



# Duck and Goose from Farm to Table

*The White Pekin duck, native to China, is a relative newcomer to America. In 1873, a Yankee Clipper ship crossed the Pacific with fewer than a dozen of them, marking the beginning of America's domestic duck industry. The domestic goose, bred in ancient Egypt, China and India, arrived from a different direction — across the Atlantic from Europe, where they're immensely popular. Following is background information on these two poultry species.*

## What are duck and goose?

- Broiler Duckling or Fryer Duckling - a young duck (usually under 8 weeks of age) of either sex that is tender meated and has a soft bill and a soft windpipe; ducklings classified as broiler-fryers weigh from 3 to 6 1/2 pounds.
- Roaster Duckling - a young duck (usually under 16 weeks of age) of either sex that is tender-meated and has a bill that is not completely hardened and a windpipe that is easily dented; they usually weigh from 4 to 7 1/2 pounds.
- Mature Duck or Old Duck - a duck (usually over 6 months of age) of either sex with toughened flesh and a hardened bill; these ducks are usually too old to lay eggs and their meat is used in processed products.
- Young Goose or Gosling - may be of either sex and is tender meated. A gosling weighs about 8 pounds; a young goose weighs 12 to 14 pounds.
- Mature Goose or Old Goose - may be of either sex and has toughened flesh. A mature goose is usually a spent breeder and its meat is used in processed products.
- Gander - a male goose.

## How are ducks and geese raised?

Almost all ducks are raised indoors to protect from predators and to manage their manure, which is collected and used elsewhere selectively as fertilizer. Most ducks are now raised in Wisconsin and Indiana since land on Long Island, N.Y., where most ducks were formerly raised, has become increasingly too valuable to farm. Ducks are fed corn and soybeans fortified with vitamins and minerals. Most feed contains no animal by-products.

Geese are raised under cover for the first six weeks of life. Then they are put on the range 14 to 20 weeks where they eat available grass and some grain. California and South Dakota are the main geese-raising states.

## Are duck and goose USDA inspected and graded?

All ducks and geese are federally inspected. Grading is voluntary and a plant pays to have its ducks or geese graded. The presence of the USDA Grade shield, usually Grade A, on these products is an indication of quality. USDA Grade A ducklings are the highest quality available. They are plump, meaty and have skin free from cuts, bruises and tears. There are no broken bones, no missing parts and few pin feathers. Grade B and Grade C ducklings are not usually found in supermarkets.

## Can antibiotics and hormones be used in raising duck and goose?

No hormones are allowed in U. S. duck or goose production. The Food and Drug Administration strictly prohibits the use of hormones in these birds.

Very few drugs have been approved for ducks and geese so antibiotics are not routinely given and are not useful for feed efficiency. If a drug is given — usually, through the feed — to cure illness, for example, a “withdrawal” period of days is required from the time it is administered until it is legal to slaughter the bird. This is so residues can exit the bird’s system. FSIS randomly samples poultry at slaughter and tests for residues.

## How are duck and goose down obtained?

When these birds are slaughtered, they are first stunned electrically. After their throats are cut (by hand, for geese) and the birds are bled, they are scalded to facilitate removal of large feathers. To remove fine pinfeathers, the birds are dipped in paraffin wax. Down and feathers, a very valuable by-product of the duck and goose industry, are sorted at another facility.

## Additives

Additives are not allowed on fresh duck or goose. If the meat or giblets are processed (such as in paté or smoked breast, for example), any additives such as MSG, salt, or sodium erythorbate, must be listed on the label.

## Fatty Deposits

Ducks and geese swim, and they have a fat layer beneath the skin that keeps them buoyant. Before cooking a whole bird, the skin should be pricked all over with a fork to facilitate the fat rendering out. This fat layer must have melted and disappeared for the bird to be done.

The fat is not “marbled” into the meat so it can easily be removed from the surface of a raw duck or goose if deboning the meat before cooking.

## Retail Cuts of Duck and Goose

- Whole duckling, gosling or goose including giblets and neck.
- Bone-in parts such as whole leg, breast quarter and breast.
- Boneless breast, skin-on or skinless.
- Giblets (liver, heart and gizzard) sold with whole birds but much liver exported to France.
- Tongues and feet (delicacy mostly exported to Hong Kong but some used by Asian Americans).
- Processed products such as smoked cooked breast, sausage and hot dogs.

Some cuts may be used mainly for food service and restaurants.

## Quantity to Buy

When buying whole duck or goose, allow about 1 to 1 1/2 pounds of raw weight per person. Raw boneless meat yields about 3 servings per pound after cooking. Estimate 3 to 4-ounces per person for fully cooked products.

## Are duck and goose considered “red” or “white” meat?

Duck and goose are poultry and considered “white” meat. Because they are birds of flight, however, the breast meat is darker than chicken and turkey breast. This is because more oxygen is needed by muscles doing work, and the oxygen is delivered to those muscles by the red cells in the blood. One of the proteins in meat, myoglobin, holds the oxygen in the muscle, and gives the meat a darker color.

Chickens and turkeys stand a lot but do little if any flying, so their breast meat is white and leg meat, dark. Game birds, however, spend time flying so their breast meat may be as dark as leg meat.

## What is the flavor of duck and goose?

Because all the meat on a duck or goose is dark, it has a stronger flavor than chicken breast meat—and even chicken leg meat.

### **What does natural mean?**

All fresh meat qualifies as “natural.” Products labeled “natural” cannot contain any artificial flavor or flavoring, coloring ingredient, chemical preservative or any other artificial or synthetic ingredient. All products claiming to be natural should be accompanied by a brief statement which explains what is meant by the term “natural.”

### **What foodborne organisms are associated with duck and goose?**

As on any perishable meat, fish or poultry, bacteria can be found on raw or undercooked duck or goose. Bacteria multiply rapidly in the “Danger Zone,” between 40 and 140 °F (out of refrigeration and before thorough cooking occurs). Freezing may limit growth but doesn’t kill bacteria. They are destroyed by thorough cooking.

*Salmonella* is often associated with shell eggs and poultry. It may be found in the intestinal tracts of livestock, poultry, dogs, cats and other warm-blooded animals. *Salmonella* Enteritidis is only one of about 2,000 *Salmonella* bacteria. Freezing doesn’t kill this microorganism but it is destroyed by thorough cooking.

*Salmonella* must be eaten to cause illness. Raw poultry must be handled carefully to prevent cross contamination. This can occur if raw duck, goose or their juices contact cooked food or foods that will be eaten raw such as salad. Salmonellosis is a foodborne illness characterized by stomach pain, diarrhea and nausea.

### **Irradiation**

Irradiation has not been approved for use with duck or goose.

### **How to handle duck and goose safely**

#### FRESH DUCK OR GOOSE

Because the demand is not as high as for other poultry such as chicken or turkey, ducks and geese are usually kept in the frozen food cases at supermarkets. At holiday times, fresh duck and goose may be available.

Select them just before checking out at the register. Put each duck or goose in a disposable plastic bag (if available) to contain any leakage which could cross contaminate cooked foods or produce. Make the grocery your last stop before going home.

At home, refrigerate a duck or goose immediately (40 °F) and use within 1 or 2 days, or freeze (0 °F) in its original packaging. If kept frozen continuously, it will be safe indefinitely.

#### READY PREPARED DUCK OR GOOSE

If picking up a cooked duck or other fully cooked product, be sure it is hot when you pick it up. Use it within 2 hours or cut it into several pieces and refrigerate in shallow, covered containers. Eat either cold or reheated to 165 °F. It is safe to freeze ready prepared duck or goose. For recommended storage times, see the chart.

### **Marinating**

Marinate duck or goose in the refrigerator up to 2 days. Boil used marinade before brushing it on the cooked poultry. Discard any uncooked leftover marinade.

## STORAGE TIMES FOR DUCK AND GOOSE

PRODUCT	REFRIGERATOR 40 °F	FREEZER 0 °F
Fresh Duck or Goose	1 to 2 days	6 months
Fresh Giblets (liver, etc.)	1 to 2 days	6 months
Cooked Duck or Goose; gumbo, stews or casseroles	3 to 4 days	2 to 3 months
Leftover takeout or restaurant food	3 to 4 days	2 to 3 months
Smoked duck breast or franks: Vacuum sealed	2 weeks (or 1 week after "use-by date")	1 to 2 months
Smoked duck breast or franks: After opening	7 days	1 to 2 months
Frozen commercial dinners or entrees	Keep frozen before cooking	3 to 4 months
Canned duck or goose products in pantry (paté, soup, etc.)	2 to 5 years in pantry; 3 to 4 days after opening	After opening, 2 to 3 months

### Safe Thawing

There are three safe ways to thaw a frozen duck or goose: in the refrigerator, in cold water and in the microwave. Never defrost on the counter or in other locations. In the refrigerator, whole birds may take 1 to 2 days or longer; parts, about 1 day. Once the raw poultry defrosts, it will be safe in the refrigerator an additional 1 or 2 days before cooking. During this time, if you decide not to use the product, you can safely refreeze it without cooking it first.

To thaw a duck or goose in cold water, do not remove the packaging. Be sure the packaging is airtight or put it in a leakproof bag. Submerge the bird in cold water, changing the water every 30 minutes. A whole (3 to 4-pound) duck or package of parts should defrost in 2 to 3 hours; a goose, which is larger, may take 4 to 6 hours.

When microwave-defrosting a duck or goose, plan to cook it immediately after thawing because some areas of the food may become warm and begin to cook. Holding partially cooked food is not recommended because any bacteria present may not have been destroyed. Foods defrosted in the microwave or by the cold water method should be cooked before refrigerating or refreezing.

### Partial Cooking

Never brown or partially cook duck or goose to refrigerate and finish cooking later because any bacteria present may not have been destroyed. It is safe to partially pre-cook or microwave poultry immediately before transferring it to the hot grill to finish cooking.

### Can safely cooked duck and goose be pink?

Cooked muscle meats can be pink even when the meat has reached a safe minimum internal temperature. If fresh duck or goose has reached a safe minimum internal temperature of 165° F as measured with a food thermometer, even though it may still be pink in the center, it should be safe. The pink color can be due to the cooking method or added ingredients. For reasons of personal preference, consumers may choose to cook poultry to higher temperatures.

## APPROXIMATE DUCK AND GOOSE COOKING TIMES

**Safe Cooking.** USDA recommends cooking whole duck or goose to a safe minimum internal temperature of 165 °F as measured using a food thermometer. Check the internal temperature in the innermost part of the thigh and wing and the thickest part of the breast. When cooking pieces, the breast, drumsticks, thighs, and wings should be cooked until they reach a safe minimum internal temperature of 165 °F. For approximate cooking times for use in meal planning, see the following chart compiled from various resources.

Type of Duck or Goose	Roast	Grill Direct heat	Smoke Indirect heat*	Braise
Whole duckling, 4 to 6 lbs. Do not stuff.	30 to 35 min./lb. at 350 °F	Not preferred	2 1/2 hours	Not preferred
Duckling breast	Brown skin-side down in a skillet over medium heat. Then cook in a 425 °F oven 12 minutes.	Grill skin side down 6 minutes; turn and grill 7 to 8 minutes.	1 to 2 hours	60 to 75 minutes
Duckling legs or thighs	Roast 1 1/4 to 1 1/2 hours at 325 °F.	Grill legs/thighs 30 minutes, turning every 5 minutes.	1 1/2 to 2 hours	1 1/2 hours
Whole young goose, 8 to 12 lbs	2 1/2 to 3 hours at 350 °F+	Not suitable	2 1/2 to 3 hours	2 hours
Young goose, cut up	2 hours	35 to 40 min.	2 hours	1 1/2 hours

NOTE: Prick skin of whole duck or goose before roasting or smoking so fat can render.

+ Unstuffed. If stuffed, add 15 to 30 minutes additional time.

\* Indirect method using drip pan.

### Microwave Directions:

- Place duck or goose in an oven cooking bag (or in a covered dish). Microwave on high 6 to 7 minutes per pound. Crisp in a 500 °F conventional oven 10 to 20 minutes.
- When microwaving parts, arrange in dish or on rack so thick parts are toward the outside of dish and thin or bony parts are in the center.
- Allow 10 minutes standing time for bone-in goose or duck; 5 minutes for boneless breast.
- USDA recommends cooking poultry to a safe minimum internal temperature of 165 °F.

## 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)**. 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](http://www.fsis.usda.gov).

Send E-mail questions to [MPHotline.fsis@usda.gov](mailto:MPHotline.fsis@usda.gov).

### Ask Karen!

FSIS' automated response system can provide food safety information 24/7 and a live chat during Hotline hours.



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