

Analysis of Scimetrics 2015 Field Efficacy “Study”

General:

- This was a private, self-interested study conducted by Scimetrics, the very company that stands to earn millions if the warfarin poison is used. TDA previously gave no-bid contracts and taxpayer dollars to Scimetrics to conduct the study. The study is the exact opposite of an independent, objective study.
- The study was between April 9 to May 30, 2015 in Briscoe, Floyd, and Motley Counties (Texas). Those are in West Texas and not representative of conditions, or even hog behavior, in other parts of the State, including East Texas, the Gulf Coast, and Central Texas.
- Feeding and “hog training” performed from April 9 to April 30.
 - 354 feral hogs observed in treatment area in April.
- Poisoning conducted from May 1 – May 30.
- Study included 97 searches for target and non-target species during the two-month study period.
- Only 28 poisoned feral hog carcasses were retrieved, out of the 354 hogs observed.
- Kaput claimed a 97% success rate; the true success rate was 7.9%.
 - Kaput concluded that because other feral hogs were not observed at end of the study, those feral hogs must have died from the poison.
 - This is an unsupported and unscientific false conclusion. Feral hogs can travel 5 to 20 miles a day and readily pass through ranch fences.
- May 2015 had 10.8 inches of precipitation; the normal is 2.99 inches.
- 1,706 lbs. of Kaput bait was used during the May treatment period.
 - Commissioner Miller has stated that the bait is approximately \$2/lb, which means that \$3,412 in bait was used to kill 28 hogs.
 - That equals a cost of \$121/hog in bait (not including man hours, feeders, etc.)
- Secondary poisoning risks were not studied.
 - The study claims that no non-target wildlife poisoned carcasses were found. But many non-target wildlife roam and may have traveled away from the treatment area. All avian scavengers—vultures, eagles, caracaras, hawks, etc.—simply fly away, until they become too sick to fly.
- The study was not peer-reviewed or given any independent analysis.
- The study failed to address the inhumanness of death by warfarin poison. It takes 7 to 30 days for a poisoned hog to die. The hog bleeds to death, secreting blood from the nose, eyes, and anus. The death is one of the most painful that veterinarians see—and they see it often in dogs. Thus, the Texas Veterinary Medical Association opposes use of warfarin poison for feral hogs until more study is

conducted. By comparison, sodium nitrite kills hogs in just two hours; the hogs asphyxiate and fall to sleep. Thus, sodium nitrite is quicker and more humane, and less risk to humans (sodium nitrite is used to cure bacon).

Specific Issues:

- The “efficacy” formula used in this “study” was developed for rodenticide products in 1955.
- The product with a higher warfarin concentration (.01% as compared to 0.005%) actually had a lower success rate (96.2% compared to 97.8%, respectively) according to the “study.”
- It took 1,706 lbs. of Kaput poison kill 28 wild hogs.
- It took 93 hog poison feeders to kill 28 wild hogs.
- Some of the hog poison feeders were placed in “river bottoms” – this would violate EPA’s label for the product (which would be a violation of federal law).
- Briscoe, Floyd, and Motley likely have wildlife densities (deer, javelina, raccoons, bald eagles, hawks, etc.) lower than many areas in the rest of the state; thus, the risk of secondary poisoning would be higher in other parts of the State.

More Detail:

- **Test results show an extremely low efficacy rate (7.9%) for the poison.**
 - Study states that they photographed 354 hogs when they applied the bait, but only 28 hog carcasses were found.
 - Where did the other 326 hogs go? ($354 - 28 = 326$).
 - Absence of hogs from the test area **cannot** be assumed to mean those hogs are dead—feral hogs travel 5 to 20 miles a day, and have a home range between 5,000 and 70,000 acres. Thus, the observed hogs could have just moved on to someone else’s property.
 - *This results in an efficacy rate of only 7.9% mortality.*
 - This is **far below** the 70% efficacy rate required by EPA.
 - The study used 93 feeders to kill 28 total hogs.
- **Testing confirms high percentage of poisoned hog carcasses were scavenged by non-target species.**
 - Of the 28 hog carcasses recovered, the study sampled only 23 livers because the other 6 were so badly scavenged they could not be collected. Thus, many non-target animals and scavengers were exposed to poison.
- **Data indicate significant consumption of poisoned bait by non-target species.**

- Treatment Plot 1. 418.0 kg of 0.005% warfarin bait was provided to Treatment 1 Plot. The test substance consumption was 150.0 kg. The study states that there was only 0.4663 kg of spillage.
 - So what happened to the other **267.53 kg of bait? It was likely eaten by non-target species.**
- Treatment Plot 2. 356.6 kg of 0.01% warfarin bait was provided to Treatment 2 Plot. The test substance consumption was 78.3 kg. The study states that there was only 0.2101 kg of spillage.
 - That leaves **278.51 kg of warfarin bait unaccounted for. This was likely eaten by non-target species.**
- **The study did not follow the non-target species to confirm whether or not there were any side effects (including death) associated with consumption of the warfarin.**
 - There is no data on the number of non-target species that were observed in the treatment area, that fed from the bait stations, that left the area after eating the poison or scavenging on the hog carcasses, or that were affected by the poison (which can result in sickening the non-target species).
- **Data showing that there was a “dramatic decrease in bait consumption” does not mean that the decrease was the result of the efficacy of the poison.**
 - Treatment Plot 1. Mean weekly bait consumption was 167.9 kg, 37.5 kg, and 5.6 kg for the pre-treatment, treatment, and post-treatment periods, respectively.
 - Treatment Plot 2. Mean weekly bait consumption was 129.9 kg, 19.6 kg, and 7.3 kg for the pre-treatment, treatment, and post-treatment periods, respectively.
 - Many other studies have shown that feral hogs do not like to eat from the same place over and over, and that feral hogs travel from 5 to 20 miles a day. Thus, the decrease in in bait consumption could be the result of nomadic nature of hogs, dislike of the bait, flooding or climatological input, or other unlisted stimuli.
- **The study admits that large percentage of poisoned hogs were killed by hunters, not from the poison.**
 - Treatment Plot 2. Study shows that 8 of the 24 poisoned hogs that were outfitted with VHF ear tags were killed by hunters or had VHF tags fall off.
 - Study states that only 1 of the 8 hogs killed by hunters showed signs of the blue dye.
 - Control plot. 5 of the 11 tagged hogs in the control plot were killed by hunters or had their VHF tags fall off.

- **Testing conditions were not indicative of actual use of product.**
 - Hogs were outfitted with GPS transmitters with mortality sensors that gave off signals when the hog died or stopped moving. This allowed testers to find the pig and dispose of the poisoned carcass.
 - In practice, the poisoned hogs will run free and could travel far from the treatment site—onto neighboring landowners’ properties—making location and recovery of the poisoned hog extremely difficult or impossible.
 - “All carcasses were disposed of as specified on the product label. Carcasses were buried in a trench, *dug with an excavator*, at an approximate depth of 1.5 meters [5 feet].”
 - Not all applicators will have excavators or the ability to bury numerous 200-pound carcasses at a depth of 18 inches (which is what the label suggests). This means the carcasses will likely just remain exposed. Because hogs travel 5 to 20 miles a day, many hog carcasses will end up on surrounding landowners’ properties—and will never be found or buried or “properly disposed of,” as required by the label and federal law.

- **The study admits that rain can impede the search for and recovery of the poisoned hog carcasses.**
 - Heavy rain can also result in transfer of the poison to waterways.
 - The study confirmed that the bait stations are not water-tight, and thus poisoned bait can drain out and be exposed to non-target animals.

- **The study confirmed the long, drawn-out death process for feral hogs.**
 - Tract 1 showed the first death “6 days after initial bait presentation,” and on Tract 2 the first death did not occur for 8 days.

- **Feeder Stations were placed in river bottom areas – this would violate the EPA label that states “Do not apply this product to areas where surface water is present.”**
 - Thus, the test was conducted in violation of the label and in violation of federal law.