Wildlife Repellents

Wildlife damage is a common occurrence within gardens and landscapes of north central Arizona. Deer, elk, pronghorn, javelina, raccoon, beaver, rabbit, rock squirrel, woodrat, and porcupine damage top this list. While exclusion (fencing, bird netting, cages, etc.) is most effective, it may not be feasible and/or affordable. In some cases, removal or better management of attractants (bird feeders, pet food, water, shelter) can also help. Also keep in mind that wildlife diets change with food availability in the environment – during droughty periods, your garden and landscape may look like an ice cream parlor to hungry wildlife.

Many repellents discourage wildlife feeding by having either an offensive taste or odor. No repellent is continuously effective, and what works in one location may be ineffective at another location. Factors which contribute to this variability are wildlife feeding habits and environmental conditions. Generally it has been found that repellents are most effective where wildlife are present in relatively low numbers, cause light to moderate damage, and impact small areas. If any of the above conditions are not typical of your property, then you should evaluate the potential for using fence or other exclusion methods. In addition, when using repellents only, some wildlife damage must be tolerated.

Wildlife repellents vary widely. Repellent formulations range from home remedies such as human hair and soap to animal products such as feather meal, blood meal, and predator urine to commercial chemical repellents. Animals can habituate (become accustomed to) a single repellent. When repellents are used, the greatest effect is obtained by using several different repellents and rotating their use. Birds and mammals also differ in their tolerances to various repellents.

Herbivores, such as deer, elk and rabbits, often feed on young forest trees and shrubs including areas replanted following treatment. Repellent products commonly use active ingredients such as putrescent egg solids, dried blood, capsaicin (the compound that produces hot flavors in chile peppers), or plant essential oils such as peppermint or citronella. These products have the advantage of being relatively safe when label directions are followed. Some also include adjuvants that make the active ingredient more resistant to rain and exposure. Another group of repellents are urines from various predator species. Aside from the obvious question (who collects the urine?), these products do not appear to have the same level of reliability as the above mentioned products.

Visual and auditory repellents are also available. Visual repellents range from owl decoys and large eyes, to scarecrows, to mylar streamers. Some auditory repellents rely on large explosions (similar to shotgun blasts) while others use alarms or distress calls. Here, animals typically habituate to these sights and sounds fairly readily. Auditory calls are often used to repel birds such as woodpeckers and crows. Ultrasonic devices are often touted. However, these devices have been shown to be ineffective for most of their intended uses.

Mothballs are often used as a home remedy to repel packrats, skunks, snakes, and mice. While mothballs are labeled as a pesticide, they are not labeled for this use and are highly toxic. The label specifies moth balls are only allowed to be used in sealed containers that allow the fumes to build up to a level that kills clothes moths while preventing the fumes from entering living spaces inhabited by humans or pets. Inhaling the mothball fumes can cause health problems. Spreading them on the ground is not an allowable use and could harm people, animals, and the environment.

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