

# Geodesic Dome Great For Year-Round Gardening

More than 1,000 families have set up geodesic greenhouses from Growing Spaces to supply themselves and others with fresh vegetables, herbs, flowers and fruit year-round.

"Most greenhouses are season extenders," says Udgar Parsons, Growing Spaces. "Our Growing Domes create an enclosed garden that's productive 365 days a year."

Parsons and his wife, Puja, have been building and selling geodesic greenhouses for 22 years.

Winters are no problem for the Growing Domes. Developed in the mountains of Colo., they have been erected in the deserts of the southwest and as far north as the Aleutian Islands.

"They've handled winds of more than 100 mph," says Parsons. "Our premium model has five-walled glazing with four dead air spaces. That keeps air inside around 30° warmer than the outside temperature. Our standard model keeps it 15° warmer. If extra heat is needed, the domes take only a third as much energy to heat as a conventional greenhouse."

The two models range in size from 15 to 51 ft. in dia. and 9 1/2 to 21 ft. in height.

The domes are constructed with 2 by 4-in.

Douglas fir struts, polycarbonate greenhouse glazing panels, a treated wood or redwood base, and 16-in. or higher foundation walls.

Water tanks are a common feature in all the domes. Tanks range in size from 600 gal. to 2,300 gal. in domes 33 ft. in diameter and less. Tanks in the larger domes are custom designed to match dome uses.

The tanks provide much of the thermal mass that maintains temperature in the dome. They can also be used to grow aquatic plants and/or fish.

Cooling is provided by solar actuated vents and cooling vent fans. A solar-powered fan is included in the kit to push warm air under soil beds in the winter for improved plant growth. Custom-cut insulation panels cover the northern 2/5 of the domes. The panels keep the domes warmer in winter, shade the water tank in the summer to reduce heat buildup, and have a reflective surface that increases the light available to the plants within the domes.

Parsons projects a 20-year life span for the domes, depending on climate and care.

The price for the 15-ft. dia. dome kit is \$4,950 for standard double-glazing and \$5,950 with premium, five-wall glazing.



Growing Spaces geodesic greenhouse creates an enclosed garden that's productive all year long. Model shown above is 51 ft. in dia. and 21 ft. high.

The premium style, 51-ft. community dome costs \$44,950. Kits don't include heating ducts, perimeter and wall insulation, base sand and gravel or sheet metal and lumber for recommended water tanks. These costs can range from \$650 to \$1,950, depending on dome size.

Videos on Growing Dome Greenhouses can be found at [www.farmshow.com](http://www.farmshow.com).

Contact: FARM SHOW Followup, Growing Spaces, P.O. Box 5518, Pagosa Springs, Colo. 81147 (ph 970 731-2120; toll



Domes are constructed with 2 by 4-in. wood struts. This model is 15 ft. in dia. and 9 1/2 ft. high.

free 800 753-9333; [info@growingspaces.com](mailto:info@growingspaces.com); [www.geodesic-greenhouse-kits.com](http://www.geodesic-greenhouse-kits.com)).

# Fold-Down Greenhouse

Jeff Howard spent three years designing and developing a greenhouse that you can open or close according to the weather. Similar to a convertible car roof, the clear plastic attaches to a framework that easily folds to one side when temperatures rise.

"The most important thing is the flexibility," says Howard. "You can use them in the desert or, like me, here in Montana in the winter."

Howard has introduced two stand-alone models and two models designed to attach to the south side of a building. The stand alones include the GardenArch, with 112 sq. ft. and a 6-ft., 4-in. interior ridge, and the GardenPro, with 153 sq. ft. and an 8-ft. interior ridge. The SouthSider has 76 sq. ft. with an 8-ft. ridge at the building wall. The SouthSider Jr. has 56 sq. ft. with a height of 6 ft., 2 in. at the building wall.

"These are sized for backyard use," says Howard. "I've grown plants in all of them. They are easy to operate and make harvesting a lot more convenient."

The GardenArch and the SouthSider Jr. are entered by raising the greenhouse walls. All sections can be folded up and out of the way for easy storage. The GardenPro has an entry door.

All models are vented and feature a simple pulley system with spring-loaded latches and

handles to lift frame sections out of the way. They also share a galvanized steel frame and durable 6-mil thermal greenhouse film.

"Plastic, like any fabric, will give out if it's folded and refolded," says Howard. "With minimal wear, you should be able to get 4 to 6 years use out of it. We have a 10-year warranty on all metal parts.

"Because the sections fold up and out of the way, beds can be planted right up against the lower walls," says Howard. "When it's time to harvest, just lift the wall to access."

Prices range from \$449 for the SouthSider Jr. to \$995 for the GardenPro Greenhouse. Center shelving units and replacement covers are options with each unit. Solid vinyl covers are also available for all but the SouthSider, turning the greenhouses into year round storage. Wooden bases required for the larger models are not included in the price.

"They are easy to put up and come with detailed instructions," says Howard. "If the wood base is in place, putting up even the largest one will only take about a day. I could put it up in about two to three hours, but having a second set of hands is always nice."

For a video on opening and closing the GardenArch Convertible Greenhouse, go to [www.farmshow.com](http://www.farmshow.com).



Fold-down greenhouses are designed so you can open or close them according to the weather. Garden Arch model (upper left) and SouthSider Jr. (above) are entered by raising greenhouse walls. GardenPro model (left) has an entry door.

Contact: FARM SHOW Followup, Convertible Greenhouse Co., P.O. Box 1635,

Missoula, Mont. 59801 (ph toll free 877 818-5158; [www.convertiblegreenhouse.com](http://www.convertiblegreenhouse.com)).

# Old Parachutes Protect Grain, Equipment And Livestock

Parachutes that once helped lower heavy military equipment safely to the ground work just as well to protect equipment and grain on the ground, according to Gordon Cumming, owner of Crown Surplus Stores in Calgary, Alta.

"We've been in business 59 years and have sold parachutes most of those years to farmers to cover grain," he explains. "You can just throw the parachute over the grain, or we recommend that it be mounted or suspended on a central pole. They are not waterproof, but they are water repellent. If you have a good slope, rain and snow will run off. But if water is allowed to pool on top, it will eventually drip through." Many customers place tires or big round bales around the perimeter to hold the parachute down.

He sells a variety of sizes to cover various

diameters from 20 ft. (\$175) to 100 ft. (\$600). The 55-ft. (\$450) and 35-ft. (\$275) diameters are popular sizes, Cumming says.

Rural customers have used them to create horse arenas and shade for cattle. Construction companies use them to cover heavy equipment or shelter for pouring concrete in cold weather.

Contact: FARM SHOW Followup, Crown Surplus Stores Inc., 1005 11<sup>th</sup> St. S.E., Calgary, Alta. T2G 3E9 Canada (ph 403 265-1754; [www.armysurplus.com](http://www.armysurplus.com)).



Photo shows parachute that is used to cover a riding arena.