

“Tweaked” Distress Calls Scare Away Pest Birds Permanently

High-tech “tweaked” bird distress calls scare away pest birds and attract beneficial birds of prey. When first introduced in the 1990’s, Bird Gard broadcast harassing sounds that worked great for a short time, and then pest birds returned. That problem has been fixed, and the company now offers safe and humane ways to repel problem birds from one to thousands of acres at a time.

“Research showed that naturally occurring distress calls worked better, but the pest birds habituated to them, too,” says Rick Willis, Bird Gard.

Part of the solution lay in developing a microprocessor to randomize the patterns. The second part of the solution was to change the pitch slightly, which the microprocessor also does.

“With the changes, every time the Bird Gard unit plays, it has a slightly different sound, giving the impression that a lot of starlings or other target bird types are under attack from a whole lot of raptors.”

To introduce the new technology and educate people to how superior it is, Willis started doing in-field demonstrations. Kendall Jackson, a very large grape grower, was spending as much as \$800 to \$1,000 an acre

to put nets over premium grapes. Willis was able to fix the problem for \$200 an acre.

At the end of a 2-year test, the company not only bought the demonstration units, but also gave him a map of other high-value vineyards they wanted protected.

“Grape, blueberry, cherry and other fruit and nut growers all have a problem with pest birds,” says Willis. “Blueberry growers can lose from 10 to 50 percent of their crop to birds. A Willamette Valley blueberry grower was losing \$3,000 to \$4,000 an acre.”

Willis says some large growers get multi-crop benefits, moving their systems from one ripening crop to another. Others with drip irrigation use their systems to keep birds from destroying the drip lines to get at water.

“Broccoli and sweet corn farmers use the units to keep birds from pulling seedlings out of the ground,” says Willis.

Unlike other bird repellent devices, the Bird Gard audio systems are species specific. They don’t harm or discourage other species and can even encourage them.

“We had a blueberry grower with a lot of ring-necked doves that eat damaging insects,” recalls Willis. “We didn’t put their distress calls on recordings for his blueberry fields;

however, we do use their calls in fields of sorghum and grain where they eat the crops.”

In Washington State, a combination of the kestrel’s natural cry along with pest birds’ distress calls draws the kestrels in to feed on mice and voles. The same audio mix chases away the pests. In Georgia, desirable purple martins stayed while starlings were driven out.

Willis has also sold Bird Gard units to large-scale feedlots and dairies that can be inundated by starlings and other birds, especially in the winter.

“Because of their drive to survive and a shortage of alternatives in the winter, our units are only 85 percent effective,” says Willis. “The rest of the year, they are 100 percent effective.”

The Pro model protects up to an acre; the Pro Plus protects up to 2 acres; and the Super Pro models cover up to 25 acres. The largest unit has a 20-speaker tower and an interchangeable sound card with 8 different bird sounds.

Prices start at \$240 for the 1-acre Pro. Solar panels are available as an option for charging batteries. Every unit comes with an unconditional 1-year guarantee.



Bird Gard audio system uses randomized patterns of distress calls to scare away pest birds permanently.

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Do-It-Yourself Bird Scare Inventions Keep Fruit Safe

Bill Spurlock’s mechanical bird scare devices consist of rotating arms, jiggling jugs, and plastic bags that flap.

“For many years, I suffered serious bird damage to crops in my small orchard,” says Spurlock. “Finally I started experimenting with bird-scare devices and came up with very effective, but low tech methods that achieve 90 percent or better effectiveness. These machines would work equally well for gardens, berry patches, or small vineyards.”

Spurlock came up with 3 different systems that he still uses today. All are activated by timers that repeat periodically through the day. He uses Titan Apollo 12 timers (Amazon.com), which are short cycle timers with light sensors so they only run during the day. Settings can be changed easily, which he does often.

“Typically I might set the timer to run for 5 to 20 sec. and then shut off for 45 to 120 sec., repeating throughout the day,” says Spurlock. “Having the devices go off and on randomly is what does the job.”

His first device was a rotating mast with a cross arm at the top he calls “bye, bye, birdie”. It’s easy to move around to different trees or sets of trees as fruit ripens.

It consists of 2 diameters of steel tubing that telescope so he can adjust the height to match the tree canopy being protected. A motorcycle shaft on the shaft gear reduction at the bottom was initially powered by a chain drive garage door opener. When the opener burned out from frequent use, he went with a 1/15 hp. electric motor with a flexible coupler. It is able to operate all day.

The rotating mast, drive and motor are mounted to a framework of scrounged angle iron and channel iron. The cross arms consist of an old sailboard mast on one end and old fishing poles on the other, giving him a working diameter of about 100 ft. He hangs a wide variety of items from the arms, from plastic jugs to pie pans, foil, cloth or plastic streamers.

“I use anything that will startle the birds,” says Spurlock. “It makes a little sound, but mostly it is the motion. I use it over a single tree or between 2 trees, and it works well.”

His second system he calls “rope-a-dope”. It consists of one or more light ropes strung through multiple trees or a block of trees at

canopy level. The ropes attach to trees or poles he erects at the perimeter of the trees being protected.

“The larger network takes a lot of work to erect each year, but it does a fantastic job,” says Spurlock.

The ropes are also on timers. The drive mechanism for his larger rope system is an old washing machine motor hooked to a frame with belt-driven pulleys for gear reduction. A crank arm attached to the second pulley connects by rope to the canopy rope networks. As it turns, it pulls and releases the ropes overhead, activating all the hanging items.

Other smaller rope systems for fewer trees are driven by other repurposed items. They include a worn out band saw and an old pump jack. They all use some form of gear reducer and crank arm to jiggle the overhead rope or ropes and their suspended items.

His third bird scare system is his “bird blower.” It uses a small, low power, electric leaf blower set inside a plastic tub to reduce the noise. It is plumbed to a sewer and drain pipe and then reduced to a 2-in. pvc tube that rises through the tree and into the canopy.

“I tie the tube to the branches of the tree and duct tape a 2 to 3-ft. long piece of poly tubing to its end,” says Spurlock. “When the leaf blower starts up the plastic tubing expands, flapping and snapping in the tree, scaring the birds. You can’t use really stiff plastic or it won’t be active enough.”

He uses a router speed control to reduce the power to the blower when using it for a single tree. Full speed on this leaf blower or a larger one can power a network of up to 8 to 10 pipes and plastic tubes.

“You do have to replace plastic bags every few days as they get very frazzled; however, it’s worth it as the system is very effective,” says Spurlock. “All of the methods work, and I still use each of them. Each has its place. There is no perfect system, and everyone can adapt these ideas to their own needs.”

Check out Spurlock’s bird scare systems at www.farmhack.com, an online community of small farmers who like to tinker.

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Electric leaf blower, housed under insulated wood box to reduce noise, is plumbed to a pvc pipeline with a series of vertical outlet pipes fitted with tube-shaped plastic bags. When blower starts up, the plastic tubes expand and flap around, scaring birds.



Another type of scarer is a rotating mast with a cross arm on top dangling milk jugs, plastic streamers, and a variety of other items. A gear-reduced shaft drives the mast.



The “rope-a-dope” scarer, above, consists of several light ropes strung through multiple trees. An offset crank arm, left, tugs and releases ropes, shaking items dangling from them to scare birds.



Spurlock uses Titan short cycle timers to turn his bird scarers on and off during day.