Cause No. D-1-GN-17-000878

WILD BOAR MEATS, L.L.C., Plaintiff,	§	IN THE DISTRICT COURT OF
v.	§	
	§	TRAVIS COUNTY, TEXAS
TEXAS DEPARTMENT OF AGRICULTURE and SID MILLER, in his Official Capacity as Commissioner of the Texas Department of Agriculture , Defendants.	§	250TH JUDICIAL DISTRICT

PLAINTIFF'S VERIFIED ORIGINAL PETITION FOR DECLARATORY JUDGMENT AND APPLICATION FOR INJUNCTIVE RELIEF

TO THE HONORABLE JUDGE OF THE DISTRICT COURT:

NOW COMES Wild Boar Meats, L.L.C. ("Wild Boar Meats") and files this verified original petition complaining of actions taken by the Texas Department of Agriculture ("TDA") and Sid Miller, in his Official Capacity as Commissioner of TDA (the "Commissioner"), and for cause of action shows as follows:

I. THIS LAWSUIT

1. On February 21, 2017, the Commissioner announced an "emergency" rule change to allow the use of a warfarin-based poison for use on feral hogs in Texas. See Exhibit 1 attached hereto and incorporated herein by reference for all purposes. In essence, the Commissioner proposes to flood Texas with rat poison in an ill-advised, counterproductive program. If not stopped, the program will damage Texas hunters, the Texas feral-hog meat industry, ranchers and other landowners, wildlife, and the environment. In fact, the program will damage, rather than assist, the effort to control feral hogs in Texas. Additionally, the rule is illegal on its face: no legal "emergency" existed to authorize a dark-of-night "emergency rule" that will favor a sole-provider manufacturer of a single warfarin-based product for use on feral

hogs, Kaput®. Scimetrics Ltd. Corp., a Colorado based company, is the sole manufacturer of the product.

2. TDA ignored its legal limitations as a state agency, pronounced an emergency where none existed and issued an emergency rule in violation of the Texas Administrative Procedure Act ("APA"). Accordingly, Wild Boar Meats asks for declaratory relief from the Court declaring that the TDA's emergency rule is invalid and enjoining enforcement of the emergency rule.

II. DISCOVERY

3. Wild Boar Meats, L.L.C. intends to conduct discovery under Level 2 of Texas Rules of Civil Procedure 190.3.

III. PARTIES AND SERVICE OF PROCESS

4. Wild Boar Meats is a Texas company domiciled in Hubbard, Texas doing business in Hill County, Texas.

5. The Texas Department of Agriculture is the state agency charged with administration and classification of pesticides. Sid Miller is being sued solely in his official capacity as the Commissioner of TDA and the Attorney General's office has agreed to accept service on behalf of the Commissioner.

IV. JURISDICTION AND VENUE

6. Wild Boar Meats brings this suit for declaratory relief under the authority of TEX. GOV'T. CODE § 2001.038 and the Uniform Declaratory Judgment Act, TEX. CIV. PRAC. & REM. CODE § 37.001 et seq. Wild Boar Meats brings its application for injunctive relief under the authority of TEX. GOV'T. CODE § 2001.038 and TEX. CIV. PRAC. & REM. CODE § 65.001, *et seq*.

V. FACTS

A. Why Warfarin Will Not Work in Texas—The Key Logical Flaw

7. Overwhelmingly Texas lands are owned by private landowners—that is true for approximately 95.8% of Texas land (based on a Google search). Thus, if a private landowner poisons feral hogs on his or her ranch, eventually the feral hogs on adjoining properties will move in. Upon information and belief, poisoning an entire region of ranches is unfeasible for several reasons:

- Many property owners want to hunt and consume feral hogs, or lease their land to feral-hog hunters—not poison the feral hogs.
- Many property owners do not like or trust poison or the effects and risks of poison on domestic animals (e.g., dogs, cats), livestock, wildlife, and the environment.
- Many property owners do not want to incur the expense of a program that is doomed to failure or, at best, minimal, temporary success.

8. The sole-source product that the Commissioner has proposed, Kaput®, according to its own instructions (see Exhibit 2 attached hereto and incorporated herein by reference for all purposes), cannot be used in grazing areas. For example, a rancher who owns 1,000 acres would have to move livestock from the pasture designated for poison. First, according to the product instructions, several weeks of separation would be necessary to "condition the hogs" to learn to "open" the poison containers. (As discussed below, those containers are flawed and potentially expose children and animals to the poison.) Second, the separate pasturing would have to continue for a substantial period to address the inevitable, continuing influx of hogs from surrounding properties. In fact, that influx would never end. Third, according to Kaput® instructions, the separation would have to continue for 90 days after the last use of the poison.

Additionally, according to Kaput® instructions, the product also cannot be used near water or creeks. Finally, Kaput® instructions require "burial" of poisoned feral hogs. Upon information and belief, feral hogs can travel 5 to 20 miles in a day. A poisoned feral hog may well end up on neighboring property, and the property owner may have no idea that a poisoned hog is on the property, much less any program or desire for burial. That would expose the poison-containing carcass to other wildlife, including birds of prey, vultures, coyotes, raccoons, etc.—or even domestic dogs and cats.

B. Australia's Experience with Warfarin:

9. The Commissioner's press release cited the use of warfarin in Australia and stated that Warfarin, an anticoagulant, was used for many years as a feral swine toxicant in Australia. But in comparing the press release to a 1990 Australian study (attached hereto as Exhibit 3 and incorporated herein by reference for all purposes), important facts were omitted about the Australia experiment:

- Australia, in a government-conducted study, experimented with the use of warfarin in 1987 in the Sunny Corner State Forest.
- The study area was 60 square miles and the study period was 3 months.
- Over the course of 3 months, 187 of 189 feral hogs were poisoned to death, using 69 poison sites and placing the poison in wheat left in the open, not in containers.
- This application took an average of 2.7 man-hours per feral-hog poisoning.
- Ultimately, Australia concluded that the method of death was so cruel, that use of warfarin should be outlawed—even though Australia is not a culturally "squeamish" country and even though Australia has more feral hogs than

people. Warfarin is an anti-coagulant, so hogs die by bleeding to death—including bleeding out the eyes, nose, mouth, and other body orifices. The death is painful and gruesome.

- Australia found that the timeline for feral-hog death was 4-17 days.

In short, the Australian experience conclusively showed that warfarin poisoning is a badly flawed program.

C. Warfarin Poisoning Will Cause Substantial Economic Damage to Texas Hunters, the Hunting Industry, Meat Processors, and Other Industries from Warfarin Poisoning—and Will Reduce in the Effectiveness of Feral-Hog Control in Texas

10. Texas currently has a vibrant, growing economic segment focused on hunting feral hogs and on the consumption and use of feral-hog meat and byproducts. Thousands of Texas hog hunters participate in safe, reliable harvesting of feral hogs. Hunting is one of the two most effective means of controlling the feral-hog population. Ranchers and other property owners earn substantial revenues from hunting leases and guided hunts for feral hogs. Feral-hog meat processors have developed a sustainable, environmentally sensible industry to use feral-hog meat products for human consumption in the United States and abroad and for the pet industry. Feral-hog hides are even used for boot making.

11. Collectively, those industries result in harvesting tens of thousands of feral hogs annually in Texas. A warfarin-poisoning program will substantially reduce or destroy those businesses, including Wild Boar Meats. Given the flawed concepts on which warfarin-poisoning is based, that program will result in a net reduction in the number of feral hogs removed from Texas ranches annually. In short, the warfarin-poisoning program will reduce, not increase, the number of feral hogs killed each year in Texas. The program will make the feral-hog control problem worse not better.

D. The Cost of Warfarin Poisoning

12. The costs of a warfarin-poisoning program are substantial for any participating landowner. According to Exhibit 2, each hog feeder (poison-bait station) holds only 25-50 lbs. of poison. Upon information and belief, studies suggest that a feral hog would have to ingest the poison for 5 days to die. That means that a hunter or property owner could shoot and consumer a feral hog, not knowing that it contains poison. And, upon information and belief, Kaput® is the only known provider of the Kaput® products and feeder.

E. Dangers to humans, animals, and wildlife:

13. Kaput® instructions (Exhibit 2) state: "Harmful if swallowed," "Keep away from humans," "Keep Out of Reach of Children," "If Swallowed: call a poison control center or doctor immediately for treatment advise."

F. "Burial" problems:

14. According to the manufacturer of Kaput®, when a feral hog dies from warfarin poisoning, the property owner must bury the hog 18" below the ground. See Exhibit 2. That is impractical (and often impossible) because the death-by-bleeding that results from warfarin poisoning is slow. Upon information and belief, it can take up to 4-17 days. See Exhibit 5. Feral hogs can travel 5 to 20 miles per day. It is highly likely that feral hogs that die from warfarin poisoning will be on some other property owner's property. That owner well may not know that someone else has a poison program underway, much less have any desire to bury the feral hog. The dead feral hog will mostly likely remain exposed to being consumed by other animals, birds of prey, or even dogs or cats.

15. Even if the carcass of a poisoned hog is found, and even if the person who finds it has the motivation to bury it, burying a feral hog that weighs 200 pounds (or more) is not easy, simple, or cheap. At a minimum, it requires a backhoe. In some soils, burial is not feasible at all.

It can be prohibitively difficult, expensive, labor-intensive, and time-consuming. In short, often it will not happen at all.

G. Problems with Poison Bait Stations

16. The sole-source manufactured bait stations for use of Kaput® warfarin-based poison have many problems. First, the doors weigh only ten pounds. See Exhibit 2. Many animals can lift ten pounds. Texas Parks and Wildlife has documented raccoons lifting 28 pounds with just their front paws, so a raccoon can open the bait station, remove and distribute the poison, therefore putting other wildlife at risk. See Texas Park and Wildlife report attached as Exhibit 4 and incorporated herein by reference for all purposes. In addition, Kaput® requires posting bilingual signs in the treated areas, specifically public roads, trails, and pathways. See Exhibit 2. Unfortunately, young children, raccoons, dogs, cats, deer, goats, and cows do not read.

H. Other Environmental Hazards from Warfarin Poison

17. Kaput® itself lists in Exhibit 2 these Environmental Hazards to wildlife (including domestic dogs and cats):

- "This product may be toxic to fish, birds, and other wildlife"
- "Dogs and other predatory and scavenging mammals and bird 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"

I. Alternatives to Warfarin Poisoning:

18. Texas Parks and Wildlife Department has been studying a safer alternative to warfarin: Sodium Nitrite. Sodium nitrite is used to cure bacon. See Exhibit 4. Humans consume it. It does not harm humans, but can be lethal to feral hogs. Thus, it would not cause the collateral economic damage to the hunting industry and the feral-hog meat industry in Texas.

Studies show that with properly administered sodium nitrite, feral hogs typically die within 2 hours of consumption. See publication entitled "Poison baiting for feral pig control in Australia" attached via the following link: http://www.pestsmart.org.au/poison-baiting-for-feral-pig-control/ as Exhibit 6 and incorporated herein by reference for all purposes. But sodium nitrite is not harmful to humans or pets. Secondary-poisoning risks from sodium nitrite are much less than from warfarin.

J. Why the Warfarin-poison Program Would Likely Increase the Feral Hog Population In Texas:

19. Currently the most common feral-hog-control programs result from the kill-to-eat motivation of the majority of Texas hog hunters. Because of the risks from warfarin poisoning, harvesting for human consumption will inevitably decrease. (The Texas Hog Hunters Association opposes the warfarin-poisoning program.) The result will be removal of fewer feral hogs in Texas. The feral-hog population will actually increase.

20. The same is true of the burgeoning kill-to-sell feral-hog industry in Texas. Warfarin poisoning will reduce or eliminate that industry entirely, eliminating thousands of Texas jobs.

21. The same is true of the trap-to-sell industry in Texas. Trapping is one of the most effective means of feral-hog control in Texas. But many trappers sell the hogs for human or pet-products consumption. That will no longer be feasible. Warfarin can remain in a feral hog for up to 17 days. See report entitled "**A project that investigates current options for managing feral pigs in Australia and assesses the need for the development of more effective and humane techniques and strategies**" attached via the following link: http://www.pestsmart.org.au/wp-content/uploads/2010/03/DEHstage1.pdf as Exhibit 5 and incorporated herein by reference for all purposes. Thus, to be safe, trappers and feral hog

processors would have to feed feral hogs for three weeks to be used for human consumption. That is cost prohibitive.

22. The bottom line is that a warfarin-poison program is likely to result in a net decrease in the number of feral hogs harvested in Texas, and net increase in the population of feral hogs in Texas. That is the very definition of counterproductive!

23. Implementation of a warfarin-poisoning program in Texas is a bad idea that will have substantial adverse economic consequences for Texas hunters, Texas hunting-supply industries, Texas ranchers and other property owners, and the feral-hog meat processing industry. The program would cost Texas jobs and money, it would cause substantial damage to the Texas environment and wildlife—and ultimately, the program likely would make the problem of feral hogs in Texas worse, not better. In every sense, it is a lose-lose proposal for Texas. Texans and TDA should reject this bad idea.

K. No "Emergency"

24. On February 21, 2017, and without notice and comment, TDA adopted an amendment to 4 TAC §7.30 stating the "amendment adds regulations regarding "State-limited-use Pesticides Defined by Active Ingredient and Use," including use and distribution of such products. The Department is adopting the emergency amendments to address the risk of inadvertent human consumption of warfarin-poisoned hogs and the risk of potential secondary poisoning of non-target animals. Amended §7.30 classifies the active ingredient warfarin, when used as a feral hog toxicant, as a state-limited-use pesticide." See Exhibit 1.

VI. BRIEF IN SUPPORT

A. Imminent Peril

25. The APA § 2001.0034(a)(1)-(2), (b) and (d) requires an agency to set forth the following to adopt an emergency rule:

(1) the rule adopted;

(2) written reasons for the rule's adoption; and

(3) written reasons for the agency's findings that

(a) an imminent peril to the public health, safety, or welfare exists

26. Judge Scott McCown defined imminent peril as follows:

> The words suggest a soon-to-be-upon-us public disaster not merely a serious policy concern . . . Imminent means soon but not yet. If a problem is here, it is not imminent, but present. A present problem is not an imminent peril, regardless how serious. The legislature does not want an agency to address present problems with emergency rules . . . long standing problems . . . can not be classed as imminent peril . . . as a corollary, an agency can not allow a distant problem to become an imminent peril by inaction and then promulgate an emergency rule. . . the test is whether an agency reasonably could and should have foreseen the problem in time to address it by full procedure.[1]

Courts in Travis County are familiar with the requirements for an agency to adopt an emergency rule as well as the consequences when an agency does not comply with the APA. See Temporary Restraining Order issued by the Honorable Gisela Triana and Temporary Injunction issued by the Honorable Orlinda Naranjo in Cause No. D-1-GN-15-000238, *Teladoc v. Texas Medical Board and Scott Freshour in his official capacity as General Counsel for Texas Medical Board*, in the 53rd Judicial District Court of Travis County, Texas.

B. TDA's purported "emergency" is no emergency

27. Notice, transparency, public participation, and reasoned justification must precede assertions of agency authority by adoption of rules. As the Austin Court of Appeals has stated, "We must give effect to these important safeguards, as the Legislature has intended." *Teladoc, Inc. v. Tex. Med. Bd.*, 453 S.W.3d 606, 623 (Tex. App.—Austin 2014, pet. denied).

[1] F. Scott McCown, Opinion on Temporary Injunction, 1 Tex. Admin. L.J. 16, 27-30 (1992)

C. The harm to Wild Boar Meats

28. The "emergency rule" will have an immediate and severe impact on Wild Boar Meats ability to do business in Texas in that it will severely impact Plaintiff's business. Upon information and belief, there is no way to deactivate the chemical Warfarin in a dead feral hog; the antidote Vitamin K only works for a living animal. In Exhibit 2, Kaput states that a dye that accompanies the chemical Warfarin will turn the fatty tissues of a feral hog blue – thereby providing notice of Warfarin poisoning. Upon information and belief, the fatty tissues will not turn blue until the feral hog metabolizes Warfarin – which is between 1-2 days. Therefore, a feral hog could eat warfarin one day, the next day cross onto another ranch, be shot and brought to Wild Boar Meats, without any blue fatty tissues. Upon information and belief, individually testing each feral hog for Warfarin takes 2-3 days and is cost prohibitive. Given these unknowns, Plaintiff's customers have expressed concerns about the "emergency" rule and are considering putting future orders on hold. Plaintiff had planned to begin construction of a new plant next month to substantially expand its facilities. Plaintiff has ongoing negotiations with one of the largest pet food manufacturers in the world. Now those negotiations have ceased and the new plant is in jeopardy. If the rule stays in effect, Plaintiff will lose contracts and may go out of business. Upon information and belief, the same is true for the Texas businesses that provide feral-hog meat for human consumption. The combined meat and hog hunting industry is in the millions of dollars annually. The financial impact on the thousands of hunters and trappers who sell feral-hog meat will be much greater, as will be the effect on the companies that operate as direct buyers from feral-hog hunters and trappers. (One of those companies that supplies Plaintiff is Hogs Gone Wild; which last year sold several million pounds of feral hogs.) In short, the adverse economic effects of the "emergency rule" will be massive. Many business failures are inevitable if this rule stays in effect. Upon information and belief, the net effect of this rule and

the associated program will be to decrease the annual harvest of feral hogs in Texas—the rule and program will make the feral-hog problem in Texas worse, not better.

VII. CAUSE OF ACTION

A. Request for declaration of rights under the Rule

29. Wild Boar Meats requests that the Court declare that TDA's emergency rule is invalid for two reasons. First, there is no imminent peril to public health, safety or welfare and TDA has made no such finding. Second, TDA did not endeavor to state in writing reasons to support a finding of the requirements of APA § 2001.034(a)(1)-(2), (b), and imminent peril to the public health, safety or welfare if one had been made. *See Methodist Hospitals of Dallas v. Texas Industrial Accident Board*, 978 S.W.2d 651 (Tex. App. –Austin, 1990, no writ).

B. Application for TRO

30. Wild Boar Meats asks the Court to temporarily enjoin enforcement of the "emergency rule" adopted by TDA pending a trial on the merits. Wild Boar Meats has a probable right to the relief it seeks because no imminent peril to public health, safety or welfare exists and TDA did not follow the requirements of APA § 2001.034(a)(1)-(2), (b), and (d). Harm to Wild Boar Meats is imminent because TDA issued notice of the emergency rule on February 21, 2017. The "emergency rule" will have an immediate and severe impact on Wild Boar Meats' ability to do business in Texas. Wild Boar Meats has no adequate remedy at law because it cannot recoup the loss of revenue caused by the implementation of the "emergency rule."

C. Request for permanent injunction

31. Wild Boar Meats asks the Court for a permanent injunction after trial. TEX. GOV'T. CODE § 2001.038 authorizes suit to declare validity of a rule including an emergency rule. The emergency rule of February 21, 2017 is invalid because of absence of an imminent peril to the public health, safety, or welfare and failure of Defendants to adopt the rule pursuant

to TEX. GOV'T. CODE § Sections 2001.023, 2001.024, 2001.029, 2001.033 and 2001.034. Agency rules adopted without complying with proper rule-making procedures are invalid and affected persons are entitled to injunctive relief. *See El Paso Hosp. Dist. v. Texas Health and Human Servs. Comm'n,* 247 S.W.3d 709, 715 (Tex. 2008) and *Combs v. Entertainment Publ'ns, Inc.,* 292 S.W.3d 712, 723-24 (Tex. App.—Austin 2009, no pet.).

VIII. PRAYER

WHEREFORE, premises considered, Wild Boar Meats, L.L.C. asks the Court to declare invalid the emergency rule adopted by TDA and to issue a temporary restraining order enjoining its enforcement, issue a temporary injunction pending a trial on the merits, and upon trial on the merits, a permanent injunction enjoining enforcement of the emergency rule. Wild Boar Meats, L.L.C. asks for costs of suit and all other relief, at law or in equity, to which it may be entitled.

Respectfully submitted,

JACKSON WALKER LLP

By: */s/ Matt Dow*

Matt Dow
State Bar No. 06066500
100 Congress, Suite 1100
Austin, TX 78701
(512) 236-2000
(512) 236-2002 - Fax

ATTORNEYS FOR PLAINTIFF

CERTIFICATE OF SERVICE

This is to certify that on this 1st day of March, 2017, a true and correct copy of the foregoing document was served via email on the parties listed below:

Mr. Ted Ross
Office of the Attorney General of Texas
P.O. Box 12548
Austin, Texas 78711-2548

/s/ Matt Dow
Matt Dow

VERIFICATION

STATE OF TEXAS §
§
COUNTY OF TRAVIS §

BEFORE ME, the undersigned Notary Public, on this day personally appeared William Herring, who being by me duly sworn on his oath deposed and said that he is the duly authorized representative of Wild Boar Meats, L.L.C., Plaintiff in the above entitled and numbered cause; that he has read the above and foregoing Verified Original Petition for Declaratory Judgment and Application for Injunctive Relief; and that the statements contained in paragraphs 4-24 and 28-31 are within his personal knowledge and true and correct.

William Herring

SUBSCRIBED AND SWORN TO BEFORE ME, on this the 1st day of March, 2017, to certify which witness my hand and official seal.

SALLY J. COONROD
Notary Public, State of Texas
Comm. Expires 06-01-2018
Notary ID 4308323

Sally J. Coonrod
Notary Public, State of Texas
My Commission Expires: 6-1-18

https://www.texasagriculture.gov/RegulatoryPrograms/FeralHogPesticide.aspx

TITLE 4. AGRICULTURE
PART 1. TEXAS DEPARTMENT OF AGRICULTURE
CHAPTER 7. PESTICIDES
SUBCHAPTER D. USE AND APPLICATION
4 TAC §7.30

The Texas Department of Agriculture (Department) adopts on an emergency basis an amendment to Title 4, Part 1, Chapter 7, Subchapter D, Rule §7.30, relating to "Classification of Pesticides." The amendment adds regulations regarding "State-limited-use Pesticides Defined by Active Ingredient and Use," including use and distribution of such products. The Department is adopting the emergency amendments to address the risk of inadvertent human consumption of warfarin-poisoned hogs and the risk of potential secondary poisoning of non-target animals.

Amended §7.30 classifies the active ingredient warfarin, when used as a feral hog toxicant, as a state-limited-use pesticide. The amended rule also restricts the purchase, use and distribution of this state-limited-use pesticide to individuals licensed as a pesticide applicator under Chapter 76 of the Agriculture Code, Chapter 1951 of the Occupations Code, or persons working under the direct supervision of licensed individuals who meet those criteria.

The agricultural community is negatively affected by the agricultural and environmental damage caused by feral hogs. Feral hogs feed on agricultural crops and seeds, including vegetation intended for livestock or wildlife and often damage fences while trying to access food. Feral hogs can cause damage to land by rooting, wallowing, and trampling activities. Hogs can also transmit diseases and parasites to other animals or humans. Predation of livestock and wildlife can also be a serious problem.

In hogs, signs of poisoning are not usually apparent until 1 to 3 days after ingestion. Since hunting and consuming feral hogs is common in Texas, the Department is concerned about the potential for humans to inadvertently consume warfarin-poisoned hogs before the hog shows signs of poisoning. Individuals with certain illnesses and allergies who consume affected animals may be more susceptible to warfarin's effects. The Department is contemporaneously proposing this emergency amended rule on a permanent basis in a separate submission to the *Texas Register*.

The amended rule is adopted on an emergency basis pursuant to Chapter 76 of the Texas Agriculture Code, which provides the Department with the authority to adopt rules related to provisions necessary for compliance with pesticide and herbicide regulations and the Texas Government Code, §2001.034, which provides for the adoption of administrative rules on an emergency basis without notice and comment.

The code affected by the emergency adoption is the Texas Agriculture Code, Chapter 76.

§7.30.Classification of Pesticides.

(a) - (c) (No change.)

(d) State-Limited-Use Pesticides Defined by Active Ingredient and Use.

EXHIBIT 1

(1) Due to the potential for adverse effects to humans and non-target animals, a pesticide product containing the active ingredient warfarin is classified as a state-limited-use pesticide and subject to the restrictions listed in paragraph (2) of this subsection, as well as all other provisions of law generally applicable to state-limited-use pesticides, when, and only when, used as a feral hog (Sus scrofa) toxicant.
(2) The following are restrictions on use and distribution of State-Limited-Use pesticides:
(A) A person may not purchase a pesticide classified as a state-limited-use pesticide under this subsection unless the person is licensed as a pesticide applicator under either Chapter 76 of the Agriculture Code or Chapter 1951 of the Occupations Code or working under the direct supervision of a person so licensed.
(B) A person may not use a pesticide classified as a state-limited-use under this subsection unless the person is licensed as a pesticide applicator under either Chapter 76 of the Agriculture Code or Chapter 1951 of the Occupations Code or working under the direct supervision of a person so licensed.
(C) A person may not distribute a pesticide classified as state-limited-use under this subsection to a person not authorized by this section to purchase state-limited-use pesticide.
The agency certifies that legal counsel has reviewed the emergency adoption and found it to be within the state agency's legal authority to adopt.
Filed with the Office of the Secretary of State on February 6, 2017.
TRD-201700506
Jessica Escobar
Assistant General Counsel
Texas Department of Agriculture
Effective date: February 6, 2017
Expiration date: June 5, 2017
For further information, please call: (512) 463-4075

Texas Administrative Code

TITLE 4
PART 1

CHAPTER 7
SUBCHAPTER D
RULE §7.30

(a) State-Limited-Use Pesticides Defined by Active Ingredient.

(1) Except as provided by paragraphs (3) - (4) of this subsection and because of thei
active ingredient in the following list is classified as a state-limited-use pesticide and
of law generally applicable to state-limited-use pesticides.

(A) 2,4-Dichlorophenoxyacetic acid (2,4-D); including acid, amine, choline, ester a

(B) 2,4-Dichlorophenoxy butyric acid (2,4-DB);

(C) 2,4-Dichlorophenoxy propionic acid (2,4-DP);

(D) 2-Methyl-4-Chlorophenoxyacetic acid (MCPA);

(E) 3,6-Dichloro-o-anisic acid (dicamba); including dimethylamine salt (DMA), so
methylamine (BAPMA), and potassium salt;

(F) 3,4-Dichloropropionanilide (propanil);

(G) 5-bromo-3-sec-butyl-6-methyluracil (bromacil);

(H) 2,4-bis(isopropylamino)-6-methoxy-s-triazine (prometon);

(I) 3,7-dichloro-8-quinolinecarboxylic acid (quinclorac);

(J) Sodium flouoroacetate (Compound 1080); and

(K) Sodium cyanide (M44).

(2) Regulated Herbicides.

(A) 2,4-dichlorophenoxyacetic acid (2,4-D); including acid, amine, choline, ester a

(B) 2-methyl-4-chlorophenoxyacetic acid (MCPA);

(C) 3,6-dichloro-o-anisic acid (dicamba); including dimethylamine salt (DMA), so

methylamine (BAPMA), and potassium salt; and

(D) 3,7-dichloro-8-quinolinecarboxylic acid (quinclorac).

(3) Exceptions from Regulated Herbicide Classification.

(A) 2,4-dichlorophenoxyacetic acid (2,4-D) or 3,6-Dichloro-o-anisic acid dicamba
crops; and

(B) applied by ground application equipment only; and

(C) applied when winds do not exceed 10 miles per hour.

(4) A pesticide product containing an active ingredient listed in this subsection is ex
subsection if the product:

(A) is distributed in a container with a capacity less than or equal to one quart for l

(B) is a specialty fertilizer mixture labeled for ornamental use and registered as a c

(C) is ready for use, requires no further mixing or dilution before use, and is packa
products.

(5) The following are restrictions on use and distribution of State-Limited-Use pesti

(A) A person may not purchase a pesticide classified as a state-limited-use pesticid
applicator under either Chapter 76 of the Agriculture Code or Chapter 1951 of the Oc

(B) A person may not use a pesticide classified as a state-limited-use or as a regula
either Chapter 76 of the Agriculture Code or Chapter 1951 of the Occupations Code o

(C) A person may not distribute a pesticide classified as state-limited-use or as a re
state-limited-use pesticide or a regulated herbicide.

?Pub Caret -2 (b) State-Limited-Use Pesticides Defined by Use.

(1) Due to the high potential for adverse effects to humans, animals, or the environm as general use is classified as a state-limited-use pesticide when, and only when, appl of public health pest control.

(2) A person may not use a pesticide for public health pest control in methods identi under Chapter 76 of the Agriculture Code and certified in the public health pest contr either by a state, county, city, or other local governmental body or is a person authori local governmental body and the person or the person's employer.

(3) For purposes of this subsection, "public-health pest control" has the same meani

(c) Prohibited Pesticides.

(1) Because of their persistence in the environment and bioaccumulative toxic effect or substance in the following list is a prohibited pesticide and subject to the prohibitio

(A) Aldrin;

(B) Chlordane;

(C) DDT (dichlorodiphenyltrichloroethane);

(D) DDD (dichlorodiphenyldichloroethylene);

(E) Dieldrin;

(F) Hexachlorobenzene;

(G) All mercury-based pesticides;

(H) Mirex;

(I) Toxaphene;

(J) Heptachlor;

(K) 2,4,5-trichlorophenoxyacetic acid (2,4,5-T);

(L) 2,4,5-trichlorophenoxypropionic acid (2,4,5-TP (Silvex)).

(2) No person shall use a prohibited pesticide for any purpose.

(3) A person in possession of a prohibited pesticide shall by proper storage, care, ha
shall prevent exposure of human beings or other susceptible species to the prohibited
and federal law.

Source Note: The provisions of this §7.30 adopted to be effective December 4, 1997,
effective February 17, 2015, 40 TexReg 687; amended to be effective December 21, 2

Kaput®

FERAL HOG BAIT

EXHIBIT 2

NET WT. 25 LBS (11.34 KG)

ACTIVE INGREDIENT:	
Warfarin (CAS Number 81-81-2)	0.005%
OTHER INGREDIENTS	99.995%
TOTAL	100.000%

EPA Reg. No. 72500-26
EPA Est. 72500-CO-1

Keep Out of Reach of Children

CAUTION

See back panel for First Aid and Precautionary Statements.

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 swallowed, 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.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact the National Poison Information Center at 1-800-858-7378 for emergency medical treatment information.

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 barrier laminate, polyethylene, butyl rubber (>14 mils), 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 washables 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.

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.

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, rangeland, forests, non-crop areas, and crop lands. This bait may only be applied in hog feeders equipped with heavy lids (8 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 fenced areas, if available.
- When handling bait or animal carcasses, wear protective gloves made of barrier laminate, polyethylene, butyl rubber (>14 mils), 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 wallows, and fresh hog tracks and fecal material.

PLACING AND SECURING HOG FEEDERS: Locate hog feeders in or near probable resting areas for hogs, including brush along streams, dense cover, and tall 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 visiting the location. Three 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, are present). Secure feeders in place, so that hogs cannot tip them over, by use of T-posts or by tying the feeders to trees or shrubs.

CONDITIONING HOGS TO FEEDERS: After the feeders are situated and secured, feral hogs must be 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 by about 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 feed: (1) cracked or whole corn, soaked in water for 3-5 days until it has a noticeable odor; (2) cracked or whole corn treated with a commercially available hog attractant which includes scents of hog urine, fruit, or pet 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 of 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 spilled around feeders, and to replenish bait, if appropriate. Refill feeders if bait is significantly depleted or degraded, and there still is evidence of hog activity at the feeder. 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 spilled 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 deeply 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 search for non-target 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 Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.
Container Handling: Non-refillable 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*

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/handling is contrary to 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

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LTD. CORP.
Pest Management Solutions
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Evaluation of a Warfarin Poisoning Programme for Feral Pigs (Sus Scrofa).

Article *in* Wildlife Research · January 1990

DOI: 10.1071/WR9900525

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EXHIBIT 3

Aust. Wildl. Res., 1990, **17**, 525-33

Evaluation of a Warfarin Poisoning Programme for Feral Pigs (*Sus scrofa*)

Glen Saunders[AC], *Barry Kay*[A] *and Bob Parker*[B]

[A] NSW Agriculture and Fisheries, Agricultural Research and Veterinary Centre, Forest Road, Orange, N.S.W. 2800, Australia.
[B] Queensland Rural Lands Protection Board, Robert Wicks Research Station, M.S. 1204, Inglewood, Qld 4387, Australia.
[C] Present address: Department of Zoology, University of Bristol, Woodland Road, Bristol BS8 1UG, England.

Abstract

An evaluation of a warfarin poisoning programme to control feral pigs was carried out on agricultural land in eastern Australia between July and September, 1987. The estimated total population before the poisoning programme was 189 pigs within the 94·4 km^2 study area. Poisoned and free-fed bait was offered initially at 69 sites and over a period of 57 days. Only two pregnant sows were believed to have survived the programme which was equivalent to a 98·9% reduction. As a result of breeding and re-invasion a further 38 pigs were removed in the 12 months after the control programme. Cost of initial control was $A39 per pig while cost of maintenance control was $A47 per pig.

Introduction

Feral pigs (*Sus scrofa*) are the most common and widespread feral mammal in Australia (Flynn 1980) and are also considered to be significant pests of agricultural production. They are responsible for reductions in lambing percentages of up to 40% (Plant *et al.* 1978; Pavlov *et al.* 1981), transmission of endemic domestic livestock diseases (Keast *et al.* 1963; Letts 1964) and have the potential to act as reservoirs and vectors of exotic animal diseases, such as foot and mouth disease (Geering 1981). They also cause severe losses to cereal crops (Benson 1980; Pavlov 1980) and native pastures (Hone 1980). Losses are estimated to cost more than $A70m per year (Tisdell 1982).

Poisoning with sodium monofluoroacetate (1080) is the most widely used management technique for the control of feral pigs (O'Brien *et al.* 1986) although several problems have been associated with its use (McIlroy 1983; Hone and Kleba 1984). These include the absence of an antidote, the observed ability of some pigs to survive high doses, vomiting which may reduce the amount of 1080 absorbed and increase the chances of secondary poisoning, and evidence suggesting that some pigs become bait shy to 1080.

There are several possible alternatives to 1080; anticoagulants, particularly warfarin, appear to be the most suitable. Warfarin is a slow-working poison with a latent period of between 4–17 days (Hone and Mulligan 1982). It does not produce symptoms that cause feeding to stop before a lethal dose is consumed, thus avoiding the development of bait shyness (Godfrey and Lyman 1980). Preliminary trials have found that it is both toxic and acceptable to captive feral pigs (Hone and Kleba 1984; O'Brien *et al.* 1987). In a study utilizing captive feral pigs, O'Brien *et al.* (1987) found a rapid decline in warfarin residues in all tissues with time. Also, since target animals usually die several days after the poison

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is administered, the chance of secondary poisoning from unmetabolised warfarin is reduced (Braysher 1987). Warfarin has the added safety of an antidote (Vitamin K_1) in cases of accidental poisoning.

Hone (1987) and McIlroy *et al.* (1989) reported on the effectiveness in the field of a warfarin poisoning programme against feral pigs. This was carried out at Namadgi National Park in the Australian Capital Territory and resulted in an estimated 94% reduction. During this programme, O'Brien *et al.* (1987) collected tissues from dead pigs and analysed these for warfarin residue levels. The samples exhibited particularly high levels indicating a potential hazard to non-target animals which feed on carcasses. These authors suggested that if warfarin were used at lower concentrations, the hazard to non-target species would be correspondingly lower.

This paper describes an evaluation of a warfarin poisoning programme carried out on agricultural land at Sunny Corner in New South Wales. Warfarin concentration in bait was reduced from that used at Namadgi and tissues were collected to determine if residues were also reduced. Data are also presented on the cost-effectiveness of control, and comparisons are drawn with the Namadgi study.

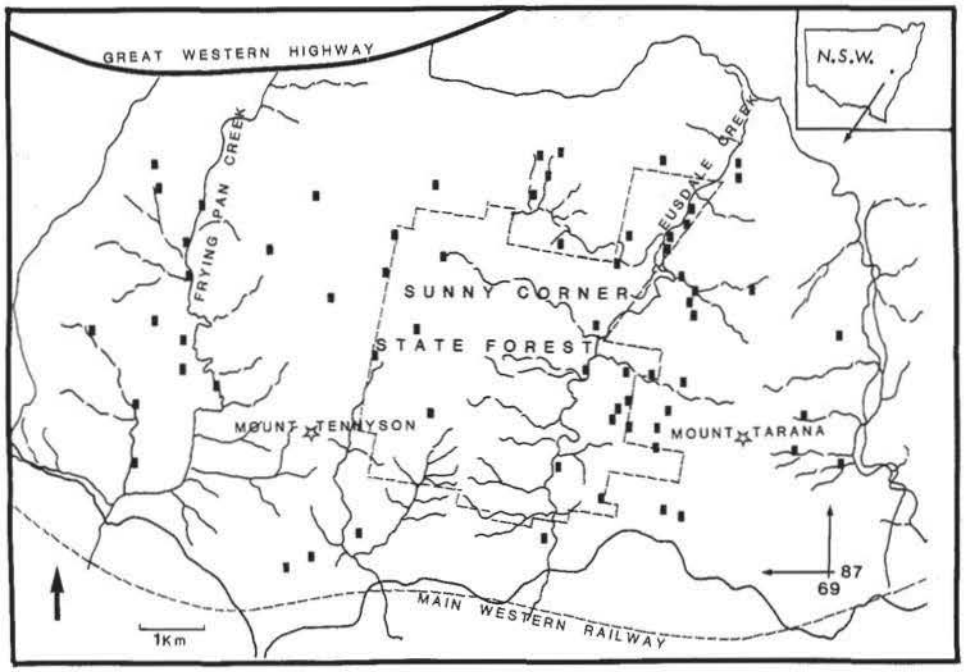

Fig. 1. Study site at Sunny Corner showing location of bait stations.

Methods

Study Site

The study area at Sunny Corner (Fig. 1) was situated between the townships of Yetholme and Tarana, 20 km east of Bathurst (33°27'S,149°40'E). Topography consisted of rugged slopes with belts of undulating to hilly country. Elevation ranged from 800 m to 1276 m (Mt Tarana). The evaluation was conducted over an area of 94·4 km^2. Approximately 25% of the area was Crown Land consisting of dry sclerophyll forest, 5% was planted to pine (*Pinus radiata*), 35% was cleared for grazing while the remainder was privately owned forest and woodland.

Bait Preparation and Distribution

The bait used for both free feeding and poisoning was wheat which had been soaked in water for at least one day prior to distribution. This technique appears to enhance bait acceptance, possibly due to the associated fermentation process. Bait lines were placed along fire trails, tree lines, pads and waterways where a reasonable probability of pig activity was assumed. The bait was initially presented

at 69 sites in 100 m lines of one kg piles, each 10 m apart. When approximately 50% of a line was taken by pigs, a single pile of 10–20 kg was then offered. When this single pile was completely taken, poison bait was introduced. The reason for this approach was to first give pigs a reasonable chance of finding the bait line and to then accustom them to feeding before poison was substituted. Poison bait was offered until it was no longer eaten by pigs.

Bait lines were spaced approximately 1 km apart and checked daily where possible. Records were maintained of the amount of bait taken on each occasion the line was checked. In forested areas, birds frequently became a problem by feeding on bait lines. To overcome this non-target hazard, single piles of poison bait were covered with a layer of unpoisoned material and then again covered with leaves and branches.

Poisoned wheat contained 0·09% warfarin (w/w). Bait preparation was similar to that of McIlroy *et al.* (1989) with the warfarin made up initially in solution with 2% NaOH. This solution was added to fermented wheat and mixed for 15 minutes in a cement mixer. Green vegetable dye was also included to identify poisoned from unpoisoned wheat and to reduce non-target hazard (Bryant *et al.* 1984*a*). Unpoisoned bait was first distributed on 19 July 1987 and the first poisoned bait distributed 14 days later.

Residual Tissue Levels of Warfarin in Poisoned Feral Pigs

The concentration of warfarin used in this evaluation was 0·09% (w/w) compared to 0·13% (w/w) at Namadgi. To determine if this did in fact reduce tissue levels, and hence non-target risk, liver tissues were collected from both live captured pigs and from those found dead. O'Brien *et al.* (1987) found that warfarin levels in the liver were the most diagnostically useful index of warfarin levels in carcasses.

Samples were analysed using a High Pressure Liquid Chromatography (HPLC) method developed by J. Beck (unpublished data). In this method the sample is first homogenized and extracted with chloroform. This extract is then cleaned on a silica cartridge and primed with a 50:50 mixture of chloroform and hexane. The warfarin is collected from the cartridge with chloroform, evaporated, and re-dissolved in methanol. This solution is assayed for its warfarin content by HPLC with operating conditions at 35°C, flow rate of 2 cm^3 min^{-1} and a monitoring wavelength of 280 nm. The mobile phase is 58% methanol in 0·1% aqueous orthophosphoric acid through a Reverse Phase C-18 column.

Other Control Methods

A small number of pigs were captured using weldmesh traps at varying intervals after the introduction of poisoned bait. Fifteen days after poisoned bait was first introduced, a team of pig hunting dogs was used to systematically search the western section of the study site from north to south. This was done to determine whether the pigs which were still alive in the area had been exposed to warfarin bait, and to search for dead pigs so that tissue samples could be collected.

Telemetry Studies

In the western section of the study site (along Frying Pan Creek), seven pigs were fitted with radio transmitters (Telonics™) prior to the poisoning programme. These animals were located from both fixed and hand-held antennae (details of telemetry techniques are described in Saunder 1988). Eight days after unpoisoned bait was introduced to the area, the movements of these pigs were monitored hourly for 24 hours. Home range for this period was estimated by the minimum area method (Southwood 1966), a minimum of 12 hourly locations being required for a home range estimate. Pigs were also located at subsequent irregular intervals until the time of death when the transmitters were retrieved.

Evaluation of the Poisoning Programme

Due to limited resources, initial population density was estimated only in the western section of the study site. Prior to the commencement of poisoning, a small number of animals were trapped for telemetry purposes and released (Saunders 1988). During the programme, the systematic search with hunting dogs located additional pigs in this area which had not been previously identified. The total number of animals in this area was then used to estimate a minimum population density per km^2.

The number of animals which survived the poisoning programme was more difficult to determine. Bait was offered until none was taken. At this point it would have been reasonable to assume that any animals which fed on bait had died. However there may still have been animals which survived because they had not found, or refused to eat, the bait. The extent to which this occurred could only be measured through constant surveillance of the entire study area for fresh signs of pig activity or sightings. This was done with the assistance of local landholders. Officers from the local Pastures Protection Board (Bathurst) also monitored the area after the poisoning programme.

Operational Costs

Each person involved in the poisoning programme filled in a daily log sheet on which were recorded the distance travelled and the number of hours worked. Details were also kept of materials used and their costs.

Results

Estimate of Population Density and Reduction in Numbers

Through to the end of the poisoning programme on 24 September, a total of 39 pigs were identified in the western area along Frying Pan Creek, roughly equivalent to a minimum density of 2·0 pigs per km^2. If pig density was similar over the entire study site, the estimated total population (minimum) was 189 pigs.

No bait was taken after 24 September despite the monitoring of bait lines for a further two weeks. Surveillance of the study site revealed no sign of pig activity until the following January (+4 months) when a sow with a litter of seven was sighted. The sow was shot and the litter subsequently trapped. Ageing revealed that these piglets were born at the time of the poisoning programme. In May 1988 (+8 months) three females (2 pregnant) and four juvenile males were trapped or shot on the eastern edge of the study area. Pigs were known to have been active further east and outside of the area poisoned with warfarin where a group similar to this had previously been sighted. The movement of this group into the study area represents an immigration rate of 0·21 pigs per week. In the following September (+12 months) a further 23 pigs were shot or trapped in the centre of the study area near Mt Tarana. Seven of these were approximately 12 months old (4 boars and 3 sows). One of these sows and another aged 3–4 years had litters of six and nine respectively. The location and similarity of age of seven out of the eight adults suggests that the older sow with a newborn litter of seven also survived the poisoning programme.

Of the seven pigs fitted with transmitters, six were poisoned while the 7th, although being trapped, had tissue warfarin levels indicating that it too would have eventually died. Thus, only two pregnant or recently farrowed sows were known to have survived the poisoning programme (equivalent to a minimum reduction of 98·9%).

Had no control been carried out in the 12 months after poisoning, the population resulting from survivors and re-invasion could have reached a minimum of 52 (assuming average surviving litter size of 7) which is a recovery of 27·5% of pre-control levels. As it was, 38 pigs (including two pregnant sows) were removed as a result of maintenance programmes.

Cost Efficiency

The distribution and checking of bait involved 477 man hours. A further 25 hours were required for bait preparation, giving a total of 502 man hours. At a labour cost of $A10 per hour this time was valued at $A5020. A total of 5156 km were travelled by 3 vehicles during the programme at a cost of 16·5 cents per km, for a total cost of $A850. The 5 tonnes of wheat used for baiting was valued at $A1000 while the technical warfarin, dye and sodium hydroxide were valued at $A350. This gives a total of $A7220 for the programme which is equivalent to $A39 per pig (based on the minimum estimate of 187 pigs killed).

Maintenance of the study site during the 12 months after poisoning involved 135 man-hours at a cost of $A1350 and 2600 km travel at a cost of $A430. This gives a total of $A1780 for maintenance which is equivalent to $A47 per pig.

Bait Acceptance

Unpoisoned bait was first distributed on 29 July 1987 (Day 0) with the last poisoned bait being eaten on 24 September 1987 (Day 57). Poisoned bait was first distributed on Day 14 of the programme. The first death was recorded on Day 20.

Thirteen of the original bait sites had to be abandoned due to non-target species (particularly sheep) eating unpoisoned bait or because of difficulty with access. A minimum of 50% of unpoisoned bait was taken from 46 of the remaining 56 sites at a mean of

6·5 ± 5·5 days after bait was first distributed (range 2–22 days). Poisoned bait was taken from 31 of these 46 sites. The total amounts of poisoned and unpoisoned bait eaten by pigs was 989 kg and 2145 kg respectively. Assuming that the cumulative rate at which poisoned bait was eaten approximates a logistic curve, an equation can be fitted which describes the amount of bait eaten over time:

$$y = \frac{1162}{1 + e^{-0{\cdot}1672\,(d - 14{\cdot}821)}} - 189{\cdot}3 \qquad (1)$$

where y is total amount of poisoned bait eaten, and d is number of days after poisoned bait was first offered (including a lag period of 4 days over which it was assumed no bait was eaten). This relationship accounted for 99·3% of variance in the amount of poisoned bait eaten by pigs. Assuming that the proportion of bait eaten is equivalent to the proportion of the population killed, the model can then be used to estimate the time taken to achieve a certain population reduction. Hence a 95% reduction would have taken 36 days after poisoned bait was first offered.

Population Data

Forty-five pigs were collected during the poisoning programme (13 by traps, 8 by dogs and 24 found dead). Of these, 25 (56%) were adults (>30 kg), 9 (20%) were sub-adults (10–30 kg) and 11 (24%) were juveniles (<10 kg). Age was estimated by an index based on body weight (Choquenot and Saunders, unpublished data) rather than dentition, because the latter data were incomplete. The average weight of pigs collected was 39·9 ± 30·2 kg (range 2–100 kg). Pregnancy amongst adult sows ($n = 10$) was 40% while a further 30% were lactating.

Residual Tissue Levels of Warfarin

Liver tissue samples were collected from 26 pigs (13 trapped, 3 caught by dogs and 9 found dead). Correlation analysis showed no significant relationships between residue levels and body weight ($r = -0{\cdot}07$), and between residue level and maximum number of days exposure to bait ($r = -0{\cdot}20$).

The mean residue levels for those pigs collected alive was 4·7 ± 5·7 ppm and for those found dead 2·3 ± 1·9 ppm. There was no significant difference between the two groups ($t = 1{\cdot}23$, d.f. = 24, $P = 0{\cdot}12$).

Residue levels for those found dead in this study were compared with those reported by O'Brien *et al.* (1987) from Namadgi. Residues from Sunny Corner were significantly lower ($t = -4{\cdot}45$, d.f. = 17, $P < 0{\cdot}001$).

Movements of Pigs During the Poisoning Programme

During the course of the poisoning programme, the seven pigs fitted with transmitters were always found in close proximity to bait lines along Frying Pan Creek. This is best demonstrated by movements throughout the 24 hour tracking period (Table 1).

Table 1. Home range and distances of locations from different bait stations during 24 h tracking period and at time of death

Pig No.	Sex	Home range (km^2)	Number of times located Within 50 m	Within 100 m	Within 200 m	Proximity at time of death (m)
13	M	0·23	1	1	3	50
32	M	2·21	0	0	2	600
60	M	1·89	0	1	2	1100
14	F	0·48	0	2	2	20
25	F	1·71	1	0	2	600

Discussion

A management programme of the scale reported here would be beyond the means of the average landholder in eastern N.S.W. However, the study site of 94·4 km^2 involved 19 private holdings at an average of 4·6 km^2 each. Bait was initially offered at the equivalent of only 3·5 bait stations per property or 1·4 for each km^2 of land. The total cost of the programme was equivalent to $A76 per km^2. If landholders conducted their own programmes, costs would be further reduced with less travelling time, and the number of bait stations per property could easily be maintained and perhaps expanded. More stations would also result in an increased rate of location by pigs and a corresponding reduction in the total number of days over which bait would need to be offered. Coordinated campaigns using 1080 and involving many properties have already been shown to be an efficient management strategy for feral pigs in western N.S.W. (Bryant *et al.* 1984*b*). With smaller property size and the advantages of warfarin over 1080 it could be expected that similar strategies in the east would dramatically reduce total numbers of feral pigs and their agricultural impact.

The two pregnant sows which survived probably did so because of their geographic location at the time of poisoning rather than through consuming sub-lethal quantities of bait since farrowing sows have been shown to reduce their normal home range by as much as 94% (Kurz and Marchinton 1972). At the time of poisoning an estimated 73% of adult sows were pregnant or lactating. The success of this programme at a time when sows were farrowing probably resulted from the extended period of baiting. This meant that most sows could give birth, wean their litter, resume normal movements and still be exposed to sufficient bait to cause their death.

In view of the number of births occurring throughout the study, the true density of feral pigs may have been greater than the estimated 2·0 per km^2. If this were the case, the reduction estimate would move closer to 100% and the cost per pig would be reduced. The amount of poisoned bait eaten per pig gives some indication of the accuracy of the density estimate. In a study of captive feral pigs, Hone and Kleba (1984) found that the mean intake of wheat prior to poisoning with warfarin and during the first three days after poisoning was not significantly different. The average body weight of pigs in this study was 40 kg and the daily intake was approximately 1 kg. From the fourth day, intake declined rapidly with death occurring after 7–8 days. O'Brien and Lukins (1988) reported similar findings and also described a relationship between estimated daily bait intake (g) and body weight (kg) of feral pigs found dead after field poisoning with 1080. This relationship was:

$$\text{Intake} = 54{\cdot}9\ \text{body weight}^{0{\cdot}75} - 23{\cdot}8\,.$$

A 40 kg pig would be expected to eat 850 g of bait per night using the above formula. At Sunny Corner the estimated total amount of poisoned wheat consumed per pig (mean body weight 40 kg) was 5·2 kg. Such an amount is consistent with the findings of Hone and Kleba (1984) and O'Brien and Lukins (1988) and suggests that the estimated density of pigs old enough to eat bait was reasonably accurate.

O'Brien *et al.* (1987) calculated LD_{90}s for feral pigs to be >20 mg kg^{-1} after ingestion of a single dose of warfarin and 6·1 mg kg^{-1} for two consecutive doses separated by 24 h. Consumption of 5·2 kg of 0·09% w/w warfarin bait by a 40 kg pig in this study is equivalent to a dose of 117 mg kg^{-1}. This suggests that the concentration of warfarin in bait could be further reduced without affecting the results of a poisoning programme.

Liver residue levels in dead pigs were significantly lower in this study than those found by O'Brien *et al.* (1987) during the Namadgi exercise (23·1 ppm to 2·3 ppm). However, a tenfold reduction cannot be explained entirely by a 31% reduction in bait concentration and is probably also associated with differing baiting strategies.

There was no significant difference in mean warfarin residual levels for those pigs collected alive and for those found dead. However, it is difficult to determine over what period those pigs collected alive had been eating bait. Five of this group (Table 1) had residue levels $\geqslant 10$ ppm, whereas the highest level in the group found dead was 5·1 ppm.

This result tends to support the conclusions of O'Brien *et al.* (1987) and Braysher (1987) that there is a decline in warfarin residues with time, thus reducing the chance of secondary poisoning.

The 24-hour movement data presented in Table 1 suggests that pigs were visiting, or at least moving in close proximity to, more than one bait station each night. The two pigs with the smallest home ranges (13 and 14) both died first, seven days before the next pig in the group died. They were also found very close to bait stations at the time of death. It appears that these two pigs may have reduced their home range in response to supplementary feeding. As a consequence they probably ate poisoned bait at different stations as soon as it was offered, possibly denying other pigs exposure to sufficient quantities of bait. This demonstrates an advantage of using a chronic poison such as warfarin over extended periods.

Also of interest was the movement of one pig which was still alive during the systematic search with the dogs. This pig moved overnight from an area not yet checked to an area which had already been searched. It stayed in this area until it died, thus avoiding ever being located by the dogs. This demonstrates the need to work an area with dogs more than once before assuming that all pigs have been removed. This would be particularly important if dogs were used as a follow up technique during exotic disease control (McIlroy and Saillard 1989).

The rate of population recovery within the study after poisoning indicates the need for maintenance programmes. One of the surviving sows was able to produce two litters (at an average of 8 per litter) within 12 months of poisoning and it appeared that one of these offspring also produced a litter. Of the seven pigs which colonised from outside of the study site, two were already pregnant. With this reproductive potential, a 28% recovery rate 12 months after such a successful management programme would rapidly approach 100% within two years. The cost of maintenance in this study by the Bathurst Pastures Protection Board was equivalent to $A19 per km^2 which is only 25% of initial management costs spread over 12 months.

Population reductions of 99% in this study and 94% at Namadgi demonstrate that warfarin is a highly efficient poison for use against feral pigs. However, comparison of these two studies raises a number of issues which need to be resolved. For example, poisoned bait was offered over 43 days at Sunny Corner compared with 15 at Namadgi. Equation (1) above predicts that only 40% of the population at Sunny Corner would have been poisoned after 15 days. Peak mortalities at Namadgi occurred nine days after poison was first offered. In this study peak mortality did not occur until around Day 17. The slower rate of kill could be explained by differences in baiting strategy. Although poisoined bait was offered in smaller quantities at Namadgi, it was placed at a much greater density per km^2 compared to Sunny Corner. There was also a reduction of warfarin concentration in the bait from 0·13% to 0·09% although, from the total amount eaten per pig, this was unlikely to have been a cause. Perhaps the most significant difference was that the two studies were conducted in opposite seasons (spring at Sunny Corner and autumn at Namadgi). Saunders (1988) found bait acceptance to be depressed in spring, probably due to the availability of alternative foods. However, this should only delay the rate at which bait is initially found and eaten. There may also be a seasonal effect on Warfarin's mode of action.

Warfarin competes with vitamin K in the synthesis of a protein involved in the blood-clotting mechanism. When warfarin replaces vitamin K, this protein is rendered inactive and the clotting capacity of the blood is removed, usually resulting in fatal haemorrhaging. It has also been shown that domestic pigs fed on rations deficient in vitamin K will produce symptoms similar to that of warfarin poisoning (Cunha 1977). This can be reversed by adding as little as 2–4 mg synthetic vitamin K per kg of ration (Whitehair and Miller 1986). High amounts of vitamin K occur naturally in green leaf tissue while roots contain relatively little (Campbell 1983) and it may be possible that at certain times of the year (e.g. spring) feral pigs are feeding on abundant sources of vitamin K. This may slow down the rate of action of warfarin compared to other times of the year (e.g. autumn) when vitamin K is less readily available in plant material.

Acknowledgments

The financial assistance of the Commonwealth Department of Primary Industries and Energy, the Wool Research and Development Fund and the Swine Compensation Fund is gratefully acknowledged. Bruce Auld, Peter O'Brien and two anonymous referees provided useful comments on the manuscript. The following are also thanked for their help in various capacities: Geoff Quinn, Hedy Bryant, David Croft, Helen Ridings, Graham Larnach and Wes Reeks. We also thank the many officers from Pastures Protection Boards who assisted during the field evaluation and the landholders and Directors of Bathurst P.P. Board for supporting the programme.

References

Benson, R. (1980). Evaluating feral pig damage and costs of control in western New South Wales. N.S.W. Dept Agric. Res. Workpaper No. 120.

Braysher, M. (1987). Report on the exercise to test feral pig control techniques held in the A.C.T. in May/June 1986. Proc. Eighth Vert. Pest Control Conf., Coolangatta, pp. 204–10.

Bryant, H., Hone, J., and Nicholls, P. (1984*a*). The acceptance of dyed grain by feral pigs and birds. 1. Birds. *Aust. Wildl. Res.* **11**, 509–16.

Bryant, H., Hone, J., and Robards, G. E. (1984*b*). The evaluation of a pilot scheme to control feral pigs in north-west New South Wales. N.S.W. Dept Agric. Tech. Bull. No. 30.

Campbell, E. A. (1983). Nutritional deficiencies and disease of livestock. Animal Health in Australia. Vol. 3. (Aust. Govt Publ. Serv.: Canberra.)

Cunha, T. J. (1977). Swine feeding and nutrition. A series of monographs—Animal Feeding and Nutrition. (Academic Press: New York.)

Flynn, D. M. (1980). Report on vertebrate pests and exotic diseases. (Bureau of Animal Health: Canberra.)

Geering, W. A. (1981). Exotic diseases of pigs and Australian quarantine policy for importation of pigs. *Univ. Sydney Refresher Course for Veterinarians* **56**, 209–27.

Godfrey, M. E. R., and Lyman, C. P. (1980). Preliminary dosing trials of a new anticoagulant, brodifacoum, as a toxicant for the rabbit, *Oryctolagus cuniculus*. *N.Z. J. Exp. Agric.* **8**, 1–5.

Hone, J. (1980). Effects of feral pig rooting on introduced and native pasture in north-eastern New South Wales. *J. Aust. Inst. Agric. Sci.* **46**, 130–2.

Hone, J. (1987). Feral pig control. Ph.D. Thesis, Australian National University.

Hone, J., and Kleba, R. (1984). The toxicity and acceptability of warfarin and 1080 poison to penned feral pigs. *Aust. Wildl. Res.* **11**, 103–11.

Hone, J., and Mulligan, H. (1982). Vertebrate pesticides. N.S.W. Dept Agric. Sci. Bull. No. 89.

Keast, J. C., Littlejohns, I. R., Rowan, L. C., and Wannan, J. S. (1963). The role of the feral pig as a disease reservoir. *Aust. Vet. J.* **39**, 99.

Kurz, J. C., and Marchinton, R. L. (1972). Radiotelemetry studies of feral hogs in South Carolina. *J. Wildl. Manage.* **36**, 1240–8.

Letts, G. A. (1964). Feral animals in the Northern Territory. *Aust. Vet. J.* **40**, 84–8.

McIlroy, J. C. (1983). The sensitivity of Australian animals to 1080 poison. V. The sensitivity of feral pigs, *Sus scrofa*, to 1080 and its implications for poisoning campaigns. *Aust. Wildl. Res.* **10**, 139–48.

McIlroy, J. C., Braysher, M., and Saunders, G. R. (1989). The effectiveness of a warfarin poisoning campaign against feral pigs, *Sus scrofa*, in Namadgi National Park, A.C.T. *Aust. Wildl. Res.* **16**, 195–202.

McIlroy, J. C., and Saillard, R. J. (1989). The effect of hunting with dogs on the numbers and movement of feral pigs, *Sus scrofa*, and the subsequent success of poisoning exercises in Namadgi National Park, A.C.T. *Aust. Wildl. Res.* **16**, 353–63.

O'Brien, P. H., and Lukins, B. S. (1988). Factors influencing the intake of sodium monofluoroacetate (compound 1080) by free ranging feral pigs. *Aust. Wildl. Res.* **15**, 285–91.

O'Brien, P. H., Kleba, R. E., Beck, J. A., and Lukins, B. S. (1986). Vomiting by feral pigs after 1080 intoxication: Non target hazard and influence of anti-emetics. *Wildl. Soc. Bull.* **14**, 425–32.

O'Brien, P. H., Beck, J., and Lukins, B. S. (1987). Residual tissue levels of 1080 and warfarin in poisoned feral pigs. Proc. Eighth Aust. Vert. Pest Control Conf., Coolangatta. p. 401.

Pavlov, P. M. (1980). The diet and general ecology of the feral pig (*Sus scrofa*) at Girilambone, New South Wales. M.Sc. Thesis, Monash University.

Pavlov, P. M., Hone, J., Kilgour, R. J., and Pedersen, H. (1981). Predation by feral pigs on Merino lambs at Nyngan, New South Wales. *Aust. J. Exp. Agric. Anim. Husb.* **21**, 570–4.

Plant, J. W., Marchant, R., Mitchell, T. D., and Giles, J. R. (1978). Neonatal lamb losses due to feral pig predation. *Aust. Vet. J.* **54**, 416–29.

Saunders, G. R. (1988). The ecology and management of feral pigs in N.S.W. M.Sc. Thesis, Macquarie University.

Southwood, T. R. E. (1966). 'Ecological Methods.' (Metheun: London.)

Tisdell, C. A. (1982). 'Wild Pigs. Environment Pest or Economic Resource?' (Pergamon: Sydney.)

Whitehair, C. K., and Miller, E. R. (1986). Nutritional deficiencies. In 'Diseases of Swine'. (Eds A. D. Leman, B. Straw, R. D. Glock, W. I. Mengeling, R. H. C. Penny and E. Scholl.) pp. 746–62. (Iowa State University Press.)

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Optimization of Sodium Nitrite as an Oral Toxicant for Feral Swine

EXHIBIT 4

John Kinsey, Justin Foster
Texas Parks and Wildlife Department, Kerr Wildlife Management Area

Nathan Snow, Kurt VerCauteren,
USDA APHIS Wildlife Services, National Wildlife Research Center

Linton Staples - Animal Control Technologies
Simon Humphrys - Invasive Animals Cooperative Research Centre


USDA
Wildlife
Services


Wildlife Services
NWRC
National Wildlife Research Center


CONNOVATION
conservation by innovation


ASSOCIATION of
FISH & WILDLIFE
AGENCIES


Invasive Animals CRC


acta


DEPARTMENT OF AGRICULTURE
TEXAS

Why Toxicants?

- 70% annual removal of the population required
- 29% annual removal achieved in Texas
  - (Texas A&M AgriLife)

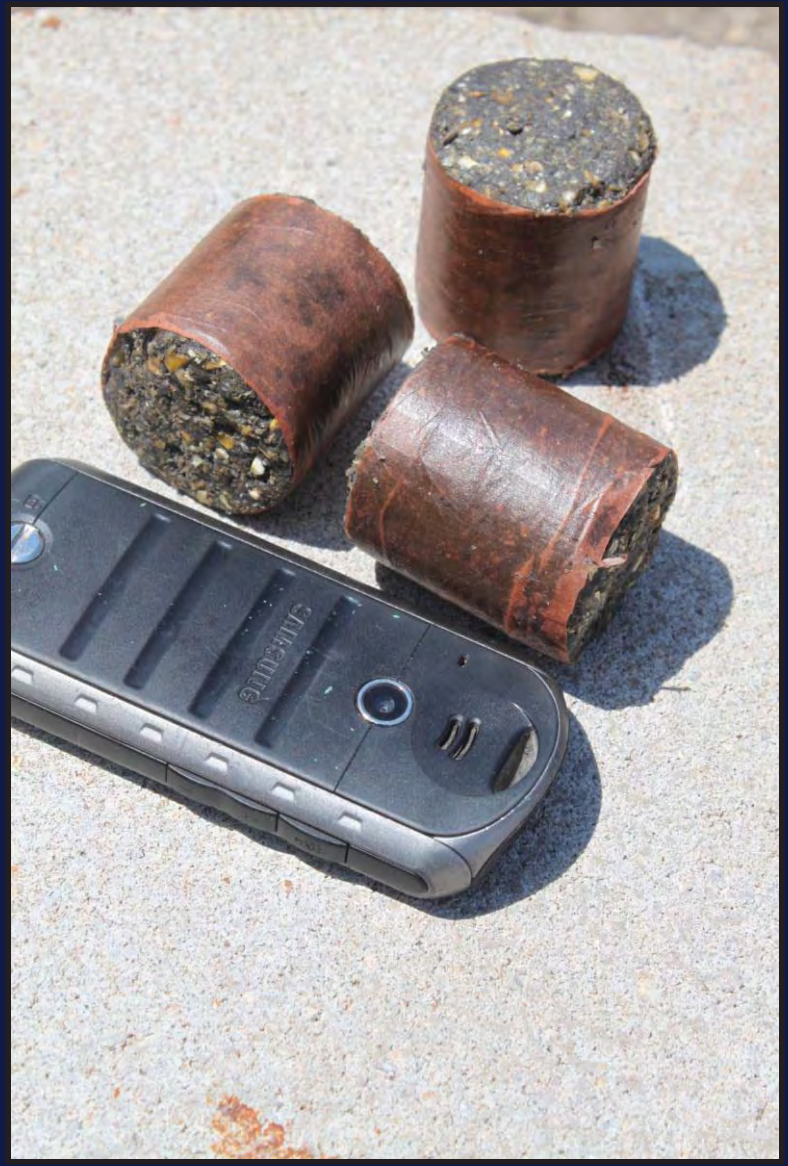
- **Key: Integrated Management Approaches**

How it works

- Induces Methemoglobinemia
- Turns ferrous iron into ferric
- Reduces ability of red blood cells to transport oxygen
- Results in hypoxia
- Sodium Nitrite is not a species specific toxicant
- Methemoglobin reductase
- Swine are acutely sensitive
  - (11 x more than humans)

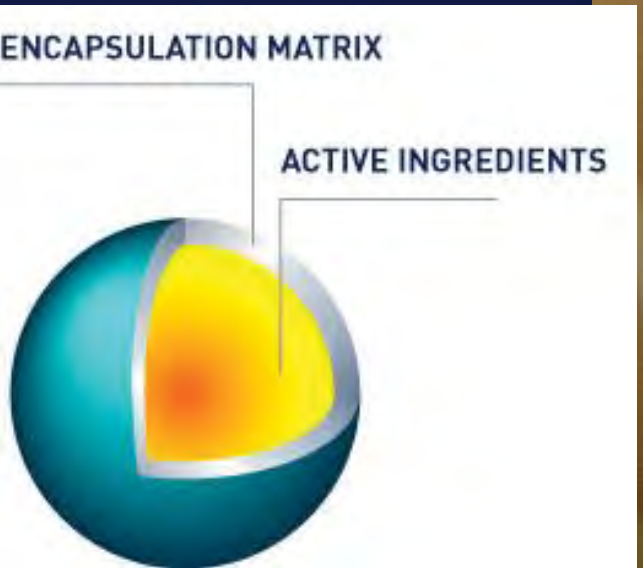
Where have we been?

- Oral Gavage
- Raw Nitrite
- Pour-on
- Pellets
- Poor acceptance
- Low mortality rates



Our Research: Stability and Palatability

- **Micro-encapsulation coating covers the sodium nitrite**
  - Keeps SN temporarily protected
  - Increases palatability–hides taste and smell from feral swine
  - Cannot be delivered without pharmaceutical expertise



Registration Process for New Toxicant

Regulated by Environmental Protection Agency

First steps

1. Controlled lethality study (pens ≥90% mortality)
2. Assess secondary hazards (nontarget risks)
3. Develop delivery device (swine-specific bait station)

Study 1: Lethality in Pens

Design – TPWD Kerr Wildlife Management Area

- 7 feral swine per pen in 0.5 ac pens
- 3 pens = 21 feral swine per trial

Methods

- 2 days of maintenance diet (acclimate)
- 4 days of placebo (prebaiting)
- 2 days of toxicant bait (2-choice test)

  – challenge diet of rough rice

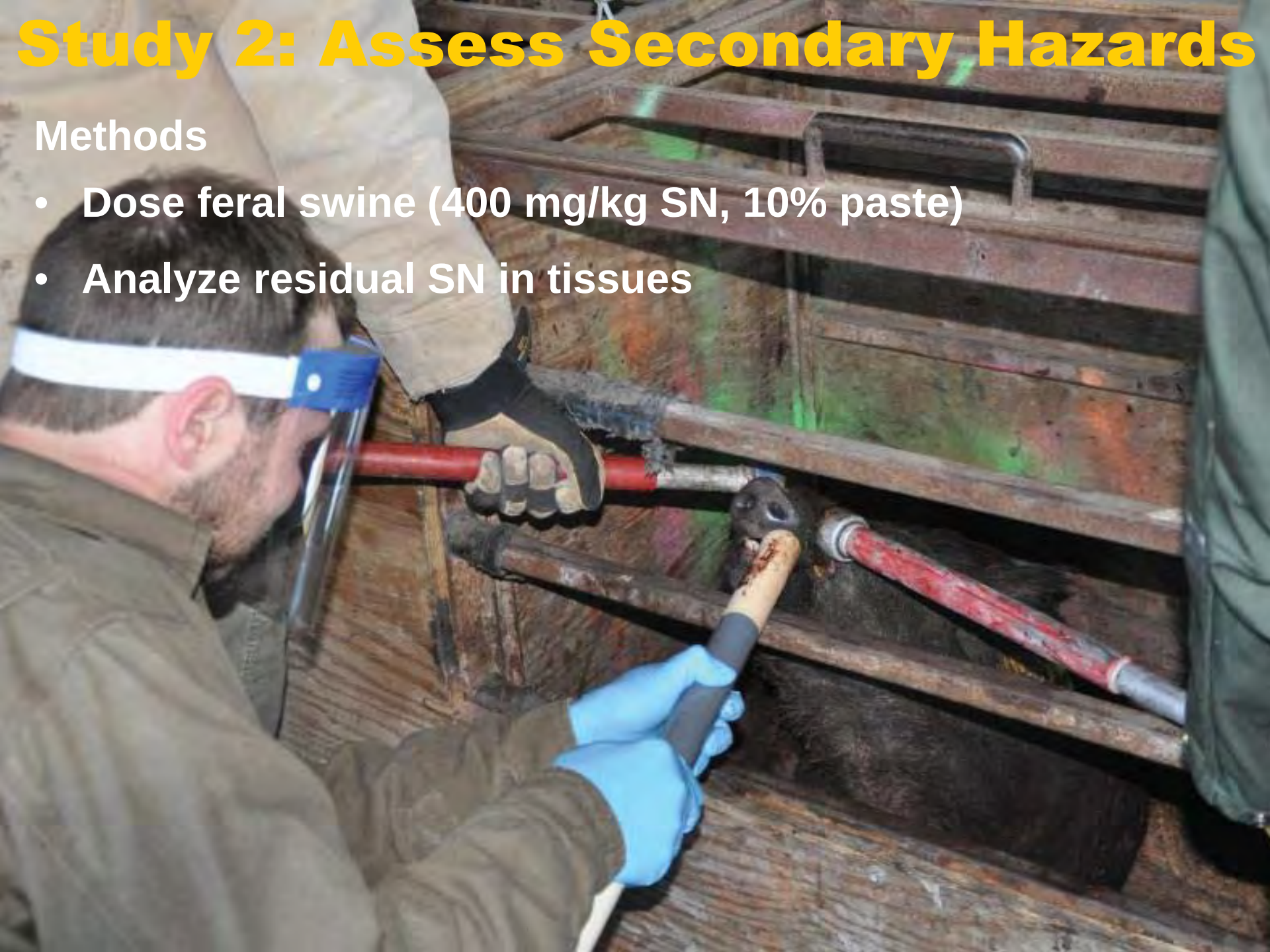
Lethality in Pens

GLP Study

Table 1. Sample sizes, proportions of food items consumed, and overall proportions of lethality for 2 treatment groups of feral swine (*Sus scrofa*) in pens at Kerr Wildlife Management Area, Hunt Texas, USA.

		Days 1–2	Days 3–6	Days 7–8				
Treatment group	n (m,f)	Maintenance food consumed	Placebo prebait consumed	HOGGONE® or Placebo consumed	SE	Challenge diet consumed	SE	Lethality (m,f)
HOGGONE®	42 (18,24)	1.00	1.00	0.62	0.11	0.26	0.12	0.93 (1.00, 0.88)
Placebo (control)	21 (9,12)	1.00	1.00	1.00	0.00	1.00	0.00	0.00 (0.00, 0.00)

Study 2: Assess Secondary Hazards

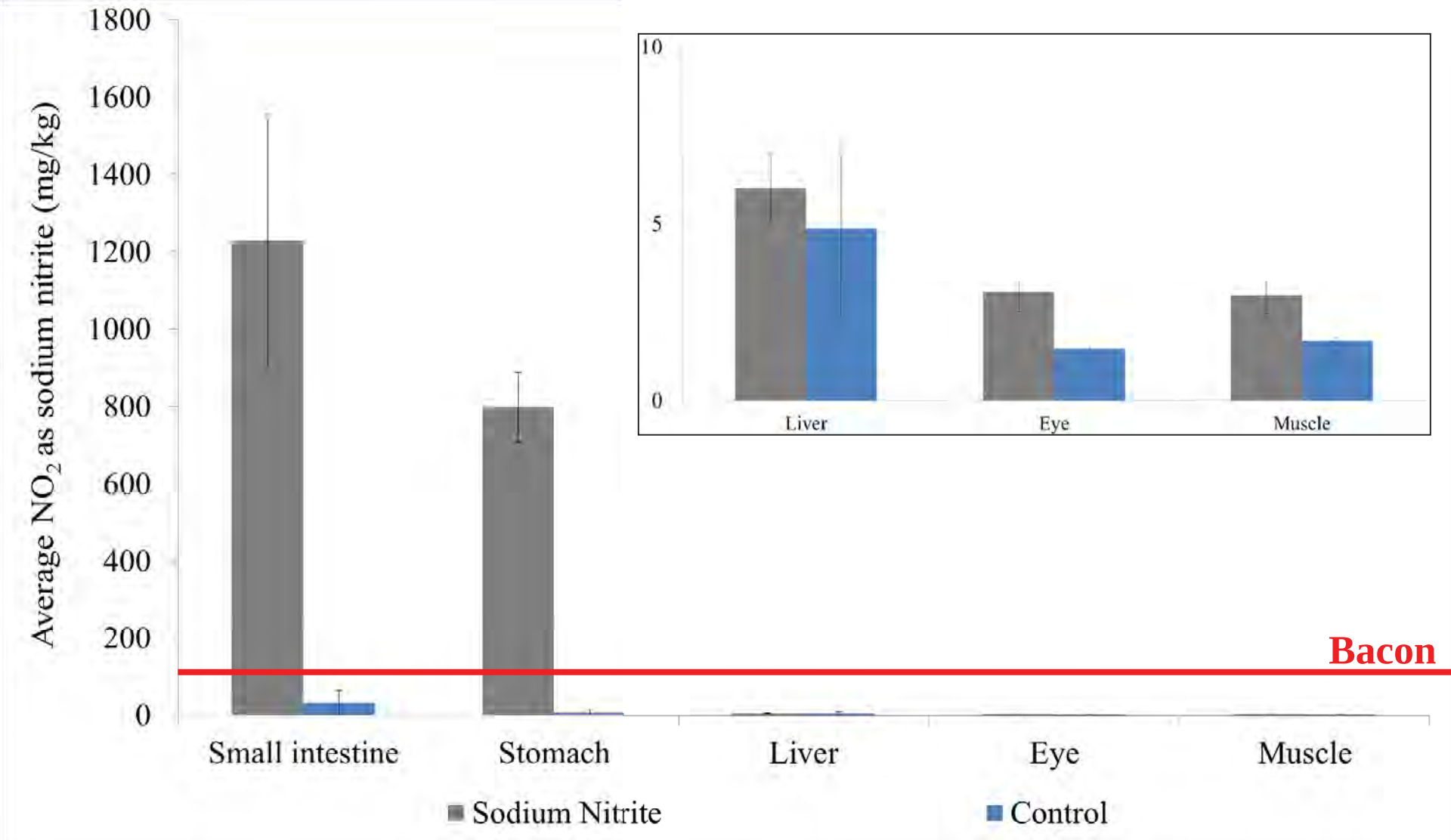


Methods

- Dose feral swine (400 mg/kg SN, 10% paste)
- Analyze residual SN in tissues

Assess Secondary Hazards

Residual SN in tissues



Turkey Vultures (*Cathartes aura*)

Methods

- Two toxic gavage trials conducted (75mg/kg and 600mg/kg)
- Five birds dosed at each level
- Test subjects were placed in separate cages for observation post dosing
- Monitoring period ended when all symptoms ceased (approx. 5hrs)

Results

Dose of $NaNO_2$	Treatment Group	Control Group
75mg/kg	0/5	0/5
600mg/kg	2/5	0/5

Coyote (*Canis latrans*)

- Phase 1
  - Carcass Test
    - 8 coyotes
    - 1 carcass
    - No symptoms
- Phase 2
  - Gel Cap
    - 4 coyotes
    - Known dosages of MESN

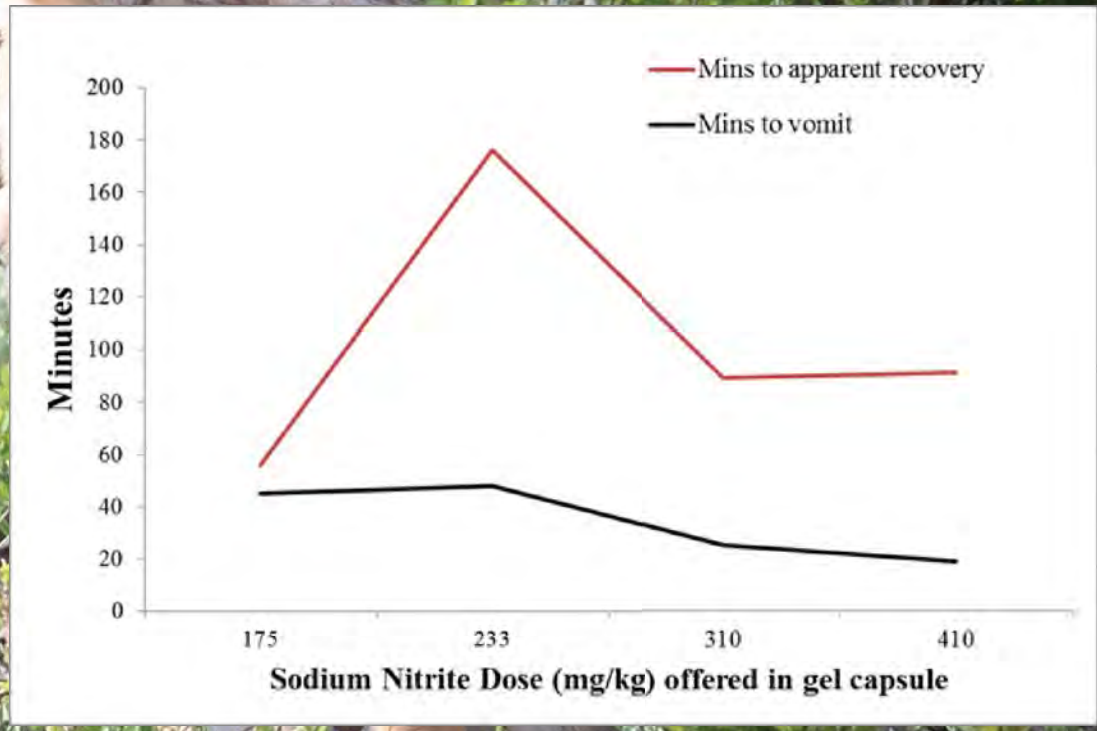


Photo by Seth Ames

Study 3: Developing a Bait Station

- Lightweight
- Durable
- Portable

- Easy to deploy
- Large capacity
- Non-target proof
- Weather resistant

Bait Station – Testing Box Size

Methods

- 4 sizes
- 5 pigs/pen

Analysis

- How many access?
- How quickly?

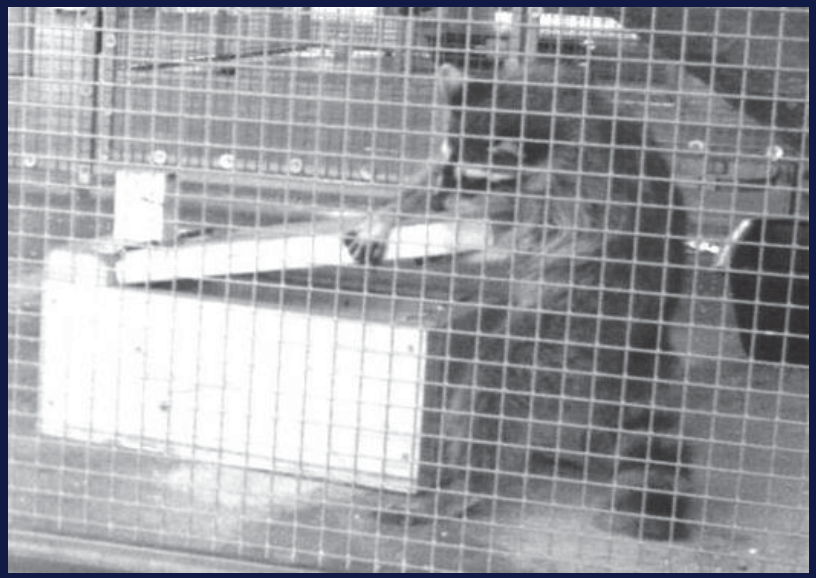
Results

- Medium length (1.1 m) ideal to feed all quickly

Bait Station – Strength Testing

Nontarget testing

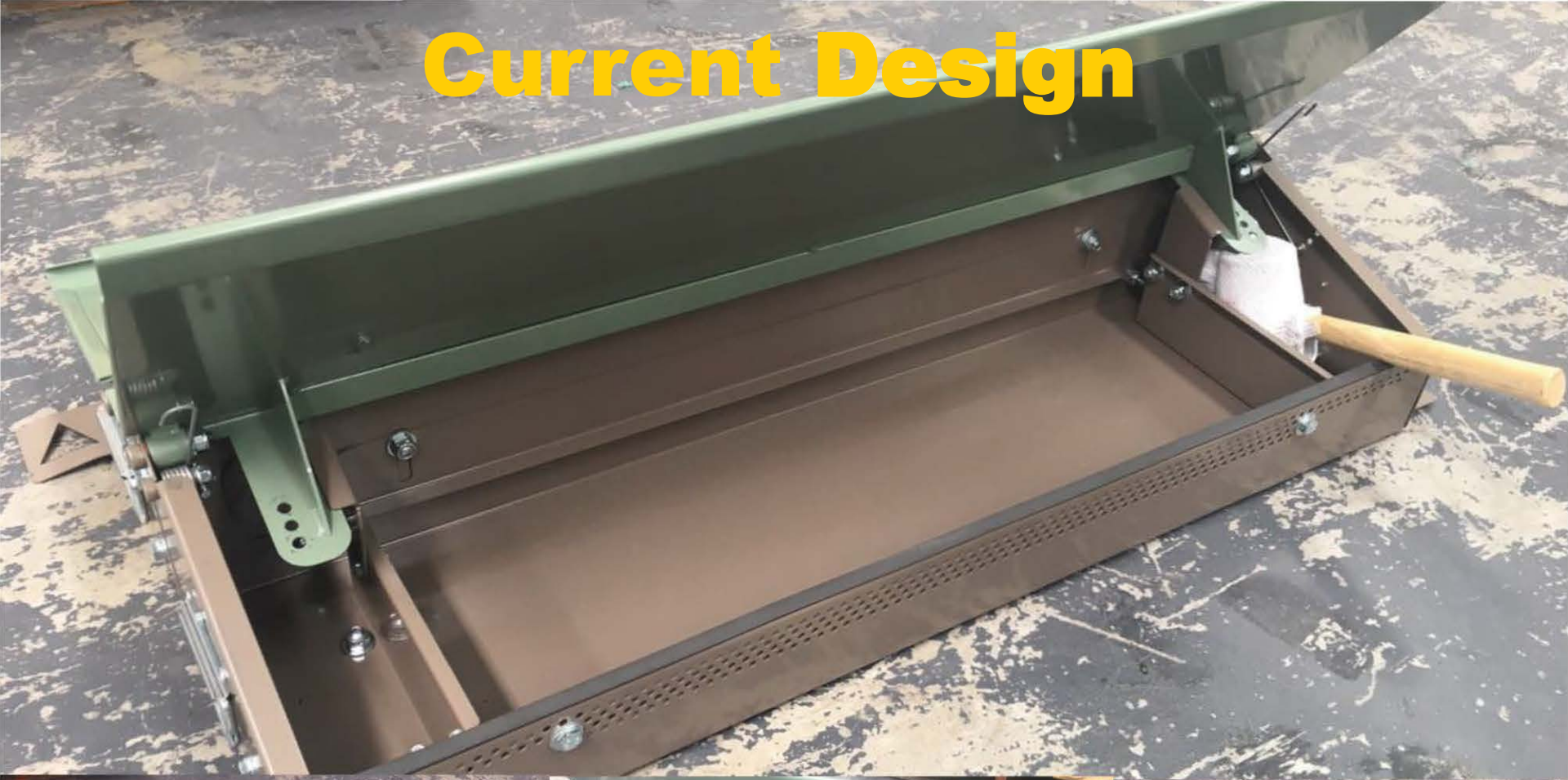
- 28 lbs was maximum raccoons lifted lids
- 100% of raccoons deterred



Resistance on lids with magnets

- Use magnets to provide 35 lbs resistance
- Feral swine pop lids and eat

Current Design



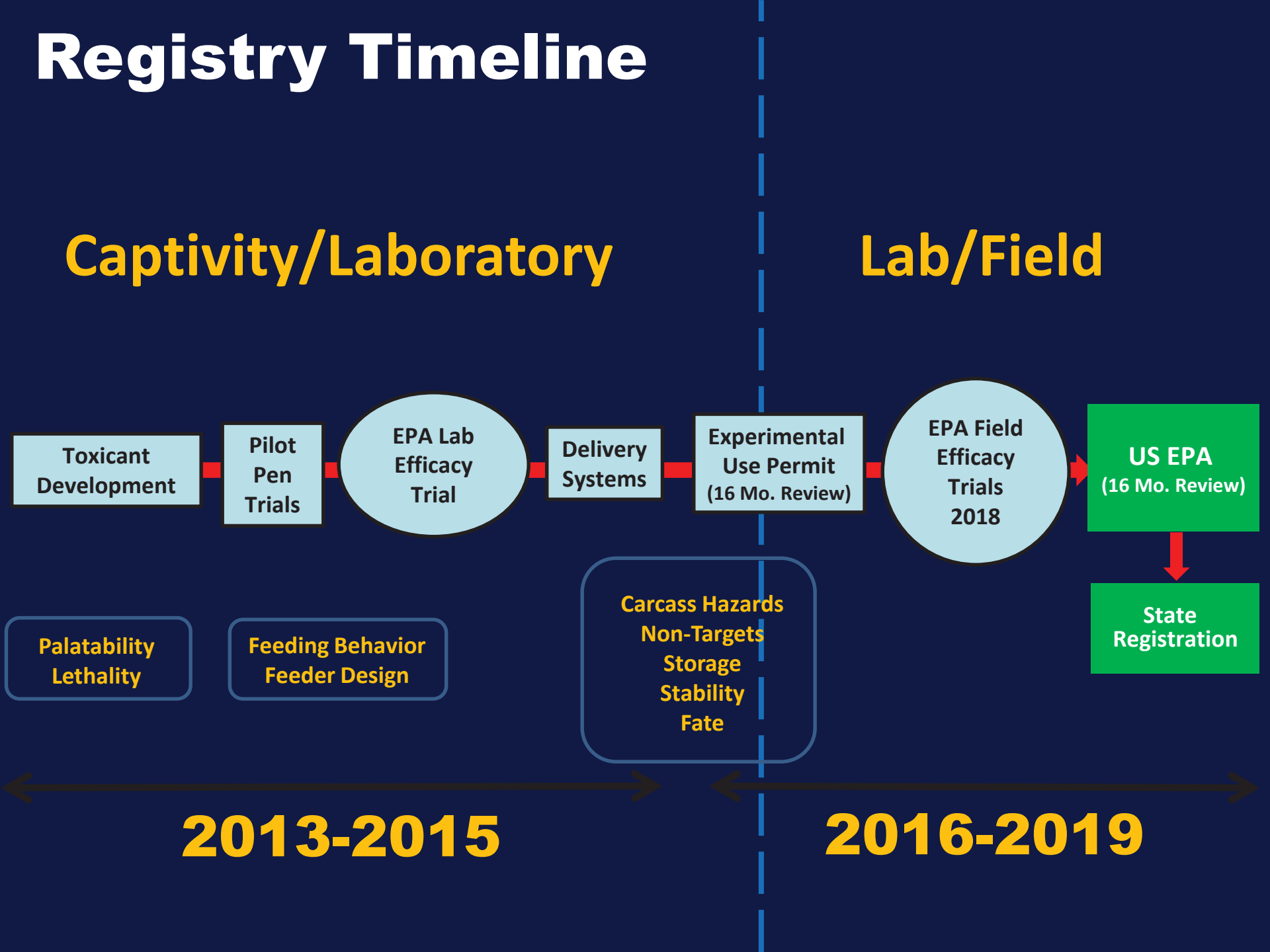
Registration Process for New Toxicant

Regulated by Environmental Protection Agency

First steps

- ✓ Controlled lethality study (pens ≥90% mortality)
  - ✓ 93% mortality achieved
- ✓ Assess secondary hazards (non-target risks)
  - ✓ Preliminary tests are favorable
  - ✓ Coyote study complete
  - Vultures to be tested at Kerr (In Progress)
- ✓ Develop delivery device (swine-specific bait station)
  - Outside of bear habitat

Registry Timeline



Experimental Use Study

Field test toxicant under “typical” situations

- Using bait stations
- Multiple states
- Target ≥70% lethality
- 2018

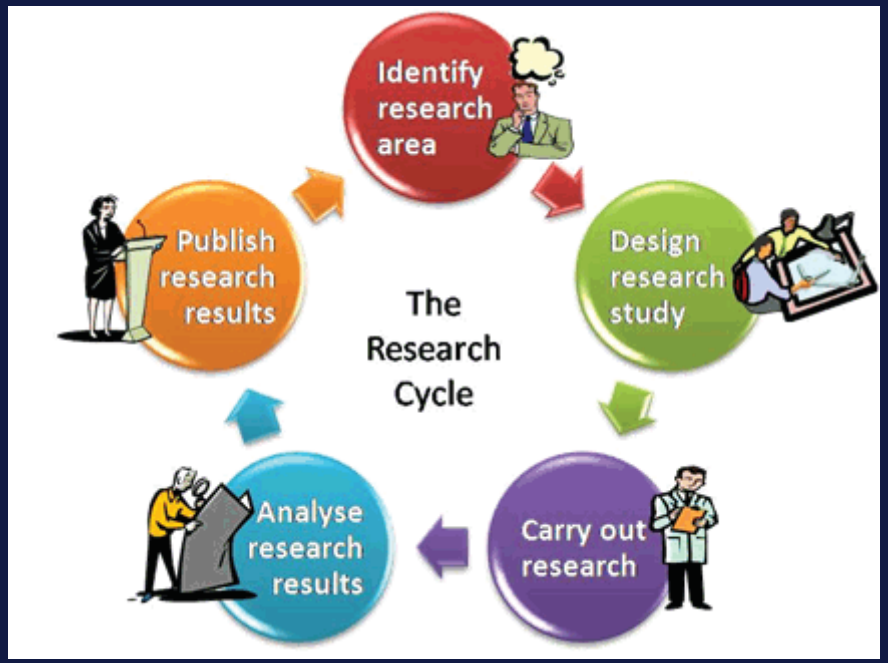
Monitor lethality using 3 methods

- Radio-collars
- Transects
- Biomarker (e.g., rhodamine b)

Future Research

Armstrong Research Pasture

- 300 acre holding facility permitted by TAHC
  - Controlled free range study with known populations prior to EUP field trials trials
    - Toxicant efficacy
    - Bait box efficacy
    - Population estimators
    - Resource partitioning
    - Behavior at feeders
    - Ecological impacts
    - Population modeling




THANK YOU

CIVIL CASE INFORMATION SHEET

CAUSE NUMBER *(FOR CLERK USE ONLY)*: _____ COURT *(FOR CLERK USE ONLY)*: _____

STYLED Wild Boar Meats, L.L.C. v. Texas Department of Agriculture and Sid Miller, et al

(e.g., John Smith v. All American Insurance Co; In re Mary Ann Jones; In the Matter of the Estate of George Jackson)

A civil case information sheet must be completed and submitted when an original petition or application is filed to initiate a new civil, family law, probate, or mental health case or when a post-judgment petition for modification or motion for enforcement is filed in a family law case. The information should be the best available at the time of filing.

1. Contact information for person completing case information sheet:

Name: Matt Dow
Email: mdow@jw com
Address: 100 Congress Ave., Ste. 1100
Telephone: 512-236-2000
City/State/Zip: Austin, TX 78701
Fax: 512-236-2002
Signature: Matt Dow
State Bar No: 06066500

Names of parties in case:

Plaintiff(s)/Petitioner(s): Wild Boar Meats, L.L.C.

Defendant(s)/Respondent(s): Texas Department of Agriculture and Sid Miller, et al.

[Attach additional page as necessary to list all parties]

Person or entity completing sheet is:

☐ Attorney for Plaintiff/Petitioner
☐ *Pro Se* Plaintiff/Petitioner
☐ Title IV-D Agency
☐ Other: _____

Additional Parties in Child Support Case:

Custodial Parent: _____

Non-Custodial Parent: _____

Presumed Father: _____

2. Indicate case type, or identify the most important issue in the case *(select only 1)*:

Civil

Contract

Debt/Contract
☐ Consumer/DTPA
☐ Debt/Contract
☐ Fraud/Misrepresentation
☐ Other Debt/Contract: _____

Foreclosure
☐ Home Equity—Expedited
☐ Other Foreclosure

☐ Franchise
☐ Insurance
☐ Landlord/Tenant
☐ Non-Competition
☐ Partnership
☐ Other Contract: _____

Injury or Damage

☐ Assault/Battery
☐ Construction
☐ Defamation
Malpractice
☐ Accounting
☐ Legal
☐ Medical
☐ Other Professional Liability: _____
☐ Motor Vehicle Accident
☐ Premises
Product Liability
☐ Asbestos/Silica
☐ Other Product Liability List Product: _____
☐ Other Injury or Damage: _____

Real Property

☐ Eminent Domain/ Condemnation
☐ Partition
☐ Quiet Title
☐ Trespass to Try Title
☐ Other Property: _____

Related to Criminal Matters

☐ Expunction
☐ Judgment Nisi
☐ Non-Disclosure
☐ Seizure/Forfeiture
☐ Writ of Habeas Corpus—Pre-indictment
☐ Other: _____

Employment

☐ Discrimination
☐ Retaliation
☐ Termination
☐ Workers' Compensation
☐ Other Employment: _____

Other Civil

☒ Administrative Appeal
☐ Antitrust/Unfair Competition
☐ Code Violations
☐ Foreign Judgment
☐ Intellectual Property
☐ Lawyer Discipline
☐ Perpetuate Testimony
☐ Securities/Stock
☐ Tortious Interference
☐ Other: _____

Tax

☐ Tax Appraisal
☐ Tax Delinquency
☐ Other Tax

Family Law

Marriage Relationship

☐ Annulment
☐ Declare Marriage Void
Divorce
☐ With Children
☐ No Children

Post-judgment Actions (non-Title IV-D)

☐ Enforcement
☐ Modification—Custody
☐ Modification—Other

Title IV-D

☐ Enforcement/Modification
☐ Paternity
☐ Reciprocals (UIFSA)
☐ Support Order

Other Family Law

☐ Enforce Foreign Judgment
☐ Habeas Corpus
☐ Name Change
☐ Protective Order
☐ Removal of Disabilities of Minority
☐ Other: _____

Parent-Child Relationship

☐ Adoption/Adoption with Termination
☐ Child Protection
☐ Child Support
☐ Custody or Visitation
☐ Gestational Parenting
☐ Grandparent Access
☐ Parentage/Paternity
☐ Termination of Parental Rights
☐ Other Parent-Child: _____

Probate & Mental Health

Probate/Wills/Intestate Administration
☐ Dependent Administration
☐ Independent Administration
☐ Other Estate Proceedings

☐ Guardianship—Adult
☐ Guardianship—Minor
☐ Mental Health
☐ Other: _____

3. Indicate procedure or remedy, if applicable *(may select more than 1)*:

☐ Appeal from Municipal or Justice Court
☐ Arbitration-related
☐ Attachment
☐ Bill of Review
☐ Certiorari
☐ Class Action
☒ Declaratory Judgment
☐ Garnishment
☐ Interpleader
☐ License
☐ Mandamus
☐ Post-judgment
☐ Prejudgment Remedy
☐ Protective Order
☐ Receiver
☐ Sequestration
☒ Temporary Restraining Order/Injunction
☐ Turnover

4. Indicate damages sought *(do not select if it is a family law case)*:

☐ Less than $100,000, including damages of any kind, penalties, costs, expenses, pre-judgment interest, and attorney fees
☒ Less than $100,000 and non-monetary relief
☐ Over $100, 000 but not more than $200,000
☐ Over $200,000 but not more than $1,000,000
☐ Over $1,000,000