



Feral Pig Control: Present and Future

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Landowners across Texas and around the nation are dealing with the recent explosion in the feral pig population. Commonly referred to as the “pig bomb,” this rapid population growth has resulted in an estimated population of feral pigs in Texas upwards of 2.5 million animals. Texas’ population makes up approximately half of the nationwide feral pig population estimate. High reproductive output and fecundity along with misguided and illegal movement of animals has made this rapid expansion of population and distribution possible.

Pigs first arrived in the United States in the 1500s with the first Spanish explorations. Accidental releases and losses to Indian raids allowed for the first individuals to begin the process of becoming feral. Populations of feral pigs slowly grew but were probably limited in numbers by predatory animals; most of which are only now recovering from near eradication and subsistence hunting by Native Americans and frontiersmen. Without these constraints, an increase in available forage from agriculture and clandestine releases on both public and private property, the population was able to reach the levels we now face. Natural resource managers and researchers are now working to develop more effective ways to deal with the growing issue.

Trapping can be a cost effective and relatively simple solution for dealing with feral pig problems on private property. Many designs and trapping techniques

exist and can be modified for almost any situation. The Texas Agrilife Extension web site is a good resource for trap design and trapping procedures. While trapping can be highly successful, precautions should be taken in how the animals are dealt with after the capture; trapped feral pigs can be aggressive and despite popular belief can and will jump fences as high as 4.5 feet tall when pressured.

Shooting, via ground or helicopter, can be highly effective at reducing pig populations in an area. A distinction must be made here that “shooting” and recreational hunting are different in the context of population reduction or control. Despite recreational hunting of feral pigs being legal for many years, the feral pig population continues to grow. While hunting is a great tool for the management of game species with stable populations, it might not be the best method to control a population that is

already out of control. In order to control feral pig populations, at least 70 percent of the population must be removed each year to maintain the current population size and a yearly take of at least 75 percent being needed to reduce the population in a given area. Large scale shooting of feral pigs such as that conducted on many private ranches and by USDA Wildlife Services can and in some cases does have a drastic effect on populations in a localized area.

Recreational hunting while not effective as a control or management tool for the state as a whole may help to reduce predating pigs in agricultural areas and serve as a way in which landowners can recoup some of the losses due to feral pig damage. Recreational hunting has caused some issues with the transfer of feral pigs to new areas. Researchers have found that some pigs killed in northern states where they have only recently been

seen have close genetic similarity to those in southern states. This leads managers to believe that feral pigs may be being illegally transported across state lines for the purpose of populating an area for future hunting. This not only aids in the expansion of feral pigs but also potentially transmits diseases into an area which could pose risks to the health of humans, livestock and wildlife.

A potential game changer in the way we control feral pigs is under development through the cooperation of the USDA National Wildlife Research





Center, Texas Parks and Wildlife Department and Animal Control Technologies Australia. This team, along with assistance from graduate students from the Borderland Research Institute at Sul Ross State University is investigating the use of sodium nitrite as a toxicant. Sodium nitrite is commonly used as a meat preservative and has been thoroughly investigated for its safety for human handling and consumption. These investigations have paved the way for the potential use of sodium nitrite as a toxicant by eliminating the need for studies regarding human safety. Focal points of the ongoing research are stability and palatability, efficacy, non-target risk mitigation and risk to secondary consumers. It is important to note here that private use of sodium nitrite for pig control would be illegal and ineffective due to the instability of the chemical.

Currently three newly developed formulations of the toxicant are being tested at TPWD's Kerr Wildlife Management Area in Hunt, Texas. These formulations have shown significant improvement over previous versions and have met the Environmental Protection Agencies requirements for efficacy in preliminary trials. Results of previous formulations ranged between zero

and 50 percent mortality in pen trials, while current formulations are resulting in 80 to 90 percent mortality. Additional testing of these formulations is needed before the group is able to request an Experimental Use Permit (EUP) from the EPA to allow testing outside the pens on free ranging feral pigs. Registration of sodium nitrite as a toxicant is not expected for another three to five years if one of these current formulations repeatedly produces acceptable results.

While research into the toxicant itself has been the main focus over the last few years, it is not the only important piece of the puzzle. Delivering the toxic bait to feral pigs and only feral pigs is becoming increasingly important. Researchers at the Kerr Wildlife Management Area have evaluated the effects of sodium nitrite on multiple native species and have reported on the risk of non-target mortality. To limit this risk, non-target exclusion devices are being investigated. The Boar Operated System (BOS™) (Giovanna Massei), Hog Hopper™ (Animal Control Technologies Australia), and the Non-target Exclusion Device (NED) have all been the subject of various publications and have been shown to meet the needs of restricting access of most non-target species that occur in Texas.

However, none of these have been tested in areas where sympatric populations of feral pigs and black bears occur, as is the case in east Texas. This issue may be addressed by a new device produced by Wildlife Management Solutions LLC, the Hog Annihilation Machine or HAM uses sound recognition software to determine when pigs are near the feeder. When pigs are present the machine opens the feeder doors to allow access to the feed, upon the animals leaving the machine resets and shuts the doors locking out other species. The device is also equipped with a defense model that electrically charges the device to address the bear issue. Testing on the feeder system is ongoing but may prove effective in reducing the non-target risk.

Currently no toxicants are registered in the United States for the control of feral pigs and it will be at least three to five years before there is one available. Despite what many think, toxicants will not be the silver bullet in the battle against feral pigs, but just another tool in the landowner and resource manager's tool box. However, control of feral pigs through integrated management and the utilization of all of our available tools can have a profound impact on the population. 🌱

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