

A feral fight

Contraceptive may help stem tide of rising hog invasion

Dallas native John Weete is involved in an effort at Auburn to help control feral hogs through a swine-specific contraceptive. It could be a useful tool in defending against an increasingly costly pest.

Feral (wild) hogs cause problems throughout the south, wreaking havoc on agriculture, landscaped yards, golf courses and wildlife habitat while competing directly with native animals. The estimated annual damage from these animals, mostly in nine southern states, exceeds \$1.5 billion.

In Texas, hogs are shot incidental to deer hunting and targeted at night with night vision technology or thermal imaging scopes. They are baited at night to lighted food sources. They're trapped by the thousands, chased by hounds and even shot from the air by helicopter gunners. An estimated 730,000 were killed in 2010, but Texas AgriLife experts estimate the Texas feral hog population at 2.6 million.

Feral hogs have an exponential reproductive rate. A mature sow produces two litters a year with five or six pigs per litter. A sow can breed as young as six months. Authorities say Texas would have to remove 66 percent of existing hogs each year, about 1.7 million animals, just to maintain a stable population.

To make matters worse, feral hogs are among the smartest of wild animals. They learn to avoid traps and hunters.

That's where swine contraceptives could play an important role. Weete, a 1960 Sunset High School graduate, is an Emeritus Professor of Biology at Auburn. Weete said he enjoyed the outdoors as a kid but was never into fishing and hunting, as were some of his friends.

They still get together near Baird for an annual quail hunt that's been turned into a golf outing by the scarcity of quail. Weete said his interest in biology was piqued by outstanding professors at Stephen F. Austin.

Weete is executive director of the Auburn Research and Technology Foundation and is responsible for the commer-



Steve Knight

A mature sow like this one produces two litters of pigs a year. Each litter contains five or six pigs. Females as young as six months may breed.



John Weete

Dallas native John Weete is working with an Auburn team in developing a contraceptive drug to render feral hogs infertile. Texas has an estimated 2.6 million wild hogs.

cialization of technologies developed by the foundation and the university. He said the swine contraception technology could be a game-changer. It's a joint program between Auburn's veterinary and forestry schools.

"Auburn has been working on immune-contraception for the control of domestic animals for several years," Weete said. "With the rise of the feral hog problem, research was expanded to these animals."

Weete said the contraceptive would be delivered through bait, and it is swine specific and will not affect other animals that eat the bait.

"The product is an immune-contraceptive, meaning it develops immunogens in the body that affect sperm mobility and fertilization," Weete said. "The vaccine creates antibodies that attack sperm and prevent it from fertilizing eggs. The structure of the vaccine allows it to be an effective contraceptive in both male and female pigs."

There's still laboratory research to complete before field testing begins. Researchers do not know, for instance, how quickly after ingestion the contraceptive would become effective, nor how long it remains effective. Neither do they know how much it will cost once it reaches the feed store shelf.

"The aim of this program is to develop a product that, along with conventional approaches such as trapping and shooting, will result in the control of the wild pig population growth," Weete said.