

## Home-Produced Chicken Eggs

Fact Sheet 9.377

Food and Nutrition Series | Food Safety

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Eggs from a backyard chicken flock can be a convenient and nutritious source of protein as well as a rewarding opportunity to be involved with producing your own food. Before establishing a backyard chicken flock, check local laws and homeowners' association (HOA) covenants because raising chickens may not be allowed. Additionally, the number of chickens, distance from property lines, and type of house may be defined in local regulations.

### Steps to Ensure Safe, Home-produced Chicken Eggs

To ensure safety and egg quality, home producers should manage chickens and handle eggs properly. Poultry frequently carry bacteria, such as Salmonella and Campylobacter, and high numbers of human illnesses have been linked to contact with backyard chickens.

- Infected birds do not usually appear to be sick and baby chicks may be especially prone to shed these microorganisms.
- Eggs with clean, uncracked shells may occasionally contain bacteria.
- While anyone can become ill from exposure to these microorganisms, the risk of infection is especially high for children younger than 5, pregnant women, the elderly, and persons with weakened immune systems.

### Flock Housing

- Maintaining the flock in an enclosed structure is often a local requirement and will help protect it from predators and make egg collection easier.
- Eggs will stay cleaner if the enclosed area is kept clean and dry.
  - Maintain floor litter in good condition.
  - Thoroughly clean and disinfect at least twice a year.
  - Obtain an approved disinfectant from your feed store and apply according to directions.
- Allow adequate nest space and plenty of clean nesting material to help keep eggs clean and limit egg breakage.
  - Allow one nest for every three to four chickens and make sure nests are large enough for your hens.
  - Fresh wood shavings or sawdust make excellent bedding and can be easier to clean than hay or straw. Stir litter frequently to keep it loose and dry; this will help keep the hens' feet and their eggs clean.
  - Clean out nest boxes once a week to remove dirty litter and manure and replace with clean nesting material.
- Provide a perch above the floor over a dropping box away from the nests. Chickens will roost on the perch to sleep and manure will fall into the wire-mesh-covered dropping box.



### Quick Facts

- Raising chickens and collecting eggs can be an enjoyable effort and beneficial way to participate in food production.
- Proper design and maintenance of poultry housing will help keep eggs clean and prevent exposure to harmful bacteria.
- Information in this fact sheet can help you protect the health of your family and backyard flock.

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- Safely handle manure. Poultry manure contains bacteria which can be easily transferred to other surfaces and environments.
  - Manure needs to be removed regularly and handled carefully to prevent exposure to harmful bacteria.
  - Never use fresh manure to fertilize garden plots that are used for growing fruits and vegetables as it can be a source of bacterial contamination.

## Egg Collection

Eggs that spend more time in the nest have an increased chance of becoming broken, contaminated with manure, or lower in quality.

- Coated wire baskets or plastic egg flats are good containers for collecting eggs.
- Collecting eggs at least twice daily is recommended, preferably before noon. Consider a third collection in late afternoon or early evening, especially in hot or cold weather.
- Discard eggs with broken or cracked shells.

## Cleaning Eggs

Dirty eggs can be a health hazard. Clean eggs promptly after collection. This limits the opportunity for contamination and loss of quality.

- Never cool eggs rapidly before cleaning. As the shell contracts while cooling, bacteria or soil on the surface could be pulled into the pores.
- Eggs with soil or debris can be cleaned with fine sandpaper, a brush, or emery cloth.
- If eggs need to be washed, the temperature of the water should be no less than 110F and no more than 120F to prevent the egg contents from contracting and producing a vacuum.
  - Never soak or leave eggs in standing water as their shells are very porous.
  - An unscented dishwashing liquid can be used to wash eggs.

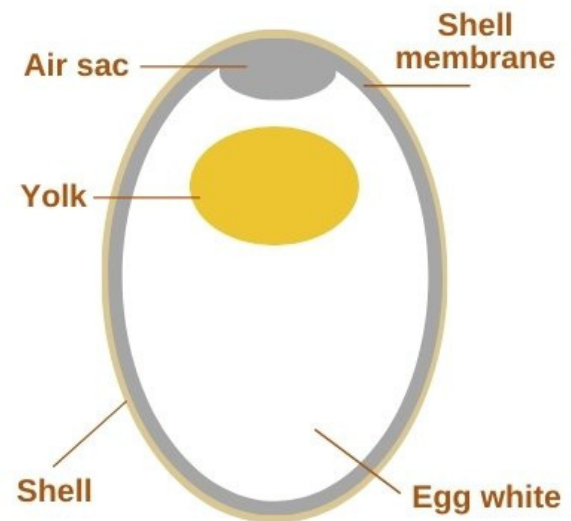
## Sanitizing Eggs

- Eggs can be sanitized before storing by dipping in a solution of 100-200 parts per million of chlorine bleach (1 ounce of bleach added to 1 gallon of water equals 200 ppm).
- It is preferable to use bleach labeled for use on eggs. Dry eggs before storing because moisture may enter the pores in the shell as eggs cool upon refrigeration.

## Storing Eggs

Eggs should be collected, cleaned and refrigerated as soon as possible to maintain quality and safety.

- Eggs stored in a carton in the refrigerator should hold their optimal quality for at least four weeks.
- Storing eggs with the large end up will keep the air sac separated from the yolk, slowing moisture loss and protecting freshness.



- Date the storage carton or container and use older eggs first.
- Store in the main section of the refrigerator at 40F or below (shelves in the door tend to be warmer than interior shelves).

## Personal and Household Safety

To protect yourself and others from bacteria transferred to your hands, shoes, or clothing worn when collecting eggs and tending the flock:

- Always wash your hands with soap and water after handling eggs, chickens, or anything in their environment.
- If small children handle eggs or chickens, carefully supervise hand washing afterwards.
- Routinely clean frequently touched surfaces like door and faucet handles.
- Do not wash feed and water dishes from the chicken house in the kitchen sink.
- Set aside a pair of 'flock' shoes to wear when tending poultry and keep those shoes outside the house.

## Selling Eggs

In Colorado, owners of small flocks can sell up to 250 dozen eggs per month but all handling and labeling requirements outlined by the Colorado Department of Health and Environment must be followed.

- Small egg producers are exempt from licensing requirements as long as the eggs are sold directly to the final consumer of the eggs.
- If the eggs are sold to restaurants, stores, commercial establishments or another egg distributor, then an Egg Producer/Dealer License is required.

## Sharing Eggs

If you choose to share eggs from your flock with friends and neighbors, it is important to follow the safety recommendations outlined in this fact sheet.

- Plastic egg holders sold for camping or plastic egg trays available from farm supply stores are a good option for sharing eggs because they can be washed and reused.
  - Clean, used egg cartons that do not display a store or brand name can also be used for sharing eggs.
- Label and/or provide the date eggs were collected whenever sharing eggs with others.

## References

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USDA Food Safety and Inspection Service. Shell Eggs from Farm to Table.

Virginia Cooperative Extension. Proper Handling of Eggs: From Hen to Consumption. by P.J. Clauser.

## Home Chicken Flock Management Resource

Enos, H. Keeping Layers for the Family Egg Supply, CSU Extension Fact Sheet 2.510. March 2020.

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