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Problems with mosquitoes have been significantly reduced ever since John Carson put up a pair of giant purple martin houses.

Giant Bat And Bird Houses Help Solve Insect Problems

When it comes to insect control, you can't beat what a thriving colony of bats can do. An individual bat can eat thousands of insects in one night. They'll usually eat about a third of their weight or more in flying insects every night," says Mark Hostetler, a University of Florida-Gainesville extension wildlife specialist. A bat house built in 1991 on that campus now houses over 100,000 bats which eat vast quantities of insects in and around campus.

Hostetler says they eat just about any insect that flies — including flies. But for crop farmers, it's good to know they also eat moths, including the moths that are the adult forms of armyworm, corn earworm and cutworm. They also eat leafhoppers of all varieties and some bat species, particularly big brown bats, eat larger insects like cucumber beetles and stinkbugs.

Hostetler says there are a lot of ways to attract bats. If you have Internet access, you can find much of what you'll need to set up a successful bat house at www.batcon.org.

While bats go after most flying insects, mosquitoes are usually a small portion of their diet, Hostetler says.

If mosquitoes are your main concern, you might want to encourage another prolific insect eater - purple martins.

John Carson, owner of Big Island Ranch Ltd., Sherwood Park, Alberta, says problems with mosquitoes on his farm have been significantly reduced since he put up a couple of giant purple martin houses. Those two houses can each provide shelter and nesting for 112 martins, and he has a smaller 16-hole house on a pole near his home.

"Before we put up the two big houses, we used insecticide sprays to control the

mosquito population," he says. "We haven't had to spray here in four or five years." The reason is that purple martins eat their weight in mosquitoes and other insects every day.

Carson's large houses are mounted about 15 ft. off the ground on posts above the gates between the pastures where his elk herd grazes in the summer.

He had the large houses built by a local retiree who likes to do wood working. "We had put up some metal houses along with some small wooden ones and the martins always filled up the wood before they'd move into the metal ones," he says. "So we decided to have the big ones made from wood."

He says attracting purple martins is easy. "We started with a small house and then just added to it when they'd gotten used to coming here," he says.

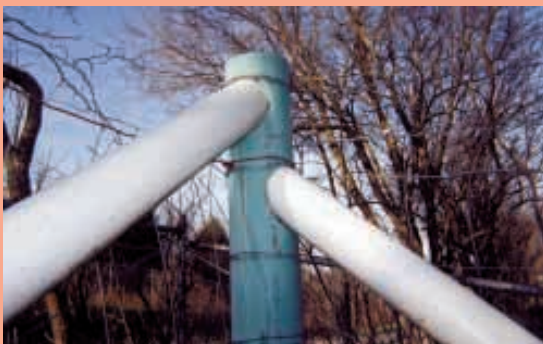
He suggests starting with a 16-hole house.

It's important that the house be located in an open area, not around trees, and that it be about 15 ft. off the ground.

"They're very clean birds. There's never any droppings around their house, like you'll see with many other birds," he says.

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PVC corner post is filled with concrete. Two holes cut into the sides accept angled brace pipes.



PVC Pipe Fence Corners

Mike Giles, Claremore, Oklahoma, came up with an easy-to-build design for concrete-filled PVC pipe corner posts.

"I wanted something strong that would last, but wouldn't be a lot of work to set up," he says.

Giles first digs a hole 1 1/2 to 2 ft. deep in the corner and pours it full of concrete. Before the concrete sets, he inserts a length of 8-in. diameter PVC pipe. Using his chainsaw, he cuts two holes in the pipe about 4 ft. above ground level about 4 in. in diameter. The two holes are at a right angle, with one pointing each direction the fence runs from the corner. He inserts a length of 4 in. diameter white PVC pipe into each of these and angles them at 45-degrees to the ground where they're enclosed in holes filled with concrete.

Finally, he fills the corner and brace pipes full of concrete.



Concrete-filled PVC brace pipes are set at a 45-degree angle.

"I made my first corner post like this five years ago and it's still just as solid as it was then," he says. "These braces will never rust and if you use white PVC, they'll look nice. I usually try to keep fences painted, but this doesn't need paint."

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Mil-Stak bale loader lets you use the New Holland automatic bale stack wagon - which is designed to handle small square bales - to also handle 3 by 3-ft. and 4 by 3-ft. mid-size bales weighing up to 1,600 lbs.



Add-On NH Big Bale Loader

New Holland automatic bale stack wagons are widely used to load and unload small square bales. Now a new attachment lets you use the same machine to also handle 3 by 3-ft. and 4 by 3-ft. mid-size bales weighing up to 1,600 lbs.

"It eliminates the need to buy a separate machine to handle bigger bales," says inventor Ken Millsap, Mil-Stak, Inc., Fruitland, Idaho.

The Mil-Stak 1000 bale loader consists of a pair of loading arms which rotate on a shaft operated by a big hydraulic cylinder. The frame containing the shaft bolts onto a mounting bar that bolts permanently to the front part of the stack wagon. Another cylinder is used to clamp the bale for loading. An adjustable bumper is located between the loading arms and can be moved forward or backward, depending on bale length, by changing the position of two pins.

To switch back to small square bales, you simply unbolt the unit from the mounting bar and set it down on a pair of removable jacks. The stacker's original small square bale loader can then be bolted back onto its original mounts.

"It sells for about \$16,500. Many custom hay operators have to handle both types of bales, and this attachment saves them a lot of money because they only need one piece of equipment to handle both kinds of bales," says Millsap. "It takes only about 30 minutes to switch loaders."

"It fits any of the newer New Holland stack wagons such as the 1068, 1078, 1075, 1085, and 1095 models. It won't fit old models such as the 1048 and 1049."

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