

## The Relentless Menace of the Wild Hog

The scourge of feral swine continues to spread in America. Pecan growers and USDA officials in Oklahoma grapple with the best ways to manage the invasive species.

By David Hanson

artin Mount has taken the same dirt track into his family's pecan grove since he was a little boy. His great-grandfather worked another man's pecan orchard, but Mount's grandfather bought his own property beside the Deep Fork River in 1939. With a cross-cut saw, an axe, and homemade tree poison, his granddad spent years clearing the tangled bottomland forest to reveal the abundant native pecan trees.

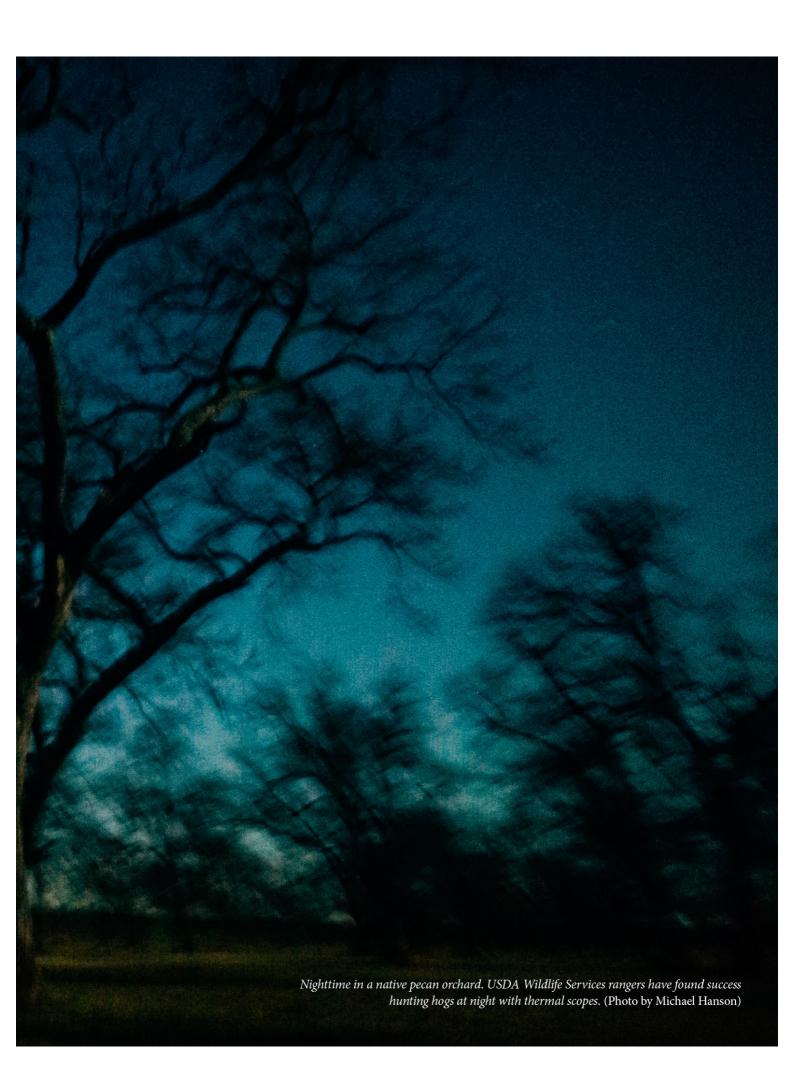
"Then they got a bulldozer," remembers Mount, a 59-year-old Oklahoman built like a tight end with an affable, talkative manner that, for a few years in his younger life, made him an entertaining agriculture-technology teacher. "When I was ten, I started riding around with my granddad on the old Farmall M International Harvester. I'd ride on the bumper until we got to a pecan tree then I'd run out of the way as he bumped the tree and the pecans rained down."

Mount left the farm for college and teaching but returned to pecans

in 1986. He now manages 2,400 improved and 3,800 native pecan trees, many of them grafted by his grandfather from original natives. The equipment has vastly enhanced pecan harvesting efficiency, allowing Mount and other growers to be more productive and profitable. But Mount now faces a challenge previous generations never knew: an explosion of wild hogs across the southern United States is threatening the livelihood of pecan growers and other crop producers.

"I can tell you," Mount says, as he rides in his 4x4 buggy through the vast native grove on a steely-gray November afternoon, "every year I end up sending a person down here on a tractor with a 14-foot roto tiller and they spend a month smoothing hog damage. I've probably left 5,000 pounds of pecans down here. The hogs damage the ground below the trees and if it's too wet I can't smooth it out. I have trees just loaded up with pecans and I can't harvest them. It's hard to quantify the damage."

Wild hogs (also known as feral



swine) are reaching crisis levels for farmers around the U.S. The invasive animals are known to be in at least 39 states. Farmers are reporting damage as far north as Michigan and concern is heightened in Montana where hogs may soon cross the border from Canada. The U.S. Department of Agriculture estimates that wild hogs cause over \$1 billion in annual crop loss and closer to \$2.5 billion when including damage to infrastructure, wildlife habitat, automobile accidents, etc. A herd or sounder of hogs can tear up dozens of acres of freshly planted corn in a single night. They're guilty of digging up bones and artifacts in ancient burial mounds. On the Georgia coast, researchers have opened wild hog bellies to discover baby sea turtles.

"We haven't been able to find a crop they don't eat or damage," says Dr. Stephanie Shwiff, Research Economist/Project Leader for the USDA's National Wildlife Research Center. "Feral swine might not like the taste of a certain crop, but there's always something—grub, worms, roots—around the crop that they eat, and in their aggressive eating they destroy the crop."

The USDA looks at three categories of damage in regards to invasive species: destruction, disease transmission, and depredation (eating the crop). Wild hogs score off the charts in all three. In comparison, the Burmese python, a recent and infamous South Florida invader, seems quaint: pythons are geographically isolated to Florida and they don't spread disease.

"If feral hogs got African Swine Fever or foot-and-mouth disease," Shwiff says, "it could shut our trade down. Countries wouldn't want to trade pork products and even other live animals with us anymore. Aside from the health scare, a disease outbreak via hogs would impact big economic factors like GDP and jobs."

Martin Mount's grandfather likely saw a few occasional wild hogs as he cleared his pecan grove. The hogs arrived to the continental U.S. and Mexico in the 1500s from their native Europe with Hernando de Soto and Hernán Cortés. The wild animal's ability to find food and survive almost anywhere made them an ideal food source for the stop-and-go expeditions. The New World explorers could leave hogs on Caribbean islands, in islands up the Mississippi River, and in bottomland forests as they traversed the interior of the U.S. When they needed food, they simply went into the woods and shot a hog. The fast-food protein resource never thinned since female hogs can begin reproducing at 6 months of age, yielding up to 14 hogs per litter, and breeding twice a year. No other large mammal breeds as prolifically as the wild hog. And few animals are as adaptive, tough and smart as the hog. As they say in Texas, "if a female hog gives birth to 10 babies, 12 will survive."

As recently as the 1980s, however, feral swine were found in only 17 U.S. states, and at nowhere near the current population estimate of 6 million. But sport hunters began transporting trapped hogs to hunting properties, vastly expanding their reach into the Midwest and Northeast and facilitating their spread across existing hog-inhabited states in Texas and the Deep South.



Shwiff's job is to track economic impacts of wildlife damage in the United States, yet these days she spends 80 percent of her time worrying about feral swine. USDA Wildlife Services field offices have formed specific wild hog teams to help curb the population and inform and assist landowners and food producers. In Oklahoma, a team of field specialists from USDA Wildlife Services has taken a hands-on approach to managing the growing swine problem.

Kenny Kellett is an Oklahoma native with a drawl that gives away his upbringing near the Arkansas border. He's the Northeast District Supervisor for the Oklahoma Department of Agriculture, Food, and Forestry's Wildlife Services division, which is cooperatively funded by the state and USDA Wildlife Services. On a freezing



Hog destruction on a golf course fairway was discovered after one night of rooting by wild hogs. (Photo by David Hanson)

dawn, Kellett and his partner, Donald Joe Baker, who moonlights as a pastor at Last Chance Baptist Church, set up a BoarBuster trap at the edge of a thick forest bordering the Deep Fork River. Kellett and his team are like the Ghostbusters of wild hogs, responding to calls from farmers, landowners, and pecan growers to deal with marauding swine. He and Don Joe carry rifles in the chance they encounter a lone boar, but they usually aren't out to hunt. They believe in traps.

"Farmers and ranchers call us and ask what they can do," says Kellett. "We tell them the first thing they can do is build a trap. You pre-bait a week, two weeks before you ever put a trap up. The hogs will know where the groceries are. Once that happens, you can put a trap out there and they'll get used to that



Martin Mount has grown pecans his whole life, and only recently have hogs begun to take their toll on his business. He works closely with the USDA to trap the hogs in his groves. (Photo by Michael Hanson)



Kenny Kellett and Donald Joe Baker (right) set up a BoarBuster trap at the edge of Deep Fork River woods. (Photo by Michael Hanson)



Kenny Kellett checks on a trap where they've had success catching hogs. (Photo by David Hanson)

trap. Then set the trap, then you catch hogs. Repeat. It's easy. As long as producers and landowners start doing this, it's going to help."

Despite the immense damage and economic losses for farmers across the South and Midwest, hunters continue to exacerbate the problem

by illegally transporting wild hogs to their hunting properties. Without owning a farm or pecan grove or having neighbors dealing with hog issues, it's hard to know the real crisis at hand.

"This isn't a game to these farmers and ranchers," Kellett says.

"It's their livelihood. They don't need somebody to come out with a dog to catch one or two hogs and leave. They need to put a trap up and they need these feral hogs gone."

"If you have a pig problem, you're always going to have a pig problem," says Dr. Stephen Webb, Staff Scientist at the Noble Research Institute in Ardmore, Oklahoma.

Webb and his team have developed a calculator that allows pecan growers to input their acreage, a long-term average of production (pounds per acre), and a long-term average price of pecans (price per pound). The equation then calculates both yield and dollar losses for improved and native pecans. By estimating the economic impact of hogs, a pecan grower can determine the value of investing in a \$6,000 BoarBuster trap or an electric fence, which has also proven effective.

Optimal management of hogs takes time and man-power. At the Noble Research Institute's Red River property in the spring and summer of 2018, Webb's team ran an aggressive trapping effort, rotating three BoarBusters around 15 to 16 sites on 7,500 acres. From late January to early March (pregreening) and then during two summer dry months, the crew trapped over 800 pigs, mostly in sounders averaging 12 to 14 pigs at a time. One trap caught 40 pigs in a night. Webb estimates they captured over 80 percent of the local hog population. The subsequent year they caught 80 hogs. Webb guesses the population will spike again 2 to 3 years after the intensive eradication effort.

Webb and Kellett agree that for now trapping is the most effective



A sounder of hogs seen eating pecans and rooting up the dirt in a native pecan grove. (Courtesy of the Oklahoma Department of Agriculture, Food, and Forestry)

means of control. Researchers are developing and evaluating toxicants and sterility methods, but only one is registered for use on wild hogs. And there are still challenges related to the delivery of these

products and hazards to non-target wildlife. Some states have banned hog hunting as sport, which has led to a decline in hogs spreading through human transport and could be a viable, though politically



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challenging, way forward in places like Oklahoma. And finally, some growers and researchers are looking at new ways to harvest that account for the reality of at least some hog damage to the ground beneath trees.

"We're basically having to adapt to the reality of pigs," says Webb. "How do we create conditions where we can harvest after hog damage?"

Webb, Kellett, Shwiff, and others recognize that feral swine may never be eradicated completely in some areas, but these hogs can be effectively, if painstakingly, managed to reduce the damage they inflict. Because of this, hope remains to eliminate feral swine from regions with smaller, less established populations.

Dusk is landing quickly on

Martin Mount's native grove. The leaves have fallen from the trees and Mount must wait for the ground to dry before he can complete his harvest. The sky is lavender behind the webbed canopy of branches. On those branches, Mount's livelihood waits in dark brown, mottled shells. A few hundred yards away a black shape moves low to the ground, a lone boar angling toward thick woods at the grove's edge. It reminds Mount of a recent encounter.

"We were harvesting earlier this fall," he says. "We always have a few extra vehicles in the orchard; so, I was going home at dusk, I saw this big ole boar and I just drove normal. As soon as I got home, I got my rifle. I'll shoot a single boar, but I'm not shooting a sounder, that boogers 'em up, trains 'em to run. I

drove back into the grove nice and gentle. He didn't spook. I parked, walked toward him a ways, and I dropped him. Looked like he had Russian boar in him—real hairy, big tusk, heavy front end. Probably bred with something that escaped from a game farm."

"It's been about week ago now," Mount continues. "I had a guy ask if he could come in here and hunt one. I don't really like having hunters come out here with dogs. I want to be able to let them set for three months before I start trapping again. I told him no. The stakes are just too high." •

David Hanson is a writer and filmmaker who grew up in Georgia and now lives in Oregon. He and his brother, photographer and filmmaker Michael Hanson, are working with the USDA on a documentary project about wild hogs in the United States.

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