



PREPARATION

Smoking Poultry Meat

no. 9.325

by B.F. Miller, H.L. Enos, and P. Kendall ¹ (12/06)

Quick Facts...

Smoking adds flavor, convenience and increased shelf life to poultry meats.

Poultry may be processed in salt brine, in which the salt has been smoked or liquid smoke has been added, or cured in a sugar and salt brine and smoked using hardwood.

Keep smoked poultry frozen up to six months. However, the fat is highly unsaturated and becomes rancid after long-term storage.

Turkey jerky is prepared by slicing meat in small strips, curing in smoke brine, clearing, draining and roasting in the oven.

Smoked turkey, turkey jerky and smoked chicken are excitingly different ways to enjoy nutritious and economical meats. Smoking adds new flavor, convenience and increased shelf life to poultry meats.

Poultry may be given a light smoke to add to the delicate flavor of the poultry, or a heavy smoke, similar to some smoked red-meat products. Add spices, seasonings and condiments to provide a distinctive flavor.

Smoking Methods

Poultry may be processed in salt brine, in which the salt has been smoked or to which liquid smoke has been added. The whole carcass, boned rolls, parts such as drumsticks, or thin slabs of meat may be smoked in this manner. This method results in less weight loss for a fully cooked product. It can be done in a home oven without a special smokehouse.

Another method cures the meat in a sugar and salt brine then smokes it using hardwood. This method is more difficult, but some people feel the meat has a better flavor. Flavor can be influenced by the hardwood used.

A basic brine consists of 1 pound of brown sugar, 2 pounds of uniodized salt and 3 gallons of water. One tablespoon of liquid smoke may be added if a smokehouse is not available. Use enough brine to cover the meat. Add other spices and seasonings as desired.

Curing

Use a noncorrosive container to hold the brine and meat during the curing process. Wood, crockery, stainless steel or plastic containers work well.

With whole poultry carcasses or parts, place the meat in the container and pour the brine over the meat until it is covered. You may have to place a weight on top of the meat to keep it from floating. Place thin slabs of meat, such as those used for jerky, into the brine so all surfaces are covered.

The brine soaks into the meat at approximately 1/2 inch per 24 hours as a rough estimate of curing time. Pieces more than 2 inches thick are best cured by pumping the brine solution into the meat. The skin and other factors slow the penetration of the brine solution. Cure thin slices (1/4 to 1/2 inch thick) for at least 24 hours.

Cure in a refrigerated or cool room, preferably about 35 degrees F. Rearrange the meat at least once during the curing process to allow even distribution of the brine to all parts of the meat.

Keep the brine clean and cool to minimize bacterial growth in the brine tank. Discard the brine after each use.

**Colorado
State**
University[®]
Cooperative
Extension

© Colorado State University
Cooperative Extension. 10/98.

Revised 12/06.
www.ext.colostate.edu

Clearing

After the meat has cured, soak it in fresh, clean, cool water for 30 minutes to two hours. This removes excess salt from the surface and equalizes the salt content of the meat. Clearing time is determined by the thickness of the meat; the thicker the meat, the longer the clearing time.

Smokehouse Procedure

After clearing, thoroughly drain the poultry carcass or parts and hang in the smokehouse. Heat at 140 degrees F for 30 minutes, turn on the smoke and heat at 150 degrees for 1 hour. Turn off the smoke and heat at 170 degrees for 2 hours followed by 185 to 200 degrees smokehouse air temperature until internal muscle temperature reaches 165 degrees, as measured by a meat thermometer. After the meat has been in the smokehouse for 30 minutes, increase smokehouse humidity by placing pans of water over the heat source.

Smoking gives the meat an attractive light-brown color and a fragrant smoke aroma.

Smoked poultry is a cured product, but it must be refrigerated. It will keep three to four weeks at refrigerator temperatures, 35 to 40 degrees. It may eventually develop mold, depending on temperature and humidity. Smoked poultry may be frozen up to six months, possibly longer. Poultry fat becomes rancid after long-term storage and gives the product a stale, off flavor.

Cooking

Poultry that has been smoked may be roasted in a low-heat oven, 275 to 325 degrees, for 15 to 20 minutes per pound, depending on the size of the carcass or parts. Cover the meat with foil to retain the moisture and eliminate the need for basting.

Brine-Smoked Procedure

If the meat is cured in a brine with smoke added, you can omit the smokehouse step. After clearing, roast the meat in a 325 degree oven for 20 to 30 minutes per pound. Larger quantities of meat require less cooking time per pound. If a cooking thermometer is available, cook the poultry to an internal temperature of 180 degrees.

Jerky

To prepare turkey jerky, cut the breast meat into thin strips, about 1/4 inch thick and approximately 1 inch wide. Cure it for 24 hours in the brine with liquid smoke added.

Clear for 30 minutes, drain and arrange one layer thick on a Teflon-coated cookie sheet. Place the jerky in a 325 degree oven for one hour. At this stage, the meat will be moist and ready to eat.

For a drier product, reduce the oven temperature to 160 degrees and heat the meat until it reaches the desired dryness. Leave the oven door open slightly during this phase to aid moisture loss.

Turkey jerky is subject to rancidity, as are other smoked turkey products. If you plan to store it for more than one week, freeze it.

Turkey jerky is a convenient, tasty meat that may be used for snacks or regular meals. It is excellent for campers, hikers and hunters because it is cooked and has a shelf life of three days to three weeks, depending on environmental conditions. It may be eaten directly from the pack or used in hot dishes prepared over a camp fire.

¹B.F. Miller, former Colorado State University associate professor, animal sciences; and H.L. Enos, former Cooperative Extension specialist and associate professor, poultry science. Reviewed by P. Kendall, Cooperative Extension specialist and professor, food science and human nutrition.