"Wagon Train" Chicken Coops

Mobile chicken coops hooked up in a "wagon train" make life easier for the chickens that live in them and the people caring for them.

"Our mobile coop design costs about \$6,000, in addition to the wagon base, and should last at least 10 years with minimal maintenance," says Jack Algiere, farm director of the non-profit Stone Barns Center. "That works out to about \$600 a year for a coop that can hold 200 laying hens."

Stone Barns developed the mobile chicken coops for their own use, and the design reflects their rough terrain, including the 6-ton running gear. "We followed a few basic principles, including a low center of gravity for pulling on our hillsides," says Algiere, who says plans for the coops are free on their website. "We also wanted them to be easy to clean without getting inside, and we wanted to access the eggs without entering the coop."

Algiere allows that a 4-ton running gear could be used on flatter terrain. The heart of the design and the most expensive component at about \$1,500 is the steel rigging. The base frame for the floor was tack-welded directly to the running gear frame, leaving space around the wheels. It was fabricated with 2 by 2-in., 3/16-in. low carbon steel tubing and 1 1/2 by 1 1/2-in., 1/8-in. angle iron. Once the frame was complete, it was U-bolted to the frame.

A second frame built over the wheels was fabricated with the same materials and connected to the first.

Hoops made from 1 1/2 by 1 1/2-in., 1/8-in. steel tubing were attached to the 2 base frames. They provided support for the ClearSpan custom cover from FarmTek.com.

"We had used tin roofs and tried other types of poly covers, but the ClearSpan from FarmTek was custom-cut to fit," says Algiere. "We can ratchet it down nice and tight, it has a long life span and it adds hardly any weight."

Framing for front, rear and side doors was made from 1 by 1-in. steel tubing and 3/4 by

3/4-in., 1/8-in. angle iron. Standard metal siding was used to enclose all four sides below the rounded fabric roof.

"We ended up removing the top half of the front and back ends and replaced them with wire mesh to improve ventilation," notes Algiere.

The rear door provides access for people and birds while the front opening is just for birds. The side doors provide access to the 2 banks of 10 nesting boxes each.

Mice had been a problem in previous coops with wooden floors. These coops used 1 by 2-in., 14-ga, galvanized wire for flooring. The mesh is open enough for most manure to fall through, but small enough to prevent weasels and other predators from entering.

"Initially we put 1 by 2-in. wooden slats on the mesh, but some birds got toes caught in the mesh," says Algiere. "We raised the slats an inch off the mesh floor and had no more problems."

The coop also contains two 30-gal. water reservoirs to feed nipple waterers. Roosts are 2 by 2 by 8-in. pine wood slats hung from wire rope on either side of the coops' interior.

"We tried light sensitive sensors to open and close doors, but they never worked quite right," says Algiere. "Lots of things were suggested to automate the doors. We finally went with timers that can be adjusted with changing daylight."

When the project was finished and put to the test, everything worked out well. Algiere notes that moving the coops and electric fencing, collecting eggs and filling feeders and waterers takes about 2 hrs. and occurs twice a day.

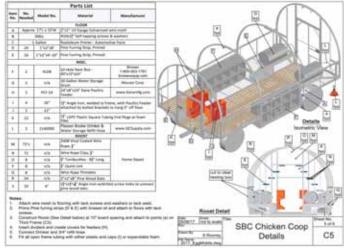
"We use a short wagon to hold water and enough feed for several days," says Algiere.

The coops are used in the farm's vegetable production fields as well as in pastures. The coops are brought in and pressure washed in winter.

"We learned a lot in building them and



Collecting eggs from Stone Barns mobile coops. Side doors provide access to 2 banks of 10 nesting boxes in each coop.



Plans for the coop are free on the Stone Barns website.

using them," says Algiere. "We've made the plans available and hope they help encourage small farm flocks."

Contact: FARM SHOW Followup, Stone

Barns Center For Food And Agriculture, 630 Bedford Rd., Pocantico Hills, N.Y. 10591 (ph 914 366-6200; info@stonebarnscenter.org; www.stonebarnscenter.org/)

Moveable Coops Control Chicken Free-Ranging

New Brunswick homesteader Kimberlee Bastien controls where her chickens free range with chicken tunnels and fertilization stations

Bastien's chicken tunnel, or chunnel, is designed to contain chickens on garden pathways. The round fertilization station is perfect for setting up around a young fruit tree.

To make a secure chunnel, Bastien starts with a 4-ft. wide roll of 16-gauge, galvanized wire mesh. While it could be any length, as it is attached to a wooden base, she suggests going with standard length boards.

"We chose to build ours 12 ft. long, so we used four 12 ft., 1 by 3-in. boards with 12 ft. of wire mesh," says Bastien.

The first step is to cut 1 1/2 in. off 2 of the 1 by 3 in. boards. Lay the boards parallel to each other and 4 ft. apart. Lay the mesh over the boards (overlapping each end by 3/4 in.) and staple the edges of the mesh to the boards.

Lay the uncut boards over the shorter boards, again overlapping by 3/4-in. at each end. Attach the boards together, sandwiching the wire mesh.

Oblong pieces cut out of plywood and measuring 22 in. wide at the base and 19 in. tall serve as ends to the chunnel and also reinforce it.

Drape the wire mesh over the plywood ends with the shorter boards on the inside and secure the mesh to the ends with screws and washers. Start at the peak and work down on either side to the 1 by 3-in. boards. Bastien recommends reinforcing the chunnel

with three 2-ft., 1 by 3-in. crosspieces if the chunnel will be moved.

Bastien's fertilization stations fit around trees to clean up insects, remove grass, and fertilize throughout the growing season.

The donut-shaped lid with its center hole fits around trees while resting on a 24-in. high, wire mesh perimeter.

"The design is simple and uses materials that are long lasting, recyclable and biodegradable," says Bastien.

To make the circular station, lay two 4 by 8-ft. sheets of plywood side by side to create a square. Find the center and use a 4-ft. piece of string to scribe an 8-ft. dia. circle on the boards. Scribe an 18-in. circle at the center of the two panels, as well as 18-in. circles in each of the panels. The center circle allows it to be placed around trees up to 18 in. dia.

The second and third circles provide access for supplemental feed and water. These circles, when supported by lips on the underside of the panel, can be used as access lids.

Handles attached to the lids, or holes in them, make them easy to remove, points out Bastien. However, she notes they can also make them easy for raccoons to remove.

Bastien attaches 1 3/4-in. lips to the straight edges of one of the panels, using two 35-in., 1 by 4-in. boards. When this panel is laid (lip side down) over the wire pen, the second panel is screwed to the lips to create the roof.

To secure the roof panel to the wire mesh, Bastian screws and glues eight 4-in. long, 1 by 3 in. boards every 3 ft. along the inside



Made from galvanized wire mesh, 12-ft. long chicken tunnel is designed to contain chickens on garden pathways.

Round fertilization stations fit around fruit trees to clean up insects, remove grass, and fertilize throughout the growing season.

perimeter of the bottom side of the roof panels. A second set of 4 by 1 by 3-in. boards is screwed and glued at a distance of 3/8 in. inside the first set.

Assembly is a matter of placing the roof halves around a tree, unrolling the wire mesh to match the diameter of the roof and then setting the roof panels in place and securing them

"Just like the chunnel, the fertilization station isn't permanent," says Bastian. "It is designed to be moved from tree to tree every few days."

Bastien shares her experiences with free-range chickens and the designs for her solutions in detail in her book "52 Homestead Skills." The book is available for \$24.95 from Grit.

Contact: FARM SHOW Followup, Ogden Publications, 1503 SW 42nd St., Topeka, Kan. 66609 (ph 866 803-7096; www.grit.com/store/product/52-homestead-skills).