Feral Swine Trapping: Techniques and Designs[1]

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Feral swine (also called feral pigs or wild hogs) are not native to the Americas and were introduced by Spanish settlers in the 1500s. In most states, including Florida, feral swine are considered an invasive or "nuisance" species because of the damage they cause to agricultural and ecological habitats. However, they are legally defined as "wildlife," and Florida's state agency, the Florida Fish and Wildlife Conservation Commission (FWC) ranks them as the second most popular game species in the state.

Feral swine cause extensive damage and spread disease. The most common type of damage caused by feral swine is disturbed ground and destroyed vegetation from rooting. Swine burrow into the soil with their snouts to find roots, tubers, fungus, etc. This rooting loosens the soil, destroys native vegetation, and modifies the chemistry and nutrients of the soil. Feral swine can negatively impact not only natural ecosystems but also agricultural areas, livestock pastures, and even residential areas. Feral swine also carry numerous diseases, some of which are transmittable to wild and domestic animals as well as humans.

Controlling feral swine populations is difficult because of their high reproductive rate. Females can reproduce twice a year, with an average of 6–8 piglets in each litter. Many

Figure 1. Feral pig caught in a cage trap.
Credits: Jesse Lewis, Arizona State University

control techniques can be used, including hunting and trapping. It is important to understand the regulations for trapping, hunting, breeding, and moving feral swine within Florida. On private property with landowner permission, feral swine may be trapped and hunted year-round using any legal rifle, shotgun, crossbow, bow, or pistol with no size limit, bag limit, permit, or license required. Hunting is also offered on public wildlife management areas, where it is regulated by the FWC. To find out more about public hunting seasons, bag limits, and other regulations visit http://myfwc.com/hunting/by-species/wild-hog/. To trap and move feral swine, you must register as a feral swine dealer with the state veterinarian's office to obtain a feral swine dealer card. Feral swine can only be moved and released to a recognized slaughtering establishment, an

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FWC-approved game reserve, or a Florida Department of Agriculture and Consumer Service-approved feral swine holding facility. For regulations regarding swine for exhibition, breeding, out-of-state movement, and more, go to http://www.freshfromflorida.com/Divisions-Offices/Animal-Industry/Agriculture-Industry/Pig-Swine/Swine-Movement-Requirements.

Trapping and removing swine from your property is an effective way to reduce or control feral swine populations (Figure 1). This document describes the most commonly used trapping techniques, traps, and gate designs. Several factors contribute to successful trapping of swine including:

Identifying areas that are being used extensively by swine and focusing your trapping efforts in those areas

- Pre-baiting to allow swine to become accustomed to the food source you provide and placing bait in the proper location within traps
- Choosing effective trap types and gate designs to match the number of swine you anticipate catching
- Monitoring traps and adjusting your technique as needed
- Maintaining patience and persistence

Game cameras will allow you to adjust your trapping techniques as needed for successful swine trapping. They can monitor your traps for pig presence and help with troubleshooting. The camera will let you know whether your problem is trap-shy pigs (swine who have learned to be wary of traps), a faulty trap door or trigger, non-target species triggering your trap, or some other issue.

Four basic trap types are box traps, cage traps, corral traps, and silo traps. In addition, there are several gate and trigger options that can be used with each trap type. You should choose a trap and gate type that is most efficient and cost effective for your needs. Some things to consider when managing feral swine by trapping include:

- Density of swine in the area and typical sounder (group) size
- Your budget
- Portability and weight of the trap, if you need to move it
- Presence of non-target species that could be captured in the trap
- Number of traps needed
- Surrounding feral swine management efforts being conducted by your neighbors or agencies that may influence swine behavior and your trapping success

Choosing Trap Locations

When choosing locations for trapping feral swine look for signs of swine activity, including evidence of rooting, tracks, and wallows, and then look for a nearby area with shade and water. Sites where swine foraging has caused damage reveal that swine are in the area, but may not themselves be the best place to put a trap because swine spend most of their time in shaded areas close to a water source (Figure 2 and 3). It is best to scout low-lying areas such as river or creek bottoms, wetlands and forest edges. Swine travel routes to and from these areas are ideal for higher catch opportunities. Setting traps at multiple sites may also increase your success. Keep in mind that vehicle access to traps is usually essential for loading and unloading traps, baiting them, and handling trapped swine.

Figure 2. A feral swine wallow. Nearby trails leading to the wallow may be a good place for traps.
Credits: Raoul Boughton, UF/IFAS

Figure 3. Feral swine rooting damage. This is not necessarily a good place for a trap because swine spend more time in shaded areas with a water source, and vehicle access may not be possible.
Credits: Raoul Boughton, UF/IFAS

Pre-Baiting and Baiting

Pre-baiting provides swine enough time to become accustomed to a new food source at a particular location and gets them used to entering the trap. Pre-baiting the location before placing the trap attracts swine regularly to a specific site, leading to increased trap success later. After pre-baiting, erect the trap, secure the gate (but do not set gate/trigger), and create a bait trail into the trap. Monitor the trap(s) with game cameras to ensure swine are readily entering the trap for at least three nights. When swine are entering regularly, set the trap trigger and bait along the inside of the trap leading to the trigger location. Also put bait on the trigger (Figure 4A and B). Baiting along the sides of the trap leading to the trigger will allow more swine to enter the trap before the mechanism is triggered. Common baits used include dry or fermented corn, vegetable/produce scraps, molasses, red Kool-Aid ®, and commercial attractants.

Figure 4A. Bait should be placed along the inside of the trap leading to the trigger and also on the trigger (side view).
Credits: Wesley Anderson, UF/IFAS

Figure 4B. Bait should be placed along the inside of the trap leading to the trigger and also on the trigger (top view).
Credits: Wesley Anderson, UF/IFAS

Common Reasons for Poor Trapping Success

1. Bad trap placement: Remember travel routes to and from shaded areas or water sources are typically more successful than sites of rooting damage.

2. Pre-baiting period was too brief: Monitor with game cameras, but pre-baiting may require up to 2 weeks.

3. Faulty trigger: Be sure to test your trigger multiple times before leaving a trap set. To trap a large sounder of swine, a looser (harder to trip) trigger will allow more swine to enter the trap before the trigger is tripped. For trap-shy swine, you may want to try a tighter (easier to trip) trigger to ensure the pig is caught. Feral swine can climb or jump and escape from traps with short walls or panels. Using jump bars or walls/panels at least 5 feet high will reduce swine escaping your trap.

4. Abundant natural food: When acorn mast, other natural foods, or supplemental foods like minerals or molasses intended for livestock are abundant, you may have lower success trapping swine.

5. Hunting and dogs: These factors can make swine more wary and reduce trap success.

6. Gates closing too early: Typically the result of a tight trigger, gates that close before all adults in a sounder are caught can leave swine educated and hard to trap in the future. Game cameras can be useful in monitoring the behavior of swine on your property and adjusting your trapping techniques accordingly.

Types of Traps: Designs and Costs

Feral Swine Portable Wooden Box Trap

A relatively cost effective trap that is ideal for capturing individual swine or small groups of swine (Figure 5).

- Made of treated lumber or wood fence panels.
- Typically rectangular, 4 feet wide, 8 feet long, but can sometimes be square. Five feet high, with no top or bottom.

- 5-foot height prevents swine from climbing or jumping out.
- Usually heavy enough to prevent lifting by swine. If not, T-posts can be added to prevent swine from lifting trap sides and escaping underneath.

PROS

- Simple to construct
- Cost effective

CONS

- Capable of capturing only a small number of swine
- May appear confining to trap-shy swine
- Heavy; may require several people to assemble and transport
- May require long term maintenance

Figure 5. A portable wooden box trap.
Credits: Mississippi State University Extension

Table 1. Cost of a feral swine portable wooden box trap.

Material	Quantity	Estimated Cost
2″ by 4″ by 10′ board	4	$5/each
1″ by 4 (or 6)″ by 10′ board	17	$4/each
Decking screws	1 box	$10/box
	TOTAL	***Approx. $100**
*Cost estimates for the trap do not include gate cost. For these, see "Gate Types," below.		

Feral Swine Portable Cage Trap

A stronger portable trap that is ideal for capturing individual swine or small groups of swine (Figure 6A and B).

- Rectangular trap purchased from a vendor or made from heavy-gauge wire livestock panels welded to a steel frame.
- Typically 4 feet wide, 6–12 feet long, and 4–5 feet high.
- Traps <5 feet tall should have a top panel or jump bars to prevent swine from jumping or climbing out.
- New round design can be rolled, which makes this style trap easier to transport than a square or rectangular design.

PROS

- Can be constructed relatively easily; also available for purchase
- May appear more open to trap-shy swine
- Easy to store, transport, and relocate

CONS

- If small in size, may be capable of capturing only a small number of swine
- More expensive

PURCHASING INFORMATION

There are multiple vendors of cage traps. Below are several examples. Note: The University of Florida and IFAS do not endorse any particular company or trap type.

- Voorhies Outdoor Products, LLC hog trap—Metal trap with 3 rooter doors
- 8’ by 4’ by 3’
- $400
- Avon Park Correctional Institute—Work Study Program trap assembly
- 8’ by 4’ by 5’ with a 3’ by 5’ guillotine door
- Purchase of materials only, usually $500/trap.

Figure 6a. A portable cage trap built at Avon Park Correctional Institute.
Credits: Jesse Lewis, Arizona State University

Figure 6b. A portable round cage trap, which can be rolled, making it easier to transport than a square or rectangular trap.
Credits: Randy Kelley, The Hawg Stopper LLC

Feral Swine Corral Trap

The most effective trap for capturing large groups of swine. (Figure 7)

- Constructed from wire livestock panels fastened to 6.5' T-posts using U-bolts and cable clamps.
- Using three to four 5' by 16' panels should make a trap large enough to catch most sounders.
- Can vary in shape but are typically round to prevent swine from piling up in corners and possibly climbing or jumping out.

Figure 7. A corral trap. This can be effective for trapping large groups of swine but allows flexibility in size and design.
Credits: Mississippi State University Extension Service: Office of Agricultural Communications

PROS

- Very effective for trapping large groups
- Allows non-target species to escape
- Open appearance may appear less threatening to trap-shy swine
- Where swine densities are high, trap can be used long term. You can build the panel structure and move the doors to different panel locations depending on swine activity.

CONS

- Requires more time and effort to construct.

Table 2. Cost of a feral swine corral trap.

Material	Quantity	Estimated Cost
16' by 5' panel	3	$50–70 each
6.5'T-posts	10	$5/each
5/16" cable clamps	12	$2/each
5/16" by 1 1/2" U-bolts	24	$2/each
	TOTAL	***Approx. $300**

*Cost estimates for the trap do not include gate cost. For these, see "Gate Types," below.

Feral Swine Silo Trap

A cost-effective trap that allows for the capture of large groups of swine. Allows design flexibility and can be used with a variety of gates or funnels (Figure 8).

Constructed from either continuous mesh panel or multiple livestock panels fastened to 6.5' T-posts using U-bolts and cable clamps.

Figure 8. A silo or funnel trap.
Credits: Jim Mitchell, feralfix.com.au

- Flexibility in shape and size allows a variety of possibilities to suit individual needs or the use of materials on hand.
- Can vary in shape, but are typically round to prevent swine from piling up in corners and possibly climbing or jumping out.

- The ability to use a funnel entry reduces costs relative to building or purchasing a gate.
- Traps should be at least 5 feet tall to prevent swine escape by climbing or jumping out (recommend adding jump bars or wire across top to prevent swine from escaping).

PROS

- Easy to store, transport and relocate
- Cost effective
- Flexibility in design, shape, size and gate or funnel used (Figure 9)

CONS

- Catch capability depends on size

Table 3. The cost of feral swine silo trap.

Material	Quantity	Estimated Cost
16′ by 5′ panel	2	$50–70 each
6.5′ T-posts	10	$5/each
5/16″ by 1 1/2″ U-bolts	24	$2/each
	TOTAL	***Approx. $215**

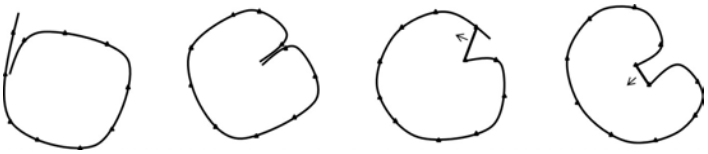

Figure 9. Various types of gates used in silo or funnel traps.
Credits: UF/IFAS

Gate Types

There are many variations in design and materials used for trap gates. Most are made from steel or wood. Choosing the type of gate to use depends on your budget, ease of transport, and the trap type. The four basic gate types are:

1) Drop or guillotine gate – This gate is inexpensive and easily constructed. The gate is suspended by a trigger line. Once triggered, the gate will drop closed. Single-catch only (Figure 10A).

2) Swing or saloon gate – This gate pivots towards the inside of the trap and is held with a trigger line. Once triggered, heavy springs close the gate quickly. If the gate is not padded, it can be noisy and frighten other swine. Multi-catch (allows for multiple swine to continue entering the trap) (Figure 10B).

3) Rooter or lift gate – The hinged top of this gate allows one way entry into a trap. It can also be set open and then drop closed with a trigger. If it is not padded, this gate can be noisy and frighten other swine. Multi-catch (Figure 10C).

4) Funnel entry – The ends of mesh panels can be constructed to serve as a funnel in which swine must push through to enter a trap. Tines on the edge of mesh panel entry will prevent swine from pushing back out. A benefit is the quiet closure (Figure 10D).

Figure 10A. Drop or guillotine gate.
Credits: Joe Halseth, USDA

Figure 10B. Swing or saloon gate.
Credits: Mississippi State University

Figure 10C. Rooter or lift gate.
Credits: UF/IFAS

Figure 10D. Funnel entry.
Credits: Texas A&M AgriLife Extension Service

Trigger Mechanisms

Two major types of trigger mechanisms are used when trapping wild swine: a rooter stick and a trip wire. For both, the trigger pulls a line, which causes the gate to fall or swing closed.

ROOTER STICK

- A stick is wedged beneath two holding stakes in or around a bait pile. The stick is triggered when the swine feed and root around, pushing the rooter stick out from under the holding stakes (Figure 11).
- The stick is supporting the weight of the gate. When swine dislodge the stick, they trigger the gate to close.

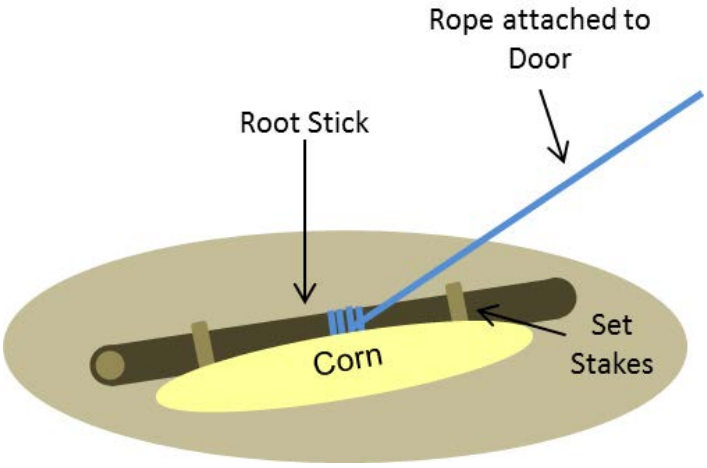

Figure 11. An example of a rooter stick trigger mechanism.
Credits: UF/IFAS

TRIP WIRE

- A line or wire is buried under bait or suspended slightly above the ground attached to a triggering device like a pin or a shackle that will release the gate when pressure is exerted on the line.
- Many different designs are possible.
- Example below was designed by USDA Wildlife Services (Figure 12A and B).

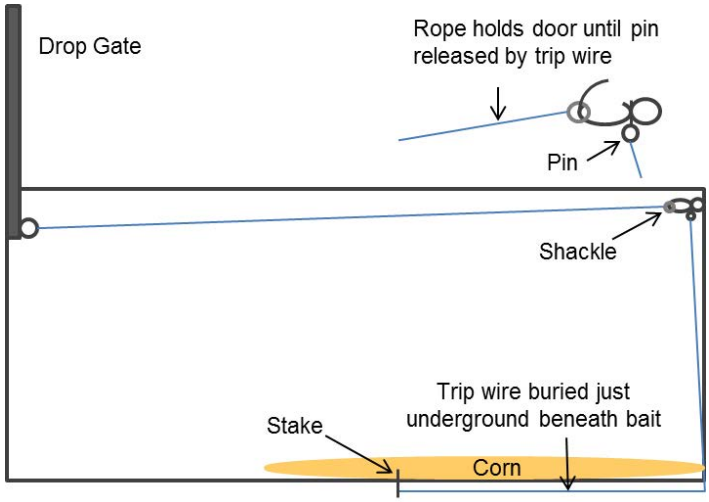

Figure 12A. Trip wire trigger design using a shackle.
Credits: UF/IFAS, Design by USDA Wildlife Service

Figure 12B. Shackle used with a trip wire design in a cage trap.
Credits: UF/IFAS, Design by USDA Wildlife Service

New Technology or "Smart" Traps

The newest trap designs use a remote triggered gate and cameras that allow you to wirelessly monitor your traps to catch entire sounders or large groups of feral swine. Below are several examples of vendors and their products.

Jager Pro M.I.N.E™ Trapping System (Manually Initiated Nuisance Elimination)

- Uses a large corral trap (35' diameter) and an 8' gate closed by a remote control device. Trap is monitored with a wireless camera that can send pictures and videos to your smartphone or email (Figure 13A and B).
- Gate and camera cost approx. $2,125
- Entire M.I.N.E. Trapping System costs approx. $3,350
- https://jagerpro.com/ and http://www.floridaferalhogcontrol.com

Figure 13A.

Figure 13B. The Jager Pro M.I.N.E. Trapping System.
Credits: Photo courtesy of Jager Pro.

BoarBuster - The Samuel Roberts Noble Foundation

- Uses a large suspended corral trap that is remotely triggered to drop over the entire group of swine. Trap is monitored with a wireless camera that can send pictures and videos to your smartphone or email (Figure 14A and B).
- BoarBuster Trapping System costs approx. $5,995
- Distributed by W-W Livestocks Systems
- sales@boarbuster.com or 855-751-7980

Figure 14A.

Figure 14B. The Boarbuster Trapping System
Credits: Boarbuster – Noble Foundation

Humane Trapping and Disposal

Although wild swine are a nuisance species, they are living animals that register pain and stress. Steps should be taken to minimize stress and ensure they are euthanized humanely.

Humane Trapping

- Traps should be checked at least once daily and placed somewhere with shelter or shade.
- Traps should be constructed to minimize injury. Small mesh size should be used to avoid snout injury (suggest 2" x 4", but 4" by 4" is the minimum recommendation).
- Traps should be secured so that swine cannot lift the trap.

Humane Euthanasia

- Swine should be euthanized quickly. The shooter should approach the trap quietly to avoid panicking the trapped swine.
- Swine can be euthanized using a .22 caliber rifle or larger.
- Do not insert the rifle barrel into the trap through the side panels because swine may charge and hit the barrel, potentially causing you or someone else injury. Instead shoot through the panels or down into the trap from above.
- Two possible sites to ensure a quick, humane brain shot:

o Frontal shot - center of the forehead, placed about 2–3" above an imaginary line directly between the eyes and aimed toward spine. (Figure 15A)

o Oblique shot – from behind the ear and aimed towards the opposite eye (Figure 15B)

- Be careful not to shoot directly between the eyes. A shot fired between the pig's eyes will hit the nasal cavity, not the brain, and it won't immediately kill the pig.

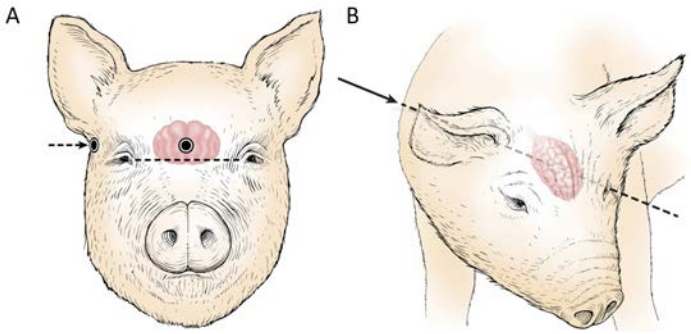

Figure 15. Location of shots to humanely dispose of feral swine.
Credits: J.K. Shearer and A. Ramirez, http://vetmed.iastate.edu/

Additional Resources and Information

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