

Feathered Facts

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UF/IFAS Extension Baker County

- Please send comments or questions to baker@ifas.ufl.edu
- Archives of past issues can be found [here](#).
- Email announcements of official UF | IFAS poultry programs to baker@ifas.ufl.edu

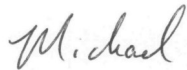
• [UF/IFAS Small Farms Poultry Web Page](#)

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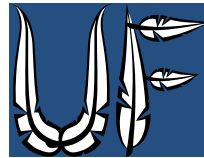
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Welcome to another edition of *Feathered Facts*. I want to let you know that this newsletter will now be issued on a bi-monthly basis instead of every month. The newsletter will be slightly expanded to hold additional content and will continue to focus on current topics related to the small poultry producer. As always, if you have a particular question related to poultry, please contact me via one of the methods on page 4.

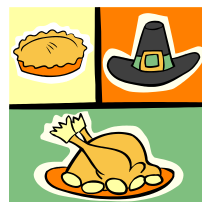
Sincerely,



Michael A. Davis, Ph.D.
UF/IFAS Extension
Baker County



Safe Cooking During the Holidays



With the Thanksgiving and Christmas holidays just around the corner, many families will be cooking large feasts for celebration. It is important to remember that all meats, including poultry, have a certain temperature that must be reached during the cooking process to destroy potential pathogens that may reside on or in the meat.

While *Feathered Facts* focus is poultry, the list to the right covers the safe internal temperature that should be reached for meats to be considered safe. The list is adapted from FoodSafety.gov. Specific information about Safe Minimum Cooking Temperatures can be found [here](#).

Category	Temperature (°F)
Ground Meat & Meat Mixtures	165 (Poultry) 160 (Others)
Fresh Beef, Veal, Lamb	145
Poultry	165
Pork & Ham	145 (Fresh) 140 (Precooked)
Eggs & Egg Dishes	Firm yolk & white 160
Leftovers & Casseroles	165

Never thaw frozen meat at room temperature. This can lead to potential bacterial growth.

Time recommendations for thawing turkey in the refrigerator

4 to 12 lbs.	1 to 3 days
12 to 16 lbs.	3 to 4 days
16 to 20 lbs.	4 to 5 days
20 to 24 lbs.	5 to 6 days



An example of the seal placed upon meat and poultry products by the U.S. Department of Agriculture, Food Safety Inspection Service after they have passed inspection for wholesomeness.

Choosing Your Holiday Turkey

Turkey meat has become more popular as a year-round food product such as luncheon meats and in other areas, but many families in the U.S. still prefer a whole turkey as their holiday meat. Choosing the right turkey for your family can be easy if you follow a few simple guidelines:

FRESH TURKEYS

- Allow 1 lb. of meat per person.
- Buy your turkey only 1 to 2 days before you plan to cook it.
- Store fresh turkey in a refrigerated area until ready to cook.

- Do not buy fresh, pre-stuffed turkeys.

FROZEN TURKEYS

- Allow 1 lb. of meat per person.
- Keep frozen until ready to thaw.
- Turkeys can be kept frozen indefinitely, but for best quality, cook within 1 year.
- Only purchase frozen pre-stuffed turkeys that display the USDA or State Mark of Inspection.
- Do not thaw frozen, pre-stuffed turkeys before cooking. Cook from a frozen state.

Thawing Your Turkey

There are only 3 ways to thaw your turkey (or any frozen meat) safely: 1) in the refrigerator, 2) in cold water, or 3) in the microwave oven. The size of your turkey will determine the amount of time that it will take to thaw (and if it will fit into a microwave), with larger birds taking the longest time no matter the thawing method. The following guidelines will help you determine the amount of time that it will take to thaw your holiday bird.

In the Refrigerator

Generally, you will want to allow 24 hours of thawing time for each 4 to 5 pounds of turkey. This means that a 4 lb. Turkey should take about one (1) day to that in the refrigerator. A bird that weighs 16 pounds will take about four (4) days to thaw. A turkey that has been thawed in the refrigerator can be refrozen.

In Cold Water

For cold water thawing, you should estimate that it will take about thirty (30) minutes for each pound of turkey. During this process, you should change the thawing water every thirty (3) minutes. Turkeys that have been thawed in this manner should not be refrozen.

In the Microwave Oven

Please make sure to check your owner’s manual for specifications on thawing a turkey in the microwave. Microwave ovens can vary in their power output and the manufacturer’s recommendations should be followed. Do not refrigerate or refreeze a turkey that has been thawed in this manner. It should be cooked immediately after thawing.

Cooking Your Holiday Turkey



There are many methods that are used for cooking a whole turkey. Roasting in the oven is one of the more popular methods,

along with grilling, smoking, and frying. The guidelines listed below will help you make sure that your turkey is cooked properly. Proper cooking is essential in reducing the probability of foodborne illness.

ROASTING

- Do not set the oven temperature below 325°F.
- For increased safety, it is not recommended to stuff the turkey as the stuffing may not reach the correct temperature. For best results, cook the stuffing separately in a casserole.
- Whole turkeys are safe when cooked to an internal temperature of 165°F. Check this with a meat thermometer at the innermost part of the thigh and wing, with an additional check at the thickest part of the breast. Do not rely solely on the pop-up indicator for temperature confirmation.

GRILLING

- Turkeys that are grilled should be cooked 15 to 18 minutes per pound of bird.
- Do not stuff turkeys that are to be grilled.
- The air temperature in the grill must stay between 225°F and 300°F for the times to be effective.
- Cook the meat to an internal temperature of 165°F.

SMOKING

- Turkeys that are smoked should be cooked for 20 to 30 minutes per pound.
- Do not stuff turkeys that are to be smoked.
- Air temperature in the smoker must stay between 225°F and 300°F for the times to be effective.
- Cook to an internal temperature of 165°F.

DEEP FAT FRYING

- Turkeys that are fried should be cooked for 3 to 5 minutes per pound.
- Do not stuff turkeys that are to be fried.
- Oil in the cooker should maintain a temperature at or above 350°F.
- Cook to an internal temperature of 165°F.

LEFTOVERS

- Discard any turkey, stuffing, or gravy that is left out at room temperature for more than 2 hours.
- Refrigerated leftovers should be consumed or thrown out within 3 to 4 days.
- When you reheat your leftovers, make sure to reheat them to an internal temperature of 165°F.

For additional information on food safety and turkey, please click [here](#) and [here](#). Additional information on alternative methods of cooking turkey can be found [here](#).



A fire caused by the unsafe operation of a turkey fryer. For additional safety tips on turkey frying, click [here](#). To see a video on what NOT to do, please click [here](#).



It is often suggested that Ben Franklin endorsed the turkey to be the National Symbol of the United States. This is more myth than fact. For more information, please click [here](#).



Official Seal of the U.S. National Organic Program. For additional information about the National Organic Program, please click [here](#).

Products that are not certified as organic cannot claim to be organic on the principal display panel or use the USDA organic seal.



The United States Department of Agriculture, Food Safety Inspection Service (USDA-FSIS) oversees the labeling of meat and poultry products in the US. For additional information on labeling, please click [here](#).

Meat and Poultry Labels

All meat and poultry products sold in the U.S. must meet specific quality and safety regulations that are administered by the U.S. Department of Agriculture (USDA) Food Safety and Inspection Service (FSIS)¹. Part of this regulation includes labeling which describes the way a meat or poultry product was raised or processed. When selecting meats for your holiday dinner or for any occasion, it is important to recognize some of the terms that are used on packaging labels and what they mean.

Certified—This term implies that FSIS and the USDA Agricultural Marketing Service (AMS) have officially evaluated the meat product for class, grade, or other quality characteristics. If the term is used under other circumstances it must be closely associated with the name of the organization that is responsible for the “certification” process. An example would be “ABC Company Certified Beef”.

Organic—Products that are labeled “Organic” must consist of at least 95% organically approved ingredients. This is exclusive of water and salt. Other ingredients must consist of approved nonagricultural substances or inorganically produced agricultural products that are non available in organic form. For organic meat and poultry products, this means that the animals used for the meat were reared without regular use of antibiotics and without growth hormones (**note that growth-promoting hormones are not allowed in the rearing of any hogs or poultry sold in the U.S.**).

100 Percent Organic (100% Organic)—Products that are labeled in this manner must contain only organically produced ingredients and must also follow the same guidelines as those foods labeled “Organic”. This is exclusive of salt and water.

Made with Organic Ingredients—Products with this label must contain at least 70% organic ingredients and may list up to three organic ingredients or food groups on the label.

Chemical-Free—This term is **not allowed** to be used on labels.

Free-Range (Free-Roaming)—Producers of these products must demonstrate that the poultry has been allowed access to the outdoors. This label does not mean that the animals were raised outside.

Fresh Poultry—Raw poultry that is labeled as “fresh” has never had an internal temperature below 26° F.

Natural—Products labeled as “Natural” contain no artificial ingredients or added color and have to be minimally processed. This means that the raw product must remain fundamentally unaltered. The label must also explain the use of the term as it applies to the product, such as “No Artificial Ingredients or Added Colorings”. This term does not provide indication on how the animals were raised.

No Hormones (pork or poultry)—Hormones are not allowed in the rearing of hogs or poultry in the United States. Because of this, the label **CANNOT** contain claims such as “No Hormones Added” unless it is followed by a statement that says “Federal regulation prohibit the use of hormones”.

No Hormones (beef)—The term “No Hormones Administered” may be approved for use on the label of a beef product if sufficient documentation is provided to regulators to prove that no hormones have been used in the raising of the animal.

No Antibiotics— The term “No Antibiotics Added” may be used on the label of products if the sufficient information has been provided to regulators indicating that the animals were raised without the use of antibiotics.

Kosher—The term “Kosher” may only be used on the labels of federally inspected products that are processed and prepared under rabbinical supervision.

Halal or Zabiah Halal—These terms may only be used on the labels of federally inspected products that are handled according to Islamic Law and under Islamic authority.

¹There are exemptions from inspection. If you have questions about a product, please contact the USDA or FDACS.

Small Flock Poultry Nutrition

Providing the correct nutrition is essential if you want your poultry flock to perform well. Flock nutrition is an important investment, as this cost can account for 70% of the total cost of raising chickens. It is important to remember that nutritional requirements will vary between ages and flock type. Additional information about poultry nutrition can be found by consulting [Nutrient Requirements for Poultry, 9th Edition](#).

Water—water is likely the most important and most overlooked nutrient that poultry require. Flocks that do not have access to an adequate supply of clean drinking water will suffer in both health and performance. Water intake by poultry is approximately two (2) times the intake of food, by weight. During periods of high temperature, this ratio is even higher. In general, an adult chicken will consume 6 to 10 fl. Oz. of water per day and 10 to 20 fl. Oz. during warmer months.

Carbohydrates—carbohydrates are the major source of energy for chickens. Since energy is required in the highest amount, carbohydrates will make up the largest percentage of the ration. Chickens can digest simple sugars and starches, but they are not able to digest complex carbohydrates such as cellulose. Grains such as corn, wheat, and milo are common carbohydrate sources for poultry rations.

Proteins (Amino Acids) - proteins are complex molecules that are made from simpler molecules called amino acids. There are different feed ingredients that can be used to meet the amino acid/protein requirement of poultry. Soybean meal is one of the most common protein sources for poultry rations. While many amino acids can be synthesized by the body from other

amino acids, there are some that must be supplied in the diet. Methionine is an example of this for poultry and this is why you will usually see the percentage of methionine on the feed tag.

Fats (Fatty Acids)—Fats in the diet are important as an additional source of energy as they contain about twice as much energy by weight as any other ingredient. Fats are also important as a transporter of other molecules, including many vitamins.

Vitamins—There are thirteen (13) vitamins that are required by poultry for normal growth and production. These include both fat-soluble and water-soluble vitamins. Vitamin premixes are often added to the ration during formulation as many feedstuffs do not contain a high enough concentration of these components.

Minerals—Minerals are classified in to two main groups: 1) macrominerals (those needed in relatively large amounts) and 2) microminerals (those needed in relatively small amounts). Excluding minerals from the poultry diet can have highly detrimental effects on the growth and performance of the flock. Like with vitamins, many minerals are added to the ration during formulation.

Other Feed Additives—In many cases, other feed additives added to the ration during formulation. These include antioxidants, binders, coccidiostats, and, sometimes, antibiotics. In general, these additives serve a very specific purpose. A good example is the addition of a coccidiostat for young birds. Coccidiostats prevent coccidiosis, a disease that can be very detrimental to young birds. If your feed happens to include antibiotics, the withdrawal time for those chemicals will be listed on the feed tag.



An example of a poultry "tube" feeder. These feeders are gravity fed and are typically used after birds have moved from a "starter" diet to a "grower" diet.



Small aluminum pie pans are commonly used as feeders for small chicks.



Example of a one (1) gallon poultry "jug" waterer. This type of waterer is routinely used for backyard poultry flocks.

Molting in Chickens

Have you noticed some of your chickens losing feathers during the last couple of months? Have your hens also decreased their egg production or stopped laying entirely? If so, your chickens are most likely going through a molt.

Molting in chickens is defined as the shedding or loss of old feathers to make way for new growth. Molting is normal in chickens and other birds and can occur in both males and females. Wild birds will typically shed older feathers before the cold weather season or before migration. This seasonal molting in wild birds is not associated with reproduction or egg laying.

The domesticated chickens that we have today have been bred over time to produce more eggs than their wild counterparts. Because of this, there is a link between egg production and molting in domesticated chickens.

Hens that are kept on a natural daylength cycle (no additional light beyond natural sunlight) will typically molt after they have been in production for 8 to 12 months. It can take up to four months for the molting cycle to be complete and you may notice a decrease or cessation of egg production during this time.

Molting is controlled by the reproductive organs (ovaries or testes) and the thyroid gland. In hens, a decrease in estrogen will be the main cause of a molt. It is because this decrease in estrogen also affects the reproductive system as a whole that we see a decrease in egg production during the molt.

Even though the molt is controlled by gonadal and thyroid hormone production, it is usually an external factor that initiates the decrease in estrogen, thus resulting in the molt. This initiator is typically decreasing day length, and it occurs after the fall equinox in September, but before the winter solstice in December (at least in the Northern Hemisphere). There are also other factors that can lead to a premature or partial molt including such stressors as feed and water shortages, disease, or cold temperatures.

Prescribed molting is frequently used in commercial egg production. As hens age, their egg quality and production rate will decrease. Molting is used as a “reset” for these hens. The process allows the hens’ reproductive system to rest and recuperate from high production levels. Hens that have been through a molt will, most likely, not lay at the same rate as their highest production, but they will produce at 85% to 90% of their highest production rate (for the first molt only).

Remember that molting is a natural process that is usually brought on by decreasing day length. Not all hens will respond to decreasing day length with a molt, but many will. If you have additional questions about chickens and molting, please contact the UF/IFAS Extension, Baker County Office via the information in page 4 or reference [this article](#).



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