

## Feral Hogs in Georgia: Disease, Damage and Control



Georgia Department of Natural Resources
Wildlife Resources Division
Game Management Section



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#### FERAL HOG FACTS

- \* It is illegal to transport any live feral hog(s) unless such feral hog(s) has tested negative for brucellosis and speudorabies, and met all other appli cable Department of Agriculture requirements. Additionally, it is illegal to release any live feral hog into any area that is not fenced to prevent escape of such feral hog(s).
- \* Feral hogs carry serious diseases that are transmissible to humans and domestic animals.
- \* Always wear protective gloves when handling feral hogs or meat.
- \* Always cook hog meat to a minimum temperature of 170 degrees F and/or freeze at 0 degrees F for a minimum of 20 days.
- \* Feral hogs are non-native invasive pests that compete directly for food and cover with many wildlife species, including deer, turkey and quail.
- \* Hogs can damage habitats resulting in the elimination of rare or endan gered plants and animals.
- \* Hogs can destroy agricultural crops and forest regeneration.
- \* A combination of shooting, trapping or exclusion fencing can reduce or control hog damage. Currently, there are not toxicants registered for use in the United States, so poisoning is not an option.
- \* There is no closed season and no limit on hogs on private land. Hunting over bait and with a light (worn on the body) is allowed. Hunting from a vehicle is prohibited. A hunting license is required for all hunters 16 years or older (except for residents on land owned by them or their imme diate family residing in the same household).
- \* Landowners and leaseholders with landowner permission may qualify for a feral hog control permit to help alleviate hog damage and control hog numbers. Permit holders are allowed to shoot from a vehicle. Contact a WRD Regional Game Management Office for assistance.

#### INTRODUCTION

Feral hogs (*Sus scrofa*) in Georgia include some nearly pure Eurasian or Russian wild boar, free-ranging domestic hogs, and all manner of hybrids between the two extremes. Feral hogs (a term covering all free-ranging hog combinations) prefer the cover of dense brush for protection, but also may be found in mature woodlands and grassy areas. During hot weather they spend much of their time wallowing in swamps, wetlands, ponds, and streams close to protective cover.

Feral hogs are omnivorous and will eat anything from grain to carrion. Plant matter constitutes an important part of their diet. Acorns are preferred when available. They also consume roots and invertebrates such as centipedes, leeches, earthworms and crayfish. In certain areas, cultivated crops and row crops make up a significant portion of their diet. Feral hogs have been known to travel up to seven miles to feed on agricultural crops such as corn and soybeans. They also prey on ground nests, young wildlife, livestock, and other small vertebrates.

## **IDENTIFICATION**

Most feral hogs are domestic hogs that have escaped into the wild or have been released for hunting purposes and are free-ranging. Their size and color vary greatly and depend upon their domestic breed and their nutrition during development. The number of generations they have lived in the wild also seems to influence their appearance. Descendants from stock whose ancestry has been in the wild for generations or even centuries tend to have the classic long snouts and lean appearance of the legendary "razorback" of southern folk culture.

## Eurasian or Russian Wild Hogs

Pure Eurasian wild hogs (often referred to as "Russian" boar) differ in appearance from the average feral hog in Georgia. This hog usually has longer legs, a larger head and a longer, flatter snout. Eurasian piglets are reddish brown with black longitudinal stripes. As the animals mature, the stripes disappear and their color changes to gray grizzled or black. Eurasian hogs generally have longer guard hair and a more distinct mane of guard hair running from the neck to the

base of the tail than the domestic hog.

Eurasian Hog
Sow and Young: Hogs
can reproduce at
six months of age and
can have up to thirteen
offspring in one litter.



#### Hybrids

Eurasian wild hogs and hybrids originating from escapees of a Hooper Bald, North Carolina enclosure in the 1920's subsequently spread into Tennessee and parts of the North Georgia Mountains. In recent years, the **illegal** transportation and stocking of hogs statewide has increased dramatically. As a result, more hybridization has occurred and few individuals of the pure Eurasian strain are found in Georgia. Many hybrid offspring have retained characteristics of the Eurasian wild hogs.

#### DISTRIBUTION

Feral hogs (*Sus spp.*) are not native to North America. The only pig-like animals native to North America are the peccaries (*Tayassu spp.*) found in the southwestern United States and Mexico. There are documented accounts of hog introductions in the Americas as early as 1498 and hogs came to the New World with many early European explorers. Since these initial introductions, hog populations have expanded into interior Georgia and the Carolinas. The expansion of hog populations in Georgia has also been accelerated by the illegal relocation of hogs throughout the state. Feral hogs are now found in virtually all counties in the state.

#### **BIOLOGY, REPRODUCTION AND BEHAVIOR**

Adult weight: 100 to 500+ pounds. Very large hogs (500+ pounds)

are generally from domestic stock.

Adult height: 3 feet (males are generally larger than females).

Color: Varies from solid black, gray grizzled black, brown,

blond, white or red to spotted or belted.

Feet/Track: Similar to deer tracks, except toes have more round or

blunt tips and often show widely splayed dewclaws.

Gestation period: 115 days.

Litter size: Four to eight, but may be as large as thirteen.

Age at first breeding: Six to 10 months.

Number of litters: One or two litters per year. Young may be born at

any time of the year.

Social structure: Generally travel in family groups normally comprised

of two or more sows and their young. Adult boars are

generally solitary, only joining a herd to breed.

#### PARASITES AND DISEASE

Feral hogs are susceptible to a variety of diseases and parasites in Georgia. Hogs can carry the nematode, *Trichinella spiralis*, which causes trichinosis in people. Although rare in Georgia, people can get trichinosis by consuming undercooked pork containing the parasite. To avoid trichinosis, pork should be cooked to a minimum of 170 degrees F. Freezing meat at 0 degrees F for a minimum of 20 days also destroys this pathogen.

Two of the most serious diseases found in Georgia include swine brucellosis and pseudorabies. Hunters and farmers need to be aware that feral hogs can transmit these diseases to domestic hogs. These diseases are likely to occur in all parts of Georgia, but have been tested for in only 34 counties. Swine brucellosis has been confirmed in 7 counties. Thirty-six of 866 (4%) hogs tested were positive for swine brucellosis. Pseudorabies has been confirmed in 13 counties with 198 confirmed positive out of 1,562 (13%) hogs tested. Swine brucellosis and pseudorabies both are transmissible to domestic pigs and swine brucellosis can be transmitted to humans.

#### SWINE BRUCELLOSIS

Swine brucellosis is caused by a bacterium similar to the bacteria that cause brucellosis in cattle. It causes abortions in sows and infertility in boars. Feral hogs in 10 states, including some areas of Georgia have confirmed cases of swine brucellosis. It can be spread to domestic swine if infected hogs are introduced into or near local herds.

Other farm animals are rarely threatened by swine brucellosis, although cattle can become infected if they are exposed to the afterbirth of infected feral pigs. Humans can get swine brucellosis through handling infected tissues of pigs. Hunters are at risk when they clean or process feral hogs and should take the following precautions:

- 1. Always wear disposable plastic or rubber gloves when dressing and cleaning wild hogs. Avoid direct skin contact with blood and reproductive organs.
- 2. As soon as possible, wash hands with soap and hot water after dressing wild hogs.
- 3. Gloves should be properly disposed of in trash that is going to a landfill.
- 4. Cook meat from hogs thoroughly (minimum internal temperature of 170 degrees F).

The symptoms of swine brucellosis in humans are not distinctive. Most people report recurring fevers, chills, sweating, weakness, headaches, debilitating pain in muscles or joints, loss of appetite, and weight loss. Some of these symptoms can persist for months. People who have these symptoms and have been exposed to feral hogs should consult a doctor about swine brucellosis.

#### **PSEUDORABIES**

Another important disease harbored by feral hogs is pseudorabies. Despite its name this disease is not related to rabies and does not infect people. A herpes virus causes pseudorabies.

Adult feral swine can be silent carriers of pseudorabies and periodically will shed the virus that causes the disease through the reproductive tract. Once infected, the hog is a lifetime carrier, and there is no effective treatment. Pseudorabies can be detected by blood testing and has been found in 11 states including parts of Georgia.

Pseudorabies can result in a fatal infection for other domestic animals including cattle, sheep, goats, dogs and cats. Infections in the domestic livestock industry can cause production and economic losses. Wild mammals such as raccoons, skunks, foxes, opossums and small rodents also can be fatally infected. Although people are not at risk, hunters need to know that their dogs could become infected by exposure to infected hogs or their carcass remains.

There are laws that are intended to control of swine brucellosis and pseudorabies. Relocating pigs that have not been tested for these diseases is in violation of both state and federal law. It is important to follow the outlined sanitary handling procedures (page 4) in this booklet to prevent humans from becoming infected with swine brucellosis and to make sure that this disease and pseudorabies do not infect domestic farm animals and native wildlife.



Hunters and farmers need to be aware that hogs can transmit diseases to domestic hogs, domestic animals, wildlife and humans.

#### **DAMAGE**

Damage caused by feral hogs has been reported in many Georgia counties. Hogs compete with all species of native wildlife for important and limited natural food supplies, including hard and soft mast (especially acorns). The native competitors at risk include high profile, high demand animals such as deer, wild turkey, quail, black bear and ruffed grouse.

Since they compete heavily with deer, hogs can be extremely detrimental to deer management programs. They also destroy the nests of ground nesting birds and sea turtles and consume their eggs. Supplemental feeding can contribute to the spread of diseases among hogs, native wildlife and between hogs and native wildlife. Hogs also destroy, eliminate and prevent the re-establishment of valuable native plants and animals including threatened and endangered species. Hogs contribute to sedimentation and bacterial contamination of natural waterways. All of the above reasons are why hogs are not desired on public lands in Georgia.

On Wildlife Management Areas (WMAs), National Forest lands, Army Corps of Engineers lands, National Wildlife Refuges and other state and federal properties, hogs are considered an invasive, exotic, nuisance animal and their population must be limited and controlled by hunting and in some cases, trapping and sharpshooting. The goal for most public lands is either elimination or population reduction to the point that there is no measurable impact on the habitat.

Agricultural crops commonly damaged by feral hogs include rice, sorghum,

wheat, corn, soybeans, peanuts, potatoes, watermelon and cantaloupe. Damage usually occurs in the form of consumption, rooting or trampling.

Hog predation on livestock also can be a problem in some localized areas. Feral hogs can kill and consume lambs and kid goats. Physical evi-



dence of hog predation is hard to detect because the entire animal may be consumed. If hog predation occurs when kids and lambs are larger, the entire carcass may be turned inside out, leaving the hide with little or no flesh except on the head, neck and hooves.

## **CONTROL METHODS**

The most effective method for controlling feral hogs is a combination of shooting, live trapping and hunting with dogs. All are legal methods of take in Georgia. There currently are no toxicants or repellents registered for the control of feral hogs in the United States, so poisoning is not an option. Electric fencing or hog wire fencing may have limited application to protect valuable crops or plants from hog damage. Programs that have reduced or eliminated localized hog populations succeeded by using a diversified management approach. This normally includes a combination of daytime shooting, pre-baiting and trapping, and night collections. It is not advisable to dog hunt where you bait, trap, or hunt or to repeatedly shoot near trapping sites. These techniques may cause feral hogs to become more wary, leave the area, or become more nocturnal in their habits.

For more information on hog control techniques, contact your local DNR Game Management office. USDA Wildlife Services also offers technical and operational assistance with hog control. USDA biologists are located in Athens (706-546-5637), Albany (229-734-4837), and Savannah (912-598-2654).

#### RESTRICTIONS

Feral hogs are free-ranging, exotic animals and may be taken on private lands at any time of the year, by any legal means with no bag limits. Hunting at night with a light (worn on the body) and hunting over bait are legal (provided that any such feed or bait is not placed within 50 yards of any property ownership boundary). To hunt hogs, any person 16 years of age or older must have a valid Georgia hunting license - except for Georgia residents hunting on land owned by them or their immediate family residing in the same household. The current hunting regulations guide (available online at gohuntgeorgia.com or through hunting and fishing license agents) provides details about WMA and public lands restrictions.

Leaseholders with landowner permission and landowners may qualify for a feral hog control permit to help alleviate hog damage and control hog numbers. Permit holders are allowed to shoot from a vehicle. WRD Regional Game Management offices issue hog control permits. Permits are not valid March 11 through May 15 or September 1 through the end of firearms deer season.

It is illegal to transport any live feral hog(s) unless such feral hog(s) has tested negative for brucellosis and speudorabies, and met all other applicable Department of Agriculture requirements. Additionally, it is illegal to release any live feral hog into any area that is not fenced to prevent escape of such feral hog(s).

Consult with any WRD Game Management Office (numbers listed at the front of this booklet) regarding any question about the legal status of feral hogs.

#### **SHOOTING**

Shooting during daylight hours or at night is an effective control method, especially if the areas of greatest hog activity are known. Hunting/shooting can be more effective than trapping when both are conducted concurrently. Trapping and hunting may be less effective during periods of high mast availability. Feral hogs quickly become aware of hunting pressure when they are consistently hunted or shot from the same stands or locations. A variety of techniques including stand hunting, stalk hunting, changing hours and locations may be necessary for effective control. It is not advisable to repeatedly shoot near trapping sites as this may cause hogs to change their behavior and avoid these areas. When shooting becomes ineffective, other techniques such as trapping or dog hunting may be used.

Hunting at night with a light (worn on the body) and hunting over bait are legal (provided that any such feed or bait is not placed within 50 yards of any property ownership boundary). Leaseholders with landowner permission and landowners may qualify for a feral hog control permit to help alleviate hog damage and control hog numbers. Permit holders are allowed to shoot from a vehicle. WRD Regional Game Management offices issue hog control permits.

Landowners may seek hog control assistance from interested hunters or trappers. Many hunters perceive hogs as desirable game. In fact, increasing feral hog hunting opportunities on a tract of land is often the impetus for the illegal moving and stocking of hogs.

#### LIVE TRAPPING

Live traps can be very effective for capturing feral hogs. Trap designs range from "single catch" units having a door that closes when tripped to "multiple catch" traps with doors that allow hogs to root or push their way in one animal at a time. Trapping success is correlated to the availability of natural foods. Heavy fall acorn crops or large acreages of agricultural crops normally make hog trapping difficult.

Pre-baiting is extremely important for any successful trapping operation. Allowing hogs to become accustomed to feeding at a specific location prior to implementing trapping efforts increases the chances of success. Proven baits include whole corn, soured corn, peanuts, peanut butter, stale bread and table scraps.

Ideal pre-baiting sites include travel routes along creeks/rivers, trails, water sources and feeding areas. Bait should be placed at multiple locations initially and evaluated to identify consistently used sites. Once a good site has been selected, place a trap with the door removed or tied open. Place bait inside and outside of the trap for several days allowing hogs to get comfortable with the trap. Set the door once it is determined that hogs are readily entering the trap. Traps should be checked at least once daily and more often at heavily used bait sites.

This photo depicts a trap door corral trap that has proven effective for catching multiple hogs.



Hogs can become wary of trap sites where multiple catches have been made. In this case the trap should be relocated a short distance. Secure the door in the open position and begin pre-baiting again to see if the hogs will lose their fear of the trap.

Hog traps can be constructed out of lumber or metal livestock panels. Traps should be built in sections to allow easy disassembly for transport. Captured hogs will test the integrity of a trap, so be sure to adequately secure all corners when the trap is in use. Trap sizes vary, but an ideal size is 6 to 8 feet wide, 10 to 12 feet deep and 5 feet high. Construction plans are available from your local DNR Game Management office. Traps are also available commercially throughout the southeast.



This photo shows a multi-catch metal trap that is available commercially.

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#### **HUNTING WITH DOGS**

In certain situations, trained dogs may be used to locate hogs. Dogs should be properly trained for hog control to lessen the possibility of injury. Hogs will become particularly wary of dogs after they have been continuously harassed and other control methods may become necessary.

#### **FENCING**

Fencing is the only guaranteed control measure available to hog producers. Check with the USDA Veterinary Services (770-922-7860) for information on proper double fencing around hog operations to prevent contact between feral and domestic swine. Excluding feral hogs from valuable crops can be accomplished using several types of fencing, including hog wire and electric fence.

To be hog-proof, non-electric fences must be constructed of net wire or diamond mesh with 6 inches or less between vertical wires. Fences should be at least 36 inches tall and tightly stretched and, if necessary, buried beneath the ground. Hog proof fencing is difficult to achieve across terrain with dips and gullies and these features increase fencing costs substantially.

The "Peanut butter fence" that works for deer exclusion also will work for hogs. This is a one or two strand electric fence with multicolored high visibility (1-1½ inch wide) polytape installed at 10 to 20 inches above the ground. Before initial use, dab a slurry mix of peanut butter and cooking oil on the tape at frequent intervals (3-6 feet apart) so that any initial contact by hogs will result in a memorable shock to the nose or tongue.

For more information and assistance, contact the local WRD Game Management office (see front of this booklet for phone numbers).

#### ADDITIONAL INFORMATION

An informative website has been developed by several conservation organizations, state wildlife agencies and institutions that provide a wealth of information on feral pigs. This information includes general information on feral pigs, damage, public health, control methods and resources. This information can be viewed or downloaded at **www.wildpiginfo.msstate.edu** .

## FERMENTED CORN RECIPE

- 1. Use large metal trash cans with re-sealable lid, 40-50 gallon size.
- 2. Per 150 pounds of corn: Add 8 pounds of sugar.
- 3. Add 1 to 1½ packets of yeast.
- 4. Optional: Add 5 packets of grape, strawberry, or raspberry Jell-O or Kool Aid for a sweet smell.
- 5. Add water 3-4" above corn. Note: Check daily to keep water level to top of corn.
- 5. Place trash cans in direct sunlight. During warm weather corn should properly ferment in 5 to 7 days.
- 7. Stir daily with shovel to properly mix contents.

NOTES	