

HAIL PROTECTORS, LARGE AND SMALL

by Emmy McAllister and Paul Smith

This presentation will cover a wide range of hail protectors -- large and small -- that have worked well in our area. Most of them will work equally well in a Back to Eden garden, a traditional in-ground garden or protecting plants in a raised bed. We are sure that some of our members have come up with even better designs than we have, and we look forward to your sharing them with of us!

THE LARGE ONES!

- 1. Ashleigh's Hail/Hoop House**
- 2. Ashleigh's "Corrals" with Sunflowers**
- 3. Paul's Hail House**
- 4. Larry Stebbins's "Three-Season Cloth Hoop Tunnel"**
- 5. Larry Stebbins's hail cover**
- 6. The Greenzbox**
- 7. Coverings supported by a PVC framework**
- 8. The Shed Bed**
- 9. A moveable shade cloth structure on a wire frame**

THE SMALL ONES!

- 1) Walls of Water (WOWs!)**
- 2) Milk and Water Jug Cloches**
- 3) Cold Frames**

Ashleigh's Back to Eden garden designs: Her Hail/Hoop House and her Corrals with Sunflowers. The handout shows the diagrams, the building instructions and the materials lists.



Paul's Hail House is wide enough to protect sprawling plants like winter squashes and tall enough for the tallest tomatoes plants! A handout shows a photo of the completed structure and the diagram and materials list. The link below takes you the photos that accompany each instruction.

<https://blackforestvictorygardenclub.wordpress.com/hail-shelter/>



Larry Stebbins's "Three-Season Cloth Hoop Tunnel" over a 4 x 8 foot raised bed protects plants from *light* hail, protects onions from root maggots and collards from the cabbage moth. He uses it over all his leafy greens, his onions, peppers and cucumbers. He says it will never overheat like plastic tunnels will. A cattle panel is used as a frame. (We'd add a layer of chicken wire on top of the cloth for added hail protection.) The handout contains the building instructions and materials list for the 4 x 4 foot version. Here is the link to the handout:

<https://blackforestvictorygardenclub.files.wordpress.com/2015/02/building-a-3-season-cloth-hoop-tunnel.pdf>



Larry Stebbins's Hail Cover -- From his book, *Backyard Vegetable Gardening*, shows a raised bed planted with garlic and protected by a hail cover made from a cattle panel frame covered with chicken wire. This design works best to protect crops that don't need visiting from the time they are planted until the time they are harvested.



The GreenzBox is a deep raised bed covered with shade cloth and held up by a sturdy PVC frame. The design was perfected by a veteran Albuquerque gardener to protect his cool season veggies from intense summer sunlight. The shade cloth can be opened during the day and closed at night to protect from frost and critters. Here is the link to website where you will find the all instructions and the materials list for building one.

<http://www.avant-gardening.com/greenzbox.html>



Paul and I did a simple modification to the Albuquerque design, adding a panel of field fence on top and a panel of chicken wire on top of that underneath the shade cloth. So now our GreenzBox also protects our shade loving and cool season veggies from hail, as well as from intense sunlight. We will be converting this bed to a Back to Eden raised bed this year.



A Hoop “Cottage” Protected by a PVC frame with your choice of covering: retractable 6 mil UV plastic, bird netting, chicken wire or hail cloth. These materials are fastened to the PVC framework in such a way that they can be raised to the apex of the arch or lowered to the base, as growing conditions and weather conditions change.

A hoop cottage is a small hoop house, built over either a raised bed or part of a Back to Eden garden. This is a photo of one of ours, over a raised bed one foot deep. This raised bed will be converted into a Back to Eden raise bed this year. We will remove a few inches of soil to make room for the wood chips.

Our own raised bed hail protector – which also doubles as a season extender – was adapted from a design featured in Sunset magazine sent to us by Lisa Funk. You will find the photos, instructions and materials list by clicking on the link below which takes you to our club’s website. When you get there, in addition to the instructions and a series of photos from Lisa, you will also see 1) a photo of Kathe and John Cockson’s raised bed hail protector and 2) an article entitled, “Hail Protectors for the Veggie Garden”, written by Rich Young, a local Colorado Master Gardener, extolling the virtues of this kind of hail protection for raised beds. <https://blackforestvictorygardenclub.wordpress.com/building-raised-beds-and-raised-bed-covers/>



The Shed Bed is a bit like a protected hoop cottage cut in half, except that it is much taller, allowing headroom for plants like corn, indeterminate tomatoes, kale and vining peas and beans. Hail protection comes primarily from the shed, which blocks the hail coming in from the north. Plastic, bird netting, chicken wire or hail cloth, or a combination, cover the top and sides of the PVC structure.



Shade cloth supported on a wire frame protects tender greens from summer heat in Paul and Emmy's garden.



When a cold frame sits on top of an in-ground bed, a Back to Eden bed or a raised bed, its lid can be lowered and covered with bags of leaves or straw to protect the plants inside from hail. When your seedlings no longer need cold frame protection from the cold and wind, you can replace the glass or plastic in the lid with bird netting, chicken wire, hail cloth or shade cloth to protect your plants from hail. The internet offers many building plans for cold frames of different kinds.



Walls of Water or WOWs, as they are often called, are marvelous hail protectors even though that's not what they were originally intended to do! The handout explains their many benefits and gives tips for their use. Paul and Emmy wouldn't be without them!

<https://blackforestvictorygardenclub.files.wordpress.com/2015/02/march-23-2015-wows-why-use-walls-o-water.pdf>

<https://blackforestvictorygardenclub.files.wordpress.com/2015/02/wall-o-water-plant-protectors-rock.pdf>



Milk and Water Jug Cloches will protect small plants from wind and hail and maybe even from deer, rabbits and insects. As the weather warms up, it will need to have ventilation holes in the side. Mine milk jug cloche has two dowels that go inside from its shoulders into the ground, holding it in place against even strong winds and hail.