

Factors to Consider Before Starting a Small-Scale Egg-Production Enterprise in Kentucky

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Introduction

Eggs are considered a perfect protein and fit well into a nutritionally balanced diet. Overall consumption of eggs in America continues to increase each year. In addition, there is increasing demand for eggs produced in cage-free systems. Demand also is increasing for local production, which provides an opportunity for producers using alternative egg production systems to develop or to expand.

There are several things to consider before starting an egg production operation. The most important is market availability. Before you start production, you need to have a market that your production can supply, in terms of both quantity of product and the price you need to get in order to be profitable. You will need to make sure that local regulations allow for poultry production on the land available to you. Cash flow is also an important consideration. A flock will require a considerable investment before the hens start to lay eggs to produce an income. You also need to have a way to deal with the manure produced, and any dead birds. You also need to have a plan for the hens after they have finished laying (referred to as spent hens).

Market Availability

It is important to make sure that you have a market available that is able to handle your entire product at a price that will cover production costs (including your labor). To whom do you want to sell your eggs? Choices can include the general

public, restaurants, wholesalers, retailers, or a combination of these. It is important to assess the demand at such locations and the existing prices.

Marketing is an essential part of your operation and requires a large time commitment. Where do you want to sell your eggs? You could sell directly from your farm, at an off-farm venue such as a farmers' market, or through wholesale distributors. The amount of time you are able to put into marketing will influence the size, scope and design of your operation.

You must also make sure that you follow all the regulations with regards to marketing of your eggs. If you sell fewer than 60 dozen eggs in any one week and you sell to the ultimate consumer (i.e., it is not being purchased by someone who is then going to resell it), you do not need an egg handler's license. That is a flock of about 120 hens. So if you have flocks larger than 100 hens, or are selling eggs to a wholesaler, restaurant, or grocery store, you will need to get an egg handler's license. It is important to remember, however, that even if you do not need a license, you must still comply with all the safe handling, labeling, and marketing restrictions in the law. The Kentucky Egg Marketing Law is available online and is discussed in more detail in ASC-229: "Marketing Regulations Affecting Small-scale Egg Producers in Kentucky."

Kentucky Egg Marketing Law:
[http://www.lrc.ky.gov/Statutes/
chapter.aspx?id=38484](http://www.lrc.ky.gov/Statutes/chapter.aspx?id=38484).

Location

Some Kentucky counties have specific ordinances that limit poultry operations. Some counties also have ordinances with stricter setback requirements than those indicated in the Kentucky Agriculture Water Plan. As non-agricultural land uses have started to extend into agricultural areas, some counties have developed right-to-farm ordinances to protect existing agricultural operations from nuisance complaints with regards to, but not limited to, noises, odors, dust, chemicals, smoke, and widely varying hours of operations.

The Kentucky Agriculture Water Quality Act applies to all agriculture operations with 10 or more acres and has set specific requirements concerning the siting of poultry houses. A minimum acreage required for one or two poultry houses, regardless of size, is 15 acres. Each additional poultry house requires 5 acres more. In addition, specific setback minimum requirements must be met. The requirements apply to all nutrient management facilities (such as manure sheds or composting sites) as well as the poultry houses themselves. Setbacks related to dwellings, churches, and property lines may be waived by the owner of these features by obtaining a sworn affidavit from the owner that he or she is agreeable with the waiver. It must be remembered, however, that any neighboring properties may change hands and the new owner may not be willing to waive these requirements.

Poultry houses must be located with the following setbacks:

- A minimum of 1,500 feet from schools, churches and adjacent cemeteries, incorporated city limits, and public parks
- A minimum of 500 feet from dwellings other than those belonging to the poultry producer, except at tunnel ventilation fan outlets where a minimum of 750 feet is required
- A minimum of 75 feet from property lines
- A minimum of 150 feet from state and federal roadways
- A minimum of 100 feet from county roadways
- A minimum of 150 feet from lakes, rivers, blue-line streams (streams that flow year round and are marked on topographic maps

with a solid blue line), or sinkholes with openings

- A minimum of 300 feet from water wells not owned by the poultry producer

There are also setbacks specific to the application of poultry manure or compost to the land, unless waived by the owner of these features as demonstrated by a sworn affidavit from the owner. The setbacks are:

- A minimum of 300 feet from dwellings or occupied buildings
- A minimum of 75 feet from lakes, rivers, blue-line streams, and sinkholes with openings

Relationship to Neighbors

With any type of agricultural operation, there are potential issues that can arise with adjoining property owners. A responsible poultry owner, no matter the size, will make every effort to minimize the impact of their operation on neighboring property. This effort can include the use of vegetative buffers, proper location of the poultry house, minimizing noise and odor, and proper manure management. Operate your farm as if you were the next-door neighbor. Respond to neighbors' complaint or problems when they arise. Reward tolerant neighbors with a token of appreciation, such as a dozen eggs or compost for their garden.

Resource Availability

It is important to have all the necessary production inputs available at a reasonable cost. This includes feed, which represents 70 percent or more of your production costs. ASC-233: Feeds and Feeding for Small-scale Egg-production Enterprises and ASC-191: How Much Will My Chickens Eat? discuss the feed requirements. Large poultry operations can purchase feed in bulk quantities, getting discounted prices for the feed. This may be an option available to you, but you will need to invest in bulk-feed bins. It is best not to keep feed more than two to three months because of quality issues. If your operation is large enough to use a ton of feed within that time period, a bulk tank may be the way to go. If not, you may need to purchase bagged feed, which will increase your feed costs and affect your bottom line.

It is also important to make sure you have a source of hens, whether pullet chicks you raise to form your egg laying flock or ready-to-lay pullets. There are many sources of pullet chicks, but make sure that you purchase from a National Poultry Improvement Plan (NPIP) breeder. You can find hatcheries participating in the NPIP program online at the NPIP website. A source of ready-to-lay pullets may be harder to find. It is important, however, that you do not purchase them from a swap meet, where quality cannot be guaranteed.

If you are keeping your hens indoors for all or part of the time, bedding is required. It is important to have a supply of good quality bedding material. Pine shavings is the most commonly used bedding material in the United States and is typically the standard to which other potential bedding materials are compared. Another common bedding material used in commercial operations in some parts of the country includes rice hulls. Straw is sometimes used as a bedding but is not as effective in moisture control, making it a poor choice for poultry bedding. Straw also has a tendency to go moldy, and is very difficult to remove during clean out. Chopped straw (about 1 inch long) and hay have been successfully used as bedding material. Crushed corncobs have also been used.

You will need to be able to properly package your eggs as well as refrigerate them during storage, transportation and marketing. Kentucky regulations require that all eggs for human consumption must be kept at 45°F or below at all times. Kentucky Egg Marketing laws do NOT allow for the re-use of egg cartons. This can add to the cost of egg production. It is important to have a source of reasonably priced egg cartons.

Another important resource is labor. Will you have enough time to adequately care for your flock and market your products? The amount of labor required will vary depending on the type of management system used. Pasture production systems will require considerably more work hours.

Cash Flow

It takes about 17-20 weeks for a female chick (called a pullet) to grow and mature. A pullet will consume about 15 pounds of feed from chick to lay. You will incur feed, labor, and miscellaneous expenses before your flock starts laying eggs and earning any income. Ready-to-lay pullets are an alternative if available, however, they may cost more and you must buy from a reliable source. This is often not an option for smaller producers, but may be a viable option for producers of 500 or more hens. At the same time, this need for ready-to-lay pullets may provide an opportunity for a new business venture – raising replacement pullets for small-scale and backyard egg producers in the area.

Manure Management

Aside from being able to market your eggs, you need to have a plan to deal with the manure produced by your flock. A flock of 100 hens will produce at least 15 pounds of fresh manure daily. Fresh manure has about 70 percent to 80 percent moisture. The actual amount of manure your flock will produce will depend on the type of hens and the composition of feed given. The manure can be an additional source of income as a fertilizer, or it can be a waste product to dispose. Manure management must be part of your business plan.

Dead-bird Disposal

You also need to think about dead-bird disposal. It is common to have a mortality rate of about 1 percent of your flock every month. All carcasses of dead birds must be disposed of in accordance with Kentucky revised statutes, which are available online. For disposal requirements, refer to ID-167: On-farm Disposal of Animal Mortalities.

Composting is the most convenient method for dead bird disposal on small commercial egg producing facilities. A permit and registration with the State Veterinarian is not required as long as the composting facility is not used for a commercial purpose. For more information on composting dead birds, refer to ID-166: On-farm Composting of Animal Mortalities.

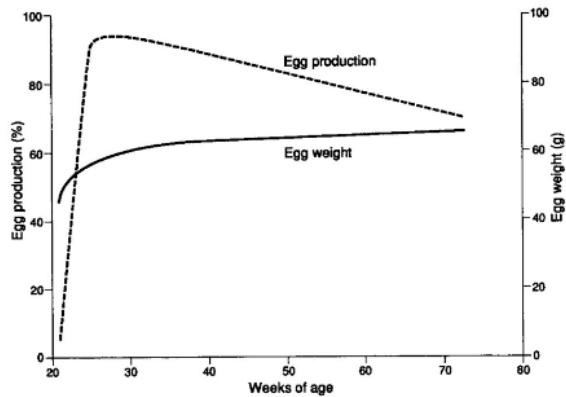


Figure 1. Typical egg production curve.

Spent Hens

Hens will not lay indefinitely. It is important to have a plan for their disposal or sale at the end of the production period. Hens that have completed their production life are referred to as spent hens.

Pullets typically come into production quickly, reach a level of peak production when most of the hens lay an egg each day, and then the flock slowly reduces their level of egg production (see Figure 1). In commercial operations, the hens usually are

kept in production until they are about 80 weeks of age. Producers then have the option to put the hens through a molt (induced rest period) and bring them back into production for an additional few months. For those not wanting to molt their flock, it is necessary to purchase replacement pullets for each flock.

Options available for their disposal will depend on the number of hens you are hoping to dispose of at one time. There can be a market for spent hens, depending on where you live. Is there a live market available for your hens or do you need to have them processed in order to get a return on them? If you are not able to sell the spent hens, you must be able to dispose of them by other means.

Producer Liability

As mentioned earlier, eggs are considered a hazardous food. If anyone gets sick from the consumption of your eggs, they may sue you for damages. It is important to maintain product liability insurance. This may be an additional insurance to your typical farm insurance. More information is available in ASC-193: "Producer Liability."