



## Preventing Poisoning of Pets when Using Slug and Snail Baits

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### Summary

Slugs and snails are one of the most common garden pests in the State of Utah. Because they are so widespread and destructive, many different methods are used to keep the pests under control. Baits are frequently applied as a treatment, but using pesticides can create hazard for non-target wildlife and pets. Follow these precautionary measures to reduce the hazards to desirable creatures.

### Metaldehyde Poisoning

The active ingredient of most molluscicides (slug and snail bait) is metaldehyde. It can sometimes be combined with an insecticide (cholinesterase-inhibitor).



According to research and the clinical experience of Dr. Kerry Rood, MS, DVM Utah State University Extension Veterinarian, the most common poisoned

domestic animal are dogs. When ingested, the active ingredient metaldehyde is partially changed (hydrolyzed) in the stomach into acetaldehyde.

The importance of this change is that the two compounds are absorbed at different rates with acetaldehyde being absorbed much more rapidly. This variation in absorption can complicate the clinical signs and prolong recovery.

When both the active and intermediate compounds are absorbed through the gastrointestinal tract, they work on the central nervous system by inhibiting or decreasing neurotransmitters (i.e., serotonin, noradrenaline, and  $\gamma$ -aminobutyric acid (GABA)).

### Signs of Poisoning

The clinical signs seen are a direct result of the neurotransmitters being inhibited and include tremors, weakness (ataxia), excitability (hyperesthesia), increased heart rate (tachycardia), and increased body temperature (hyperthermia); these signs can worsen into convulsions and death.

The eyes can be affected and what is seen is twitching and the inability to focus (nystagmus). Sometimes there can be vomiting, diarrhea, hypersalivation, and trouble breathing (dyspnea). If the molluscicide contains certain insecticides there may be concurrent insecticide toxicity signs, such as pupillary constriction that complicate a diagnosis.

## Treatment

Treatment is done by inducing vomiting in the short term and administration of activated charcoal to prevent further absorption. The rest of treatment involves administering drugs and intravenous fluids to lessen the side effects. These include muscle relaxants and sedatives.



*Dog on IV fluids being treated for ingesting snail bait. Photo courtesy Susan K. Benson, DVM*

As there is no specific antidote, symptomatic treatment lasts as long as it takes for the animal to get rid of the metaldehyde. This can take several days and up to a week. Animals that are more obese tend to take longer to recover fully as the ingredient is fat soluble and it takes longer for the animal to get rid of it from their system.

The prognosis is generally good if caught early and identified. It worsens if the animal has an elevated temperature (hyperthermia) or if they progresses to convulsions or coma. Call a veterinarian immediately if ingestion of snail bait is suspected. Note the brand or bring the bait container to the veterinarian to help to determine which ingredients are contained in the bait and what treatments the animal needs.

## Preventing Poisoning

To prevent pet poisoning, keep them out of the treated area while the bait is still visually present. Remember, the manufacturer is creating “bait” for slugs and snails and some of the ingredients used might unintentionally be enticing to your pet (especially dogs).

Some bait preparations can persist for some time (a week or more) despite being exposed to rain or

sprinklers, but pets seem to be most susceptible to ingesting it when it has been freshly applied. Store the product in a room where pets do not have access and up, out of, in case the room is accessed by pets.



*Bait station made from a discarded container keeps bait dry and away from birds and pets.*

## Bait Stations

Exposed baits are attractive to pets, birds or other non-target animals. Make bait stations and place them in strategic spots. This reduces their availability to pets and they last longer than those exposed to rain or sun.

## Chemical Bait Safety

Some products contain compounds that make the baits very bitter and thus reduce their attractiveness to animals. Bitrex is one and it reduces, but does not eliminate, the risk of accidental poisoning.

Spread the baits according to label directions. Piling hazardous baits in mounds or clumps makes the bait very attractive to pets and children. Do not over apply baits as it is a violation of Federal law to use more pesticide than specified on the label.

Iron phosphate ( $\text{FePO}_4$ ) is a newer registered molluscicide just as effective as metaldehyde baits. This naturally occurring soil component is less toxic to pets and other desirable species. It sells under many trade names including Sluggo and Escar-Go.

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