

Stingless Wasps: Good Pest Busters For Poultry Farmers

BY MARTHA SHELDON

New York Correspondent

VENICE CENTER, N.Y. — Baits, sprays, and traps aren't the only way to rid a barn of flies. In their seemingly endless war against these bothersome and disease-carrying insects, egg producers are now finding a staunch ally in a tiny stingless wasp called the *Nasonia vitripennis*.

Once a week during fly season, egg producer Jeff Edwards of the Central New York farming community of Venice Center receives a sandwich-sized white bag of 10,000 fly eggs, parasited by tiny wasp pupae and mixed with wood chips. As soon as Edwards notices minute black specks crawling around on the inside of the bag, he knows the *Nasonia* are hatching, and he can put his wasps to work.

It takes about five minutes to walk through his three barns, reaching into the bag, pulling out handfuls of wasps and sawdust, and sprinkling them onto the manure in the pits below the hens' cages.

Unlike many chemical means of fly control, *Nasonia* wasps do not kill adult flies. Instead, these tiny fruit-fly sized insects seek out fly pupae and lay their eggs in them. When the *Nasonia* mature to the larva stage, they feed on the fly pupae, killing off future generations of house flies, stable flies, blowflies and the many other species of flies which are becoming a year-round problem for poultry growers, thanks to the advent of climate control in the layer houses.

Although Edwards obtains his *Nasonia* wasps from IPM Laboratories, Inc., just a few miles down the road in Locke, New York, he first heard about the insects from Scott Kreher of Kreher Poultry Farms, a large egg producing facility halfway across the state in the affluent Buffalo suburb of Clarence.

Several years ago Kurt Kreher attended a trade show in Atlanta where he learned about using natural predators to control fly problems. Before the next fly season began, Kreher contracted with Beneficial Insectory of



Jeff Edwards controls flies in his poultry house with small stingless wasps.

Del extension seeks Master Gardener

NEWARK, Del. — Delaware Cooperative Extension is planning a new master gardener training class for New Castle County to begin in early February 1987. Applications are now being accepted from interested individuals.

The state's first group of master gardeners graduated last spring and has since been actively engaged in various horticultural activities in the county. A second class is about to graduate in Kent and Sussex counties.

"This new volunteer program has been well received by the public and is making an important contribution to Extension's educational effort," says Dave Tatnall, University of Delaware extension horticultural agent.

Participants need not be county residents, but they must be able to work in New Castle County after they have been certified. They will receive 45 hours of intensive horticultural training in return for

an equal number of hours of volunteer service to be spent helping extension professionals increase gardening awareness, solve gardening problems and serve the gardening public.

"If you enjoy gardening as a hobby, would like to help other gardeners or your community, want to learn more about gardening and have a desire to help Extension develop effective new programs, then master gardening may be for you," says Tatnall.

Training will start Feb. 3, 1987, in Townsend Hall on the University of Delaware campus in Newark. Sessions will be held on Tuesdays and Thursdays from 9 a.m. to 12:15 p.m.

Deadline for applications is Wednesday, Jan. 7. For more information write the New Castle County Extension Office, Townsend Hall, University of Delaware, Newark, DE 19717-1303. Or call 451-2506.

California, to keep him supplied with three varieties of insects.

The *Nasonia* wasp was just one of three predators the firm began shipping him on a regular basis. And although Kreher felt the predators were helping whittle down his fly population, Cornell University professor Dr. Donald Rutz questioned the ability of the California wasp to reproduce in the cool northeast.

A Cornell graduate student's research study to determine if the wasps could reproduce, proved inconclusive.

Still concerned about the California *Nasonia*'s reproductive viability in cool climates, Rutz put Kreher in touch with entomologist Carol Glenister, of IPM Labs, who was already doing work in the field of integrated pest management. Glenister agreed to begin raising *Nasonia*s for Kreher and others in the region.

Kreher now receives about 100,000 wasps a week from Glenister and is pleased with the job they are doing. Their advantages, says Kreher, are that

they are easier to apply than chemicals and require no license to use. They also eliminate the hassle of having to suit up in order to apply them.

Costing no more to use than sprays, predators reduce the need for dangerous chemicals and prevent the buildup of a chemical-resistant fly population.

But both Kreher and Glenister advocate using more than just the *Nasonia* wasps for controlling flies. Kreher is also using a tiny mite and a beetle, both of which crawl on the surface of the manure, searching for fly eggs to consume.

"What I have found," said Kreher, "is that in my three high-rises, by using careful cleanout methods and keeping the manure dry, I can keep the natural predators alive and in the building, and can control my fly population without chemicals."

In fact, Kreher finds that in one of his buildings the predators have become self-sustaining - they are reproducing well enough and often enough that he no longer needs to

release *Nasonia* wasps or any other predators in order to keep the flies under control.

A walk through Edwards' layer houses during fly seasons, is proof positive the wasps are doing their job. While Edwards describes pest scenes of flies clinging to the ceiling in one large black mass along the water pipes and electrical lines, only a fly or two is presently in sight.

And in the egg house, where fly specks used to cause extra work in the washing process, not a single fly can now be seen or heard.

Kreher said using predators for pest control is a relatively new and "a little bit different idea. But," he says, "we're so excited about it ourselves, that when Carol (Glenister) indicated she was not sure there was enough volume to keep going, I sent out letters to other producers to let them know about the wasps."

Kreher now knows at least four other large producers who are using *Nasonia* wasps and integrated pest management to keep a lid on their fly problem.

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