Supporting Wildlife Services

Sodium Cyanide M-44s and Compound 1080 Livestock Protection Collars: Fact vs. Fiction

Fiction:
Terrorists can obtain sodium cyanide and sodium fluoroacetate (Compound 1080) from in-field use and from Wildlife Services (WS) supplies and employees presenting a security threat.

Fact:
Given the limited quantities used and the continually improved safeguards, WS' use of the compounds does not represent a significant bioterrorist threat.

The amount of sodium cyanide used per year by WS is 72 pounds. This represents .001 percent of global usage. The annual amount of Compound 1080 use is less then .08 pounds. This is .0016 percent of what is used by the government of New Zealand alone each year for wildlife management.

Terrorists would be more likely to secure sodium cyanide and Compound 1080 from companies that utilize large quantities. The gold mining industry in the United States uses more than 200 million pounds annually.

Fiction:
Livestock producers should utilize alternate predator control methods.

Fact:
Livestock growers already do utilize numerous non-lethal methods of predator control. According to National Agricultural Statistics Service (NASS) reports, cattle and sheep producers spend nearly $210 million annually on non-lethal techniques. These methods include herders, fencing, guardian animals, scare devices, etc. (See Link to USDA Reports).

Fiction:
Although WS employees are certified applicators, it does not guarantee use restrictions are followed.

Fact:
WS is required by policy to have all employees certified by the state in which they work whenever pesticides are applied. The U.S. Environmental Protection Agency (EPA) oversees all pesticide labeling processes and individual states certify and monitor use within their boundaries. The state certification programs require that WS employees be re-certified annually, that they receive training for the specific pesticide being used and that reports of pesticide use be completed. In addition, WS conducts annual pesticide training and records pesticide use and inventory at a national level in accordance with the Federal Insecticide and Rodenticide Act and EPA regulations. The program uses a Management Information System to record and track activities, product use, take of animals and other information related to program delivery. Finally, supervisors are required to monitor and evaluate pesticide use during field inspections.

Fiction:
The WS program is uneconomical, and these tools are not necessary.

Fact:
Without these compounds, WS' work would continue but with potentially adverse impacts. The M-44 is the second most effective coyote management tool used in the United States.

In the absence of effective damage management, livestock losses to predation by coyotes could be two to three times more than current levels. Current estimates show $18.3 million in losses to the sheep industry and $51 million in losses in the cattle industry.

Results of a National Wildlife Research Center (NWRC) economic study indicated that for every $1 California counties invest in WS, they save between $6.50 and $10 in wildlife damage and replacement program costs.

The NWRC devotes approximately 75 percent of its budget to research on non-lethal methods. A 2004 survey by NASS documented that farmers and ranchers spent nearly $210 million on non-lethal methods to prevent predation in the sheep and cattle industry.

Fiction:
There is a lack of guidance on the use of M-44s and Compound 1080 when it comes to protecting pets, threatened and endangered species and humans.

Fact:
The EPA requires that all registered pesticides include directions of minimize risk to humans, pets and protected species. In addition, each state pesticide authority goes through a similar process prior to a pesticide being used within the state. States cannot modify the label to be less restrictive than what EPA has approved.

The M-44 has 26 use restrictions which provide the applicator specific instructions on the precautions needed to minimize risks to pets, protected species and humans. Each applicator is certified to use the specific pesticide through training given by the state. WS and the states conduct inspections on field activities to verify proper use of the M-44s.

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The Threatened and Endangered Species Act also requires each government agency to consult with them on federal activities that may pose a threat to a listed species. WS does consult with the U.S. Fish and Wildlife Service (USFWS) to mitigate or minimize pesticide exposure to those species that could be impacted. It is understood that on rare occasions such species will move from their designated habitat and become vulnerable to the predator control activities. In such incidents, the Threatened and Endangered Species Act allows for incidental take as designated by the USFWS and requires the federal agency conducting the control activities to cease control in the area until the agency can consult with the USFWS and determine if further restrictions are warranted.

Fiction:
M-44s and Compound 1080 used in LPCs present a risk to applicators or to the public.

Fact:
There have been no human fatalities associated with WS' use of M-44s or Compound 1080.

First, there are no incidents where a person died from exposure of sodium cyanide from an M-44 device. Although there are risks, WS minimizes these risks by requiring all field applicators and their supervisors to become certified through formal training established by state agencies who oversee pesticide regulations. Training and certification is conducted annually and further discussed in local WS training meetings. In addition, the EPA has approved use restrictions and requires each applicator to carry an antidote kit on their person when applying the device. There have been no fatalities to WS applicators, which implies that the certification, training and use restrictions are effective.

Incidents of injury to humans by the M-44 device are very rare. In most cases, an individual hurt by an M-44 has failed to heed the warning signs placed at the entrance to the area, or the warning signs placed next to the device. WS is required to inspect all M-44 devices weekly and replace signs whenever they encounter one missing. The signs are there to warn the individual about the device and to stay away from it. It is hard to compensate for lack of good judgment when people choose to ignore the information on warning signs and either tamper with the devices or allow their pets to roam freely in the area.

Each state that utilizes the LPC has gone through a registration process with the EPA to ensure that the use of this device is consistent with the federal label, the applicators are properly certified and trained and proper safety precautions are taken to minimize the risks to the applicator. State agencies are responsible for this program and require applicators to be certified just as they do with the M-44 use. There are no known human fatalities from the use of LPCs to control predation.

Fiction:
M-44s and Compound 1080 used in LPCs present a risk to the environment.

Fact:
Sodium cyanide used in M-44s is degraded to non-detectable levels in about 24 hours and has low mobility. It is rapidly hydrolyzed in water and degraded by aquatic organisms.

Compound 1080 in LPCs binds to soil organic matter limiting movement from the site of contamination and is normally degraded by soil microorganisms within two weeks. It undergoes a slow degradation by aquatic organisms. In other countries where 1080 is widely used for a variety of wildlife controls, studies suggest significant contamination of waterways is unlikely even with aerial application of Compound 1080 bait. The amounts of 1080 released from punctured collars are too small to cause any risk of contaminating water supplies.

The governments of Australia and New Zealand have both recently reviewed their use of Compound 1080 and re-approved their long-standing and wide-spread use for wildlife damage management.

Fiction:
M-44s and Compound 1080 used in LPCs present a risk to threatened and endangered species.

Fact:
Each technique is analyzed and evaluated according to the National Environmental Policy Act and the Endangered Species Act to ensure that federal actions do not pose a significant risk to such species of animals.

The LPC releases Compound 1080 only when punctured by an animal attacking the sheep by biting its neck.

Fiction:
M-44s and Compound 1080 used in LPCs present a risk to non-target animals.

Fact:
WS use has resulted in less than 5 percent non-target take with the M-44s and less than 1 percent non-target take with LPCs for the time frame from 1996 to 2006.

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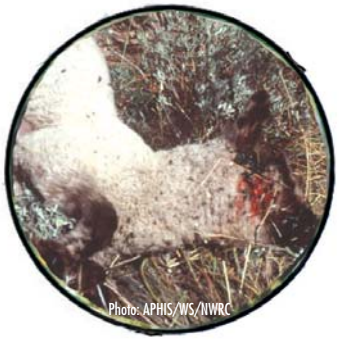
WS' records indicate that during fiscal year 2006, a total of 25,993 M-44s were fired and that 95.2 percent of the animals taken were target species. Further, 99.9 percent of all animals taken by WS in 2006 with this product were canids.

The M-44 is baited to attract wild canids. On rare occasions, domestic pets that have been allowed to roam freely have been victims of the tool, as have some wolves, bobcat and other species. Non-target species most commonly impacted are raccoons and opossums and represent an extremely low percentage of the take because the M-44 devices are canid specific.



Consultation with the USFWS has provided special restrictions to minimize risk to certain non-target threatened and endangered species such as the California condor. In areas occupied by wolves, M-44s are either not allowed or can only be used after first searching the area to determine if signs of wolves are present. Warning signs in English and Spanish are required even in the remote locations where use is most common.

Compound 1080 restricts toxicity to predatory animals actively attacking livestock. It is toxic to mammals, lesser to birds and of limited toxicity to fish. During fiscal year 2006, WS applied 2,041 LPCs and 100 percent of the 47 animals taken with the LPC's were coyotes, the target species.

Scavenging animals would not be affected by 1080 unless they consumed the hair or wool of the dead target or livestock, a rare occurrence. Secondary poisoning of scavenging animals does not occur because after coyotes ingest the LPC's Compound 1080, their carcasses contain only non-toxic, trace levels of it. In research conducted by WS, scavenger species that were given tissues from coyotes killed with Compound 1080 showed no negative effect. Livestock carcasses contaminated with the toxicant in its raw form on the wool or hair near punctured collars may pose a risk to scavengers. However, in research studies where dogs, skunks, magpies and eagles were allowed to feed on contaminated carcasses, these species were not adversely affected because they would not eat the contaminated wool or hair.

Fiction:
M-44s and Compound 1080 used in LPCs present a risk to pets.

Fact:
Canine pets are at risk, especially to the M-44 device; however, most incidents were situations where the pet was wondering at large without the owner present or the owner and pet were trespassing on private property when the incidents occurred. When WS receives a complaint from a pet owner, it is investigated by the supervisor and state pesticide personnel. The 24 EPA Use Restrictions are used as a guide for the investigations. Most pet mortalities were from a lack of supervision on the pet owner's part, unlawful entrance onto private property or unsupervised pet visits into the area. Had pet owners followed local laws of trespassing, not allowed their pets to wander at large or had they heeded the warnings on the signs, pet mortality would probably not be an issue.

Conceivably, LCPs could pose a threat to pets; however, it must be pointed out the collar releases the toxin only when punctured by an animal attacking the sheep by biting its neck!

Fiction:
WS uses M-44s and LPCs to control other animals, such as wolves.

Fact:
Wolves are protected under the Threatened and Endangered Species Act and administered by the USFWS. WS has consulted with the USFWS for the use of control tools in areas where wolves are known to or are likely to occur and have agreed on control actions that will have minimal or no impact on the threatened and endangered species. WS cannot use M-44s or LPCs in designated areas where wolves are known to inhabit.

ASI

American Sheep Industry Association Supporting Wildlife Services

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