



NEW — NATURAL PESTICIDES

AND FUNGICIDES

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- A botanical insecticide made from canola oil and pyrethrum offers a broad spectrum of coverage--meaning it kills both good and bad bugs. Derived from chrysanthemum and rape seeds, it efficiently attacks pests like Japanese beetles, Mexican bean beetles, whiteflies and squash bugs in all stages of life including eggs, larvae and adults. To use this insecticide effectively, try to specifically target the harmful bugs.
- *Saccharopolyspora spinosa* is a biological control made from a fermenting process. Used to control a wide range of leaf-eating insects such as caterpillars, sawfly larvae, thrips, Colorado potato beetles and fire ants, this insecticide attacks the insects' nervous system, causing paralysis within one hour. And even better, *Saccharopolyspora spinosa* is not harmful to beneficial bugs in any way. Mix *Saccharopolyspora spinosa* with water and spray the solution to plant foliage. Most gardeners are familiar with the advantageous bacteria *Bacillus thuringiensis*, also known as Bt, which is extremely effective against caterpillars, from cabbage loopers to tomato hornworms. This beneficial bacteria has been around for years and is quite efficient, but up to now its potency hasn't lasted long, and it has required re-application every few days. Recently, however, scientists have been able to slow the degrading process of Bt and create a new and improved version that lasts up to four times longer.
- Another new insecticide on the market doesn't rely on toxicity to kill pests. Instead, it forms a protective barrier that actually repels them. Made from a type of clay, it's extremely effective against a number of damaging insects, especially those that attack fruits and veggies. And yet, it's harmless to beneficial insects. Mix the insecticide with water and spray on dry foliage every week or two. The white powdery residue washes off fruits and vegetables easily and is completely non-toxic.
- *Gliricladium virens* is actually a disease-fighting fungus that exists naturally in the soils all over the world. This valuable fungus controls damping-off disease, fusarium rot and pythium rot. To apply the fungicide, pull back any mulch and mix the powder with a seed-starting mix or garden soil. Just one application prior to planting provides months of protection for your plants.
- Among the all-natural fungicide options, *Bacillus subtilis* packs a lot of bang for your buck. Not only does this bacteria prevent fungal disease, but it also controls existing plant diseases. It works on an amazing number of diseases, including those that are some of the toughest to control--botrytis, commonly found on grapes; early blight, which attacks on tomatoes; powdery mildew, a regular nuisance for cucumbers; and even fireblight, which strikes both pears and *Pyracantha*. Sold under the Serenade company name.
- Another new, all-natural fungicide combines the benefits of copper with fatty acids that are essentially soaps. These two ingredients form a nearly impenetrable shield against some of the nastiest fungal diseases around. From septoria leaf spot, anthracnose and powdery mildew to all sort of blights and rusts, this fungicidal mix contains less copper and therefore is less likely to burn leaves. There is no residue left behind and it's more rain-resistant than other copper based fungicides so it doesn't require re-application as frequently.
- Not all insects are created equal, and beneficial bugs can be an important part of your all-natural pest-control program. Good guys like lady beetles and lacewings feed on destructive bugs like aphids, scale, mealybugs and thrip which can devastate a garden in no time. Attract the beneficial insects with specialized lures that may be purchased in small packets and positioned on stakes throughout the garden. These tiny treats entice helpful bugs from up to 100 sq. ft. and can last up to one month. Within days, you'll see the benefits.
- To keep beneficial bugs in your garden even when natural food sources aren't around, you might try a bug chow. Sold under various names (including Bug Chow), it's a great protein source for both ladybugs and lacewings, and it's easy to use. You can either mix it with water and spray on plants, or you can make a paste and apply a drop or two on foliage.
- Not new but a *must-have* for serious gardeners or for your houseplant collection: Beneficial nematodes (*Steinernema feltiae*) are microscopic parasites that actively seek out and destroy over 230 different soil-dwelling pests, including fleas, fungus gnats and white grubs. Nematodes are naturally occurring organisms and are not harmful to people, pets, earthworms, plants or the environment.

Suggested sources for safe, organic products:

Planet Natural, Bozeman, Montana 800-289-6656 www.planetnatural.com
Gardens Alive, Lawrenceburg, Indiana 513-354-1482 www.gardensalive.com