ALTERNATIVE LIVESTOCK SYSTEMS
Build your own poultry feeders

BACKGROUND

If you are raising poultry or thinking about doing so, you'll need to consider how to reduce the cost of getting started, while creating a system that is convenient to use and friendly to the birds as well.

One common way beginning poultry raisers try to save money is by building their own housing for the birds. Another equally practical way to save money is to build your own poultry feeders, and you'll find they can work really well for your birds.

Traditional feeders

Poultry feeders that you can purchase in a store come in a variety of shapes and sizes. Some are round and tubular, and some are elongated and lay out horizontally on the ground, and are either made of plastic or metal.

The round, tubular feeders work well when pelleted or crumbled feed is used, as it will flow steadily out as the birds eat. However, many small-scale broiler and layer producers use a mash feed instead of pellets or crumbles. They do so because mash is cheaper, but still has nutritional value similar to pellets and crumbles.

Store purchased tubular feeders may present problems, however, when feeding mash. You may discover that the mash packs together and will not flow well into the feed trough. It thus requires constant maintenance to make sure the birds have access to feed, otherwise the birds may struggle to reach feed that doesn’t flow down. This may lead to stress-related issues such as fighting or pecking, reduced egg production, or slowed growth rate. As an alternative, you can easily make your own feeders that work well, will likely waste less feed, and will last a long time.

Alternative feeders

When building your own feeder, there are several methods that can work. We know it is always good to recycle and save money at the same time. For example, one solution that has worked is to fashion feeders out of used rain gutters. Just close in the ends with a block of wood, and flatten or cover the sharp edges. Attach hooks and string to attach it to the ceiling, and it is ready to go!
However, a major problem with using a rain gutter is that it is wide open at the top, which makes it easy for birds to waste feed by pushing it out with their beak. Young birds can also sit in the rain gutter, scratching feed out as they eat. By sitting in the feeder it also gives them the opportunity to poop in the feeder, wasting valuable feed. Since feed is always a major expense of any poultry system, reducing feed waste is important in order to remain economically sustainable.

Here at the University of Minnesota, for the past several years we have used a feeder design that allows the birds to eat continuously until the feed is gone. It can also be hung from the ceiling so that it will be less likely to get contaminated. Perhaps most important, the sides of this feeder design curve inward toward the top, making it more difficult to waste feed. It is also cheap and easy to build.

Our feeder design is based on PVC pipes that can be purchased at a local hardware store. They are 10 feet long, and the diameter varies, which allows us to provide feeders of different sizes, depending on the age of the bird.

TOOLS AND MATERIALS NEEDED

- PVC piping (10 foot length)
  - 2” or 3” diameter for chicks and young birds
  - 4” diameter for larger birds
- Circular saw
- Jig saw
- Tape measure
- Chalk string line
- Wood for plugging ends of pipe (about 2 inches thick)
- Screws to hold plugs in place (about 1 inch long)
- Eyelet screws to tie to ceiling (insert into the top part of the plug)

BUILDING INSTRUCTIONS

1. Find the middle point of the 10’ length of PVC pipe. Cut the PVC pipe in half, using the circular saw. Your feeders will be easier to prepare in 5’ sections, and they can fit in smaller poultry huts as well.

2. There is information printed lengthwise along each PVC pipe. Using this printed info as a guide, lay a straight chalk line along the length of the 5’ section of PVC pipe.

3. Using a jig saw, cut along the length of the chalk line.

4. From the cut that has just been made, at each end of the pipe, measure and mark off another cut with the chalk line. The distance of this cut from the first cut will vary based on the diameter of your PVC pipe:
   - For 2” or 3” diameter PVC pipes, place your second cut about ¼ of the circumference from the first cut. This diameter of pipe will accommodate chicks
and younger birds, with enough room to allow them to reach feed lying in the bottom of the feeder.

- For 4” diameter PVC pipes, make the opening a little larger than ¼ of the diameter. This diameter of pipe can accommodate bigger birds, as they will need a bigger opening in order to get at feed lying in the bottom of the feeder.

5. Use the jig saw to cut along the second line to remove a portion of the PVC circumference.

6. Use the jig saw to cut wooden plugs that fit snugly within each end of the PVC pipe.

7. Use wood screws to hold the wood plug in place.

8. Affix eyelet screws into the wood plug at each end of the PVC pipe, and use these eyelets to hang from the ceiling.

**DRAWBACKS**

- Even the 2” PVC pipe feeder might be a little too high for very tiny chicks, unless you bury it a little in the bedding, to reduce that height. For the first week after arriving from the hatchery, you may want to use a smaller, tubular feeder. Or, try making a feeder out of 1½” PVC pipe, if available. Regardless, by the end of the first week, the chicks can easily eat out of the 2” diameter PVC pipe.

**ADVANTAGES**

- An inexpensive, well-built feeder that will last a long time.

- A feeder that gives space to up to 25 mature birds per 5’ length of pipe.

- Can easily be hung from the ceiling to force the birds to stand while eating, and also to reduce the amount of manure/bedding that ends up in the feeder.

- Won't plug with ground feed (mash).

- Less spillage, because sides curve in at the top.

**ADDITIONAL RESOURCES**


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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