

Easy, affordable cover extends growing season in home gardens

December 18 2014, by Kathleen Phillips



A 6 millimeter perforated plastic can be used to cover plants for protection against cold weather. Credit: Kathleen Phillips

A technique used by commercial growers to protect tender crops from harmful cold temperatures may be an affordable option for home growers as well, according to Dr. Joe Masabni, Texas A&M AgriLife Extension Service vegetable specialist.

"I've been working with strawberry producers, and we've found that using plastic covers to form small tunnels over the row is definitely a

great tool to protect the plant during those occasional days or weeks when we have a severe freeze," Masabni said. "Why not show that it can be done for the homeowner, using the same material that the commercial growers have?"

Masabni used a clear, 6 millimeter plastic that is 6 feet wide and has perforations about 4 inches apart in a grid pattern. He said that easily covers the typical 4-foot wide raised bed most people use for home gardens. For a 15-foot long bed, he used about \$2 worth of a 500-foot roll of plastic.

He bent four PVC pipes – at a cost of \$10 – from side to side across the bed. He used eight snap clamps, which cost about \$10 dollars, to secure the plastic to the PVC pipes. Some U-shaped garden staples may be needed to keep the plastic from blowing too much and to further secure the warm air inside.

"So, for about \$22, I can protect my raised bed from those nights that become severely cold," Masabni said. "For strawberries, for example, the idea is to protect the flowers. The leaves can tolerate a lot of [cold nights](#), even 32 or 30 degree temperatures. In Texas, we planted in September, and we already have fruits and flowers on them in mid-December. If we can protect them on those occasional very cold nights, we can be harvesting throughout the winter and get an earlier harvest in the spring."

He said the plastic, pipes and snaps should last for several years of repeated winter use if taken care of, making such a system even more affordable over time.



Small tunnels made of plastic over PVC pipes can make a difference for protecting plants from cold temperatures. Credit: Kathleen Phillips

"And the beauty of the perforated plastic is that you don't have to worry about opening up on a warm sunny day because the prepunched holes would let the extra heat vent out, while during the night it traps air inside to keep the plants warm," Masabni added. "Set it and forget."

Previous tests Masabni has done on the plastic-covered crops as far north as Kentucky showed that the temperature inside the plastic-covered row is always 10-20 percent higher than outside.

He suggested that rows may be covered until around March 1, depending on the weather forecast in a given year, or until the last chance of severe frost passes.

Another benefit is that other less cold-tolerant crops, such as tomatoes, can be planted earlier under such a system, he said.

"I have planted tomatoes mid-February whereas usually they are planted around March 15 in Brazos County, for example."

The snap clamps on the [plastic](#) sheeting are easily removable for

harvesting, Masabni said. "You can open a couple or three on one side and then harvest and tend to the crop as needed."



Clamps that snap over the PVC pipes hold plastic in place to form tunnels that trap warm air inside to help plants survive cold winter temperatures. Credit: Kathleen Phillips

Provided by Texas A&M University

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