

# **White Paper on the Use of a New Toxicant for the Control of Wild Hogs in South Carolina**

**By**

## **South Carolina Wild Hog Task Force**

Wild hogs impact a wide diversity of native and anthropogenic resources within the State of South Carolina through their destructive feeding behavior, such as competition with native wildlife, property damage, transmission of diseases to humans, livestock and wildlife, destruction of native ecosystems, and impacts to the agricultural and timber industries. Specific impacts to domestic livestock include damage to pasture/range containment fences, consumption of feed and minerals, transmission of disease, polluting stock ponds/water sources, and preying on juvenile/immature domestic animals. Recent economic estimates of the wild hog damage to the agricultural and timber industries in the state alone are in the hundreds of millions of dollars annually (Rodriguez 2016).

The South Carolina Wild Hog Task Force is a partnership of state and federal government agencies, academic/research institutions and interested public-sector groups charged with identifying problems and solutions, developing and implementing legislative information strategies, and educating the public regarding the current and potential problems associated with wild hogs in South Carolina. Two of the six goals of this Task Force are to: 1) determine short- and long-term wild hog management strategies for the state; and 2) provide awareness, education, and outreach opportunities about wild hogs in South Carolina by promoting and educating landowners on new technologies in wild hog management (SCWHTF 2017).

Recently a new toxicant, Kaput® Feral Hog Bait (a modified rodenticide), has been registered by the Environmental Protection Agency (EPA) (EPA Reg. No. 72500-26) for use in wild hog control in the U.S. General directions under the current general use label (Fig. 1) state: 1) applicators must wear long sleeves, pants, and protective gloves; 2) bait may only be applied in feeders with 8-10 lb. lids; 3) feeders must be secured so they cannot be knocked over; 4) feral hogs must be conditioned to non-toxic feed for 3 to 6 weeks, after which non-toxic feed can be replaced with toxic baits; 5) all carcasses must be buried or “disposed of properly”; and 6) all non-target carcasses must be reported to State authorities.

New management tools are needed to address the increasing damages associated with wild hogs. Thus, the South Carolina Wild Hog Task Force supports the development and use of new products, including toxicants that are humane and can successfully be implemented while minimizing effects to non-target species. In supporting any new management tool, the Task Force will take into account the biological impacts a new product or management tool may have on the natural and human environments, along with potential impact(s) to non-target animals. However, currently limited information is available on Kaput® Feral Hog Bait and thus the Task Force has identified a number of concerns associated with this product, which are outlined below:

1. Research has demonstrated raccoons are capable of lifting a 20+ lb. lid on a feeder and thus raccoons and especially bears will easily be able to access feeders.

2. Squirrels, white-tailed deer, and other rodents will likely feed on bait dropped or scattered by wild hogs.
3. Primary or secondary intoxication (either lethal or sub-lethal) of predators and scavengers such as bobcats, fox, owls, hawks, and eagles is possible. There are historical cases that document warfarin poisoning in owls, peregrine falcons, and bald eagles from secondary rodenticide poisoning.
4. Concerns are high for inappropriate use of this product, especially bait dumping on the ground by users.
5. Given the susceptibility of dogs to warfarin intoxication, concern over the impacts to free-ranging pets.
6. Little to no information has been provided by EPA or Scimetrix, the producer of Kaput® Feral Hog Bait, on research pertaining to primary or secondary intoxication of non-target wildlife.
7. There would be little ability to prosecute offenders not sticking to the label requirements of pre-baiting, carcass disposal, etc.
8. The humanness of using warfarin for the lethal control of wild hogs is questionable; in Australia, warfarin has been found to be inhumane and unacceptable for use in controlling wild hogs (Lapidge et al. 2009).
9. Concern exists over the late stages of warfarin intoxication where hogs are mobile but stumbling; who would then be liable if that animal stumbles onto a highway and causes a vehicle collision or into a backyard and comes into a conflict with either people or their pets.
10. Concerns over the impacts of use in streams/riparian areas, as suggested on the label; what would the impacts be if high/flood waters carried the toxic bait or decomposing hog carcasses downstream?
11. Lastly, the use of warfarin began in the early 1950s, but within ten years rats were showing resistance to warfarin as resistant genes spread in the rat population; could not the same thing happen with wild hogs, thereby reducing the longterm efficacy of this control option.

Title 50 of SC Code of Laws considers wild hogs to be “wildlife” but not “game”, and Section 50-11-96 (A) states “It is unlawful for a person to introduce a fertility control agent or chemical substance into any wildlife without a permit from the department.” Currently SCDNR has no regulations to implement the provisions of that law.

The South Carolina Wild Hog Task Force is suggesting the following:

1. Clemson University Department of Pesticide Regulation to take into account some of the concerns listed above prior to registering the product in the State of South Carolina. This may include licensing it as a Restricted-Use Pesticide or even complete denial of the product for use in South Carolina; and
2. The Department of Natural Resources to review SC Code of Law, Section 50-11-96 and determine if the law could be used to require a permit to offer a toxicant to wild hogs, and promulgate regulations to implement and regulate the provisions of this section.

## References

- Lapidge, S., J. Wishart, M. Smith and L. Staples. 2009. Is America ready for a humane feral pig toxicant? Wildlife Damage Management Conference, 13:49-59.
- Rodriguez, S. L. 2016. Understanding perceptions of the impact of feral hogs on private lands in South Carolina: a report for USDA Natural Resource Conservation Service and the South Carolina Farm Bureau. Clemson University, Clemson, South Carolina.
- SCWHTF (South Carolina Wild Hog Task Force). 2017. South Carolina Wild Hog Task Force: Strategy. <http://www.clemson.edu/extension/wildlife/wildhogs/strategy.html>. (Accessed on 2/8/2017)

Fig. 1. Current approved label for Kaput® Feral Hog Bait.

# Kaput

# FERAL HOG BAIT



NET WT. 25 LBS (11.34 KG)

**ACTIVE INGREDIENT:**  
Warfarin (CAS Number 81-81-2) .....0.005%

**OTHER INGREDIENTS** .....99.995%

**TOTAL** .....100.000%

**Keep Out of Reach of Children**

CAUTION

See back panel for First Aid and Precautionary Statements.

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**FIRST AID**

**If Swallowed:**

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by the poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

**If in Eyes:**

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

**TREATMENT FOR PET POISONING**  
*If animal eats bait, call veterinarian at once.*

**NOTE TO PHYSICIAN OR VETERINARIAN**

Contains Warfarin, an anticoagulant. If available, this material may reduce the clotting ability of the blood and cause bleeding. For humans or animals that have ingested this product and/or have obvious poisoning symptoms (bleeding or prolonged prothrombin times), give Vitamin K1 intramuscularly or orally.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**READ THIS LABEL:**  
Read this entire label and follow all use directions and use precautions.

**IMPORTANT:** Do not expose children, pets, domesticated animals or other non-target wildlife to this product. To help prevent accidents:

1. Store product not in use in locations out of reach of children, pets, domesticated animals and wildlife.
2. Apply this product only as specified on this label.
3. Dispose of product container as well as unused, spoiled or recoverable unconsumed bait as specified on this label.

**USE RESTRICTIONS:** This product may only be used to control feral hogs (Sus scrofa) on pastures, rangelands, forests, non-crop areas, and crop lands. This bait may only be applied in hog feeders equipped with heavy lids to 10 lbs. of total weight on bait compartments so as to limit direct access to bait by nontarget animals. Feral hogs must be conditioned to accept feed from the bait dispensers and to open the weighted lids to bait compartments.

- Do not apply this bait directly on the ground, including all types of ground surface (e.g., bare or plant-covered ground, paved surfaces, etc.). Apply this product only in hog feeders consistent with the description provided above.
- Apply bait in treated areas, if available.
- When handling bait or animal carcasses, wear protective gloves made of leather, lambskin, polyethylene, nitrile rubber (>14 mils), neoprene rubber (>14 mils), natural rubber (>14 mils), polyvinyl chloride (>14 mils), or Viton (>14 mils).
- Store this product out of reach of children, pets, domesticated animals, and wildlife.
- Post bilingual caution signs (English and Spanish) in the treated areas to warn the public of the presence of the Warfarin bait and to forbid disturbance of bait dispensers and hog carcasses. Post these signs on public roads, trails, and pathways within and at common points of access to treated areas.

**GRAZING RESTRICTIONS:** Do not allow livestock to graze on baited areas (whether fenced or open) during the baiting program. If bait is to be applied in areas used for grazing, ensure that all livestock are removed and excluded from baited areas before applying this product and for at least 90 days after toxic baits are removed from bait dispensers.

**SELECTION OF BAITING SITES:** Baiting sites must be consistent with the limitations set forth in the USE RESTRICTIONS on this label (above). Before applying this product, observe the area selected for treatment to identify where hog activity and trails are located. Look for evidence of recent activity, including hog sightings, hog damage to crops, rooting of the soil, hog droppings, and fresh hog tracks and food material.

**PLACING AND SECURING HOG FEEDERS:** Locate hog feeders in or near probable resting areas for hogs, including brush along streams, game zones, and well vegetation. Do not place feeders in open areas in crops, fields, or pastures. From one to three bait feeders may be used per placement location, according to the apparent number of hogs utilizing the location. These dispensers spaced no more than 10 feet apart may be used where hog numbers are excessive (e.g., if large hog family groups, or sounders, or sounders). Secure feeders in place so that hogs cannot flip them over by use of f-locks or by tying the feeders to trees or shrubs.

**CONDITIONING HOGS TO FEEDERS:** After the feeders are situated and the feral hogs have been conditioned (trained) to feed from them. To accomplish this, load the feeding compartments with a non-toxic feed, and open the lids to the feeding compartments with 6 inches so that hogs can access this feed with little difficulty. To condition hogs to accept this product, use one of the following preparations as the non-toxic bait: (1) cracked or whole corn, soaked in water for 2-3 days until it has a noticeable odor; (2) cracked or whole corn treated with a commercially available hog attractant which induces signs of hog urine, feces, or pig food; or (3) Kaput Feral Hog Lure. Load 25 to 50 lbs. of the non-toxic feed into each hog feeder. Provide access to non-toxic feed for three to six weeks, until hogs are feeding readily from the bait compartments. Failure to condition hogs to feeders or ending the conditioning period too early may reduce the number of hogs taken or prolong the period time needed for toxic baiting.

**BAIT APPLICATION:** After feral hogs have been conditioned to take non-toxic feed from bait compartments, remove all of the non-toxic feed remaining in the feeders. Add 25 to 50 lbs. of Kaput® FERAL HOG BAIT to

each feeder and close lids to bait compartments so that hogs must lift the doors with their snouts in order to access bait. Do not load this product into feeders from which no non-toxic bait was consumed during the conditioning period. Monitor feeders every 1 to 4 days once treatment has begun to determine whether hogs are accessing bait, to assess whether bait is being soaked around feeders, and to replenish bait, if appropriate. If bait feeders if bait is significantly depleted or degraded, and there still is evidence of hog activity at the feeders. As bait take and hog numbers decline, the feeders may be monitored at 5-day intervals, but site surveillance must continue as described below. If possible, feeders should be checked at mid-day to minimize disturbance to feral hogs. Bait soaked around feeders must be collected and disposed of properly.

**SURVEILLANCE AND FOLLOW-UP:** Dead hogs may begin to appear in or near the treatment areas within 4 to 7 days after bait placement. Applicators must return to the treatment site within 4 days after the first bait placements were made, and at 2- to 4-day intervals thereafter, to inspect the site for evidence of dead or dying feral hogs and/or dead nontarget animals. All carcasses found must be disposed of properly. Carcasses may be buried on site in holes dug deep enough that the entire carcass is at least 18 inches below the ground surface. Cover buried carcasses up to the level of the surrounding ground. If burial is not practical (e.g., due to frozen or extremely hard ground) and other disposal methods are allowed by State and local authorities, carcasses may be disposed of by other methods to ensure that carcasses are not accessible to scavengers. Continue to monitor the treatment area to collect and dispose of feral hogs and to assess for nontarget animals. For at least two weeks after the removal of all bait from the hog feeders, deaths of any animals other than feral hogs that appear to be the result of baiting with this product must be reported to State authorities.

**Note:** A dye in this product will impart a blue color to the fatty tissues of hogs that have eaten the bait.

**STORAGE AND DISPOSAL**

Do not contaminate water, food or feed by storage or disposal.

**Pesticide Storage:** Store in original container in a cool, dry place inaccessible to children and pets.

**Pesticide Cleanup:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Container Handling:** Non-bleedable container. Do not reuse or refill this container. Offer container for recycling, if available, or reconditioning, if appropriate. Otherwise, dispose of empty container in a sanitary landfill.

Lot Number: See Container Lid

**PRECAUTIONARY STATEMENTS**

**Hazards to Humans and Domestic Animals**

**CAUTION:** Harmful if swallowed. Keep away from humans, domestic animals and pets. Any person who retrieves carcasses or unused bait following application of this product must wear protective gloves.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**Applicators and Other Handlers Must Wear:**

- Long-sleeved shirt and long pants.
- Shoes plus socks, and
- When handling bait or retrieving animal carcasses, chemical-resistant gloves made of leather, lambskin, polyethylene, nitrile rubber (>14 mils), neoprene rubber (>14 mils), natural rubber (>14 mils), polyvinyl chloride (>14 mils), or Viton (>14 mils).

Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washing exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

**USER SAFETY RECOMMENDATIONS**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then, wash thoroughly and change into clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing them. As soon as possible, wash thoroughly and change clothing.

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**WARRANTY**

To the extent consistent with applicable law, Manufacturer and Seller make no warranty, express or implied, concerning the use of this product other than indicated on the label. Buyer assumes all risk of use and/or handling of this material when such use is in violation of the label instructions.

**Notice:** This product contains a chemical known to the state of California to cause birth defects or other reproductive harm.

Patent Pending  
Made in USA

**Scimetrics**  
LTD. CORP.

Pest Management Solutions  
P.O. Box 1045, Wellington, CO 80549-1045  
(719) 854-1330  
customerservice@kaputproducts.com

Label Version 1/2/2017

**ENVIRONMENTAL HAZARDS**

This product may be toxic to fish, birds and other wildlife. Dogs and other predatory and scavenging mammals and birds might be poisoned if they feed upon animals that have eaten the bait. Do not apply this product directly to water to areas where surface water is present or to intertidal areas below the mean high-water mark. Do not contaminate water when disposing of equipment wash waters.

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