



"Is it safe to come out?" These annual flowers spent most of summer 2023 hiding under the patio table. This method works well if the hail doesn't come in too much from the side. I usually place patio chairs against the table on the side of our prevailing winds to intercept hailstones. Photo by Jennifer Thompson.

What the hail?

Hail is a fact of life in many parts of Wyoming. Sometimes small, sometimes huge, hail can wreak havoc on gardens and landscapes.

A hail of a summer

Laramie had an unusually hail-filled summer last year. The patio plants I keep on my porch spent very little time *not* huddled under my glass patio table. They'd be pushed out briefly to enjoy life uncovered; the next morning I'd be rolling them back under shelter. (Tip: wheels under pots will help save your back!)

One of the storms delivered some hailstones that were a bit larger than normal (for Laramie). Luckily, my patio plants were fine under the table and my veggies remained unscathed.

Since my vegetable plot is fairly small, it is covered by a simple PVC structure over which I drape protective coverings. Over the years, this structure has sported

various thicknesses of row cloth; most recently, it has worn some insect netting for protection from various threats. The edges of all of these covers are held down by substantial bricks, cinder blocks, rocks, or pieces of cement to keep them from taking flight in the gusty winds that almost always accompany hail.

I also have a little cold frame where a few tomato plants grow. The frame's acrylic plexiglass windows are passively lifted by automatic vent openers early in the season—they have black tubes containing a paraffin substance that expands when things get warmer, which in turn pushes out the rods that open the windows. Last

How does hail form?

Eastern Wyoming is especially hard hit as parts of it fall within "hail alley." Knowing how hail forms can help you understand why this is the case. Visit <https://bit.ly/noaa-hail> to learn more.

summer, one of my plexiglass windows got hit just right, ultimately causing a piece to fall out (not bad for 12 years of use).

While my veggies were safe under cover, other folks in the community had their usually reliable row cover get shredded, ending up with lettuce and tomato purée.

Protective coverings

Although all bets are off when the really big stuff falls, some hail measures can help protect your produce from the slings and arrows of outrageous summer storms. Methods with some “give” are often the most successful. The impact of the hailstones is absorbed as they hit protective material such as the insect netting draped (not very tightly) over my PVC frame.

Note that there should be some space between the tops of the plants and the netting—but not too much. As the hailstones accumulate, their weight will pull down the netting and eventually squish your plants if it is too slack.

Netting is especially useful if you’re not home to place temporary covers over the plants when the hail hits, often in the afternoon. Personally, I leave insect netting up all summer.

Whether you’re considering netting or another kind of protective covering, here are some things to keep in mind.

- Do I want to leave it up for the season, or will I just use it as a temporary measure?
- If I leave it up for long, will the sunshine get through and the heat get out? A little shading isn’t a bad thing in most parts of the state. Wyoming receives very intense sunlight during the growing season, so it’s best to keep a close eye on any covering that is clear and doesn’t let the heat out. Temperatures can quickly reach more than 100°F under the covering when the sun comes out.
- Can I get under it easily, or easily remove it as needed for weeding, watering, and harvesting?
- Can birds and other creatures get stuck under it?
- How will it hold up to UV? Ideally, coverings

Landscape plants

As far as landscape plants are concerned—mine are on their own. They don’t get totally reduced to green slush very often; however, if you visit one of my landscapes, you won’t see very many plants with big, thin leaves (think hostas). Looking at native landscapes that are subject to frequent hail, you won’t see too many of these types of plants standing out in the open either. Small, thin, or divided leaves, which are less likely to incur hail damage, are typical.

can be used for a number of years. Consider removing coverings in the winter so that they spend less time exposed to the elements.

- How will it hold up to the wind? Will it catch the wind, or does it allow wind to move through? How will I secure it?

Recommendations from Wyoming residents

After the hail-filled summer of 2023, the Barnyards & Backyards team surveyed Wyoming residents about hail protection methods. Hail netting, also known as “hail cloth” or “anti-hail netting,” was the most commonly reported method. Gardeners across the state recommended going with the best-quality netting that you can afford.

Temporary measures (which rely on accurate prediction of hail) recommended by survey respondents included the following.

- Place items such as plastic sheeting, tarps, and old blankets and sheets over supports.
- Use covers such as 5-gallon buckets, garbage cans, turned-over empty pots, and laundry baskets weighted down with rocks, bricks, etc.
- If the plants are in pots, move under shelter (garage, deck, patio table).
- Lean old campaign signs, heavy lawn chairs, and other objects over plants.
- At the beginning of the season, protect seedlings with bottomless milk jugs (lids are often removed during the day and replaced at night) or walls o’ water.



This cold frame protects tomatoes from the onslaught. Photo by Jennifer Thompson.



Vegetable plants under insect netting all safe and sound as shrubs get shredded. Photo by Jennifer Thompson.

Recommendations for structures to support protective coverings included:

- PVC (over rebar anchors) and metal hoops;
- PVC frames, old greenhouse frames, and old trampoline frames;
- Wooden supports;
- Hog panel arches.

For the longer term, respondents favored the following solutions.

- Using hardware cloth to form a “roof” over plants;
- Suspending tulle, old sheer window curtains, shade cloth, fine bird netting, or tight mesh of various kinds over plants;
- Suspending hail cloth or netting over plants;
- Building a lattice over garden beds;
- Using high tunnels and other enclosed structures with appropriate hail-resistant coverings.

To view all survey responses, visit <https://bit.ly/bb-hail-survey-24>.

Season extension structures

For folks who want something more permanent and are interested in season extension, hoop house and geodesic dome structures may offer a good solution.

Jeff Edwards, UW horticulture specialist, has been experimenting with and building these structures in Wyoming for over a decade.

“Traditional greenhouse film, that looks like construction plastic, is not the most economical long-term solution for Wyoming,” he says. “Hail may cause you to replace this type of cover annually. A woven polyethylene greenhouse cover will cost a little more, but in the long run will resist hail punctures and last for many years.”

An experimental approach

When gardening in Wyoming, it helps to take an experimental approach. I view the aftermath of each storm with the perspective of, “I wonder what did the best this time?” This helps me when I’m selecting the next plants to add to my landscape. After all, the Wyoming gardener’s motto is “there’s always next year.”

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Jennifer Thompson is the small acreage outreach coordinator for UW Extension. She has been known to mutter the Wyoming gardener’s motto repeatedly when faced with particularly egregious hail damage.

Protecting fruit trees

Hail netting is also used to protect fruit orchards. Visit <https://bit.ly/hail-net-orchard> to learn more.