ALTERNATIVE LIVESTOCK SYSTEMS

Build your own poultry hut

BACKGROUND

Raising poultry on pasture as a commercial enterprise or as a hobby has become more popular with smaller scale farmers around the country, who sell to consumers through a variety of venues. Some raise their birds in a “free range” method, allowing the birds to roam freely over the pasture. Others prefer to raise birds in portable huts that can be moved frequently to reduce losses to predators and weather, using a method called “pasture-raised”.

There are many styles of huts that can be easily built very cheaply. This information sheet shows you how to build huts that we currently use on the St Paul Campus Student Organic Farm at the University of Minnesota. We now have five huts that are 8’x8’, built on runners with wheels, and each holds about 35 broilers.

Tools needed for the project

- Circular Saw
- Hand Saw
- Wrenches
- Pliers, regular and needle nose
- Power Drill
- Drill Bits
- Hammer
- Hack Saw with metal cutting blade

Estimated cost of materials needed

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
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<tbody>
<tr>
<td>2 - 4”x4”x8’</td>
<td>$16.00</td>
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<tr>
<td>4 - 2”x4”x8’</td>
<td>$22.00</td>
</tr>
<tr>
<td>1 - ½”x 4’ x 25’ Hardware Cloth</td>
<td>$42.00</td>
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<tr>
<td>2 - ½”x4’x5’ Hardware Cloth</td>
<td>$15.00</td>
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<tr>
<td>1 - Galvanized Poultry Netting, 24” H x 50’</td>
<td>$9.00</td>
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<tr>
<td>3 - Cattle Panels 50”x16’</td>
<td>$60.00</td>
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<tr>
<td>17 - Vinyl Siding Panels</td>
<td>$120.00</td>
</tr>
<tr>
<td>4 - 10”x1.75” Steel Centered Wheel</td>
<td>$40.00</td>
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<tr>
<td>4 - ½”x6” Bolts</td>
<td>$10.00</td>
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<tr>
<td>Washers and Nuts, ½ inch diameter</td>
<td>$5.00</td>
</tr>
<tr>
<td>2 - Grip Fast 2-1/2” Fence Staples - 1lb Box</td>
<td>$6.00</td>
</tr>
<tr>
<td>2 - 16-Gauge 25 ft. Galvanized Steel Wire</td>
<td>$4.00</td>
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$349.00
Note: An alternative to using vinyl siding is to use a heavy duty tarp to cover your hut. These cost about $30-$45 up front, but will likely need to be replaced every couple of years. Also note that wind and sun can speed the deteriorating process for tarps.

BUILDING INSTRUCTIONS

Construct the Frame

1. Lay the 4”x4”x8’s parallel to each other. At each end, attach a 2”x4”x8’, laying it over the top of the 4x4’s, and using wood or deck screws to attach.

2. Drill holes through the 4”x4”x8’s, one about a foot or so away from each end, for the wheels. The hole should be at least ½ inch diameter, to serve a ½ inch bolt.

Attach the Cattle Panels

3. Elevate the frame, so that all 4 corners are off the ground at the appropriate height for attaching the wheels. Do not attach the wheels just yet.

4. Bend 2 cattle panels in an arc over the frame, and staple them to the frame, about 1 inch or less off the ground, using 2” or 2 ½” staples. Make sure the panels do not cover the holes drilled in the frame where the wheels will attach.

5. Cut the third cattle panel in half, and attach one half to what will be the back of the hut. Affix this panel at the same level off the ground as the panels that form an arc over the frame.

Build the door frame and door

6. Build a door frame on the front of the hut, using 2”x4”x8’s for the frame, and 2”x2”x8’s to make the door. We usually build rectangular doors that are tall enough for a person to walk through comfortably, but feel free to adapt the door design any way you think will work for you. There is no one way to build a door, so choose a design that will fit your needs.

Wrap hut with hardware cloth and chicken coop wire

7. Wrap the entire lower half of the hut with hardware cloth. Cover the lower part of the door, but of course trim the hardware cloth so that the door can open and close. Attach the hardware cloth with 1” or 1 ½” staples.

8. Fill in the upper half of front and back with the chicken coop wire. Be sure to use chicken coop wire for only the upper half of the hut. Chicken coop wire is sufficient to keep birds and flying predators out, but the holes large enough to let some ground predators reach in and do damage to the birds. Hardware cloth will work better on the lower half of the hut.
**Attach the Wheels**

9. Now attach the wheels. Run the 4-½"x6" bolt through each hole drilled in the 4"x4" runner, from the inside. Place washers on both inside and outside of runner. Attach wheel on the outside of the hut, using washers and nut.

**Attach the vinyl siding**

10. The vinyl siding pieces come 12 ft. long, so they will need to be cut to 8 ft. lengths to match the hut. Then, when laying the rows of siding, every other row can consist of two 4 ft. lengths of vinyl siding, alternated with 8 ft. lengths of siding. The first row should run along the bottom of the cattle panels, starting the same distance from the ground as the panels. To attach the siding, two people will be needed for the task, one on the inside of the hut, the other on the outside:

- *The person on the outside of the hut* will hold the panel in place, and at the same time run a short piece of wire through the holes that run along the top of the vinyl siding piece.

- *The person on the inside of the hut* will grasp the wire strand and tie it tightly to the cattle panel. The next row of vinyl siding can then be attached in the same method, locking the panels together in the grooves on the siding made for that purpose. Work your way up on both sides so that they meet at the top. Then overlap one piece to prevent water coming in from above.

**One last thing**

11. Inside and at the back of the hut, hang a lightweight piece of wood or PVC pipe at ground level, and attach it to the cattle panels using rope or twine. It can be used as a bumper panel when moving the birds, to keep them from getting caught under the frame of the hut.

You are done! To move the hut, you can use a two-wheeled dolly, or attach ropes to the front or back to move it along.

**DRAWBACKS**

- It would be probably be difficult to raise more than 1,000 birds during spring, summer, and fall, using this method. Each hut holds approximately 35 birds, so you would need 10 huts to hold a group of 350 birds. Three batches during the year would equal 1,000 birds, more or less. There would be a lot of labor involved in moving the huts and feeding and watering the birds. To raise more broilers, bigger portable huts that hold 300 birds would need to be used, if it was necessary to keep the birds in huts. Or, more birds could be raised in a “free range” style, but with concerns about potential loss to storms and predators.

- It takes some time invested to build the huts—especially if vinyl siding is used for cover. Once it is on, vinyl siding will last a very long time, but getting it ready takes some time.
**ADVANTAGES**

- A durable hut that should last a long time.
- It's tall enough to walk inside comfortably, giving easy access to birds, feeders, etc.
- Compared to chicken tractors, it gives the birds more air space during hot weather and more air flow in general.
- You can hang feeders and waterers from the top of the hut on the cattle panels, and leave them hanging as you move the unit forward.
- The taller unit allows you to more easily observe the birds, compared to chicken tractors that are low to the ground and enclosed.
- It is relatively inexpensive to build. Each 8’x8’ hut costs about $349 to build, with a major portion of the cost attributed to the use of vinyl siding instead of tarps. If necessary, adapt the design to use tarps to save you some money up front.

**ADDITIONAL RESOURCES**

Watch a video explaining the features and construction details of these poultry huts:

You can find additional resources on poultry production at:
[http://www.extension.umn.edu/agriculture/poultry/](http://www.extension.umn.edu/agriculture/poultry/)

**QUESTIONS OR COMMENTS?**

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