

# Frequently Asked Questions about Metaldehyde For Controlling Snails and Slugs

## What is metaldehyde?

Metaldehyde is a pesticide used to control snails and slugs and is approved for use in a variety of vegetable and ornamental crops in the field or greenhouse, on fruit trees, small-fruit plants, in avocado and citrus orchards, berry plants, banana plants and in limited residential areas. Available products can be applied as granules, sprays, dusts or bait pellets. Applications are typically made to the ground around the plants or crops to be protected.

## Why is it necessary to apply metaldehyde products to eliminate giant African land snail (GALS)?

The snail reproduces rapidly, has no natural enemies and is a major nuisance. It feeds on commercial crops, stucco on houses and residential landscape plants. It also carries a parasite, known commonly as the rat lung worm, which can be transmitted to other animals and humans by touch with the potential to cause a form of meningitis.

While it is understood that there are concerns by some over the application of even the safest and most well tested products, these products are needed to effectively eliminate GALS. If the eradication program is not successful, the snails will become permanently established causing significant risk to human health and creating a major urban and agricultural nuisance. The snails will also endanger the ability to market Florida agricultural products, which will have a significant negative economic impact on the state. A measured amount of aggressive action now will prevent long term undesirable impacts.

## How does metaldehyde kill snails and slugs?

Metaldehyde works by disrupting the mucus production ability of snails and slugs. This reduces their digestion and mobility and makes them susceptible to dehydration. Snails and slugs that have eaten metaldehyde often seek hiding places, become inactive and begin to die within days.

## Where and how much metaldehyde may be applied?

Two metaldehyde products are being used to control snails in a limited number of areas of Pasco County where snails have been collected. The products being used are Slug-Fest All-Weather Formula (Home and Garden) and Durham Metaldehyde Granules 7.5.

Applications are made according to the product label to areas of snail activity. For the liquid product, 1 and 1/3 teaspoons mixed in water (2 gallons) is applied per 200 square feet. For the granule product, a maximum of 2 pounds of granules per acre is applied.

A third metaldehyde product, OR-CAL Slug & Snail Bait, is being applied on a much larger scale to achieve the best possible reduction of snail populations. OR-CAL granules are applied at a rate of 1 pound per 4,400 square feet. This product is available for residential use and therefore does not require a special-use permit.

## What happens to metaldehyde in the environment?

Metaldehyde will readily dissolve and move into the soil where it rapidly decomposes. The limited targeted amount used, coupled with rapid decomposition, restricts the amount of product available to move along the surface with rainfall runoff waters or to persist in the soil. Metaldehyde does not evaporate, so there is no movement to the air.

## Is metaldehyde harmful to people or pets?

The U.S. Environmental Protection Agency (U.S. EPA) has concluded that when used as directed, metaldehyde exposure should be very low and unlikely to affect human health. In laboratory studies, metaldehyde is moderately toxic when ingested or inhaled, and only slightly toxic when it comes in contact with skin. In cases of poisonings, vomiting, diarrhea and fever may occur along with other symptoms. In the event of a suspected poisoning, call the Florida Poison Control Center at 1-800-222-1222.

When used as directed, metaldehyde is not known to harm pets. However, it can be moderately toxic to dogs, cats and other mammals if eaten, and can be fatal to pets if sufficiently high amounts are consumed.



In a recent safety review of metaldehyde, the U.S. EPA noted concerns regarding potential risks to children because it may be encountered during play, and to animals if they were to find and consume it. Therefore, a bitter-tasting agent has been added to the granular formulations to discourage children or pets from ingesting it. In addition, the label requires that children and pets be kept away from the treated area until the applied material is no longer visible. Although metaldehyde rapidly decomposes, the precise time it takes for the product to break down or disappear can vary depending upon factors including weather, time of year, yard watering activity, etc. To prevent exposure, the metaldehyde product is applied in areas typically out of reach of children such as under hedges and along fences.

**Will metaldehyde harm wildlife or other non-target organisms?**

Metaldehyde is moderately toxic to mammals and birds, and is practically non-toxic to most aquatic life and bees. Snails, slugs, clams, oysters, scallops, mussels and other mollusks are more sensitive to the effects of metaldehyde than other organisms. When used as directed, metaldehyde is not expected to significantly impact the health of non-target organisms.

**What can I do if I believe I have been in direct contact with metaldehyde and it might be making me sick?**

Under the prescribed use pattern there should be no adverse effects. However, if you think there may have been some direct contact with metaldehyde resulting in illness, you should contact your doctor or your local county health department, or the Florida Department of Health toll-free number at 1-800-606-5810. You can also call the Florida Poison Control Center at 1-800-222-1222.

**How do I get more information about metaldehyde?**

You can get more information on the use of metaldehyde as it relates to the horntail snail eradication program from the Florida Department of Agriculture and Consumer Services (FDACS) Division of Plant Industry by calling 1-888-397-1517. More technical information about metaldehyde can be obtained by calling the Division of Environmental Services at 1-850-617-7900 or visiting the website at <https://www.FDACS.gov/AES> for further contacts.

**Florida Department of Health**

1-800-245-4444

<https://www.floridahealth.gov/environmental-health/index.html>

**Florida Poison Control Center**

1-800-222-1222

<https://floridapoisontcontrol.org/contact/contact-us/>

**Florida Department of Agriculture and Consumer Services Division of Plant Industry Helpline**

1-888-397-1517

<https://www.FDACS.gov/GALS>

**Division of Agricultural Environmental Services**

1-850 617-7900

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