Kian Schulman

I am Kian Schulman, Director of Poison Free Malibu (PoisonFreeMalibu.org).

Eliminating the anticoagulants is a great cause spearheaded by California.

However, we have been carefully monitoring the reactions of the pest control service companies and stores supplying rodent poisons.
We are finding a huge problem developing.
The major substitutes are extremely dangerous and deadly -
bromethalin and cholecalciferol (vitamin D3).

And despite the claims that these poisons are safe for wildlife, this is absolutely not the case in the Santa Monica Mountains.
See our website - PoisonFreeMalibu.org/non-anticoagulant-rodent-poisons.

BROMETHALIN

Bromethalin is a highly neurotoxic rodenticide that poses serious risks to both pets and wildlife, including predators and scavengers.

Bromethalin has NO antidote, and its effects can be rapid, irreversible, and deadly.

1. Highly Potent Neurotoxin

Bromethalin works by disrupting mitochondrial function in nerve cells, leading to:
Cerebral edema (brain swelling).
Tremors, seizures, paralysis, and death.
Ataxia (wobbliness).
Seizures.
Circling behavior.
It kills rodents quickly (within 1–2 days), but also severely harms non-target species that ingest even small amounts..

2. Very Low Lethal Dose

LD$_{50}$ (lethal dose for 50% of individuals):
Cats: ~0.45 mg/kg.
Dogs: ~2.5 mg/kg.
Birds and mammals can succumb to even lower doses depending on species and exposure route.
Treatment is supportive only and often too late once symptoms appear.

3. Risk to Predators and Scavengers

Bromethalin does pose a significant secondary poisoning risk.

Predators that consume poisoned rodents, such as:
owls, hawks, eagles, coyotes, foxes, bobcats, ravens, vultures, and even domestic pets can die from accumulated bromethalin in rodent tissues.
The toxin persists in fat tissue, so carnivores eating multiple rodents over time may bioaccumulate lethal levels.

The Santa Monica Mountains National Park Service has found bromethalin in 10 out of 16 mountain lions tested in the Santa Monica Mountains from July 2020 to August 2022.
Subsequently, famous Griffith Park mountain lion P-22 was found to also have bromethalin in his system.
It is definitely going up the food chain!

4. Misconception of Safety

Bromethalin is more difficult to detect post-mortem and is dangerous to non-target species.
Diagnosis often requires necropsy and tissue testing.

5. Summary

Bromethalin is one of the most dangerous modern rodenticides for wildlife. It causes rapid and painful neurological death, affects a wide range of species, and has no effective antidote. Its use contributes to significant, often invisible, damage to ecosystems by killing predators and scavengers that would naturally help control rodent populations.

CHOLECALCIFEROL

Cholecalciferol (vitamin D�) is increasingly used in rodenticides, but it poses serious risks to pets and wildlife. With the concentrations used, it is highly toxic, and exposure can lead to painful illness or death.
Pets (especially dogs and cats) are often attracted to the bait or poisoned rodents.
And there is NO antidote!
Contaminated rodents and carcasses can poison multiple animals, especially scavengers
Lethal Dose: Cholecalciferol rodenticides contain concentrations thousands of times higher than nutritional supplements.
Mechanism: It causes hypercalcemia�dangerously high blood calcium�which leads to:
Kidney failure (from calcium deposits in the kidneys)
Heart problems (arrhythmias, calcification of vessels)
GI upset (vomiting, diarrhea, anorexia)
Lethargy, weakness, and eventual death

Dr. Justine Lee, a national expert on emergency care of pets (drjustinelee.com), states
"
"This is my most hated type of poisoning. Only a small amount can result in severe poisoning in both dogs and cats."

THERE ARE NO SAFE POISONS

Dr. Laurel Serieys, the world's expert on the poisoning of bobcats (www.laurelserieys.com), summarized it perfectly -

"Often people inquire, after learning the harmful impacts of anticoagulant poisons, what poisons may be used in substitution for anticoagulants.

The truth is that NO POISON IS A GOOD POISON in other words, no poison available on the market in the United States poses no risk to wildlife.
Beyond considering the impacts of secondary exposure of wildlife to poisons, don't forget that nontarget wildlife can too directly consume the poisons.

We know a lot more about some poisons than others.
Because anticoagulant rodenticides are the most commonly used method of rodent control, more research concerning the negative impacts of this poison on wildlife has been conducted.
However, even for this poison, there are MANY unknowns!
The reality is that it is exceedingly difficult to know what happens to wildlife once they ingest poisons.
If there is an absence of data regarding how some compounds affect wildlife (i.e., cholecalciferol, zinc phosphide, or bromethalin), it does not mean it poses no risk to wildlife."