



Turkey Raised by the Rules

United States Department of Agriculture (USDA) agencies are on the scene to ensure the safety of turkey from before the “poults” are hatched until they’re ready for your table. Although turkey is enjoyed year round, the peak time for buying, cooking, and storing whole turkeys is the November and December holiday season. This is the time we see a large increase in the number of whole turkeys for sale in our local grocery stores. But the raising of turkeys takes many months, so those sold for Thanksgiving, for example, were merely eggs back in May.

Ensuring the Turkey Supply

USDA's Animal and Plant Health Inspection Service (APHIS) conducts activities to reduce the risk of disease in flocks of laying hens. The agency administers the voluntary National Poultry Improvement Plan, which certifies that poultry breeding stock and hatcheries are free from certain diseases. Participation is necessary for producers that ship interstate or internationally.

To ensure that the supply of whole birds is adequate to meet consumer holiday demands, each year during the month of May, millions of turkey eggs are put into incubators. After about 4 weeks of incubation, a baby turkey (poult) is hatched. The poults are then moved from the hatcheries to barns that are environmentally controlled, providing maximum protection from predators, disease, and bad weather. For the next 4 to 5 months (depending on the desired market weight), these turkeys roam freely around the barn, eating their way through many pounds of feed (consisting mainly of corn and soybean meal along with a supplement of vitamins and minerals).

Hormones are not given to turkeys. Antibiotics may be given to prevent disease and increase feed efficiency. When antibiotics are used, government regulations require a “withdrawal” period to ensure birds are free from any residues prior to slaughter. Here is where USDA's Food Safety and Inspection Service (FSIS) takes charge. FSIS randomly samples turkeys at slaughter to test for residues. Under the Federal meat and poultry inspection laws, any raw meat or poultry shown to contain residues above established tolerance levels is considered adulterated and must be condemned.

When turkeys reach the desired weight, they are taken from the farm to the slaughter plant. FSIS veterinarians look at the live birds, checking for any

that may be sick or injured. As the process continues, each turkey carcass, along with its giblets, is inspected to check for disease or contamination. Any questionable birds are pulled off the line for closer scrutiny.

Operating Procedures and Plans

FSIS requires each turkey plant to have Sanitary Standard Operating Procedures (SSOPs). Every plant employee uses the SSOPs to be sure that any equipment, employee hands, tools, machines, and packaging that touch turkeys or giblets are clean and protected from dangerous chemicals or materials.

To prevent foodborne hazards, FSIS also requires each turkey plant to have a Hazard Analysis and Critical Control Point (HACCP) plan. This requires each turkey plant to analyze the processes by which it produces whole turkeys, turkey parts, turkey giblets, and other turkey products. Each production procedure is studied to find any food safety hazard that is likely to occur and to eliminate that possibility. All plants are under HACCP.

FSIS experts in food safety provide technical information to turkey plants about food hazards and how to prevent them. FSIS veterinarians and inspectors check every day to see that the SSOPs and the HACCP plan are being carefully followed.

Turkeys are inspected for wholesomeness and randomly tested for generic *Escherichia coli* and *Salmonella*. Although not mandatory, grading may also be done.

Turkeys continue through the processing either as whole birds or in parts. They are frequently washed and kept chilled throughout the entire process to prevent the growth of harmful bacteria. Whole birds are chilled in ice, water, or in a mixture of ice and water.

Quick Chilling

Turkeys to be sold fresh are quick-chilled to 40 °F or lower, but must not go below a temperature of 26 °F. Fresh turkeys should be refrigerated and used within 1 to 2 days from purchase, or they can be frozen for safe keeping.

Those to be sold frozen are rapidly frozen in blast freezers. The commercial blast freezer quickly takes the turkey to a freezing temperature, ensuring optimum safety and quality. They are then stored in freezers at 0 °F or below. Both fresh and frozen turkeys are transported in refrigerated trucks to their destination.

Three Safe Ways to Thaw a Turkey

After purchase, frozen turkeys should be placed in a freezer until ready to be thawed. There are three safe ways to thaw a turkey:

- **Refrigerator**—It is best to plan ahead for slow, safe thawing in the refrigerator. A large frozen item like a turkey requires at least a day (24 hours) for every 4 to 5 pounds of weight. Once thawed in the refrigerator, it can remain refrigerated for a day or two before cooking. Turkey thawed in the refrigerator can be refrozen without cooking, although there may be some loss of quality.

- **Cold Water**—This method is faster than refrigerator thawing, but requires more attention. The turkey should be in leak-proof packaging or a plastic bag. Submerge the turkey in cold tap water, changing the water every 30 minutes. It will take about 30 minutes per pound to completely thaw a whole turkey. After thawing, cook it immediately. Turkey thawed by the cold water method should be cooked before refreezing.
- **Microwave**—After microwave thawing, cook the turkey immediately because some areas of the turkey may become warm and begin to cook. Holding partially-cooked food is never recommended because any bacteria present would not have been destroyed and may have reached temperatures at which bacteria can grow. Foods thawed in the microwave should be cooked before refreezing.

Color and Quality of Turkey

Raw turkey skin color is off white to a cream color. The color under the skin can range from pink to lavender blue, depending on the amount of fat just under the skin.

Although there is normally very little distinguishable difference in the quality and nutrient content of turkeys, understanding labeling definitions can help consumers make informed decisions and choose a turkey that best meets their particular needs.

LABELING DEFINITIONS

Part 381 of the Code of Federal Regulations (CFR) establishes labeling requirements for poultry products. All labels have certain basic features in common. They all show the name of the product, a statement of ingredients, if applicable, a statement of quantity of contents in terms of weight or measures, the name and address of the manufacturer, and the official inspection legend. In addition to the basic requirements, labels may also include safe handling instructions, cooking instructions, and special claims, such as “organic.”

BASTED or SELF-BASTED—Bone-in turkey products (such as whole birds) that are injected or marinated with a solution containing butter or other edible fat, broth, stock, or water, plus spices, flavor enhancers, and other approved substances should be labeled as “basted” or “self-basted.” The maximum added weight of approximately 3% solution before processing is included in the net weight on the label. Labels must include a statement identifying the total quantity and common or usual name of all ingredients in the solution, e.g., “Injected with approximately 3% of a solution of _____ (list of ingredients).”

When using the terms “basted” or “self-basted” on boneless turkey products (such as turkey breasts and roasts), the solution is limited to 8% of the weight of the raw turkey before processing.

FREE RANGE or FREE ROAMING — In order to use these terms on a label, poultry producers must provide a brief description of the bird’s housing conditions with the label when it is submitted for approval. The written description of the housing conditions is evaluated to ensure the birds have continuous, free access to the out-of-doors for over 51% of their lives, i.e., through their normal growing cycle. During the winter months in a northern climate, birds are not “free range,” if they stay in coops all winter. Producer testimonials that support the use of the claim must state how the birds are raised in a northern climate in winter in order to conform to the meaning of “free range” during the winter months.

FRESH POULTRY — Turkeys to be sold as “fresh” must be stored at a temperature no lower than 26 °F.

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FROZEN POULTRY — Turkeys sold as “frozen” must be stored at 0 °F or below.

FRYER-ROASTER TURKEY — A young turkey, usually less than 16 weeks of age and of either sex.

HEN or TOM TURKEY — The sex designation of “hen” (female) or “tom” (male) turkey is optional on the label and is an indication of size rather than tenderness.

KOSHER — “Kosher” may be used only on the labels of turkeys that are prepared under Rabbinical supervision.

MINIMAL PROCESSING — Minimally processed could include: (a) those traditional processes used to make food edible or to preserve it or to make it safe for human consumption, e.g., smoking, roasting, freezing, drying, and fermenting; (b) those physical processes which do not fundamentally alter the raw product and/or which only separate a whole turkey into parts or grinding of the turkey.

NATURAL, ALL NATURAL — Poultry and all poultry products that contain no artificial flavor or coloring, coloring ingredient, chemical preservative, or any other artificial or synthetic ingredient and is minimally processed (a process which does not fundamentally alter the raw product) may be labeled “natural.” The label must explain the use of the term “natural” (e.g., no added colorings or artificial ingredients; minimally processed).

NO ADDED ANTIBIOTICS — The term “no antibiotics added” or “raised without the use of antibiotics” may be used on labels for poultry products if the producer sufficiently documents to FSIS that the animals were raised without antibiotics in feed, water, or intra-muscular.

NO HORMONES ADDED — Hormones are not allowed in raising poultry. Therefore, the claim “no hormones added” or “raised without the use of hormones” cannot be used on the labels of poultry unless it is followed by a statement that says, “Federal regulations do not permit the use of hormones in poultry.”

ORGANIC — Before a product can be labeled “organic,” a certifying entity that meets the requirements of the National Organic Program conducts an on site audit for the requesting company and issues approval in the form of an organic certificate. The organic certifier inspects the farm where the food is grown to make sure the farmer is following all the rules necessary to meet USDA organic standards. The USDA Final Rule specifically prohibits the use of genetic engineering methods, ionizing radiation, and sewage sludge for fertilization. Companies that handle or process organic food before it gets to your local supermarket or restaurant must be certified, too.



For more information about USDA's National Organic Program, go to www.ams.usda.gov/nop.

Food Safety Questions?

Call the USDA Meat & Poultry Hotline

If you have a question about meat, poultry, or egg products, call the USDA Meat and Poultry Hotline toll free at **1-888-MPHotline (1-888-674-6854)**; TTY: 1-800-256-7072.



The Hotline is open year-round Monday through Friday from 10 a.m. to 4 p.m. ET (English or Spanish). Recorded food safety messages are available 24 hours a day. Check out the FSIS Web site at www.fsis.usda.gov.

Send E-mail questions to MPHotline.fsis@usda.gov.

Ask Karen!

FSIS' automated response system can provide food safety information 24/7.



AskKaren.gov