Portable "Scissor" Greenhouses

Eugene and Lucy Goodman use electrical conduit to make moveable greenhouses.

Whenever possible, Eugene and Lucy Goodman try to make money by not spending money on their Eaton, Ohio farm.

They had looked into "hoophouse kits," but opted to design and build their own moveable greenhouses, which they've now been using for about six years.

Though they admit they're "not fancy," the structures allow the couple to plant their vegetable crops earlier, and then extend the other end of the growing season as well, harvesting a second crop. The plastic tunnels protect plants from wind, and when used with a fabric row cover over the plants they get extra cold protection.

"Hoophouse kits are stationary and require a foundation, so you can't move them away from bug or disease problems that may occur," Eugene says. "They're also very expensive."

Instead, the Goodmans came up with what they call "scissor hoophouses."

"You can move them sideways because the pieces are light enough that they can be lifted," he explains. "You can lift them over plants without crushing them."

"We have four 50 by 4-ft. beds under the scissor hoophouses, and it only took me about a day to make them from scratch when we first started," Eugene says. "It takes me only about two hours to set up a 100-ft. tunnel."

Goodman's greenhouse design doesn't require perlins. He made each metal hoop using two 10-ft pieces of electrical conduit, bent in a mirror image of each other. Then, he connects them together at the top, using an electrical conduit connector.

Then he placed two of these hoops together at an angle to each other, so that their "straight sides" formed "scissor-like legs." Goodman connected the legs with U-bolts, about halfway up the sides. (The adjustable angle formed between the two hoops determines the height of the greenhouse. Goodman sets his up so the legs are three feet apart, and this creates a 7-ft. tall structure, which is free-standing at this point.)

To prevent the scissors from opening and closing under pressure, Goodman drives a 2-ft long, 3/8-in. rebar brace into the ground one foot deep, at the base of each scissor leg.

He then places a 4-in. long piece of 2 by 4 wood with a hole drilled in it, over top of each rebar brace, and slides it down until it sits on the ground. Goodman then lifts up the foot of the hollow electrical conduit hoop and sets it over the top of the rebar, sliding it down so it's sitting on the wood.

Once a series of hoops has been set up with one foot of space between them, the plastic is dragged over the top.

The block of wood against the ground surface prevents the hoop legs from being driven into the ground by natural forces such as wind or weight from snow. The Goodmans have found that strong winds can actually push the wood into the ground, flush with the surface, which loosens the plastic a bit.

The Goodmans use 24-ft. wide plastic sheeting so there's a little extra sticking out on the sides to bury under 4 to 6 in. of dirt.

"It's important to keep the plastic pulled tight over the hoops." Eugene says. "The scissor hoophouses sort of look like caterpillars when you get them set up. We reuse our plastic each year with this system."

The couple has used up to 13 of these scissor structures to make a 100-ft. long tunnel.

"I don't suggest making them more than 100 ft. long if you want acceptable air circulation," he says. "We use them in the spring until the air gets warm enough to remove the plastic. To move them, I generally close the scissors and take them up and over the plants, then set them down and open them up again. As long as the two feet on each side are attached to the ground, they won't open up any more and they'll support a fair amount of weight."

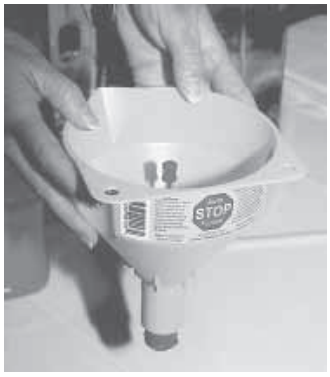
Each hoop is made from two 10-ft. pieces of electrical conduit. Legs of two hoops are U-bolted together halfway up to form scissor-like legs.

Goodman says he spent a total of about $300 on materials to build the system, and it quickly paid for itself.

"Conduit and plastic prices have gone up significantly since then, so I think it would be about $600 now to build what we have," he says.

Contact: FARM SHOW Followup, Boulder Belt Eco-Farm, Eugene Goodman, P.O. Box 593, Eaton, Ohio 45320 (ph 937 456-9724; goodows@infinet.com; www. boulderbeltfarm.com).

"No Spill" Funnel Turns Itself Off



Valve automatically stops the flow of fuel as it reaches the full level. You press down on the center rod to pour liquid back into a container.

Pouring fuel into a lawn mower or other small engine can quickly get messy if you overfill the tank. This new "Auto Stop Funnel" automatically stops the flow of fuel as it reaches the full level, preventing spills and overfilling. It lets you pour what's left back into a container.

"Other funnels indicate when the tank is getting full, but this is the only one that I know of that stops the flow," says inventor Jennifer Gruber. "Otherwise, by the time you stop pouring it may be too late to avoid overfilling the tank and spilling onto the floor."

The bottom of the funnel is equipped with a magnetic float valve that's closed by the rising fluid in the tank and opened by a control rod located inside the funnel. You place the funnel in the tank and push the rod down to open the valve. As you pour liquid into the funnel, the valve automatically closes as the tank fills.

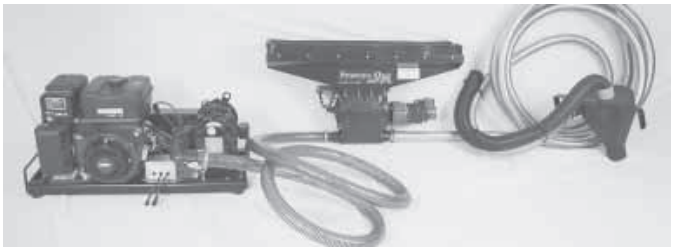
To pour the liquid back into the container, you place the funnel in the container and press the rod to open the valve.

"The key to making it work is that magnets attract each other," says Jennifer. "There's a magnet inside the float and another magnet inside the funnel. As the float starts rising the magnets get closer together, and when they get close enough they attract and pull the float valve all way up into the stop."

The funnel is made from polypropylene and holds 1 1/2 pints. It's expected to be on the market later this summer.

Contact: FARM SHOW Followup, George and Jennifer Gruber, 3845 Abercrombie Lane, Stillwater, Minn. 55082 (ph 651 338-3386; GeoGru2@Gmail.com or george@gpg2.com).

Drill-Fill Device Feeds Corn Stoves



"With 35 ft. of hose, I can pump corn into a garage storage container or even through a window into a basement," says Ramsey. "There's nothing to clean up after."

Myles Ramsey delivers corn to his corn stove customers the same way he fills his planter. His Yetter Seed Jet II does double duty and makes it easy for him to sell bulk corn to his customers. The cyclone exhaust kit not only delivers the corn, but controls the dust.

"With the 35 ft. of hose, I can pump corn into a garage storage container or even through a window into a basement," says Ramsey. "The Seed Jet II moves 6 to 9 bu./min., and there is nothing to clean up after."

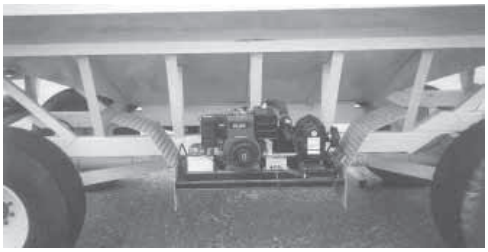
Ramsey's use of the Seed Jet II doesn't surprise Johnny Corey, a salesman at Yetter (www.yetterco.com; ph 800 447-5777). "It can be used to move corn, soybeans, wheat, rye, fish food pellets, anything up to about 1/2-in. in diameter," he says. "I have even had people buy a 60-ft. hose length. If it plugs up, just unhook the hose at the airlock, and let the hose drain out. Fire up the motor, and let it go."

The Seed Jet II comes with an 11 hp Briggs and Stratton motor. Adjusting material flow is as easy as sliding the gate on the top of the airlock. The self-contained unit attaches to gravity wagons or sits in a pickup easily.

"When handling seed or other material, just let the motor run wide open and control the flow with the side gate," says Corey.

List price on the basic unit with motor is $4,799. Yetter also offers a hydraulic powered Seed Jet for $3,942.

Contact: FARM SHOW Followup, Myles Ramsey, 56660 Denman Rd., Kenesaw, Neb. 68956 (ph 402 752-8134) or Johnny Corey, Yetter Manufacturing Co., P.O. Box 358, 109 S. McDonough, Colchester, Ill. 62326 (ph 800 447-5777; fax 309 776-3222; info@yetterco.com; www.yetterco.com).



Yetter Seed Jet II makes it easy for Myles Ramsey to sell bulk corn to his customers.