COLLEGE OF AGRICULTURAL, CONSUMER AND ENVIRONMENTAL SCIENCES



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Troublesome neighbors . . . Oh deer!

By Samuel T. Smallidge, Wildlife Extension Specialist

Deer are majestic animals that possess a grace of movement that most people enjoy observing. New Mexico has two deer species, mule deer (*Odocoileus hemionus*) and white-tailed deer (*Odocoileus virginianus*). Mule deer are the most common of the two. Deer are browsing animals and select specific parts of trees, shrubs and herbaceous plants when eating. This innate behavior ensures they meet their nutritional needs to survive and reproduce — a fundamental need for all organisms. Humans face a conundrum because they value seeing deer and may also experience frustration and economic losses from damage they cause.

Deer presence in a neighborhood may be a long-standing or new phenomenon and is often the result of landscape-level changes, human activities, local increases in deer populations, or environmental factors. When human development encroaches on existing deer habitat it may displace deer, and alter their distribution, resulting in deer seeking daily needs in nearby neighborhoods. Purposeful or unintentional (think bird feeders) feeding of deer contributes to their presence and damage. Local increases in deer numbers may prompt increased forays into urban environments. Drought or wildfire may force deer into neighborhoods where irrigated plants provide nutritious forage.

When deer are present in urban areas, they may become troublesome. Deer can cause unacceptable damage to vegetable gardens and flower beds, as well as other landscaping features. Deer browse selected portions of vegetation that may alter growth form, reduce productivity, and affect plant survival. They eat budded tips of tree and shrub branches, fruits, nuts, forbs, and prefer new growth on plants. Highly palatable plants may be completely eaten. Grasses only comprise a small percentage of deer annual diets. Male deer may rub their antlers on trees and shrubs, typically beginning in late-August or September, causing unsightly and destructive damage. Damage may increase during late autumn and through the winter after native vegetation has senesced and their nutritive qualities diminish. Damage represents setbacks to hard

DEER ARE PROTECTED

New Mexico Department of Game and Fish is responsible for protecting and managing deer species in New Mexico. They encourage people experiencing deer damage to contact the nearest NMDGF area office. They will send someone out to assess the damage and work with you to mitigate the problem.

AREA OFFICES

Northwest Office: 7816 Alamo Rd. NW Albuquerque, NM 87120 Phone: (505) 222-4700

Northeast Office: 215 York Canyon Road Raton, NM 87740 Phone: (575) 445-2311

Southwest Office: 2715 Northrise Drive Las Cruces, NM 88011 Phone: (575) 532-2100

Southeast Office: 1615 West College Boulevard Roswell, NM 88201 Phone: (575) 624-6135 work in achieving a desired aesthetic, reduced production, and associated economics. Additionally, there may be increased deer-vehicle collisions that represent a human safety concern.

To determine if deer are responsible for observed damage, search for signs of deer including trails, tracks, droppings, and inspect plants. A well-placed trail camera can capture images of deer browsing in the yard. It is common to observe deer browsing early and late in the day. Observing deer signs (e.g., tracks) does not assure responsibility. Because deer do not have upper incisors, they typically leave jagged or torn edges on browsed portions of plants; rodents and rabbits typically leave clean cuts. The height at which vegetation is removed is also a clue, deer can browse close to the ground and up to about 6-feet in height. Despite the trouble they can represent, there are several management techniques available to reduce or eliminate damage.

Tools available to address deer damage include cultural approaches, habitat modification, population management, deterrence, and exclusion. An online search will quickly produce abundant information on damage identification, options for managing damage, and lists of deer resistant plants. Furthermore, books are available that discuss deer resistant plants and garden designs. Do not forget to consider what other wildlife you may be attracting in your efforts to manage deer damage. Taking an integrated pest management (IPM) approach to the problem will result in optimal outcomes. The IPM paradigm is to manage problem organisms or their damage in an economically viable, scientifically informed, publicly responsible, and environmentally safe manner. The best combination of techniques depends on specific circumstances, legal and homeowner association restrictions, available resources, and individual homeowner capabilities. Techniques vary in effectiveness based on their design, time and location of use, area or plants needing protection, and availability of food sources on the broader landscape. Implementing measures before deer establish damaging behavior improves damage management outcomes. Many of these techniques will be ineffective when deer are hungry and food resources limited.

Cultural approaches include garden design, plant selection and placement, and removal or management of attractants (again; think bird feeders and water features), among others. Many of these practices result in habitat modifications that reduce the desirability of the area to deer. Selecting a design which integrates carefully selected plants, their placement with structural elements can reduce the risk of deer damage. Selecting deer-resistant native plants (e.g., bunchgrasses or Apache plume) reduces the potential for deer damage to occur and is better suited to local environments.

The New Mexico Department of Game and Fish (NMDGF) regulates deer hunting in New Mexico, and when determined appropriate, can be employed to reduce dense populations. However, in urban areas, hunting is rarely appropriate and requires assessment and planning by qualified NMDGF biologists prior to implementation. In addition to population management, NMDGF has considerable experience working with New Mexico homeowners and will provide ideas and options for addressing deer damage. Give them a call (see inset).

Deterrence techniques may employ frightening devices to discourage deer from persisting in an area and causing damage. These devices often use lights and acoustics to frighten deer from the area. Ultrasonic devices have proven ineffective in reducing deer damage. Electronic animal-activated frightening devices are numerous, and regularly enter the market. The large number of devices available makes timely and objective assessments of their effectiveness difficult. Many devices, tested through research, exhibit mixed results regarding effectiveness ranging from ineffective to effective for a few days or for a few months. Red, green, and blue lasers have proven ineffective in reducing deer damage. Animal-activated sprinkler systems, solar or battery powered, are available and may discourage deer temporarily. Frightening devices are best suited, and efficacy may be improved, by integrating with other methods.

Repellents are also deterrents and act through smell (olfactory) or contact (gustatory). Smell-based repellents are applied near or around plants or as a perimeter application. A common low-tech approach is placing bags of hair (e.g., human or predator) about 3-feet off the ground and spaced at 3-foot intervals throughout the area being damaged. Human hair is low cost (free from local salons and barbers) but does not produce consistent results in repelling deer. Research indicates coyote hair has short-term efficacy depending on circumstances, however, finding a source of coyote

hair may be daunting. Bar soap used similar to hair has proved effective in some instances. Other area repellents include tankage (putrefied meat scraps), blood meal, and ammonia soaps (some are registered for use on edible crops), among others. Note that some area repellents may create tensions with neighbors as odors waft about the neighborhood.

Taste repellents are numerous and commercially available. There are also many homemade repellent recipes available online. The most effective taste repellents rely on putrefied eggs. Thiram (a fungicide) is effective, and typically applied to dormant trees and shrubs, but does not weather well. Products with higher concentrations of capsaicin, extracted from hot peppers, have demonstrated effectiveness. Other products using a variety of active ingredients are also available. Select products by reading the label and assessing based on need and desired outcome; some are not recommended for application on edible crops. Ultraviolet radiation and rain are enemies of all repellents and periodic reapplication is necessary. Deer are selective browsers and will browse untreated new growth on a repellent-treated plant. Carefully following manufacturer application and reapplication recommendations is important for best results. Repellents may not work well when used on highly palatable plants or when resources are limited, and deer are hungry.

Exclusion creates a barrier to reduce or prevent deer from ingress into an area. Fences are the only reliable method that can eliminate deer damage when the appropriate fence design is used and properly maintained. There are numerous fence designs available to fence out deer ranging from temporary electric fences to permanent non-electric or electric high fences. Fences developed to exclude deer include single-strand, peanut-butter fence, multiple strand, 7-strand slant high-tensile, 7-strand high-tensile (vertical), offset or double fence, and 8-foot net wire fence. Most of these are electric fences, sometimes with only specifically placed electrified wires. Which fence works best is dependent on the size of the area needing protection and ranges from a single plant to large gardens or orchards. For example, a single wire or peanut-butter fence is best for smaller areas, such as gardens. Slanted fences or 8 to 10-foot vertical fences are best for larger areas, such as orchards. Fences must be properly constructed with quality materials to be effective. Additionally, rock walls or wooden-slat fences may be effective. Existing fences may be modified to improve their ability to exclude deer. Plastic mesh fencing may also be effective in excluding deer, although not as durable as metal fences. Fences that contain specifically trained dogs have proven effective in eliminating deer damage. The presence of untrained dogs may also be effective. Regardless of the fence type, regular inspection and maintenance is required to ensure effectiveness. Electric fences need frequent inspection and weekly voltage checks to maintain efficacy.

Reducing or eliminating deer damage requires patience, learning, planning, a willingness to explore options, and integration of multiple techniques. Time spent observing deer (general numbers observed, direction of approach, specific plants damaged, time of day present, etc.) and online research provides a solid foundation on which to select management techniques and plan. If damage is light and infrequent, then low-cost approaches may address the problem. If damage is heavy and consistent, then more expensive measures may be necessary. Implementing management before damage begins improves outcomes. Neighborhood relations should also be considered when selecting management options. Monitoring management outcomes is fundamental to adapting efforts and achieving success. Integrating a combination of management techniques can alleviate the trouble deer can cause and provide opportunity to enjoy their grace and majesty.

A note related to finding a fawn.

Newborn fawns spend more than 95 percent of the day hiding and separated from their doe as a strategy to hide from predators. Fawns lay still for hours, only standing to nurse when the doe returns a few times a day. Does usually stay within a few hundred yards of their fawn(s). Toward the end of the first week following birth, fawns adopt a hide/bolt strategy to avoid predation; bolting from their hiding spot when a threat approaches very close. The distance eliciting the bolt response increases as fawns grow older and increase in strength. When humans, or other threats, approach a hiding fawn their heart rate decreases by two-thirds, and they stop breathing. Heart rate and respiration will return to normal within a few minutes after the threat is gone. If a wet looking fawn is observed, it is very young and may not yet

have bonded with the doe. Disturbing or touching it at this stage increases the chances the doe will abandon the fawn. Additionally, touching a fawn increases their stress level and threatens their survival. Well intentioned people may become unwitting fawn-nappers if they find a hiding fawn, assume it is abandoned, and remove it from its hiding place. A hiding fawn is not abandoned, it is trying not to attract attention. Enjoy the opportunity to have seen a hiding fawn and move along quickly and quietly.

Follow the link for additional information on <u>Mule Deer in New Mexico | New Mexico State University - BE BOLD. Shape</u> the Future. (nmsu.edu).

Register Today for Four Corners Stockmanship & Stewardship Event McGee Park Farmington, NM- May 10-12, 2023

Registration is now open for the Four Corners Stockmanship & Stewardship event, May 10-12, 2023, in Farmington, New Mexico. Stockmanship & Stewardship is a unique educational experience for cattle producers featuring low-stress cattle handling demonstrations, Beef Quality Assurance (BQA) educational sessions, cattle preventative health care and value-added programming sessions and industry updates.

The BQA program is a Beef Checkoff-funded educational program that helps guide producers towards continuous improvement using science-based production practices that assure cattle well-being, beef quality and safety. Attendees can become BQA certified during the event. "Those who become BQA certified, and meet requirements for recertification, show their commitment of striving to produce the highest quality, safest beef products for consumers, and educational programs like this event focus on the BQA program and practices that help producers elevate this commitment" says Dr. John Wenzel, Extension Veterinarian with New Mexico State University.

Industry experts including Dr. Lily Edwards-Callaway, Colorado State University; Dr. John Wenzel, New Mexico State University; Leann Saunders, IMI Global; and others, will cover topics such as cattle behavior, vaccines, reproductive efficiency and value-added calf programs. Stockmanship experts Dr. Ron Gill, Dr. Dean Fish and Curt Pate will provide hands-on live animal handling demonstrations. The event will be held in conjunction with Indian Livestock Days and for the first time, the BQA training will be offered in the Navajo language, Diné. The program is sponsored by the National Cattlemen's Beef Association (NCBA), Merck Animal Health, and the Beef Checkoff-funded National Beef Quality Assurance program.

"At Merck Animal Health, we are committed to continuously improving animal health and well-being through our investments in research and development, our comprehensive portfolio of innovative products and technologies, the expertise of our people and in supporting the cattle industry and its causes," said Kevin Mobley, executive director of sales at Merck Animal Health. "We are proud to have a long-standing partnership with NCBA on its Stockmanship & Stewardship program to provide cattle producers with animal care training and education to help them be more profitable and sustainable in their operations."

For more information, complete agenda, fees and to register, visit www.StockmanshipAndStewardship.org. Cattle producers attending Stockmanship & Stewardship are eligible for reimbursement through the Rancher Resilience Grant. To apply for a grant to cover registration costs and two nights hotel, visit www.ncba.org/producers/rancher-resilience-grant



May 10th - 12th Farmington, NM

REGISTRATION NOW OPEN!

Join us for an outstanding three day event sponsored by Merck Animal Health!

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WEDNESDAY, MAY 10TH

BQA certification and cattle behavior

THURSDAY, MAY 11TH

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> FRIDAY, MAY 12TH Veterinarian updates

McGee Park

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Mother's Day - Sunday, May 14th

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