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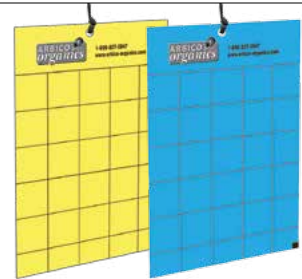
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Guaranteed Live Delivery



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**How To Contact Us:**

**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 square foot 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, these beneficial insects 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>

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



### ADVANTAGES

- Predatory in all life stages
- Shipped as adults, ready to consume on arrival
- Good for field crops and greenhouses
- Aggressive against thrips

## 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**
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%

1112525 ≈1,500 - Starter Size ≈800 sq. ft. \$12.95

Larger sizes 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 (*Sitobian 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>\$80.00</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>
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**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 Lacewing 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 25) or Neem based sprays.
7. Clean tools and equipment as well as greenhouse structures between growing seasons. See Cleaning & Sanitizing on page 54.

## 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>

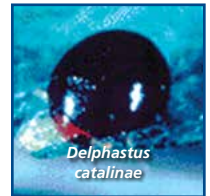
**2nd Day Shipping Required**

\*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>\$47.50</b>
<b>1126003</b>	≈200 Count	<b>\$74.95</b>
<b>1126002</b>	≈1000 Count	<b>\$162.00</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%

1101329	≈100 Adults	\$17.00
1101330	≈500 Adults	\$54.00
1101331	≈1000 Adults	\$78.00
1101332	≈3,000 Adults	\$170.00

**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**

## Monitor & Identify Using Sticky Traps

Trapping is the most efficient way to monitor your crop for pest insects and can often indicate the insect's presence early enough that other control measures can be taken. Bright yellow traps attract whiteflies and aphids while blue traps can draw thrips and leafminers.

**See pages 20-21 for more options.**





## 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 1 Liter Tube	<b>\$62.00</b>
<b>1101319</b>	≈50,000 in 1 Liter Tube	<b>\$105.00</b>
<b>1101311</b>	≈125,000 in 5 Liter Bag	<b>\$235.00</b>
<b>1101309</b>	≈200,000 Bulk	<b>\$375.00</b>

### CONTROLLED RELEASE:

<b>1101317</b>	≈50,000 in 200 Mini Sachets w/Hooks	<b>\$120.00</b>
<b>1101318</b>	≈62,500 in 500 Mini Sachets on Sticks	<b>\$220.00</b>
<b>1101314</b>	≈125,250 in 6 x 328 ft. Strips of Sachets	<b>\$450.00</b>
<b>1101316</b>	≈125,000 in 1,000 Mini Sachets w/Hooks	<b>\$330.00</b>
<b>1101315</b>	≈250,000 in 1,000 Mini Sachets w/Hooks	<b>\$467.00</b>

**Overnight Shipping Required**



*Amblyseius swirskii*

## 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 pg. 15).

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

### BULK SIZES:

<b>1152204</b>	≈50,000 in Bran/Vermiculite Mix	<b>\$38.50</b>
<b>1152224</b>	≈50,000 in Vermiculite	<b>\$40.00</b>
<b>1152205</b>	≈100,000 in Bran	<b>\$55.00</b>
<b>1152206</b>	≈250,000 in Bran/Vermiculite Mix	<b>\$100.00</b>
<b>1152223</b>	≈250,000 in Vermiculite	<b>\$112.00</b>

### CONTROLLED RELEASE:

<b>1152225</b>	≈125,000 in 500 Mini Sachets on Sticks	<b>\$80.00</b>
<b>1152221</b>	≈200,000 in 400 Sachets w/Hooks	<b>\$65.00</b>
<b>1152201</b>	≈200,000 in 200 Sachets w/Hooks	<b>\$75.00</b>
<b>1152222</b>	≈250,000 in 1,000 Sachets w/Hooks	<b>\$120.00</b>
<b>1152226</b>	≈250,000 in 1,000 Mini Sachets on Sticks	<b>\$135.00</b>
<b>1152227</b>	≈500,000 in 2,000 Mini Sachets on Sticks	<b>\$245.00</b>
<b>1152220</b>	≈1,602,000 in 6 x 525 ft. Strips of Sachets	<b>\$600.00</b>

**Overnight Shipping Required**



*Neoseiulus (=Amblyseius) cucumeris*

## 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**



*Orius insidiosus*

## 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 59) 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.

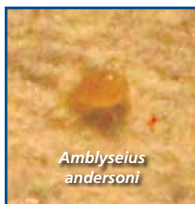
**BULK SIZES:**

<b>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	<b>\$225.00</b>
<b>1101355</b>	≈125,000 in 1,000 Mini Sachets on Sticks	<b>\$650.00</b>
<b>1101322</b>	≈125,250 in 6 x 328 ft. Strips of Sachets	<b>\$600.00</b>

**CONTROLLED RELEASE:**

<b>1101327</b>	≈50,000 in 1 Liter Bottle	<b>\$150.00</b>
<b>1101321</b>	≈125,000 in 5 Liter Bag	<b>\$375.00</b>

**Overnight Shipping Required**



*Amblyseius andersoni*

## 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>

**Overnight Shipping Required**



*Mesoseiulus longipes*

## Mite Predator - *Galendromus occidentalis*

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

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

**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>1151220</b>	≈10,000 Count	<b>\$160.00</b>
<b>1151221</b>	≈50,000 Count	<b>\$450.00</b>

**Overnight Shipping Required**



*Galendromus occidentalis*

**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>1151201</b>	≈1,000 Count	<b>\$35.00</b>
<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>\$125.00</b>
<b>1151215</b>	≈25,000 in 200 Mini Sachets	<b>\$162.00</b>

**Overnight Shipping Required**



*Neoseiulus (=Amblyseius) californicus*

## 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%

<b>1151401</b>	≈1,000 Count	<b>\$39.95</b>
<b>1151402</b>	≈2,000 Count	<b>\$52.00</b>
<b>1151403</b>	≈5,000 Count	<b>\$86.75</b>
<b>1151404</b>	≈10,000 Count	<b>\$152.00</b>

**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%

<b>1155701</b>	≈250 Count	<b>\$144.00</b>
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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 Elijahu Ltd.*

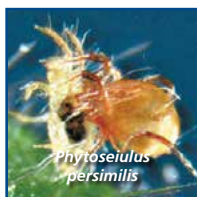
**TARGET:** Two spotted spider mites and various other mites.

**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%

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

**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%

<b>1113301</b>	≈100 Count	<b>\$92.00</b>
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**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%

1122001	≈10,000 Adults	<b>\$27.00</b>
1122002	≈25,000 Adults	<b>\$57.00</b>
1122003	≈50,000 Adults	<b>\$109.00</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 predares 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%

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

**Overnight Shipping Required**

Cannot be shipped to the following states: HI, PR, VI, GU, AS, PW



## Mealybug Parasitoid - *Anagyrus pseudococci*

Stop Destructive Mealybugs With This Beneficial Parasitoid.

Image Citation: Crerob Hermosillo, Mexico

**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%

1132060	≈100 Mummies	<b>\$32.00</b>
1132061	≈200 Mummies	<b>\$60.00</b>
1132072	≈500 Mummies	<b>\$120.00</b>

**Seasonal Availability.**

**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%

1114702	≈100 Adults	<b>\$49.95</b>
1114703	≈250 Adults	<b>\$97.00</b>
1114704	≈500 Adults	<b>\$194.50</b>
1114705	≈1,000 Adults	<b>\$330.55</b>
1114710	≈5,000 Adults	<b>\$990.00</b>

**Overnight Shipping Required**



## 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)	\$30.00
<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)	\$30.00
<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)	\$30.00
<b><i>Trichogramma pretiosum</i> - row crops, vinyards</b>		
1131021	3 Tabs	\$15.00
1131003	6 Tabs	\$20.00
1131022	1 Card (30 Tabs)	\$30.00

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.

**For Moth Control, See Page 24.**

## CATERPILLAR CONTROL

### 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. Can be applied with a hand sprayer or a hose-end sprayer and can be used up to and on the day of harvest. 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.

1201210	Monterey B.t. Concentrate - 1 Pint	\$12.99
1201211	Monterey B.t. Concentrate - 1 Quart	\$20.49
1201212	Monterey B.t. Concentrate - 1 Gallon	\$72.99

Cannot be shipped to the following states: ND, WY



### 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 tsps./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





## 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 Viscent*

**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.



## Honey Bee Magnet

When Placed Where Blooms Are Starting, The Honey Bee Magnet Will Increase The Number Of Pollinators That Come 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	\$27.97



## Predalure™

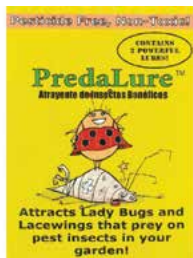
Attract Ladybugs, Green Lacewings & Many Other Beneficial Insects Into Your Garden With Predalure.

**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
1231322	Predalure - 10 Lures	\$43.00
1231321	Predalure - 25 Lures	\$90.00



## Monterey Lady Bug Attractant

Attract Beautiful & Beneficial Ladybugs!

**TARGET:** Gardens lacking beneficials, with mild to moderate pest infestations.

**DESCRIPTION:** This specialized product contains pheromones that will send out signals to and attract garden friendly ladybugs! Contains 3 ready-to-use lures!

**SUGGESTED USE:** Place in orchards, gardens, greenhouses and nurseries during growing seasons. Wear gloves to avoid touching the lure. Hang where pest infestations are present and replace lure every 2-3 weeks.

1281605	Lady Bug Attractant - 3 Lures Per Pack	\$11.50
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## 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

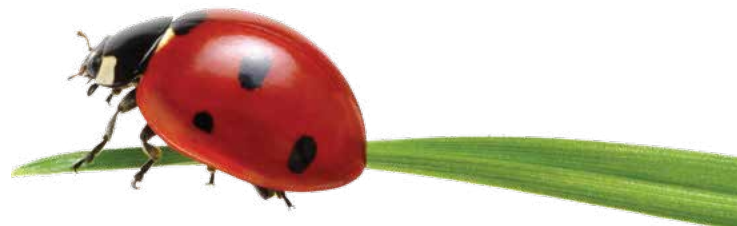
Beneficial Insect Attractant & Food.

**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.

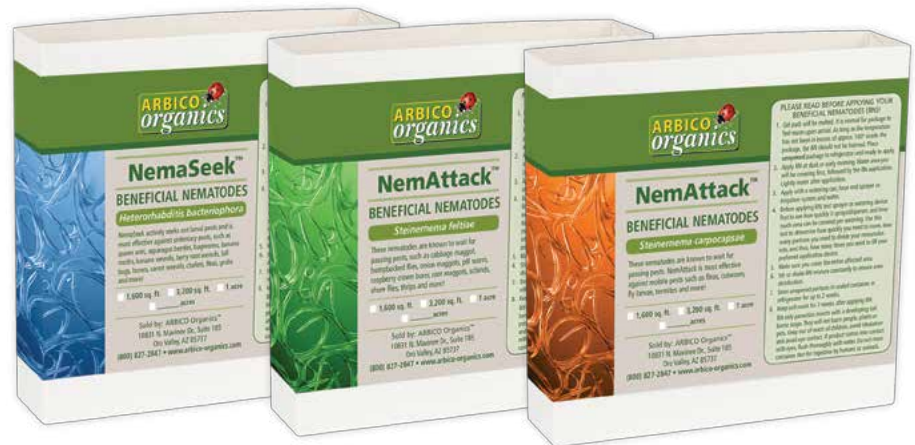
**SUGGESTED USE:** Dry or wet application can be made. For dry applications you can directly dust your plants. For wet applications, mix 4 oz. /1 gal. of water to treat 3,000 sq. ft. using a garden sprayer. For 1/2 acre, mix 1/2 lb. in 5-10 gal. of water. This product can also be applied as a paste or 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 the following pages 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.

## 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 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.



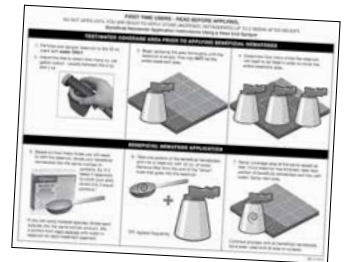
## How Do I Apply Beneficial Nematodes?

**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 59), 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	▲	Scarids	■
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)
- = NemaAttack™ *Steinernema feltiae* (Sf)
- = NemaAttack™ *Steinernema carpocapsae* (Sc)
- ★ = NemaAttack™ *Steinernema riobrave* (Sr)
- ◆ = 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
■ NemaAttack <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
● NemaAttack <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
★ NemaAttack <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 & NemaAttack 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	\$655.00
▲ ■ NemaSeek Hb & NemaAttack 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	\$655.00
■ ● NemaAttack Sf & NemaAttack 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	\$655.00

TRIPLE THREAT COMBO		
SKU	Size	Price
▲ ■ ● NemaSeek Hb, NemaAttack Sf & NemaAttack 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)
- = NemaAttack™ *Steinernema feltiae* (Sf)
- = NemaAttack™ *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
■ NemaAttack 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
● NemaAttack 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, NemaAttack Pro Sf Beneficial Nematodes & NemaAttack 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.

# PEST INSECT TRAPS



## 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.

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



#### 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.

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

## BioCare® Gnat Stix

### An Effective Treatment For A Variety Of Small Pests Infesting Indoor Plants!

**TARGET:** Fungus gnats, aphids, plant lice & more!

**DESCRIPTION:** Effective for even the worst infestations of fungus gnats. Use one Gnat Stix for each infested plant in adjacent rooms or hallways.

**SUGGESTED USE:** Peel release paper on yellow sticky sheet. Slide stick through the holes in the sticky sheet. Use one sticky strip on each stick. Place in the soil of plants. Avoid leaves coming in contact with sticky paper.



<b>1280501</b>	Gnat Stix - 12 Per Pack	<b>\$6.65</b>
<b>1280502</b>	Gnat Stix - 12 Per Pack - Bundle of 2	<b>\$11.50</b>
<b>1280503</b>	Gnat Stix - 12 Per Pack - Bundle of 4	<b>\$20.50</b>

## 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 inserted into included stake. If hung, traps should be slightly above the plant canopy.

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

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



## 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" sq grid. Cards are perforated and can easily be torn into mini sizes for 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>	FlyWeb Insect Monitor Cards - Yellow/Blue	<b>\$10.50</b>
<b>1254006</b>	FlyWeb Insect Monitor Card - Yellow/Yellow	<b>\$11.00</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>\$125.00</b>
<b>1259613</b>	Yellow Stiky Tape - 12" wide x 530' long	<b>\$175.00</b>

\*Larger quantities available.

## 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.

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

**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>



# SLUG & SNAIL / GRASSHOPPER CONTROL

## 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 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	\$22.75
1271116	Sluggo Plus 10 lb. Jug	\$66.50

## 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	\$16.99
1272025	Slug Gone - 3.5 Liter Bag - Case of 6	\$84.00

## Slug Saloon

### This Will Be A Slug's Last Drink!

**TARGET:** Slugs.

**DESCRIPTION:** Use this rugged, low-maintenance trap for years of effective slug control. The food-grade malted barley bait is child & pet safe but irresistible to slugs, who are lured in by the smell and drown in the broth. Each bait lasts for 30 days. Trap comes with one bait, measuring spoon and instructions.



**SUGGESTED USE:** Either place on or sink into the ground one trap for every 10 sq. ft. Bait should be emptied and refilled every 3-4 days.

1272003	Trap w/1 Month Bait Supply	\$7.45
1272012	2 Traps plus 4, 3-Month Baits	\$35.00
1272013	5 Traps plus 10, 3-Month Baits	\$80.00
1272014	10 Traps plus 20, 3-Month Baits	\$153.00
1272009	1, 3-Month Bait Refill	\$7.75
1272010	5 Pack, 3-Month Bait Refill	\$36.25
1272011	10 Pack, 3-Month Bait Refill	\$67.50

## GRASSHOPPER CONTROL

## Nolo Bait

### Put An End To Destructive Grasshoppers & Crickets!

**TARGET:** Grasshoppers and mormon crickets.

**DESCRIPTION:** Approved for organic production by NOP, this bait is made from flaky wheat bran that is coated with *Nosema locustae*. The wheat bran serves as a lure; adult insects find it irresistible. Once ingested by a grasshopper or cricket, *Nosema locustae* (a single-cell protozoa) creates a disease that is deadly to those specific insects but will not harm other living species. Infected insects will soon weaken and die; with the younger ones dying in as little as a week. As they weaken and die, grasshoppers will eat their dead comrades and become infected as well. *Nosema* works best when applied to younger stages of hoppers (1/4 - 1/2" long). Heavy infestations may require repeat applications.



**SUGGESTED USE:** When applying, do not allow product to come into contact with fruit or vegetables. For best results, use before 13 weeks after formulation. Apply to lawns and gardens at a minimum rate of 5 tsps. per 100 sq. ft. Apply by hand, by shaker can or spreader. Include a buffer zone around area to be treated.

1160000	Nolo Bait - 1 lb. Bag	\$22.00
1160001	Nolo Bait - 5 lb. Bag	\$54.00

**Cannot be shipped to the following states:** AK, CT, DE, DC, HI, IL, IN, LA, ME, MD, MA, MN, MS, NH, NJ, NY, ND, PA, PR, RI, SD, VT, VI, VA, WV, WI

## 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.**

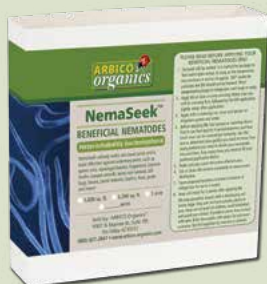


Photo Credit: UNL Entomology Department

### 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 page 59). 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.

- |                |   |                |
|----------------|---|----------------|
| <b>1216001</b> | Milky Spore Powder - 10 oz. - Covers ≈2,500 sq. ft.   | <b>\$28.60</b> |
| <b>1216040</b> | Milky Spore Powder - 40 oz. - Covers ≈1/4 acre        | <b>\$83.50</b> |
| <b>1216050</b> | Milky Spore Powder - 50 lb. Drum* - Covers ≈4.5 acres | <b>CALL</b>    |
| <b>1216052</b> | All-Purpose Dispenser Tube                            | <b>\$14.50</b> |

\*Call for freight quote.

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



### 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.

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

\*Call for freight quote.

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





## Asian Citrus Psyllid (ACP) Detector

Closely Monitor Your Citrus To Fight The Spread Of Deadly Disease.

1254220	ACP Detector - 4 Pack (4 Traps/8 Hangers)	\$10.99
1254221	ACP Kit (1 Lure, 2 Traps, 2 Hangers)	\$8.99
1254222	ACP Lure - 2 Pack	\$8.99

## BioCare® Apple Maggot Trap W/Lures

Trap The Fruit Flies That Lay Their Eggs In Your Fruit!

1239205	Trap w/Lures - Pack of 3	\$16.50
1239203	Apple Maggot Lure	\$7.00

## BioCare® Codling Moth Trap

Detect & Trap Codling Moths.

1240301	Codling Moth Trap (2 Traps & 2 Lures)	\$8.25
1240297	Codling Moth Trap - (2 Traps & 2 Lures) Bundle of 3	\$27.00

## Monterey Citrus Leafminer Trap & Lure

Monitor & Trap Damaging Leafminer Species!

1555638	Monterey Citrus Leafminer Trap & Lure - Pack of 2	\$16.99
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## Monterey Peach Tree Borer Trap

An Easy To Install Pheromone Trap Designed To Attract Borers.

1555640	Monterey Peach Tree Borer Trap (2 Traps & 2 Lures)	\$11.50
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Cannot be shipped to the following states: CO, NM



See full line of Scentry traps & pheromone lures online.

## Monterey Fruit Tree Spray Plus



OMRI Listed Spray Combining Pyrethrins & Neem Oil Used As Insecticide, Fungicide & Miticide.

**Target:** Powdery mildew, downey mildew, rusts and leaf spot; aphids, spider mites, whiteflies, loopers, leafminers and more.

**Description:** Monterey Fruit Tree Spray Plus is a natural control spray for many common pest insects and plant diseases, such as powdery mildew, downy mildew, rusts and leaf spots. A mixture of pyrethrins and 70% Neem Oil ensures that Monterey Fruit Tree Spray Plus is fast-acting when sprayed on your plants up until the day of harvest.

**Suggested Use: Concentrate:** Mix 2 tablespoons of Monterey Fruit Tree Spray Plus per gallon of water and thoroughly apply to all leaf surfaces including the undersides of the leaves. **RTS:** Attach to a hose with water access and follow spraying directions on the label.



1257930	Fruit Tree Spray Plus - 1 Pint	\$19.49
1257932	Fruit Tree Spray Plus - 1 Quart	\$31.50
1257931	Fruit Tree Spray Plus - 1 Pint RTS	\$24.99

## IV Organic® 3-In-1 Tree Guard Paint

An Organic Pest Control Solution For Your Trees – Easy As 1-2-3!

**TARGET:** Insect and small animal pests and sun damage to trees.

**DESCRIPTION:** Trees can easily fall victim to insects, the sun and rodents; this easy-to-use tree paint offers an eco-friendly solution. This paint is made with Neem oil, which deters insects by repelling them, coating and smothering them. Additionally, it's fatal if ingested. This product contains Castor oil, which has a taste that most rodents and other small animals find repugnant. Sunburn and sunscald can cause great stress to a tree and can lead to death. This highly reflective paint will keep a good portion of the sun's damaging rays out. Goes on very easily and requires only one application per year.



**SUGGESTED USE:** One can contents should cover approximately 12 young tree trunks (3 gal. size) with a single coat. Fill can with powder and oil fill from can, fill with water and stir.

1240100	3-in-1 Tree Guard Paint - 1 Pint White	\$34.95
1240101	3-in-1 Tree Guard Paint - 1 Pint Brown	\$34.95
1240102	3-in-1 Tree Guard Paint - 1 Pint Green	\$34.95
1240115	3-in-1 Tree Guard Paint - 1 Gallon White	\$199.95
1240116	3-in-1 Tree Guard Paint - 1 Gallon Brown	\$199.95
1240114	3-in-1 Tree Guard Paint - 1 Gallon Green	\$199.95

Case sizes available.



## BEAVERIA 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 **\$80.00**  
**1332799** BotaniGard ES - 1 Gallon **\$260.00**

#### BotaniGard 22WP

**1332800** BotaniGard 22WP - 1 lb. Powder **\$85.00**

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. **\$100.00**  
**1332795** Mycotrol WPO - 1 lb. (Case of 12) **\$1,080.00**

Ships via UPS Ground & FedEx Ground ONLY.



## OTHER BIORATIONAL

### Grandevo® & 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, *Drosophila*, loopers, moths, sharpshooters, earworms, caterpillars and more.

**DESCRIPTION:** Grandevo uses the bacterium *Chromobacterium subtsugae* 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.

**1332950** Grandevo - 5 lbs. **\$112.00**

**1332952** Grandevo WDG - 6 lbs. **\$155.00**

Grandevo - 5 lbs. (1332950) cannot be shipped to the following states: CA



### PFR-97™ 20% WDG

Directed Fungal Growth Is The Key To This Remarkable Insecticide.

**TARGET:** Aphids, black vine & root weevils, broad, russet & spider mites, leafminers, Coleoptera grubs & larvae, *Lepidoptera* caterpillars & larvae, mealybugs, plant bugs, phorid & scarid flies, thrips, whiteflies, root & wireworms.

**DESCRIPTION:** PFR-97 uses an entomopathogenic fungus, *Isaria fumosorosea* Apopka Strain 97, as its active ingredient. This is a naturally occurring, soil-borne fungus that infects and kills many insect pests. Infection, however, is not limited to soil-dwelling pests; it is spread above ground by sick and dying insects. This product has successfully harvested this fungus to control targeted insects. Germination & growth occurs over several days, so application should begin at the first sign of pests, before infestation. Can be mixed with most other products, but the only fungicide it can be mixed with are copper-based ones. 4 hour REI, OMRI listed, NOP approved.

**SUGGESTED USE:** Standard application rate: Apply PFR-97 to moist or pre-irrigated soil at 1-2 lbs. per acre of soil. Spray volume depends on crop size/type: 20-50 GPA on small or young crops; 80-100 GPA or more on full grown crops.

**1332870** PFR-97 20% WDG - 5 lbs. **\$225.00**

Cannot be shipped to the following states: AK, AL, AR, IA, UT



### 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 - 32 oz. **\$56.99**

**1332958** Venerate CG - 1 Gallon **\$133.99**

**1332960** Venerate XC - 2.5 Gallons **\$250.00**

Cannot be shipped to the following states: CA



### Surround® WP



An Effective Crop Protectant That Creates A Barrier Between The Crop & Pests.

**TARGET:** Apple maggots, codling moths, glassy-winged sharpshooter, Japanese beetles, leafhoppers, lesser apple worms, oriental fruit moth, pear psylla, plum curculio, rose chafer, silverleaf whiteflies, stink bugs, thrips, tufted apple bud moths.

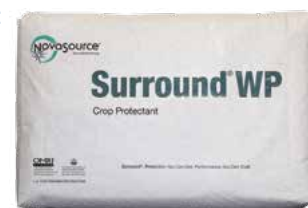
**DESCRIPTION:** Made from specially modified kaolin clay, Surround WP forms a barrier that protects from many pests when sprayed on fruits or vegetables. The white barrier repels pests, causes irritation, confusion, and is an obstacle for feeding and egg-laying. Kaolin clay is highly recommended for apples, wine grapes, citrus, pears, walnuts, cucumbers and tomatoes.

**SUGGESTED USE:** Surround WP can be applied with standard commercial sprayers, hand-held sprayers and backpack sprayers.

**1440065** Surround WP - 25 lb. Bag **\$56.25**

Ships via Ground ONLY.

Please note: Growth enhancers are not registered in the state of California.



For More Insecticide Solutions  
Visit [www.arbico-organics.com](http://www.arbico-organics.com)

## 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.

**1274107** Organic JMS Stylet-Oil - 1 Gallon **\$36.00**  
**1274108** Organic JMS Stylet-Oil - 2.5 Gallons **\$51.00**

\*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)



### SuffOil-X®

**OMRI Listed Pre-Emulsified Mineral Oil Suffocates Many Soft-Bodied Insects & Controls Certain Fungal Diseases.**

**TARGET:** Aphids, cankerworms, leafhoppers, leafrollers, mealybugs, mites, plant bugs, psyllids, soft scales, webworms, whiteflies, rust and powdery mildew.

**DESCRIPTION:** Made with refined pre-emulsified mineral oil, this suffocant creates the best coverage with limited risk of plant damage. Using a pre-emulsified creates a lighter oil that dries faster, will not cause phytotoxicity, burn or undue stress, leaves no toxic residue on plants and dilutes easily with water.

**SUGGESTED USE:** Can be used with a wide variety of crops indoors or outdoors. Apply when oil will dry and evaporate in 1-2 hours and when relative humidity is less than 90%. Application rates are generally 1-2 gallons of SuffOil-X per 100 gallons of water or 20-500 gallons of spray solution per acre.

**1332805** SuffOil-X - 2.5 Gallons **\$65.00**  
**1332806** SuffOil-X - Case of 2 ct./2.5 Gals. **\$117.00**

Larger sizes available.

**Shipping Restrictions:** Cannot ship via US Mail or air shipping methods.

**Cannot be shipped to the following states:** AK, DC



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

**1274200** PureCrop1 - 16 oz. **\$45.00**  
**1274201** PureCrop1 - 1/2 Gallon **\$120.00**  
**1274202** PureCrop1 - 1 Gallon **\$225.00**  
**1274203** PureCrop1 - 2.5 Gallons **\$552.00**



### Eco-1® 40

**Strong Control That's Gentle Enough To Use On Edible And Medicinal Plants.**

**TARGET:** Aphids, whiteflies, two-spotted spider mites and fungal diseases like Powdery Mildew.

**DESCRIPTION:** Eco-1 40 contains food-grade 31% Linseed Oil with 8% Rosemary and 1% Thyme Oils. This potent OMRI listed mixture will control, via suffocation, a wide range soft-bodied insects and mites in all their life stages. Also a powerful tool against fungal diseases. Can be used on plants grown for feed, fuels, fiber or medicinal purposes. No REI or PHI. No adjuvants, surfactants or penetrants needed. FIFRA 25(b) exempt from EPA registration.

**SUGGESTED USE:** For best results, do not mix with cold water (less than 45°F). Aphids: Apply every 7-12 days. 1 1/2-3 fl oz/gal water (1-2 gals/100 gals water) for dormant applications. 3-6 fl oz/gal water (2 1/2-5 gals/100 gals water) for active. Whiteflies: 3-6 fl oz/gal water every 7-12. 2 1/2-5 gals/100 gals water every 7-14 days. Mites: 1-1 1/2 fl oz/gal water every 5-7 days. 3/4-1 gal/100 gals water every 7-14 days. Powdery Mildew: 3-6 fl oz/gal water every 3-14 days. 2 1/2-5 gals/100 gals water every 7-14 days.

**1458140** Eco-1 40 - Concentrate - 1 Gallon **\$269.99**

**Cannot be shipped to the following states:** AR, CT, DC, ID, IA, KS, KY, LA, ME, MI, MS, NE, NV, NH, ND, OR, RI, UT, VT, VA, WI



## Summerset® AllGuard™

**This Spray Repels Lots Of Insects – & The Rain!**

**TARGET:** For use in repelling listed insects from vegetable gardens, flowers, ornamentals and lawns.

**DESCRIPTION:** This highly concentrated repellent uses Garlic Juice to fend off insects and keep them away. The natural sulphurs in Garlic Juice are repugnant to the insects that plague plants and trees. There will be a garlic odor when sprayed, but the smell will dissipate in about 30 minutes. Use it on most anything you grow; it won't leave a garlic taste on your crops. SummerSet AllGuard is blended with a rain-resistant additive that will keep the product on the plants and trees. There is no need to use additional adjuvants, stickers or surfactants.

**SUGGESTED USE:** For preventive treatment: Add 2 oz./gal. water. Make first application at foliar emergence. Repeat every 3-4 weeks. For infestation control: Add 4 oz./gal. Spray every 2-3 days until insects are under control and then maintain on a 3-4 week cycle. For ticks and mosquitoes: Mix 6 oz./gal.

**1452610** Summerset AllGuard - 1 Quart **\$24.95**  
**1452611** Summerset AllGuard - 1 Quart - Case of 6 **\$125.00**



## Eco-1® Fruit & Vegetable Spray



**Works Three Ways To Keep Your Plants Safe.**

**TARGET:** Insects: aphids, mealy bugs, psyllids, scale crawlers, thrips, multiple whitefly species, two-spotted spider mites, red mites, broad mites, Colorado potato beetle, lily leaf beetle and more. Fungal diseases: Leaf spots, scabs, blights, rots, powdery mildew, gray mold and Anthracnose.

**DESCRIPTION:** This OMRI listed spray is a blend of Linseed, Rosemary, Thyme and Peppermint Oils that will kill insect pests on contact through suffocation and will prevent and suppress fungal pathogens by disrupting the cell walls of spores and hyphae. This pleasant-smelling spray can be used on all plants (including edibles), whether grown indoors, outdoors or anywhere in between. Contains no petroleum solvents. No adjuvants, surfactants or penetrants needed. Vegan friendly. FIFRA 25(b) exempt from EPA registration.

**SUGGESTED USE:** Use in handheld sprayers, pump sprayers and foggers. Dilute with water above 45°F. Light insect & disease pressure or slow growing plants: 4-12 fl oz / gal water and apply once every 7-14 days. Heavy insect & disease pressure or fast growing plants: 8-24 fl oz/gal water and apply 1-2 times every 7 days. Do not apply to wilted or otherwise stressed plants or to new transplants prior to root establishment. Do not apply when temps exceed 90°F and do not spray directly on blooms.

**1458130** Eco-1 Fruit & Veg. Spray - Conc. - 8 oz. **\$19.99**  
**1458131** Eco-1 Fruit & Veg. Spray - Conc. - 32 oz. **\$39.99**  
**1458135** Eco-1 Fruit & Veg. Spray - RTU - 32 oz. **\$14.99**

**Cannot be shipped to the following states:** CT, DC, IN, ME, MS, NM, PA, SD, WV



## 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.

**1273055** Essentria IC-3 - Conc. - 1 Quart **\$40.99**  
**1273056** Essentria IC-3 - Conc. - 1 Gallon **\$129.99**



## Garlic Barrier®

**Protect Your Plants With Garlic!**

**TARGET:** Ants, aphids, armadillos, armyworms, beetles, birds, caterpillars, deer, grasshoppers, leafhoppers, leafminers, loopers, mealybugs, mites, rabbits, sawflies, whiteflies and wireworms.

**DESCRIPTION:** Made from 10% garlic extract, when absorbed by plants it helps to protect them from pest insects, repelled by the smell and taste. The garlic odor diminishes about 30 minutes and will not alter taste.

**SUGGESTED USE:** Apply weekly. For nematode and grub control, spray seeds before planting. For foliar applications, apply before noon for best results. Mix at a rate of 1 cup/ 10 cups water to cover about 15,000 sq. ft.

**1452602** Garlic Barrier - 1 Quart **\$11.99**  
**1452603** Garlic Barrier AG+ - 1 Gallon **\$73.80**

Call for larger sizes.

**Cannot be shipped to the following states:** AK, AL, AR, DC, IA, ID, KS, KY, LA, MS, ND, SC, WA, WV, WY



## NEEM OIL

### BONIDE® Neem Oil RTU & Concentrate

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, leafroller, etc. 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**

**1246603** BONIDE Neem Oil Concentrate - 1 Pint **\$17.98**

Cannot be shipped to the following states: DC



### Monterey 70% Neem Oil

Effective Against Indoor & 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 Spray Bottle **\$11.99**

**1555614** Monterey 70% Neem Oil - 1 Pint Concentrate **\$19.90**

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



### Rango™

Three Types Of Control Delivered Through  
Superior Suspension.

**TARGET:** Insects: soft-bodied insects, beetles, borers, caterpillars/moths, beetles, flies/gnats, leafhoppers, maggots/grubs, borers, grasshoppers, leafminers, psyllids, True Plant Bugs, weevils, wireworms and 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 it 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 and can be used on a very 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**



### Debug® ON

Use This Neem Oil Formulation For Broad  
Spectrum Pest & Disease Control.

**TARGET:** Aphids, armyworms, fall armyworms, beetles, budworms, caterpillars, fruit flies, fungus gnats, grasshoppers, leaf hoppers, leafminers, mealybugs, rusts, powdery mildew, mites, moths, root knot nematodes, psyllids, scales, sharpshooters, thrips, weevils, whiteflies, wireworms, webworms and many, many more.

**DESCRIPTION:** This emulsifiable concentrate acts as an antifeed, insect repellent, insecticide, miticide, fungicide and nematicide to control a wide range of pests, parasites and diseases in organic and conventional crops. It gets its power from the biomass extract of neem seed kernels (a 70% active ingredient) and offers all this control in a single application. Debug ON has a Restricted Entry Interval (REI) of 4 hours and you can harvest crops on the same day they are treated.

**SUGGESTED USE:** Standard application for 1 acre: 56-364 fl. oz. with 100 gallons of water or sufficient amount of water to ensure total foliar coverage.

**1450530** Debug ON - 2.5 Gallons **\$105.00**

**1450540** Debug ON - 2.5 Gallons, Case of 2 **\$195.00**

Cannot be shipped to the following states: AL, AK, AR, CA, CT, DE, DC, FL, GA, HI, ID, IL, IN, IA, KS, KY, LA, ME, MD, MI, MN, MS, MO, MT, NE, NH, NJ, NM, NY, NC, ND, OH, OK, PA, RI, SC, SD, TN, UT, VT, VA, WV, WI, WY



## AZADIRACHTIN

### 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>



### 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>\$165.00</b>
<b>1222205</b>	AzaGuard - 32 oz. - Case of 4	<b>\$594.00</b>
<b>1222206</b>	AzaGuard - 1 Gallon	<b>\$555.00</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>\$37.25</b>
<b>1288750</b>	Azera Gardening - 32 oz.	<b>\$91.25</b>
<b>1288760</b>	Azera Gardening - 1 Gallon	<b>\$341.00</b>



### Debug® Turbo



**Controls Over 200 Pest Insects, Plant Parasitic Nematodes & Other Plant Pathogens.**

**TARGET:** Red ants, cutworms, grubs, chinch bugs, crickets, aphids, whiteflies, thrips, beetles, leafhoppers, spider mites, caterpillars, cabbage loopers, armyworms, grasshoppers, maggots, weevils, chafers, spider mites, spittlebugs, webworms, *Rhizoctonia solani*, *Sclerotium rolfsii*, *Sclerotinia sclerotiorum*, *Fusarium oxysporum*, rust and powdery mildew.

**DESCRIPTION:** OMRI listed Debug Turbo is an insecticide, fungicide, miticide, and nematocide. Use to control insects in various stages of development, repel insects from entering treated areas and to deter insects from feeding on treated surfaces. It also acts as a growth regulator when ingested by young insects. Contains a high concentration of azadirachtin, tri-terpenoids and neem oil. It has a low REI and PHI and can be used without harm to beneficial insects.

**SUGGESTED USE:** Mix 2 tbsps (1 oz)/32 oz of water in spray container. Spray on foliage, making sure to completely saturate all surfaces. Apply in early morning or late evening with temperatures less than 95°F. For best results apply weekly; do not water leaves for 24 hours after application.

<b>1450500</b>	Debug Turbo - 1 Quart	<b>\$64.25</b>
<b>1450502</b>	Debug Turbo - 1 Gallon	<b>\$260.00</b>

Case sizes available.

**Cannot be shipped to the following states:** AL, AK, AR, CT, DE, GA, ID, IL, IN, IA, KS, KY, LA, MA, MN, MS, MO, MT, NE, NH, NJ, NM, NY, ND, OH, OK, RI, SC, SD, TN, UT, VT, WV, WY



## 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>\$20.50</b>
<b>1288720</b>	PyGanic Gardening - 32 oz.	<b>\$49.50</b>
<b>1288730</b>	PyGanic Gardening - 1 Gallon	<b>\$183.50</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>\$620.00</b>

Case sizes available.

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



### Monterey Take Down Garden Spray

#### A Mix Of Pyrethrins & 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>1257915</b>	Take Down Garden Spray Concentrate - 1 Pint	<b>\$17.49</b>
<b>1257917</b>	Take Down Garden Spray RTU - 1 Quart	<b>\$11.49</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



### 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>\$144.00</b>
<b>1288780</b>	PyGanic Specialty - 1 Gallon	<b>\$530.00</b>



# FLY ELIMINATORS



## 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.

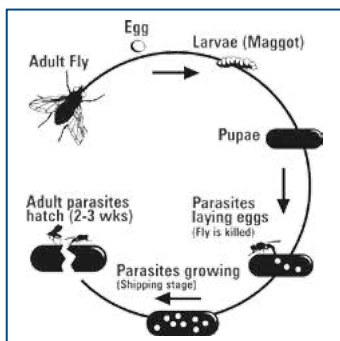


Adult Fly Eliminator emerging from fly pupa.

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!"



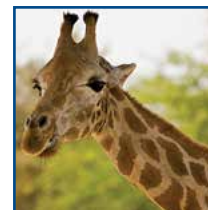
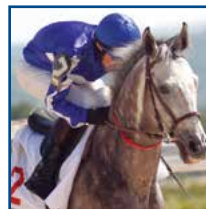
– Roy Smith, Former Track Manager of Philadelphia Park

## 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

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

**Order Your Fly Control Program Today!**

### 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



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



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. © 2020 Arizona Biological Control, Inc.

## Sc Beneficial Nematodes



### Add Beneficial Nematodes For Ultimate Fly Control!

**TARGET:** Fly maggots and other subterranean pests.

**DESCRIPTION:** These live microscopic organisms (non-segmented round worms) occur naturally in soil throughout the world and are parasitic to fly maggots and other subterranean pests. Upon application, they will seek out and enter maggots through body openings. Once inside, the nematode releases bacteria which kill the host maggot within 24 - 48 hours. The bacteria create a food source for the nematodes to reproduce. As the food resources within the dead pest become scarce, the nematodes exit and immediately begin searching for a new host.



**SUGGESTED USE:** Apply nematodes to "hot spot" areas where flies are breeding such as compost and manure piles, around manure and urinating sites, and watering and feeding areas using a watering can, hose end, backpack or pump sprayer or through irrigation or misting systems. Use along with Fly Eliminators for ultimate fly control!

<b>1220319</b>	NemAttack Sc Beneficial Nematodes - ~5 million	<b>\$36.00</b>
<b>1220320</b>	NemAttack Sc Beneficial Nematodes - ~10 million	<b>\$42.95</b>
<b>1220321</b>	NemAttack Sc Beneficial Nematodes - ~50 million	<b>\$72.00</b>
<b>1221702</b>	NemAttack Sc Beneficial Nematodes - ~250 million	<b>\$198.00</b>
<b>1221705</b>	NemAttack Sc Beneficial Nematodes - ~500 million	<b>\$270.00</b>

\*See page 19 for free shipping details.

## balEnce™ Fly Spray

### An Easy-To-Use Beneficial Insecticidal Spray To Fight Flies!

**TARGET:** Larval and adult flies.

**DESCRIPTION:** This EPA approved biological insecticide is suitable for organic programs. Consists of a liquid suspension of beneficial entomopathogenic fungi known as *Beauveria bassiana*. The fungus acts as a parasite on flies, causing white muscardine disease. When the microscopic spores of the fungus come in contact with the body of an adult or larval stage of a fly, they germinate, penetrate the cuticle and grow inside, killing the fly within a matter of days. Soon after, a white mold emerges from the cadaver and produces new spores that continue to infect more flies. After application, adult flies and fly larvae die in 24 to 72 hours. Product will continue to remain viable on residual surface areas for up to about 21 days.



**SUGGESTED USE:** Apply to animal rearing sites, housing and holding areas and manure piles. The 15 oz. container treats up to about 50,000 sq. ft. Apply using a backpack sprayer or fogging equipment. Use no more than 60 oz. per building/area per week. For best results, turn fans off or to lowest level in order to ensure maximum surface area coverage. Can be used in colder months to help curtail impending spring fly blooms. Check for evidence of reduced populations of fly pupae in manure and other breeding areas following application 21 to 35 days or up to 90 days in cooler temperatures.

<b>1272100</b>	balEnce Fly Spray - 15 oz. Bottle	<b>\$116.00</b>
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## SCD Probiotics Barn Kleaner

### Great For Manure Odor & Decomposition!

**TARGET:** Manure odors and resultant pathogenic organisms and flies/insects that it attracts, manure composting operations, and cleaning of barns, corrals, paddocks, etc.

**DESCRIPTION:** Animal manures can contain harmful organisms, emit unpleasant odors and serve as natural breeding grounds for flies and other pesky insects.

Composed from fourteen different species of beneficial microorganisms, this product can be used around animals to help clean areas where manure is present and can help accelerate the decomposition of manure. Use this product as part of a fly control program to stop adult flies from having a place to lay eggs and support new generations.



**SUGGESTED USE:** For barn cleaning apply approximately cup/2.5 gal. of water using a backpack sprayer or portable hand sprayer twice per week. Use on all bedding areas, directly on manure and on all surfaces, including floors, wall and ceilings. Store at room temperature and away from direct sunlight.

<b>1202700</b>	SCD Barn Kleaner - 1 Liter	<b>\$13.50</b>
<b>1202701</b>	SCD Barn Kleaner - 1 Gallon	<b>\$43.00</b>
<b>1202704</b>	SCD Barn Kleaner - 5 Gallon	<b>\$170.00</b>

Case sizes available.

## Revenge® Fly Beater® & Odor Reducer



### Rid Yourself Of Flying & Biting Pests Plus Deodorize The Treated Area While You're At It.

**TARGET:** All flies, gnats, fleas, mosquitoes and ticks.

**DESCRIPTION:** This product uses a potent blend of Cedar, Citronella and Clove oils in a granular formula to efficiently repel a long list of common biting and blood-sucking pests. As an added bonus, the fragrant oils will leave a pleasant scent in even the smelliest of areas. Apply to animals' bedding to mask the animal smell and prevent flies from scent-tracking them. This 1.3 lb. container treats over 2,000 sq. ft. or 20 - 10 x 10 stalls.



**SUGGESTED USE:** These granules are ready to use; no mixing, no water. Broadcast from container or with a lawn spreader at a rate of 10 oz/1,000 sq ft. Initial treatments and severe infestations may require heavier applications. One treatment may be effective for up to two weeks. Temperature, moisture level and wind may affect effectiveness. For horse stalls: 1 oz/10 x 10 sq ft stall. Reapply after stall clean outs, if necessary. For around home pool, patio and porch areas: 10 oz/1,000 sq ft to treat twice the area to be occupied. Not for aquatic or food use. Do not apply directly to water.

<b>1202780</b>	Fly Beater & Odor Reducer - 1.3 lbs. Granules	<b>\$13.99</b>
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Cannot be shipped to the following states: IN, MN, NM

## 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. Weight - 1.5 lbs. Box size - 12 1/4 x 26 1/2 x 1 1/2 inches.



**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>



### Equiderma Horse Spray

**This Powerful Spray Has A Light Citrus 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>\$23.99</b>
<b>1107501</b>	Equiderma Horse Spray - 1 Gallon	<b>\$84.99</b>



### ARBICO Organics® Solar Fly Trap



**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>\$86.00</b>
<b>1256005</b>	ARBICO Organics Solar Fly Trap - Includes 4 Baits	<b>\$108.00</b>
<b>1256002</b>	ARBICO Organics Fly Bait for Solar Fly Trap	<b>\$9.99</b>
<b>1259990</b>	ARBICO Organics Solar Fly Trap - 2 Pack	<b>\$160.00</b>
<b>1259991</b>	ARBICO Organics Solar Fly Trap - 3 Pack	<b>\$234.00</b>
<b>1259992</b>	ARBICO Organics Solar Fly Trap - 4 Pack	<b>\$300.00</b>

Replacement parts available online.

\*FREE SHIPPING via ground or US Mail ONLY.

### Captivator® Fly Trap



**A Budget Friendly Fly Trap That's A Real Workhorse.**

**TARGET:** Filth-breeding flies.

**DESCRIPTION:** This lightweight, yet heavy-duty, 1/2 -gallon (2 qt.) sized trap can stand up to the elements and keep working for months of fly control. 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 lots of flies. Comes with one 30 gm. water-soluble attractant pouch.

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



<b>1256051</b>	Captivator Fly Trap	<b>\$10.99</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.



<b>1211108</b>	Mosquito Bits - 8 oz.	<b>\$10.95</b>
<b>1211136</b>	Mosquito Bits - 30 oz.	<b>\$17.80</b>
<b>1211139</b>	Mosquito Bits & Dunks Combo Kit	<b>\$18.99</b>

### 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.



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

### 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.



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

\*Free Shipping in the contiguous 48 states. Ships via Ground ONLY.

**Cannot be shipped to the following states: NY**

## 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**

## REPELLENTS

## 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.) **\$14.29**

## 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.

**1211001** Mosquito Barrier - 1 Quart **\$24.50**  
**1211002** Mosquito Barrier - 1 Gallon **\$79.90**

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



**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.

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

## PERSONAL REPELLENTS

### BiteBlocker® Herbal Repellents

Protection From Biting Pests! "DEET Free"

#### BiteBlocker Insect Repellent Spray

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

**DESCRIPTION:** This effective spray is safe to use on every member of your family and will last up to 3 hours. For optimum protection, re-apply every 2 hours. Contains soybean and geranium oils, plus inert ingredients.



#### BiteBlocker Xtreme Insect Repellent

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

**DESCRIPTION:** Protects up to eight hours from mosquitoes, black flies and other biting insects and ticks. Contains soybean, geranium and castor oils, plus inert ingredients.

**SUGGESTED USE:** For the entire family. Re-apply as needed.

- |                |   |               |
|----------------|---|---------------|
| <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> |

### 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> |

### Bug 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 Bug 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 Bug Protector Spray Pen Repellent and the Bug 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> | Bug Protector Spray - Mosquitoes - 2 oz.       | <b>\$2.99</b> |
| <b>1212021</b> | Bug Protector Spray - Mosquitoes - 4 oz.       | <b>\$4.99</b> |
| <b>1212022</b> | Bug Protector Spray - Mosquitoes - 8 oz.       | <b>\$6.99</b> |
| <b>1212028</b> | Bug Protector Balm Stick - Mosquitoes - 2 Pack | <b>\$5.99</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> |

# Building Blocks for Optimal Growth

Your Seed to Harvest Guide for Healthy, Productive Plants



## Mycorrhizae & Microbial Inoculants

Working symbiotically with your plants, beneficial microbes and fungi improve nutrient availability and uptake, increase water efficiency and out-compete soil-borne diseases in the rhizosphere.

See pages 40-41.



## Soil Amendments

Soil health is more than just NPK! Amend soil in targeted or general applications to create the foundation for healthy plant growth. Improve texture and consistency for deep roots and balanced moisture retention. Mix compost and/or worm castings into the top 2" to 4" of soil and plant as usual. See page 43.



## Micronutrients, Fertilizers & Biostimulants

The keys to unlocking your crop potential lie in correcting deficiencies in soil nutrients. A simple soil test can assist in identifying which areas need to be adjusted based on your individual plant needs. Augmenting with a biostimulant supports stress tolerance and further aids nutrient efficiency to maximize yields. See pages 44-49.



## Disease Control

Fungal, viral and bacterial pathogens can damage, compromise or kill plants. A comprehensive strategy should include: Preventative treatments of beneficial fungi and bacteria to get ahead of and out-compete pathogens in the soil, supporting healthy plant immunity through nutrition, control of vectoring pests (aphids, whiteflies, etc.) and vigilant monitoring for signs of disease throughout the growing season. See pages 51-53.



**DIG DEEPER**

<https://arbico-organics.blogspot.com>



## 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.

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

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

Cannot be shipped to the following states: HI



## 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.

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

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



## ROOT™

Stronger, Healthier, Happier Plants Start At The Root!

**TARGET:** Use indoors or outdoors on plants, seedlings and in propagation, to boost root health and aid plant nutrition and soil vitality.

**DESCRIPTION:** With eight different beneficial microbes, fully soluble ROOT is the ideal biological inoculant and soil amendment wherever you are growing. ROOT introduces naturally occurring beneficial microbes that boost bacterial colonization at the roots. With increased microbial activity at the roots, the plant is more efficient at absorbing the nitrogen and breaking it down into ammonia and nitrate. Likewise, normally insoluble phosphorous is made more soluble. The Myconate (Formononetin) in the formulation is a naturally occurring, signaling molecule, that spurs bacterial colonization and the growth of mycorrhizal fungi. This improved mycorrhizal network serves the plant by providing an increased surface area of the root that allows the plant to absorb more nutrients and water.

**SUGGESTED USE:**

Not recommended for use in Recirculating or Deep Water Culture Systems. Use ROOT as a separate feeding from regular nutrient feedings. Use within 6 hours of mixing ROOT into water.

**Transplanting:** Mix 1 tsp. of ROOT per gallon of water. Transplant and apply ROOT solution as a root drench.

**Vegetative and Flowering Plants:** Mix 1 tsp. of ROOT per gallon of water. Apply ROOT solution as a root drench to the growing medium every 2 weeks.

<b>3000508</b>	ROOT - 5 lbs.	<b>\$299.99</b>
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Cannot be shipped to the following states: AL, CA, GA, ID, IN, IA, KS, KY, MS, MO, NE, NC, ND, SC, SD, TN, UT, VA, WV, WI, WY



## Down To Earth™ Bio-Live, 5-4-2



This Product Has It All – Including Mycorrhizal Fungi!

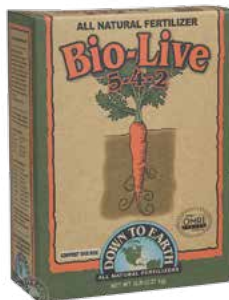
**TARGET:** Soils depleted of both nutrients and beneficial microbial activity.

**DESCRIPTION:** Made from fish bone meal, fish meal, feather meal, crab meal, alfalfa meal, K-Mag, humates, kelp meal, beneficial bacteria and Mycorrhizal fungi. This great all-purpose goes the extra mile by not only fertilizing but it also helps to stimulate soil root relationships.

**SUGGESTED USE:** Apply 3-5 lbs./100 sq. ft. at planting and as needed.

<b>1300260</b>	Down To Earth Bio-Live - 5 lbs.	<b>\$16.59</b>
<b>1300261</b>	Down To Earth Bio-Live - 25 lbs.	<b>\$59.99</b>
<b>1300262</b>	Down To Earth Bio-Live - 50 lbs.	<b>\$97.69</b>

Cannot be shipped to the following states: AL, AR, CT, HI, IA, KS, MS, ND, OK, RI, SC, SD, VT, WV, WY, PR





## EM•1® Microbial Inoculant



### Faster Breakdown Of Organic Matter.

**TARGET:** Accelerate decomposition & reduce odors.

**DESCRIPTION:** Consists of healthy bacillus from naturally fermented live microorganisms. Works with beneficial microbes in the area it is applied to, creating a synergy among microorganisms and larger forms of life including insects, worms, pets, livestock and people.

**SUGGESTED USE:** 2 tsp./gal. water, 1 qt./250 gal. water, 1 qt./acre up to 8 times/yr.



<b>1202098</b>	EM•1 Microbial Inoculant - 16 oz.	<b>\$26.00</b>
<b>1202101</b>	EM•1 Microbial Inoculant - 1 Quart	<b>\$35.00</b>
<b>1202102</b>	EM•1 Microbial Inoculant - 1 Gallon	<b>\$75.00</b>
<b>1202103</b>	EM•1 Microbial Inoculant - 5 Gallons	<b>\$290.00</b>

Call for larger sizes.

Cannot be shipped to the following states: HI, PR, VI

## Biojuvant® Beny-Gro™



### These Microorganisms Work Together To Work Better For You.

**TARGET:** Use to support health, encourage growth and improve yields in all plants grown in all media.

**DESCRIPTION:** Beny-Gro consists of 7 microorganisms from 3 groups formulated together to create a microbial community that works symbiotically to provide multiple benefits for your plants. *Bacillus* and *Lactobacillus* spur root development, balance the microbial environment and produce organic acids that solubilize nutrients. Phototrophic bacteria work in anaerobic and aerobic conditions to convert or degrade organic and inorganic compounds into simple forms. Due to the low pH (3.9) of this product, do not apply undiluted to young, developing plants. Works exceptionally well in hemp production and hydroponic growing.

**SUGGESTED USE:** No pre-incubation or pre-mixing required. Simply dilute and apply. Potted plants: 1/4 - 1/2 Tbl/cup of water. Foliar spray: Dilute 1:500 w/water & apply. Hydroponic: 5 mL/gal nutrient solution or water. Seed/Clone treatment: Dilute 1:500 w/water & soak for 15 minutes.



<b>1202751</b>	Biojuvant Beny-Gro Conc. - 1 Liter	<b>\$19.99</b>
<b>1202752</b>	Biojuvant Beny-Gro Conc. - 1 Gallon	<b>\$49.99</b>
<b>1202755</b>	Biojuvant Beny-Gro Conc. - Case of Liters/12 Ct.	<b>\$199.99</b>
<b>1202756</b>	Biojuvant Beny-Gro Conc. - Case of Gallons/4 Ct.	<b>\$161.99</b>

## Earth Alive™ Soil Activator™



### Bring Your Soil To Life With This Powerful Organic Soil Inoculant!

**TARGET:** For use on all types of plants and soils.

**DESCRIPTION:** This OMRI listed soil inoculant is a patent-pending mix of three naturally occurring soil microorganisms and an all-natural wood extract (a forestry by-product). The beneficial bacteria in Soil Activator solubilize phosphorus and fix atmospheric nitrogen for improved nutrient availability to plants and increased yields. They also encourage active root growth for robust plants from the root up. Can be used as a dry mix soil or as a soil drench.



**SUGGESTED USE:** Use at the beginning of each growth cycle or season. Option 1: 3.5 oz. of treats up to 21 gallons of soil. Mix with soil at seeding or transplant. Option 2: 3.5 oz. treats up to 1,080 sq. ft. of garden. Mix with at least 2 gallons of water and apply at the base of plants.

<b>1202170</b>	Earth Alive Soil Activator, 50 gr. / 1.76 oz.	<b>\$4.99</b>
<b>1202171</b>	Earth Alive Soil Activator, 425 gr. / 15 oz.	<b>\$19.99</b>
<b>1202172</b>	Earth Alive Soil Activator, 1 kg. / 2.2 oz.	<b>\$36.99</b>

Cannot be shipped to the following states: AL, AR, CA, LA, SD, VT, WV, WI

## TerraGrow®



### Beneficial Microorganisms To Stimulate Root Development, Increase Nutrient Uptake & Reduce Transplant Shock.

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

**DESCRIPTION:** This soil inoculant uses a specialty formula to reestablish beneficial organisms in and around the root zone to stimulate root development. Healthy root development is the first step to limiting stressors on the plants and increasing yields. TerraGrow is completely water soluble making irrigation applications a breeze. Contains no genetically altered microbial strains. OMRI listed for organic production.

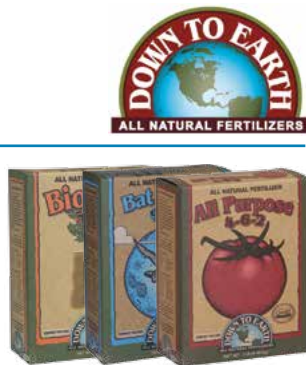


**SUGGESTED USE:** 0.6-1.0 oz. per 100 gallons of water for most soil and hydroponic applications. Use 1-1.5 lbs. per acre prior to or immediately after transplanting. Repeat applications every 3-4 weeks through the growing season.

<b>1222700</b>	TerraGrow - 10 lbs.	<b>\$225.00</b>
<b>1222701</b>	TerraGrow - 25 lbs.	<b>\$540.00</b>

## Down To Earth™

Down to Earth makes organic fertilizers that boost soil health and encourage plant growth in an earth-friendly and sustainable manner. Nutrients provided by the fertilizers give your plants that needed extra boost for vigorous growth and the countless microorganisms in the soil will thrive with the extra sustenance and keep your soil healthy. Have a small garden? Try the new "mini" sizes.



## JH Biotech, Inc.

JH Biotech, Inc. manufactures traditional and organic products for home and commercial use. Their products can be used in locations such as greenhouses, nurseries, field crops and gardens. Their Research Division is dedicated to improving food productivity without sacrificing quality or safety.



## John & Bob's Smart Soil Solutions

Rich, vibrant soil is the key to a fertile and self-sustaining garden ecosystem. John & Bob's creates soil products that build healthy, productive soils the way that nature does – with beneficial microorganisms, minerals and microbes. Create soil that is bursting with life with the four product system of Optimize, Maximize, Nourish-Biosol and Penetrate.



## Maxicrop

Maxicrop goes to the frigid waters off the Norwegian coast for the seaweed that they use in their products. There the confluence of arctic waters, mountain run-off and the Gulf Stream creates the perfect environment for the finest seaweed to grow. The quality of their products show the journey's worth it.



## Neptune's Harvest

Neptune's Harvest, a division of Ocean Crest Seafood, makes their fertilizers from the fish that they catch in the nutrient-rich North Atlantic Ocean. In this way, they utilize 100% of the seafood they harvest. These highly nutritious protein fertilizers are made by using a cold process employing enzymes (natural biological catalysts) to break down the flesh, and other parts of the fish, into simpler protein complexes. This process is called Hydrolysis and the result is an exceptional fish hydrolysate fertilizer.



## RX Green Technologies

RX Green Technologies provides simple to use, research-backed and scrupulously made products to cannabis cultivators with a heavy emphasis on customer service. Their research and development facility is the only cannabis specific facility in the industry and they are always examining and fine-tuning their products to offer the very best to their customers.



## SaferGro

SaferGro products are brought to us by SaferGro Labs, a facility focused on the research and development of organic and safe products for commercial and home garden use. By using SaferGro products, all growers can take advantage of this research. These products provide a safe way to enter into the world of earth-friendly growing.



## Sustâne

One of the world's leading manufacturer-exporters of organic fertilizers, Sustâne products are made in the USA and exported to over 60 countries. Their granular fertilizers are made from aerobically composted turkey litter with added plant nutrients and soil amending ingredients and are backed by over 30 years of independent applied research. Each fertilizer is USDA Bio based certified and OMRI listed.



## ARBICO Organics® Compost Plus

Our Premium Formula – Made Exclusively At ARBICO Organics!

**TARGET:** Soils lacking beneficial bacteria resulting in plants with low brix levels.

**DESCRIPTION:** This compost is super-charged with billions of beneficial bacteria that will increase your plants' health making them grow faster, produce more and resist diseases and insect pests. It contains a specially formulated blend of fermented nitrogen and carbon materials that revitalizes soil, speeds up decomposition of organic matter and raises brix (sugar level – vitality) levels. **Our compost has chitinase which has nematocidal properties.**



**SUGGESTED USE:** Use 3-10 Tbsp./potted plant, mix. Use 1 lb./12 sq. ft. Use a 2 cubic ft. bag to treat 50 sq. ft. and use 2-4 tons/acre for farms.

<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 and 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>\$34.00</b>
<b>1308020</b>	ARBICO Organics Earthworms (≈2,000)	<b>\$49.50</b>
<b>1308050</b>	ARBICO Organics Earthworms (≈5,000)	<b>\$99.00</b>

## 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 vermiculture, these castings have a bounty of benefits for your soil. They provide over 60 micronutrients and trace minerals in a slow release form; they add microbial life; they reduce transplant shock; they aerate and condition the soil and they have 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:** Soil Mixture: Mix in at 3-5% by volume. Top Dressing: Apply a 1/4-1/2" layer every 2-4 mos. Worked into Soil: Incorporated into top inches of pots or beds prior to planting or mulching. Repeat when planting.

<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>



## Gardener's Gold

Composting can take many shapes and forms, but all require water, oxygen, nitrogen (green waste) and carbon (brown waste). Well finished compost can add macro and micro nutrients as well as a community of microbial life that will live in your soil to:

- Support the breakdown of nutrients for plant uptake
- Condition and break down the soil for healthy root growth
- Improve water retention

### Maximize Your Compost Pile!

- Build your microbial density by adding **EM-1 Microbial Inoculant** or **Pfeiffer Biodynamic Compost Starter**
- Improve and increase breakdown of organic matter with **BONIDE Compost Maker**
- Monitor the temperature of your compost with **REOTEMP Compost Thermometer** for successful composting

Small space? Try a **SCD All Seasons Bokashi Composting Kit** for an easy, nearly odorless food composting solution. Small enough for a counter or balcony!



**DIG DEEPER**

<https://arbico-organics.blogspot.com>

## Andesite Mineral Complex™



**Bring Volcanic Power To Your Soil With This Biodynamic Amendment!**

**TARGET:** Soils that need mineral enrichment.



**DESCRIPTION:** This product returns essential beneficial minerals and trace elements from volcanic rock to your soil in a slow, natural release. Your plants will benefit by having enhanced resistance to insect pests, disease, frost and drought as well as improved nutrient uptake. This paramagnetic rock aids in carbon exchange (CDC) in soil, helps balance soil pH levels, improves brix levels in plants and works with other natural inputs. Can be used in any growing media and will not clog hydroponic or irrigation systems. Can be used on all crops and can be made into a compost tea.

**SUGGESTED USE:** Can be applied throughout the year or growing cycle. Cannot be over-applied and will not burn. Apply as little as 1-2 tsp. per pot to 25-40 for garden beds. Call for specifics.

<b>1308320</b>	Andesite Mineral Complex - 3 lbs.	<b>\$15.49</b>
<b>1308321</b>	Andesite Mineral Complex - 25 lbs.	<b>\$37.50</b>
<b>1308322</b>	Andesite Mineral Complex - 40 lbs.	<b>\$54.99</b>

\*Free Shipping in the contiguous 48 states. Ships via Ground ONLY.

## AZOMITE®



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

**TARGET:** Depleted soils in need of remineralization.

**DESCRIPTION:** This highly mineralized complex silica ore is mined from ancient marine volcanic deposits in Utah. Azomite contains over 70 metabolically active minerals and trace elements and has been used by gardeners and farmers as a micronutrient supplement for more than 60 years. Known to improve plant growth and yields, this fine powder is micronized to easily dissolve in water for application. It can also be added dry when planting or transplanting. OMRI listed.



**SUGGESTED USE:** Field crops: 50-200 lbs/acre. Citrus/Fruit/Vines: 1/2-5 lbs to the soil around each plant. Apply annually. Flowers/Plants/Vegetables: 1 lb/10-15 ft. Lawn/Turf: 44 lbs/12,000-15,000 sq ft. Ornamentals/Shrubs & Trees: 1/2-1 lbs to the soil around each plant. Apply annually.

<b>1309210</b>	AZOMITE - 5 lbs.	<b>\$11.50</b>
<b>1309211</b>	AZOMITE - 25 lbs	<b>\$23.85</b>
<b>1309212</b>	AZOMITE - 44 lbs.	<b>\$37.80</b>

## Cinderite™ Para-Blend



**Energize Your Soil With Power From A Volcano.**

**TARGET:** Soil and soilless media in need of re-energizing, re-mineralizing and conditioning.

**DESCRIPTION:** This OMRI listed soil amendment comes from ancient volcanic cones. It contains vital minerals that are ready to be slowly released into your soil or growing media. The chunky, angular and porous nature of this product enhances aeration in the soil and enables it to excel at holding water and delivering nutrients efficiently to plants. The volcanic source of this remarkable product gave it a paramagnetic charge that can attract and redistribute energy and nutrients and move them along to where they are needed most – your plants' roots. All natural/chemical free. Balances pH and provides root stability. Recommended by The Dirt Doctor, Howard Garrett.

**SUGGESTED USE:** Large 1-time application: 50-100 lbs tilled into 50 sq ft of soil, depending on the depth of tilling (equal to 1-2 lbs/sq ft). Top dressing: For best results, a 1-2" layer is suggested (equal to 50-100 lbs/50 sq ft area). Soil additive: 15% by volume (blend ratio of 3-4 cu ft/cu yard of soil mix). Field Crops (Hemp): Till into 5-8" of soil at a rate determined by individual needs. 3-10 tons per acre recommended. Top dress lower troughs with 1" of product.

<b>1308340</b>	Cinderite Para-Blend - 12 lb. Bag	<b>\$29.95</b>
<b>1308342</b>	Cinderite Para-Blend - 40 lb. Bag	<b>\$59.95</b>
<b>1308341</b>	Cinderite Para-Blend - 12 lb. Bag/Case of 3	<b>\$85.00</b>



## 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.

<b>1308090</b>	Glacial Rock Dust - 5 lbs.	<b>\$16.95</b>
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## John & Bob's Maximize Microbes & Minerals



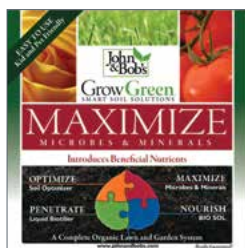
**A Highly Concentrated Combination Of Essential Minerals & Microbes That Add Life & Vitality To Your Soil!**

**TARGET:** Use as part of a complete soil improvement program along with John & Bob's Optimize, Penetrate and Nourish.

**DESCRIPTION:** Maximize adds vital minerals and microbes that transform lifeless soil into a living community. Unlocks stored nutrients in the soil, making them available to plants.

**SUGGESTED USE:** Use 8 lbs. per 1,000 square feet of soil. Cast or spread onto soil or lawn and water in. Apply twice per year.

- 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 Penetrate Organic Liquid Biotiller

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

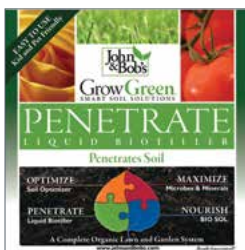
**TARGET:** Helps break up hard, compacted clay soils and re-energizes and opens up hard, dry, lifeless soil.

**DESCRIPTION:** Mix two bottles together.

- Bottle 1 contains dormant, beneficial bacteria.
- Bottle 2 contains food to enliven the dormant bacteria and saponin. Saponin is the extract from the Yucca plant which coats the clay particles that will help break up the hardest, compacted soil.

**SUGGESTED USE:** Use 8 oz. (1 each of A & B bottles) per 1,000 square feet mixed with 1 gal. of water. Mix equal parts of each bottle into a clean hose-end sprayer, watering can, or pump sprayer. Spray evenly over the soil or lawn. Use Penetrate twice per year for optimal effect.

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



## John & Bob's Grow Green Optimize Soil Optimizer



**Feed Your Plants & Add Beneficial Microbes To The Soil!**

**TARGET:** Part of a complete soil improvement program when used along with John & Bob's Maximize, Penetrate and Nourish.

**DESCRIPTION:** Optimize consists of decomposed humus derived from Leonardite, which is found in the top layers of the earth's surface. In addition, Optimize contains calcium and iron, which work with humus to balance the soil and feed the beneficial microorganisms that are necessary for plant texture and health.

**SUGGESTED USE:** Broadcast at the rate of 3 lbs. per 1,000 square feet of soil or lawn and water in. For vegetable transplants or up to 5 gallon transplants, use 2 tbsp.

- 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 Grow Green Nourish-Biosol®

**100% Vegetable Sourced Fertilizer!**

**TARGET:** Nourish is a 100% vegetable sourced fertilizer. Use as part of a complete program for soil improvement along with John & Bob's Maximize, Optimize and Penetrate.

**DESCRIPTION:** This fertilizer provides instant food for plants, available in just a few days for root uptake. Ingredients include fermented soybean and cottonseed meal, which are full of simple sugars to feed the beneficial bacteria supporting their activity in the soil needed to support healthy and quick plant growth.

**SUGGESTED USE:** Spread onto the soil or lawn at a rate of 6 lbs. per 1,000 square feet, then water it in. Apply twice per year.

- 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**



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

# 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 - 6 lbs. \$11.79

Larger sizes available - please go online or call.

## 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 - 6 lbs. \$14.39
- 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
- Larger sizes available - please go online or call.

## DTE Fish Bone Meal, 3-16-0



Marine Based Bone Meal For All Of Your Growing Needs.

- 1300270 Down To Earth Fish Bone Meal Mini - 1 lb. \$4.49

## 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 Seabird Guano, 0-11-0

Phosphorous Rich Fertilizer & An Herb Grower's Favorite Choice!

- 1300023 Down To Earth Seabird Guano - 5 lbs. \$16.79
- 1300024 Down To Earth Seabird Guano - 20 lbs. \$42.09

Larger sizes available - please go online or call.

See online for shipping restrictions.



### 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 - 6 lbs.	\$11.79

Larger sizes available - please go online or call.

### DTE Bat Guano, 9-3-1



High-Nitrogen Fertilizer From Bat Guano.

1300000	Down To Earth Bat Guano Mini - .25 lb.	\$4.49
1300001	Down To Earth Bat Guano - 2 lbs.	\$13.39
1300002	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.	\$16.59
1300261	Down To Earth Bio-Live - 25 lbs.	\$59.99
1300262	Down To Earth Bio-Live - 50 lbs.	\$97.69

### 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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Larger sizes available - please go online or call.

### 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 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 - 6 lbs.	\$11.79

Larger sizes available - please go online or call.

### 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 - 6 lbs.	\$11.79
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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
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See online for shipping restrictions.

## Do you know what fertilizer your plants need?

Selecting the right fertilizer for your plants is very important for optimum health and growth.

Here are some tips to help you make your selection:

### 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.



<b>1313001</b>	Maxicrop Soluble Seaweed Powder - 10.7 oz.	<b>\$19.99</b>
<b>1313002</b>	Maxicrop Soluble Seaweed Powder - 27 oz.	<b>\$35.00</b>
<b>1317202</b>	Maxicrop Soluble Seaweed Powder - 44 lbs.	<b>\$399.00</b>

## 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.



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

## 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.



<b>1314801</b>	Maxicrop Kelp Meal - 5 lbs.	<b>\$16.75</b>
<b>1314804</b>	Maxicrop Kelp Meal - 55 lbs.	<b>\$87.00</b>

## Maxicrop Liquid Seaweed Plus Iron, 0-0-1 +2% Iron

**For Trees, Flowers, Lawns, Fruits & Vegetables!**

**TARGET:** Stressed plants and seed starting.

**DESCRIPTION:** Maxicrop is excellent for soaking seeds to improve germination. It also can be used as a soak for bulbs to increase their vigor. Apply it to seedlings, and watch them grow into healthy, vigorous plants. Maxicrop will strengthen cuttings, bare root trees and shrubs before and after transplant.

**SUGGESTED USE:** General application rate is 1 capful/gal. of water. For lawns, cuttings and rootings use 2 capfuls/gal. of water.



<b>1313035</b>	Maxicrop Liquid Seaweed Plus Iron - 2 oz.	<b>\$14.30</b>
<b>1313036</b>	Maxicrop Liquid Seaweed Plus Iron - 1 Gallon	<b>\$28.80</b>
<b>1313037</b>	Maxicrop Liquid Seaweed Plus Iron - 2.5 Gallons	<b>\$55.50</b>



## Tribus Original™

**Better Growth From The Roots Up With This Biostimulant.**

**TARGET:** Maximizes a crop's performance in all types of environments and growing conditions.

**DESCRIPTION:** This biostimulant contains 3 naturally occurring rhizobacteria that quickly colonize the root zone of plants. These bacteria produce extracellular enzymes and other biochemicals that help the plant with improved nutrient uptake and enhanced root/stem growth. Tribus cuts down time from cut to root and is compatible with any growing method/system. No risk of phytotoxicity and greatly improves resistance to abiotic stress. Use during flush to breakdown salts. Will not cause biofilm in hydroponics. Long shelf life and low application rates mean you can buy once and use for an extended period of time.

**SUGGESTED USE:** Use with hydroponic, soilless and soil-based media. Can be mixed with aqueous nutrient solutions and/or applied directly to plant roots. May be used up to and on day of harvest. Containers: 1-5ml/gal. at every watering. Fields: 1-5L/acre 2-3 times a month. Seedling/Early Veg: 1ml/gal. Veg: 1-2 ml/gal. Flowering Transition: 1-2 ml/gal. Full Flowering and Ripening/Flush: 2-4 ml/gal.

<b>1202160</b>	Tribus Original - 250 ml	<b>\$64.99</b>
<b>1202161</b>	Tribus Original - 500 ml	<b>\$99.99</b>
<b>1202162</b>	Tribus Original - 1 Liter	<b>\$169.99</b>
<b>1202163</b>	Tribus Original - 1 Gallon	<b>\$499.99</b>

**Cannot be shipped to the following states:** AL, AR, HI, ID, IL, IN, IA, KS, LA, MD, MN, MS, MO, NE, ND, OK, PA, SC, SD, TX, UT, VA, WV



## Green Aminos, 0.5-0-2

**Give Your Plants A Boost Anytime In Their Life Cycle.**

**TARGET:** Plants that need additional amino acids, proteins and carbohydrates.

**DESCRIPTION:** Green Aminos can be used to deliver premium quality amino acids, carbohydrates and proteins to your plants in five different ways: as a foliar feed, in rooting, by watering in, in hydroponics or as a compost tea. The biostimulant qualities of these ingredients will boost amino acid and protein production and give you plants that are better able to assimilate nutrition, which means healthier and more robust growth from seed on out. Although this product can be applied at any point in the life cycle of a plant, it is especially effective in the early stages.

**SUGGESTED USE:** Suggested Use: Cuttings & Seedlings: Soaking solution for rockwool – 1 tsp./5 gals. Foliar: 1 tsp./gal. Water In: 1-2 tsp./gal. Hydroponics: 1 tsp./5 gals. (ebb & flow/recirculating). Compost Tea: 1 tsp./5 gals. Large Scale: 5 lbs./1,000 gals.

<b>1315500</b>	Green Aminos, 0.5-0-2 - 2 lbs.	<b>\$33.00</b>
<b>1315501</b>	Green Aminos, 0.5-0-2 - 5 lbs.	<b>\$75.00</b>

**Cannot be shipped to the following states:** AL, AK, AR, CT, DE, DC, FL, GA, ID, IN, IA, KS, LA, ME, MD, MI, MN, MO, MT, NE, NH, NJ, NM, NY, NC, ND, RI, SC, SD, TX, UT, VT, VA, WV, WY



## Axiom Grow Solutions

**Harness the Power of Harpin Protein!**

**TARGET:** For use on all plants indoors and outdoors to boost growth and production.

**DESCRIPTION:** Axiom works as a plant health promoter and growth stimulator by signaling defense systems in the plant with the introduction of the naturally occurring Harpin Protein (an endophytic bacteria). In order to fight off the perceived threat of this specific bacteria, the plant will amp up its growth and disease fighting ability. Many years of university and field testing has developed this process into an easy-to-use commercial product. This translates to healthier plants as well as increased production and growth within your crop.

**SUGGESTED USE:**

**Application Rate For .5g packets:**

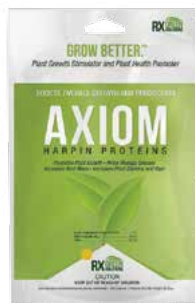
- 1 packet mixed with 32 ozs. of water covers 250 sq. ft.

**Application Rate For 2g packets:**

- 1 packet mixed with 1 gallon of water covers 1,000 sq. ft.
- 1 packet mixed with 50 gallons of water covers 1 acre.

<b>3000605</b>	Axiom - .5 g (package of 3)	<b>\$9.99</b>
<b>3000606</b>	Axiom - 2 g (package of 3)	<b>\$29.99</b>

**Cannot be shipped to the following states:** CA



## SaferGro Supergro®, 1-0-4

**Packed Full Of Beneficial Microorganisms & Enzymes To Bring Your Soil To Life.**

**TARGET:** For use in foliar and soil applications as a biological starter fertilizer and a soil activator.

**DESCRIPTION:** Made via a unique fermentation process, this product contains a selection of enzyme complexes and beneficial microorganisms that work both individually and together for exceptional results. They will improve nitrogen fixation, stimulate germination, crowd out and rebuff plant pathogens, solubilize phosphorus for improved uptake and energize the decomposition process. You'll get a vibrant, living soil that'll create robust plants and higher yields.

**SUGGESTED USE:** Do not mix with pesticides or fungicides, but can be applied with diluted fertilizer. Houseplants: 1 oz/gal water once a month. Vegetables/large plants: 1 1/2-2 oz./gal. water every 2-3 mos. Lawn/garden: 1 1/2-2 oz./gal. water and water in. Repeat every 4-6 wks. Trees: Can be applied foliarly (1 1/2-2 oz./gal. water to entire tree) or in soil (2-3 oz./gal. water every 4-6 wks.). Hydroponics: 150 ppm.

<b>1810970</b>	SaferGro Supergro - 1 Pint Conc.	<b>\$11.29</b>
<b>1810971</b>	SaferGro Supergro - 1 Quart Conc.	<b>\$16.79</b>
<b>1810972</b>	SaferGro Supergro - 1 Gallon Conc.	<b>\$49.99</b>

**Cannot be shipped to the following states:** AK, ME, RI, RN



## 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

<b>1402403</b>	ThermX-70 Natural Wetting Agent - 1 Quart	<b>\$27.00</b>
<b>1402404</b>	ThermX-70 Natural Wetting Agent - 1 Gallon	<b>\$94.50</b>
<b>1402405</b>	ThermX-70 Natural Wetting Agent - 5 Gallons	<b>\$330.55</b>
<b>1402406</b>	ThermX-70 Natural Wetting Agent - 55 Gallon Drum*	<b>CALL</b>

\*Call for freight quote. Call for larger sizes.

## NutriRoot®, 2-2-3



### A Fertilizer And Water Management Product In One Brilliant Formulation.

**TARGET:** To accelerate root development and for water stress management in new plantings, mature trees, shrubs, landscapes or lawns.

**DESCRIPTION:** This ingenious blend of seaweed extract, nutrients, humic acid, humectants and surfactants is easy-to-use, yet highly effective. It provides valuable nutrition and microbial life to the root zone to encourage robust root development. But, through its humectants, it will also enable the soil to extract water from the air and deliver it right to the root zone. Use on established plants or transplants and you will see marked improvement in plant vigor in no time. Mitigates sand and/or dry soil. Reduces seasonal pressure and hinders water run-off.



**SUGGESTED USE:** Make applications at transplant, in fall after leaf senescence, in early spring before bud break or in the growing season after leaves on plants have matured. Dilute 1 1/4-1 1/2 fl oz/gal water or 1 gal/ 70-100 gals water. The rate of 1 gal/70-100 gals water will treat up to 3,000 sq ft of landscapes. Use higher rate for newly transplanted trees or for trees with root loss. Use lower rate for routine maintenance and to alleviate drought stress.

<b>1300350</b>	NutriRoot - Conc. - 8 fl. oz.	<b>\$12.99</b>
<b>1300351</b>	NutriRoot - Conc. - 32 fl. oz.	<b>\$29.99</b>
<b>1300352</b>	NutriRoot - Conc. - 32 fl. oz. - CA label	<b>\$29.99</b>
<b>1300353</b>	NutriRoot - RTS w/hose-end sprayer - 32 fl. oz.	<b>\$36.99</b>
<b>1300354</b>	NutriRoot - Conc. - 1 Gallon	<b>\$99.99</b>
<b>1300355</b>	NutriRoot - Conc. - 1 Gallon - CA label	<b>\$99.99</b>

**Cannot be shipped to the following states:** SKUs 1300350, 1300351, 1300353 & 1300354 - AK, DC, IL, NM, OK, OR and SKUs 1300352 & 1300355 - All but CA

## Hydretain®



### Cut Your Water Usage By Up To 50% With This Root Zone Moisture Manager.

**TARGET:** Use to manage root zone moisture and extend periods between required waterings.

**DESCRIPTION:** This unique product works in the root zone to collect water molecules from humidity in the soil and converts them into water droplets that plants are able to readily use. The proprietary technology in Hydretain is fueled by food grade hygroscopic humectant compounds and enhanced by a naturally derived soil surfactant. Hydretain will optimize the use of water and minimize drought stress, resulting in more vigorous growth and stronger, healthier plants. Excellent for transplant establishment and seed germination. Prevents wilt and dry spots in lawns.



**SUGGESTED USE:** Use after applying water thoroughly to deliver product to the root zone. Proper fertilization will improve the performance of this product. RTS formula- Lawns: 1 quart treats 2,500-5,000 sq ft. Flowers & Gardens: One quart treats up to 1,000 sq ft. Trees/shrubs/individual plants: Use 2 oz/1 gal water. Reapply every 3 months or as needed. Concentrated formula-Dilute before using at a minimum rate of 15:1 (water to Hydretain). Reapply every 3 mos, when required watering becomes more frequent, or if a reduction in watering is not apparent. Lawns: Apply 9 oz/1,000 sq ft (3 gals/acre) once every 3 mos or maintain monthly at 1/3 rate after initial full rate application. Please call for additional application rates.

<b>2000640</b>	Hydretain - RTS w/Hose-end Sprayer - Quart	<b>\$34.99</b>
<b>2000462</b>	Hydretain - Concentrate - Gallon	<b>\$74.99</b>

**Cannot be shipped to the following states:** CA, IL, MN, NM, OK, OR

## WaterWorks Crystals®



### Reduce Your Watering By As Much As 75% – And Get Higher Yields!

**TARGET:** Prevents drought stress and is excellent for when you can't get there to water often – once watered well, plants will be set for 2-3 weeks.

**DESCRIPTION:** WaterWorks Crystals absorb and hold water (like little sponges) until the natural capillary action of the plant moves the water from the root zone, where the crystals lie, to the rest of the plant's body. In this manner, the plant is able to access the water on demand. When the crystals can absorb no more, they will slowly shed the excess into the ground.



**SUGGESTED USE:** Application of these crystals need only be done once, as they will last for years (5-10 depending on soil conditions). They will dehydrate and re-swell over that period as conditions merit. WaterWorks Crystals can be used with any plant food, fertilizer or soil mix (but not with hydroponics), so you can continue to tend to your plants as you normally would, but water much less (between 50-75% less).

<b>2000660</b>	WaterWorks Crystals - 3 oz. Package	<b>\$2.99</b>
<b>2000661</b>	WaterWorks Crystals - 55 lb. Box	<b>\$280.99</b>

## 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.

**1274107** Organic JMS Stylet-Oil - 1 Gallon **\$36.00**  
**1274108** Organic JMS Stylet-Oil - 2.5 Gallons **\$51.00**

\*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)



### SuffOil-X®

**OMRI Listed Pre-Emulsified Mineral Oil Suffocates Many Soft-Bodied Insects & Controls Certain Fungal Diseases.**

**TARGET:** Aphids, cankerworms, leafhoppers, leafrollers, mealybugs, mites, plant bugs, psyllids, soft scales, webworms, whiteflies, rust and powdery mildew.

**DESCRIPTION:** Made with refined pre-emulsified mineral oil, this suffocant creates the best coverage with limited risk of plant damage. Using a pre-emulsified creates a lighter oil that dries faster, will not cause phytotoxicity, burn or undue stress, leaves no toxic residue on plants and dilutes easily with water.

**SUGGESTED USE:** Can be used with a wide variety of crops indoors or outdoors. Apply when oil will dry and evaporate in 1-2 hours and when relative humidity is less than 90%. Application rates are generally 1-2 gallons of SuffOil-X per 100 gallons of water or 20-500 gallons of spray solution per acre.

**1332805** SuffOil-X - 2.5 Gallons **\$65.00**  
**1332806** SuffOil-X - Case of 2 ct./2.5 Gals. **\$117.00**

Larger sizes available.

**Shipping Restrictions:** Cannot ship via US Mail or air shipping methods.

**Cannot be shipped to the following states:** AK, DC



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

**1274200** PureCrop1 - 16 oz. **\$45.00**  
**1274201** PureCrop1 - 1/2 Gallon **\$120.00**  
**1274202** PureCrop1 - 1 Gallon **\$225.00**  
**1274203** PureCrop1 - 2.5 Gallons **\$552.00**



### Eco-1® 40

**Strong Control That's Gentle Enough To Use On Edible And Medicinal Plants.**

**TARGET:** Aphids, whiteflies, two-spotted spider mites and fungal diseases like Powdery Mildew.

**DESCRIPTION:** Eco-1 40 contains food-grade 31% Linseed Oil with 8% Rosemary and 1% Thyme Oils. This potent OMRI listed mixture will control, via suffocation, a wide range soft-bodied insects and mites in all their life stages. Also a powerful tool against fungal diseases. Can be used on plants grown for feed, fuels, fiber or medicinal purposes. No REI or PHI. No adjuvants, surfactants or penetrants needed. FIFRA 25(b) exempt from EPA registration.

**SUGGESTED USE:** For best results, do not mix with cold water (less than 45°F). Aphids: Apply every 7-12 days. 1 1/2-3 fl oz/gal water (1-2 gals/100 gals water) for dormant applications. 3-6 fl oz/gal water (2 1/2-5 gals/100 gals water) for active. Whiteflies: 3-6 fl oz/gal water every 7-12. 2 1/2-5 gals/100 gals water every 7-14 days. Mites: 1-1 1/2 fl oz/gal water every 5-7 days. 3/4-1 gal/100 gals water every 7-14 days. Powdery Mildew: 3-6 fl oz/gal water every 3-14 days. 2 1/2-5 gals/100 gals water every 7-14 days.

**1458140** Eco-1 40 - Concentrate - 1 Gallon **\$269.99**

**Cannot be shipped to the following states:** AR, CT, DC, ID, IA, KS, KY, LA, ME, MI, MS, NE, NV, NH, ND, OR, RI, UT, VT, VA, WI





## 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>\$188.00</b>
<b>1332755</b>	RootShield Plus Granules - 40 lb. Bag	<b>\$428.00</b>
<b>1332756</b>	RootShield Plus WP - 1 lb. Bag	<b>\$120.00</b>
<b>1332757</b>	RootShield Plus WP - 3 lb. Box	<b>\$264.00</b>

Large sizes available.

**Granular cannot be shipped to: AK • WP cannot be shipped to: AK**

## 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>\$31.00</b>
<b>1332982</b>	Mycostop - 25 grams	<b>\$133.99</b>

**Cannot be shipped to the following states:** AL, AK, DC, HI, ID, IA, LA, NE, ND, SC, SD, TN, WV, WI, WY



## 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>\$49.99</b>
<b>1332969</b>	Regalia - 1 Gallon	<b>\$115.00</b>
<b>1332970</b>	Regalia - 2.5 Gallons	<b>\$220.00</b>



## CEASE® - Biological Fungicide



**For Control Of Soil Pathogens As Well As Fungal & Bacterial Plant Diseases!**

**TARGET:** *Botrytis*, powdery mildew, anthracnose, leaf spot diseases including *Alternaria* and *Entomosporium*; bacterial diseases such as *Pseudomonas*, *Erwinia*, and *Xanthomonas* spp., as well as the soil diseases *Rhizoctonia*, *Pythium*, *Fusarium* and *Phytophthora*.



**DESCRIPTION:** Cease is a contact biological fungicide that contains *Bacillus subtilis*, that stops pathogens from developing on plant leaves.

**SUGGESTED USE:** Approved for NOP production. Use 2-8 qts./100 gallons of water approximately once per week. (see label online for specific crops and diseases.) This product is suitable for ,wet applications. Use with a spreader sticker such as ThermX™-70 Natural Wetting Agent (see page 59) in wet environments.

<b>1332724</b>	Cease - 1 Gallon	<b>\$75.50</b>
<b>1332727</b>	Cease - 2.5 Gallons	<b>\$170.00</b>
<b>1332725</b>	Cease - 1 Gallon, Case of 4	<b>\$271.80</b>
<b>1332728</b>	Cease - 2.5 Gallons, Case of 2	<b>\$306.00</b>

## HUMA GRO® Promax®



**This Contact Killer Gets The Job Done In The Soil.**

**TARGET:** Plant parasitic nematodes and soil-borne diseases.

**DESCRIPTION:** This oil-based fungicide/nematicide is a fast-acting contact killer that will inhibit nematode activity and effect all types of fungal spores. It will also stimulate the resistance mechanism in plants, which provides long-lasting control. Easy to use-just spray and go; no buffer zone, restricted use or residue. 0-hour REI and 0-day PHI. Compatible with most other products.



**SUGGESTED USE:** Best when used preventatively. Must be incorporated into the soil. All crops: 1-2 gals spray mixture/acre. Use on heavy soils, in fields with a history of disease problems, or when weather conditions are expected to be favorable for rapid disease growth or nematode activity. Repeat every 15-20 days.

<b>1458350</b>	HUMA GRO Promax - 1 Liter Conc.	<b>\$37.99</b>
<b>1458351</b>	HUMA GRO Promax - 1 Gallon Conc.	<b>\$89.99</b>

Larger sizes available.

**Cannot be shipped to the following states:** GA, KS, MS, MT, NJ, ND, SD, WI

## 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>\$63.00</b>
<b>1332767</b>	MilStop SP Foliar Fungicide - 25 lbs.	<b>\$275.99</b>

## 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:**

- 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>1455101</b>	BONIDE Liquid Copper Fungicide - 16 oz. Conc.	<b>\$16.45</b>
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**Cannot be shipped to the following states:** AK, DC, PR



## The Power of Peroxyacetic Acid

Similar in chemical makeup, SaniDate 5.0 and OxiDate 2.0 are two very different products with very different uses.

**SaniDate 5.0** is a no rinse required sanitizer for greenhouse use. Using a peroxy compound, SaniDate can quickly and effectively reduce harmful pathogens. Not only can this product be used on hard surfaces in the greenhouse, it can be used for equipment sanitation, food prep surfaces and also irrigation lines. It can also be used as a post-harvest sanitizer. Mix SaniDate in your dip tank or spray directly onto harvested fruits and vegetables to prevent the pathogens that cause spoilage. SaniDate is a great, environmentally responsible alternative to chlorine.

**OxiDate 2.0** is a pre-harvest bactericide and fungicide. OxiDate can be used in certified organic and conventional agriculture. Not only does OxiDate help prevent plant pathogens, it works as a curative product by killing fungal spores and bacterial inoculum. OxiDate does not have a REI and can be used until harvest. This product can be tank mixed with fungicides and insecticides for extra protection and because of the active ingredient is peroxygen, there is not concern of resistance.

## 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.

**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



Clean Your Greenhouse & Tools With This Environmentally Friendly Alternative To Copper Fungicides!

**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:** PR, VI, GU, AS, PW, AK, HI



## ZeroTol® 2.0



Kills Pathogens On Plants As Well As Bacteria, Algae & Fungi On Hard Surfaces.

**TARGET:** *Alternaria*, *Anthraxnose*, *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:** CA



## TerraClean® 5.0



**Eliminate Soil-Borne Pathogens With This Hydrogen Dioxide & Peroxyacetic Acid Blend.**

**TARGET:** *Botrytis, Erwinia, Fusarium, Phytophthora, Pythium, Rhizoctonia, Thielaviopsis* and *Verticillium*.

**DESCRIPTION:** When this combination of Hydrogen Dioxide and Peroxyacetic Acid in TerraClean goes to work, the chemical reaction provides a three-fold benefit to your plants. First, it reacts with and disrupts the proteins and enzymes that make up the cell structures of pathogens (bacteria, fungus and spores), which will prove fatal. Second, it releases a high volume of oxygen that floods the root zone, stimulating root and plant development and nutrient uptake. Third, it creates a healthier soil environment overall, which translates into more robust plants that are able to keep diseases at bay.

**SUGGESTED USE:** For use as a direct soil treatment, a pre-plant application, at seeding and transplanting or as a periodic soil treatment throughout the growing season. Can be used in flood or drip irrigation, chemigation or as a soil drench. For soil treatments dilute at the rate of 1 gal. product/100 gal. water. Use 25-100 gals./acre. In areas with high disease pressure use 100 gals./acre. Call or go online for specifics on other application methods.

**1222550** TerraClean 5.0 - 5 Gallons **\$415.00**  
 Cannot be shipped to the following states: AL, HI, IA



## SaniDate® All Purpose Disinfectant



**It May Not Wipe Away All Your Worries, But It Will Clean Many Pathogens.**

**TARGET:** Bacteria including *Salmonella, Streptococcus, E. coli, Pseudomonas, Staphylococcus aureus, Listeria* and molds, including mildew.

**DESCRIPTION:** This simple-to use cleaner is an antibacterial, disinfectant and deodorant. It works with Hydrogen Peroxide and Peroxyacetic Acid and kills 99.9% of *Pseudomonas aeruginosa, Staphylococcus aureus* and *Salmonella enteri* bacteria. This OMRI listed product also controls mold and mildew and is excellent for spot-cleaning rugs. Works on contact, is bleach and scent free and leaves no harmful residue.

**SUGGESTED USE:** Not recommended for use on brass or marble. Can be used daily. 32 fl oz solution: 0.75 fl oz (1.5 tbl) + 32 fl oz/water. 1 gal solution: 3.0 fl oz (6 tbl) + 1 gal/water. Pre-clean heavily soiled surfaces. Spray using a coarse spray until area is thoroughly wet. Treated surface must remain wet for 10 minutes and then be allowed to air dry. Rinse food contact surfaces prior to reuse. Cleaning mold/mildew: Use 2.5-3.0 fl oz/gal water. After 10 minutes, remove solution and soil. Repeat every 7 days or more often if new growth appears.

**1222520** SaniDate All Purpose Disinfectant - 1 Gallon **\$27.95**  
**1222522** SaniDate All Purpose Disinfectant - 1 Gallon/Case 2 **\$36.50**



## Hygrozyme® Horticultural Enzyme Formula

**A Simple Mode of Action With Complex Benefits For Your Plants.**

**TARGET:** Decaying root material.

**DESCRIPTION:** A non-gmo enzyme cleaner for growing media that eliminates dead root matter and provides a cleaner and healthier root zone for your plants. It uses 4 core enzymes: cellulose, xylanase, hemicellulose and beta-glucanase to provide the power in its potion. Working synergistically, these enzymes provide all the ingredients needed to thoroughly break down decaying plant matter. The resultant clean root zone prevents diseases such as root rot by improving drainage and aeration in the growing media. A cleaner root zone will also give your young roots more space to grow exuberantly and more efficient access to nutrients to truly thrive. Can be used in all stages of the growing cycle and in all kinds of growing media. Compatible with all nutrient and supplement programs.

**SUGGESTED USE:** Use R.O. or filtered water. Mix fresh with each application and use it up within 7 days. Do not per-dilute. Mix 8-10 mL /gal of water or nutrient solution. Use with every watering or in your feeding schedule. For propagation: Use mL/gal water to soak trays and media prior to use. After harvest, use 10-15 mL/gal. water to wash equipment. Once cleaned, sanitize equipment with H2O2 at 3% concentration.

**3000700** Hygrozyme Horticultural Enzyme Formula - 500 ml **\$21.95**  
**3000701** Hygrozyme Horticultural Enzyme Formula - 1 liter **\$36.95**  
**3000702** Hygrozyme Horticultural Enzyme Formula - 4 liters **\$132.95**  
 Larger sizes available.



## ZeroTol® HC



**Clean Up & Protect Your Plants With One Powerful Product.**

**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:** 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.

**1222410** ZeroTol HC - 1 Gallon **\$37.99**



## PRE-EMERGENT

### Sustane® Spring Weed & Feed, 9-0-0



**Prevent Weeds & Feed Your Lawn With This Organic Corn Gluten Meal.**

**TARGET:** Barnyard grass, Bermuda grass, crabgrass, creeping bentgrass, curly dock, dandelions, foxtail, lambsquarter, pigweed, plantains, purslane, redroot bigweed, smart weed and more.

**DESCRIPTION:** This OMRI listed corn gluten meal works wonders in 2 ways: it is a natural broadleaf pre-emergent that suppresses weeds to prevent them from establishing and it provides high levels of nitrogen to green up already established plants and turf. For use as an herbicide, apply before germination of seeds. Should not be applied to new seedlings or when laying sod.

**SUGGESTED USE:** Apply 6 lbs. per 1,000 sq. ft. with a broadcast spreader. Provides 0.54 lbs. of nitrogen per 1,000 sq. ft. A 30 lb. bag covers up to 5,000 sq. ft. Apply up to 20 lbs. per 1,000 sq. ft. for enhanced weed prevention.

**1226810** Sustane Spring Weed & Feed - 30 lb. Bag **\$35.00**



### 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**



### 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**



### 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. **\$14.99**

**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>1453792</b>	BONIDE Weed Beater Fe Conc. - 1 Pint	<b>\$14.99</b>
<b>1453790</b>	BONIDE Weed Beater Fe RTU - 1 Quart	<b>\$9.99</b>
<b>1453791</b>	BONIDE Weed Beater Fe RTU - 1 Gallon	<b>\$28.99</b>

Cannot be shipped to the following states: CA



### 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/PNS: 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>1453775</b>	BONIDE Burnout - 1 Quart Concentrate	<b>\$21.00</b>
<b>1453776</b>	BONIDE Burnout - 1 Gallon Concentrate	<b>\$48.00</b>
<b>1453777</b>	BONIDE Burnout - 2.5 Gallons Concentrate	<b>\$99.00</b>
<b>1453778</b>	BONIDE Burnout - 1 Quart RTU	<b>\$11.50</b>



## BROAD SPECTRUM

### 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>\$25.00</b>
<b>1453810</b>	Avenger Weed Killer - 1 Gallon Concentrate	<b>\$80.00</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.



## 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>1453820</b>	BioSafe Weed & Grass Killer - 24 oz. RTU	<b>\$7.99</b>
<b>1453821</b>	BioSafe Weed & Grass Killer - 32 oz. Concentrate	<b>\$21.99</b>
<b>1453822</b>	Biosafe Weed & Grass Killer - 1 Gallon Concentrate	<b>\$69.99</b>

## Weed Slayer



**Give Those Annoying Weeds A Powerful One-Two Punch!**

**TARGET:** Most common weeds like Nutsedge, Purslane and Crabgrass.

**DESCRIPTION:** Weed Slayer consists of two separate products (Parts A & B) that you mix together to make one exceedingly effective weed killer. Part A is the Weed Slayer, a broad spectrum herbicide crafted from Eugenol (an essential oil from cloves) and molasses. Part B is Agro Gold, a biological adjuvant containing *Streptomyces* and *Bacillus* microbes. The Eugenol in Part A will make its way down and kill the roots and/or root ball of the undesired plant. The soil enhancing bacteria in Part B clears the way for and drives the Eugenol down into the roots. Results will be seen in 7-12 days and control will last up to 6 weeks. Leaves no toxicity in the soil. WSDA registered.

**SUGGESTED USE:** After mixing together equal amounts of Part A & Part B and assuring the pH level is below 4: apply 1-3 quarts into 20 and up to 25 gallons of water total. The mixture should be a 1-3% dilution, with 2% being the optimal number. Do not apply to young trees or shrubs with green bark.



<b>1458320</b>	Weed Slayer - Part A & B - 32 oz. each - Conc.	<b>\$51.99</b>
<b>1458322</b>	Weed Slayer - Part A & B - 1 gal. each - Conc.	<b>\$185.00</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>\$39.00</b>
<b>1453891</b>	Torched Weed Killer - 2.5 Gallons	<b>\$90.00</b>

## SNS WeedRot



**An All-Round Excellent Choice For Non-Toxic Weed Control.**

**TARGET:** Star thistle, clover, spurge, dandelions and other weeds.

**DESCRIPTION:** This post-emergent, non-selective weed killer uses Citric Acid to efficiently knock down and kill many of the most problematic common weeds. It works on weeds in two ways: it adheres to and begins to remove the waxy outer layer on the plant and it penetrates well into the roots to block the plant's ability to take in amino acids and nutrients. Will not persist in or cause harm to soil. Starts browning weeds in 1-2 days, with a complete kill in 5-10 days. EPA Exempt Title 25b. Not harmful to people or pets, so it can be used in and around your home and garden.

**SUGGESTED USE:** Spray directly on leaves and stems, saturating the entire plant. Works best on plants less than 6" in height; weeds larger than 6" may require additional applications. Start with 24 oz. of concentrate and add 104 oz. of water to make 1 gal of Ready to Use. More or less of the concentrate can be mixed based on weed size and weed type. For best results, use water that is around 7 pH and has a TDS (Total Dissolved Solids) of less than 250. In some cases, you may need to use a conditioner for your water.



<b>1453760</b>	SNS WeedRot - 32 oz. RTU	<b>\$14.99</b>
<b>1453761</b>	SNS WeedRot - 1 Gallon RTU	<b>\$39.99</b>
<b>1453762</b>	SNS WeedRot - 1 Gallon Conc.	<b>\$67.50</b>
<b>1453763</b>	SNS WeedRot - 2 1/2 Gallons Conc.	<b>\$156.25</b>

## 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

- |                |   |                 |
|----------------|---|-----------------|
| <b>1402403</b> | ThermX-70 Natural Wetting Agent - 1 Quart         | <b>\$27.00</b>  |
| <b>1402404</b> | ThermX-70 Natural Wetting Agent - 1 Gallon        | <b>\$94.50</b>  |
| <b>1402405</b> | ThermX-70 Natural Wetting Agent - 5 Gallons       | <b>\$330.55</b> |
| <b>1402406</b> | ThermX-70 Natural Wetting Agent - 55 Gallon Drum* | <b>CALL</b>     |

\*Call for freight quote.

Call for larger sizes.

## 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.

- |                |                                      |                |
|----------------|--------------------------------------|----------------|
| <b>1440100</b> | Brandt Organics SKH Sticker - 5 lbs. | <b>\$15.50</b> |
|----------------|--------------------------------------|----------------|

Cannot be shipped to the following states: AR, HI, ID, KY, MS, TN, UT, WA, WV, WY

## All Purpose Dispenser Tube

### Dispense Milky Spore & Other Powdered Material Easily!

**DESCRIPTION:** Use with Milky Spore and other powdered products and fertilizers for quick and effective application

in lawns and gardens! This all-purpose dispenser holds up to 40 oz. of Milky Spore powder. Dispensers are sold empty. Milky Spore powder sold separately (see page 23).

**SUGGESTED USE:** Fill dispenser tube and begin shaking dispenser while walking the area to be treated.



- |                |                            |                |
|----------------|----------------------------|----------------|
| <b>1216052</b> | All-Purpose Dispenser Tube | <b>\$14.50</b> |
|----------------|----------------------------|----------------|

## HOSE END SPRAYERS



## BONIDE® Auto Mix Hose End Sprayer

### No Mixing Or Measuring - Just A Few Quick Steps To Get You Spraying.

- |                |                                  |                |
|----------------|----------------------------------|----------------|
| <b>1800010</b> | BONIDE Auto Mix Hose End Sprayer | <b>\$17.99</b> |
|----------------|----------------------------------|----------------|

## Chameleon Adaptable Hose End Sprayer

### Get Perfect Application With This Highly Adjustable Sprayer.

- |                |  |                |
|----------------|--|----------------|
| <b>1800006</b> | Chameleon Adaptable Hose End Sprayer - 1 Sprayer | <b>\$14.75</b> |
|----------------|--|----------------|

## Self-Mixing Hose End Sprayer

### No Pre-Mixing Needed With This Powerful and Versatile Sprayer.

- |                |                              |                |
|----------------|------------------------------|----------------|
| <b>1800107</b> | Self-Mixing Hose End Sprayer | <b>\$23.99</b> |
|----------------|------------------------------|----------------|

## 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.

<b>1287561</b>	Bobbex-R Animal Repellent - RTU - Quart	<b>\$18.99</b>
<b>1287560</b>	Bobbex-R Animal Repellent - Conc. - Quart	<b>\$29.99</b>

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



## BONIDE® Repels-All® Animal Repellent

Natural Ingredients That Repel A Variety Of Critters!

**TARGET:** Armadillos, beavers, birds, cats, crows, chipmunks, deer, groundhogs, mice, porcupines, rabbits, raccoons, rats, skunks, shrews, and voles.

**DESCRIPTION:** A comprehensive animal repellent for use on plants and property structures for up to 2 months per each application. Containing a mixture of dried blood, putrescent egg, garlic, fish oil, cloves, and onions it will repel animals with both smell and taste.

**SUGGESTED USE:** Rainfast after 6 hours. Do not use on edibles. Shake before using and mix the concentrate with appropriate amount of water. The 1 qt. concentrate will make up to 2 gallons of repellent. Apply as needed with any type of sprayer and water afterwards.

<b>1287601</b>	BONIDE Repels-All Animal Repellent - 1 Quart RTU	<b>\$13.99</b>
<b>1287600</b>	BONIDE Repels-All Animal Repellent - 1 Quart Conc.	<b>\$21.50</b>

Cannot be shipped to the following states: IN, NM



## Chase™ Granular Mole & Gopher Repellent

Biodegradable, Environmentally Friendly & Easy-To-Apply.

**TARGET:** Gophers & moles.

**DESCRIPTION:** This biodegradable, environmentally friendly and easy to apply granular repellent will help eliminate moles and gophers from lawns and gardens. This product can be used when tunnels or cone shaped mounds are present and from the spring until late in the fall without yellowing lawns. When the active ingredient of the repellent is ingested by moles or gophers, it causes digestive interruption, deterring pests from inhabiting treated areas.

**Active Ingredients:** Castor Oil 19.5%, Sodium Lauryl Sulfate 4.5%.

**Inert Ingredients:** Corn Cob Granules 76%.

**SUGGESTED USE:**

- Use at a rate of approximately 1 lb. /1,000 sq. ft.
- Slowly adjust and test the rate of dispersal when using a hand spreader. Start out with an area of about 7 ft. by 7 ft. on a low speed and use only about 1/2 lb. of repellent.

<b>1287900</b>	Chase Granular Mole & Gopher Repellent - 6 lbs.	<b>\$24.95</b>
<b>1287901</b>	Chase Granular Mole & Gopher Repellent - 32 lbs.	<b>\$79.00</b>



## 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.

<b>1257200</b>	Wire Mini Basket (Pack of 6)	<b>\$6.72</b>
<b>1257201</b>	Wire Basket - 1 Gallon (Pack of 2)	<b>\$7.50</b>
<b>1257202</b>	Wire Basket - 3 Gallon	<b>\$7.00</b>
<b>1257203</b>	Wire Basket - 5 Gallon	<b>\$9.00</b>



## Monterey Ant Control



**Adios Ants! This OMRI Listed Product Is The Answer You Have Been Looking For!**

**TARGET:** Ants, earwigs, cutworms, sowbugs, pillbugs, crickets, slugs and snails. **Not for:** Fire ants, harvester ants, pharaoh ants and carpenter ants.

**DESCRIPTION:** This easy to apply granular product is made from iron phosphate and Spinosad – a beneficial bacteria that effects insects' nervous systems.

**SUGGESTED USE:** For use outdoors and on edible crops. Use about 1 tsp./sq. yd. or 1 lb./2000 sq. ft. Apply uniformly on grounds or soil and can be applied with a hand spread for larger areas. Apply only 3x a month, and do not apply within 3 days of harvest.

- |                |   |                |
|----------------|---|----------------|
| <b>1257895</b> | Monterey Ant Control - 1 lb. Shaker Can | <b>\$7.49</b>  |
| <b>1257896</b> | Monterey Ant Control - 2.5 lb. Jug      | <b>\$14.99</b> |

**Cannot be shipped to the following states:** DC, MO, ND, NJ, VA, WA, WV



## 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



## Terro® Ant Baits

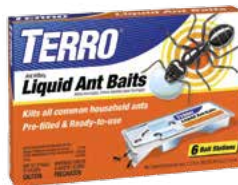
**Two Ways To Get Rid Of Ants!**

**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> |



## 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.

- |                |   |                |
|----------------|---|----------------|
| <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>  |



## 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.

- |                |   |                |
|----------------|---|----------------|
| <b>1457403</b> | EcoPCO® AR-X Multi-Purpose Insecticide - 17 oz. | <b>\$17.99</b> |
|----------------|---|----------------|
- Ships via Ground ONLY.



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ARBICO Organics Team

## 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 regular schedule so you won't run out. Popular auto ship products include: Fly Eliminators, Beneficial Nematodes, Green Lacewings, Ladybugs, horse sprays, fertilizers, pet supplies & many more!

## 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 - 5:00 PM (Arizona Time Zone)

• 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).

## OUR SATISFACTION GUARANTIES

**For products other than live insects:** If for any reason you are not satisfied with any of our products other than live insects, you can return the item(s) to us within 30 days in accordance with our Return Policy at [www.arbico-organics/category/return-policy](http://www.arbico-organics/category/return-policy). Our Customer Care personnel will be happy to assist you with returns.

**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. But 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 - 5:00 PM



## 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.

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