

Make Insects Allies In Battle Against Pests

UNIVERSITY PARK (Centre Co.) — For most people, the only good bug is a dead bug. But if your garden crops are being attacked by insects, an entomologist in Penn State's College of Agricultural Sciences say you should think twice before killing everything with six legs.

"Only one percent of insects actually are pests," said Lyn Garling, education specialist with the Pennsylvania Integrated Pest Management (IPM) Program. "Chances are that most insects you encounter are neutral as far as you're concerned. And probably at least 20 percent are, at some point in their lifetime, predators or parasites of other insects."

The difficult part, Garling said, is telling the good bugs from the bad. "When you walk through your garden, think of it as the African Sergeti," she said. "The pests generally are slow moving and eat leaves or fruit the cows of the insect world. The predators tend to be fast moving

and quick, with large eyes to seek out prey. They are the lions of the insect world."

Garling said there are abundant beneficial organisms in most gardens. "Wasps, beetles, flies, spiders virtually all orders of arthropods have predators and parasites among them," she explains. "Probably the three most common beneficial insects in Pennsylvania are ladybird beetles, green lacewings and hover flies."

• Ladybird beetles, commonly referred to as ladybugs, are predators of aphids and other pests. Adults most often are red, orange or yellow with black markings. "Lady beetles in their larval stage are especially voracious," said Garling. "But most people would not recognize a ladybug larva, which has an alligator-like appearance."

• Green lacewings appear mostly in late summer. "They are generalist predators," Garling said. "Adults are pale green, with long antennae and

large, transparent wings. The adults feed mostly on nectar and pollen, but their alligator-like larvae eat aphids, spider mites, small caterpillars and other insects, as well as a lot of eggs laid by pests."

• Syrphid flies, or hover flies, mostly commonly are yellow with brown or black stripes on the abdomen. "They look like a tiny bee, but they don't sting," said Garling. "Adults often hover around flowers and feed on pollen. The maggot-like larvae are especially fond of aphids."

Garling said to encourage beneficials, plan or modify the garden habitat to provide for their needs. "Like all wildlife, beneficial insects need food, water and shelter," she explained. "The best way to provide those things is to have a diversity of plants in your garden. You should plant a mixture of perennials, biennials and annuals, and make sure there's always something flowering. Flowers are a great source of

energy for foraging predators and parasites.

"Also have a range of architecture among your plants — tall, short, vine-like trailing on the ground — because each provides a different habitat," she added. "Establish mulched areas that provide a moist environment, and keep other areas dry and airy."

Purchasing beneficial insects for release in your garden is an option but may not be effective, according to Garling. "There are good companies that supply beneficials for the home garden," she said. "But you have to know the biology of the beneficial to be sure it's going to do what you want it to. For instance, if it's not pest-specific, it may go after other, more abundant pests and not take care of your particular problem. If you have a diverse

habitat in your garden, most of the work is being done for you already, so you're probably better off augmenting the natural population you already have."

Garling recommended using caution when applying pesticides in your garden.

Traditionally, garden pesticides have been broad spectrum, meaning they will kill a wide range of insects, including beneficials," she warns. "Before using pesticides, be sure you know what pest is causing your problem. Always carefully read the label instructions, and try to apply the pesticide at a time when beneficial insects are least likely to be present. You also should consider insecticidal soaps, botanicals or other products that are less likely to affect beneficials."

Maryland DHIA Report For August

The August Dairy Herd Improvement information for dairy herds from the DHI processing center in Provo, Utah. The list includes herds from Maryland, Pennsylvania, and West Virginia. The information is listed by herd name, county association, number of cows in the herd and the average production per cow in the herd based on Energy Corrected Milk (ECM). ECM combines milk production and components.

The ECM formula is: (7.2 x lbs. protein) + (12.95 x lbs. fat) + (.327 x lbs. milk). To be included, the herd must have 10 cows averaging 65 pounds or more of ECM per cow, per day. All herds reported are on official DHI or DHIR test. Also listed are the top ten herds in Maryland for the Brown Swiss, Guernseys, and Jerseys, and the top seven herds for Ayrshires.

Herd Name	Cows In Herd	ECM	Herd Breed
Steve & Christine Wood	74	82.1	Holstein
Dairy Cattle Research	124	68.7	Holstein
William Warns	56	67.0	Holstein
Faithland Farm	240	67.8	Holstein
Richard Edwards	282	67.7	Holstein
Hollingsworth Daniel 3	58	65.2	Holstein
Md -Carrollton	57	76.3	Holstein
Windsor Manor	84	75.9	Holstein
Derrwyn Holsteins	61	73.1	Holstein
Maple Lawn Farm, Inc	176	72.9	Holstein
Cedar Knoll Farms	98	72.1	Holstein
Marlin Hoff	666	71.4	Holstein
D Richard Flickinger	137	71.2	Holstein
Richard L. Hahn	42	70.4	Holstein
Byron D. Stambaugh	116	70.2	Holstein
Garstlyn Holsteins	12	70.1	Holstein
James & John Myers	73	70.0	Holstein
Joe A. Schwartzbeck	164	69.3	Holstein
Unicorn Associates Inc	159	67.9	Holstein
Dwayne & Miriam Bell	57	66.8	Holstein
Panora Acres Inc	187	66.3	Holstein
Gemstone Farm	62	65.3	Holstein
Jerry & Rick Lease	93	65.2	Holstein
Long Green Farms Inc	112	69.3	Holstein
Zion Meadows	95	66.3	Holstein
Grossnickle Farm Inc.	256	95.8	Holstein
Smith-Mead Farm	103	93.3	Holstein
Paul R. Dotterer	84	82.1	Holstein
Wayne Z. Tucker	197	81.4	Holstein
Hollow Valley Farm	93	77.2	Holstein
Dave & Carole Doody	136	77.1	Holstein
Jerry & Dawn Murphy	59	76.3	Mixed
Glade-Rock Farm	132	75.7	Holstein
Hobble-Hill Holsteins	85	73.9	Holstein
K. Scott & Judy Hood	31	72.3	Br Swiss
Md -Garden Spot Farm	86	71.8	Holstein
Vales-Pride Ayrshire	41	71.4	Ayrshire
Dublin Hills Swiss	87	70.7	Br Swiss
Paul K. Coblenz & Sons	338	70.0	Holstein
G. Donald Shafer & Son	162	69.7	Holstein

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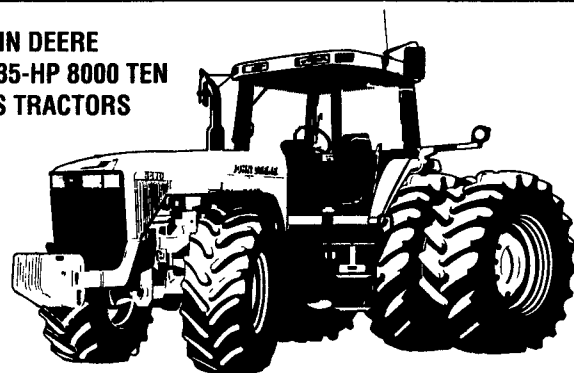
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