

Deer-exclosure plant cages for areas of extreme predation



Early in 2013, I planted a **woodland garden**. But every night, my garden was decimated by my local population of [white-tailed deer *Odocoileus virginianus*](#). Yummy, I guess!

My nemeses' natural predators [wolves *Canis lupus*](#) and [cougars *Puma concolor*](#) were extirpated from my region 100 years ago (they are returning, but not expected until 2040 or so). And local human hunters are no longer sufficient to keep them in check. So I was forced to defend my plants myself. I could have tried **deer repellent**, but locals told me of them **not working**, or requiring an **application schedule** stricter than I could handle, so I decided to use **mechanical means**.



After much trial-and-error, this is what I found works. While tested against [white-tailed deer *Odocoileus virginianus*](#), they are probably effective against all [deer family *Cervidae*](#).

Or follow article ["When You Need A Tree Cage", Michigan Forestry Notes, June 2020](#).

Or see [MSUE's article *Smart Gardening to Deter Deer*](#).

You can also get and install a **motion-controlled sprinkler!** Or [plant deer-resistant plants](#).



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- **TODO:** Complete this doc. **TODO:** Add some pics of the new design!
- **TODO:** Find a place for [Prevention and Control of Wildlife Damage Handbook](#) instructions about **rabbits** family Leporidae, **squirrels/chipmunks** family Sciuridae, **field mice/eastern meadow vole** genus *Microtus* (at my house *M. pennsylvanicus* or *pinetorum*) (*USFS*) (*control*), **moles** family Talpidae (*control*), and **gophers** family Geomyidae. [What animal is digging holes in my yard?](#) [What do about squirrels?](#)
- **TODO:** Add prevent **birdstrikes on windows**, including drawing or applying **vertical lines**, or a series of dots, or decals, **every 10 cm (4 in)** on the **outside** of the window. Most **migrating** birds do so at **night** – turn off interior and exterior lights from midnight to 6am during migration. Most collisions are with windows of buildings of 4 stories or less. **Birdcast. Feather-friendly design. Bird-Safe Lights-Out Philly program. PBS NewsHour 2025-01-05.**
- **TODO:** Point people to video Growing a Greener World Episode 1003 S10Ep03 "Oh Deer – Dealing With Four-Legged Garden Pests, Big and Small" on PBS or <https://youtu.be/TKyqgSx7MuY> or <https://growingagreenerworld.com/oh-deer-four-legged-garden-pests>. For full effect, select a video link, then icons □ fullscreen, cc captions, ▶ Play, and □ ⓧ Skip Ads.

1 Planning

- **NEW** Decide what animal you are trying to exclude. For:
 - **Deer:**
 - **Containment fence**, rectangles 5x8 cm (**2x3 inch**). Staple to ground. **Works great!**
 - **Poultry-wire**, hexagons about 2½ cm (1 inch), stiff. Have used for tops. **Works great!**
 - **Livestock panels**, rectangles 13x23 cm (**5x8 inch**) might be OK, have not tried.
 - From a height of 0 to 3' (if topped with electriced wire) or 4' or 7'
 - [What animal is digging holes in my yard?](#)
 - **Raccoons:**
 - Welded-wire **hardware cloth** (1x1 cm or ½x½ in). **Works great.✳**
 - ✳ = sink into ground 10-15 cm (4-6 in), with a right-angle bend to side for another 2-3 cm (1 in) like "L".
 - **Poultry-wire**, hexagons about 2½ cm (1 inch), stiff, might be OK, have not tried.
 - **Containment fence**, rectangles 5x8 cm (**2x3 inch**). **Not** good enough – can walk through.
 - **Rabbits**, probably same as raccoons.
 - **Squirrels**, probably same as raccoons. [See Appendix!](#)
 - **Chipmunks:**
 - Welded-wire **hardware cloth** (1x1 cm or ½x½ in). **Works great.✳**
 - **Poultry-wire**, hexagons about 2½ cm (1 inch), stiff, probably can walk through it, have not tried.
- Decide how big you need your deer-exclosure plant cage to be. Leave room for the plant to grow.
 - We are told the deer **molar zone** you need to protect is **½-1½ m (1½-5 feet)**, with extremes being **5 cm – 2¼ m (1/8 – 7 feet)**. Although I have seen particularly-yummy plants browsed down to **0 mm (0 inch)** in early morning, growing to **6 mm (¼ inch)** by late afternoon.
 - For **lots** more information, see [Prevention and Control of Wildlife Damage Handbook](#) > scroll down to or Search for your animal of interest > select it > button **Download**.

2 Tools list

- **tin snips** or heavy-duty **wire cutters**,
- **pliers**,
- **safety glasses**,
- **gloves**,
- **closed-toe** shoes.

3 Parts list

In the fencing section of your local hardware store, buy:

- [Req] Protective-cylinder: **Containment fence** or **welded-wire fence**, *vinyl-coated* (for long life), color = *dark green* or *black* (for minimum visibility), mesh size = 2"x3" (5cm x 7.6cm) is fine, 1/2"x1/2" (1cm x 1cm) will work but is much more work.

A roll **48"x50'** (**1.2m x 15m**) works for large plants. Can use shorter for small plants, but allow for growth!

- [Opt] Top: **Chicken wire** (also vinyl-coated in dark green or black) (more work, but adds structural integrity)

or **plastic bird fabric** (easier but less sturdy) (plus get **thick black thread** or **twine** to sew it on). Get **enough to cover** what you designed above.

- [Opt] Small clamps (the kind you use for paper reports OK).
- [Req] Hold-downs, so deer cannot push it over: **Stakes** or **landscaping staples**, 6" (15cm) or so. Get about **4 per cage**.



4 Assembly instructions

- Make the protective-cylinder:
 - **Cut** your **containment fence** or **welded-wire fence** above, using your **tin snips** or heavy-duty **wire cutters**.
 - **Roll** it into a **protective-cylinder**. Actually, for larger cages, it doesn't have to be a cylinder — I made one that is kinda kidney-bean shaped. And for a plant growing right up against a tree stump, I made a cage that looks something like a car!
 - **Connect** the cylinder edges together by cutting off the side-wire on one side, then bending the now-free points of wire around their mates on the other sides, using your pliers. ~~Or sew it on with your **thick black thread** or **twine**.~~
 - If **not tall enough**, you can make two cylinders, and **stack** them, cutting off the top-wire on one cylinder, then bending the now-free points of wire around their mates on the other cylinder. I have even started leaving the excess sticking outward, and an additional deterrent! ~~Or sew it on with your **thick black thread** or **twine**.~~
- If you make it tall enough and thin enough, you don't need a top:
 - Faster to make.
 - The plant can grow through it.
 - Doesn't collect debris nor snow.
- If you want a top (and the structural integrity it adds):
 - Cut some **chicken wire** above a bit too big for the top, using your **tin snips** or heavy-duty **wire cutters**.
 - If you like, you can hold it down to the protective-cylinder using small clamps (the kind you use for paper reports OK).
 - Then bend the excess around your existing protective-cylinder, using a gloved hand (easier) or pliers (if needed). If you are using **plastic bird fabric**, sew it on with your **thick black thread** or **twine**.

5 Installation

- Place the deer enclosure cage you over your plant.
- **Stake down** the perimeter with **landscaping staples**.
 - **4** equally placed around the perimeter seem to be adequate.
 - If you want, you can cut off the **bottom-wire** on the bottom-cylinder, leaving the now-free points of wire to help hold down the cage!

6 Maintenance

Plant cages above need very little maintenance as such. However:

- When **mowing**, you can mow up to the cage, then flip it over onto the mowed side, and when done, restore it.
 - For the largest cages, I can flip it over, but need help from my spouse to get it back over the plant!
- If the plant you are protecting is **dormant** in the winter, you can either **store** your cage in a garage or shed, or **leave up year-round**.
 - Plastic fabric tops may break with heavy wet snowfall.
 - Snow is no problem for open- or wire-tops.

Experiment! Let us know what works for **you** — and what doesn't! We hope this helps you deal with your deer problem!

7 Appendix: Keeping squirrels (chipmunks?) family *Sciuridae* away from your bird feeders

- You can use the **pedestrian method**:
 - put out your feeders,
 - observe the results, and
 - if not acceptable, adjust.
- Or you can use measurements. I read that to keep [squirrels family *Sciuridae*](#) away from your bird feeders, put your feeders where, versus any **surrounding landscaping** (e.g., trees, shrubs) or **structures** (e.g., deck, roof), they are **at least**:

Meters	Feet	measurement
≥ 2¾ ^[1] –3½ ^[2]	≥ 9 ^[1] –11 ^[2]	drop from above.
≥ 2 ^[1] –2¾ ^[2]	≥ 7 ^[1] –9 ^[2]	apart from anything to the side,
≥ 1½ ^[1] –2½ ^[2] 1 ^[2]	≥ 5 ^[1] –8 ^[2] 4 ^[2]	up from the ground, bushes or benches (up from ground to a predator-baffle)

Sources:

^[1] "12 Tips for Success with a Squirrel Proof Bird Feeder", *_Birds and Blooms_*, November, 7, 2022, accessed 2022-12-31, <https://birdsandblooms.com/birding/attracting-birds/feeding-birds/squirrel-proof-bird-feeders>

^[2] A webcast I attended on 2021-03-16.

^[3] [What do about squirrels?](#)