



# POISON-FREE

1. Eliminate rodenticide use
2. Eliminate insecticide use
3. Eliminate herbicide use
4. Certify

## 1. ELIMINATE RODENTICIDE USE

Rodenticides not only kill rats and mice but also harm wildlife that consume poisoned animals. Through bioaccumulation, a secondary poisoning process, rodenticide residues build up in predators that eat multiple poisoned carcasses. This exposes rodent-eating predators and scavengers, such as owls, hawks, bobcats, coyotes, raccoons, skunks, and even domestic pets, to large amounts of poison. These toxins can cause internal bleeding, seizures, and death. Even at lower levels, they can impair the immune system, making animals like coyotes, bobcats, eagles, and owls more susceptible to diseases such as mange.

### ALTERNATIVE SOLUTIONS:

- Put up an owl box. Owls are incredible hunters with superhero-like hearing, especially for high-pitched sounds like rodents squeaks.
- Add a Kestrel box. Measuring 9–12" in length, American Kestrels are North America's smallest falcon. They commonly feed on large insects like grasshoppers and beetles; scorpions, spiders, and small mammals. Their large diet and small size make them a great, non-threatening day time pest control.
- Keep snakes around. Non-venomous snakes like gopher snakes and kingsnakes are great at controlling rodent populations.

## 2. ELIMINATE INSECTICIDE USE

Insects are the backbone of a healthy ecosystem. They play a crucial role in pollination and serve as a major food source for birds and other wildlife. In fact, 96% of all terrestrial birds rely entirely on insects to feed their young. Unfortunately, insecticides do not differentiate between "good" and "bad" insects, leading to unintended consequences and disruption of natural systems. Systemic insecticides indiscriminately eliminate all types of insects, including beneficial pollinators. You can reduce the risk of harming your ecosystem by opting for healthier, more sustainable options such as mosquito dunks and integrated pest management.

### CONTROLLING MOSQUITOES:

Mosquito repellent insecticide sprays on the market by pest control companies can be harmful to a wide variety of insects other than mosquitoes. Some products carry misleading advertising, saying they are designed to act like the natural toxin found in chrysanthemum flowers. But, these products are still harmful to a number of beneficial insects. The other challenge with spraying is that mosquitoes are highly mobile insects, and even if you kill adults, new ones will quickly move into your yard. - Xerces Society

### SAFE AND EFFECTIVE WAYS TO CONTROL MOSQUITOES:

- Eliminate areas where mosquitoes breed
  - Eliminate any standing water where mosquitoes can reproduce. Mosquitoes need water to lay their eggs, and their larvae feed on the microorganisms found in standing water. Once the larvae pupate and become adults, they leave the water source. It takes 8 to 10 days for a mosquito to mature from an egg to an adult. In just one week, an inch of stagnant water can cause a population explosion of mosquitoes.
- Add water movement
  - For homes that have stagnant bodies of water like ponds, add a circulating pump, fountain, or solar water wiggler that moves the water. Mosquitoes require still water to reproduce, adding water movement is an easy and effective way to prevent mosquitoes.
- Make sure that your window screens are intact to prevent mosquitoes from entering your home.
- Add an outdoor fan. Mosquitoes aren't able to fly, even in light winds. Having a fan running when you are outside will keep them at bay.





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## 3. ELIMINATE HERBICIDE USE

Invasive plants can cause widespread problems in the landscape. In the Sonoran Desert, two major issues arise from invasive plants that increase fire risk in an ecosystem that historically has not been fire-prone. These plants burn hot enough to kill nearby saguaros and much of the native vegetation, including the seedbank. This leads to a drastic transformation of the plant community, resulting in the loss of saguaros and other plants essential to native birds, butterflies, and wildlife. Fourteen bird species primarily nest in saguaros, and without them, these birds lose their homes.

Controlling invasive species at home is often achievable through mechanical means, such as pulling and digging by hand. Although it can be a daunting task, persistence makes it the best way to remove invasive species without introducing chemicals into the environment, and it is effective on a smaller residential scale.

### MECHANICAL REMOVAL BEST PRACTICES:

- Different species require varying approaches. See our “guide to controlling backyard weeds” for specific approaches.
- If the plant has no flowers, buds, or seeds, pull or dig it out and turn it upside down, leaving it on the ground to decompose and enrich the soil, or place it in a compost bin.
- Bag carefully and dispose of any buds, flowers, or seeds.
- Use thick mulch to prevent seeds from germinating or to smother seedlings. After weeds have been pulled, a thick layer of mulch can prevent their re-growth.

## 4. CERTIFY YOUR POISON-FREE HABITAT

Once you have completed your habitat, email [habitat@tucsonaudubon.org](mailto:habitat@tucsonaudubon.org) to receive your certification sticker.



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## RESOURCES

Guide to Controlling Backyard Weeds:

- [tucsonaudubon.org/habitat-resources/](https://tucsonaudubon.org/habitat-resources/)

Xerces Society's Mosquito Management at Home:

- <https://xerces.org/blog/mosquito-management-at-home>

