 qt. of water or 2 fl. oz. with 3 qts. of water. Shake or stir frequently during use.

<b>1257917</b>	Take Down Garden Spray RTU - 1 Quart	<b>\$11.49</b>
<b>1257915</b>	Take Down Garden Spray Concentrate - 1 Pint	<b>\$19.99</b>

**Concentrate cannot be shipped to the following states:** DC, ND, SD, WY  
**RTU cannot be shipped to the following states:** DC, FL, ND, OK, SD, WY



Bug Buster-O

Bugs Take A Beating With This Easy To Use OMRI Listed Spray.

**TARGET:** A very long list of insect pests on crops and plants grown outdoors.

**DESCRIPTION:** When you need a quick and thorough knockdown and kill, organic Bug Buster-O is the choice for you. You can begin spraying after one simple step to dilute the product. The active ingredient of Pyrethrins is a potent insecticide and will control more than 100 listed insect pests; however, please take care when applying to avoid harming the bees in your area. Contains Pyganic®. Can be used on day of harvest (just wait for it to dry before entering the treatment area).

**SUGGESTED USE:** Insects: To avoid possible harm to bees, it's advisable to apply in the early morning or late evening hours. Dilute 1-1.4 fl oz/gallon of water/1,000 sq ft. Can be applied with all types of agricultural sprayers. Spray when pests first appear, do not wait for an infestation.

<b>1288601</b>	Bug Buster-O - 8 oz.	<b>\$28.49</b>
<b>1288602</b>	Bug Buster-O - 16 oz.	<b>\$53.49</b>

**Cannot be shipped to the following states:** AR, AZ, IA, ID, KY, ND, NE, NV, WV, WY





## WHAT ARE FLY ELIMINATORS?

### The Sensible Alternative To Pesticides

Fly Eliminators are tiny  $\approx 1/8''$  beneficial insects that parasitize flies in their developing pupal (cocoon) stage, before they can hatch into annoying disease-carrying adult flies. Scientifically they are referred to as Fly Parasites or Fly Parasitoids.

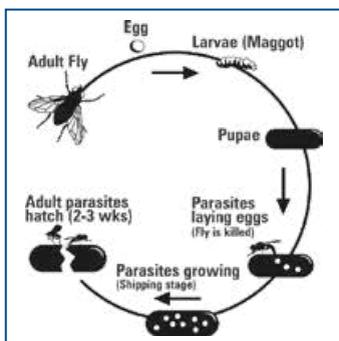


Adult Fly Eliminator emerging from fly pupa.

Fly Eliminators will only parasitize fly pupae and will not bother horses, cattle, livestock, pets, plants, or you.

## HOW DO FLY ELIMINATORS WORK?

Adult female flies lay their eggs in decaying organic matter, especially manure. Only a few hours later, these eggs develop into microscopic larvae (maggot stage) and burrow down into the manure. The maggots grow until they form a pupa (cocoon stage).



Life cycle of the fly parasite.

Then, the female Fly Eliminators seek out the fly pupae and begin to deposit their eggs inside. The eggs grow into larvae that feed on the developing fly, stopping the adult pest fly from hatching.

Fly Eliminators reproduce in about 21 days, constantly strengthening the Fly Eliminator population. Pest flies reproduce at a faster rate than our Fly Eliminators, so we recommend they be replenished on a regular basis, approximately every 2-4 weeks.

### Philadelphia Park Recommends ARBICO's Fly Eliminators

"I was introduced to Fly Eliminators 30 years ago at a Racetrack Symposium and have been using them ever since. They've done a fabulous job and I have recommended Fly Eliminators to many people! They're a great product! Their Fly Eliminators Program was green before green was popular. Without a doubt, this is the way to go. ARBICO Organics is a very good company!"



– Roy Smith, Former Track Manager of Philadelphia Park

## WHO USES FLY ELIMINATORS?

Our customers are all types of horse owners, from the single horse owner to large breeder, including racetracks and farms with many types of animals.

- Boarding Facilities
- Dairy Facilities
- Stables
- Aquariums
- Feed Lots
- Race Tracks
- Poultry
- Kennels
- Equestrian Hobbyists
- Urban Farmers
- Zoos
- Plus more

Please be sure to account for all of your livestock and other animals. Call for special reduced pricing for large facilities, mixed livestock areas and/or custom programs.



## HOW DO I USE FLY ELIMINATORS?

Your Fly Eliminators will arrive in a clear plastic bag which contains parasitized fly pupae in wood shavings.

1. When your Fly Eliminators arrive, check for any signs of hatching.
2. Store in a warm, dry place. Once the Fly Eliminators begin to hatch simply disperse them near breeding sites: manure piles; under water troughs; under bedding; corners of pens and feeding sites.
3. Cover with dirt or manure to protect your Fly Eliminators. They will then start to burrow down and search for fly pupae to lay their eggs in.
4. Repeat every 2-4 weeks.



Fly Eliminators and wood shavings in packaging.



## Use Your Fly Eliminators the RIGHT Way:

### RIGHT Time

- ✓ Start your Fly Eliminators Program before or as soon as your infestation starts
- ✓ Release once you have 3 nights in a row of 40°F temperatures
- ✓ If you start late, just add more Fly Eliminators to your order

### RIGHT Place

- ✓ Release at the end of the day – they're nocturnal
- ✓ Release near manure, urine soaked areas, feeding, watering & bedding areas

### RIGHT Amount

- ✓ The more Fly Eliminators, the fewer the flies

### RIGHT Schedule

- ✓ Shipments every 2-4 weeks are best to break the fly lifecycle

### Churchill Downs Chooses ARBICO Organics

"We started using Fly Eliminators back in 1983. We are still using them today. It's a wonderful product and a successful program that everyone should use! All the big corporations are going green and we were one of the first to go green by using Fly Eliminators."

– Butch Lehr, Former Track Manager of Churchill Downs



### Del Mar Thoroughbred Club Relies On ARBICO Organics

"The Del Mar Thoroughbred Club horse racing facility has been using Fly Eliminators from ARBICO since 1985 with great success. Each summer nearly 2,000 horses and hundreds of thousands of race goers converge on this community making fly control a top priority for both the Del Mar Thoroughbred Club and the community that relies so heavily on the agricultural product we promote. We appreciate the years of timely and professional service ARBICO Organics has provided and look forward to many more good years ahead."

– Joe Harper, Chief Executive Officer of Del Mar



## SPECIAL PRICING

### HOW TO ORDER:

Call **1-800-827-2847** or visit **www.arbico-organics.com**

**Only \$21.95**  
Per Shipment for 2-5 Horses  
USPS Shipping Included\* in Prices!

Number of Horses/Animals	Suggested Units <sup>†</sup>	Price Per Shipment
1	1/4 Unit	\$18.95
2 - 5	1/2 Unit	\$21.95
6 - 10	1 Unit	\$32.95
11 - 15	1 1/2 Units	\$43.95
16 - 20	2 Units	\$57.95
21 - 25	2 1/2 Units	\$71.95
26 - 30	3 Units	\$83.95
31 - 35	3 1/2 Units	\$95.95
36 - 40	4 Units	\$106.95
41 - 45	4 1/2 Units	\$118.95
46 - 50	5 Units	\$121.95
51 +	Please Call 1-800-827-2847	

**Order Your Fly Control Program Today!**

Please be sure to account for all of your livestock and other animals. Call for special reduced pricing for large facilities, mixed livestock areas and/or custom programs.

\*USPS shipping included up to 5 units.

<sup>†</sup>These are units of measurement, not warranties or guarantees of performance. The total seasonal cost of Fly Eliminators depends on the recommended number of shipments which may be different than what competitors may recommend. We recommend releasing a shipment every 2-4 weeks throughout the fly season, but releases ranging from 1-6 weeks are not uncommon. Customer experiences may vary. The quantity required and frequency of application can differ according to region, size and condition of property or stables, severity of fly problem, neighbors, manure management, number of animals and start date of program. All warranties, express or implied are disclaimed. One unit bag shown. © 2021 Arizona Biological Control, Inc.

## Essentria® IC-3 - Concentrate

**Kills & Controls Most Crawling & Flying Insects Most Anywhere You Find Them.**

**TARGET:** More than 60 flying and crawling pests including aphids, bedbugs, caterpillars, flies, mites, mosquitoes and ticks.

**DESCRIPTION:** This essential oil insecticide contains rosemary oil, geraniol and peppermint oil to provide immediate knockdown and long-term residual control. It can be used in food preparation areas, schools and other places where there is a high level of human traffic. It can also be applied directly to livestock, horses and poultry. This FIFRA 25(b) exempt product has Octopamine blocker technology and has no water setbacks.

**SUGGESTED USE:** Can be used indoors, outdoors, in fogging and mosquito misting systems on plants, turf and ornamentals and as a perimeter barrier. Can also be applied directly to livestock, horses and poultry. May be diluted with water or oil (for livestock applications). Use lower application rates for maintenance and higher for infestations. General pest control indoors (don't apply directly to houseplants): 0.5-6 fl. oz./gal. water. Bedbugs: 1-4 fl. oz./gal. water and apply as a spot treatment. Mound drench for fire ants: 2-4 fl. oz./gal. water. Mosquitoes and other biting insects: 1-3 fl. oz./gal. water. Turf/grass: 2-4 fl. oz./gal. water. Trees and shrubs: 1-2 fl. oz./gal. water.

<b>1273055</b>	Essentria IC-3 - Conc. - 1 Quart	<b>\$40.99</b>
<b>1273056</b>	Essentria IC-3 - Conc. - 1 Gallon	<b>\$129.99</b>



## Equiderma Horse Spray

**This Powerful Spray Has A Light Citrusy Scent.**

**TARGET:** All flies, mosquitoes and gnats. Will also inhibit ticks.

**DESCRIPTION:** This unique combination of botanical oils, neem and aloe will repel biting and blood-sucking insects, control future insect populations and protect your animal's skin from fungal and bacterial skin diseases. The oils are a powerful repellent; the neem oil has antibacterial, antiviral, anti-inflammatory and antifungal properties and also disrupts the insect life cycles, while the aloe helps protect the skin and keep the coat nice and shiny. DEET, Pyrethrin and Permethrin free and can be used on horses, ponies, foals, dogs, pigs, cows, llamas, alpacas and chickens.

**SUGGESTED USE:** For external use only. Dial spray down to its lightest spray; this spray is powerful. Apply sparingly with first application to test your horse's sensitivity to the essential oils contained. Heavy coverage may result in hives. However, this result is rare. If hives appear, cold hose the area thoroughly and re-apply using a lighter spray. If reaction continues, discontinue use.

<b>1107500</b>	Equiderma Horse Spray - 32 oz.	<b>\$28.49</b>
<b>1107501</b>	Equiderma Horse Spray - 1 Gallon	<b>\$99.99</b>



## PyGanic® Specialty

**New Label – Same Terrific Product As PyGanic 5.0!**

**TARGET:** Livestock and poultry pests as well as over 100 listed plant pests.

**DESCRIPTION:** With this OMRI listed, Pyrethrin-based insecticide you will be able to protect nearly everything you grow or raise from destructive and disease carrying insect pests. This includes the commercial production of livestock, poultry and crops. These commercial enterprises require more frequent and higher volume application rates than smaller scale producers and this concentrated version is easily adapted to these specific needs. PyGanic Specialty works best if it is applied when pests first appear, before there is a heavy infestation. Thorough coverage is also key; direct contact needs to be made with the pest insects.

**SUGGESTED USE:** For use on production animals in barns, dairies, milking parlors, milking rooms and poultry houses. For use on horse flies, house flies, mosquitoes and gnats, dilute at the rate of 1.5-3 fl. oz. per 1 gallon of water and apply. Please see label for more detailed instructions on other livestock and crop pests.

<b>1288770</b>	PyGanic Specialty - 32 oz.	<b>\$150.00</b>
<b>1288780</b>	PyGanic Specialty - 1 Gallon	<b>\$550.00</b>



## Ecovet™ Fly Repellent

**A Vet-Created Fly Repellent That Will Improve Insect-Related Skin Sensitivity.**

**TARGET:** All manner of flies (including stable and horn flies), ticks and lice.

**DESCRIPTION:** Ecovet uses a proprietary blend of naturally occurring fatty acids that disrupt and confuse the signals that insects are drawn to. The fatty acids in Ecovet are carried in a silicone oil during application. Once applied, the oil will evaporate in about 20-30 minutes, leaving just the fatty acids behind. They will then evaporate at a certain body temperature point, causing a "zone of repellency" around the animal. With regular use, you will even see improvement in Sweet Itch (hypersensitivity reaction to midge bites) problems with horses.

**SUGGESTED USE:** Only need to apply once every 2-3 days, depending on ambient temperature, fly pressure and rain (when treating for Sweet Itch, however, you should initially spray the animal twice a day until it is under control). Will not affect Fly Eliminators®, honeybees and other beneficials. Apply to hair coat using any commercially available small sprayer, suitable oil applicator or a soft cloth.

<b>1107550</b>	Ecovet Fly Repellent - 4 oz. bottle	<b>\$7.95</b>
<b>1107551</b>	Ecovet Fly Repellent - 18 oz. Bottle	<b>\$23.50</b>
<b>1107552</b>	Ecovet Fly Repellent - 1 Gallon Refill	<b>\$125.00</b>



## ADULT FLY TRAPS & REPELLENTS

### Biting Fly Trap

**No Poisons! No Baits! No Electricity!**

**TARGET:** Biting flies, stable flies, black flies and bottle flies.

**DESCRIPTION:** As discovered by Dr. D. E. Williams of the USDA, biting flies are attracted to sunlight as it shines through a particular type of fiberglass. A cylinder has been created of this fiberglass and coated with a clear sticky substance. They will be drawn in by the glass but unable to escape the stickiness. One trap can catch up to 5,000 flies!



Each package contains the following: 1 fiberglass cylinder, 1 wooden stake, 2 brass fasteners, 2 giant paper clips, 1 sticky sleeve, 1 replacement sleeve (additional sleeves can be purchased as needed) and complete instructions.

**SUGGESTED USE:** Any place biting flies are a problem, i.e., stables, kennels, zoos, compost piles, backyards, swimming pools, golf courses and beaches.

<b>1256020</b>	Biting Fly Trap - Pack of 1	<b>\$18.99</b>
<b>1256021</b>	Biting Fly Trap - Pack of 3	<b>\$48.95</b>
<b>1256022</b>	Biting Fly Trap - Pack of 5	<b>\$75.50</b>
<b>1256023</b>	Replacement Sleeves White - Pack of 1	<b>\$3.95</b>
<b>1256024</b>	Replacement Sleeves White - Pack of 3	<b>\$8.25</b>
<b>1256025</b>	Replacement Sleeves White - Pack of 5	<b>\$12.50</b>

### Captivator® & Fly Terminator® Pro Fly Traps

**These Budget Friendly Fly Traps Can Give You Months of Fly Control.**

**TARGET:** Filth-breeding flies.

**DESCRIPTION:** These lightweight, yet heavy-duty, reusable traps can stand up to the elements and trap tens of thousands of flies in a season. Take care to choose a location that is away from where you and your animals want to be as this trap is very smelly and will quickly attract the flies.

The Captivator is a 2-qt size, while the Fly Terminator Pro is a gallon size. The Captivator comes with one 30 gm. water-soluble attractant pouch and the Fly Terminator Pro comes with two. Attractant refills available.

**SUGGESTED USE:** It only takes 3 easy steps to get things going with these traps: dump attractant in, add water and place outside. Rinse and rebait when it dries out, becomes full of flies, or after 30 days.



<b>1256051</b>	Captivator Fly Trap	<b>\$10.99</b>
<b>1256052</b>	Terminator Pro Fly Trap	<b>\$26.50</b>
<b>1256053</b>	Starbar Fly Trap Attractant Refill - 8 ct.	<b>\$11.50</b>



### ARBICO Organics® Solar Fly Trap

**FREE SHIPPING**

**Heavy Duty, Reuseable, Portable & Lightweight Fly Trap!**

**TARGET:** Adult flies.

**DESCRIPTION:** This built-to-last, rust-free, heavy duty trap goes anywhere to reduce existing fly populations, fly blooms and migrant flies. Used by gardeners, pet owners, kennels, horse owners, breeding and training facilities, dairies, poultry and swine facilities, feedlots and other places where flies are a problem. Dimensions: 12" diameter x 10.5" tall.

**SUGGESTED USE:** Mix the yeast bait with water and pour into container at the bottom of the trap. Within seconds flies are lured into the trap. They enter into the confinement chamber and dehydrate from exposure to the sun. When it begins to fill up with flies, just empty, hose out and reset with new bait. Comes with one packet of bait, which is enough for approx. 5 weeks. Use 1 trap for 5-10 horses.

<b>1256001</b>	ARBICO Organics Solar Fly Trap - Includes 1 Bait	<b>\$90.00</b>
<b>1256005</b>	ARBICO Organics Solar Fly Trap - Includes 4 Baits	<b>\$108.00</b>
<b>1256002</b>	Replacement Fly Bait	<b>\$9.99</b>
<b>1259990</b>	ARBICO Organics Solar Fly Trap - 2 Pack	<b>\$174.00</b>
<b>1259991</b>	ARBICO Organics Solar Fly Trap - 3 Pack	<b>\$255.00</b>
<b>1259992</b>	ARBICO Organics Solar Fly Trap - 4 Pack	<b>\$332.00</b>

Replacement parts available online.

\*FREE SHIPPING via ground or US Mail ONLY.

### REVENGE® Mini Fly Reel Kit

**NEW**

**Easy to Hang, But Hard on Flies.**

**TARGET:** Common houseflies.

**DESCRIPTION:** This handy kit contains a full reel (81') of fly tape and an empty take-up reel. Simply mount the two and run the tape between them. When fly tape becomes full of flies, roll out some fresh tape. Using an environmentally safe, non-drying glue, this fly tape is extremely effective and long-lasting.

**SUGGESTED USE:** Hang the Mini Fly Reel about 5" from the ceiling and away from drafts. Using the enclosed screws, screw through hole in center of spindle to attach to wall or ceiling. Mount the take-up reel 8-12' from the fly reel in a straight and level line. Remove protective paper and pull tape over to take-up reel. Wind onto take-up reel several times to attach securely.



<b>1280611</b>	REVENGE Mini Fly Reel Kit	<b>\$8.49</b>
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## BIOLOGICAL CONTROL

### Mosquito Bits®

**Harness The Power Of Bti For A Clean, Quick Kill.**

**TARGET:** Mosquitoes and fungus gnats.

**DESCRIPTION:** Mosquito Bits uses the biological larvicide *Bacillus thuringiensis v. israelensis* (Bti) to quickly kill mosquito larvae in a wide range of habitats. When spread uniformly over the surface of water, the Bti will float down into the water where the larvae will consume it and die; usually within 24 hours. Bits are not harmful to people, animals or plants. Repeat after a 7-10 day interval. For Fungus Gnat control: Spread the granules over the soil until the area is covered. Moisture in the soil will dissolve the Bits. Re-apply every 3 weeks.



**SUGGESTED USE:** Sprinkle 1 teaspoon per 25 sq. ft. or 1 tablespoon per 75 sq. ft. (½ lb. per 2178 sq. ft.) over the surface of containerized standing water. This includes bird baths, water troughs, unused swimming pools, old automobile tires, water gardens, rain barrels and more. DO NOT APPLY to finished human drinking water sources.

1211108	Mosquito Bits - 8 oz.	\$10.95
1211136	Mosquito Bits - 30 oz.	\$17.80
1211130	Mosquito Bits - 20 lbs. in 5 Gal. Bucket	\$119.00
1211139	Mosquito Bits & Dunks Combo Kit	\$18.99

### Mosquito Dunks®

**Simply Place In Standing Water To Kill Mosquitoes Where They Grow.**

**TARGET:** Mosquitoes.

**DESCRIPTION:** When placed in standing water, Mosquito Dunks will float on the water and they will slowly release the bacteria *Bacillus thuringiensis v. israelensis* (Bti) as they melt. This bacterium is a potent mosquito larvicide and as it disperses into the water it is eaten by, and kills, the mosquito larvae growing there. Dunks can be anchored with a string to keep them from washing away. They can also alternate between being wet and dry without losing effectiveness. Bti targets specific pests and is not harmful to people, animals or plants. Each dunk is effective for 30 days.



**SUGGESTED USE:** Use 1 dunk for 100 sq. ft. of water. Use in any containerized standing water found near the home, except finished, treated drinking water. This includes bird baths, water troughs, unused swimming pools, old automobile tires, water gardens, sump pumps and more.

1211101	Mosquito Dunks - 6 Pack	\$13.95
1211103	Mosquito Dunks - 20 Pack	\$22.95
1211139	Mosquito Bits & Dunks Combo Kit	\$18.99

### AQUABAC® 200G Granular Bti Mosquito Control



**Use This Bti Larvicide Wherever You Have Mosquitoes Breeding**

**TARGET:** Larval stages of mosquitoes and black flies.

**DESCRIPTION:** AQUABAC 200G contains *Bacillus thuringiensis var. israelensis* (Bti), a bacteria that specifically targets mosquitoes and black flies in their larval stage, but is harmless to other living things. Once ingested, Bti will work quickly to damage cells and paralyze the larva. In addition, since AQUABAC 200G does not affect larva predators, they will continue their work alongside the Bti.



**SUGGESTED USE:** Can be applied to almost any habitat that supports mosquito or black fly larvae. Do not use directly in water sources for human consumption. Broadcast by hand or hand spreader in small areas or by standard ground or aerial dispersing methods for larger areas. If water is clear, broadcast at 2.4-10 lbs. per acre. If water is brackish, murky, polluted or full of algae, broadcast 10-12 lbs. per acre. Lasts for approximately 2 weeks.

**1211150** AQUABAC Granular Bti - 40 lb. - **Free Shipping\*** **\$187.00**  
 \*Free Shipping on 40 lb. bag only, in the contiguous 48 states.  
 Ships via Ground ONLY. Call for pallet pricing.

### AQUABAC® Xt



**Use This Powerful Biocontrol Liquid To Kill Mosquito Larvae In Water.**

**TARGET:** Larval stages of mosquitoes, fungus gnats, aquatic midges and nuisance flies.

**DESCRIPTION:** This *Bacillus thuringiensis var. israelensis* (Bti) offers the same powerful pest control in a convenient liquid form. Bti is a bacterial that expressly targets mosquitoes, fungus gnats, aquatic midges and nuisance flies in their larval stages. Once ingested, it will work rapidly to damage cells and fatally paralyze the larva. AQUABAC Xt will not harm any other form of aquatic life or beneficial insects.



**SUGGESTED USE:** This product can be applied via conventional aerial and ground application equipment (or metered release system) in nearly any habitat that supports the targeted pest larvae. For mosquitoes, use between .25-2.0 pts./100 gals. Higher rates apply when water is polluted, adult populations are high or there is a lot of algae. Do not apply this product in any type of irrigation system or in any sources of water that are for direct human consumption. More specific application rates can be found on the package label.

1211160	AQUABAC Xt - 2.5 Gallons*	\$190.00
1211161	AQUABAC Xt - 2.5 Gallons/Case of 2*	\$340.00

\*Free Shipping in the contiguous 48 states. Ships via Ground ONLY.  
**Cannot be shipped to the following states: NY**

## Earth Juice® goGnats™



**A Pleasantly Fragrant & Highly Effective Minimal Risk Pesticide.**

**TARGET:** Gnats, midges, mites, thrips, aphids, whiteflies, moths, mosquitoes, ants and more.

**DESCRIPTION:** Made of 33% cedarwood oil, goGnats will deliver the broad-spectrum control you need and leave you with a pleasant aroma. This versatile insecticide can be used as a foliar spray or barrier spray, and as a soil drench. It can also be added to most liquid feeding solutions. Can be used in gardens, hydroponics, and on container plants - but **only** use it on ornamental, non-food and non-feed crops. EPA registration exempt under section 25(b) of FIFRA.

**SUGGESTED USE: Hydroponics:** 1-1.5 fl. oz. /10 gals. of solution. Add to reservoir every 2 weeks at nutrient solution change. **Area Spray:** 2.6 fl. oz. / gal. water. Spray directly on infested area or apply to perimeters to create a barrier. Apply 2 times the first week, then re-apply every 2 weeks. **Plant Spray:** 1.7 fl. oz. /gal. water. Spray entire plant. Apply 2 times the first week, then re-apply every 2 weeks.

<b>1458080</b>	Earth Juice goGnats - 1 Pint Conc.	<b>\$23.49</b>
<b>1458081</b>	Earth Juice goGnats - 1 Quart Conc.	<b>\$41.99</b>

**Cannot be shipped to the following states:** AL, ID, IN, IA, LA, ME, MS, NM, NC, ND, NE, OH, OK, PR, RI, SC, WI



## Mosquito Barrier®

**For Yards, Parks & Grass Areas – Keeps Mosquitoes Away!**

**TARGET:** Mosquitoes, gnats and fleas.

**DESCRIPTION:** Liquid garlic repellent dissipates within minutes of application. Kills adults on contact and suffocates larvae in standing water within approximately 24 hours. Saturate all plants including grass, vegetables and trees. Applications last up to 4 weeks.

**SUGGESTED USE: Residential** (1/2 acre): 4 oz. Mosquito Barrier & 2 gallons of water. **Medium Areas** (1.25 acres): 1 quart Mosquito Barrier & 20 gal. of water. **Large Areas** (5 acres): 1 gallon Mosquito Barrier & 98 gallons of water.

<b>1211001</b>	Mosquito Barrier - 1 Quart	<b>\$24.50</b>
<b>1211002</b>	Mosquito Barrier - 1 Gallon	<b>\$79.90</b>

**This product cannot be shipped to the following states:** ID, KS, WY



## SNS 203™ Root Drench Pesticide



**First-Rate Control For Soil-Dwelling Pests That Feed On Roots & Stalks.**

**TARGET:** Kills and repels fungus gnats, root aphids, thrips, shore flies and whiteflies.

**DESCRIPTION:** Made of 100% pure rosemary and clove botanical extracts that cause dehydration and death and will also attack fungus and algae. All botanical extracts are food-grade materials, highly water soluble & completely biodegradable. Created as a root drench, but equally effective as a foliar spray and in hydroponics. For use on a wide range of plants, fruits, and vegetables. 0-hr REI.

**SUGGESTED USE:** Soil drench: 1 gal mixed solution to 10 gal potted plants or 230 sq ft. Mix 4-8 TBSP or 2-4 oz\*/1 gal water. Foliar Spray: 1 gal of mixed solution will cover approx. 550 sq ft. Mix 4-12 TBSP or 2-6 oz\*/1 gal water. Spray to point of runoff and reapply 2-5 times every 2-3 days. \* Pouch: Mix contents with 32 oz of water and drench or spray area thoroughly. Hydroponic instructions available on label. \*Depending on severity of infestation.

<b>1459130</b>	SNS 203 Root Drench - 16 oz. Conc.	<b>\$24.00</b>
<b>1459131</b>	SNS 203 Root Drench - 1 Gallon Conc.	<b>\$110.00</b>
<b>1459132</b>	SNS 203 Root Drench - 5 Gallons Conc.	<b>\$440.00</b>
<b>1459135</b>	SNS 203 Root Drench Pouch Conc. - Makes 32 oz.	<b>\$7.99</b>

**Cannot be shipped to the following states:** AL, AK, AR, CT, DE, GA, IN, IA, KS, LA, MS, NH, NM, ND, SD, UT, WV, WY



## Mosquito Magician

**An Essential Oil-Based Product That Offers 3-in-1 Mosquito Control.**

**TARGET:** *Aedes Aegypti* mosquitoes, gnats, no-see-ums and other biting, flying insects.

**DESCRIPTION:** Mosquito Magician is a liquid, highly concentrated product that suffocates larvae in the standing water where they breed, kills adult mosquitoes on contact and repels for up to 2 weeks in a single treatment. Made with a combination of citronella, cedar, lemongrass, garlic, geraniol and rosemary oils, Mosquito Magician sprays in a very fine mist for maximum coverage and control. Mosquito Magician has been tested on the *Aedes aegypti* mosquito and was shown to have a 98% mortality rate and an 83% long term repellency rate from just one application. This is the mosquito that carries the Zika, West Nile and Chikungunya viruses, as well as malaria and dengue fever.

- You can buy some concentrate and use your own sprayer or choose from one of the Mosquito Magician Yard Sprayer Combos listed below.

**SUGGESTED USE:** 1 pint concentrate treats up to 16,000 sq. ft.; 1 quart concentrate treats up to 32,000 sq. ft.; 1 gallon concentrate treats up to 128,000 sq. ft. and 1 gallon RTU treats up to 4,000 sq. ft.

<b>1211140</b>	Mosquito Magician - 16 oz. Concentrate	<b>\$22.99</b>
<b>1211141</b>	Mosquito Magician - 32 oz. Concentrate	<b>\$39.99</b>
<b>1211142</b>	Mosquito Magician - 1 Gallon Concentrate	<b>\$99.99</b>
<b>1211145</b>	Mosquito Magician - 1 Gallon RTU	<b>\$24.99</b>

### Mosquito Magician Yard Sprayer Combos

<b>1211146</b>	Hose End Sprayer & 1 Gallon Mosquito Magician	<b>\$99.95</b>
<b>1211147</b>	Pump Up Sprayer & 2 Pints Mosquito Magician	<b>\$79.95</b>
<b>1211148</b>	Pump Up Sprayer & 1 Gallon Mosquito Magician	<b>\$129.95</b>
<b>1211149</b>	Pump Backpack Sprayer & 1 Gal. Mosquito Magician	<b>\$199.95</b>





## Mosquitoes Transmit Serious Disease



**Humans:** Zika Virus, West Nile Virus, Malaria, St. Louis Encephalitis, La Crosse Encephalitis

**Dogs and Cats:** Dog Heartworm

**Horses:** Eastern Equine Encephalitis Virus, Western Equine Virus, West Nile Virus, St. Louis Encephalitis

**Livestock:** Encephalomyelitis, Anaplasmosis, Swamp Fever, Fowlpox

## BONIDE® Mosquito Beater Granules

Simply Sprinkle These For Lasting Mosquito Relief!

**TARGET:** Mosquitoes.

**DESCRIPTION:** Made from biodegradable essential oils, these granules can be sprinkled right from the container for mosquito control wherever you need it (although it is not for aquatic use). It takes only 1 hour for this lovely smelling repellent to be effective and then it will retain its efficacy for 3 weeks. If treating larger areas, allow a longer period prior to occupancy.

**SUGGESTED USE:** Rainfall, temperature and wind may affect effectiveness. For optimal results, apply in the early evening in dry conditions with little or no wind. Broadcast directly from the container or apply with a lawn spreader, dust gun or a hand crank duster (available online). Reapply as needed.

- 1211305** Mosquito Beater Granules - 8 oz. (Treats 1,500 sq. ft.) **\$7.99**
- 1211310** Mosquito Beater Granules - 1.3 lbs. (Treats 4,000 sq. ft.) **\$15.49**



## Skeet-O-Trap™



A Reusable Mosquito Trap That Uses No Electricity, Smoke, Chemicals, Or Sprays.

**TARGET:** The most common mosquito species.

**DESCRIPTION:** This no-fuss water-based mosquito trap mimics the breeding sites of mosquitoes, which entices the females to lay their eggs in it. The inner screen will then trap the larvae and keep them from escaping. Lightweight yet durable, and compact, this trap will work through all but the most extreme weather and keep working as long as you need it. Safe for use around people and pets.

**SUGGESTED USE:** Add water and grass clippings. Place in a shaded area away from where people gather. Clean and refill as needed.



- 1280760** Skeet-O-Trap **\$11.29**

## Natular® DT

These Easy-to-Use Fizzy Tablets Kill Mosquito Larvae For 60 days!

**TARGET:** Use to kill the larvae of container breeding mosquitoes, e.g., *Aedes aegypti* and *Aedes albopictus*.

**DESCRIPTION:** Use this Spinosad-based product to kill mosquito larvae in standing water. These small bi-layer tablets use a dual-release action to ensure a quick kill and continuous control. The first layer is effervescent and will bubble up, dissolve and spread within 60 seconds and begin killing larvae within 24 hours. The second layer dissolves more slowly over the next 60 days. Can be applied to sites that contain fish and plants. Poses no threat to honeybees and other beneficials. Tablets may be cut in half for use in smaller areas.

**SUGGESTED USE:** Use 1 tablet to treat up to 50 gallons (192 liters) or 25 sq. ft. For continuous action, keep tablet immersed in water. Can be allowed to dry and rewet for use in sites that intermittently fill with water. Reapply after 60 days. Can be applied as a preventative action (pre-flood treatment) before sites fill with water.

- 1211250** Natular DT - 60 day tablet - 12 ct. Package **\$11.75**



## Natular® G30 WSP

An Exceptional Larvicide In Convenient Water Soluble Pouches.

**TARGET:** Most common vector and nuisance mosquitoes, including *Aedes*, *Anopheles* and *Culex*.

**DESCRIPTION:** Using Spinosad as an active ingredient, Natular G30 WSP is an extremely effective and easy-to-use mosquito larvicide. Spinosad is a potent nerve agent that provides exceptional control from the 1st-4th instar stages of larval. It is highly selective to insects, so there is very low toxicity to mammals, other non-target organisms, honeybees and beneficials. This eco-friendly formulation breaks down quickly in the soil and degrades rapidly in sunlight. Each pouch contains 10 grams of product and will dissolve quickly in water. These lightweight pouches come in a convenient re-sealable bag, so you can easily reach in and get just what you need.

**SUGGESTED USE:** Apply 1 or 2 pouches per listed site per 100 sq. ft. (up to 2 feet in depth), or 1 pouch per 750-1500 gallons. Use entire contents of water soluble pouch, do not break open or use partial contents of a pouch. Reapply after 30 days. More frequent applications may be made when conditions warrant. For applications in storm or water drainage areas, sewers and catch basins, place 1 or 2 pouches into each catch basin. For applications to small contained site (less than 100 sq. ft), use 1 single pouch per site.

- 1211255** Natular G30 WSP - single - 10 g pouches/50 ct. **\$69.75**
- 1211257** Natular G30 WSP - 10 g pouches/50 ct./case of 10 **\$685.50**

**Cannot be shipped to the following states:** AK, CT, IA, MD, ME, MI, NC, NH, RI, SD, VT, WI



## PERSONAL REPELLENTS

### BiteBlocker® Insect Repellents

#### DEET Free Protection From Biting Pests.

**TARGET:** Mosquitoes, black flies, gnats and no-see-ums (biting midges).

**DESCRIPTION:** This extremely effective, DEET-free insect repellent is both sweat and waterproof and safe to use on every member of your family. Made with active ingredients of Soybean and Geranium oils and mild inert ingredients, these long-lasting repellents are gentle on the skin.

**SUGGESTED USE:** BiteBlocker Insect Repellent and BiteBlocker Family Safe Pen repel up to 3 hours (apply every 2 hours for maximum protection); BiteBlocker Xtreme repels up to 8 hours. For added protection, add to clothing.



<b>1211820</b>	BiteBlocker Family Safe Pen - Single - .5 oz.	<b>\$3.60</b>
<b>1211821</b>	BiteBlocker Family Safe Pen - 2 pack - .5 oz. each	<b>\$6.00</b>
<b>1211815</b>	BiteBlocker Herbal Insect Repellent Spray - 4.7 oz.	<b>\$7.99</b>
<b>1211819</b>	BiteBlocker Xtreme Insect Repellent - 6 oz.	<b>\$8.98</b>

### Protector Spray Repellent - Mosquitoes

#### Don't Let Mosquitoes Ruin Your Outdoor Life!

**TARGET:** Mosquitoes, gnats and other insects.

**DESCRIPTION:** Mosquitoes can make any outing miserable and carry many serious diseases. This Deet-free spray repellent uses lemongrass, geranium, peppermint and cinnamon essential oils to provide full protection without the nasty smell, stickiness and harmful ingredients of toxic bug sprays. Mosquito-borne diseases are not limited to people; there are a number of potentially fatal diseases that affect animals and Protector works just as well for animals it does for people. It has been formulated so that you can apply the spray directly to your pet's fur for thorough protection. In addition to the Spray Repellent, we offer Protector Spray Pen Repellent and the Protector Balm Stick Repellent. These are ideal for taking your bug protection with you wherever you go.

**SUGGESTED USE:** Thoroughly spray product on exposed skin or pet's fur and allow to dry without wiping. Reapply as needed.

<b>1212020</b>	Protector Spray - Mosquitoes - 2 oz.	<b>\$2.99</b>
<b>1212021</b>	Protector Spray - Mosquitoes - 4 oz.	<b>\$4.99</b>
<b>1212022</b>	Protector Spray - Mosquitoes - 8 oz.	<b>\$6.99</b>
<b>1212028</b>	Protector Balm Stick - Mosquitoes - 2 Pack	<b>\$5.99</b>



### Bug Bam Mosquito Band®, Camp Grids & Pet Tags

#### Keep Mosquitoes, Fleas & Ticks Off Your Family & Pets The Natural Way!

**TARGET:** Mosquitoes, fleas and ticks.

**DESCRIPTION:** Adjustable bands are one-size fits all and measure about 9.8" long x .47" wide. Waterproof, sweat-proof and work by masking human odors. Grids cover up to 300 sq. ft. Plastic is impregnated with essential oils of citronella, lemongrass and geranium.



**SUGGESTED USE:** Hang grids indoors or outdoors. Bands and grids last up to 100 hours; each pet tag lasts up to 15 hours.

<b>1211700</b>	Bug Bam! Mosquito Band - 2 Pack	<b>\$5.00</b>
<b>1211703</b>	Bug Bam! Mosquito Band - 2 Pack - Bundle of 10	<b>\$36.00</b>
<b>1211702</b>	Bug Bam! Mosquito Band - 2 Pack - Case of 24	<b>\$84.00</b>
<b>1211809</b>	Bug Bam! Mosquito Grid - 1 Pack	<b>\$6.00</b>
<b>1211812</b>	Bug Bam! Mosquito Grid - Bundle of 5	<b>\$25.00</b>
<b>1211813</b>	Bug Bam! Mosquito Grid - Bundle of 10	<b>\$45.00</b>
<b>1211811</b>	Bug Bam! Mosquito Pet Tags - 2 Pack	<b>\$7.00</b>
<b>1211816</b>	Bug Bam! Mosquito Pet Tags - 2 Pack - Bundle of 5	<b>\$30.00</b>
<b>1211817</b>	Bug Bam! Mosquito Pet Tags - 2 pack - Bundle of 10	<b>\$55.00</b>

### Medella Naturals™ Insect & Mosquito Repellent Spray

#### You Will Love The Smell, But Biting Insects Will Not.

**TARGET:** Mosquitoes and other biting insects.

**DESCRIPTION:** This repellent spray has a lemongrass and vanilla fragrance so remarkable that you'll be tempted to use it as an air freshener. But, don't waste it that way – it's truly a treasure in the way it keeps mosquitoes and other biting insects at bay. This DEET free, essential oil-based spray contains no synthetic or petroleum ingredients and can be used on everyone in the family – including pets. No oily residue. Not tested on animals and made with no animal by-products.

**SUGGESTED USE:** Shake well before using. Spray liberally on dry exposed skin, avoiding eyes. Reapply every 2 hours or as needed.

<b>1212050</b>	Insect & Mosquito Repellent Spray - 2 oz.	<b>\$5.99</b>
<b>1212051</b>	Insect & Mosquito Repellent Spray - 4 oz.	<b>\$7.99</b>
<b>1212052</b>	Insect & Mosquito Repellent Spray - 8 oz.	<b>\$10.99</b>



## ARBICO Organics® Compost Plus

**Revitalizes Soil And Speeds Up Decomposition Of Organic Matter.**

**TARGET:** Soils in need of nutrients and beneficial microorganisms.

**DESCRIPTION:** This premium compost is product of our insectary and is a blend of fermented nitrogenous and carbonaceous material along with beneficial bacteria, insect frass and wood shavings. Use compost as a mulch and soil amendment to improve soil structure, texture, aeration, water-holding capacity and to provide additional nutrition for microorganisms.

**SUGGESTED USE:** For potted plants, use 3-10 Tbsp. per pot. Otherwise, mix 1 lb./12 sq. ft. of soil. 2 cu. ft. of compost will treat 50 sq. ft. For farms, 2-4 tons will treat 1 acre.



<b>1305601</b>	Compost Plus - 1 lb. Bag	<b>\$8.90</b>
<b>1305602</b>	Compost Plus - 5 lb. Bag	<b>\$11.50</b>
<b>1305610</b>	Compost Plus - 1 Cubic ft. Bag	<b>\$17.00</b>
<b>1305603</b>	Compost Plus - (2) 1 Cubic ft. Bags	<b>\$28.00</b>
<b>1305607*</b>	Compost Plus - 1/2 Ton Pickup Truck Load	<b>CALL</b>

\*Call to arrange pickup. Pickup in Catalina, AZ.

## ARBICO Organics® Earthworms - *Eisenia fetida*

**A Natural Way To Aerate Your Soil & Fertilize Your Garden.**

**TARGET:** Use in soil or vermicomposting.

**DESCRIPTION:** These red wigglers are nature's decomposers and soil aerators. They consume organic matter and turn it into castings full of nitrogen, phosphorus, potash, magnesium and calcium. As they move through the soil, they break it up and introduce beneficial bacteria and oxygen. This stimulates fungal activity and more rapid breakdown of organic matter. Plants love soil that these worms have been in!

**SUGGESTED USE:** Use 2-3 worms/sq. ft. 1,000 worms cover approximately 400 sq. ft.

<b>1308003</b>	ARBICO Organics Earthworms (≈1,000)	<b>\$45.00</b>
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**Subject to seasonal availability.**



## Black Soldier Fly Larvae Frass



**Contains Nutrients And Chitin For Stronger, Healthier Plants.**

**TARGET:** Soils that need amending.

**DESCRIPTION:** This high quality frass is a byproduct of Black Soldier Fly larvae and contains their waste, exoskeletons and leftover food. BSF larvae are voracious eaters and will thoroughly and efficiently break down decaying plant and other materials as they feed. In this process, they release nitrogen, phosphorous and other nutrients. As the larvae eat and mature, they grow and molt. This molting process leaves bits of exoskeleton, called chitin, in their frass. Plants react to chitin in the soil as if there are insects present. In response, they make themselves stronger by producing bigger and healthier parts and fortifying their overall cell structure. Their insect defense translates into more bountiful plants for you.

**SUGGESTED USE:** Can be used on anything grown indoors or outdoors. Mix into soil or growing medium or add as a top dress to plantings. Apply at a rate of one cup frass to one cubic foot of soil mix.



<b>1300420</b>	Black Soldier Fly Larvae Frass - 1 lb.	<b>\$9.85</b>
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## ARBICO Organics® Earthworm Castings

**So Good For Your Garden It's Almost Magical!**

**TARGET:** Soils that need nutrients and microbial life.

**DESCRIPTION:** A sustainable byproduct of vermiculature, these castings have a bounty of benefits for your soil. They provide a slow release of micronutrients and trace minerals, add microbial life, reduce transplant shock, aerate and condition the soil and add chitinase (which helps in disease suppression and root knot nematode control). Can be used indoors and outdoors on anything you grow and can be used with other fertilizers and amendments.

**SUGGESTED USE:** Mix into potting soil at the rate of 3%-5% by volume. Top-dress around pots beds, shrubs, trees or rows at a rate of 1/4" - 1/2" every 2-4 mos. Incorporate into the top several inches of pots or beds prior to planting or mulching. Repeat when transplanting to reduce shock. Apply onto turf and rake in for lush, green grass.

<b>1308200</b>	Earthworm Castings - 1 lb. Bag	<b>\$4.95</b>
<b>1308201</b>	Earthworm Castings - 5 lb. Bag	<b>\$15.20</b>
<b>1308202</b>	Earthworm Castings - 10 lb. Bag	<b>\$25.00</b>
<b>1308203</b>	Earthworm Castings - 25 lb. Bag	<b>\$47.95</b>



## ARBICO Organics® Root Build 240™ Mycorrhizal Fungi



This Potent Mycorrhizal Fungi Has An Incredible 240 Spores/gr To Maximize Root Colonization.

**TARGET:** The benefits of introducing mycorrhizal fungi to your soil are numerous: accelerate and increase plant growth; increase plant yield and quality; increase absorption of water and nutrients; and promote plants tolerant to disease, drought & salinity.

**DESCRIPTION:** New Root Build 240 contains both micronized Endo and Ecto mycorrhiza for a wide range of plant applications. This greater diversity in beneficial fungi meets the needs of a greater variety of plants. When introduced early in the life of a plant, the endo and ecto will increase the roots' ability to absorb water and nutrients. Endomycorrhizae work within and around the roots of most vegetables, grasses, flowers and ornamentals while ectomycorrhizae live only on the outside of roots and focus on conifers. The high spore count in Root Build 240 means there will be maximum colonization of your plants' roots. Endo Spores: 240 spores/gr. Ecto Spores: 1 x 10<sup>6</sup> spores/gr.

**SUGGESTED USE:** Inoculate roots with mycorrhizal spores (1 oz. is ≈ 3 Tbsp.) For vegetables, grasses, flowers, shrubs, fruit trees and ornamentals.

1135001	ARBICO Organics Root Build 240 - 1 oz.	\$9.00
1135002	ARBICO Organics Root Build 240 - 2 oz.	\$12.50
1135003	ARBICO Organics Root Build 240 - 8 oz.	\$31.50
1135004	ARBICO Organics Root Build 240 - 1 lb.	\$45.00
1135005	ARBICO Organics Root Build 240 - 10 lbs.	\$329.00

\*Free shipping in the contiguous 48 United States via USPS mail.



## Inocucor™ Garden Solution



Stimulate Root Growth And Boost Yields With This Special Blend Of Microbes & Enzymes.

**TARGET:** High value crops in farms, fields, greenhouses, hydroponic and aquaponics systems.

**DESCRIPTION:** This OMRI listed biological soil inoculant serves as a catalyst to stimulate root growth and microbial activity to boost harvest yield and quality. Proven effective, this blend is designed to benefit a wide-selection of high-value crops. It reduces the effects of abiotic stress factors like transplanting, drought and soil salt content. In addition to the beneficial microbes, Inocucor Garden Solution contains an optimal blend of enzymes to stimulate microbial colonization in the soil. This ensures development of a healthy and bioactive root zone and boosts plant vigor.

**SUGGESTED USE:** Dilute 100x in water (or 3 tsp. per gal.). Apply throughout growing season or every 30 days. For stressed plants, add 6 tbsp. per gal. and apply weekly.

1202150	Inocucor Garden Solution - 1 Liter	\$18.15
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## Great White® Premium Mycorrhizae

Promote Strong Root Systems, While Reducing Water & Fertilizer Needs!

**TARGET:** Use for seed starts, transplants and plants suffering from stress, low yields and poor health.

**DESCRIPTION:** Great White Premium Mycorrhizae is a concentrated formula that boosts nutrient and water absorption generating root development, plant growth and yield. Water soluble, this product is easy to apply and will quickly begin interacting with plants. It features:

- 15 different species of various endo and ectomycorrhizal
- 14 different species of beneficial bacillus bacteria
- 2 species of trichoderma (commonly found to help fight against fungal diseases, i.e., *Sclerotinia sclerotiorum*, *Botrytis*, *Fusarium*, and *Penicillium*)
- Plant vitamins

**SUGGESTED USE:** For hydroponic, drenching or injection applications, mix at a ratio of about 1 tsp. /2 gal. of water or ≈ 1 part/2 parts water.

2000064	Great White Mycorrhizae - 1 oz.	\$18.49
2000065	Great White Mycorrhizae - 4 oz.	\$34.95
2000066	Great White Mycorrhizae - 8 oz.	\$63.95
2000067	Great White Mycorrhizae - 32 oz.	\$199.99
2000072	Great White Mycorrhizae - 5 lbs.	\$380.70

Cannot be shipped to the following states: HI, IL, OK, SD, PR



## Mikrobs



Self-Propagating Microbes & Supplemental Nutrition For Long-Term Benefits

**TARGET:** Potted plants, row crops, garden beds, transplants, turf and more.

**DESCRIPTION:** This finely powdered, organic soil amendment/bioinoculant contains three microbes (Rhizobacteria, Trichoderma fungi and Mycorrhizal fungi) and supplemental nutrients. This blend of microbes works synergistically together to maximize their effect and the nutrients (humic/fulvic acid, amino acid, kelp, molasses) provide ongoing nutritional support for the microbes as they stimulate root growth and work their way into the soil. Once the microbes are established, they will out compete fungal pathogens, insects, and/or parasitic bacteria. Ultimately, Mikrobs will create a self-sustaining ecosystem with active propagation.

**SUGGESTED USE:** 1 tsp/ 1 gal of distilled or tap water every 7-10 days. Can increase to 1 tbl for better output. Application interval by growth stage-vegetative development: 7-10 days, fruiting: 2 wks and to maintain general plant health against biotic/abiotic stresses: 2-3 weeks

1202500	Mikrobs - 8 oz. Pouch	\$22.90
1202501	Mikrobs - 1 lb. Pouch	\$43.50
1202502	Mikrobs - 5 lb. Pail	\$169.00
1202503	Mikrobs - 35 lb. Pail	\$940.00

Cannot be shipped to the following states: State(s)



## Glacial Rock Dust

**CDFA Registered, Deep-Down Goodness For Your Plants**

**TARGET:** Soils that need a boost of trace and essential minerals.

**DESCRIPTION:** This natural mineral product can provide soil with essential and trace minerals that have been lost due to farming, erosion, leaching, weather and time. Sourced from rocks deep under glacial ice that have been able to keep their minerals intact, this goodness is ready to go right into your soil. After application, the minerals will slowly release into the soil for long-term benefits. GRD can also improve the overall structure of soil, which heightens drought resistance and improves microbial life. Responsibly harvested without chemical extraction.

**SUGGESTED USE:** Gently dig into soil surface once a month or as desired. In gardens and landscapes: use up to 5 lbs. per 200 sq. ft. or 25 lbs. per 1,000 sq. ft. For transplanting, premixing soil or top dressing: Mix 1 tbsp. per gallon of soil or growing medium.

**1308090** Glacial Rock Dust - 5 lbs. **\$16.95**



## VRD: Volcanic Rock Dust™



**This Easy-to-Use Amendment Unleashes Mineral Power From Deep In The Earth.**

**TARGET:** Soils that will benefit from remineralization.

**DESCRIPTION:** VRD is sourced from Indonesia, where it is mechanically extracted in an ecologically sound manner without using chemicals. Then it is meticulously sifted through a 200 mesh screen until it turns into a smooth dust that will slowly release in the soil. VRD contains calcium, magnesium, iron, sodium and naturally occurring hydrophobic fulvic acid. It can be applied to soil (or a growing medium), used as a top dressing, made into a tea, used as a compost invigorator, and in vermicomposting. Excellent for all types of plants.

**SUGGESTED USE:** Gently dig into soil surface once per month or as desired. For gardens, landscapes, transplanting & premixing soil for potted plants and planter boxes: Use up to 5 lbs/200 sq ft or 25 lbs/ 1,000 sq ft. As a top dressing: Mix 1 tbsp/gal of soil or growing medium.

**1308325** Volcanic Rock Dust - 5 lbs. **\$18.95**



## DOWN TO EARTH



### Azomite Powder, 0-0-0.2



**The A To Z Of Minerals Including Trace Elements.**

**1309300** Down To Earth Azomite Powder - 1 lb. **\$5.49**

### DTE Granular Humic Acids



**Highly Concentrated & Easy To Use!**

**1300320** Down To Earth Granular Humic Acids - 1 lb. **\$3.59**  
**1300321** Down To Earth Granular Humic Acids - 5 lbs. **\$10.39**  
**1300322** Down To Earth Granular Humic Acids - 25 lbs. **\$27.79**

### DTE Langbeinite, 0-0-22



**Dose Your Soil With This Before Planting – Your Plants Will Love You For It.**

**1300263** Down To Earth Langbeinite - 5 lbs. **\$13.39**

### DTE Rock Phosphate, 0-3-0



**Dose Your Soil With This Before Planting – Your Plants Will Love You For It.**

**1300269** Down To Earth Rock Phosphate - 5 lbs. **\$11.39**



**See the full line of Down to Earth Fertilizers on pages 46-47.**

## AgroThrive™ Fruiting & Flowering Fertilizer, 3-3-5



### Multiple Organic Accreditations For One Exceptional Fertilizer.

**TARGET:** Gardeners looking for balanced organic nutrition for fruiting and flowering plants.

**DESCRIPTION:** Designed to nurture vegetables, fruit and flower-bearing plants, this premium organic formulation will not only feed your plants the nutrients they crave, it will enhance soil microbial activity by activating indigenous micro-flora in the soil. This healthy soil activity will create a smooth release for, and improved availability of, the nutrients (70% fast release, 30% slow release). You will see faster growth of vibrant blooms and higher yields of flavorful crops in no time. Derived from fish inedibles, grain, and sulfate of potash and sourced from repurposed organic material. OMRI, CDFA, USDA and WSDA listed/certified organic.

**SUGGESTED USE:** Mature Plant Application: Mix ½ cup of product with 1 gallon of water to cover 35 sq. ft. of garden and apply every 2 weeks. Nursery & Foliar Applications: Mix 3 Tbsp of product with 1 gallon of water to cover 150 sq. ft. and apply weekly.

**1314750** AgroThrive Fruiting & Flowering Fertilizer - 32 oz. **\$20.97**  
**1314752** AgroThrive Fruiting & Flowering Fertilizer - 1 Gallon **\$33.99**



## Plant Thrive



### 18 Strains Of Beneficial Bacteria + 4 Strains Of Beneficial Fungi = A Terrific Product.

**TARGET:** For use in soil, soil-less media, hydroponics, deep root injections, greenhouses and on turf.

**DESCRIPTION:** This microbial-based, granular product was designed to improve soil conditions for vigorous root growth, strong plant establishment, enhanced disease suppression, and increased resistance to plant and environment stress. Each ingredient has unique and valuable characteristics (to fight pathogens, stimulate plant growth, etc.), but when put together they form a synergistic powerhouse of benefits for all types of plants. Can be used as a soil amendment, foliar spray, drench for new and existing plants, and hydroponics.

**SUGGESTED USE:** Do not co-apply this product with pesticides, fungicides, herbicides, insecticides, nematicides or fumigants. If you must use them, apply in rotation allowing 5-7 days between application of Plant Thrive and these agents. A small scoop is included for easy measuring of the following rates: For plants up to 8": 1/2 scoop in the planting hole. Bare root material: lightly dust with product before planting. Pot sizes: 4-8": 1/2 scoop, 1-2 gal: 1 scoop, 3-4 gal: 2 scoops, 5-10 gals: 3 scoops. Soil drench: Mix 1/2 - 3/4 scoop/gal water. Foliar spray: same as soil drench. Apply bi-weekly. See label online for more information on application rates.

**1202220** Plant Thrive - 3 oz. **\$10.85**



## ENDzyme



### All The Enzymes Without All The Water.

**TARGET:** Plants that need enhancement and systems that need cleaning.

**DESCRIPTION:** The microbial-based enzymes in this biostimulant assist in chemical processes within your plants and in your soil/reservoir to allow maximum function with less energy output for healthier, less stressed plants. The same enzymes that help your plants thrive also work as excellent cleaners to keep drip lines, emitters, reservoirs, and stock tanks clean. After the microbes are done cleaning an area, they will then protect that area by colonizing it with their beneficial bacteria. The result is a clean system that stays that way over time.

**SUGGESTED USE:** Use in the rooting/vegetative and fruiting/blooming stages of plant life and apply via root drench, in hydroponics and aeroponics, as a foliar spray, and as a tea. This is a supplement, use in addition to current regime. Can be combined with other microbes. General application rate - 1 pod/50-150 gallons of water. Use dechlorinated/R.O./high quality water. Keep pH levels between 5.5-6.8.

**1305700** ENDzyme - 8 Pods - .5 lb. **\$53.96**  
**1305701** ENDzyme - 32 Pods - 2 lbs. **\$131.96**  
**1305702** ENDzyme - 4 lbs. **\$297.47**  
**1305703** ENDzyme - 10 lbs. **\$691.78**

Larger sizes available.



## SumaGrow®



### Improve Your Brix Levels & Save Money With This OMRI-Listed Liquid Concentrate.

**TARGET:** A broad spectrum of seeds and plants grown in soil.

**DESCRIPTION:** This awarding-winning microbial inoculant is made of liquid humates and a carefully chosen assortment of beneficial microbes. It boosts plant health and increases production, but it can also remediate soil and improve its water retention capability. Healthier, more nutrient-rich plants from vibrant soil require less fertilization – a significant cost saver over time.

**SUGGESTED USE:** For best results, apply 3 times during the first 5-7 weeks of vegetative growth. Smaller areas: Dilute 6 oz./gal. water and distribute evenly over 1,000 sq. ft. Subsequent applications at sowing or planting: 3-4 oz./1 or more gals. water. Larger areas: Dilute 1 gal./acre with adequate water (approx. 8 oz./2500 sq. ft.). Subsequent applications: .5 gals/acre (4 oz./2500 sq. ft.)

**1202130** SumaGrow - Quart **\$18.75**  
**1202131** SumaGrow - Gallon **\$70.00**

Larger sizes available.

Cannot be shipped to the following states: AR, IL, SD





## John & Bob's Maximize - Microbes & Minerals



A Highly Concentrated Combination Of Essential Minerals & Microbes That Add Life & Vitality To Your Soil!

- 1332711 John & Bob's Maximize - 8 lbs. (treats ≈1,000 sq. ft.) **\$24.95**
- 1332712 John & Bob's Maximize - 32 lbs. (treats ≈4,000 sq. ft.) **\$74.95**

## John & Bob's Optimize - Soil Optimizer



Feed Your Plants & Add Beneficial Microbes To The Soil!

- 1332707 Optimize Soil Optimizer - 3 lbs. (treats ≈1,000 sq. ft.) **\$19.95**
- 1332708 Optimize Soil Optimizer - 6 lbs. (treats ≈2,000 sq. ft.) **\$29.95**
- 1332709 Optimize Soil Optimizer - 12 lbs. (treats ≈4,000 sq. ft.) **\$54.95**
- 1332710 Optimize Soil Optimizer - 42 lbs. (treats ≈14,000 sq. ft.) **\$85.00**

## John & Bob's Nourish - Biosol

100% Vegetable Sourced Fertilizer!

- 1332713 Nourish-Biosol - 6 lbs. (treats ≈1,000 sq. ft.) **\$22.95**
- 1332714 Nourish-Biosol - 24 lbs. (treats ≈4,000 sq. ft.) **\$59.95**
- 1332715 Nourish-Biosol - 55 lbs. (treats ≈10,000 sq. ft.) **\$99.95**

## John & Bob's Penetrate - Organic Liquid Biotiller

This Liquid "Biotiller" Kit Breaks Apart & Transforms Hard Clay Into Rich, LOAMY SOIL!

- 1332716 Penetrate Organic Liquid Biotiller - 8 oz. **\$24.95**
- 1332717 Penetrate Organic Liquid Biotiller - 32 oz. **\$64.95**

## Restore Poor, Compacted Or Lifeless Soil With These Smart Soil Solutions.

## Neptune's Harvest Fish & Seaweed Fertilizer, 2-3-1



The Best Of Both Products For A Complete Fertilization Program.

**TARGET:** All types of plants and crops.

**DESCRIPTION:** Increase yields and improve shelf life of fruits and vegetables. Flowers and foliage will be stronger and more colorful. Great for hydroponics.

- 1315012 1 Pint **\$13.49**
- 1315011 1 Quart **\$18.99**
- 1315013 1 Gallon **\$45.99**
- 1315014 5 Gallons **\$169.99**

Larger sizes available.

This product cannot be shipped to the following states: AK, HI



## Neptune's Harvest Fish Fertilizer, 2-4-1



Versatile Without Unpleasant Odors!

**TARGET:** Soils requiring rapid nourishment.

**DESCRIPTION:** Nitrogen and other nutrients are chelated, so they are readily available. Unlike fish emulsions, Neptune's Harvest retains the fish proteins and oils and has no unpleasant odor.

- 1315001 1 Pint **\$11.99**
- 1315000 1 Quart **\$16.99**
- 1315002 1 Gallon **\$38.99**
- 1315003 5 Gallons **\$149.99**

Larger sizes available.

This product cannot be shipped to the following states: AK, HI



## Neptune's Harvest Seaweed Plant Food, 0-0-1



Contains Over 60 Naturally Occurring Nutrients & Amino Acids!

**TARGET:** Plants and crops exposed to stress.

**DESCRIPTION:** Enhances plant development, color and vigor. Increases plant hardiness and resistance to adverse conditions, such as early frost, extreme heat and lack of moisture. Can be used as a seed inoculant, increases and accelerates germination, for rapid development of a healthy root system.

- 1315008 1 Pint **\$12.99**
- 1315007 1 Quart **\$16.99**
- 1315009 1 Gallon **\$38.99**
- 1315010 5 Gallons **\$149.99**

Larger sizes available.

This product cannot be shipped to the following states: AK, HI



## Maxicrop® Liquid Seaweed, 0-0-1

**Boost Plant Growth With This Concentrated & Nutrient Rich Fertilizer!**

**TARGET:** Poor root development, slow growth, and disease caused from lack of minerals, nutrients and enzymes.

**DESCRIPTION:** Made from *Ascophyllum nodosum* seaweed from Norway, Maxicrop contains over 70 different elements, vitamins and minerals that activate enzyme systems and act as stimulants for root and plant growth. This product will also condition soil, increase pest resistance and is a balanced fertilizer. A harvested, renewable resource, this product is a sustainable choice to boost the health of your indoor/outdoor plants, gardens, lawns and crops.

**SUGGESTED USE:** The 32 oz. concentrate makes approximately 32 gal. See website or label for specific application rates.

1313005	Maxicrop Liquid Seaweed - 32 oz.	\$12.95
1313006	Maxicrop Liquid Seaweed - 1 Gallon	\$29.95
1313007	Maxicrop Liquid Seaweed - 2.5 Gallons	\$58.00



## MaxiCrop® Liquid Fish, 3-1-1

**A Classic Fertilizer That's Always A Great Choice.**

**TARGET:** Growers looking for more than N-P-K in a high quality liquid fertilizer.

**DESCRIPTION:** Made from Menhaden fish, this concentrated liquid fish fertilizer will provide high quality protein, naturally occurring amino acids, and essential micro-nutrients without the risk of burning. This formulation will provide all the tools your plants need for healthy metabolism and effective nutrient uptake. Can be used as a foliar spray or soil drench.

**SUGGESTED USE:** Prepare for one application only. Can be used on cuttings, outdoor plants, lawns, and as a foliar feed and compost enhancer. Standard application: 1 oz/gal water. Every 2 weeks. For lawns: 1/2 gal/1,000 sq. ft.

1313010	MaxiCrop Liquid Fish - 32 oz.	\$13.00
1313011	MaxiCrop Liquid Fish - 1 Gallon	\$25.00
1313012	MaxiCrop Liquid Fish - 2.5 Gallons	\$57.00

Larger sizes available.



**Eliminate biofilm build up in lines and emitters anytime during the growing season with Biofilm Buster Pro, page 56.**



## Do You Know What Fertilizer Your Plants Need?

### 1. Understand N-P-K and why it is important

**N = Nitrogen:** Important for plant tissue growth.

**P = Phosphorus:** Transfers energy to different parts of plants.

**K = Potassium:** Helps carbohydrate production and regulates metabolism.

### 2. Identify common symptoms of nutrient deficiencies

**Nitrogen Deficiency:** Yellowing of leaves and light green coloration of plant parts.

**Phosphorus Deficiency:** Burnt leaf tips, leaves look dark green/reddish-purple.

**Potassium Deficiency:** Burnt leaf tips, wilting and yellowing in between veins.

## Maxicrop® Soluble Seaweed Powder, 0-0-17



**Improves Germination & Helps Prevent Diseases.**

**TARGET:** Soils that need additional minerals.

**DESCRIPTION:** Maxicrop provides more than 70 minerals, growth hormones, cytokinins, auxins, vitamins, and enzymes. Improves overall plant vigor and can prevent diseases such as downy and powdery mildews.

**SUGGESTED USE:** 1 tsp./gal. water or 2 lbs./acre over the season.

1313001	Maxicrop Soluble Seaweed Powder - 10.7 oz.	\$19.99
1313002	Maxicrop Soluble Seaweed Powder - 27 oz.	\$35.00
1313003	Maxicrop Soluble Seaweed Powder - 5 lbs.	\$80.00
1317202	Maxicrop Soluble Seaweed Powder - 44 lbs.	\$399.00



## Maxicrop® Kelp Meal, 1-0-2



**Successful Growers Choice To Correct Deficiencies & Improve Plant Nutrition!**

**TARGET:** Deficient soils that need macronutrients.

**DESCRIPTION:** Maxicrop Kelp Meal (1-0-2) is composed of slow-dried, ground seaweed - cleaned, desalted and dust free. This is a rich organic source of over 70 trace minerals (including calcium, magnesium, sulfur, and chlorine) as well as vitamins, amino acids and plant hormones. It is an excellent soil additive that stimulates microbial activity and provides a strong supply of naturally chelated nutrients.

**SUGGESTED USE:** Incorporate into potting soils, seed and transplant beds. Top or side dress gardens and farms. Excellent for hydroponic growing. 1 cup/100 sq. ft.; 55 lbs. treats ~3,000 sq. ft.; 2,200 lbs. treats ~3 acres.

1314801	Maxicrop Kelp Meal - 5 lbs.	\$16.75
1314804	Maxicrop Kelp Meal - 55 lbs.	\$87.00



# FERTILIZERS



Down To Earth™ (DTE™) organic fertilizers are ideal for enhancing soil fertility and stimulating plant growth in a sustainable and environmentally friendly way. Organic fertilizers add nutrients to the soil for uptake by plants and for use by the myriad microorganisms that inhabit healthy, productive soil.

## DTE Acid Mix, 4-3-6

One Of The Best Fertilizers That Is Specially Formulated For Acid Loving Plants!

1300200	Down To Earth Acid Mix Mini - 1 lb.	\$4.49
1300201	Down To Earth Acid Mix - 5 lbs.	\$11.79



## DTE All Purpose Mix, 4-6-2

Fertilizer For All Of Your Growing Needs!

1300209	Down To Earth All Purpose Mix Mini - 1 lb.	\$4.49
1300207	Down To Earth All Purpose Mix - 5 lbs.	\$11.79

Larger sizes available - please go online or call.



## DTE Bat Guano, 7-3-1

High-Nitrogen Fertilizer From Bat Guano.

1300006	Down To Earth Bat Guano Mini - .25 lb.	\$4.49
1300007	Down To Earth Bat Guano - 2 lbs.	\$13.39
1300008	Down To Earth Bat Guano - 10 lbs.	\$37.29



## DTE Bio-Live, 5-4-2

A Microbe-Rich Fertilizer To Help Build Living Soil!

1300260	Down To Earth Bio-Live - 5 lbs.	\$17.99
1300261	Down To Earth Bio-Live - 25 lbs.	\$62.99
1300262	Down To Earth Bio-Live - 50 lbs.	\$103.49



## DTE Bio-Turf, 8-3-5

Down to Earth Bio-Turf Is Great For Lawns & Gardens!

1300213	Down To Earth Bio-Turf - 6 lbs.	\$13.79
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## DTE Blood Meal, 12-0-0

High In Nitrogen - The Key For Leafy Greens & Healthy Bulbs!

1300300	Down To Earth Blood Meal Mini - .5 lb.	\$4.49
1300301	Down To Earth Blood Meal - 5 lbs.	\$20.99
1300302	Down To Earth Blood Meal - 20 lbs.	\$62.29
1300303	Down To Earth Blood Meal - 50 lbs.	\$121.19



## DTE Bone Meal, 3-15-0

Help Your Plants Have The Best Chance to Establish Healthy Roots & Flowers!

1300219	Down To Earth Bone Meal - 5 lbs.	\$14.39
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## DTE Citrus Mix, 6-3-3

The Nutrients You Need For Vibrant & Delectable Citrus!

1300295	Down To Earth Citrus Mix - 1 lb.	\$4.49
1300296	Down To Earth Citrus Mix - 5 lbs.	\$11.79

Larger sizes available - please go online or call.



## DTE Crab Meal, 4-3-0

A Versatile Fertilizer That Provides Nutrients, Is An Excellent Compost Amendment & Has Nematicidal Properties!

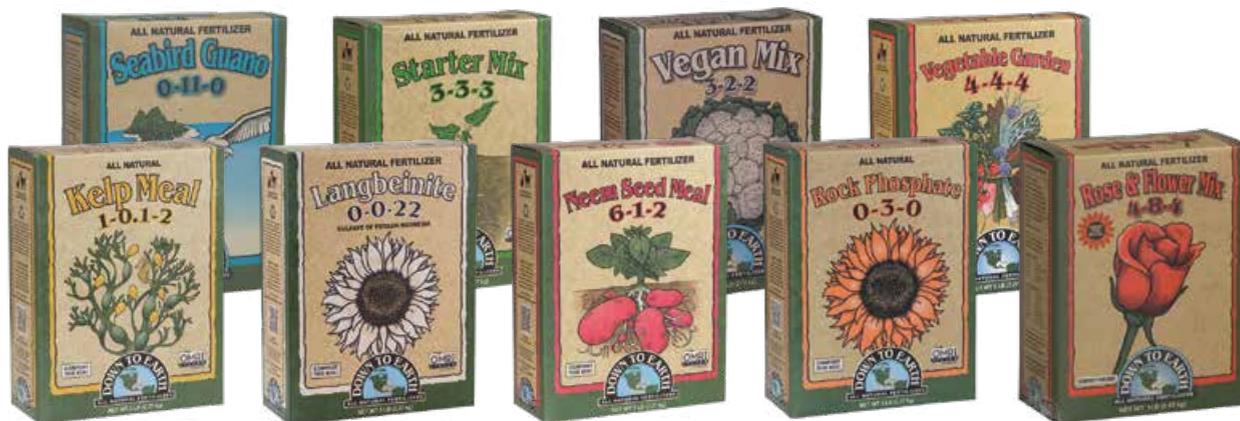
1300225	Down To Earth Crab Meal - 5 lbs.	\$15.79
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## DTE Fish Bone Meal, 4-12-0

Marine Based Bone Meal For All Of Your Growing Needs.

1300286	Down To Earth Fish Bone Meal Mini - 1 lb.	\$4.49
1300287	Down To Earth Fish Bone Meal - 5 lbs.	\$11.99



### DTE Kelp Meal, 1-0.1-2



Down To Earth's Kelp Meal Revitalizes Your Soil & Rejuvenates Your Plants With The Potassium They Need!

1300280 Down To Earth Kelp Meal Mini - .5 lb. **\$4.49**

### DTE Langbeinite, 0-0-22



Potassium, Magnesium & Sulfur In One Mineral Application.

1300263 Down To Earth Langbeinite - 5 lbs. **\$13.39**

### DTE Neem Seed Meal, 6-1-2



Another Outstanding Product From The Well-Loved Neem Tree.

1300267 Down To Earth Neem Seed Meal - 5 lbs. **\$17.99**

1300268 Down To Earth Neem Seed Meal - 20 lbs. **\$50.89**

### DTE Rock Phosphate, 0-3-0



Dose Your Soil With This Before Planting – Your Plants Will Love You For It.

1300269 Down To Earth Rock Phosphate - 5 lbs. **\$11.39**

### DTE Rose & Flower Mix, 4-8-4

USDA Organic. A Nutrient-Rich Fertilizer That Invigorates Roses, Bulbs & Flowering Plants!

1300233 Down To Earth Rose & Flower Mini - 1 lb. **\$4.49**

1300231 Down To Earth Rose & Flower Mix - 5 lbs. **\$11.79**

Larger sizes available - please go online or call.

### DTE Seabird Guano, 0-11-0

Phosphorous Rich Fertilizer & An Herb Grower's Favorite Choice!

1300023 Down To Earth Seabird Guano - 5 lbs. **\$19.39**

1300024 Down To Earth Seabird Guano - 20 lbs. **\$50.99**

Larger sizes available - please go online or call.

See online for shipping restrictions.

### DTE Starter Mix, 3-3-3



Feed Your Young Plants Well With This Nutrient & Mycorrhizae Mix.

1300264 Down To Earth Starter Mix - 1 lb. **\$4.49**

1300265 Down To Earth Starter Mix - 5 lbs. **\$12.39**

### DTE Vegan Mix, 3-2-2



A Veganic Fertilizer From Down To Earth For All Your Growing Needs!

1300237 Down To Earth Vegan Mix - 5 lbs. **\$11.79**

Larger sizes available - please go online or call.

### DTE Vegetable Garden, 4-4-4



Give Your Vegetable Garden A Powerful Nutrient Boost!

1300299 Down To Earth Vegetable Garden - 5 lbs. **\$11.79**

See online for shipping restrictions.



## Disease Control

Healthy plants start at the roots. Just as we strive to give our children the best start in order to become strong adults, plants need support right from the start. Creating a hardy root zone is the first step in keeping diseases at bay. The introduction of beneficial microorganisms to the soil leads to increased colonization of the root zone. This creates an environment that enhances rooting and keeps pathogens at bay, with a symbiotic network of roots and microbes filling the void where pathogens often enter. In doing so, disease incidence is reduced, plant health is boosted and harvest yields are increased.

## RootShield® Plus Granules & RootShield® Plus WP



### Use This Biological Fungicide To Eliminate Hard To Control Diseases!

**TARGET:** Plant pathogens and resulting diseases such as *Phytophthora*, *Rhizoctonia*, *Pythium*, *Fusarium*, *Thielaviopsis*, and *Cylindrocladium*.

**DESCRIPTION:** OMRI listed and EPA registered, this product will help eliminate damaging fungal pathogens by colonizing plant root systems and by boosting biological diversity of the rhizosphere. This unique product is comprised of live microbial beneficial fungi *Trichoderma harzianum* strain T-22 and the newly developed *Trichoderma virens* strain G-41, delivering an extended array of pathogen control.

**SUGGESTED USE:** For control and prevention of major fungal pathogens and resultant diseases on greenhouse and nursery vegetables, herbs, ornamentals, fruits, conifer tree seedlings, various trees, legumes, oil seeds and peanuts. One application will last for approximately 12 weeks, and can be used with a 0-hr REI. This product can be used in conjunction with certain other fungicides, see label and other online resources for details.

For granular usage, mix about 1.5-3 lbs. to 1 cu. yd. of mix or about four 40 lb. bags to 100 cu. yds. of soil mix. For WP, use about 6 oz. of powder to 100 gal. of water. For plug trays, flats and small pot with 1-3 in. of soil, use about 100 gal. mix/800 sq. ft. For beds and pots 4-5 in. deep, use about 100 gal. mix/400 sq. ft. For azalea pots 6 in. deep, use about 100 gal. mix/1600 pots.

<b>1332754</b>	RootShield Plus Granules - 10 lb. Box	<b>\$197.00</b>
<b>1332755</b>	RootShield Plus Granules - 40 lb. Bag	<b>\$428.00</b>
<b>1332756</b>	RootShield Plus WP - 1 lb. Bag	<b>\$132.00</b>
<b>1332757</b>	RootShield Plus WP - 3 lb. Box	<b>\$280.00</b>

Large sizes available.

Granular cannot be shipped to: AK • WP cannot be shipped to: AK



## LALSTOP® G46 WG



### A New Branding For An Old Favorite – Prestop WG.

**TARGET:** Use to control seed-borne and soil borne plant diseases such as damping-off, root and stem rot, charcoal rot and wilt. Also, certain storage diseases caused by *Helminthosporium* and *Rhizoctonia*; and foliar diseases like grapevine trunk diseases (several pathogens).

**DESCRIPTION:** This organic granular fungicide contains the naturally occurring fungus *Gliocladium catenulatum* Strain J1446. The mycelia and spores from this strain move into and take over the rhizosphere and aerial parts of the plant. Once there, they fight disease-causing fungal pathogens with hyperparasitism, by competing for resources, and by inhibiting pathogen growth. 4-hr REI & 0-day PHI. 1 yr shelf life.

**SUGGESTED USE:** For use on plants grown in soil or soil-less media indoors, outdoors, in greenhouses & in hydroponics. General use rate: 0.05% (10 grams/5 gals of water). Apply every 3-6 weeks depending on disease pressure.

**1332987** LALSTOP G46 WG - 100 g packet **\$145.00**  
 Cannot be shipped to the following states: HI, DC



## Actinovate® AG



### Developed For Commercial Ag – Now Available To All Growers.

**TARGET:** Use to control damping-off, root and stem rot, charcoal rot and wilt caused by many different pathogens. Also controls Downy Mildews and Powdery Mildews.

**DESCRIPTION:** This organic biological fungicide/bactericide uses a microbe (*Streptomyces lydicus* WYEC 108) for the suppression and control of a wide swath of soil-borne and foliar diseases. This *Streptomyces* strain will colonize the root system and foliage of plants, which will not only displace pathogenic fungi present there, it will protect it from further fungal development. Water-soluble, will not clog machinery and doesn't require constant agitation when applying. 4-hr REI.

**SUGGESTED USE:** Use in foliar applications, as a soil drench, in irrigation, chemigation, as a dip, and more. Don't use at temps below 45°F. Foliar spray: Mix with 10-150 gals water/acre (in CA, mix with 20-150 gals water/acre). Apply initial application prior to disease onset or in the early stages of disease development. Crop-specific instructions on label.

**1420012** Actinovate AG - 18 oz. Bag **\$124.99**  
 Cannot be shipped to the following states: DC, HI, MD, MN, MS, OK, VA, VT



## Howler Fungicide



**A Super-Effective & Ultra-Versatile Biofungicide.**

**TARGET:** *Alternaria*, *Botrytis*, *Colletotrichum*, downy mildew, *Fusarium*, *Pestalotiopsis*, *Phytophthora*, powdery mildew, *Pythium*, *Rhizoctonia* and *Sclerotinia*.

**DESCRIPTION:** This organic wettable powder fungicide uses the active ingredient of *Pseudomonas chlororaphis* strain AFS009 to work inside the plant microbiome to attack the pathogenic fungi that cause plant diseases. It does this by producing natural antibodies that directly attack the fungi and enzymes that break down fungal cell walls and prevent spore attachment. All of this action induces a resistance response in the plants that further inhibits fungal growth. For use on a wide range of crops. Can be applied into the soil, in a drench, in a drip, as a foliar spray and in chemigation. 4 hr. REI and 0-day PHI. Approved for use on cannabis in CO.



**SUGGESTED USE:** Do not apply by aerial application. To ensure tank-mix combinations, they must be evaluated prior to use. Using Howler Alone: 5 lbs/acre. Fruiting & Leafy Vegetables, Beans, Peas, Dry Pulses & Cole Crops: 67-100 oz/100 gal or 5-15 lbs/acre, depending on application method. Greenhouse soil incorporation: 1.75-8.5 lbs/cu. yd. Hydroponic Crops: 1.8-6 oz/1,000 sq. ft. Repeat at 7-10 day intervals.

<b>1332930</b>	Howler Fungicide - 5 lbs.	<b>\$64.50</b>
<b>1332935</b>	Howler Fungicide - 5 lbs. - pack of 3	<b>\$174.00</b>

Cannot be shipped to the following states: HI

## CEASE® Biological Fungicide



**For Control Of Soil Pathogens That Cause Fungal & Bacterial Plant Diseases.**

**TARGET:** *Alternaria*, anthracnose, *Botrytis*, *Didymella bryoniae* (gummy stem blight), *Entomosporium*, *Erwinia*, *Fusarium*, powdery mildew, *Pseudomonas*, *Xanthomonas*, *Rhizoctonia*, *Pythium*, *Phytophthora* and more.

**DESCRIPTION:** Cease is an organic contact fungicide/bactericide containing a patented strain of *Bacillus subtilis*. It works by occupying space that the invading pathogens would use and then it disrupts the germination and growth of those pathogens. OMRI listed and NOP compliant. Can be used in combination and/or rotation with other products. 0-day PHI interval and 0-hours REI. No phytotoxicity or residues on flowers or foliage.

**SUGGESTED USE:** Use 2-8 qts/100 gals water about once a week. See label for crop and disease-specific directions. Suitable for wet applications, but use of a spreader/sticker is recommended under those conditions.

<b>1332724</b>	Cease - 1 Gallon	<b>\$84.00</b>
<b>1332727</b>	Cease - 2.5 Gallons	<b>\$180.00</b>
<b>1332725</b>	Cease - 1 Gallon, Case of 4	<b>\$302.40</b>
<b>1332728</b>	Cease - 2.5 Gallons, Case of 2	<b>\$324.00</b>



## Mycostop®



**A Versatile & Highly Effective Stand-Alone Biofungicide.**

**TARGET:** *Fusarium*, seed or soil-borne damping off, *Alternaria*, *Phomopsis*, *Botrytis*, *Pythium*, *Phytophthora* and *Rhizoctonia*.

**DESCRIPTION:** This classic biofungicide contains mycelium and spores of *Streptomyces* Strain K61, a naturally occurring bacterium derived from *Sphagnum* peat. This strain controls some of the most destructive of plant pathogens by rapidly colonizing plant roots, displacing the pathogenic fungi there and robbing it of nutrients; disrupting and ultimately breaking down the cell wall of the pathogens and producing metabolites that constrain the pathogens while encouraging plant defense mechanisms and healthy growth. For best results, use preventatively.

**SUGGESTED USE:** Can be applied as a seed treatment, in potting media, as a transplant or cutting dip, soil spray or drench applications or in an irrigation system. In most applications, use in the form of an aqueous solution. A suspension of 0.01% to 0.1% by weight is a basic rate for soil applications. Repeat every 2-6 weeks as needed for diseases control. Use the higher rate and more frequent application for high disease pressure and for larger plants.

<b>1332981</b>	Mycostop - 5 grams	<b>\$36.00</b>
<b>1332982</b>	Mycostop - 25 grams	<b>\$138.00</b>

Cannot be shipped to the following states: AL, AK, DC, HI, ID, IA, LA, NE, ND, SC, SD, TN, WV, WI, WY



## Regalia® CG & Regalia®



**OMRI Listed Control For Both Bacterial & Fungal Diseases.**

**TARGET:** Powdery mildew, downy mildew, white mold, early blight, shot hole, *Fusarium*, bacterial spots and specks, brown rot, *Rhizoctonia* and more.

**DESCRIPTION:** This biofungicide uses a plant (*Reynoutria sachalinensis*) extract to protect crops from certain soil-borne or foliar diseases and to boost production by improving overall plant health. Regalia can be used in multiple application methods on field and edible crops in conventional, sustainable and organic production. Unique FRAC P<sub>5</sub> classification. 4-hour REI.

**SUGGESTED USE:** Use early for disease prevention and overall plant health and through the season for continued disease control. Small scale applications: 2 Tbsp./gal. of water. Foliar applications: Downy Mildew and White Mold: 2-4 qts/acre. Soil applications: *Fusarium*: 3-4 qts/acre.

<b>1332968</b>	Regalia CG - 1 Quart	<b>\$51.00</b>
<b>1332969</b>	Regalia CG - 1 Gallon	<b>\$117.00</b>
<b>1332970</b>	Regalia - 2.5 Gallons	<b>\$220.00</b>

Regalia - 2.5 Gal. (1332970) cannot be shipped to the following states: CA



## Procidic®

**This Organic Fungicide/Bactericide Works Two Ways: On Contact & Systemically.**

**TARGET:** Agrobacterium, *Alternaria*, anthracnose, bacterial complex, black chaff, black sigatoka, *Botrytis*, cankers, citrus greening, damping off, dirty grain, downy mildew, *Fusarium*, gummosis, leaf streak, leaf stripe, lettuce drop, mummy berry, root tumor, rust, spots, specks, wilts and more.

**DESCRIPTION:** This WSDA certified foliar spray uses citric acid to eliminate pathogenic fungi and bacteria. This exceptional product will work on contact, but is also absorbed rapidly into the plant. Once inside, it will work its way towards the apex of plant. This action allows new tissue to grow infection-free. Additionally, as it moves through the plant, it stimulates the production of phytoalexins (a plant's natural defense against microbial attacks), which inhibits the future growth of fungi and bacteria. May be applied in regular foliar spray applications or in tank mixes and there is no maximum number of applications per season. 0-hour REI and 0-day PHI. Can be used on a wide range of plants and crops.

**SUGGESTED USE:** Best when applied preventatively. Procidic has crop-specific application rates that can be found on the manufacturer's label. A general application is to apply in a minimum of 10 gals of water per acre.

<b>1458220</b>	Procidic RTU - 32 oz.	<b>\$15.99</b>
<b>1458221</b>	Procidic Concentrate - 16 oz.	<b>\$39.50</b>
<b>1458222</b>	Procidic Concentrate - 1 Gallon	<b>\$270.00</b>

**Cannot be shipped to the following states:** AL, AK, AR, DC, GA, ID, KS, LA, MD, MN, MS, NE, NM, ND, OH, RI, SD, UT, VA, WV, WI, WY



## BONIDE® Liquid Copper Fungicide

**Use For The Control & Prevention Of Many Fungal Diseases!**

**TARGET:** Works as a knockdown control for the following: anthracnose, bacterial blight, bacterial leaf spot, black spot, *Botrytis*, brown rot, Cedar apple rust, citrus scab, downy mildew, fireblight, *Phytophthora*, powdery mildew, and scab.

**DESCRIPTION:** Liquid copper fungicide helps prevent and treat many diseases on a wide variety of trees and ornamental plants. Liquid Copper can be used on grapes, vegetables, fruit trees, berry bushes, roses, pine, cedars and more. For garden use only.

### SUGGESTED USE:

- RTS does not need to be diluted.
- Concentrate: Mix ≈2-6 Tbs./gal. of water or 1 qt./100 gal. depending upon infestation.
- Repeat at 7-14 day intervals until harvest.
- Plant and crop-specific instructions included.

<b>1455105</b>	BONIDE Liquid Copper Fungicide - 16 oz. RTS	<b>\$21.99</b>
<b>1455106</b>	BONIDE Liquid Copper Fungicide - 32 oz. RTS	<b>\$36.00</b>
<b>1455110</b>	BONIDE Liquid Copper Fungicide - 32 oz. RTU	<b>\$10.99</b>
<b>1455101</b>	BONIDE Liquid Copper Fungicide - 16 oz. Conc.	<b>\$17.99</b>

**Cannot be shipped to the following states:** AK, DC, PR



## MilStop SP Foliar Fungicide

**Excellent For Controlling Powdery Mildew & Other Fungal Diseases!**

**TARGET:** Powdery mildew, *Alternaria* blight, anthracnose, black spot, *Botrytis* blight, *Cercospora* leaf spot, downy mildew, *Phomopsis* blight, and *Septoria* leaf spot.

**DESCRIPTION:** MilStop SP is an OMRI listed, WSDA registered foliar fungicide. Potassium bicarbonate-based fungicide that kills powdery mildew on contact by pulling water from spores and their growing strands. It also inhibits enzymes involved in fungal cell wall formation by altering the pH on the leaf surface. Foliar applications provide 1-2 weeks of residual protection.

**SUGGESTED USE:** Generally 2.5 lbs./100 gal. of water. (See label online for specific crops, diseases and application systems.)

<b>1332766</b>	MilStop SP Foliar Fungicide - 5 lbs.	<b>\$65.00</b>
<b>1332767</b>	MilStop SP Foliar Fungicide - 25 lbs.	<b>\$275.00</b>



## BONIDE® Sulfur Plant Fungicide

**Effective Against Several Key Insect Pests As Well As Fungal Diseases.**

**TARGET:** Knockdown control for apple cedar rust, black rot, brown rot, chiggers, citrus red spider, fleas, frog eye, leaf spot, powdery mildew, quince rust, rust mite, scab, scale, sooty blotch, thrips, ticks, two-spotted spider mites and russet mites.

**DESCRIPTION:** The fine particles of this micronized sulfur product provide optimum coverage, adhesion and disease control and work equally well whether applied as a dust or mixed with water for a spray. For best results, apply thoroughly to all leaf surfaces before diseases develop and repeat weekly to maintain control.

**SUGGESTED USE:** Specially formulated for use on berries, cherries, grapes, citrus, apples, cucurbits, apricots and currants. Do NOT use when an oil spray has been applied within the prior month or when temperatures are expected to exceed 80°F. This container covers approximately 500 sq. ft. at the general mix and application rate.

<b>1454701</b>	BONIDE Sulfur Plant Fungicide - 1 lb. Bottle	<b>\$8.75</b>
<b>1454702</b>	BONIDE Sulfur Plant Fungicide - 4 lb. Bag	<b>\$17.00</b>

**Cannot be shipped to the following states:** AK, DC



## Monterey Complete Disease Control



**This OMRI Listed Biofungicide/Bactericide Works As A Spray Or As A Drench.**

**TARGET:** Blights, molds, spots, rots and mildews.

**DESCRIPTION:** This broad spectrum preventative biofungicide/bactericide contains *Bacillus amyloliquefaciens* strain D747. When used as a soil drench, this naturally occurring bacterium goes straight to the plant's roots, where it will establish itself and grow. This colonization prevents the establishment of disease-carrying bacteria and fungi in the soil. When used as a foliar spray, this bacterium will overcome any pathogenic spores present on foliage.

**SUGGESTED USE:** Standard mix rate: 1 tsp. /gal. of water. Foliar spray: Repeat every 7-10 days or as needed. As a soil drench: Drench the roots of transplants with approximately 4 fl. oz. immediately before transplanting. Lawns/Grassy Areas: Apply as a fine spray to the surface area. 2-5 gals/1,000 sq. ft. of lawn.

<b>1458203</b>	Monterey Complete Disease Control - 32 oz. RTU	<b>\$16.99</b>
<b>1458200</b>	Monterey Complete Disease Control - 8 oz. Conc.	<b>\$12.99</b>
<b>1458201</b>	Monterey Complete Disease Control - 1 Pint Conc.	<b>\$16.99</b>
<b>1458202</b>	Monterey Complete Disease Control - 1 Gallon Conc.	<b>\$96.99</b>

**Cannot be shipped to the following states:** RTU (1458203): MO

**8 oz. concentrate** (1458200) and **1 pt. concentrate** (1458201): MO, ND

**1 gal. concentrate** (1458202): NY



## Stargus™



**From A Leader in Bio-Innovations Comes This Triple-Action Biofungicide.**

**TARGET:** Foliar and soil-borne plant diseases like downy mildew, *Botrytis*, *Fusarium*, white mold and many more.

**DESCRIPTION:** This organic biological fungicide uses *Bacillus amyloliquefaciens* strain F727 to deliver several modes of action against fungal and bacterial pathogens. Stargus uses the *Bacillus* rhizobacterium to colonize root and plant surfaces, which prohibits the pathogens from accessing the plant. It also has a protective effect by inducing a systemic resistance and acquired resistance response within the plant and a curative effect by inhibiting mycelial growth and sporulation of the fungus on the leaf surface. MRL exempt. 0-day PHI and 4-hr REI.

**SUGGESTED USE:** Can be used alone or in rotation. Labeled rates of 2 quarts to 4 quarts/acre. Usual recommendation of 2 qts/acre. Apply 2-4 times at 7-10 day intervals.

<b>1332975</b>	Stargus - 2.5 Gallons	<b>\$178.00</b>
<b>1332976</b>	Stargus - 2.5 Gallons - Case of 2	<b>\$340.00</b>

**Cannot be shipped to the following states:** CA



## Thymox® Control Organic



**Thyme Oil Control Delivered With Nano Technology.**

**TARGET:** Fungal diseases like Powdery Mildew and Grey Mold and bacterial diseases like Fireblight.

**DESCRIPTION:** This organic foliar spray combines thyme oil with innovative and proprietary nano emulsion technology to provide a highly effective, broad-spectrum, non-specific fungicide/bactericide. It delivers billions of nano-sized droplets of botanically based thyme oil for superior coverage of plant surfaces and thorough contact with pathogens. Once this product touches the plant surfaces it begins to destabilize and damage the cell of any pathogens it encounters, which causes cell leakage and subsequent death of the pathogen. MRL & FIFRA 25(b) exempt. 0-day PHI & 0-hr REI.

**SUGGESTED USE:** *Not for aquatic use.* Dilute 1 part of product/200 parts water (0.5%) or 64 fl oz/100 gals of water. Do not apply undiluted. Use immediately after dilution, do not store diluted product. Apply as a foliar treatment any time during growing season, when conditions (humidity, temperature, etc.) promote microbial growth or when fungal disease symptoms first begin to appear. Reapply every 5-7 days, or as needed.

<b>1458380</b>	Thymox Control Organic - 1 Liter	<b>\$47.25</b>
<b>1458381</b>	Thymox Control Organic - 1 Gallon	<b>\$148.99</b>
<b>1458382</b>	Thymox Control Organic - 2.5 Gallons	<b>\$350.99</b>

**Cannot be shipped to the following states:** AL, AK, AZ, AR, CO, CT, DE, FL, HI, ID, IN, IA, KS, KY, LA, ME, MD, MI, MS, MT, NE, NV, NH, NM, ND, OH, OK, PA, RI, SD, TN, UT, VT, VA, WV, WI, WY



## ZeroTol® HC



**Clean Up & Protect Your Plants With One Powerful Product.**

**TARGET:** *Alternaria*, *Anthraco*, *Aphanomyces*, molds & mildews, bacteria, spots & rots, *Erwinia*, *Phytophthora* (blights, rots), *Plasmopara*, *Pseudomonas*, *Pythium*, *Rhizoctonia*, rust, scab, smut, *Thielaviopsis*, *Xanthomonas*, wilts & blights, fungi, algae and Tobacco Mosaic virus.

**DESCRIPTION:** ZeroTol HC has been designed for use in hemp and cannabis production and for homeowners and hobby growers. Use this OMRI listed product on hard, non-porous surfaces to eliminate pathogens that linger there. It can also be applied to soil and directly to all kinds of plants to prevent/treat/control many common plant diseases and algae growth. Made from Hydrogen Peroxide and Peroxyacetic Acid. No strong odor or toxic residue.

**SUGGESTED USE:** Do not combine or mix with any other pesticide concentrates. Do not reuse solution; make fresh daily. Surfaces/equipment: Dilute at 1:150 or .85 fl oz/gal water. Foliar: Dilute at 1:150 or .85 fl oz/gal water for initial treatment. Apply as needed for control. For prevention: Apply every 5-7 days at 1:200 or 0.64 fl oz/gal water. If disease reappears, apply every 3 days. Turf: Dilute 1.3 fl oz/gal water. 3-10 gals treats approximately 1,000 sq ft.

<b>1222410</b>	ZeroTol HC - 1 Gallon	<b>\$42.99</b>
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## PERpose Plus™



**This OMRI Listed Algacide/Fungicide Works On Contact With No Odor!**

**TARGET:** Algae, anthracnose, *Alternaria*, *Aphanomyces*, blights, downy mildew, *Fusarium*, *Erwinia*, *Phytophthora*, powdery mildew, *Plasmopara*, *Phythium*, *Pseudomonas*, rust, scab, *Sclerotinia*, smut, spots, *Rhizoctonia*, *Thielaviopsis*, and *Xanthomonas*.

**DESCRIPTION:** This hydrogen peroxide-based organic product works by oxidizing the outer cell membrane of vegetative endospore, fungus, algae, yeast and mold spore cells. The oxygen released in this process helps relieve anaerobic conditions. This proprietary formula also contains stabilizers and buffers that counteract phytotoxicity. This allows you to use this product freely over all plant material and into the root zone without fear of damaging delicate plants. PERpose Plus contains no peracetic acid and is odor free. You can apply this to any part of the plant, in chemigation/fertigation systems and on non-porous surfaces.

**SUGGESTED USE:** Do not apply in dry, extremely hot conditions. For curative purposes: Dilute 1:100 or 1 fl oz/gal water and apply for 3 consecutive days. Maintain at the preventative rate of 1/3-1/4 fl oz/gal water weekly.

**1223000** PERpose Plus - 5 Gallons\* **\$150.00**

Larger sizes available.

\*PERpose Plus requires a freight shipping quote to ship all sizes. Cannot be shipped to residential addresses.

**This product cannot be shipped to the following states:** AK, HI, PR



## ZeroTol® 2.0



**Kills Pathogens On Plants As Well As Bacteria, Algae & Fungi On Hard Surfaces.**

**TARGET:** *Alternaria*, *Anthracnose*, *Aphanomyces*, molds & mildews, bacteria, spots & rots, *Erwinia*, *Phytophthora* (blights, rots), *Plasmopara*, *Pseudomonas*, *Pythium*, *Rhizoctonia*, rust, scab, smut, *Thielaviopsis*, *Xanthomonas*, wilts & blights, fungi, algae and Tobacco Mosaic virus.

**DESCRIPTION:** This liquid wonder uses a combination of Hydrogen Peroxide and Peroxyacetic Acid to prevent and control a wide range of pathogens on plants and in the soil. It works equally well to suppress and control bacteria, fungi and algae on hard surfaces and equipment. This is especially useful to contain the spread of disease in your growing area. When used as directed, there will be no strong odor, visible residue or harmful effects on plants.

**SUGGESTED USE:** For use as a foliar spray, in irrigation and fogging applications, as a soil drench, seed treatment, in hydroponics, as a pre-plant dip and on hard surfaces. Curative treatment: between 1:100-1:400 (1-4 gals./100 gals. water). Apply every 3-5 days until control is achieved. Preventative treatment: 1:200-1:400 (or 32-64 fl. oz./100 gals. water) every 5-10 days. Large scale application: 50-500 gals./acre or 11.5-115 gals./10,000 sq. ft. Ensure thorough coverage of all foliage, stems, branches and stalks.

**1222401** ZeroTol 2.0 - 2.5 Gallons **\$260.00**

\*Free Shipping in the contiguous 48 states. Ships via Ground ONLY.

**Cannot be shipped to the following states:** AK, HI, PR



## SaniDate® 5.0



**An OMRI Listed Sanitizer/Disinfectant.**

**TARGET:** Bacteria including *Salmonella*, *Streptococcus*, *E. coli*, *Pseudomonas*, *Staphylococcus aureus*, *Listeria* and molds, including mildew.

**DESCRIPTION:** Contains hydrogen peroxide and peroxyacetic acid as an alternative to chlorine to sanitize and disinfect post harvest equipment, fruit and vegetables and various hard surfaces. Usage industries include farms, dairies, beverage plants, food processing plants, greenhouses, etc. No dumping or run-off restrictions.

**SUGGESTED USE:** For general disinfection, sanitation of surfaces, food safety programs, irrigation systems and greenhouse use mix about 0.5 fl. oz./1 gal. of water. Solution can be applied various ways depending on desired usage. Applications can be made with mops, sponges, spraying devices, etc.

**1222515** SaniDate 5.0 - 2.5 Gallons **\$208.00**

**1222517** SaniDate 5.0 - 5 Gallons **\$308.00**

Larger sizes available. All sales of SaniDate are final.

\*Free Shipping in the contiguous 48 states. Ships via Ground ONLY.

**Cannot be shipped to the following states:** AK, HI, PR

**WARNING Corrosive:** Causes irreversible eye damage and skin burns. May be fatal if inhaled or absorbed through skin. Harmful if swallowed. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. Wear goggles, face shield, and rubber gloves when handling. Do not enter an enclosed area without proper respiratory protection. Wash thoroughly with soap and water after handling and before eating, drinking, using tobacco or using the toilet. Remove contaminated clothing and wash before reuse. Strong oxidizing agent. Do not use in concentrated form. Mix only with water in accordance with label instructions. Never bring concentrate in contact with other pesticides, cleaners or oxidative agents.



## OxiDate® 2.0



**Bactericide & Fungicide For Wide Use**

**TARGET:** Preventative and curative treatment against plant pathogens and diseases such as *Alternaria*, anthracnose, *Aphanomyces*, bacterial spot, bacterial speck, black spot, *Botrytis* (grey mold), brown spot, downy mildew, *Erwinia*, *Fusarium* (root rot), leaf spot, *Phytophthora*, *Plasmopara*, powdery mildew, *Pseudomonas*, *Pythium*, *Rhizoctonia*, rust, scab, smut and *Thielaviopsis*.

**DESCRIPTION:** OxiDate uses the rapid oxidative property of peroxygen to eliminate bacteria and fungi on contact. Use repeatedly on a variety of crops without cultivating resistance or leaving behind any visible residues or odor. OxiDate may also be used for cleaning surfaces, tools, water filters and equipment. Excellent for use in cleaning greenhouses.

**SUGGESTED USE:** Ensure that a minimum ratio of 1:100 is used.

**1222501** OxiDate 2.0 - 2.5 Gallons **\$240.00**

**1222502** OxiDate 2.0 - 5 Gallons **\$370.00**

Larger sizes available.

\*Free Shipping in the contiguous 48 states. Ships via Ground ONLY.

**Cannot be shipped to the following states:** AK, HI, PR



## WEED BARRIERS

### WeedGuardPlus® Organic - Heavy Weight Rolls



**This Tough Weed Block Will Hold Up Under The Elements!**

**TARGET:** Use for weed suppression.

**DESCRIPTION:** This paper weed block is adaptable to nearly any size growing operation in nearly any environment. 100% biodegradable; no need to remove it. Saves time; just lay it down before planting and save yourself countless hours of weeding, spraying or disposing of materials. Or apply it right on top of existing weeds and/or invasive plant roots and smother them out. Saves money; no need to buy expensive herbicides. Improves yields; your plants will have a chance to establish themselves without competing with weeds. Porous yet strong; so plants can be watered by natural rainfall or by other means. Allows air flow, to overheating by the sun. Maintains this porosity through all but the most severe of weather. Can be applied by machine or by hand; the creped version is highly flexible and best for machine applications. These rolls are excellent for textured soils and/or those projects that are meant to be long-term. 54% heavier than the standard rolls and offers 12+ months of weed control.



**SUGGESTED USE:** Put in place before you install transplants or seedlings, or before you sow seeds. Simply prepare the ground, place over the soil, and cover the edges with dirt. Product may be affected by variances in weather or soil conditions.

<b>1453851</b>	Heavy Weight - Smooth Finish - 36" x 100'	<b>\$27.99</b>
<b>1453852</b>	Heavy Weight - Smooth Finish - 48" x 100'	<b>\$34.99</b>

## PRE-EMERGENT

### Earth Harvest Gluten-8 Liquid Corn Gluten - Set of 2

**Easy-To-Apply Liquid Weed Control Without The Effort Of Lifting A Heavy Bag Of Corn Gluten Meal.**

**TARGET:** Pre-emergent weed control and mild nitrogen fertilizer.

**DESCRIPTION:** Water-soluble and derived from corn gluten meal, it provides pre-emergent control of annual grasses and broadleaf weeds without the effort of applying the granular corn gluten. This product is packaged in a container that has a hose-end spray head for a reliable application.



**SUGGESTED USE:** A 2 quart set of Gluten-8 represents a 40 pound bag of corn gluten meal and treats approximately 2,000 sq. ft.

**1273015** Gluten-8 Liquid Corn Gluten - Set of 2 - 32 oz. Hose End **\$29.45**

### Gluten-8 OLP™ Liquid Corn Gluten, 1.5-0-0

**This Easy-to-Use Liquid Weed Control Plus Nitrogen Works Wonders!**

**TARGET:** Knockdown control for annual grasses and broadleaf weeds.

**DESCRIPTION:** Gluten-8 OLP Liquid Corn Meal offers pre-emergent weed control with 1.5% nitrogen to feed your soil. This product is derived from water soluble corn gluten meal, which provides effective and economical pre-emergent control of annual grasses and broad leaf weeds with much less effort than the granular corn gluten. Gluten-8 also contains 1.5% nitrogen (lower than granular corn gluten), which can help you manage nitrogen loads. All ingredients are EPA Section 25-B exempt. DO NOT use on grass that's been recently seeded; after the first mowing, apply at will. This 1 gallon bottle covers up to 4,000 sq. ft.



**SUGGESTED USE:** Greenhouses, agricultural crops, lawns, nursery stock, ornamentals, orchards, home gardens and more.

**1273010** Gluten-8 OLP Liquid Corn Gluten, 1.5-0-0 - 1 Gallon **\$61.00**  
\*Case sizes available.

### BONIDE® Maize® Weed Preventer RTS

**This Liquid Corn Gluten Stops Weeds Before They Can Germinate!**

**TARGET:** Both perennial and annual grassy and broadleaf weeds.

**DESCRIPTION:** Use this NOP-compliant pre-emergent to keep lawns and gardens free of weeds. It will not harm your desirable plants; wait until they have an established root system and/or are 2-3 inches tall, then spray over and around them. This product prevents weed seeds from germinating and growing, but will not kill existing weeds. Those should be removed before spraying.



**SUGGESTED USE:** Apply product using hose-end applicator provided. It will accurately dilute the concentrate as it sprays. Apply in early spring to established turf or plants before weed germination. Apply in fall after summer heat stress has passed. Can be re-applied up to four times per growing season, or every 4-6 weeks. 32 oz. bottle covers 1,000 sq. ft.

**1273018** BONIDE Maize Weed Preventer RTS - 32 oz. **\$15.49**  
**Cannot be shipped to the following states:** DC

## SELECTIVE

### BONIDE® Weed Beater® Fe

**Kill Just The Weeds, Not The Lawn!**

**TARGET:** Selectively controls/suppresses broadleaf weeds, moss, lichens, algae and certain diseases growing in lawns.

**DESCRIPTION:** This product uses iron to kill the targeted plant – but not the grass – right down to the root within hours of application with no unpleasant odor. Some grass blades or thatch may darken slightly if contacted, but the grass will recover and not be harmed. You can enjoy your lawn as soon as the spray has dried. It's okay to re-seed 1 day after application and apply new grass in 1 week.

**SUGGESTED USE:** Do not dilute RTU. Do not apply to drought-stressed grass or when daytime temps will exceed 85°F. Do not apply to bentgrass. Do not apply to newly seeded areas prior to grass seed germination. For best results, repeat treatment in 3-4 weeks, but don't apply to the same area more than 4 times a year (not including spot treatments).

<b>1453790</b>	BONIDE Weed Beater Fe RTU - 1 Quart	<b>\$10.49</b>
<b>1453791</b>	BONIDE Weed Beater Fe RTU - 1 Gallon	<b>\$29.99</b>
<b>1453792</b>	BONIDE Weed Beater Fe Conc. - 1 Pint	<b>\$14.99</b>

Cannot be shipped to the following states: CA



### BioSafe Weed & Grass Killer



**This Soap-Based Weed Killer Produces Visible Results Within 24 Hours.**

**TARGET:** For control and burndown suppression of annual & perennial broadleaf and grasses. Also controls spore producing plants such as mosses and liverworts.

**DESCRIPTION:** Biosafe Weed & Grass Killer is a non-selective herbicide that works on contact when applied as a foliar application with a manual sprayer. For best results, cover plant leaves thoroughly and uniformly with spray. Take care to avoid contacting wanted plants. This soap product uses Ammonium Nonanoate to penetrate the cell walls of the plant to disrupt their normal functioning and cause death. This product does not move through the soil or between plants and leaves no harmful residue.

**SUGGESTED USE:** Do not apply this product through any type of irrigation system. Use a hand-held or hose-end sprayer that produces a uniform spray; this will cover the most leaf area for optimal weed control. A 10-13% volume to volume (V/V) dilution (13-16 fl. oz. per gal. of water) is recommended for most situations. Larger weeds, perennial weeds and some grasses may require several applications. Also available in a ready-to-use formulation.

<b>1453822</b>	Biosafe Weed & Grass Killer - 1 Gallon Concentrate	<b>\$69.99</b>
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## BROAD SPECTRUM

### BONIDE® BurnOut

**Fast Acting Weed & Grass Killer!**

**TARGET:** Unwanted grass and weeds.

**DESCRIPTION:** Uses natural citric acid and clove oil to kill all types of weeds, unwanted grass, and their roots. This fast acting solution is great from driveways, sidewalks, around the base of mature trees, fence lines, around buildings and anywhere weed control is needed. This product is rainproof when dry and will work in temperatures as low as 40°F.

**SUGGESTED USE:** For RTU: Spray on broadleaf and grassy weeds, making sure all of the foliage is wet. For concentrate: Use 1:3 parts water, 1 gal. of mix covers about 1,500 sq. ft. Repeat application as necessary.

<b>1453778</b>	BONIDE BurnOut - 1 Quart RTU	<b>\$11.50</b>
<b>1453775</b>	BONIDE BurnOut - 1 Quart Concentrate	<b>\$21.59</b>
<b>1453776</b>	BONIDE BurnOut - 1 Gallon Concentrate	<b>\$49.99</b>
<b>1453777</b>	BONIDE BurnOut - 2.5 Gallons Concentrate	<b>\$111.99</b>



### Torched Weed Killer

**This Non-Selective Oil-Based Herbicide Digs Deep To Kill The Root.**

**TARGET:** Unwanted grasses and weeds.

**DESCRIPTION:** This ingenious combination of Mint Oil and soaps offers the fast-acting power of toxic weed killers without the risk to health and the environment. This non-selective, post emergent herbicide works best at temperatures over 60°F and generally only takes one application (except for those especially tough weeds). It begins working on contact and does not stop until it has killed down to, and including, the root.

**SUGGESTED USE:** Mix 8-10 oz per gal/water. Apply when weeds are actively growing. Re-treat if it rains within 25 hours of spraying. If needed, reapply to hard-to-kill weeds after 5 days. Protect desirable plants during application by shielding them with cardboard or plastic. If accidentally sprayed, immediately rinse the plants and surrounding area with large amounts of water.

<b>1453890</b>	Torched Weed Killer - 1 Gallon	<b>\$50.00</b>
<b>1453891</b>	Torched Weed Killer - 2.5 Gallons	<b>\$105.00</b>



## Avenger® Weed Killer



### Fast-Acting Natural Herbicide.

**TARGET:** Broadleaf, crab grass and other unwanted weeds.

**DESCRIPTION:** Avenger Weed Killer is a natural citrus oil based non-selective herbicide that eliminates broadleaf, crab grass and other unwanted weeds naturally and quickly.

**SUGGESTED USE:** Varies depending on size of weeds. The 24 oz. RTU is already mixed at a 1:3 ratio. Concentrate: Small annual weeds use 1:6 ratio; large annual weeds use 1:4.5 ratio; Hard to control weeds use 1:3 ratio.



<b>1453808</b>	Avenger Weed Killer - 24 oz. RTU*	<b>\$12.95</b>
<b>1453809</b>	Avenger Weed Killer - 1 Quart Concentrate	<b>\$30.00</b>
<b>1453810</b>	Avenger Weed Killer - 1 Gallon Concentrate	<b>\$90.00</b>
<b>1453812</b>	Avenger Weed Killer - 5 Gallon Concentrate	<b>\$330.00</b>

\*Cannot be shipped to the following states: DC, PR, SD, VI

## Phydura™



### Replace Toxic Herbicides With This Wonderful-Smelling Knock Down Spray.

**TARGET:** Unwanted leaves and grasses.

**DESCRIPTION:** OMRI listed Phydura uses clove oil and other biodegradable ingredients to quickly knock down and kill unwanted leaves and grasses. These ingredients work by adhering to the weed and breaking down the cell structure through a burn down process. After application, plants will begin to wilt in 30-60 minutes and be actively dying within 24 hours. Phydura is a non-selective herbicide, which means that all plants that come in contact with the spray will be affected. You will need to take extra care not to allow spray to contact non-target plants. Phydura will not translocate in the soil to the roots of desirable plants.



**SUGGESTED USE:** For younger, smaller plants mix with water at 3:1. For older, larger plants mix at 2:1. Re-treatment will be required for established perennials.

<b>1453880</b>	Phydura - 32 oz. Concentrate	<b>\$17.49</b>
<b>1453882</b>	Phydura - 1 Gallon Concentrate	<b>\$52.95</b>
<b>1453884</b>	Phydura - 2.5 Gallon Concentrate	<b>\$99.95</b>

Larger sizes available.

## Earth's Ally® Weed & Grass Killer



### Simple Ingredients Create Superb Results.

**TARGET:** Kills all common weeds, including broadleaf, crabgrass, dandelion, clover, ivy, chickweed and more.

**DESCRIPTION:** This organic, non-selective herbicide uses sea salt (sodium chloride) to quickly and thoroughly eliminate unwanted weeds. You'll get the results you want, without the harsh chemicals and harmful side-effects found in glyphosate herbicides. Kills all the way down to the roots with visible results in 3 hrs. Contains no pre-emergent qualities and will not inhibit future plant growth, so you can replant or sod once the area is dry.

**SUGGESTED USE:** Use on a bright, sunny day and be careful to avoid overspray on desirable plants. Do not dilute. Thoroughly wet the weed you want to eliminate. Do not use during rainfall or when the weeds are wet. Multiple applications may be needed for certain tough and dense weeds. Avoid use when pollinators are active, otherwise this product is bee safe.



<b>1459340</b>	Earth's Ally Weed & Grass Killer RTU - 24 oz.	<b>\$12.99</b>
<b>1459341</b>	Earth's Ally Weed & Grass Killer RTU - 1 Gallon	<b>\$29.99</b>

Cannot be shipped to the following states: AK, KS, MT, NM, SD, WV, WY

## SummerSet AllDown® Organic Herbicide



### A Worry-Free Alternative To Oil-Based Herbicides.

**TARGET:** Annual broadleaf weeds, perennial weeds, annual and perennial grasses.

**DESCRIPTION:** AllDown acts as a burn-down herbicide by attacking the protective cuticle of the plant, causing the plant to rapidly weaken and die. The active ingredients, citric and acetic acid, will not persist in the soil and build up to harmful levels. As with other weed killers, be sure to apply AllDown only on those plants that you want to remove. AllDown comes in two formulations: RTU and Concentrated. The concentrated version is OMRI certified, so you can be confident that the ingredients have been scrutinized and found to conform to strict organic standards.



**SUGGESTED USE:** Concentrate – Mix 1 part AllDown Concentrate to 3 parts water sufficient to treat at an application rate of 7.5-15 fl. oz. per 100 sq. ft. Shake or stir well. For larger annuals and burndown of perennial weed growth, mix stronger by using 1 part AllDown to 2 parts water. RTU – Apply spray solution at a rate of 7.5-15 fl. oz. per 100 sq. ft.

<b>1453862</b>	SummerSet AllDown RTU - 32 oz.	<b>\$12.99</b>
<b>1453863</b>	SummerSet AllDown RTU - 1 Gal.	<b>\$19.95</b>
<b>1453864</b>	SummerSet AllDown RTU - 2.5 Gal.	<b>\$34.95</b>
<b>1453860</b>	SummerSet AllDown Conc. - 1 Gal.	<b>\$49.95</b>
<b>1453861</b>	SummerSet AllDown Conc. - 2.5 Gal.	<b>\$99.95</b>

Cannot be shipped to the following states: NM

## ADJUVANTS & ADDITIVES

### Brandt® Organics SKH Sticker



Keep Your Sprays On Your Plants With This OMRI Listed Sticking Agent.

**DESCRIPTION:** Brandt Organics SKH Sticker is a mineral-based premium sticker for foliar applications in high moisture conditions that contains an ingenious combination of Bentonite, Lactose and Casein. It will improve the effectiveness and increase the longevity of insecticides, insect growth regulators, nutritional sprays, fungicides and herbicides. Specially formulated to stand up to moisture, this product will resist rain and irrigation run-off and effectively adhere sprays to their target.



**SUGGESTED USE:** Product is compatible with most agricultural chemicals. However, if the desired combination has not been previously used, a compatibility test is recommended. For ground applications with (a) insecticides and insect growth regulators use 3/4 lb. per 100 gallons of spray solution, (b) fungicides and herbicides: use 1-2 lbs. per 100 gallons of spray solution. For aerial applications use 2-3 lbs./acre in a minimum of 10 gallons of spray solution. If higher rates are recommended by a pesticide label, follow those label directions.

**1440100** Brandt Organics SKH Sticker - 5 lbs. **\$15.50**  
 Cannot be shipped to the following states: AR, HI, ID, KY, MS, TN, UT, WA, WV, WY

### ThermX™-70 Natural Wetting Agent



Overcome Adverse Water Conditions!

**TARGET:** Increases water & fertilizer uptake.

**DESCRIPTION:** This natural wetting agent is derived from yucca and contains 20% saponin extracted from *Yucca schidigera*. Saponin helps plants overcome adverse water conditions and is a great sticker for other sprays. Use ThermX-70 to increase crop's ability to establish in stressed conditions and increase water and fertilizer uptake. Increases permeability in heavy clay soil and reduces salt and alkali problems by improving drainage. Stimulates root growth, extending the area irrigation reaches.



**SUGGESTED USE: Wetting Agent:** ≈1/4 tsp./gal. water, ≈2-3 oz./acre. **Soil:** ≈1-2 tsp./gal. water, ≈16 oz./acre

**1402403** ThermX-70 Natural Wetting Agent - 1 Quart **\$27.00**  
**1402404** ThermX-70 Natural Wetting Agent - 1 Gallon **\$94.50**  
**1402405** ThermX-70 Natural Wetting Agent - 5 Gallons **\$330.55**  
**1402406** ThermX-70 Natural Wetting Agent - 55 Gallon Drum\* **CALL**

\*Call for freight quote. Call for larger sizes.

### TNB pH Up & TNB pH Down



A Super-Simple, Affordable & Non-Caustic Way To Adjust Your pH Levels.

**TARGET:** Use when you need to assure that your pH level is right where it needs to be.

**DESCRIPTION:** Using all natural ingredients derived from Potassium Hydrogen Carbonate (TNB pH Up) and Hydroxypropane Tricarboxylic Acid, (TNB pH Down), these products offer a non-caustic and innovative way to increase pH (potential hydrogen) levels in liquid fertilizers. This granular product is both easy and economical to use – simply add a small amount to your water and you're ready to go. Maintaining the proper pH in the water going to your plants allows for optimal nutrient availability and lush, healthy plants. Won't harm beneficial bacteria. Suitable for use in hydroponics and aquaponics. Contains no harmful chemicals.



**SUGGESTED USE:** Add a small amount of the contents to your reservoir. Mix well and check the pH level. Repeat as necessary.

**2000730** TNB pH Up - 1 lb. **\$19.99**  
**2000740** TNB pH Down - 1 lb. **\$19.99**

Cannot be shipped to the following states: OR

### Biofilm Buster Pro



Clear Your Lines Without Harsh Chemicals Using The Power of Enzymes.

**TARGET:** Irrigation and hydroponic lines clogged with biofilm.

**DESCRIPTION:** When you use organic fertilizers, nutrients and other inputs, biofilm can develop along your irrigation and hydroponic lines. Up until now, the methods to treat biofilm have all had harsh side effects, but this product uses bio-enzymes (not acids) to actively digest all the layers of biofilm. It can be used without the need to flush your system and will restore your system to 100% capacity. In addition, because extended exposure is harmless to plants and equipment, it can be used regularly in preventative maintenance applications. Also effective against non-biofilm deposits like scale. For use in hydroponics and in all irrigation systems, including drip lines, tape and pipes.



**SUGGESTED USE:** Only use with non-chlorinated water. For serious clogs, set the injector ratio to 1:100. For maintenance and preventative treatments, set the ratio to 1:500. Run system until product is injected throughout the lines. Turn system off and allow product to sit in the lines for at least 8 hours. Turn system on and water plants as normal. Irrigation. Can also be applied directly through a reservoir rather than an injector. For preventative maintenance: Use every 4-8 weeks (See above for ratio to be used).

**1202200** Biofilm Buster Pro - 500 ml **\$69.00**  
**1202201** Biofilm Buster Pro - 1 Gallon **\$320.00**  
**1202202** Biofilm Buster Pro - 2.5 Gallons **\$775.00**

## Boogie Blue Water Filters

A Great Grow Deserves Great Water.

**TARGET:** Chlorine, chloramine, pesticide residue, mercury, heavy metals, dissolved solids, fluoride and other chemicals



**DESCRIPTION:** Whether you are dealing with additives in municipal water, or worry about what-all is in your well water, Boogie Blue filters can help. They attach quickly and easily to your hose and use catalytic carbon and/or KDF membranes to greatly reduce chemical compounds and organic matter in your water (up to 99% of the chlorine and 87% of the chloramine in municipal waters). Available as Boogie Blue Basic, which will last for 10,000-50,000 gallons of spray volume and Boogie Blue Plus, which will last for 40,000-50,000 gallons.

**SUGGESTED USE:** Attach filter to any standard 3/4" hose. Before initial use, flush filter by running water through it for 1 minute or until water runs clear. When not in use, keep attached to hose or remove and keep closed at both ends. Do not leave filter under constant water pressure. When storing, do not allow filter to dry out; storing in a zip-lock type bag works well.

2000600	Boogie Blue Basic	\$29.90
2000605	Boogie Blue Plus	\$59.00

## Bug Blaster™

This Magic Wand Will Blast Away Destructive Bugs.

**TARGET:** Aphids, whiteflies, mealybugs, spider mites and other soft bodied insects.



**DESCRIPTION:** With this sprayer, you can quickly and effectively wipe out soft bodied insects and/or rid your plants of detritus. It can also impede mildew growth by keeping plant and other surfaces clean. All without using anything but water. The Bug Blaster nozzle creates a forceful 360° flat spray of water while the slender wand lets you insert it into, under and around the center of the plants to hit every plant surface. The spray will be strong enough to fatally traumatize soft bodied insects from eggs to adults, but will not harm the plants. Uses 60% less water than a standard spray gun.

**SUGGESTED USE:** Absolutely **DO NOT** use with any type of pesticide or fertilizer. Simply screw the Bug Blaster nozzle onto watering wand and connect to your garden hose and you are ready to go. Spray infested plants every 3-5 days for 2-3 weeks. Spray plants that are susceptible to powdery mildew, black spot or rust in the morning to give plants a chance to dry out during the day.

1452530	30" Anodized Blaster	\$24.95
1452535	Bug Blaster Nozzle	\$12.99

## LAWN & GARDEN SPRAYERS



### Self-Mixing Hose End Sprayer

No Pre-Mixing Needed With This Powerful and Versatile Sprayer.

1800107	Self-Mixing Hose End Sprayer	\$23.99
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### BONIDE® Auto Mix Hose End Sprayer

Just A Few Quick Steps to Flawless Spraying

1800010	BONIDE Auto Mix Hose End Sprayer	\$17.99
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### Flo-Master By Hudson Lawn & Garden Sprayer

Economical, Easy-To-Use, Light Duty Sprayer For Home & Garden

1800101	Flo-Master Lawn & Garden Sprayer - 1 Gallon	\$10.99
1800102	Flo-Master Lawn & Garden Sprayer - 2 Gallon	\$14.99



Delta Sprayers line of high-quality sprayers are perfect for houseplants, gardens, greenhouses and animal care.

Visit [www.arbico-organics.com](http://www.arbico-organics.com) for more information.

## Bobbex-R™ Animal Repellent

Whether They Walk On The Ground Or Crawl In It, This Spray Will Keep Those Critters Away.

**TARGET:** Rabbits, squirrels, groundhogs, voles, deer, chipmunks, elk and moose.

**DESCRIPTION:** Bobbex-R uses a blend of ingredients, including active proteins, to repel animals through smell and taste aversion. Spray directly on plants or keep animals away by spraying around openings in fences or at the entrance to any burrows. Dip bulbs in it before planting to repel underground pests. Can be used year-round and dries clear and tough for long lasting protection from predation and weather conditions. Can be used on sensitive vegetation. Will not harm wildlife, pets or people.

**SUGGESTED USE:** Spray on **dry** plants when temperature is between 35°F and 85°F. Allow at least 6 hrs to dry. Spring & Summer: apply every 10-14 days or after 2" growth. Fall & Winter: apply every 4-8 weeks.

**1287561** Bobbex-R Animal Repellent - RTU - Quart **\$18.99**

**1287560** Bobbex-R Animal Repellent - Conc. - Quart **\$29.99**

Cannot be shipped to the following states:

RTU: AL, AK, AZ, AR, DC, FL, IN, KY, LA, ME, MS, MT, NV, ND, OK, SD, TN, UT

Concentrate: AL, AK, AR, FL, GA, IL, IN, KY, LA, ME, MS, MT, NV, ND, OK, SD, TN, TX, UT, VT, WY



## Chase™ Granular Mole & Gopher Repellent

A Very Effective Granular Repellent That's Super-Easy to Apply By Hand Or With A Spreader.

**TARGET:** Gophers & moles.

**DESCRIPTION:** This is a biodegradable, granular repellent that will chase burrowing animals from your lawn or garden. Use from spring through late fall when the tunnels or cone-shaped mounds from these animals are present. Chase will not kill the target animals, but the active ingredient of Castor Oil is extremely irritating to them. It causes topical itching when they come in contact with it, and when they ingest it they experience digestive distress. All of this will make them uncomfortable enough to avoid treated areas and relocate elsewhere.

**SUGGESTED USE:** Apply by hand or with a broadcast or drop spreader. Application rate: 1 lb./1,000 sq. ft. Treat the entire affected area at once or "move" the animals by applying 1/3 of product furthest from the point that you want them to exit from. At 1-2-day intervals apply product closer to the exit point. Continue this pattern until animals have left the area. This moving technique works particularly well in locations larger than 100 ft. x 100 ft.

**1287900** Chase Granular Mole & Gopher Repellent - 6 lbs. **\$24.95**

**1287901** Chase Granular Mole & Gopher Repellent - 32 lbs. **\$79.00**



## Victor® Mole & Gopher Repellent

A Castor-Oil Based Repellent in Granular & Liquid Formulations.

**TARGET:** Burrowing animals, including moles, gophers and voles.

**DESCRIPTION:** Victor Mole & Gopher Repellent is a poison-free repellent that uses the active ingredient of Castor Oil as its driving force. When the oil soaks into the ground, it will contaminate the food sources (earthworms and grubs) of burrowing pests. If the animals ingest it, they will experience digestive distress and just coming into contact with it can cause topical itching. All of this is enough for the diggers to relocate elsewhere.

**Granular:** Combines the oil with fuller's earth to make easily dispersible granules. Resealable 4 lb bag treats 4,000 sq ft. **Liquid:** Contains 100% castor oil. Ready-to-spray bottle attaches to hose. 32 oz bottle treats 10,000 sq ft.

**SUGGESTED USE:** Works best when pests are driven slowly out of the area. Start in an area where there is no tunneling damage and gradually apply in concentric lines toward the border of the affected area. Water product into the soil well.

**1287515** Victor Mole & Gopher Repellent - Liquid RTS **\$15.79**

**1287510** Victor Mole & Gopher Repellent - Granular **\$18.99**

Cannot be shipped to the following states: ME, MT, NM



## Root Guard Gopher Wire Baskets

Stop Gophers From Damaging Plant Roots!

**TARGET:** Use to protect small planting areas, bulbs, flowers, shrubs, trees, lawns, raised beds, planter boxes, and entire garden areas.

**DESCRIPTION:** Designed to keep the smallest and most pernicious gophers from ruining your garden or lawn. Built from long-lasting 20-gauge, double galvanized metal.

**SUGGESTED USE:** Pull basket sides apart, flatten out bottom fold, bend side seams flat against bottom, round sides and place in a pre-dug hole. There is a 3" green strip indicating how deep to place the basket. Leave green edge exposed to help deter above ground feeding. Place plant in the basket, fill hole with soil, and water as usual. When selecting proper size, choose a basket that is one size larger to allow for plant growth.

**1257200** Wire Mini Basket (Pack of 6) **\$6.72**

**1257201** Wire Basket - 1 Gallon (Pack of 2) **\$7.50**

**1257202** Wire Basket - 3 Gallon **\$7.00**

**1257203** Wire Basket - 5 Gallon **\$9.00**



## Orange Guard® Home Pest Control



**Works Against A Broad Range Of Insects On Contact, Keeps Repelling For Weeks.**

**TARGET:** Crawling pest insects.

**DESCRIPTION:** Orange Guard has proven effective to provide effective control against a broad range of insects including cockroaches, ants, fleas, locusts, weevils, and many other hard to control insects. Orange Guard contains d-Limonene, which is steam distilled orange peel oil. Orange Guard may be used around food, humans and pets and is EPA registered. Smells great too!

**SUGGESTED USE:** For indoor use, spray from 12 inches directly on pest insects. Saturate until visibly wet. Wait 3 minutes, then wipe excess with damp cloth. Apply to pet bedding to repel fleas. Keeps repelling for weeks. For outdoor use, generously spray perimeter of home and anywhere pests can enter to make a barrier of protection.

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| <b>1460001</b> | Orange Guard Pest Control - 32 oz. RTU Spray Bottle | <b>\$11.49</b> |
| <b>1460002</b> | Orange Guard Pest Control - 1 Gallon with Sprayer   | <b>\$36.49</b> |
| <b>1460003</b> | Replacement Sprayer for 1 Gallon Orange Guard       | <b>\$5.30</b>  |



## Essentria™ G Granular Insecticide

**A Granular That Handles A Handful Of Outdoor Pests!**

**TARGET:** Ants, bermudagrass mites, centipedes, chiggers, chinch bugs, clover mites, cockroaches, crickets, earwigs, fall armyworms, fleas, leafhoppers, millipedes, sowbugs/pillbugs, and other insect pests.

**DESCRIPTION:** This quick and long-lasting natural granular insecticide uses essential botanical oils clove, thyme and wintergreen to treat various pests. Easy-to-use outdoors on landscapes, turf, building facilities and around organic operations, sensitive areas such as schools, and in aquatic environments.

**SUGGESTED USE:** Use with a hand spreader. For treatments around buildings, apply uniformly a band about 5-10 ft. wide. For landscapes and turf, use around 3-5 lbs./1000 sq. ft. Water in, applying about 1/8 in. - 1/4 in. of water without puddling. For ant mounds, use about 1-2 tsp./nest. For red imported fire ants, use around 1/2 cup/nest and make a 2 ft. band around nest.

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| <b>1273050</b> | Essentria G Granular Insecticide - 22 lbs. | <b>\$67.50</b> |
|----------------|--|----------------|



## Orange Guard® Fire Ant Control



**Control Fire Ant Mounds Without Risking The Health Of Your Family, Pets Or The Environment.**

**TARGET:** Fire ants.

**DESCRIPTION:** Orange Guard Fire Ant Control contains ingredients which are on the FDA GRAS list (generally recognized as safe). Orange Guard Fire Ant Control is water based, so further dilution is easy. It works by dissolving away the waxy coating on the ant's exoskeleton, which clogs their spiracles (how they breathe), and they suffocate.

**SUGGESTED USE:** Puncture the mounds and then saturate them, using 1/2 gallon of either full strength or diluted (3 parts water to 1 part Orange Guard Fire Ant Control). Dilution does not harm grass and covers approx. 8 mounds.

- |                |  |                |
|----------------|--|----------------|
| <b>1460005</b> | Orange Guard Fire Ant Control - 1 Gallon | <b>\$32.75</b> |
|----------------|--|----------------|

**Cannot be shipped to the following states:** AK, CO, DE, DC, ID, IL, IN, IA, KS, KY, ME, MD, MA, MI, MN, MO, MT, NE, NV, NH, NJ, NY, ND, OH, OR, PA, PR, RI, SD, UT, VT, VA, WA, WV, WI, WY



## JT Eaton™ Boric Acid

**A Boric Acid Barrier That Beats Pests!**

**TARGET:** Roaches, palmetto bugs, ants, silverfish, fleas & more.

**DESCRIPTION:** Boric acid is the refined crystalline material derived from Borax. When ingested by an insect, it causes digestion disruption, and the insect starves to death. When crawling insects return to their nests to die, other insects consume them, which spreads the insecticide, killing even more.

**SUGGESTED USE:** The 16 oz. bottle has a puffer top to easily spread its contents anywhere crawling insects may enter or hide, such as windowsills, doorsills, under cabinets, behind appliances, around floor drains, water pipes and cracks & crevices along baseboards. Ingredients: Contains boric acid and non-caking agent.

- |                |  |                |
|----------------|--|----------------|
| <b>1452420</b> | JT Eaton Boric Acid - 16 oz. Puffer Bottle | <b>\$6.99</b>  |
| <b>1452430</b> | JT Eaton Boric Acid - 25 lb. Pail          | <b>\$88.49</b> |



## Terro® Ant Baits

**Two Ways To Get Rid Of Ants!**

**TARGET:** Sugar and grease-eating ants including argentine, ghost, cornfield, pavement, acrobat, white footed, little black, odorous house, crazy and big headed ants.

**DESCRIPTION:** Comes in 2 formulations, RTU bait stations and Build-Your-Own.

**SUGGESTED USE:** Locate indoors or outdoors. Use remaining bait to make your own bait stations with paper or cardboard.

- |                |                               |               |
|----------------|-------------------------------|---------------|
| <b>1257403</b> | 6 (Pre-filled) Bait Stations  | <b>\$7.89</b> |
| <b>1257401</b> | Build-Your-Own Ant Killer Kit | <b>\$5.40</b> |



## Harris Borax Liquid Ant Killer



**A Few Well-Placed Drops Of This Bait & Ants Will Fade Away.**

**TARGET:** Common household "sweet-eating" ants. Not effective on pharaoh ants, carpenter ants, fire and harvester ants.

**DESCRIPTION:** In order to eliminate an ant problem, you need to get into the colony and right to the queen. This sweet bait will do just that. It works slowly enough that the foraging worker ants are unaware of its danger and will take it home and share it with their queen and the other ants. Before long, the queen will be dead and the colony eliminated.

**SUGGESTED USE:** Before placing out bait trays, remove all food sources so that the primary food source for the ants will be the bait. Place where ants have been seen and place several out at a time. Remove bottle from packaging, unscrew cap and remove foil seal. Pour a few drops of liquid ant killer inside the bait tray. Place in areas accessible to insects but inaccessible to children and pets. Inspect bait trays periodically and re-apply liquid ant killer as needed.



**1257410** Liquid Ant Killer - 9 Bait Trays w/3 oz. Liquid Bait **\$7.99**

## Harris Roach Traps



**This First Step In Total Roach Control Is Their Last Step.**

**TARGET:** American cockroaches, German cockroaches, palmetto bugs and waterbugs.

**DESCRIPTION:** These easy-to-use traps are spiked with an attractant that roaches find irresistible. Simply place them where insects have been seen and dispose of the trap when it's full. These traps can be used where sprays and gels may not reach or be safe to use. Designed to lie close to the ground for discreet placement under furniture, appliances and even bedding. For optimal roach control, use in conjunction with another type of roach killer, such as Harris Roach Tablets (see online).

**SUGGESTED USE:** (1) Peel off protective paper. (2) Fold the trap and insert the tab at top to hold it together. (3) Fold end flaps inward to form a 30° angle. (4) Place the trap in a location where insects are likely to travel or hide. (5) Check the trap regularly and discard when it's covered with insects - or every 90 days.



**1219552** Harris Roach Traps - 2 pk **\$6.79**

## EcoPCO® AR-X Multi-Purpose Insecticide

**Quick Pest Knockdown In A Gentle Botanical-Based Formula!**

**TARGET:** Ants, carpet beetles, carpenter ants, carpenter bees, centipedes, chocolate moths, clover mites, cockroaches, crickets, drugstore beetles, earwigs, elm leaf beetles, fleas, millipedes, pillbugs, power post beetles, scorpions, silverfish, spiders, termites, *Trogoderma* beetles and wood wasps.

**DESCRIPTION:** This Pyrethrin-based, multi-purpose insecticide is designed for use in sensitive areas and is approved for use in food handling areas like homes, hospitals, commercial kitchens, daycare centers, restaurants and food processing facilities. This unscented contact kill product is non-staining and contains no PBO or CFCs. Can be used inside and out, with the outside applications limited to direct applications to vegetation, foundations and crack and crevices. Not for exterior aerial applications.

**SUGGESTED USE:** Apply to cracks and crevices; release approximately 1 second of product per crack-crevice application and from 2-3 seconds per cubic foot of closed void space. For wood pests, locate infestation and drill holes 8-10" into insect tunnels and inject 5-10 seconds per hole. Apply more liberally for heavy infestations. Ensure contact with as many insects as possible.



**1457403** EcoPCO® AR-X Multi-Purpose Insecticide - 17 oz. **\$19.49**  
Ships via Ground ONLY.

## Enoz® Trap-N-Kill® Flea Trap



**Works Day & Night, Year-Round, To Eliminate Fleas Without Poisons.**

**TARGET:** Adult fleas.

**DESCRIPTION:** This reusable trap capitalizes on the irresistible attraction fleas feel to light, heat, and infrared rays. Adult fleas in search of a host animal will approach this trap and jump on it for further inspection. Once they're on it, they will fall through the screen and get caught on the sticky pad below. This trap will keep disposing of fleas day and night as long as it's plugged in; just replace the pads every 3 months (or when filled). This product will not eliminate an infestation; additional products will need to be purchased to deal with all the life stages of the pest.

**SUGGESTED USE:** Follow directions on package to remove release paper and set up sticky pad. Place trap at or near places where fleas are present and plug into an electrical outlet. Position the flea trap so fleas can see the light in it. Locations under or near furniture are very effective. Use several traps for best coverage and superior results.



**1280110** 1 Trap **\$15.99**  
**1280111** Pack of 3 Traps **\$42.00**  
**1280115** 3 Pack Refill Pads **\$5.49**  
**1280116** 3 Pack Refill Pads - Bundle of 3 **\$15.00**

## Enoz® BioCare® Clothes Moth Traps



**Break The Reproductive Cycle By Luring, Trapping & Killing Adult Male Moths.**

**TARGET:** Adult webbing clothes moths.

**DESCRIPTION:** These traps use a lure that mimics the mating pheromone that female moths emit to attract males. Male moths will be instinctively drawn in and perish on the sticky trap, thus ending their ability to reproduce, and effectively reducing the moth population. *These traps will not control the larval form of the clothes moths*, so if moths are found in the trap take immediate measures to find and dispose of the larvae. Pesticide free. Safe for use in food-handling and food storage areas.

**SUGGESTED USE:** Cut open lure packet. Drop 1 lure from packet directly onto each trap. To prevent compromising effectiveness, do not touch lures. For best results, place traps where moths have been seen and use 2 at a time. Replace traps every 3 months, when full, or when trap becomes dusty, and the adhesive is no longer effective. Use until no moths are caught for 6-9 months before discontinuing use.



<b>1260702</b>	2 Traps	<b>\$8.35</b>
<b>1260703</b>	3 Pack - 2 Traps per Pack	<b>\$23.25</b>
<b>1260704</b>	6 Pack - 2 Traps per Pack	<b>\$42.00</b>

## Catchmaster® Pantry Pest & Moth Traps & Attractant



**Keep Moths From Making Your Foodstuffs Their Dinner.**

**TARGET:** Common flour and grain, Indian meal, Mediterranean flour, raisin, and tobacco moths.

**DESCRIPTION:** This tried-and-true combination of a sticky trap and attractant targets the most common pantry pests found where cereal, pasta, grain and grain-based food, dried fruit, chocolate, pet food, bird seed, nuts and spices are kept. The professional strength, non-toxic attractant included with this trap is odorless to humans, but irresistible to moths. As soon as they enter the trap, they will be firmly caught by the glue inside. This 2" w x 5.25" d x 3.5" h trap can lure moths from up to 12 feet away.

**SUGGESTED USE:** Place trap where moths are noticed, especially in the kitchen and other rooms where human and animal food is stored. (1) Peel off release paper from trap. (2) Remove one lure from the protective package. (3) Insert lure where indicated on the glue trap. (4) Fold along perforations and insert the tab in the slot to form a tent. Check trap daily. If no moths are caught on the 1st day, move to a new location. Discard when full. If moths are still present, replace with a new trap and lure.



<b>1280310</b>	Pantry Pest & Moth Traps & Attractant - 2 pack	<b>\$5.89</b>
<b>1280311</b>	Pantry Pest & Moth Traps & Attractant - 4 pack	<b>\$8.98</b>

## Catchmaster® Crawling Pest & Insect Traps



**A Really Easy Way To Rid Yourself Of Sneaky Crawling Insects.**

**TARGET:** Grasshoppers, crickets, spiders, cockroaches and small scorpions.

**DESCRIPTION:** If insects crawling around your house gives you the creeps, these non-toxic traps should give you a little peace of mind. These are basic sticky traps with two valuable improvements: The glue boards contain a beguiling scent that insects are drawn to and these traps can be folded into little boxes to protect them from dust and debris, and so that you do not have to see the insects trapped in the glue. Can be used flat or folded. When folded, it will not trap mice or larger pests as the opening is too small. Long-lasting, professional strength glue.

**SUGGESTED USE:** (1) Peel off release paper. (2) Lay traps flat along walls in basements, corridors, damp areas, under furniture and wherever insects are observed. (3) Optional – To form box: Fold the trap at perforations and insert tab into slit, forming box.



<b>1260205</b>	Crawling Pest & Insect Traps - 4 pack	<b>\$3.02</b>
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## Harris Bed Bug Detection Traps



**This Low-Cost Option Provides 24/7 Detection Power.**

**TARGET:** Use for detecting the presence of bed bugs in homes and businesses.

**DESCRIPTION:** Infused with an irresistible lure, Harris Bed Bug Detection Traps will draw in the insects and hold them tight with a super-sticky glue. These traps are an excellent choice to use when you will be away from the area where bed bugs are a concern; upon your return you can see what you're dealing with. They are also ideal to use after you have taken the necessary steps to clean up an infestation and would like to determine if your efforts have been effective. These traps are designed to slide discreetly under furniture and bedding. Pesticide free and non-toxic. For commercial and residential use.

**SUGGESTED USE:** Pre-fold trap and remove release paper from glue. Fold the trap and insert the tab at top to hold it together. Fold end flaps inward to form a 30 degree angle. Place the trap near a bedpost or any other location where insects are likely to travel, hide, or congregate. Check the traps regularly. Dispose of the trap when it is covered with insects or after 90 days.



<b>1240315</b>	Harris Bed Bug Detection Traps - 4 pack	<b>\$6.79</b>
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## ABOUT ARBICO ORGANICS

ARBICO Organics began in 1979 when Rick Frey began rearing and selling insects that parasitize developing flies (Fly Eliminators). Rick and Sheri's passion for the environment grew into Arizona Biological Control.

In the early '80s, as demands for Fly Eliminators grew, ARBICO expanded to a 10 acre facility nestled in the Catalina Mountains north of Tucson. We are proud to provide carefully curated pesticide-free and non-toxic solutions for your home, garden, agricultural and livestock needs. In 2011, ARBICO expanded to a facility that includes a retail location, offices and warehouse in Oro Valley, AZ. This main facility houses our team of personnel that offer our customers education and support.

What started with one bug has grown to include so much more - forty years of environmental stewardship and service to our customers. It is our joy and privilege to provide solutions for you to create and nourish what you grow.



Fly Eliminators launch as first product.



## ASK THE EXPERTS

Take advantage of our FREE consultation! Let us help solve your gardening and farming issues with our start to finish ARBICO Organics solutions. Our trained staff will help determine what problem you have (insect, disease, weed, nematode, critter, pet issue, fertility needs), offer solutions for immediate relief and prescribe a long term sustainable program for continued success.

## AUTO SHIP PROGRAM

We can automatically ship any product on a schedule so you won't run out. Popular auto ship products include: Fly Eliminators, Beneficial Nematodes, Predatory Mites as well as most in stock pest control and soil health products.

## PAYMENT OPTIONS

**Credit Cards** (ARBICO accepts all major credit cards) and **PayPal**.

**Mail Checks or Money Orders To:**

ARBICO Organics, 10831 N. Mavinee Dr., Ste. 185, Oro Valley, AZ 85737-9531

**We do not accept cash via mail.**



## CUSTOMER SERVICE

**All phone calls answered by a live person during regular business hours:** Monday through Friday, 8:00 AM - 4:30 PM (Arizona Time)

• Se habla Español

**Toll Free: 800-827-2847**

**International calls: 520-825-9785**

**Fax: 520-825-2038**

## CRITICAL INFORMATION FOR CERTIFIED ORGANIC GROWERS

Please be aware that the certified status of a product can change at any time without notification from the manufacturer or OMRI. Although we make every attempt to assure that the status of the products listed as certified organic are current and up-to-date, when purchasing a product we advise you to protect your certification by checking with your certifying agency that it is acceptable or by going online to OMRI at [www.omri.org](http://www.omri.org).

## LIVE DELIVERY & REFUND POLICY

**For products other than live insects:** Unused, unopened, undamaged items in original packaging can be returned within 30 days. For full details, see our Return Policy at [www.arbico-organics/category/return-policy](http://www.arbico-organics/category/return-policy).

**For live insects:** We guarantee that you will receive live beneficial insects (mites and beneficial nematodes). If your insects perish en route, we will gladly send you a replacement order. We cannot accept returns or make refunds for other reasons since these are perishable products with a limited lifespan and cannot be resold. We cannot guarantee results with live insects since we have no control over how the product is applied, the extent of the problem, and other variables. But if you are not satisfied with your results, we will cancel any unshipped orders and refund the portion of any prepayment that applies to unshipped orders.

**Visit Our Retail Store!**

10831 N. Mavinee Dr., Ste. 185  
Oro Valley, AZ 85737-9531

**800-827-2847**

Please call for product availability.

**STORE HOURS:**  
Monday - Friday: 8:00 AM - 4:30 PM  
(Arizona Time)



## Limitations and Disclaimers

This publication is designed and produced by ARBICO Organics solely for informational purposes. Reasonable efforts have been made to provide accurate information, but errors may occur. All insect quantities are approximate (and the "double tilde" symbol ≈ so indicates). All prices are subject to change without notice. Product specifications are provided by the manufacturers and are also subject to change without notice. Photographs are for illustrative purposes only.

Notwithstanding any other statements in this catalog, **all warranties, express and implied, including warranties of merchantability and fitness for a particular purpose, are hereby disclaimed and excluded.** By placing an order with ARBICO, buyer agrees that the limited remedies described in "Our Satisfaction Guaranties" are the sole and exclusive remedies available to buyer. All damages, including incidental and consequential damages, are hereby excluded.



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*Sheri Herrera de Frey,  
Vice President,  
ARBICO Organics<sup>®</sup>*

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Per Shipment for 2-5 Horses  
USPS Shipping Included\* in Prices!

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2 - 5	1/2 Unit	\$21.95
6 - 10	1 Unit	\$32.95
11 - 15	1 1/2 Units	\$43.95
16 - 20	2 Units	\$57.95
21 - 25	2 1/2 Units	\$71.95
26 +	Please Call 1-800-827-2847	

**Order Your Fly Control Program Today!**  
\*USPS shipping included up to 5 units.

†These are units of measurement, not warranties or guarantees of performance. The total seasonal cost of Fly Eliminators<sup>®</sup> depends on the recommended number of shipments which may be different than what competitors may recommend. We recommend releasing a shipment every 2-4 weeks throughout the fly season, but releases ranging from 1-6 weeks are not uncommon. Customer experiences may vary. The quantity required and frequency of application can differ according to region, size and condition of property or stables, severity of fly problem, neighbors, manure management, number of animals and start date of program. All warranties, express or implied are disclaimed. One unit bag shown. © 2021 Arizona Biological Control, Inc.

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