

Hand-Crafted Salamis



An experienced sausage-maker shares his methods

BY DAVID GINGRASS

Ever since cooking school, I've been passionate about the dried sausage that the French call *saucisson sec*, or hard salami. But I had only a vague idea of how to make these salamis, and there was little written about the craft. I experimented, with mixed results. Fortunately, I found a sausage shop in Los Angeles run by some old-world Austrians. I hung around the kitchen, doing my best to stay out of their way. I began bringing them my work for critique and my salami got better; in fact, now it's really quite delicious. I've learned that, with a bit of practice and some passion, anyone can make delicious hard salami.

Simply put, hard salami is ground or cubed meat that is cured with salts, blended with flavorings, stuffed into casings, fermented, and allowed to dry. The brief fermentation gives the salami its tangy flavor, and drying the sausage makes it firmer, more flavorful, and less perishable. Making salami is a perfect project for the home cook because it can be dried in most basements and it keeps almost indefinitely. Of course, this means that there's always some wonderful salami hanging around, but I never grow tired of eating a few slices with good bread and a glass of wine.

GRANDMA'S GRINDER AND A CLEAN BASEMENT

Hard salami can be prepared in any clean, cool kitchen. It's true that sausage-making takes some special equipment, but you may already have some of what's required. You'll need a sharp knife, a large cutting board, an accurate scale, and two half-gallon food-grade plastic containers with tight-fitting lids.

You'll need a meat grinder, which has to be chilled before grinding the meat. Almost any kind, manual or electric, will work well as long as the blade is sharp and the plates are free of scratches. Tin-coated metal grinders are best because they'll stay cold while grind-

A little bit of mold is good. These black-peppercorn salamis are at the end of the drying period and can now be kept almost indefinitely in the refrigerator.

Photos except where noted: Martha Holmberg

ing; this helps prevent fat in the meat from smearing. Plastic grinders, like those that can be attached to home mixers, aren't robust enough for salami-making and don't hold the cold. A hand-operated metal grinder that clamps in place, much like the kind your grandmother probably used, is best for home use. A variety of grinding plates is also helpful.

A stationary mixer that's able to handle at least five pounds of cold ground meat without overheating will also make things much easier. Use a paddle attachment if your mixer is strong enough; a dough hook if it isn't. You can mix the meat by hand in a metal bowl with a strong steel spoon, but this takes a lot of energy.

A good sausage stuffer is a worthwhile purchase. There are tube attachments for grinders, but the grinder can overmix and overheat the meat. I've used these attachments and had varying degrees of success, so I suggest using them only as a last resort. Stuffers that employ a piston to extrude the meat work the best and cost about \$85.

I dry my salami in the wine cellar at the restaurant, but salami can be dried in most home basements. Be sure the area is clean and free of pests. You'll need dowels or hooks to hang the sausages, a simple humidistat to gauge the moisture in the air, and a thermometer. The proper temperature for drying sausages is between 50° and 60°F. Relative humidity should stay between 75% and 80%. The ideal conditions are 58° at 78% relative humidity. You can aim a small fan at the sausages if the drying room becomes too humid, or use a humidifier if it becomes too dry. If the humidity is too low, the sausages will dry too quickly and become "case-hardened"; that is, the surface of the salami becomes so dry and hard that no further moisture can escape. Salami that has case-hardened will be soft and mushy in the inside and very hard on the outside. If this happens, there's no way to reverse the effect, and it's best to throw out the salami and start over.

IMPORTANT INGREDIENTS

The ingredients you'll need to make salami are few, so each one should be of top quality. The herbs and spices you choose should be fresh and full of flavor, as their flavor will need to stay potent through weeks of drying.

Don't cheat on the meat. The most important ingredient in sausage-making is the meat. Use high-quality meat, avoiding fatty scraps and trimmings. I use pork butt, a cut of pork from above the shoulder that has a good ratio of fat to lean—about one part fat to three parts lean. The pork butt should be boneless and trimmed of any gristle, bone chips, or other blemishes. You can buy fresh meat to use immediately or frozen meat, which you can thaw the night before you plan to start.

Salt is the cure. You'll need two kinds of salt to make dried sausages, common salt (sodium chloride) and curing salt. Together they preserve, bind, and fla-

vor the meat. I use kosher salt instead of table salt because it is larger grained and purer. You can buy curing salt from meat processing companies or through mail-order suppliers (see sources below). Some curing salts contain only sodium nitrite; others are a mix of sodium nitrite and sodium nitrate. For hard salami, you'll need the latter. This compound curing salt is often called "Prague powder" and is tinted pink so it won't be mistaken for common salt. (For a discussion of sodium nitrite and nitrate, see Letters, *Fine Cooking* #4.)

Curing salt usually comes chemically bound onto a common salt carrier, but I like to dilute it even more. Accuracy is important, so measure the salts by weight. I weigh them each separately and then mix them. I call this blend the curing mix. For a truly accurate curing mix, it's best to make enough for 100 pounds of meat and then divide the total weight of the mixture by the weight of the meat called for in the recipe. This greatly reduces the effect of any error that may occur on the scale.

CULTIVATE SOME GOOD GERMS

Lactobacilli bacteria (the same friendly bacteria that are in yogurt and sourdough bread) produce the lactic acid that gives salami a tangy flavor. These bacteria feed on simple sugars, so you'll need to add corn syrup to the sausage mixture. I use light corn syrup



SOURCES FOR INGREDIENTS & EQUIPMENT

Check the Yellow Pages for local meat processors and distributors, which often carry supplies for making sausage and salami and for curing meat.

The Sausage Maker (26 Military Rd., Buffalo, NY 14207; 716/876-5521) will ship everything from curing salts and casings to stuffers and grinders. Free catalog.

Slice the salami super-thin. Take your time and slice it properly for a more tender texture and a cleaner, brighter flavor.



Measure the salts carefully to make a proper curing mix. Many curing salts are tinted pink to prevent any cases of mistaken identity.

Uniform cubes of meat ensure an even cure. The author carefully mixes the pork and curing salts before refrigerating for a week-long cure.



Keep the meat cold for a nicely textured sausage. The author grinds the meat with a cold metal grinder directly into a chilled stainless-steel bowl. The fat in cold meat won't "smear," so that the protein will easily bind together.



because the bacteria can digest it completely, leaving no residual sweetness in the salami.

Getting the lactobacilli into your sausage can be tricky. We had enough of these useful bacteria in the kitchen where I was the chef, so fermentation just happened. The bacteria may have come from a few sausages a friend brought back from France or from the sourdough starters we used to make our bread. You can buy starter culture, or you can chance having the proper helpers already in your kitchen. After

making a few batches of salami at home, it's likely that the bacteria will take up residence in your kitchen, too.

Hard salami can be made with herbs, spices, and other flavorings. I prefer savory herbs, such as thyme and sage, rather than sweeter herbs, like basil. Ginger and garlic are my favorite vegetable flavorings. While ginger isn't a traditional flavoring in this type of sausage, I like the clean, snappy flavor that it adds to salami. Black peppercorns are a good spice to start with because their pungent tang is a great complement to the slightly sour, fermented flavors in the salami.

Experiment by adding just one new flavor at a time to a recipe you like. Simple spicing combinations are best because they develop into full, complex flavors as the salami dries. Be careful of flavorings that contain any sort of acid (lemon juice, for example); they make for a dry, crumbly salami. Acid denatures the protein, essentially cooking the meat inside the casing.

WRAP IT UP

The casing, into which the cured, seasoned meat is stuffed, determines the size and shape of the finished salami. Three types of casings are available: collagen, synthetic, and natural. Collagen casings are made from processed animal protein and are extruded into a perfectly uniform shape. Synthetic casings are made of plastic which, for dried sausages, are lined with protein so they'll shrink along with the meat. If you're using synthetic casings, you'll probably need to soak them for a minute in warm water to make them flexible.

I prefer natural casings, which are made from cleaned sheep, hog, or beef intestines. Natural casings are packed in salt or in a salt solution to preserve them and they must be refrigerated. Natural casings will keep for several weeks, but they become weak as they age. Before you use natural casings, run water through them to clean out the salt solution and to give them a stretch. Natural casings have a distinctive odor, but this will fade away as the sausages dry. Regardless of the casing you choose, you'll need thick, food-grade butcher's twine to tie the ends of the casing closed.

BLACK-PEPPERCORN SALAMI

When making your first batch of salami, it's best not to get carried away with the seasonings. This recipe has lots of flavor, yet is simply spiced. *Yields about 5 pounds.*

- 10 lb. boneless pork butt**
- 3 oz. curing mix (see note at right)**
- 4 oz. corn syrup**
- 1½ oz. very coarsely ground black pepper**
- ½ oz. minced garlic**
- 1 oz. minced fresh ginger**
- Lactobacilli starter culture (optional; check package for amount)**
- Beef middle casings, 3½-in. protein-lined fibrous synthetic casings, or similar collagen casings**



Salami needs a cool, damp place to dry. The ideal conditions, reported by this combination thermometer/humidistat, are approximately 58°F at 78% relative humidity.

Note: For the curing mix, weigh 26 oz. of kosher salt and 4 oz. of curing salt (this proportion may vary slightly by salt supplier, so always read the curing salt package carefully). This will yield 30 oz. of curing mix—enough for 100 lb. of meat. So, for this recipe, which calls for 10 lb. of meat, you'll need exactly 3 oz. of curing mix. Divide this amount between the lean and the fat, according to their weight.

CUBING AND CURING

The meat is easiest to cut when firm, so put it in the freezer for an hour before you start to work. Be sure to keep your hands, equipment, and all work surfaces scrupulously clean. A weak solution of chlorine bleach, followed by thorough rinsing, does the job nicely.

I like to cube and cure the large fat layer of the pork butt separately from the rest of the pork, which will be ground. This gives the finished salami its distinctive coarse appearance. Curing the meat and fat separately means that you will have to weigh each batch and accurately divide the curing mix accordingly.

Cut away the fat covering from the pork butt, and then cut the lean into 1-in. cubes and the fat into ½-in. cubes. Spread them out on separate baking sheets and put the sheets in the freezer until the meat and fat become slightly icy and almost frozen. This hardens the fat and helps prevent "smearing," which occurs when the protein molecules in the meat become so surrounded by fat that they cannot bind together.

With your hands, thoroughly work the curing mix into the lean to ensure even distribution. Pack the salted lean into a plastic container, pressing down to eliminate air bubbles, as contact with air causes the meat to oxidize and discolor. Smooth a layer of plastic wrap against the meat to prevent as much oxidation as possible. Repeat the procedure with the fat, packing it into a separate container. Seal each container with a tight-fitting lid and refrigerate at 34° to 38° for a week.

GRINDING AND MIXING

After a week's cure in the refrigerator, the lean should be firmer than before, redder in color, and the cubes should stick together. If these changes are not apparent, or if the meat has an off odor, it's best to discard it and begin again.

Before you begin to grind and mix the pork, wash and chill the grinding and mixing tools.

Leave the cubes of fat for garnish in the freezer while you grind the lean through a ¼-in. plate. Put the ground lean and the cubed fat in the chilled bowl of your electric

mixer and combine on medium speed. Add the corn syrup, seasonings, and starter culture, if you're using it. Continue mixing until the meat becomes firm and slightly springy to the touch. It should wobble easily when you gently shake the mixing bowl. Keep the mixture refrigerated until you're ready to stuff the casings.

STUFFING AND TYING

Thoroughly clean the sausage stuffer, cool it in cold water, and then dry it. Attach the stuffing tube that's closest in size to your casings. If you're using natural casings, untangle a length, slip one end over the kitchen faucet, and flush it until the water runs clear. (Keep the drain closed or your casing will quickly slip out of sight.) Drain the casing and cut it into desired lengths. If you're using synthetic or collagen casings, soak them first before tying them. Some suppliers sell synthetic casings that have already been cut to size and have one end clamped shut, but it's just as easy to tie both ends shut using the method below.

Tie one end of the casing closed using the double-knot method shown in the photos at right and cut off the excess string. Put the open end of the casing over the stuffing tube and gently slide the rest of the casing onto the tube. Put the chilled meat into the sausage stuffer and slowly push the meat into the casing. Fill the casing completely to help prevent air pockets, being careful not to burst it. Gently prick any air pockets with a pin. Leave about an inch of casing unstuffed, pinch it closed, and then tie it, again using the double-knot method. It's important to tie secure knots. I learned the hard way when I walked into the cellar to find that all my precious salamis had slipped their knots and were lying in a heap on the floor.

WAIT PATIENTLY WHILE THE SAUSAGES DRY

Hang the sausages in your chosen drying area, making sure the temperature and humidity are in check. If the humidity is high for a few days, especially at the beginning, mold may appear on the sausages. If the mold is heavy, lower the humidity and wipe the mold from the sausages with some diluted distilled vinegar.

Fermentation is usually finished within the first two to three days. I like to taste the first sample of salami at two weeks, when it's slightly dried, soft, and silky in texture. If you like a harder salami, you can continue to dry them for another couple of weeks. When they have reached the firmness you want, refrigerate them. These sausages keep for many months, but it isn't likely they'll be around that long.



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Tying the knot. About an inch from the end of the casing, tie a knot with a double length of heavy cotton butcher's twine and pull tight.



Pull the short flap of the casing open.



Tie another simple knot across this, pulling the knot tight. Trim the two loose ends of twine, leaving the loop.

Hold the casing firmly in place. The salami should be tightly packed and free of air pockets after stuffing.