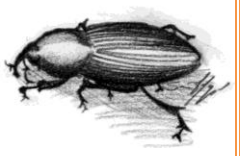
# Agave Snout Weevil

Agave snout weevils (*Scyphophorus acupunctatus*) can be a problem for landscapes in the low desert. If you have large agaves, especially *Agave americana*, in your garden you may want to follow some preventative measures to limit the chances of your plants falling victim to attack.



**LIFE CYCLE:** In the low desert adult agave weevils become active in the spring and can potentially remain active through the summer. By early April their search begins for a suitable place to lay eggs. They often seek out agaves that are about to bloom as carbohydrates concentrate in the base of the plant, but they might also attack non-blooming plants in landscape settings. Some suggest that stressed plants might also be sought out. The females chew their way into the plant base, often between leaf attachments, leaving bacteria (*Erwinia* sp.) as they go. They lay eggs in the bacteria-infected tunnel. When the eggs hatch the larvae burrow and eat their way into the rotting heart of the agave. After the grub-like larvae have sufficiently fed and matured they will pupate and emerge as the next generation of adults. The entire life cycle can be completed in six to twelve weeks. Adults are approximately ½" in length with dull brown to black stout bodies and characteristic long snouts. The rotund legless grubs are cream in color with dark heads.

**SYMPTOMS:** Most often a snout weevil infestation is not apparent until the damage is severe. As larvae start to feed at the bacterial-infested plant bases and the roots, leaves begin to wrinkle. Shriveling will increase with time and as the plant continues to rot. A putrid odor can develop as bacterial infection creeps through the heart of the plant. In many cases a majority of the leaves collapse to the ground leaving only the central spike of leaves standing. The plant might be loose if wiggled and can easily fall apart. At this stage rescue is unlikely. Remove all plant parts from your garden and search the soil in the surrounding area for any adults or larvae so that they are not left to infest other plants. The demise of the plant is actually caused by the bacterial rot.

**PREVENTION & TREATMENT:** It is possible to annually apply a chemical as a preventative approach for at-risk agaves. We have found the more susceptible agaves to be those approaching maturity, any large species in general, and those with a wide leaf blade or blue-grey/blue-green leaf coloring. *Agave americana* (all varieties), *A. murpheyi*, *A. parryi*, and *A. weberi* seem to be very common targets. Systemic insecticides with the active ingredient Imidacloprid have been effective in preventing and controlling infestations. Some suggest that *Orthene* (Acephate) might offer protection as well. Products can be applied around the base of the plant in early April and again in late May. The pesticide will be absorbed by the plant's roots and translocated throughout the plant. It might kill adult weevils when they initially taste the agave for its suitability, preventing egg-laying or introduction of bacteria. If eggs are laid the chemical should kill the larvae that hatch and begin to feed on plant tissue, before the spread of the bacteria becomes too great. Be aware that if an agave that is about to bloom is treated with a systemic, the chemical could potentially be passed along to pollinators, endangering them. With this in mind and since the agave generally dies after blooming anyway, you should forgo treatment if it is about to bloom and an infestation is indicated. You can usually tell that an agave is about to send up its flowering stalk when narrow, shorter leaves begin to emerge from the plant's center. Always follow all directions on the label for rate of use and health and safety precautions.

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If you notice slight wrinkling of lower leaves around May and a good deep watering or two does not renew turgidity, your agave might be infested. Also, a small pencil-sized hole entering a tunnel towards the base of a leaf may indicate a problem. If caught early enough the weevil larvae and bacterial decay might be prevented from destroying the plant.

Some agave collectors choose to bare-root newly attained agaves, thus having the opportunity to inspect the plants for infestation and make sure that no weevils are imported with the soil in the container. If a plant suffers an infestation it is best to not use pups or bulbils that remain from that individual. Instead, locate surviving offspring of a plant that matured and flowered without infestation. These clones might carry some degree of genetic resistance to weevils that has been passed on by the parent plant.

In addition to agaves, some close relatives such as furcraeas and manfredas (especially *Manfreda virginica* and *M.* x'Macho Mocha') are also susceptible to infestation by weevils. Another species, *S. yuccae* or yucca weevil, can potentially affect yuccas. Currently, they are only known to be active in southern California and Yuma County, Arizona.

In our observations, the agaves that are more resistant to weevils are the smaller, narrow-leafed species such as *A. bracteosa*, *A. geminiflora*, *A. multifilifera*, *A. ocahui*, *A. pelona*, *A. schidigera* and *A. victoriae-reginae.*

Don't let agave weevils discourage you from enjoying agaves in your landscape. Choose plants that are less likely to be attacked by the dreaded insect. Chemical treatment can be safely used if applied according to the label and appropriately timed.

## Need Help?

For more information about particular desert plants or problems, call the Desert Botanical Garden's Plant Hotline, 480-481-8120, Monday through Friday, from 10:00 – 11:30 a.m. or email your questions to planthotline@dbg.org

The Desert Botanical Garden provides a range of services to homeowners including a desert Plant Hotline, a variety of classes about landscaping and gardening in the desert, an onsite library, and an extensive selection of resources in the Garden Shop.

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