Rabbit Management

Nebraska Extension
The Cottontail Rabbit

- Shorter ears than jackrabbits
- White cotton-like tail
- Weigh 2-3 pounds
- Reddish color patch between shoulders

Photo: University of Nebraska–Lincoln
Black-tailed Jackrabbit

- Long ears
- Has tail that is black on top but white below
- Weighs 3-7 pounds
- Can feed in small groups in the late afternoon or evening

Photo: USDA-APHIS
White-Tailed Jackrabbit

- Long ears
- White tail
- Weighs 5-10 pounds
- Tends to be solitary and active at night

Photo: USDA Forest Service
Cottontails occur throughout most of Nebraska.

Jackrabbits—have suffered serious population declines in recent decades. Hunting is prohibited east of U.S. Highway 81.
Cottontail Rabbit Biology

Cottontails:

- Have 3-5 young per litter
- Have 2-3 litters/year
- Raise naked, helpless young in fur-lined cup-shaped nests called forms
- Eat vegetation within 2 weeks of birth
- Leave nest in 5 weeks
Cottontail Rabbit Biology

Lifespan
- Most cottontails live only 1 year
- Only 1 out of 100 live for 3 years

Home Range
- About 10 acres

Diet
- Garden vegetables
- Flowers
- Shrubs
- Stems and leaves
Jackrabbit Biology

Jackrabbits:

- Have 3-5 young per litter
- Have up to 4 litters/year
- Give birth to young capable of running in cupped depressions called forms
- Eat vegetation within 10 days of birth
- Leave nest in 3-4 months
- Also known as “Hares”
Jackrabbit Biology

- **Lifespan**
  - Less than 2 years

- **Home Range**
  - About 50 acres

- **Diet**
  - Grasses
  - Shrubs
  - Stems and leaves
  - Alfalfa
Rabbit Survival Through the Year

Population peaks in May
Population declines after winter

Drawing: University of Nebraska–Lincoln
Rabbit Tracks

- Front feet are placed one behind the other
- Hind feet are placed closer to side by side

Image: University of Nebraska–Lincoln
Tree Squirrel Tracks

- Front feet are placed side by side
- Tracks will show splayed toes and no hair prints (their soles are bare)
- Tracks may also encircle or meet tree trunks

Photo: University of Nebraska–Lincoln
Rabbit Droppings

- Difficult to identify species with droppings alone
- Cottontail droppings are usually round but can be shriveled or wrinkled
- Jackrabbit droppings are often flatter

Image: University of Nebraska–Lincoln
Deer Droppings vs. Rabbit Droppings

- Deer droppings usually appear in groups
- Deer droppings more numerous than rabbit droppings
- Deer pellets are angular while rabbit pellets are spherical

Look for deer tracks too!

Photo: University of Nebraska–Lincoln
Rabbit Gnawing

- Rabbits gnaw the bark of young woody stems during winter and spring.

- Rabbits leave $\frac{1}{4}$ inch tooth marks on small branches.

Photos: University of Nebraska–Lincoln
Rabbit Clipping vs. Deer Clipping

- Rabbits clip twigs cleanly at a 45 degree angle
- Rabbits typically clip within 2 feet of ground
- Deer leave ragged edges
- Deer can browse as high as 6 feet off the ground

Photos: University of Nebraska–Lincoln
Learn to Tolerate Some Damage

- Particularly on shrubs not prized for buds, flowers, or fruit
- Most shrubs respond well to browsing, but repeated yearly damage may dramatically reduce plant vigor
Wildlife Integrated Pest Management

Habitat Modification

Successful Damage Management

Control Methods       Timing and Monitoring
Habitat Modification

Some trees may be less browsed by rabbits than others

- Cypress
- Hackberry
- Magnolia
- Oak
- Redbud
- Spruce
Habitat Modification

Some shrubs may be less browsed by rabbits than others

- Shrubs
  - Barberry
  - Cinquefoil
  - Cotoneaster
  - Lilac
  - Sage
  - Viburnum

Photo: University of Nebraska–Lincoln
Remove Rabbit Harborage

- Clean up brush piles
- Mow tall grass
- Prune low-growing shrubs
- Store lumber off the ground
- Block rabbit access below porches and sheds

Photo: University of Nebraska–Lincoln
Protect Individual Trees

- Use plastics and other materials that are durable and will expand with the plant’s growth.
- Make tree wraps or fences at least 30” to 36” high.
- Use mesh < 1 1/2”
Fencing is Very Effective

Use fence with < 1 1/2” mesh

- Cottontails
  - 16” minimum height
  - Bury mesh 2-3”

- Jackrabbits
  - 36” minimum height
  - Bury mesh 6”

Image: University of Nebraska–Lincoln
Account for Snowfall!

- Protect those ornamentals during winter!
- Make fences high and strong enough to accommodate heavy snowfall.

Photo: University of Nebraska–Lincoln

Snow can permit a rabbit to jump the fence.
Fencing Material

- Hardware cloth is expensive but durable
- Poultry wire is inexpensive but not as durable
- Both types of fencing materials are effective

Photo: University of Nebraska–Lincoln
Supplement Existing Fences

- Add poultry netting to the lower two feet of an existing wire fence
- Bury netting 2-3 inches into the ground
Frightening Devices

Often provide only limited relief from the damage

- **Visual**
  - Scarecrows
  - Human effigies

- **Audible**
  - Pyrotechnics
  - Shooting overhead

- **Physical**
  - Motion-activated water sprays

Photo: University of Nebraska–Lincoln
Limitations of Frightening Devices

- Rabbits quickly habituate to them
- Ultrasonic devices have not been proven effective as frighteners

Avoid Ultrasonic Devices

Photo: University of Nebraska–Lincoln
Repellents

- Invoke a pain or fear response
- Most are short-lived in their effect
- May need to be re-applied after sprinkler irrigation, rain, or new growth
Repellents that Induce Pain

- Capsaicin or hot pepper extract (Scoot ™, Shotgun ™; Deer-off ™, Bulb guard™)
- Ammonium or potassium salts of fatty acids (Hinder ™, Grant’s, M-pede ™)
- Denatonium saccharide (RoPel ™), a bittering agent
Repellents that Induce Fear

Taste repellents tend to work better than area repellents

- Eggs (Big Game Repellent™, Deer-Away™, Get Away™)
- Thiram fungicide (Spotrete™)
- Bone meal, blood meal (Repel™)
- Predator urine or feces (Shake-Away™)
- Garlic (Plant Pro-tec,)
Apply Repellents Correctly

- Follow the label’s instructions carefully
- Several deer repellents also are listed for rabbits
- Most rabbit repellents are not registered for use on plants destined for human consumption
- Some can be applied to perimeter areas or to the soil

Photo: University of Nebraska–Lincoln
Extending Rabbit Repellent Effectiveness

- Some repellents can be enhanced in their longevity and/or effectiveness by mixing them with other products, such as
  - Roplex™
  - VaporGuard™
  - Wiltpruf™.
Trapping

- Traps must be at least 7” X 7” at the door
- Work best during winter/early spring
- Good cold-weather baits include cabbage, ear corn, dried apple, and dried alfalfa or clover, rabbit urine is a reported attractant
Cage/Box Trapping

- Traps can be set near natural borders that attract and funnel rabbits to the trap.
- Place traps under shade in shrubbery where possible.

Some believe that box traps (solid walls) have a higher catch rate for rabbits.

Photo: University of Nebraska–Lincoln
Trap Safety

- Wear leather gloves when handling cages
- Use only traps in good working order
- Keep children and pets away from traps
- Wash hands after handling traps
Trapping

- Traps must be checked daily (including weekends and holidays!)
- Rabbits must be released on-site or euthanized
- Translocation beyond 100 yards is illegal in Nebraska
Trapping

Traps may lure other wildlife, such as skunks, instead of the desired rabbits. Learn how to handle a trapped skunk BEFORE setting a cage trap!
Trapping

**Handling trapped skunks**

- Prevent skunk captures by closing trap before sunset and resetting in the morning; skunks are nocturnal.
- If a skunk is captured, release it carefully.
  - **Gravity door trap**—Use a long pole while remaining a distance away to turn the trap upside down, causing the door to open as a result of gravity.
  - **Spring door trap**—Approach and cover the cage with blankets before releasing the door and moving quietly away.
Shooting

- Cottontails and jackrabbits are game species in Nebraska
- Rabbit hunting is allowed in rural areas during the fall and winter with a small game hunting permit
- Check local regulations before discharging a firearm

Photo: University of Nebraska–Lincoln
Tularemia

- Aka “Rabbit Fever”
- Bacterial disease transmitted to humans by wildlife, ticks, or biting insects
- It is rare in humans. About 30 cases have occurred in Nebraska over the last decade
Symptoms of Tularemia

- Sudden onset of high fever and chills
- Joint and muscle pain (lower back)
- Headache
- Swollen or slow-healing wounds
- Swollen lymph glands
- May persist for weeks or cause death
- White spots on liver of rabbit
Precautions Against Tularemia

- Use plastic gloves when handling traps or field dressing rabbits
- Use tick and mosquito repellents on self and pets
In Summary, Rabbit Management Includes:

- Landscaping or plant selection
- Exclusion with proper materials and construction
- Repellents applied often and generously
- Cage/box trapping judiciously
Additional Resources

- Internet Center for Wildlife Damage Management
  - [http://icwdm.org](http://icwdm.org)
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