Home MEAT CURING GUIDE

An illustrated guide to curing ham, bacon, small cuts and sausage making.

MORTON SALT
Morton International, Inc., Chicago, IL 60606-1597
Morton® Sugar Cure® (Plain) mix
Morton® Smoke Flavored Sugar Cure® mix
Morton® Tender Quick® mix
Morton® Sausage and Meat Loaf seasoning mix
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The Meat Thermometer

Figure A: Effect of temperature on meat spoilage

<table>
<thead>
<tr>
<th>DEGREES CENTIGRADE</th>
<th>DEGREES FAHRENHEIT</th>
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<td>54</td>
<td>130</td>
</tr>
</tbody>
</table>

Trichina killed (critical temperature)

12-24 hours bacteria may multiply 3,000 times
12-24 hours bacteria may multiply 700 times
12-24 hours bacteria may multiply 15 times
12-24 hours bacteria may double numbers

Danger Zone: Rapid growth and activity of harmful bacteria result in spoilage, color and nutritive loss and food poisoning.

Never allow fresh or processed meat to exceed this temperature.

Store fresh or processed meat as closely as possible to this temperature.

Freezing point of meat.

Approximate lower limit of microbial growth.

Maximum storage temperature for frozen meat.

Recommended “quick” freeze temperatures for meat.

Complete freezing of water in meat.

Curing Meat, a Glance at History

Meat has been preserved by drying, salting, and smoking for centuries. The Chinese have used salt to cure and preserve meat since the 13th century B.C. Greeks and Romans of the pre-Christian era were known to be cured meat makers. The Roman word for sausage was “salsus”, the prefix for which was “sal”, for the word salt. Sausage meant, therefore, salted or preserved meat. Around 1608 the Indians taught the people of Jamestown, Virginia their methods of salting, smoking, and aging venison, which were adapted by the colonists to preserve the meat of the then-plentiful razorback hog.

Preserving through a variety of curing, seasoning, and smoking methods remains so popular even in the last decades of the 20th century — after more than 3,500 years of practice— that it is estimated nearly 1,000 different commercial varieties of sausages and specialty meats are available in the world today. These actually might be numbered in the tens of thousands if one were to count as different each of the “recipes” that processors, both large and small, guard jealously. Each brand of bologna, salami or corned beef, for example, can boast its own distinctive character.

So cured meats clearly continue to be a “specialty of the house” from all of civilization’s kitchens in every country, from camps and cookfires to sophisticated modern kitchens. You can find cured meats distributed and consumed with equal gusto, whether from an English pub, an Austrian wurstmacher’s shop, an American farm kitchen, or an Australian aborigines’ camp.
But perhaps none is ever so good — whether robust or delicate of flavor and texture — as that turned out from one’s own labors. And pursuit of that goal is the purpose of this guide.

This guide has been written to provide basic information required to cure your own hams, bacon and other cuts of meat in the home. It includes recipes for several types of sausage which can be made from the trimmings generated from farm-slaughtered livestock or from the results of a good hunt. However, home butchering is not necessary to cure meat or make sausage. One can purchase fresh meat and still enjoy the satisfaction of curing meat or sausage-making in the home.

Throughout this guide you will find some words pertaining to curing with which you may not be familiar. These words are italicized in bold face type for easy identification and are defined in the glossary of terms starting on page 31.

The recipes in this guide have been collected from many sources and have been revised and tested. The intent is to keep the process simple and still produce quality products. You will note there is no mention of smoking or fermentation of dry summer sausage. These are special applications requiring proper equipment to be certain of success; they go far beyond the scope of this guide. Ours is a simple basic approach that can be achieved by anyone with a kitchen, a refrigerator and a desire to have foods that are “home cured”.

But whatever heights you may eventually reach in home meat curing, the family of Morton Salt curing products is guaranteed to ease the process. Let’s take a look at these.
Perfect Curing Partners

Salt is used to preserve meat by penetrating into the tissue and drawing out moisture. Decreasing moisture and increasing salt concentration inhibit the growth of microorganisms. This preserving action allows the meat to be stored with reduced threat of spoilage. Salt also adds flavor to the meat.

When salt alone is used to cure meat, it gives a harsh, dry salty taste that is not very palatable. Salt-cured meat usually has an objectionable dark color. Consequently, sugar, curing agents (nitrate and nitrite) and sometimes spices are used in combination with salt to produce the characteristic cured meats familiar to all of us.

Morton Salt has developed a family of curing salts especially designed for curing meat in the home. A brief description of these products follows:

**Morton® Tender Quick® mix** is a fast cure product that has been developed as a cure for meat, poultry, game, salmon, shad, and sablefish. It is a combination of high grade salt and other quality curing ingredients that can be used for both dry and sweet pickle curing. Morton® Tender Quick® mix contains salt, the main preserving agent; sugar, both sodium nitrate and sodium nitrite; curing agents that also contribute to development of color and flavor and propylene glycol to keep the mixture uniform. Morton® Tender Quick® mix can be used interchangeably with Morton® Sugar Cure® (Plain) mix. It is NOT a meat tenderizer.

**Morton® Sugar Cure® (Plain) mix** is formulated for dry or sweet pickle curing of meat, poultry, game salmon, shad and sablefish. It contains salt, sugar, propylene glycol, sodium nitrate and sodium nitrite, a blend of natural spices and dextrose (corn sugar). Morton® Sugar Cure® (Plain) mix can be used interchangeably with Morton® Tender Quick® mix.

**Morton® Smoke Flavored Sugar Cure® mix** is formulated especially for dry curing large cuts of meat like hams or bacon. It contains salt, sugar, sodium nitrate, propylene glycol, caramel color, natural hickory smoke flavor, a blend of natural spices and dextrose (corn sugar). The cure reaction takes longer with Morton® Smoke Flavored Sugar Cure® mix than with plain Morton® Sugar Cure® mix, so the smoke flavored product should be used only for dry curing and not for making a brine (pickle) solution.
CAUTION: These curing salts are designed to be used at the rate specified in the formulation or recipe. They should not be used at higher levels as results will be inconsistent, cured meats will be too salty, and the finished products may be unsatisfactory. The curing salts should be used only in meat, poultry, game, salmon, shad and sablefish. Curing salts should not be substituted for regular salt in other food recipes. Always keep meat refrigerated (36° to 40°F) while curing.

Spice Mix

The spices used in both Morton® Sugar Cure® Mixes (plain or smoke flavored) are packaged separately from the other ingredients. This is to prevent any chemical change that may occur when certain spices and the curing agents are in contact with each other for an extended period of time. If you do not need an entire package of Morton® Sugar Cure® mix for a particular recipe or must make more than one application, prepare a smaller amount by blending 1-1/4 teaspoons of the accompanying spice mix with one (1) cup of unspiced Morton® Sugar Cure® mix. If any portion of the complete mix with spice is not used within a few days, it should be discarded. It is not necessary to mix the spices with the cure mix if spices are not desired. The Sugar Cure mixes contain the curing agents and may be used alone.

Morton® Sausage and Meat Loaf seasoning mix is not a curing salt. It is a blend of spices and salt that imparts a delicious flavor to many foods. The seasoning mix can be added to sausage, poultry dressing, meat loaf and casserole dishes or it can be rubbed on pork, beef, lamb, and poultry before cooking. Just follow the instructions on the package, use in recipes, or add to taste.

The Morton Salt Meat Pump is made of nickel and chrome plated metal and holds 4-ounces of curing pickle. The six-inch needle unscrews from the tube for easy storage. When attached, the overall length is 15-1/2 inches. There are 12 holes drilled into the needle so the curing pickle will have good distribution when pumped into the meat. Pumping is used in the combination cure method for curing hams as discussed in Chapter 4.

The products described above may be purchased in select stores throughout the country. If these products are not available in your area write to: Morton Salt, Consumer Affairs-CGS, 100 N. Riverside Plaza, Chicago, IL 60606-1555 and ask for mail order information for these products.
Selection, Handling and Preparation of Ham and Bacon

It is not necessary to raise and slaughter your own hogs to cure hams and bacon in your home. Fresh, uncured cuts can be purchased from a slaughter house generally located away from the larger cities. Of course, home slaughtering is an option for some who do live in the country and grow their own hogs.

Regardless of the source of meat, proper selection and handling are necessary to produce high-quality products. When curing pork, select a meat-type hog with good muscling that is void of excess fat. Generally, lighter weight hogs of 200 to 250 pounds produce the most satisfactory results. A hog this size yields uncured hams that weigh 15 to 18 pounds and bellies that weigh 11 to 17 pounds of green weight. If you purchase uncured cuts to cure in your home, be sure the meat is fresh, clean and properly chilled. Don’t start out with poor quality meat.

If you will be doing your own slaughtering, plan well in advance how and when it will be done. Unless a walk-in mechanical refrigerator is available, do the butchering and curing late in the fall or early winter, when the days are cool and night-time temperatures are near freezing. Chill the carcass to an internal temperature of $40^\circ F$ or less within 36 hours after slaughter — but do not allow the carcass to freeze. Rapid chilling is critical to reduce the growth of bacteria, which are always present (Figure A, page 4). Quick chilling is especially important for the larger cuts, like hams, where bone sour can occur. Once bone-sour starts, the meat will spoil and must be discarded. Always remember the three C’s for handling meat:


Ham Selection and Preparation are critical factors for successful curing. Decisions must be made early to determine how the ham will be cured. Do you want the quick, easy short-cut method or the slow, but more flavorful long-cut aged country-style ham? The type of ham desired will affect how the ham will be cut and cured. Table 1 lists the four types of ham curing methods that are discussed in this manual. This will help you make your decision before procuring your hams and starting the curing process.
Cutting the Ham

A short-cut ham is typical of hams found in grocery stores and has not gone through the aging process. It requires less salt and curing time than the aged ham. This ham is separated from the side by a cut approximately halfway between the pelvic arch and the end of the pelvic bone at a right angle to the shank (Figure B). Remove five or six inches of skin from the ham by cutting under the skin approximately half the distance between the butt edge and the hock. Smoothly taper the exposed fat to a thickness of about one-half inch at the butt end (Figures C, D, and E).

Hams larger than 25 pounds require special care. To accelerate curing and reduce the chance of developing bone-sour, hams this size should be deboned or split in half.

A picnic ham is taken from the front shoulder of the hog and trimmed similar to the short-cut ham. It generally has more fat than regular hind leg hams and is somewhat smaller. The picnic ham should be cured the same as the short-cut ham.

A long-cut ham is generally used to make the aged country-style ham. It is cut off perpendicular to the length of the side at the pelvic arch (the bend in the back) (Figure F). Also, greater protection from bone-sour may be given if the ham is cut extra long so the shank bone is left intact. Bacteria cannot invade the bone marrow so readily if the sponge bone and marrow are not exposed by cutting. Extra length also makes it easier to hang the ham.

Trim the ham to remove the tail bone and flank but do not remove the skin. The skin protects the ham from insects and excess drying during aging. However, to insure good cure penetration, cut away excess fat, especially over the cushion area. Give the butt end a short bevel (Figure G).

Table 1: Summary of Ham Curing Methods

<table>
<thead>
<tr>
<th>TYPE OF HAM</th>
<th>SHORT-CUT</th>
<th>SHORT-CUT</th>
<th>LONG CUT</th>
<th>LONG CUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aged</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Type of Cure</td>
<td>Combination</td>
<td>Dry</td>
<td>Combination</td>
<td>Dry</td>
</tr>
<tr>
<td>Number of Dry Cure Applications</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Day of Application</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7</td>
<td>0.7,14</td>
</tr>
<tr>
<td>Days of Cure Time per Inch of Thickness</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Days for Salt Equalization</td>
<td>14</td>
<td>20</td>
<td>14</td>
<td>20</td>
</tr>
</tbody>
</table>

1 See Table 2 for amount of cure to use.
Cutting the Bacon

Bacon is prepared from bellies by trimming the lean at the shoulder area approximately the same thickness at the lean in the area where the spareribs were removed. Remove any thin or ragged pieces of lean. Turn the belly over and press it flat. Square the lower edge by a straight cut just inside the teat line and parallel to the cut separating the belly from the loin (Figure H). Square both ends enough to reach an attractive lean streak. Unless the skin is removed at time of butchering, leave it intact until the time of consumption. Otherwise it is difficult to remove and does offer some protection against spoilage.

Figure H

Figure D

Figure F

Figure E

Figure G
Hands On—The Curing Skill

There are two basic methods to cure hams in the home. The following is a description of each method.

Combination Cure: The first method is the *combination cure* which involves pumping the hams with a curing pickle solution and then rubbing some of the dry cure mix onto the surface of the ham. By using the combination method, the curing reaction works from within the ham and from the outside simultaneously. Meat near the bones will be cured rapidly, reducing the chance of bone-sour spoilage. Other portions of the ham will cure uniformly with no over-cured or under-cured spots. Time required to complete the cure is reduced by about one-third compared to the dry cure method. The combination cure is the preferred method recommended by Morton Salt and when used properly, success is almost guaranteed.

The first step in the combination cure is to weigh the hams that have been chilled and prepared for curing. This is necessary to determine how much sweet pickle and dry cure to prepare (Table 2). To prepare a *sweet pickle cure*, combine one (1) cup of either Morton® Sugar Cure® (Plain) mix or Morton® Tender Quick® mix with four (4) cups of clean, cool water and mix until dissolved. Hams and picnics should be pumped with one (1) ounce of pickle per pound of meat. For a 16-pound ham, prepare 16 ounces of sweet pickle cure. This would give four full pumps in the Morton Salt meat pump.

<table>
<thead>
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<th>Table 2: Meat Curing Chart</th>
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<tr>
<td><strong>HAM</strong></td>
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</tr>
<tr>
<td>Not Aged</td>
</tr>
<tr>
<td>Aged</td>
</tr>
<tr>
<td>Dry Cure</td>
</tr>
<tr>
<td>Not Aged</td>
</tr>
<tr>
<td>Aged</td>
</tr>
<tr>
<td>BACON</td>
</tr>
<tr>
<td>Dry Cure</td>
</tr>
</tbody>
</table>

1 Aged hams are long cut, skin-on type hams. Not aged are short-cut trimmed hams.

2 Sugar Cure® (Plain or Smoke Flavored) mix is generally used, but Tender Quick® may be used for dry surface application.

3 Tender Quick® or Sugar Cure® (Plain) mix may be used to make curing pickle. Combine one cup of cure mix with 4 cups of clean, cool water; mix to dissolve.
When using a Morton Salt 4-ounce meat pump, draw the pump full of pickle. Each pumpful of pickle is called a stroke. Always start a stroke with the meat pump full of pickle to avoid forming air pockets in the meat. Insert the pump needle its full length into the meat, then push the pump handle slowly with an even pressure to inject the pickle. As the pickle is forced into the meat around the bone, gradually draw the pump toward you to distribute the pickle evenly.

After the stroke is completed and the needle withdrawn, there will be a tendency for a small amount of pickle to leak out of the meat. Pinch the needle hole together with the thumb and forefinger for a few seconds after the needle is withdrawn to reduce pickle loss.

The “X-ray” diagrams of a ham and shoulder (Figure I) show the bone structure. The numbered lines indicate where the needle of the meat pump should be inserted into a large ham or shoulder for five different pumping strokes. If a ham or shoulder is small, eliminate the strokes numbered 4 and 5.

After pumping, either of the three Morton curing salts should be applied to the surface of the meat. The amount of curing mix to use depends on the size of hams to be cured and the method of curing. If the hams will be aged, use 3/4 to 1 ounce (1-1/2 to 2 tablespoons) of curing mix for each pound of meat. If the ham will not be aged, use 1/2 ounce (1 tablespoon) per pound of meat. Divide the cure mix into two equal parts and apply half the measured amount to the surface of the ham. Make the second application 5 to 7 days after the first. Applying the mix at intervals allows the salt to penetrate the meat more evenly.

Using spices with the cure mix is optional. Spices are not required for successful curing. The curing agents (sodium nitrate and sodium nitrite) are mixed with the salt and not in the spice packet. If spices are used, combine them with the cure mix just prior to application, as directed on page 8.

To apply the cure mix, rub the surface of the ham to cover thoroughly. Make certain to get plenty of cure mix on the ends and cover any exposed bones. Pile any surplus mix on the flesh side of the ham (Figures J,K).
After the cure is applied, place the ham in double-lined plastic bags to keep the meat clean and contain the drips (Figure L). Use only clear or white food storage bags. Food should not be stored in direct contact with colored plastic bags because some pigments used to color plastics may contaminate the meat.

Place the ham skin-side down on a shelf under refrigeration at a temperature not less than 36°F and not more than 40°F. At temperatures below 36°F salt penetration into the meat is very slow, and above 40°F the bone-souring bacteria may grow rapidly enough to cause spoilage.

Curing times and salt equalization instructions are continued below and in Table 2, page 12.

**Dry Cure:** The second method of curing hams is the traditional dry cure method. This popular method entails rubbing the meat with either of the three Morton curing salts. Be certain the internal temperature of the meat is not above 40°F. Weigh the meat, then measure the amount of curing mix required. If the ham is to be aged, use 1 to 1-1/4 ounces (2 to 2-1/2 tablespoons) of curing mix for each pound of meat. Divide the measured amount of curing mix into 3 equal portions so it can be applied at three different times. If the meat will not be aged, measure 3/4 ounce (1-1/2 tablespoons) for each pound of meat and apply at two different times. Applying the mix at intervals allows the salt to penetrate the meat more evenly.

Using spices with the cure mix is optional. Spices are not required for successful curing. The curing agents (sodium nitrate and sodium nitrite) are mixed with the salt and not in the spice packet. If spices are used, combine them with the cure mix just prior to application, as directed on page 8.

Rub the first portion on the fresh meat as soon as possible after it is prepared. Make the second application 5 to 7 days after the first. If aging hams, make the third application 10 to 14 days after the first. Thoroughly rub the mix into the ham each time, making certain to get plenty of cure mix on the ends. Pile the surplus mix on the flesh side of the ham (Figures J, K).

After the cure is applied, place meat in double-lined plastic bags and refrigerate as discussed under combination cure (Figure L).
Curing Time: The recommended curing time for maximum dry cure penetration is 7 days per inch of product thickness for hams and picnics, or 2 days per pound. For example, a 16 to 18 pound ham is approximately 5 inches thick and requires about 35 days to cure. Partially skinned short-cut hams and combination cure hams can be cured at 5 days per inch or 1-1/2 days per pound. Mark on a calendar the dates when curing began, when more curing mix should be applied, and when curing should be completed (Figure M).

![Figure M](image)

Salt Equalization in Hams: At the end of the curing schedule, most of the salt is near the surface and very little has penetrated through the skin side. It takes another 14 days of cold storage for the salt to equalize in combination cure hams. For dry cure hams, 20 days are required. This allows the curing agents to spread more evenly throughout the ham (Figure N). If a ham is going to be aged, every part of the ham should have a salt content of at least 4% equalization. Once this internal salt content is achieved, the ham should not spoil or sour, even at temperatures as high as 100°F.

![Figure N](image)

End of cure

End of salt equalization

Example of the percent salt change that takes place during the salt equalization period.
At the end of curing, the cured cuts should be placed in a large container filled with clean, lukewarm water (60° to 70°F) for 1 hour. Soaking dissolves most of the curing mix at the surface, distributes the seasoning more evenly, and makes the cured meat more receptive to smoke. Pat the meat dry with clean paper towels, then place in a clean a plastic food storage bag and return to refrigeration for salt equalization.

Because surface salt has been removed from the meat, certain bacteria may grow on the surface during equalization. This growth, which is not harmful, appears as a slime on the surface of the meat. To reduce slime, leave the bag partially open. If slime does appear, simply scrape and/or wash it off after equalization and allow the surface to dry.

**Smoking is Optional:** Smoking after curing is an option many people may choose. It improves the appearance of the cured meat and gives it a characteristic aroma and flavor. Smoking can be done on some barbecue units with covers or small smokers with an electric hot plate available in many sport stores. These units have complete instructions on how to smoke your meat. Brushing liquid smoke onto the meat shortly before cooking is an easy way to give meat a smoked flavor.

Smoking meat on a larger scale requires more extensive equipment with proper controls to monitor the smoke intensity, temperature, and extended smoke time. Consult the extension meat specialist in your area through your state university or the manufacturer of the smoker you use for proper procedures.

### Aging Hams

Aging, like smoking, is an individual preference. Many people prefer aged hams with the ripe, nut-like flavor that develops after an extended period of time. With aging, a rancid-type flavor frequently develops and is considered a normal trait of this process. Salt, time and temperature during aging leads to rancidity. If an aged flavor is not desired, you may wish to eliminate this step.

If aging is done, is should not begin until after the curing and equalization periods are completed. Use only the long-cut type ham that does not have the skin removed. The aging period of 5 to 12 months is important, since it is during this time that the characteristic flavor of aged hams is developed by enzymatic action. To promote enzymatic activity, hams are usually aged at 70° to 85°F. The essential enzyme is destroyed when the temperature exceeds 95°F, and the aged flavor does not develop properly.
Since the smokehouse temperature may go high enough to destroy the enzyme, many people prefer to smoke their hams after aging is completed.

Under normal weather conditions, hams should be aged for approximately 6 months. Good air circulation, especially during the first week of aging, is essential to dry the surface of the hams. During aging, evaporation from the hams results in a 12 or 15% weight loss. A ham that has been cured, aged, and smoked properly loses 20 to 25% of its original (green) weight. This weight loss will increase the salt content which prevents bacterial growth in the ham.

Hams may become moldy during aging. Surface mold on an aged ham is not uncommon and is generally not harmful. The mold problem is more prevalent where the relative humidity exceeds 65%. If the relative humidity cannot be controlled, hams can be rubbed with a vegetable oil to reduce mold growth. Hams that become moldy can be washed with a stiff brush in warm water or lightly sprayed with a half-and-half mixture of vinegar and water. Surface trimming with a sharp knife is also an option.

**Curing Bacon**

It is recommended that bacon be given the dry cure treatment. Cure with one application of 1/2 ounce (1 tablespoon) Morton® Sugar Cure® (Plain or Smoke Flavored) mix per pound of meat. Rub cure on entire surface of the belly and apply excess mix on the meat side of the belly if hog was not skinned. Place belly in clean food quality plastic bag and store skin-side down. Cure at 36° to 40°F for 7 days per inch of thickness.

After curing is completed, scrub excess salt off the belly in lukewarm water and dry with paper towels or place skin-side down on an open shelf in refrigerator 1-2 days. Cut the finished cured bacon into 1-2 pound chunks, wrap and refrigerate until consumed. Use the bacon within two weeks or freeze up to three months.
Chapter 5

Precautions

The subjects already discussed are fundamental to meat cur­
ing at home. However, there are additional precautions that
must be taken to have complete success.

Bone-sour results from contamination with bacteria. Contamination can occur at several steps of the process, but
it usually takes place between slaughter and curing. Microbial
contamination and growth are increased by improper sanita­
tion during meat cutting and by slow chilling of the carcass. It
is important to remove the body heat as quickly as possible
after slaughter. Bacterial spoilage can also be increased by
unsanitary conditions in the curing area, smokehouse, or
aging room.

Bone-souring is more common when large cuts of
meat, like hams and picnics, are cured only in a sweet pickle
brine. Salt from the pickle takes nearly twice as long to pene
trate the cut as does salt from the dry cure. Slower salt pene
tration allows additional time for the bone-souring bacteria to
become established. For this reason, Morton Salt does not
recommend curing large cuts of meat in a sweet pickle brine.

The bacteria that cause bone-sour are not of the food
poisoning types. However, meat in which bone-sour has start­
ed cannot be salvaged. If bone-souring is suspected, insert a
long pointed instrument along the bone to the center of the
ham, then withdraw and smell it. If the instrument has a putrid
or foul odor, cut the meat open to the bone for confirmation. If
bone-souring has occurred, discard the meat.

Insect Control: Although smoking country ham
decreases insect damage, smoking does not provide ade
quate protection. Since meat is a good source of food for
insects, cured meat must be protected by placing it in a barri er,
such as a brown paper bag during aging (Figure O). Put a
string through the hock and make a loop with which to hang
the ham. Place the ham in a heavy brown grocery bag without
tears. Shredded paper may be inserted in the bag to allow
better air movement. Fold the top of the bag tightly, with the
hanging loop sticking out, and tie the bag. Place the bagged
ham in a second brown paper bag, and tie it shut with the
hanging loop on the outside. Hang the ham in a clean, dry,
protected room to age.
Good air circulation around hams is essential for proper aging. If the bagging method does not allow adequate air circulation, accumulated moisture may result in mold growth and off-flavors. Brown paper bags will be satisfactory, if most of the water has evaporated from the ham before being bagged. During aging, do not enclose the hams in moisture-proof paper or plastic, which would prevent air circulation.

If bagging is not used to prevent insect infestation, the hams may be stored in a well-ventilated room with fine mesh screening on the door, windows, and any other openings. Some people apply compounds and spices to cured meats for insect control, but these substances are not very effective, because the meat cracks and leaves open spaces for infestation.

The skipper fly, blow fly, and ham mite cause most of the insect damage to aging hams. Several types of ham beetles also cause damage. If meat does become infested, remove it from the storage room. Trim off the infested portion deeply enough to remove larvae that may have penetrated along the bone or burrowed into the fat. The uninfested portion is safe to eat, but it should be prepared and consumed promptly. Protect the exposed lean of the trimmed areas by coating it with vegetable oil or melted fat to delay drying and molding.

**Control of Trichina:** *Trichinella spiralis* is a small thread-like worm, sometimes found in pork, which can cause a sickness commonly known as trichinosis. Since trichina are readily destroyed by heat, it is recommended that all pork products be cooked properly before eating. USDA recommends that pork be cooked to 160°F internal temperature before eating.

**Keeping Cured Meats:** Meat that has been cured will keep well in a refrigerator for up to two weeks if properly wrapped. However, if there is an abundance of cured meat at one time, the excess can be frozen and held for 2 – 3 months before using. If freezing is necessary, it should be done soon after the entire curing process is completed while the meat is still fresh.
When a cured product is to be frozen, wrap it in a good quality freezer paper to prevent dehydration (freezer burn). The "drugstore wrap" (Figure P) is a good way to protect meat in the freezer. Seal the edges to keep out air, then apply a label and date to each package. Freezing is best when done at a temperature of \(-10^\circ F\) or lower. Freeze only the amount that will freeze in 24 hours. Be sure to allow ample air circulation by not over packing the freezer. After the meat is thoroughly frozen it should be stored at a temperature of \(0^\circ F\) or less.

Figure P
Freshening, Cooking and Serving Ham

Once you've tasted the rich, hearty flavor of your own home-cured ham, you may not want to eat any other. Urban gourmets and country folks alike seem to relish thinly sliced country ham served at breakfast or at a special holiday dinner.

Although not difficult, preparing your home-cured ham for cooking involves a few more steps than cooking a commercial, water-added ham. Most home-cured hams are far too salty to be cooked directly after curing or aging. The necessary **freshening**, cooking and serving steps are described below.

**Freshening:** Ham should be freshened before cooking or smoking to remove excess salt. If the ham has been aged, soak in clean lukewarm water for 8 to 24 hours to improve quality and appearance. Non-aged ham can simply be rinsed under running water.

Soaking will dissolve most of the salt that is concentrated on the surface of the ham and make it more receptive to smoke. After soaking, scrub with a stiff bristle brush and allow to dry for about 3 hours before smoking. This process will improve cure penetration and reduce the salty taste in the meat.

**Cooking Whole Ham:** To simmer, place ham in large kettle, add water to cover ham and bring to a boil. Reduce heat and simmer until meat thermometer in ham registers 160°F (about 20 to 25 minutes per pound). Drain ham and let cool.

To bake, place ham in large roasting pan, fat side up. Add 2 inches of liquid. Bake uncovered in 325°F oven until meat thermometer registers 160°F (about 20 to 25 minutes per pound).

Take cooked ham from pan and remove skin and most of the fat. Cool, and slice thinly to serve or add one of the glazes shown on page 22.

**Frying Country Ham:** Remove skin only over the portion of the ham that will be sliced immediately. Cut slices 1/4 to 3/8 inch thick and put in heavy skillet containing a little water. Do not cover skillet. Fry slowly and turn slices frequently. Do not fry too fast or over-fry. Grease should not spatter. Cook until both sides of the slice are light brown.
To make red-eye gravy, add water or coffee to juices in skillet after ham is removed. Use one ounce of water for each slice. Heat until juices just start to boil. Pour over ham slices or into serving bowl. Serve immediately.

**Glazes**

**Pineapple Ham Glaze**

2 tablespoons brown sugar  
1 tablespoon cornstarch  
2 8-1/4 oz. cans of crushed pineapple with liquid

In medium sauce pan, combine brown sugar and cornstarch. Stir in crushed pineapple. Bring to a boil. Reduce heat and simmer 5 minutes, stirring occasionally. Trim skin from ham, leaving an even layer of fat. Place ham, fat side up, on a rack in shallow roasting pan.

Spread glaze over fat surface of ham. Bake in 375°F oven for 30 to 40 minutes or until lightly browned.

**Honey Mustard Glaze**

1 cup brown sugar, packed  
1/2 cup honey  
2 tablespoons prepared mustard  
1/4 teaspoon Morton® Garlic Salt  
pineapple rings  
maraschino cherries

In medium bowl, combine brown sugar, honey, mustard, and garlic salt. Trim skin from ham and spread glaze over fat surface of ham. Garnish with pineapple rings and maraschino cherries. Bake at 300°F for 30 minutes or until brown.

**Carving**

1. Lay ham on its side and cut several slices from lean underside tip to make a firm resting base.
2. Return to carving position and cut a small wedge from the shank (right) end — lay aside. Slice perpendicular through meaty cushion to bone.
3. Release slices by cutting under them using bone as a guide. For additional servings turn ham back on its side and carve from butt (left end). Always cut across the grain.

**NOTE:** Country-cured ham should be carved cold and sliced very thin, preferably paper thin; never more than one-eighth inch thick. This is best accomplished by using a sharp knife slanted at an angle to cut half with and half against the grain as illustrated.
Sausage Making

Perhaps more than any other main dish, home-made sausage offers a cook the greatest outlet for creative expression. In addition to basic ingredients — Morton® Tender Quick® mix and Morton® Sausage and Meat Loaf seasoning mix — a dash of a few herbs or spices, a pinch of another, can become the focus for very special, unique, personalized and "secret" recipes.

Meat Selection and Grinding: Making sausage at home is an integral part of the home butchering process. After the prime cuts are made into hams, bacon, chops, and roasts, there are generally about 15 pounds of fat and trimmings left to be made into sausage. Additional cuts, such as shoulder, can be made into sausage. These cuts may also be purchased from a butcher shop or bought already ground.

The following are basic steps required to make most types of sausage:

1. Debone and trim all gristle and blood spots from trimmings. Separate meat and fat; cut into one-inch cubes.
2. Weigh fat and meat separately to give a mixture that is 2/3 meat and 1/3 fat (some prefer 3/4 meat and 1/4 fat). Measure all other ingredients called for in the sausage recipe.
3. Mix weighed meat, fat and other ingredients thoroughly. Grind in a meat grinder with a coarse (3/16 or 1/4 inch) plate. Keep knife and plate of grinder sharp and clean. A dull grinder will crush out meat juices which may reduce the quality of the sausage.
4. For sausage requiring a fine grind, it is best to first grind through a 1/4 or 3/8 inch plate and then second grind through a 3/16 or 1/8 inch plate. Grinding is made easier when the meat is well chilled. For second grinding, store the coarse ground mixture in a covered container and refrigerate overnight to firm meat. To make the second grinding easier, soft-freeze the mixture to about 25°F and cut into one-inch cubes.

Sausage Casing: Casings are generally used to determine the size and shape of the sausage. For casings to perform properly, they must be strong enough to contain the meat mass and yet have shrink and stretch characteristics that allow for contraction and expansion of the meat during stuffing, linking and cooking.
Casings are of three types: (1) Natural or animal, (2) fibrous, and (3) cloth. Casings are generally available from a local butcher shop or from a supply house such as Koch Supplies, Inc. 1411 W. 29th, Kansas City, MO 64108; 1-800-456-5624.

Not all sausage needs to be stuffed into casings, as shown by the recipes that follow. Breakfast sausage may be formed into patties and fried or oven-cooked. Summer sausage is shaped into long rolls by hand before cooking.

**Stuffing:** If natural casings will be used, prepare them at least an hour before use. Wash the casings in cold water to remove salt and check for breaks by running water through them. (Figure Q). Hold casings in cold water mixed with a little vinegar until you are ready to use them. If collagen casings will be used, stuff them as they come from the package as they do not require soaking.

If a grinder-stuffer is used, sausage is ground and stuffed at the same time; otherwise, the sausage must be ground prior to stuffing. To stuff a casing, fit one end over the nozzle, straightening any loops or knots (Figure R). Tie the other end of the casing with string. Begin to force the sausage into the casing. Support the stuffed portion (Figure S) so its weight does not pull on the casing at the horn. When the casing is full, pinch the sausage out of the way and tie the end (Figure T). The stuffed casing may be twisted or tied to form links.

**Smoking:** If smoking is desired, let the stuffed sausage stand in a refrigerator overnight to firm. Hold at room temperature for one hour to dry surface before placing in smoke house. After the sausage is smoked, refrigerate or freeze until used.
Chapter 8

Recipes

Today countless consumers take pride and pleasure in curing meat and making sausage at home. Now that you are familiar with all the “how-to’s” of meat curing, it’s time you put your own culinary skills to work.

The recipes in this section were developed by meat curing experts at Morton and made easy for everyone to enjoy. As you begin please keep in mind that home meat curing is not an exact science. If you should experience difficulty in the preparation of an individual recipe, refer to the following meat curing tips to help ease the process. Remember patience is the key to perfection!

1. Meat cuts differ in thickness and amount of bone and fat which affect cure penetration rate. You may have to lengthen curing time if using a thicker cut than specified in a recipe.

2. Feel free to experiment with spices when curing to suit your family’s taste. However, do not exceed the curing levels indicated in the recipes.

3. Dry Curing - After applying the cure, place meat in a plastic food storage bag and tie end with a twist tie. For large cuts of meat and poultry, use large-size food storage bags which are available in most grocery stores. Do not use garbage bags.

4. Brine Curing - To prepare the brine, use non-corrosive bowls, such as plastic, glass or stainless steel. Crock works well, too, but will take up more space in the refrigerator. Prepare enough brine so that meat is fully submerged. Use a bowl or plate as a weight to keep meat fully immersed in the brine.

5. To eliminate guesswork, label and date meats before curing. We recommend labeling day and time the meat is to be removed from the cure.


7. After curing, meat and poultry are still raw and must be cooked before being eaten. For your convenience, most recipes include suggested cooking instructions. Should you decide to give a home-cured delicacy as a gift, let the recipient know if you have cooked it.

8. Cured meat turns a pink or reddish color when cooked. If meat is fully cured, it will be pink throughout the cut. For poultry, use a meat thermometer to determine doneness, as meat will appear light pink when fully cooked.

9. If meat is too salty, soak or boil in water to remove excess salt. Next time, remember to rinse cured meat under running tap water to remove excess salt or reduce curing time slightly.
Breakfast Sausage

10 pounds boneless pork trimmings (2/3 to 3/4 lean)
1/2 cup + 2 tablespoons Morton® Sausage and Meat Loaf seasoning mix
Natural casings, rinsed and drained (optional)

Cut meat and fat into 1-inch cubes. Thoroughly mix meat, fat and seasonings. Grind through coarse plate of meat grinder. Refrigerate sausage overnight before forming into patties. If desired, sausage may be stuffed into casing as directed on page 24.

To pan fry: Place links or patties in cold, ungreased skillet. Fry slowly until well-browned and thoroughly cooked.

To bake: Place sausages in a single layer on rack in shallow baking pan. Bake at 400°F, turning occasionally until done, about 20 - 30 minutes.

Note: For smaller quantities, use 1 tablespoon Morton® Sausage and Meat Loaf seasoning mix per pound of pork trimmings or ground pork.

Savory Summer Sausage

6 pounds boneless pork trimmings
4 pounds boneless beef trimmings
1/2 cup Morton' Tender Quick mix or Morton' Sugar Cure® (Plain) mix
4 tablespoons liquid smoke
3 tablespoons sugar
1 tablespoon ground black pepper
1 teaspoon ground ginger
1 teaspoon garlic powder

Cut meat into 1-inch cubes; mix with remaining ingredients. Grind through a 1/4 inch plate. Refrigerate overnight. Rergrid sausage through a 1/8 inch plate. Shape into slender rolls 8 to 10 inches long and 1-1/2 inches in diameter. Wrap in plastic or foil. Refrigerate overnight. Unwrap; bake on broiler pan at 200°F for 4 hours. Store wrapped in refrigerator. Freeze if held longer than 2 weeks. Venison Sausage: Substitute 6 pounds of venison for beef and decrease pork trimmings to 4 pounds.

Herb Sausage

1 pound of ground beef
1-1/2 level teaspoons Morton® Tender Quick® mix or Morton® Sugar Cure® (Plain) mix
3 tablespoons grated Parmesan cheese
2 tablespoons dry red wine
1 teaspoon freshly ground black pepper
1 teaspoon dry basil, crushed
1 teaspoon dry oregano, crushed
1/2 teaspoon mustard seeds
1/4 teaspoon garlic powder
Dash onion powder

Combine all ingredients, mixing until thoroughly blended. Divide in half. Shape each half into slender rolls about 1-1/2 inch in diameter. Wrap in plastic or foil. Refrigerate overnight. Unwrap. Bake on broiler pan for 200°F for 4 hours. Store wrapped in refrigerator.
Beef Salami

1 pound of ground beef
1-1/2 level teaspoons Morton® Tender Quick® mix or Morton® Sugar Cure® (Plain) mix
1 teaspoon Morton® Table Salt
1/2 teaspoon mustard seeds
1/2 teaspoon freshly ground black pepper
1/2 teaspoon garlic powder
1/8 teaspoon nutmeg
Few drops liquid smoke, if desired

Combine all ingredients mixing until thoroughly blended. Divide in half. Shape each half into slender rolls about 1-1/2 inches in diameter. Wrap in plastic or foil. Refrigerate overnight. Unwrap. Bake on broiler pan at 200°F for 4 hours. Store wrapped in refrigerator.

Spicy Beef Salami: Substitute 1-1/2 teaspoons Morton® Sausage and Meat Loaf seasoning mix for 1 teaspoon Morton® Table Salt.

Pepperoni

1 pound of ground beef
1-1/2 level teaspoons Morton® Tender Quick® mix or Morton® Sugar Cure® (Plain) mix
1 teaspoon Morton® Table Salt
1 teaspoon liquid smoke
3/4 teaspoon freshly ground black pepper
1/2 teaspoon mustard seeds
1/4 teaspoon fennel seeds, slightly crushed
1/4 teaspoon garlic powder
1/4 teaspoon anise seeds

Combine all ingredients, mixing until thoroughly blended. Divide in half. Shape each half into slender roll about 1-1/2 inches in diameter. Wrap in plastic or foil. Refrigerate overnight. Unwrap. Bake on broiler pan at 200°F for 4 hours. Store wrapped in refrigerator.

Country-Style Bologna

6 pounds boneless pork trimmings
4 pounds boneless beef trimmings
2 cups ice cold water
1/2 cup Morton® Tender Quick® mix
1 tablespoon ground coriander
or Morton® Sugar Cure® (Plain) mix
1 tablespoon ground mace
2 tablespoons onion powder
2 cups non-fat dry milk powder
2 tablespoons liquid smoke (optional)
3-4 inch diameter cellulose
or fibrous casing

Cut meat into 1 inch cubes. Grind through a 1/4 inch plate. In large bowl, mix ground meat with remaining ingredients; cover and refrigerate overnight. Regrind meat mixture through a 1/8 inch plate. Stuff into casings and tie ends. Prick air pockets with clean needle. Place bologna in large pot and add water to cover. Bring to a boil and reduce heat. Simmer until fully cooked or until internal temperature of 160°F is obtained. Cool bologna in ice water for 12 to 15 minutes. Store in refrigerator.

Note: Bologna may also be stuffed into 1-1/2 inch casings.
Canadian Bacon

1 boneless pork loin
1 tablespoon Morton® Tender Quick® mix or Morton® Sugar Cure®
(Plain) mix per pound of loin
1 teaspoon sugar per pound of loin

Trim fat from pork loin. Mix Morton® Tender Quick® mix or Morton® Sugar Cure®
(Plain) mix and sugar. Rub mixture into the loin. Place loin in plastic bag; tie open
end. Refrigerate and allow to cure for 3-5 days. Remove from cure. Soak loin in
cool water for 30 minutes; pat dry. Refrigerate uncovered to dry slightly before
cooking.

Cut into 1/8 inch thick slices. Pre-heat skillet; brush with oil. Fry over low heat,
turning to brown evenly, about 8 - 10 minutes.

Pea Meal Bacon: After loins are dry, rub liberally with a mixture of cornmeal and
black and red pepper to taste. Cover with plastic wrap and refrigerate. Before fry-
ing, sprinkle slices with additional cornmeal.

Deli Style Corned Beef

1 beef brisket 4-6 pounds
5 tablespoons Morton® Tender Quick® mix or Morton® Sugar Cure®
(Plain) mix
2 tablespoons brown sugar
1 tablespoon ground black pepper
1 teaspoon ground paprika
1 teaspoon ground bay leaves
1 teaspoon ground allspice
1/2 teaspoon garlic powder

Trim surface of fat from brisket. In a small bowl, mix Morton® Tender Quick® mix or
Morton® Sugar Cure® (Plain) mix, remaining ingredients and spices. Rub mixture
into all sides of brisket. Place brisket in plastic bag and tie end securely. Refrigerate
and allow to cure 5 days per inch of meat thickness.

Place brisket in Dutch oven. Add water to cover. Bring to a boil; reduce heat.
Simmer until tender, about 3 - 4 hours.

German-Style Cured Pork Chops
(Gepockelte)

Loin or rib chops, 1/2 to 3/4 inch thick
1 tablespoon Morton® Tender Quick® mix or Morton® Sugar Cure®
(Plain) mix per pound of chops

Rub Morton® Tender Quick® mix or Morton® Sugar Cure® (Plain) mix thoroughly
into pork chops. Place meat in plastic bag. Tie open end. Let cure in refrigerator for
1 to 2 hours. Before cooking, rinse chops under running water to remove excess
salt.

Brown chops in lightly greased skillet. Add 1/4 cup of water. Cover tightly and sim-
mer until done, about 45 minutes to 1 hour.
Zesty Spare Ribs

Pork back ribs
1 tablespoon Morton® Tender Quick® mix or Morton® Sugar Cure® (Plain) mix per pound of ribs
Cut ribs into 3 to 4 rib pieces. Rub Morton® Tender Quick® mix or Morton® Sugar Cure® (Plain) mix into all surfaces of the ribs. Place ribs in a plastic food storage bag; tie open end. Refrigerate and allow to cure for 5 to 8 hours. Rinse the ribs in running water to remove excess salt.
Place on rack in a shallow roasting pan. Roast at 325°F about 2 hours, or until tender.
Ribs may also be barbecued on a covered grill for 1-1/4 to 1-1/2 hours, or until done.

Jerky

Trim fat from meat. For easy slicing, partially freeze meat. Cut strips along the grain, about 1/2 inch thick, 1-1/2 inches wide and up to a foot in length.
In small bowl, mix 1 tablespoon Morton® Tender Quick® mix or Morton® Sugar Cure® (Plain) mix and remaining ingredients. Rub all surfaces of meat strips with cure mixture. Place strips in plastic food storage bag and tie open end. Allow to cure in refrigerator for 1 hour. After curing, rinse strips under cold running water. Pat dry with paper towels.
Arrange strips in a single layer on greased racks in shallow baking pan. Meat edges should not overlap. Place in oven and heat at lowest temperature, with oven door open to the first stop—about 120°-150°F. Dry for 24 hours. Cool.
Place jerky in airtight jars or plastic bags. Store in a cool, dry place or freeze.

Cured Salmon

Fresh salmon
Brine: 1 gallon cold water
1/2 cup sugar
1/2 cup brown sugar
1-3/4 cups Morton® Tender Quick® mix
or Morton® Sugar Cure® (Plain) mix
Clean and eviscerate salmon. Remove head, fins, tail and 1/2 inch from each side along the belly incision. For salmon weighing less than 10 pounds, cut into 3 inch steaks. Split steaks in half along the backbone, leaving skin on if desired. If salmon is greater than 10 pounds, cut into 1 1/2 inch steaks.
Prepare 1 gallon brine for each 5 pounds of salmon, using proportions listed above. Prepare 1 gallon of brine for each five pounds of salmon using proportions listed above. Completely submerge salmon in brine, using a ceramic plate or bowl. Cure in refrigerator for 16 hours. Remove salmon and rinse in cool water. Pat dry and cook as desired.
Salmon may also be smoked using an electric smoker, for 5 to 6 hours, following manufacturer’s instructions.
Note: Many small smokers do not produce sufficient heat to fully cook salmon to 160°F internal temperature. If this is the case, after smoking, salmon should be baked in a 225°F oven to an internal temperature of 160°F; continue baking for 30 minutes. Refrigerate if not consumed immediately.
Smoked Chicken - Dry Cure

2-1/2 - 3 pound broiler-fryer chicken, cut-up
3 tablespoons Morton’s Tender Quick mix or Morton’s Sugar Cure (Plain) mix
Liquid smoke

Wash chicken and pat dry. Rub Morton’s Tender Quick mix or Morton’s Sugar Cure (Plain) mix thoroughly into chicken parts. Place chicken in plastic food storage bag; tie open end. Refrigerate and allow to cure for 2 to 4 hours.

Rinse chicken parts thoroughly under running water to remove excess salt; pat dry. Place in baking pan; brush with liquid smoke. Bake at 375°F about 50 minutes or until tender.

Cured Roast Chicken

3-pound broiler-fryer chicken, whole
1 cup Morton’s Tender Quick mix or Morton’s Sugar Cure (Plain) mix
2 quarts cold water
Melted butter or liquid smoke

In large bowl, dissolve Morton’s Tender Quick mix or Morton’s Sugar Cure (Plain) mix in water. Wash chicken; place in brine. Weigh down chicken with small ceramic plate or bowl, so it is completely covered with brine. If necessary, prepare more brine using the same proportions as above. Refrigerate and allow to cure for 24 hours. Rinse chicken thoroughly in cold water to remove excess salt; pat dry. Refrigerate chicken for 6 - 12 hours before cooking so that salt content will equalize.

Place chicken breast side up on rack in shallow roasting pan. Brush with melted butter. Roast at 375°F until meat thermometer registers 180°F, about 1-1/4 to 1-3/4 hours, or until thigh feels soft when pressed between fingers.
Note: Chicken may be brushed with liquid smoke instead of butter before cooking for fuller flavor.

Cured Turkey

10 - 12 pound turkey (not basted or pre-stuffed type)
1/4 cup Morton’s Tender Quick mix or Morton’s Sugar Cure (Plain) mix
2 cups of cold water
Melted butter or margarine

If frozen, thaw turkey completely in refrigerator. Remove neck and giblets; reserve for another use. Wash turkey. In medium sized bowl, dissolve Morton’s Tender Quick mix or Morton’s Sugar Cure (Plain) mix in cold water. Using a large syringe with a No. 12 needle, inject brine uniformly into large muscles - leg, thigh and breast. Place turkey in large plastic food bag and tie open end. Refrigerate and allow to cure for 24 hours. Remove turkey from bag and rinse under cold running water. Place turkey in clean plastic food bag and refrigerate for 24 hours. Rinse turkey and pat dry.

Place breast side up on rack in shallow roasting pan. Brush with melted butter or margarine. Insert meat thermometer into the thickest part of the thigh without touching bone. Roast at 325°F until meat thermometer registers 180°F, about 3 - 4 hours.
Note: Syringe and needle may be purchased at veterinary or farm supply stores.
Glossary

Not everyone is familiar with our meat curing jargon. To dispel any confusion, our glossary below defines the most commonly used meat curing terms.

**Aging**
Generally applies to country-style hams only. After cure and salt equalization are completed, hams are hung in an area protected from insects or in paper bags (Figure 0, page 18) where there is relatively good air exchanges. Temperature should be 70° - 90°F and humidity at 50 - 60 percent. Six months aging is typical. Aged flavor of hams is due to enzyme activity in the ham. These enzymes are destroyed when ham temperature exceeds 95°F.

**Bacon**
Bacon is sometimes referred to as the “belly”. It is the side portion of the hog after the spareribs have been removed and trimmed. If the butchered hog was not skinned, leave the skin on the belly during cure and remove it as consumed. Place most of the curing salt on the flesh side of the belly to cure.

**Bone-sour**
Bone-marrow sour is caused by bacteria that attack the interior of the ham and multiply rapidly when the temperature exceeds normal refrigeration. It occurs most frequently in the dry cured, long cut hams because of the extra time required for the salt cure to reach the interior. This is why it is so important to keep the hams refrigerated during the entire cure and salt equalization period. Spoilage is usually not detected until a ham is sliced. A small thin wooden stick or a stainless steel probe can be used to detect spoilage before slicing a ham. Probe the ham in the area of the aitch bone or shank area, then smell the probe. Off-odors are easily detected.

**Casings**
Natural casings are made from the intestines of sheep, hogs or beef. They have been processed to remove extraneous matter, washed and graded and then tied into bundles. Ground sausage meat is stuffed into the casings of various sizes, tied into specified lengths and cooked. Many casings today are manufactured and must be removed from the sausage before being eaten. These are often referred to as fibrous casings. Cloth casings are made of muslin and can be made at home.

**Combination Cure**
Combines dry rub cure with injection of a sweet pickle cure. Used in large cuts of meat like ham. This combination shortens the curing time required and reduces the chance of spoilage because the cure process takes place inside and outside the ham.

**Country-Style Ham**
Country-style hams are generally made from long-cut hams. The skin is not removed to help prevent excess drying during the 6 - 9 month aging period. These hams require a higher salt level than non-aged hams to prevent spoilage during aging when the distinctive nut-like flavor is being developed.

**Cure**
The process of preserving meat by incorporating salt and curing agents like nitrate or nitrite. When properly cured, meat is protected somewhat from bacterial spoilage, thus extending the shelf-life of the product. It also helps to retain the pink color of the meat and has its own characteristic flavor.

**Curing Agents**
Sodium nitrite and/or sodium nitrate are the curing agents used in the Morton curing salts. These chemicals react with the pigments in the meat to give the characteristic pink color and cured flavor in meat. They also help prevent bacterial spoilage in the meat. They are mixed with salt according to FDA regulations to prevent over-use.
Dry Cure
The dry cure rub is the application of the curing salt mixes to the surface of the meat and rubbed in thoroughly. No water or sweet pickle cure is added.

Freshening
Freshening, or soaking the ham in cool water for several hours helps to remove some of the excess salt which makes the ham more palatable. It may be necessary to change the water several times to reduce the salt level. Freshening should be done just prior to cooking or smoking.

Green Weight
The weight of the meat in its fresh state before processing and curing.

Ham
Typically the hind leg portion of a hog is considered to be a ham and is almost always cured.

Mold
A fungus-type growth that is often found on the surface of aged hams. It is not considered harmful and can be removed by cutting away or by washing in a mild vinegar solution.

Sweet Pickle Cure
A solution of water, salt, sugar, sodium nitrate and/or sodium nitrate used to cure meat either by soaking or injecting.

Picnic Ham
The front leg or shoulder cut of the hog. It is cured the same as ham but is smaller and generally has a little more fat.

Salt Equalization
The salt equalization period allows time for the salt to become uniform throughout the ham.

For Further Information
The following selected references may be available from the publishers or through your local library.


* Gives instructions on smoking meat.