

APPENDIX

THE PHASES OF PRODUCTION IN THE KITCHEN

Organization and Mental mis en Place

1. What are you going to make?
2. How much food will you need?
3. How much space will you need?
4. How much time will you need?
5. How many people will you need for production?
6. Have you thoroughly read the recipe?

Equipment

1. Oven (turned on to required temperature).
2. French knife and paring knife, peeler if needed.
3. Select the proper pan and size for the job intended.
4. Have serving pans to put the finished product in.
5. Specialty equipment such as cheese graters, foil, sheet pans, racks, twine, etc...

Food

1. Gather the produce and dry goods needed in the correct amounts to produce the recipe.
2. Keep perishable items refrigerated.
3. Prevent cross contamination with proper sanitation practice.

Pre-preparation

1. Washing.
2. Slicing, dicing.
3. Trussing, seasoning.

Preparation

1. Start item with longest cooking times first.
2. Clean as you go.

Finishing

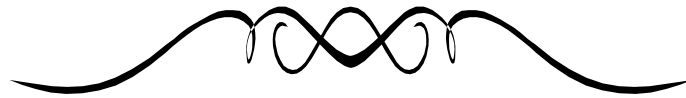
1. Finish items as close to service as possible.

Serving

1. Set up line for service
2. Hot plates, serving spoons, forks, etc.

Actual service

1. Plates neat and clean, food hot.
2. Food arranged properly on the plate.

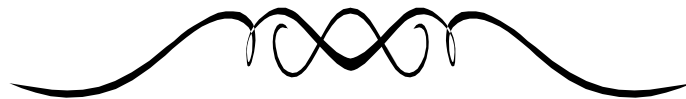


Clutter

Causes

Confusion

Confusion Causes Catastrophe



KITCHEN EQUIPMENT

It is indeed a poor workman who blames his tools. Knowing how to select, use, and care for tools and equipment is a crucial part of mastering basic cooking techniques. Our survey of basic examples ranges from the simplest hand tools—knives, whips, spatulas, and the like—to complex machines such as grinders, slicers, steam kettles, ovens, and refrigeration equipment. The discussion begins with a detailed review of the selection and maintenance of one of the chef's most important professional tools—the knife.

HAND TOOLS

Hand tools are generally composed of few, if any, moving parts, and most are designed to perform a range of functions. Knives are perhaps the most important hand tools in the professional kitchen; their proper use and care are discussed below in detail. Other kitchen tools, such as sharpening and honing tools, peelers, scoops, whips, and spatulas are also explained.

KNIVES

The importance of knives to a professional chef or cook cannot be overstated. The only piece of "equipment" more basic to cooking is the human hand. All knives should be treated with great respect and care. The following rules concerning knife care, use, and storage are automatic behavior for all true professionals.

Keep knives sharp. Learn the proper techniques for both sharpening and honing knives. A sharp knife not only performs better but is safer to use, because less pressure is required to cut through the food. When too much pressure is exerted, there is a good possibility of the knife slipping and causing injury to the user.

Keep knives clean. Clean knives thoroughly after using, and sanitize as necessary, so that the tool will not become a site for food cross-contamination. Keeping knives clean also helps to extend their lives. Never drop a knife into a full pot sink. It could be dented or nicked by heavy pots, and someone who reaches into the sink could be seriously injured by grabbing the blade. Do not clean knives in a dishwasher, because the handles are likely to warp and split.

Keep knives properly stored. There are a number of safe, practical ways to store knives, including in knife kits or rolls for one's personal collection, and in slots, racks, and magnetized holders. Proper storage will prevent damage to the blade or harm to an unwary individual. Knives should be carefully dried after cleaning, then stored in sheaths to help retain their edge.

Use an appropriate cutting surface. Wooden or composition cutting boards should always be used. Cutting directly on metal, glass, or marble surfaces will dull and eventually damage the blade of a knife.

Use for intended purposes only and follow procedures. Always hold a knife by its handle. When passing a knife to someone else, lay it down on a work surface and allow the other person to

pick it up. Do not allow the blade of a knife to extend over the edge of a table or cutting board. Refrain from using knives to open bottles, loosen drawers, and so on.

A wide array of knives is available to suit specific functions. As a chef continues to work in professional kitchens, the *batterie de cuillier* expands from the “basics”—chef’s or French knife, boning knife, paring knife, and slicer—to include a number of special knives, such as a tourné knife, serrated knife, utility knife, flexible-bladed knives, and so on.

Selecting a knife of good quality that fits the hand and is suitable for the intended tasks depends on a basic knowledge of the various parts of the knife.

BLADES

Currently, the most frequently used material for blades is high-carbon stainless steel. Other materials, such as stainless steel and carbon steel, are also available. For many years, carbon steel was used to make most knife blades. And though carbon steel blades take better edge than either regular or high-carbon stainless steel, they tend to lose their sharpness quickly. Also, carbon steel blades will discolor in contact with high acid foods such as tomatoes or onions. Carbon steel blades must be treated carefully to avoid discoloration, rusting, and pitting; they should be washed and thoroughly dried between uses and before storage. The metal is brittle and can break easily under stress.

Stainless steel is much stronger than carbon steel and will not discolor or rust. It is very difficult to get a good edge on a stainless-steel blade, although once an edge is established, it tends to last longer than that on a carbon steel blade.

High-carbon stainless steel is a relatively recent development that combines the advantages of carbon and stainless steel. The higher percentage of carbon allows the blade to take and keep a keener edge; the fact that it is stainless steel means that it will not discolor or rust readily.

The most desirable type of blade is “taper ground.” This means that the blade has been forged out of a single metal sheet and has been ground so that it tapers smoothly from the spine to the cutting edge, with no apparent beveling. Frequently used knives should be made with taper-ground blades.

Hollow-ground blades are made by combining two sheets of metal; the edges are then beveled or fluted. Although hollow-ground blades often have very sharp edges, the blade itself lacks the balance and longevity of a taper-ground blade. This type is often found on knives, such as slicers, that are used less frequently in the kitchen.

TANGS

The tang is a continuation of the blade and extends into the knife’s handle. Knives used for heavy work, such as chef’s knives or cleavers, should have a full tang; that is, the tang is as long as the entire handle. A partial tang does not run the length of the handle. Although blades with

partial tangs are not as durable as those with full tangs, they are acceptable for less-used knives. Rat-tail tangs are much thinner than the spine of the blade and are encased in the handle (not visible at the top or bottom edges); these tangs tend not to hold up under extended use.

HANDLES

A preferred material for knife handles is rosewood because it is extremely hard and has no grain, which helps to prevent splitting and cracking. Impregnating wood with plastic protects the handle from damage caused by continued exposure to water and detergents. Some state codes require that plastic handles be used in butcher shops, because they are considered more sanitary than wood. Care must be taken to thoroughly remove grease, however, because it adheres more closely to plastic than it does to wood.

The handle should fit the hand comfortably; a range of handle sizes is available. People with very small or very large hands should be sure that they are not straining their grip to hold the handle. Some knives are constructed to meet the needs of left-handed chefs.

RIVETS

Metal fasteners called rivets are used to secure the tang to the handle. The rivets should be completely smooth and lie flush with the surface of the handle to prevent irritation to the hand and to avoid causing pockets where microorganisms could gather.

BOLSTERS

In some knives there is a collar or shank, known as a bolster, at the point where the blade meets the handle. This is a sign of a well-made knife, one that will hold up for a long time. Some knives may have a collar that looks like a bolster but is actually a separate piece attached to the handle. These knives tend to come apart easily and should be avoided.

TYPES OF KNIVES

The number of knives that a chef will accumulate over the course of his or her career will almost undoubtedly include a number of special knives that are not discussed below. There are, for example, several special knives and cutting tools found exclusively in the bakeshop; still others are required for butchering meats and fabricating fish. This list is intended as a guide to the knives that may be found in nearly any well-outfitted knife kit.

Chef's knife, or French knife. This all-purpose knife is used for a variety of chopping, slicing, and mincing chores. The blade is normally 8 to 14 inches long.

Utility knife. This smaller, lighter chef's knife is used for light cutting chores. The blade is generally 5 to 7 inches long.

Paring knife. This short knife, used for paring and trimming vegetables and fruits, has a 2- to 4-inch blade.

Boning knife. A boning knife is used to separate raw meat from the bone. The blade, which is thinner and shorter than the blade of a chef's knife, is about 6 inches long, and is usually rigid.

Filleting knife. Used for filleting fish, this knife is similar in shape and size to a boning knife but has a flexible blade.

Slicer. This knife is used for slicing cooked meat. It has a long blade with a round or pointed tip. The blade may be flexible or rigid and may be taper-ground or have a fluted edge that consists of hollow ground ovals.

Cleaver. Used for chopping, the cleaver is often heavy enough to cut through bones. It has a rectangular blade and varies in size according to its use.

Tourné knife. This small knife, like a paring knife, has a curved blade to make cutting the curved surfaces of tournéed vegetables easier.

SHARPENING AND HONING TOOLS

The key to the proper and efficient use of any knife is making sure that it is sharp. A knife with a sharp blade always works better and more safely because it cuts easily, without requiring the chef to exert pressure, which may cause the knife to slip and an injury to result. Knife blades are given an edge on a sharpening stone and maintained between sharpenings by honing with a steel.

SHARPENING STONES

Sharpening stones are essential to the proper maintenance of knives and are used to sharpen the blade by passing its edge over the stone at the correct angle. The grit—the degree of coarseness or fineness of the stone's surface—abrades the blade's edge, creating a sharp cutting edge. When sharpening a knife, always begin by using the coarsest surface of the stone and then move on to the finer surfaces. A stone with a fine grade should be used for boning knives and other tools in which an especially sharp edge is required. Most stones may be used either dry or moistened with water or mineral oil. Once oil has been used on a stone's surface, that practice should be continued. Three basic types of stones are commonly available:

Carborundum stones have a fine side and a medium side.

Arkansas stones are available in several grades of fineness, and some consist of three stones of varying degrees of fineness mounted on a wheel.

Diamond-impregnated stones are also available. Although they are expensive, some chefs prefer them because they feel these stones give a sharper edge. The standard size for sharpening stones is 8 by 2 by 13/16 inches.

Before using a stone, the chef should be sure that it is properly stabilized. Place carborundum or diamond stones on a dampened cloth and allow enough room to work. A triple-faced stone is mounted on a rotating framework that can be locked into position so that it will not move. The blade should be held at a 20-degree angle to the stone's surface and the entire length of the blade should be drawn across the stone.

Grinding wheels, electric sharpeners, leather strops (such as those used to sharpen barbers' blades), and other grinding tools may be necessary to replace or restore the edge of a badly dulled knife.

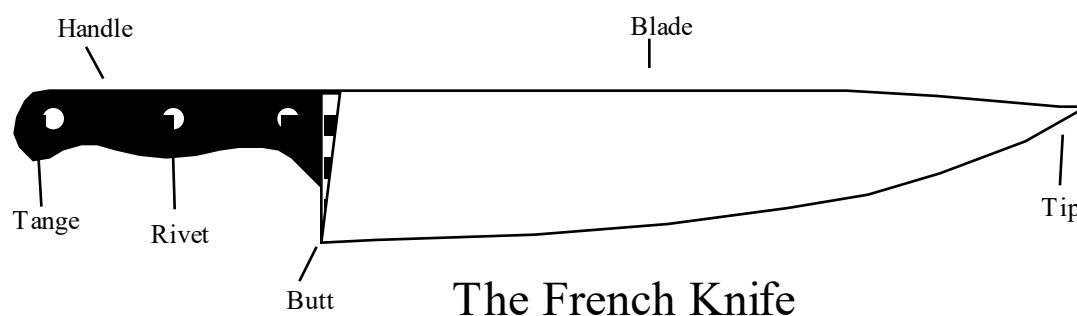
STEELS

A steel should be used both immediately after sharpening the blade with a stone and also between sharpenings to keep the edges in alignment. The length of the steel's working surface can range from 3 inches for a pocket version to over 14 inches. Hard steel is the traditional material for steels. Other materials, such as glass, ceramic, and diamond-impregnated surfaces, are also available.

Steel comes with coarse, medium, and fine grains and some are magnetic, which helps the blade retain proper alignment and also collects metal shavings. A guard or hilt between the steel and the handle protects the user, and a ring on the bottom of the handle can be used to hang the steel.

When using a steel, the knife is held almost vertically, with the blade at a 20-degree angle, resting on the inner side of the steel. The blade should be drawn along the entire length of the steel.

PROPER KNIFE CARE AND HANDLING

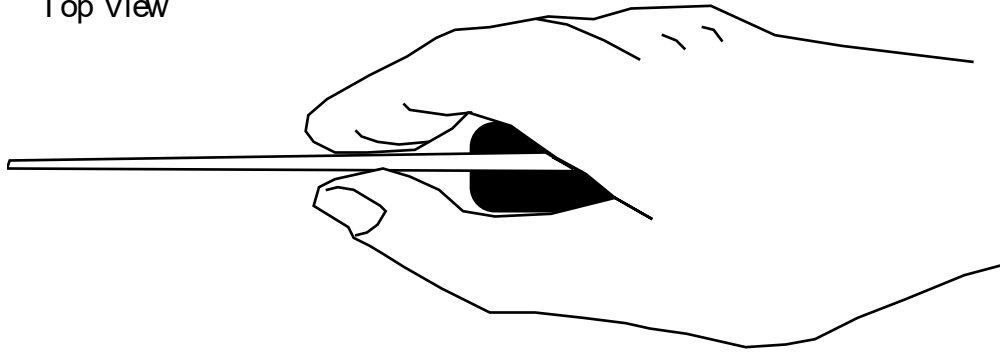


SAFETY RULES FOR KITCHEN CUTLERY

- Always use a sharp knife. A sharp knife is safer than a dull knife because it requires less pressure while cutting.
- Use the correct size and type of knife for the job.
 - **French knife** - basic chopping and dicing
 - **Boning knife** - removing bones from meats and poultry
 - **Slicer** - slicing meats, poultry and breads
 - **Paring knife** - peeling fruits and vegetables
- Hold the knife firmly in your hand and cut away from your body. Always use a cutting board.
- Always place knives on flat surfaces away from the edge of the table with the blade facing away from you. Never cover a knife with towels or other materials, keep it in sight of everyone.
- Do not grab blindly for a knife: reach deliberately for the handle. If a knife falls off the table, do not grab for it.
- When handing another person a knife point the handle toward them.

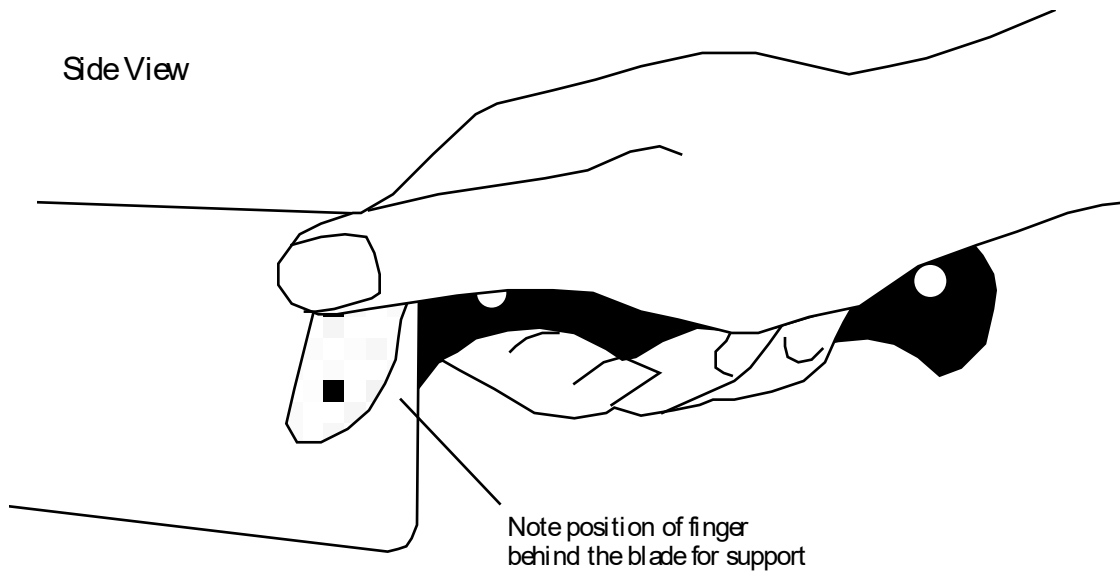
HOW TO HOLD A KNIFE PROPERLY

Top View



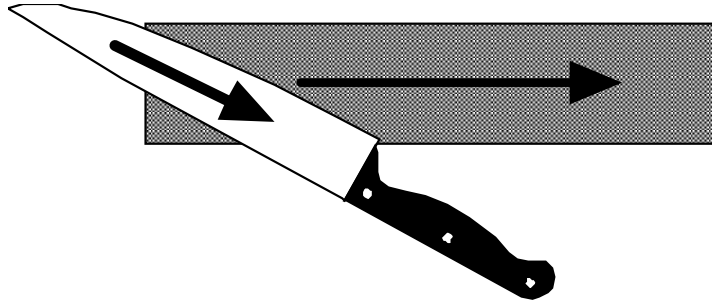
Grasp the knife by the handle, allowing your thumb and index finger to rest on the blade for support.

Side View



HOW TO SHARPEN A KNIFE

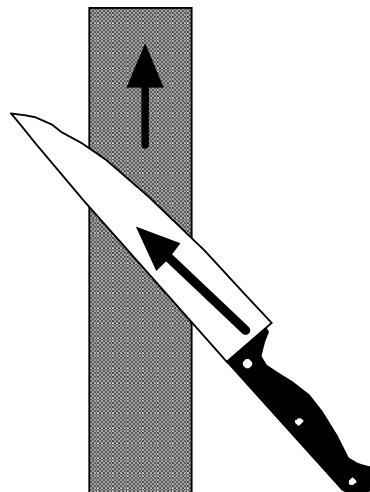
Carborundum or Sharpening Stones are available in different grades of coarseness for different stages of sharpening.



METHOD ONE

Lubricate the sharpening stone with oil* or water, place the knife on the stone using a 20 - 25° angle of the blade to the stone. Move the knife right to left, also pulling it toward yourself (this is to cover the entire blade of the knife in the sharpening process). Flip the knife over and repeat the process in reverse for the other side. Repeat this process, as necessary, to sharpen the edge.

Note: Special oil used only for sharpening stones, do not use cooking oil



METHOD TWO

Lubricate stone, place knife on stone using proper angle, push knife forward and to the left from tip to butt, turn over knife, repeat process in reverse, pulling knife toward you, starting at the butt and ending at the tip.

Commonly Used Knife Cuts

Brunoise $1/8 \times 1/8 \times 1/8''$



Small Dice $1/4 \times 1/4 \times 1/4''$



Medium Dice $1/3 \times 1/3 \times 1/3''$



Large Dice $3/4 \times 3/4 \times 3/4''$



Fine Julienne $1/16 \times 1/16 \times 1 - 2''$



Julienne $1/8 \times 1/8 \times 1 - 2''$



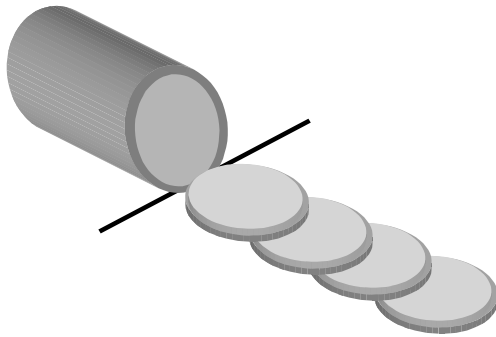
Batonette $1/4 \times 1/4 \times 2''$



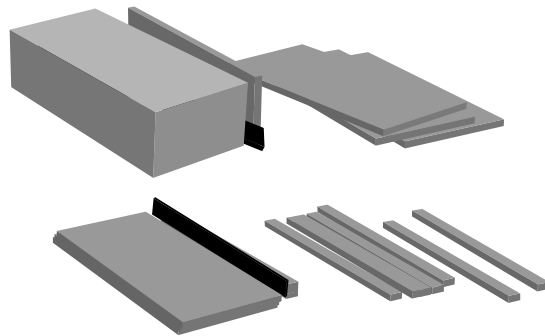
Paysanne $1/2 \times 1/2 \times 1/8''$



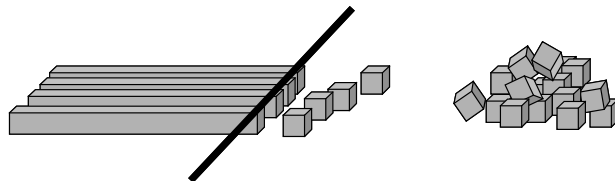
Slicing



Julienne



Dicing



BASIC CULINARY PREPARATIONS

A number of small tools other than knives belong in a knife kit. It should be noted that, in addition to the hand tools listed here, many others such as cherry pitters, strawberry hullers, and tomato knives (also known as witches) are used in the professional kitchen for various specific functions.

Rotary peeler. This is used to peel the skin from various vegetables and fruits. The swivel action accommodates the contours of various products.

Parisienne scoop (melon baller). This is specifically designed for scooping out balls or ovals (depending upon the shape of the scoop) of vegetables and fruits.

Kitchen fork. The fork is used to test the doneness of braised meats and vegetables, for lifting finished items to the carving board or plate, and to steady the item being carved. A kitchen fork should not be used to turn foods being sautéed, grilled, or broiled, because the tines will pierce the food and let the juices emerge.

Palette knife (metal spatula). This is a flexible, round-tipped tool used in the kitchen and bakeshop for turning pancakes or grilled foods, spreading fillings and glazes, and a variety of other functions. A palette knife with a serrated edge is useful for preparing and slicing sandwiches.

Whips. Whips are used to beat, blend, and whip foods. Balloon whips are sphere-shaped and have thin wires to incorporate air for making foams. Sauce whips are narrower and frequently have thicker wires. The chef should have a number of whips in various sizes.

Offset spatula. This spatula is used to turn or lift foods on grills, broilers, and griddles. It has a wide, chisel-edged blade set in a short handle.

Pastry bag. This plastic, canvas, or nylon bag is used to pipe out puréed foods, whipped cream, and various toppings. Pastry bags have uses in both the kitchen and the bakeshop.

OTHER HAND TOOLS

Other kitchen hand tools include rubber scrapers; ladles of various sizes; skimmers for skimming the surface of stocks, soups, etc.; "spiders" for lifting foods out of liquids or fats; spoons of various sorts, wooden and metal serving spoons, tasting spoons, and slotted or solid spoons; scoops of various sizes; hardwood rolling pins; and plastic or wooden cutting boards.

SMALL EQUIPMENT

The tools outlined in this section are available in any well-equipped kitchen. For the sake of clarity, they have been categorized here according to their general function; measuring, straining, and sifting.

MEASURING EQUIPMENT

Measurements are determined in many different ways in a professional kitchen, depending upon the ingredient to be measured and the system employed by a specific recipe. This makes it important to have equipment for liquid and dry volume measures for both U.S. and metric, as well as a variety of scales for accurate measurement by weight. Thermometers should display both Fahrenheit and Centigrade temperatures.

Graduated measuring pitchers. These are used for measuring liquids and are generally available in pint, quart, and gallon sizes.

Scales. These are used to weigh ingredients for preparation and portion control. Ounce/gram and pound/kilo scales both should be available. Scales may be spring-type, balance beam, or electronic.

Thermometers. An instant-reading thermometer is used to measure foods' internal temperatures. The stem, inserted in the food, gives an instant reading. Candy and deep-fat thermometers are also helpful.

Measuring spoons. Measuring spoons come in the following sizes: tablespoon, teaspoon, 1/2 teaspoon, and 1/4 teaspoon.

SIEVES, STRAINERS, AND CHINOIS

Sieves and strainers are mainly used to sift, aerate, and help to remove any large impurities from dry ingredients. They are also used to drain, or purée cooked or raw foods.

Food mill. This is a type of strainer used to purée soft foods. A flat, curving blade is rotated over a disk by a hand-operated crank. Most professional models have interchangeable disks with holes of varying fineness. An exception is the Foley food mill, which has a mesh disk that is fixed in place.

Note: Many mixing machines may be used like a food mill through the addition of attachments that allow them to strain and purée foods.

Drum sieve (tamis). This sieve consists of a tinned-steel, nylon, or stainless-steel screen stretched in an aluminum or wood frame. A drum sieve is used for sifting or puréeing. A *champignon* (mushroom-shaped pusher) or a rigid plastic scraper is used to push the food through the screen.

Chinois. This conical sieve is used for straining and/or puréeing food. The openings in the cone can be of varying sizes, from very large to a fine mesh. A fine chinois (also known as a bouillon strainer) is a valuable piece of equipment and should be treated with great respect. It should be

cleaned immediately after each use and stored properly; never drop it into a pot sink where it could be crushed or torn.

Colander. This stainless-steel sieve, with or without a base, is used for straining foods. Colanders are available in a variety of sizes.

Ricer. This is a device in which cooked food, often potatoes, is placed in a hopper, which is pierced with holes. A plate on the end of a lever pushes the food through the hopper walls. Garlic presses and french-fry cutters operate on the same principle.

Cheesecloth. This light, fine mesh gauze is frequently used in place of a fine chinois and is essential for straining some sauces. It is also used for making sachets. Before use, cheesecloth should be rinsed thoroughly in hot water and then cold water to remove any loose fibers. Cheesecloth also clings better to the sides of bowls, chinois, and so forth when it is wet.

POTS, PANS, AND MOLDS

Various materials and combinations of materials are used in the construction of pots, pans, and molds. Because form and function are closely related, it is important to choose the proper equipment for the task at hand.

Pots made of copper transfer heat rapidly and evenly; because direct contact with copper will affect the color and consistency of many foods, copper pots must be lined. Great care must be taken not to scratch the lining, which is usually a soft metal, such as tin. Copper also tends to discolor quickly, and so it requires significant time and labor for proper upkeep.

Cast iron has the capacity to hold heat well and transmit it very evenly. The metal is somewhat brittle, however, and must be treated carefully to prevent pitting, scarring, and rusting. Cast iron is sometimes coated with enamel to simplify care.

Stainless steel is a relatively poor conductor of heat, but is often used because it has other advantages, including easy maintenance. Other metals, such as aluminum or copper, are often sandwiched within stainless steel to improve heat conduction. Stainless steel will not react with foods; this means, for example, that white sauces will retain a pure white or ivory color.

Blue-steel, black-steel, pressed-steel, or rolled-steel pans are all prone to discoloration but transmit heat very rapidly. These pans are generally thin and are often preferred for sautéing foods because of their quick response to changes in temperature.

Aluminum is also an excellent conductor of heat; however, it is a soft metal that wears down quickly. When a metal spoon or whip is used to stir a white or light-colored sauce, soup, or stock in an aluminum pot, it could take on a gray color. Anodized or treated aluminum tends not to react with foods, and it is one of the most popular metals for pots used in contemporary

kitchens. The surfaces of treated aluminum pans tend to be easier to clean and care for than most other metals, except for stainless steel.

Nonstick coatings on pans have some use in professional kitchens, especially for those that try to offer foods that are cooked with less fats and oils. These surfaces are not as sturdy as metal or enamel linings, so care must be taken to avoid scratching during cooking and cleaning.

THE FOLLOWING GUIDELINES SHOULD BE OBSERVED FOR THE CHOICE OF A PAN OR MOLD.

Choose a size appropriate to the food being cooked. The chef should be familiar with the capacity of various pots, pans, and molds. If too many pieces of meat are crowded into a sauteuse, for instance, the food will not brown properly. If the sauteuse is too large, however, the *fond* (caramelized drippings from the meat) could scorch. If a small fish is poached in a large pot, the *cuisson* (cooking liquid) will not have the proper flavor intensity. It is also easier to overcook the fish in a too-large pot. If the pot is too small, there may not be enough *cuisson* available for the sauce.

Choose material appropriate to the cooking technique. Experience has shown, and science has verified, that certain cooking techniques are more successful when used with certain materials. For instance, sautéed foods require pans that transmit heat quickly and are sensitive to temperature changes. Braises, on the other hand, require long, fairly gentle cooking, and it is more important that the particular pot transmits heat evenly and holds heat well than that it responds rapidly to changes in heat.

Use proper handling, cleaning, and storing techniques. Avoid subjecting pots to heat extremes (for example, placing a smoking-hot pot into a sink full of water) because some materials are prone to warping. Other materials may chip or even crack if allowed to sit overheat when they are empty or if they are handled roughly. Casseroles or molds made of enameled cast iron or steel are especially vulnerable. To protect the “seasoning” of rolled steel pans, do not clean the surface with detergents or abrasives such as steel wool or cleansing powders. Be sure to dry pans before storing—air drying is best—to prevent the pitting and rusting of some surfaces, as well as to keep them clean and sanitary. Proper and organized storage prevents dents, chips, and breakage, and expedites the workload, because staff can more readily find what they need.

POTS AND PANS FOR STOVETOP COOKING

Pots and pans are not only available in a variety of materials but are also produced in many different sizes. All must be able to withstand direct heat from a flame. A poorly produced pot will have weak spots that will eventually warp.

Stockpot (marmite). This large pot, of medium-gauge metal, is taller than it is wide, and has straight sides. Some stockpots have a spigot at the base so that the liquid can be drained off without lifting the heavy pot. Anodized aluminum and stainless steel are the preferred materials.

Saucepot. This pot is similar in shape to a stockpot, although not as large, with straight sides and two loop handles for lifting.

Saucepan. This pan has straight or slightly flared sides (a pan with flared sides may be known as a *fait-tout*) and has a single long handle.

Rondeau. This is a wide, fairly shallow pot with two loop handles. When made from cast iron, these pots are frequently known as “griswolds,” and they may have a single short handle rather than the two loop handles. A brazier is like a rondeau and may be square instead of round.

Sauteuse. This shallow skillet with sloping sides and a single long handle is often referred to as a sauté pan.

Sautoir. This shallow skillet has straight sides and a single long handle. It is often referred to as a sauté pan.

Omelet pan/crêpe pan. This shallow skillet has very short, slightly sloping sides, and is most often made of rolled or “blue” steel.

Bain marie (double boiler). These are nesting pots with single long handles. The bottom pot is filled with water that is heated to gently cook or warm the food in the upper pot. The term also refers to the stainless-steel containers used to hold food in a steam table.

Fish poacher. This is a long narrow pot with straight sides and may include a perforated rack for holding the fish.

Steamer. This consists of a set of stacked pots. The upper pot has a perforated bottom and is placed over a larger pot, which is filled with boiling or simmering water. The perforations allow the steam to rise from the pot below to cook the food above. Tiered steamers are also available.

Specialty pots and pans. Wok, couscoussières, paella pans, and grill pans (the latter is essentially a skillet with ridges that can simulate grilling) are among the stovetop pots and pans used to prepare special, usually ethnic, dishes.

POTS AND PANS FOR OVEN COOKING

Pans used in ovens are produced from the same basic materials and are used to make stovetop pots and pans; in addition, glazed and unglazed earthenware, glass, and ceramics are also used. The heat of the oven, less intense than that of a burner, prevents these more delicate materials

from cracking and shattering due to extremes of temperature. It is important to remember not to submerge these materials into water immediately after removing them from the oven.

Roasting pan. This rectangular pan with medium-high sides is used for roasting or baking and comes in various sizes.

Sheet pan. This shallow, rectangular pan is used for baking and may be full or half size.

Pâté mold. A deep rectangular metal mold, the pâté mold usually has hinged sides to facilitate removal of the pâté. Special shapes (oval, triangular, and others) may be available.

Terrine mold. The terrine mold may be rectangular or oval, with a lid. Traditionally an earthenware mold, it may also be made of enameled cast iron.

Gratin dish. A shallow oval baking dish, this may be ceramic, enameled cast iron, or enameled steel.

Soufflé dish. This is a round, straight-edge ceramic dish of various sizes.

Timbale mold. This small metal or ceramic mold is used for individual portions of various molded, cooked vegetables, usually made with a custard base.

Specialty molds. These include dariole, savarin, ring, and other molds that are used to achieve varying shapes.

LARGE EQUIPMENT

Safety precautions must be observed, and proper maintenance and cleaning consistently applied in order to keep this equipment functioning properly and to prevent injury or accident. Observe the following guidelines when working with large equipment:

- Obtain proper instruction in the machine's safe operation. Do not be afraid to ask for extra help.
- First turn off and then unplug electrical equipment before assembling or breaking down the equipment.
- Use all safety features: Be sure that lids are secure, hand guards are used, and the machine is stable.
- Clean and sanitize the equipment thoroughly after each use.
- Be sure that all pieces of equipment are properly reassembled and left unplugged after each use.
- Report any problems or malfunctions promptly and alert co-workers of the problem.

GRINDING, SLICING, AND PURÉEING EQUIPMENT

Grinders, slicers, and cutting equipment all have the potential to be extremely dangerous. The importance of observing all the necessary safety precautions cannot be overemphasized. As these tools are essential for a number of different operations, all chefs should be able to use them with confidence.

Meat grinder. This is a free-standing machine or an attachment for a standing mixer. A meat grinder should have dies of varying sizes and in general will have a feed tray and a pusher. All food contact areas should be kept scrupulously clean. To make sure all the food has been pushed through the worm, feed a twisted coil of plastic wrap through the feed tube.

Vertical chopping machine (VCM). This machine operates on the same principle as a blender. A motor at the base is permanently attached to a bowl with integral blades. As a safety precaution, the hinged lid must be locked in place before the unit will operate. The VCM is used to grind, whip, emulsify, blend, or crush foods.

Food chopper (buffalo chopper). The food is placed in a rotating bowl that passes under a hood, where blades chop the food. Some units have hoppers or feed tubes and interchangeable disks for slicing and grating. Food choppers are available in floor and tabletop models and are generally made of aluminum with a stainless-steel bowl.

Food processor. This is a processing machine that houses the motor separately from the bowl, blades, and lid. Food processors can grind, purée, blend, emulsify, crush, knead, and, with special disks, slice, julienne, and shred foods.

Food/meat slicer. This machine is used to slice foods in even thicknesses. A carrier moves the food back and forth against a circular blade, which is generally carbon steel. There may be separate motors to operate the carrier and the blade. To avoid injury, all the safety features incorporated in a food slicer, especially the hand guard, should be used.

Mandoline. This slicing device is made of nickel-plated stainless steel with blades of high-carbon steel. Levers adjust the blades to achieve the cut and thickness desired. As with food slicers, be sure to use the guard—the carriage device that holds the food—to prevent injury. The mandoline can be used to make such cuts as slices, juliennes, gaufrettes, and batonnet.

STOVES, RANGES AND OVENS

It is difficult to imagine a kitchen without a stove. The stovetop is known as the range; the oven is usually below the range. There are a number of different variations on this standard arrangement, however, just as there are a number of different range tops and ovens available today.

Gas or electric ranges are available in many sizes with various combinations of open burners, flat-tops (not to be confused with griddle units), and ring-tops. Open burners and ring-tops supply direct heat, which is easy to change and control. Flat-tops provide indirect heat, which is more even and less intense than direct heat. Foods that require long, slow cooking, such as stocks, are more effectively cooked on a flat-top. Small units known as candy stoves or stockpot ranges have rings of gas jets or removable rings in a flat-top that allow for excellent heat control.

Ovens cook foods by surrounding them with hot air, a gentler and more even source of heat than the direct heat of a burner. Although many types of food are prepared in ovens, they are most commonly used for roasting and baking. Different ovens are available to suit a variety of needs, and both the establishment's menu and its available space should be evaluated before determining what type and size oven to install.

Open-burner range. This is an individual grate-style burner that allows for easy adjustment of heat.

Flat-top range. This consists of a thick plate of cast-iron or steel set over the heat source. Flat-tops give relatively even and consistent heat but do not allow for quick adjustments of temperature.

Ring-top range. This is a flat-top with removable plates that can be removed to widen the opening, supplying more or less heat.

Convection oven. Hot air is forced through fans to circulate around the food, cooking it evenly and quickly. Some convection ovens have the capacity to introduce moisture. They are available in gas or electric models, in a range of sizes, with stainless-steel interiors and exteriors and glass doors. Special features may include infrared and a convection-microwave combination.

Conventional/deck ovens. The heat source is located on the bottom, underneath the deck, or floor, of the oven. Heat is conducted through the deck to the cavity. Conventional ovens can be located below a range top or as individual shelves arranged one above another. The latter are known as deck ovens, and the food is placed directly on the deck, instead of on a wire rack. Deck ovens normally consist of two to four decks, though single-deck models are available. Some deck ovens have a ceramic or firebrick base. Deck ovens usually are gas or electric, although charcoal and wood-burning units are also available. The basic deck oven is most often used only for roasting, but several variations are available for other purposes.

Additional styles of ovens include pizza ovens, rotary ovens for spit roasting, conveyor ovens, and rotating deck ovens. Two other oven/range features, the griddle and the grill, are part of the traditional commercial foodservice setup.

Griddle. Like a flat-top range top, a griddle has a heat source located beneath a thick plate of metal, generally cast-iron or steel. The food is cooked directly on this surface. A griddle may be gas or electric.

Grill/broiler/salamander. In a grill, the heat source is located below the rack; in a broiler or salamander, the heat source is above. Some units have adjustable racks which allow the food to be raised or lowered to control cooking speed. Most units are gas, although electric units with ceramic "rocks" create a bed of coals, producing the effect of a charcoal grill. Salamanders are small broilers, used primarily to finish or glaze foods.

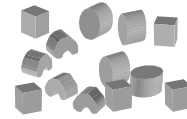
SUMMARY

Choosing the proper equipment for a particular task is fundamental. In the case of complex machinery, it is especially important that the chef or foodservice employee know the proper procedures and safety precautions before beginning to use the equipment.

Basic Culinary Preparations

Mirepoix

A mixture of vegetables used to flavor stocks, sauces and other culinary preparations. The size of the vegetable is in relation to the cooking time of the product..



The ratio: 50% Onions, 25% Carrots, 25% Celery

Bouquet Garni

A bunch of fresh herbs used for flavoring. Today's version also includes leek, carrot and celery.



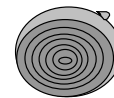
Oignon Piqué (studded onion)

A combination of onion, bay leaf and cloves used for flavoring.



Oignon Brulé (charred onion)

Caramelized onion used for flavor and color.



Sachet d' épice (spice bag)

A cloth bag containing spices and herbs used for flavoring.



Chopped Shallots

Shallots, chopped or minced, used for flavoring in many preparations.



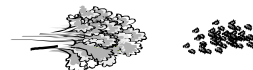
Chopped or Mashed Garlic

Garlic, minced or mashed with salt, used for flavoring.



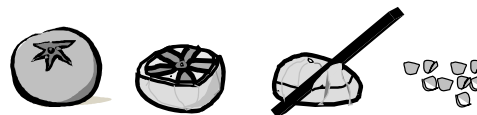
Chopped Parsley

Parsley washed, stems removed, chopped very fine.



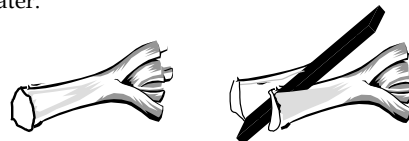
Tomato Concassé

Remove stem, score skin, blanch 5-20 seconds in boiling water, shock in ice water. Remove skin, cut tomato in half, squeeze out seeds, coarse chop.



Leeks

Trim tops and root of leek (do not remove too much root). Split lengthwise, soak in water, fan open, lift out of water.



WEIGHTS, MEASURES AND RECIPE ADJUSTMENTS

WEIGHTS AND MEASURES EQUIVALENCIES

dash	=	less than 1/8 teaspoon
3 teaspoons (tsp.)	=	1 Tablespoon Tbsp. (1/2 fl. oz.)
2 Tablespoons (Tbsp.)	=	1/8 cup (1 fl. oz.)
4 Tablespoons	=	1/4 cup (2 fl. oz.)
8 Tablespoons	=	1/2 cup (4 fl. oz.)
16 Tablespoons	=	1 cup (8 fl. oz.)
2 cups	=	1 pint
2 pints	=	1 quart
4 quarts	=	1 gallon
8 quarts	=	1 peck
4 pecks	=	1 bushel

SCOOP SIZES

#	Approximate weight	Measure
30	1 1/4 oz.	2 1/5 Tbsp.
24	1 1/2 oz.	2 2/3 Tbsp.
20	1 2/3 oz.	3 1/5 Tbsp.
16	2 to 2 1/2 oz.	1/4 cup
12	3 oz.	1/3 cup
10	4 oz.	2/5 cup
8	5 oz.	1/2 cup

METRIC WEIGHTS AND MEASURES EQUIVALENCIES

1 gram (g.)	=	1/28 oz. (or 0.035 oz.)
1/2 ounce (oz.)	=	14 g.
1 ounce	=	28.35 g. (approx. 30 g.)
2 ounces	=	56 g. (approx. 60 g.)
4 ounces	=	110 g.
6 ounces	=	170 g.
8 ounces	=	225 g.
12 ounces	=	340 g.
1 pound (16 oz.)	=	450 g.
1 kilogram (kg.)	=	2.21 lb.
1 liter	=	35 fl. oz. (1 3/4 pt.)

TEMPERATURE EQUIVALENCIES

250° F	very cool	130° C
300° F	low	150° C
350° F	moderate	180° C
400° F	hot	200° C
450° F	very hot	230° C

METRIC CONVERSION TABLE

To Change	To	Multiply by
Ounces (oz.)	Grams (gm.)	28.35
Pounds (lb.)	Kilograms (kg)	.45
Teaspoons (tsp.)	Milliliters (ml)	5
Tablespoons (Tbsp.)	Milliliters (ml)	15
Fluid Ounces (fl. oz.)	Milliliters (ml)	30
Cups	Liters (l)	.24
Pints (pt.)	Liters (l)	.47
Quarts (qt.)	Liters (l)	.95
Gallons (gal.)	Liters (l)	3.8
Temperature (°F)	Temperature (°C)	5/9 after subtracting 32*

*Example: 9°F above boiling equals 5°C above boiling.

GRILLING AND BROILING - GENERAL INFORMATION

Grilling and broiling use dry heat cooking without fats and oils. These are quick techniques and utilize portion-sized or small pieces of meat, poultry, or fish.

MAIN ITEM

Items to be broiled or grilled should be:

- tender
- have intermuscular fat content (if possible)
- individual portions

Suitable main items include:

- meats (beef, veal, pork, and chicken)
- seafood
- vegetables (tender, high moisture content)

MARINADE

Originally, marinades were intended to both preserve and tenderize tough meats. In contemporary kitchens, marinades are more often used to add flavor to naturally tender meats, fish, and vegetables. The three components of marinades are oils, acids, and aromatics. Oils are used primarily to protect and preserve foods, either as they marinate or during cooking. Acids, such as vinegar, yogurt, wine, and citrus juices, change the food's texture.

Liquid marinades are used to soak foods before or after cooking. Marinades made from oils and acids are typically used to add flavor and some moisture to foods. A dry marinade is a mixture of salt, crushed or chopped herbs, spices and occasionally other aromatics, such as citrus zest. In some cases, the marinade is mixed with oil to make a paste. The marinade is rubbed over the food—usually meats and fish—and the coated item is then allowed to stand, under refrigeration, to absorb the marinade's flavors.

REASONS FOR USING MARINADES

- preserve foods
- flavor foods
- tenderize foods

COMPONENTS

- **Acid:** (vinegar, citrus juices, wines) tenderize, preserve, flavor
- **Aromatics:** (herbs and spices) flavor
- **Oil:** preserve, flavor, and protect
- **Salt: preserve and flavor**
- **Vegetables:** flavor

Equipment

Broiler - Heat source radiates heat from above. Limited conduction from the heat of the grids

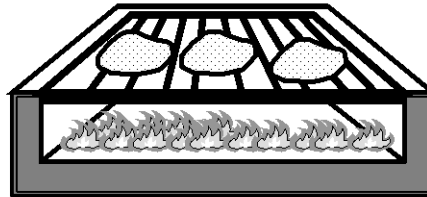


Types of broilers

- conventional gas
- electric



Grill - Heat source radiates from below. Conduction and radiation of heat.



Types of grills

- gas
- charcoal
- hardwood

BASIC PROCEDURE FOR GRILLING AND BROILING

1. Thoroughly clean and preheat the grill.
2. Season the main item; marinate or brush it with oil if necessary to prevent sticking.
3. Place the main item on the grill; use a hand grill for delicate foods, such as fish.
4. Turn the item 90° to produce crosshatch marks, if desired.
5. Turn the item to complete cooking to the desired doneness.

ADDITIONAL GRILLING AND BROILING INFORMATION

- Thin items are cooked at high heat as quickly as possible.
- Medium thick items are started on high heat and can be finished on a cooler area of the broiler.
- Thick items are started on high heat and can be finished on a sizzle platter in the oven.
- Foods should be broiled at the last possible moment.
- Keep the broiler clean at all times.

THINGS NOT TO DO

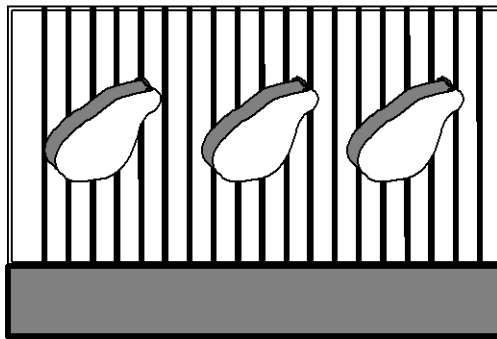
Do Not pierce meat with a fork during cooking.

Do Not cook foods ahead of time (items overcook and dry out).

Note: Pancake-type griddles are not normally used for the above method; there is no place for the excess fat to run off. If the griddle is used, it must be kept as clean as possible to prevent fat buildup and smoking.

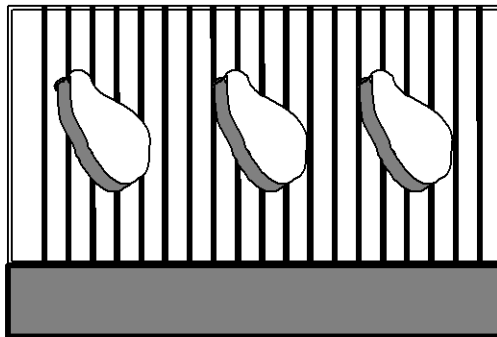
How to Mark a Steak

1. Place steaks on grids of preheated broiler or grill.



2. Cook until grill marks are well defined.

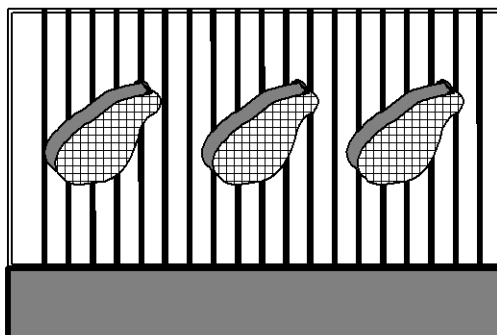
3. Turn steak at a 45 degree angle.



4. Cook until grill marks are well defined.

5. Turn steaks over.

6. Continue to cook to guest's specifications.



NUTRITION TIPS

- Cooking food on a grill allows rendering fats to drip from foods
- Flavor foods with low fat marinades
- Vary woods used for grilling to add unique flavors
- Use herbs and spices for seasonings
- Serve with simple, flavorful accompaniments

BARBECUE

GENERAL INFORMATION

Barbecue is typically a slow, dry indirect heat cooking technique which takes place in a covered environment. Meats are rubbed with a spice mixture and cooked over dry heat. Variations have been developed which use a combination of moist and dry cooking. This can reduce cooking times and increase yields.

MAIN ITEM

- Large, less tender cuts
- Well marbled
- Basting or finishing sauces are used for regional flavors, or used with “signature” flavor variations
- Various hardwoods and/or charcoals are used for different flavors.

GENERAL METHOD

1. Select meat and remove excess exterior fat.
2. Season and allow to rest, as desired.
3. Prepare the barbecue pit with appropriate woods and/or charcoals. Allow fire to mellow.
4. Barbecue meat until tender, turning and basting as desired.
5. Finish meat with finishing sauce, if desired.

ACCESSORIES

To produce good barbecue, you will need the right accessories. It's essential that you have tools that are easy to clean and handle. A utensil rack on the grill keeps them nearby.

- **Meat thermometers**—these come in handy for large cuts of meat that may not get done on the inside without some sort of meat probe.
- **Tongs**—you'll need two sets: one for coals, the other for food.
- **Long-handled metal spatula, fork and basting brushing**—the spatula turns the food, the fork spears the veggies, and the basting brush brushes the sauce on the meat during the last hours of cooking time.
- **Gloves, mitts, or hot pads**— these should be heavy duty and able to withstand high temperatures. It's preferable to use extra-long mitts for handling hot grills and avoiding splatters.

- **Spray bottle for water and baking soda**—to extinguish flare-ups.
- **Charcoal starters**—these can be the electric, liquid or chimney type.
- **Hinged grill baskets**—ideal for turning foods such as fish, hamburgers, or pork chops.
- **Long handled skewers**—perfect for kebobs.

CHARCOAL

Perhaps as early as 300,000 B.C. somebody discovered that charred wood burned better than uncharred wood and prehistoric man may have looked for ways to make more of it. Eventually someone covered fire with earth to prevent complete combustion and lo, the art of making charcoal was born. Today, however, the majority of those who do outdoor cooking far prefer the use of charcoal briquettes to the lump charcoal used by our prehistoric ancestors.

Yet briquettes were rarely used before World War II except for commercial uses. It took Henry Ford to turn the charcoal briquet into a household necessity. In the early 1920's, Ford couldn't buy wood alcohol, except at very high prices. The Ford plant badly needed alcohol to use in the manufacturing of automobiles, so Ford brought in a chemist who proceeded to come up with a grand idea for wood distillation. A modern plant was set up and 80,000 acres of woodland purchased for the venture. The Ford Chemical Plant was equipped with everything to chip, char, and dry wood. Soon alcohol by the carloads was being generated from wood distillation. There was, unfortunately, the troublesome by-product of charcoal to deal with. Henry came up with yet another idea; why not make one uniform product of charcoal and sell it all over the country? Automatic briquetting machinery was installed and the new Ford Charcoal Briquets soon were coming off the presses every day.

Source: *All About Bar-B-Q Kansas City Style* © Shifra Stein and Rich Davis 1985 Barbacoa Press

WOODCHIP INFORMATION

Alder	This has quite a mild taste. Ideal for use with vegetables or fish.
Apple	This wood has a unique flavor. Suitable for use with fresh ham, frog legs, pork chops, sweet sausages, Cornish hens, and salmon.
Cherry	This wood is similar in characteristic to apple, but with a slight tart aftertaste. Ideal to use with lamb, pheasant duck, venison, and most vegetables.
Maple	This wood has a hint of sweetness to it. Ideal to use with turkey, ham, Canadian bacon, tenderloin of beef and pork, poultry, and most vegetables.
Hickory	This wood has a strong bacon-like flavor. Ideal to use with ribs, barbecue items, steaks, chops, and especially spicy foods. Grilled or broiled poultry.

Oak	This is a mellow version of mesquite. Suitable to use with duck, steaks, pigeon, partridge, and hamburgers.
Mesquite	This wood has an authentic southwest twang - leaving a bit of a hot burning sensation as an aftertaste. Suitable for pork, spareribs, steaks, and most red meats. If used with care, it can be used across the whole ingredient spectrum.
Sweet Birch	This wood leaves a sweet delicate taste on the palate. Ideal to use with chicken, swordfish, tuna fish, salmon, lamb, barbecued pork items. All vegetables, especially members of the lily family - onions, shallots, garlic etc.
Pecan	This wood has a mellow flavor like hickory—cool burning is one of its major characteristics. Suitable for chicken, duck, and most game of the winged variety.

SAUTÉING

GENERAL INFORMATION

A method of quickly cooking foods in a small amount of fat that is at a high temperature. A sauce is typically made by deglazing the juices that were released during the cooking process. This technique does not have the tenderizing effect found in moist-heat method; therefore, foods must be naturally tender.

Main Item

Items to be cooked by sauté are:

- tender
- portion size or small pieces
- cooked to order

Suitable foods to be sautéed:

- beef, veal, pork, lamb, poultry and game
- seafood
- high-moisture vegetables
- pre-cooked vegetables and potatoes (as a means to finish or re-heat)

Cooking Mediums

Must be able to reach relatively high temperatures without breaking down or smoking and relatively small amounts of fat are used. Appropriate fats /oils include:

- clarified butter
- neutral-flavored oil (e.g. olive oil)

- rendered fats (bacon, goose fat, or lard)

Liquids for Deglazing

- wine
- stock
- cognac or liqueur
- fortified wine
- water

Liquid Base for the Sauce

- jus lié of the appropriate flavor
- meat glaze
- vegetable coulis or purees

Optional Components

- aromatics to flavor the sauce
- finishing ingredients
- garnishing ingredients

EQUIPMENT

A shallow pan is used for sauté because it allows moisture to escape. If moisture is trapped in the pan, it causes the food to steam, there will be no browning and meat will become tough.

Sauteuse - shallow pan
with sloping sides



Sautoir - shallow pan
with straight sides



SELECTING PROPER PAN SIZE

Correct

The pan is full but there is sufficient space between the items to allow steam to escape and prevent toughening.

Incorrect

The pan is overcrowded, the items are touching and trapping steam which will prevent the items from browning and cause the meat fibers to toughen.

BASIC PROCEDURE FOR SAUTÉING

1. Prepare food items for sautéing (e.g. marinate, flour, etc.).
2. Sear items - show side first.
3. Finish larger items on stove top with lid or in an oven uncovered. Light meats are cooked golden brown and red meats are browned thoroughly.
4. Remove items from the pan and reserve, keeping warm.
5. Degrease the pan.
6. Deglaze with liquid (if you plan to make a sauce).
7. Form sauce by thickening the liquid.
8. Plate or pan and serve sauce over the main item.

NUTRITIONAL INFORMATION FOR SAUTÉED FOODS

- use a well-seasoned or Teflon pan so no fat is needed (dry sauté)
- use herbs and spices for seasonings in place of salt
- serve with light, flavorful sauces
- use low fat/low calorie liquids to deglaze
- use vegetable or fruit coulis as sauces
- use arrowroot or cornstarch to thicken the sauce in place of a roux

ROASTING

GENERAL INFORMATION

Roasting is cooking by dry heat while basting frequently with fat. This method is suitable for cuts of meats, poultry and some seafood items that are larger than a single portion.

Main Item**Items to be roasted should be**

- Tender
- Well marbled

Note: If the meat has insufficient fat, it can be barded or larded.

Suitable foods that are roasted

- Beef
- Veal
- Lamb

- Pork
- Game (furred and feathered)
- Poultry (land and water)
- Seafood (specific types)
- Vegetables

Thickeners for gravy or jus lié

- Flour to mix with the fat released by the food
- Arrowroot or cornstarch diluted in cold liquid
- Prepared roux

Optional components

- Stuffing or filling
- Caul fat or fatback for barding
- Additional aromatics
- Garnish or finishing ingredients

BASIC PROCEDURE FOR ROASTING

1. Season, stuff, and marinate the main item, and sear it over direct heat or in a hot oven if desired.
2. Elevate the item in a roasting pan so that hot air can reach all sides.
3. Roast the item uncovered until the desired internal temperature is reached. Be sure to allow for carryover cooking.
4. Add the mirepoix to the roasting pan for pan gravy during the final half hour of roasting time, if desired.
5. Let the roasted item rest before carving.
6. Prepare the pan gravy in the roasting pan.
7. Carve the main item and serve it with the appropriate gravy or sauce.

ADDITIONAL ROASTING INFORMATION

- Meat that renders a lot of fat should be placed on a rack to prevent contact with the fats and juices.
- The temperature of the oven must be regulated to suit the kind of meat being roasted and its size.
- The type of roasting pan will vary according to the amount of meat or poultry to be roasted, its size, whether a rack is used and the spacing of the oven shelves.
- All roasts should have a resting period before carving.
- All roasts should be sliced across the grain.
- Baste the roast with fat drippings that collect in the pan.

THINGS NOT TO DO:

DO NOT pierce the roast when turning or removing from the oven (loss of juices results).

DO NOT cover the roast during cooking (it causes steaming and toughens fibers).
DO NOT use higher heat than necessary during roasting (causes excessive shrinkage and drying).
DO NOT add liquid during roasting.

TEMPERATURES FOR ROASTING MEATS

Temperature	Items cooked by this method	Comments
High Heat 375° - 475° F	Feathered game Domestic Poultry Waterfowl Smaller cuts of red meat	<ul style="list-style-type: none"> •Excessive caramelization, shrinkage and drying •Renders fat and crisps skin in waterfowl •Good for small cuts that cook quickly
Moderate Heat 325° - 350° F	Meats Poultry Game	<ul style="list-style-type: none"> •Good caramelization •Less shrinkage and crusting than high heat
Low Heat 275° - 300° F	Red meats Feathered game Domestic poultry Waterfowl	<ul style="list-style-type: none"> •Better yields on larger cuts •Good for conventional ovens
Controlled Heat 200°F	Larger cuts of red meat White meat Domestic poultry	<ul style="list-style-type: none"> •Best method for high yields •Jus or drippings not obtainable at this low temperature •Very little caramelization

TESTING ROASTED ITEMS FOR DONENESS

Item	What to Check	Pro/Con
Fork (2-tined)	Color of juices in poultry	<ul style="list-style-type: none"> •Punctures meat •Loss of juices
Skewer	Resistance and temperature with other meats	<ul style="list-style-type: none"> •Not accurate
Bi-therm Thermometer	Temperature of desired doneness	<ul style="list-style-type: none"> •Inexpensive •Accurate •The best and most consistent method
Time/Temperature to Weight Ratio	Follow chart to determine how long at what temperature	<ul style="list-style-type: none"> •Inaccurate •The shape of the meat will affect the cooking time •Good for an estimate on approximate cooking time
Touch	Resistance of fibers in the meat As the meat cooks the fibers tighten	<ul style="list-style-type: none"> •Inaccurate, the shape of the meat will affect the cooking time •Good for an estimate on approximate cooking time
Experience	All the above	<ul style="list-style-type: none"> •Helps to control variables

DEGREES OF DONENESS FOR MEATS AND POULTRY

Item	Desired Degree of Doneness	Temperature to remove item from oven
Red Meats	Rare	125°F
	Medium	135°F
	Well done	145°F
Pork	Well done	165°F
Veal	Medium well	140F
Poultry	Well done	160°F (thigh)
Fish	Well done	140F

NUTRITION TIPS

- Flavor foods with marinades
- Use herbs and spices for seasonings
- Serve with jus or jus lié
- Trim excess surplus fat before cooking
- Roast meats on a rack

STIR FRYING - GENERAL INFORMATION

Stir frying is a cooking method similar to sautéing in which items are cooked over very high heat, using little fat. Usually this is done in a wok and the food is kept moving constantly.

MAIN ITEM

Items to be cooked by stir frying are:

- tender
- small pieces

Suitable foods to be stir-fried

- beef, veal, pork, lamb and poultry
- seafood
- high-moisture vegetables
- par-cooked vegetables and potatoes (as a means to finish or re-heat).

COOKING MEDIUM

- Must be able to reach relatively high temperatures without breaking down or smoking.
- Peanut oil, because of its flavor and its high smoking point is traditionally used.

LIQUID FOR SAUCE

- fortified wine
- soy sauce
- meat glaze
- other liquids

OPTIONAL COMPONENTS FOR STIR FRY

AROMATICS

- herbs
- spices
- citrus zest
- mushrooms

VEGETABLE GARNISHES

- thin julienne
- dices
- bias

THICKENING AGENTS

- arrowroot
- cornstarch
- rice flour

BASIC PROCEDURE FOR STIR FRYING

1. Heat the oil in a wok or large sauté pan.
2. Add the aromatics and allow to infuse into the oil.
3. Add the main item.
4. Stir fry, keeping the food in constant motion.
5. Add additional ingredients in the proper sequence (longest-cooking in first, shortest-cooking in last).
6. Add the liquid for the sauce; add the thickener.
7. Serve the food immediately.

PAN FRYING

PAN FRYING - GENERAL INFORMATION

A cooking method where food items are partially submerged in fat or oil at approximately (325°F). Items cooked using this method are usually coated with a breading or batter (e.g. breading - croquette, batter - fish in egg batter). The amount of fat used should cover the bottom ¼ to 1/3 of the product. Pan fried items can be completely cooked during the frying process or finished in an oven.

MAIN ITEM

Items to be cooked by pan frying are

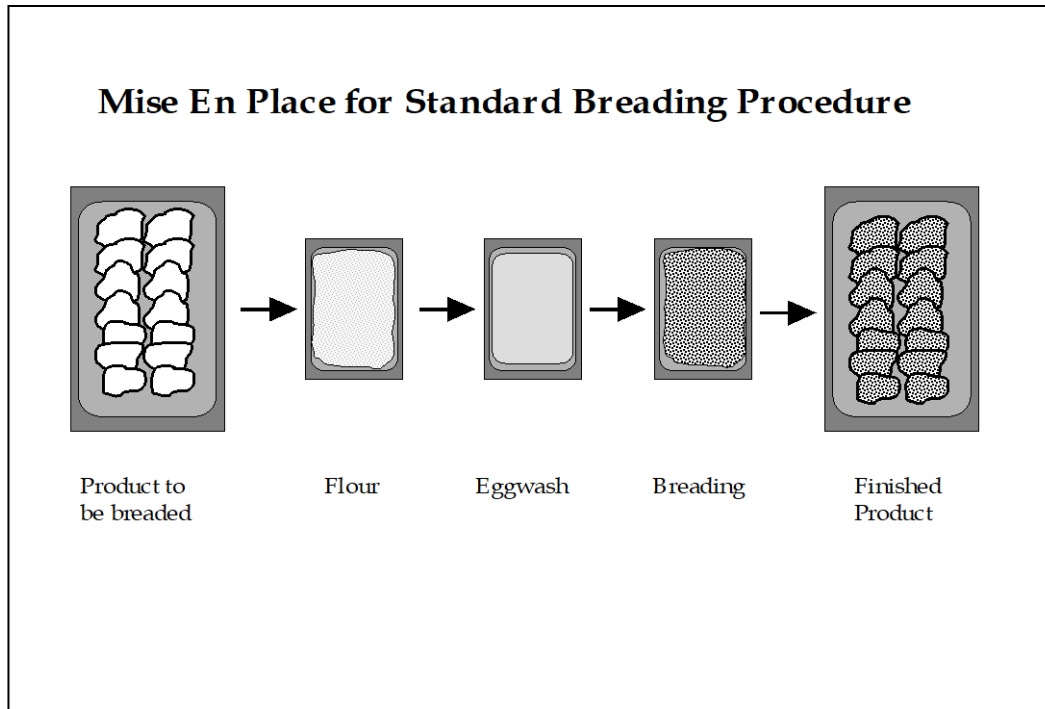
- tender
- portion size or smaller

SUITABLE FOODS TO BE PAN-FRIED

- veal
- chicken
- pork
- seafood
- vegetables/starches
- pre-prepared items (e.g. fritters)

STANDARD BREADING MISE EN PLACE

- product
- flour
- egg wash
- breading agent
- empty pan for finished product



COOKING MEDIUM

The fat or oil should be able to reach a high temperature without breaking down or smoking. Examples of appropriate fats and oils include

- clarified butter
- neutral flavored oil (safflower, corn, etc.)
- olive oil
- rendered fats

OPTIONAL COMPONENTS

- fillings and stuffings

EQUIPMENT

- Tongs, kitchen fork, skimmer, spider
- Holding or finishing pans
- Setup to blot or drain items after frying
- Heated plates
- Sautoir

PAN SELECTION

- Select a sautoir of an appropriate size.
- Cooking medium should come one-quarter to one-third the way up the sides of the food. The thinner the main item, the less oil is required.
- The pan and the cooking medium have reached the proper temperature when a faint haze or slight shimmer is noticeable.

BASIC PROCEDURE FOR PAN FRYING

1. Heat the oil to appropriate temperature.
2. Add the main item (usually breaded or batter-coated) to the pan in a single layer.
3. Pan fry the food on the first side until it is well-browned.
4. Turn the item and cook it to the desired doneness.
5. Remove the main item and finish it in an oven, if necessary.
6. Drain the item on absorbent paper.
7. Season and serve with appropriate sauce and garnish.

ADDITIONAL PAN FRYING INFORMATION

- Fat should be of correct amount and proper temperature (result is proper browning and crisp crust).
- Items should be cooked as close to serving time as possible.
- Separate sauces are typically used. (exception: southern fried chicken).
- Discard fat laden with burned food particles.

THINGS NOT TO DO

- **Do Not** cook items ahead and hold (the coating becomes soggy, and the product dries out).
- **Do Not** deglaze pan to make a sauce.

DEEP FRYING

DEEP FRYING - GENERAL INFORMATION

A cooking method where food items are completely submerged in hot fat or oil (350°F). The food item is almost always given a protective coating (breaded or batter dipped). Items cooked using this technique should be completely cooked when removed from the fryer. Two major methods of deep fat frying are commonly used - basket method and swimming method. The method used is dependent on the type of coating and the size of the products.

MAIN ITEM

Items to be deep-fat fried are

- tender
- small pieces able to be completely cooked by the time the coating achieves the proper browning

SUITABLE FOODS FOR DEEP FAT FRYING

- vegetables
- white meat or poultry
- seafood (light fleshed)
- vegetables
- potatoes
- cheeses
- cooked meat preparations

COATING

- standard breading
- batter
- tempura
- flour

COOKING MEDIUM

- the fat or oil should be able to reach a high temperature without breaking down or smoking
- neutral flavored oil
- rendered fats such as lard

OPTIONAL COMPONENTS

- stuffing
- sauce

EQUIPMENT

- Thermostatically controlled deep fat fryers
- Skimmer
- Draining racks and absorbent paper

ENEMIES OF FRYING FAT

- high temperatures and prolonged heating
- free fatty acids (bacon fat)
- moisture
- exposure to air
- certain metals (i.e. aluminum)
- salt
- food particles

INDICATIONS THAT FRYING FAT NEEDS CHANGING

- low smoking point
- foaming
- color
- color of product is off, darkens quickly
- product absorbs excess fat
- product cooks too slowly
- resin forms on top
- flavor of product changes
- unpleasant odor

DEEP FAT FRYING METHOD SELECTION

ITEM	BASKET METHOD	SWIMMING METHOD
Breaded or other dry coating	Yes	Optional (basket is preferred)
Many small pieces	Yes	No
Battered items	No	Yes
Large items	Yes (if they fit)	Yes

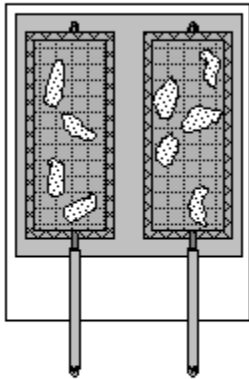
TYPES OF COATINGS FOR DEEP FAT FRYING

- Francaise: flour
- Anglaise: flour, egg wash, breadcrumbs
- Batters: plain or beer

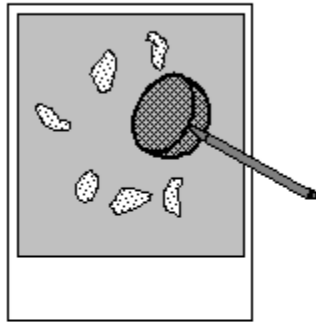
BASIC PROCEDURE FOR DEEP FAT FRYING

1. Heat the fat to the proper temperature (350°F).
2. Coat products with desired coating, breading or batter.
3. Add the main item (usually breaded or batter-coated) to the hot fat, using the appropriate method. Battered Items use the Swimming method. Breaded Items use the Basket method
4. Turn the items during frying, if necessary.
5. Remove the main item and finish it in an oven, if necessary.
6. Blot the food with absorbent paper toweling.
7. Season and serve it with appropriate sauce and garnish.

Basket Method vs. Swimming Method



Basket Method requires placing the food in fryer baskets then immersing the baskets in hot fat.



Swimming Method requires the product to be placed in the hot fat. The food will be agitated and removed with a spider.

ADDITIONAL DEEP FRYING INFORMATION

- Fat must be hot or food absorbs excess grease.
- Fat should be skimmed frequently to remove food particles.
- Fat should be strained daily.
- Use stainless steel tools.
- The type of fat used for frying will influence the flavor of the food.
- Turn down heat when fryer is not in heavy use.
- Cover the fryer when not in use and keep it clean.

THING NOT TO DO

Do Not salt foods over the fryer (causes fat breakdown).

Do Not overload the baskets with food items (lowers fat temperature, slows recovery time).

Do Not fry uncoated meats such as bacon, sausage (adds free fatty acids).

Do Not use fat that has broken down or is excessively dark (poor quality product results).

POACHING

SHALLOW POACHING - GENERAL INFORMATION

A technique where both steam and liquid cook the items. Items are partially submerged in a liquid containing an acidic ingredient (wine, lemon juice, etc.) and can also contain seasonings (e.g. herbs and spices). The poaching liquid temperature ranges between 180 ° F. and 185 ° F. A lid should be used to

trap the steam next to the items. The cooking liquid is used as a base for the sauce that might accompany the items that are being shallow poached.

DEEP POACHING - GENERAL INFORMATION

A technique where items are completely submerged in a liquid. The primary difference between these two techniques (shallow vs. deep) is the amount of the liquid. Poaching temperature ranges between 180 ° F. and 185 ° F. This technique is used for more delicate food items (e.g. fish). Note that the liquid should never be allowed to boil as this causes the item to toughen.

Main Item

Items to be cooked by poaching could be:

- Tender cuts of meat
- Individual Portions

Suitable food products for poaching

- Chicken
- Variety meats
- Fish and shellfish
- Fruits and vegetables
- Eggs

Cooking Mediums

The cooking liquid should contribute flavor to the food and the sauce prepared from the cooking liquid when using the shallow poaching technique.

- Stock
- Wine
- Vinegar
- Citrus juices

Aromatic ingredients

- Shallots
- Vegetables
- Herbs
- Spices
- Citrus zest

Optional Components

- Butter (for beurre blanc)
- Vegetable purées
- Tomato concassé

BASIC PROCEDURE FOR SHALLOW POACHING

1. Heat butter in a sauteuse.
2. Smother the aromatics in the pan and make a level bed.
3. Add the main item and the poaching liquid.
4. Bring the liquid to a simmer.
5. Cover the sauteuse with parchment paper.
6. Finish the food over direct heat or in an oven.
7. Remove the main item, moisten it, and keep it warm.
8. Reduce the cuisson and prepare a sauce as desired.
9. Serve the main item with the sauce and the appropriate garnish.

ADDITIONAL SHALLOW POACHING INFORMATION

- Use shallow poaching method for smaller, individually portioned items.
- Cover poached items once they are removed from the poaching liquid.
- Foods should be started in cold liquid for a clear broth.

BASIC PROCEDURE FOR DEEP POACHING

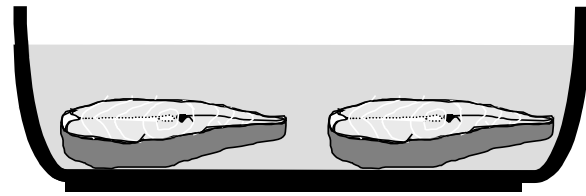
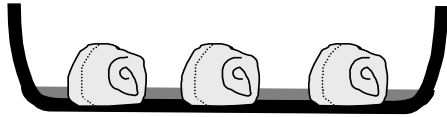
1. Bring the cooking liquid to a simmer.
2. Add the main item, using a rack if necessary. Be sure the item is fully submerged.
3. Cover the food, if directed by the recipe.
4. Finish the food over direct heat or in an oven.
5. Remove the main item, moisten it, and keep it warm while preparing a sauce, or cool it in liquid, as appropriate.
6. Cut or slice the main item and serve it with the appropriate sauce and garnish.

ADDITIONAL DEEP POACHING INFORMATION

- Use deep poaching method for larger items.
- Cover poached items once they are removed from the poaching liquid.
- Foods should be started in cold liquid for a clear broth.
- Meats may be shocked after cooking to prevent drying out.

COMPARING AND CONTRASTING THE TWO TECHNIQUES

Shallow Poaching vs Poaching or Simmering



Less liquid is used.

Smaller cuts of meat, poultry, or fish.

A sauce is made from the poaching liquid.

Poaching is done in the oven.

The garnish may be included in the cooking process.

The pan is covered with some type of lid.

Product is covered with liquid.

Larger cuts of meat, poultry, or fish.

The poaching liquid is not used for the sauce; a separately derived sauce is used.

Cooking is done on top of the range.

The garnish is cooked separately and added just before serving.

The pan is not covered.

STEAMING - GENERAL INFORMATION

Steaming cooks foods by surrounding it with a vapor bath. Foods are placed in a closed vessel and are above and not touching the liquid. Relatively little flavor and moisture are lost.

Main Item

Items to be cooked by steaming are:

- Tender cuts of meat

Suitable food products for poaching:

- Chicken or Game birds
- Fish
- Shellfish
- Fruits and vegetables

Steaming Liquid

- Water
- Stock
- Beer
- Wine
- Court bouillon

Aromatics

- Herbs
- Spices
- Citrus rind
- Vegetables

Optional Components

- Stuffings or fillings
- Products to wrap the food in to retain moisture
 - lettuce leaves
 - seaweed
 - corn husk
 - leek strips

BASIC PROCEDURE FOR STEAMING

1. Bring the liquid to a boil.
2. Add the main item to the steamer on a rack in a single layer.
3. Cover the steamer.
4. Steam the food to the correct doneness.
5. Serve the food immediately with the appropriate sauce and garnish.

COMBINATION COOKING METHODS: BRAISING AND STEWING

The combination methods – braising and stewing – are so known because foods are usually given a preliminary preparation step, such as the initial searing of a pot roast or blanching of a veal for a blanquette. A properly prepared braise or stew has a complexity and flavor concentration that is simply not possible with other cooking techniques. The dish's finished consistency should be smooth, suave, and meltingly tender because of the slow cooking needed to soften the main item's tough connective tissues. Braising and stewing are frequently regarded as "peasant" techniques, often associated with regional or home-style cooking.

The successful execution of these techniques depends, as do all cookery methods, on the proper choice of main ingredients and careful attention to proper technique throughout each step of preparation and service. Contemporary renditions of classic dishes, such as a navarin made with lobster instead of mutton, are clear examples that no cooking technique need become outmoded.

BRAISING - GENERAL INFORMATION

Braising is a method of cooking that involves dry and moist heat. The meat is seared before simmering slowly in liquid with mirepoix and aromatics.

MAIN ITEM

Items to be cooked by braising are

- Less tender, more muscular and mature.
- Large pieces can be used.

SUITABLE FOOD PRODUCTS THAT ARE BRAISED

- Beef
- Veal
- Lamb
- Pork
- Poultry
- Game (feathered and furred)
- Organ meats
- Vegetables

LIQUID

- Well-flavored stock
- Appropriate jus

AROMATICS

Sachet d'épices or bouquet garni

OPTIONAL COMPONENTS

- Pork product
- Other vegetables
- Garnishes
- Thickener
- Tomatoes

EQUIPMENT

In Braising, the following are required

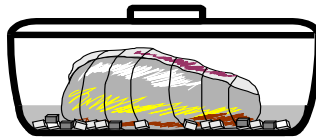
- Brazier with tight fitting lid
- Prepared main item (larded, tied, seasoned, or marinated)
- Correct size pan for the amount of main item to be braised
- Correct amount of liquid
-

STANDARD RATIO OF INGREDIENTS FOR BRAISING



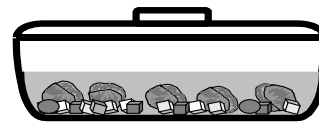
Main Item	1 lb.
Mirepoix	1 oz.
Liquid	1 pt.

Comparison of Braising and Stewing



Braising

Size of Meat	Large, multi-portion
Amount of Liquid	Covers one-half to one-third of meat
Garnish	Cooked separately
Sauce	Strained
Cooking	In oven



Stewing

Size of Meat	Small pieces
Amount of Liquid	Covers meat
Garnish	Cooked with meat or separately
Sauce	Not strained
Cooking	In oven or on top of the range

BASIC PROCEDURE FOR BRAISING

1. Sear the main item on all sides in hot oil.
2. Remove the main item.
3. Add the mirepoix and sweat.
4. Add the roux if it is being used.
5. Return the main item to the bed of mirepoix in the pot.
6. Add the liquid. Bring it to a simmer over direct heat.
7. Cover, finish the item in an oven until it is fork tender.
8. Add the sachet d'épices or bouquet garni and garnishes at the appropriate times.
9. Remove the main item and keep it warm.
10. To prepare the sauce: Strain, reduce, thicken, and garnish it as desired.
11. Slice or carve the main item and serve it with a sauce and an appropriate garnish.

ADDITIONAL BRAISING INFORMATION

- Searing adds flavor and color.
- Use the correct size cooking vessel in relation to the amount of meat.
- Larding is advisable on cuts with insufficient marbling.
- Where suitable, marination contributes to tenderizing and flavor.
- Check for doneness by resistance to a fork or skewer, not by temperature.
- To thicken the stock for braised items you can do one of the following:
 - Deglaze and add brown sauce (thin).
 - Add flour to fat and mirepoix, then add brown stock.
 - After cooking in stock, reduce liquid and thicken.

THINGS NOT TO DO

Do Not allow liquid to boil during cooking (it causes meat to shrink excessively).

Do Not use too much liquid (it weakens the flavor of the sauce).

BROWN SAUCE DERIVATIVES

Bordelaise Sauce

A Bordelaise sauce is a classic steak sauce in which a dry red wine is reduced into the demi-glace making an incredibly rich and flavorful sauce. To make it, sweat 100 g (3 1/2 oz) chopped shallots, 1 bay leaf, 1 sprig of thyme and 5 g of cracked peppercorns in a sauce pan. Add 500 mL of dry white wine and simmer for 15 minutes until reduced by three-fourths. Then add your demi-glace and simmer for another 15 minutes. Strain through a fine strainer. Finish the sauce with 60 g of meat glaze (Brown Stock reduced by 9/10s) and mount with 100 g (3 1/2 oz) of butter. Classic garnish for this sauce is poached sliced beef marrow.

Chasseur (Hunter's Sauce)

A Chasseur is a delicious sauce made from shallots and mushrooms with white wine reduction. To make it, sweat 30 g (1 oz) of diced shallots and 250 g (8 oz) sliced mushrooms in butter. Add

250 mL (8 fl oz) white wine and 30 mL (1 fl oz) of brandy and reduce by half. Add demi-glace and 250 g (8 oz) tomato concasse and simmer for 5 minutes. Finish the sauce with 30 g (1 oz) of meat glaze, parsley and chives.

Chateaubriand Sauce

A Chateaubriand sauce is a sauce that is flavored with sliced shallots and mushrooms sautéed in butter with a white wine reduction. To make it, sweat 125 g (4 oz) each of sliced shallots and mushrooms in butter. Add 1 sprig, or 1 tsp of thyme, 2 bay leaves, and 500 mL of white wine. Reduce this mixture by two thirds. Then, add your demi-glace and reduce again but this time by half. Strain and mount with 350 g (12 oz) parsley butter and finish with 30 g (1 oz) fresh chopped tarragon or a tsp of dried tarragon.

Madeira Sauce or Port Sauce

An easier sauce to make, it is produced by bringing demi-glace to a boil, reducing slightly then adding 125 mL (4 fl oz) Madeira wine or port. Finish by mounting the sauce with 60 g (2 oz) butter.

Perigueux Sauce

A decadent sauce. It is made by adding finely diced truffles to a Madeira sauce. Perigourdine sauce is the same with the difference of the truffles being sliced into relatively thicker slices.

Mushroom Sauce

Start by sweating 50 g (2 oz) shallots and 500 g (16 oz) sliced mushrooms in 50 g (2oz) of butter. Add 150 mL (5 fl oz) red, white or Madeira wine and reduce the liquid by two thirds. Add demi-glace and reduce to your desired consistency.

Piquant Sauce

This sauce has much more bite to it and is designed to be more acidic. Start by sweating 125 g (4oz) shallots and add 300 mL (10 fl oz) each white wine and white wine vinegar and 5 g (2 tsp) cracked peppercorns. Reduce this mixture by three quarters, then add your demi-glace and simmer for 10 minutes. Strain. Add 125 g (4 oz) of diced cornichons, 60 g (2 oz) capers, 5 g (1/2 Tbsp) fresh tarragon, 5 g (1/2 Tbsp) fresh parsley and 5 g (1/2 Tbsp) of fresh chervil. Do not strain.

Poivrade Sauce

To make a traditional Poivrade sauce, begin by sweating 250 g (12 oz) mirepoix in 30 g (1 oz) butter. Add 2 bay leaves, a sprig of thyme, 4 parsley stems and 1 crushed garlic clove. Add 500 mL (16 fl oz) white wine, 125 mL (4 fl oz) white wine vinegar. (Red wine vinegar and red wine can also be used). Reduce by half, add demi-glace and reduce to 1 L (1 qt). Add 20 crushed peppercorns and 50 g (2 oz) meat glaze and simmer for another 5 minutes. Strain with a fine strainer and mount with 50-60 g (1 1/2 – 2 oz) butter.

Grand Veneur sauce - Poivrade Sauce

Always a premium, the Grand Veneur sauce is tops for game.

A poivrade sauce, or pepper sauce, is quite a popular classic sauce and is as delicious as it is complex. A well-made Poivrade sauce is all in the execution. Poivrade is also the name given for a traditional sauce that is made with game stock and seasoned with peppercorns. This sauce is used to create the deliciously wonderful Sauce Grand Veneur, one of the most complex derivative sauces in the classic repertoire. For Grand Veneur, game stock is flavored with a Poivrade Sauce and finished with cream and currant jelly. The sweet nature of this sauce balances the flavor of game meats.

Robert Sauce

A Robert Sauce is made for pork dishes and is delicious, deep, and rich. It is made by sautéing 125 g (4oz) chopped onion in 30 g (1 oz) butter. Add 250 mL (8 fl oz) dry white wine and reduce the mixture by two thirds. Add the demi-glace and simmer for 10 minutes. Strain and then add 10 g (2 tsp) dry mustard dissolved in wine and 60 g (2 oz) meat glaze. If you finish the Robert sauce with sliced julienne of sour pickles, preferably cornichons, it's actually known as a charcuterie sauce.

GLOSSARY OF CULINARY TERMS

A

Aboyeur (Fr.): Expediter or announcer; a station in the brigade system. The aboyeur accepts orders from the dining room, relays them to the appropriate stations of the kitchen, and checks each plate before it leaves the kitchen.

Acid: A substance having a sour or sharp flavor. Most foods are somewhat acidic. Foods generally referred to as "acids" include citrus juice, vinegar, and wine. A substance's degree of acidity is measured on the pH scale; acids have a pH of less than 7.

Aïoli (Fr.): Garlic mayonnaise. (Also, in Italian, allioli; in Spanish, alioli.)

Albumen: The major protein in egg whites.

A l'anglaise: (1) Foods that have been breaded and fried; (2) foods that have been boiled.

A la meunière: Dishes prepared in the style of the miller's wife (dusted with flour, sautéed, served with hot butter, lemon and parsley).

Al dente (It.): To the tooth; to cook an item, such as pasta or vegetables, until it is tender but still firm, not soft.

Allumette: Vegetables, potatoes, or other items cut into pieces the size and shape of match sticks, 1/2 inch x 1/2 inch x 1 to 2 inches is the standard.

Appareil: A prepared mixture of ingredients used alone or as an ingredient in another preparation.

Aromatics: Plant ingredients, such as herbs and spices, used to enhance the flavor and fragrance of food.

Arrowroot: A powdered starch made from a tropical root. Used primarily as a thickener. Remains clear when cooked.

Aspic gelée (Fr.): A clear jelly made from stock (or occasionally from fruit or vegetable juices) thickened with gelatin. Used to coat foods or cubed and used as a garnish. **B**

Bain-marie: A water bath used to cook foods gently by surrounding the cooking vessel with simmering water. Also, a set of nesting pots with single, long handles used as a double boiler. Also, steam table inserts.

Bake blind; baking blind: To partially or completely bake an unfilled pastry crust.

Baking: A cooking method used to describe foods prepared in an oven; similar to roasting.

Baking powder: A chemical leavener made with an acidic ingredient and an alkaline one; most commonly these are sodium bicarbonate (baking soda) and cream of tartar. When exposed to liquid, it produces carbon dioxide gas, which leavens doughs and batters. Double-acting baking powder contains ingredients that produce two leavening reactions, one upon exposure to liquid, the second when heated.

Baking soda: Sodium bicarbonate, a leavening agent that may be used in combination with an acidic ingredient such as sour milk or as a component of baking powder.

Barbecue; barbecuing: A cooking method involving grilling food over a wood or charcoal fire. Usually some sort of marinade or sauce is brushed on the item during cooking.

Bard; barding: To cover an item with slabs or strips of fat, such as bacon or fatback, to baste it during roasting. The fat is usually tied on with butcher's twine.

Barquette: A boat-shaped tart or tartlet, which may have a sweet or savory filling.

Baste: To moisten food during cooking with pan drippings, sauce, or other liquid. Basting prevents food from drying out.

Batch cooking: The practice of preparing or reheating foods in smaller batches to maximize nutrient retention and minimize loss through waste.

Bâton/Bâtonnet (Fr.): Items cut into pieces somewhat larger than allumette or julienne; 1/2 inch x 1/2 inch x 2 to 2 inches is the standard. Translated to English as "stick" or "small stick."

Batter: A mixture of flour and liquid, with sometimes the inclusion of other ingredients. Batters vary in thickness but are generally semi-liquid and thinner than doughs. Used in such preparations as cakes, quick breads, pancakes, and crêpes.

Bavarian cream/Bavaoise: A type of custard made from heavy cream and eggs; it is sweetened, flavored, and stabilized with gelatin.

Béarnaise: A classic emulsion sauce similar to hollandaise made with egg yolks; a reduction of white wine, shallots, and tarragon; and butter finished with tarragon and chervil.

Béchamel: A white sauce made of milk thickened with light roux and flavored with onion. It is one of the grand sauces.

Bench proof: In yeast dough production, the rising stage that occurs after the dough is panned and just before baking.

Beurre blanc (Fr.): "White butter." A classic emulsified sauce made with a reduction of white wine and shallots thickened with whole butter and possibly finished with fresh herbs or other seasonings.

Beurre manié (Fr.): "Kneaded butter." A mixture of equal parts by weight of whole butter and flour, used to thicken gravies and sauces.

Beurre noir (Fr.): "Black butter." Butter that has been cooked to a very dark brown or nearly black; a sauce made with browned butter, vinegar, chopped parsley, and capers. It is usually served with fish.

Beurre noisette (Fr.): "Hazelnut butter" or "brown butter." Whole butter that has been heated until browned.

Binder: An ingredient or appareil used to thicken a sauce or hold together another mixture of ingredients.

Bisque: A soup based on crustaceans or a vegetable puree. It is classically thickened with rice and usually finished with cream.

Blanch; blanched: To cook an item briefly in boiling water or hot fat before finishing or storing it.

Black steel: A metal used to prepare saute pans and woks; relatively thin and able to respond quickly to temperature changes.

Blade: The portion of a knife that is used for cutting, slicing, and chopping.

Blanquette: A white stew, usually of veal but sometimes of chicken or lamb. It is served after the sauce has been thickened with a liaison.

Bloom: To soften gelatin in warm liquid before use.

Blue steel: A steel (sometimes referred to as rolled steel) often used for omelet, crepe, and saute pans. Typically not coated. Responds quickly to changes in cooking temperature.

Boil; boiling: A cooking method in which items are immersed in liquid at or above the boiling point (212°F/100°C).

Bolster: A collar or shank at the point on a knife where the blade meets the handle.

Boning knife: A thin-bladed knife used for separating raw meat from the bone; its blade is usually about 6 inches long.

Bouillabaisse: A hearty fish and shellfish stew flavored with saffron. A traditional specialty of Marseilles, France.

Bouillon (Fr.): Broth.

Bouquet garni: A small bundle of herbs tied with string. It is used to flavor stocks, braises, and other preparations. Usually contains bay leaf, parsley, thyme, and possibly other aromatics.

Braise; braising: A cooking method in which the main item, usually meat, is seared in fat, then simmered in stock or another liquid in a covered vessel.

Bran: The outer layer of a cereal grain and the part highest in fiber.

Brazier/Brasier: A pan, designed specifically for braising, that usually has two handles and a tight-fitting lid. Often is round but may be square or rectangular.

Brine: A salt, water, and seasonings solution used to preserve foods.

Brioche: A rich yeast dough traditionally baked in a fluted pan with a distinctive topknot of dough.

Broil; broiling: A cooking method in which items are cooked by a radiant heat source placed above the food.

Broiler: The piece of equipment used to broil foods.

Broth: A flavorful, aromatic liquid made by simmering water or stock with meat, vegetables, and/or spices and herbs.

Brown stock: An amber liquid produced by simmering browned bones and meat (usually veal or beef) with vegetables and aromatics (including caramelized mirepoix).

Brown sauce: See Espagnol sauce.

Brunoise (Fr.): Small dice; 1/8-inch square is the standard. For a brunoise cut, items are first cut in julienne, then cut crosswise. For a fine brunoise, 1/16-inch square, cut items first in fine julienne.

Buttercream: A mixture of butter, sugar, and eggs or custard; it is used to garnish cakes and pastries.

Butterfly: To cut an item (usually meat or seafood) and open out the edges like a book or the wings of a butterfly.

Buttermilk: A dairy beverage liquid with a slightly sour flavor similar to that of yogurt. Traditionally, the liquid by-product of butter churning, now usually made by culturing skim milk.

C

Calorie: A unit used to measure food energy. It is the amount of energy needed to raise the temperature of 1 gram of water by 1°C.

Canapé: An hors d'oeuvre consisting of a small piece of bread or toast, often cut in a decorative shape, garnished with a savory spread or topping.

Caramelization: The process of browning sugar in the presence of heat. The temperature range in which sugar caramelizes is approximately 320° to 360°F (160° to 182°C).

Carbohydrate: One of the basic nutrients used by the body as a source of energy; types include simple (sugars) and complex (starches and fibers).

Carborundum stone: A sharpening stone; available in various "grits" to sharpen knives to the desired degree of fineness.

Carryover cooking: Heat retained in cooked foods that allows them to continue cooking even after removal from the cooking medium. Especially important to roasted foods.

Carte (Fr.): The general term for menu or listing.

Casing: A synthetic or natural membrane (usually pig or sheep intestines) used to enclose sausage forcemeat.

Casserole/en casserole (Fr.): A lidded cooking vessel that is used in the oven; usually round with two handles. Also, foods cooked in a casserole.

Cassoulet: A stew of beans baked with pork or other meats, duck or goose confit, and seasonings.

Caul fat: A fatty membrane from a pig or sheep intestine that resembles fine netting; used to bard roasts and pâtés and to encase sausage forcemeat.

Cellulose: A complex carbohydrate; it is the main structural component of plant cells.

Chafing dish: A metal dish with a heating unit (flame or electric) used to keep foods warm and to cook foods at the table side or during buffet service.

Charcuterie (Fr.): The preparation of pork and other meat items, such as hams, terrines, sausages, pâtés, and other forcemeats.

Charcutière (Fr.): In the style of the butcher's wife. Items (usually grilled meat) are served with sauce Robert and finished with a julienne of gherkins.

Chasseur (Fr.): Hunter's style. A mushroom-tomato sauce made with a white wine reduction and demi-glace, and finished with butter and parsley.

Chef's potato: All-purpose potato.

Chef's knife: An all-purpose knife used for chopping, slicing, and mincing; its blade is usually between 8 and 14 inches long.

Chemical leavener: An ingredient or combination of ingredients (such as baking soda or baking powder) whose chemical action is used to produce carbon dioxide gas to leaven baked goods.

Chiffonade: Leafy vegetables or herbs cut into fine shreds; often used as a garnish.

Chili/Chile: The fruit of certain types of capsicum peppers (not related to black pepper), used fresh and dry as a seasoning. Chiles come in many types (for example, jalapeño, serrano, poblano) and varying degrees of spiciness.

Chili powder: Dried, ground or crushed chiles, often with other ground spices and herbs.

Chinoise: A conical sieve used for straining and pureeing foods.

Cholesterol: A sterol found exclusively in animal products such as meat, eggs, and cheese.

Chop: To cut into pieces of roughly the same size. Also, a small cut of meat including part of the rib.

Choron: Sauce béarnaise finished with tomato puree.

Chowder: A thick soup that may be made from a variety of ingredients but usually contains potatoes.

Cioppino (It.): A fish stew usually made with white wine and tomatoes, believed to have originated in Genoa.

Clarification; clarifying: The process of removing solid impurities from a liquid (such as butter or stock). Also, a mixture of ground meat, egg whites, mirepoix, tomato puree, herbs, and spices used to clarify broth for consommé.

Clarified butter: Butter from which the milk solids and water have been removed, leaving pure butterfat. Has a higher smoking point than whole butter but less butter flavor.

Cleaver: A cutting tool with a large heavy blade; available in a range of sizes. Chinese cleavers are typically sharpening on one side of the blade. Butcher's cleavers are heavy enough to cut through bones and joints.

Coagulation: The curdling or clumping of protein usually due to the application of heat or acid.

Coarse chop: To cut into pieces of roughly the same size; used for items such as mirepoix, where appearance is not important.

Cocoa powder: The pods of the cacao tree, processed to remove the cocoa butter and ground into powder. Used as a flavoring.

Cocotte (Fr.): Casserole. A cooking dish with a tight-fitting lid for braising or stewing. Also, a small ramekin used for cooking eggs. (En cocotte is often interchangeable with en casserole).

Colander: A perforated bowl, with or without a base or legs, used to strain foods.

Cold smoking: Preparing brined and/or cured foods in a smoker; temperatures are kept at less than 100°F (37°C).

Complete proteins: Foods that contain all the essential amino acids (those amino acids that cannot be produced in the body). Animal foods are considered complete proteins.

Complex carbohydrate: A large molecule made up of long chains of sugar molecules. In food, these molecules are found in starches and fiber.

Compote: A dish of fruit--fresh or dried--cooked in syrup flavored with spices or liqueur.

Compound butter: Whole butter combined with herbs or other seasonings and usually used to sauce grilled or broiled items or vegetables.

Concassé/concasser (Fr.): To pound or chop coarsely. Usually refers to tomatoes that have been peeled, seeded, and chopped.

Condiment: An aromatic mixture, such as pickles, chutney, and some sauces and relishes, that accompanies food (usually kept on the table throughout service).

Conduction: A method of heat transfer in which heat is transmitted through another substance. In cooking, when heat is transmitted to food through a pot or pan, oven walls, or racks.

Confit: Meat (usually goose, duck, or pork) cooked and preserved in its own fat.

Consommé: Broth that has been clarified using a mixture of ground meat, egg whites, and other ingredients that traps impurities.

Convection: A method of heat transfer in which heat is transmitted through the circulation of air or water.

Coquilles Saint-Jacques (Fr.): Scallops. Also, a dish of broiled scallops with any of several garnishes.

Cornstarch: A fine, white powder milled from dried corn; used primarily as a thickener for sauce and occasionally as an ingredient in batters. **Coulis:** A thick puree, usually of vegetables but possibly of fruit. (Traditionally meat, fish, or shellfish puree; meat jus; or certain thick soups.)

Country-style: A forcemeat that is coarse in texture, usually made from pork, pork fat, liver, and various garnishes.

Court bouillon (Fr.): "Short broth." An aromatic vegetable broth that usually includes an acidic ingredient, such as wine or vinegar; most commonly used for poaching fish.

Couscous: Pellets of semolina usually cooked by steaming, traditionally in a couscoussière. Also, the stew with which this grain is traditionally served.

Couscoussière: A set of nesting pots similar to a steamer used to cook couscous.

Cream soup: Traditionally a soup based on a béchamel sauce. Loosely, any soup finished with cream, a cream variant such as sour cream, or a liaison; these soups are usually based on béchamel or velouté.

Creaming method: A mixing method used for batters and doughs in which the fat and sugar are beaten together until light; dry and wet ingredients are added alternately to the batter.

Crème anglaise (Fr.): Custard.

Crème brûlée (Fr.): Custard topped with sugar and caramelized under the broiler before service.

Crème fraîche (Fr.): Heavy cream cultured to give it a thick consistency and a slightly tangy flavor; used in hot preparations since it is less likely to curdle when heated than sour cream or yogurt.

Crème pâtissière (Fr.): "Pastry cream." Custard made with eggs, flour or other starches, milk, sugar, and flavorings, used to fill and garnish pastries or as the base for puddings, soufflés, and creams.

Crêpe: A thin pancake made with egg batter; used in sweet and savory preparations.

Croûte, en (Fr.): Encased in a bread or pastry crust.

Croûton (Fr.): A bread or pastry garnish, usually toasted or sautéed until crisp.

Crumb: A term used to describe the texture of baked goods; for example, an item can be said to have a fine or coarse crumb.

Cuisson (Fr.): Poaching liquid, including stock, fumet, court bouillon, or other liquid, which may be reduced and used as a base for the poached item's sauce.

Cure: To preserve a food by salting, smoking, and/or drying.

Curing salt: A mixture of 94 percent table salt (sodium chloride) and 6 percent sodium nitrite used to preserve meats. (Also known as tinted curing mixture, or TCM.)

Curry: A mixture of spices used primarily in Indian cuisine; may include turmeric, coriander, cumin, cayenne or other chiles, cardamom, cinnamon, clove, fennel, fenugreek, ginger, and garlic. Also, a dish seasoned with curry.

D

Daube: A meat stew braised in red wine, traditionally in a daubière, a specialized casserole with a tight-fitting lid and indentations to hold hot coals.

Decline phase: The stage at which a pathogen's death rate exceeds the rate of growth and reproduction.

Deep-fry; deep-frying: A cooking method in which foods are cooked by immersion in hot fat; deep-fried foods are often coated with bread crumbs or batter before being cooked.

Deglaze/Déglacer: To use a liquid, such as wine, water, or stock, to dissolve food particles and/or caramelized drippings left in a pan after roasting or sautéing.

Degrease/Dégraissier: To skim the fat off the surface of a liquid, such as a stock or sauce.

Demi-glaze (Fr.): "Half-glaze." A mixture of equal proportions of brown stock and brown sauce that has been reduced by half. One of the grand sauces.

Dépouillage (Fr.): To skim the surface of a cooking liquid, such as a stock or sauce. This action is simplified by placing the pot off-center on the burner and skimming impurities as they collect at one side of the pot.

Dice: To cut ingredients into small cubes (1/4 inch for small, 1/2 inch for medium, 3/4 inch for large standard).

Die: The plate in a meat grinder through which foods pass, just before a blade cuts them. The size of the die's opening determines the fineness of the grind.

Direct heat: A method of heat transfer in which heat waves radiate from a source (for example, an open burner or grill) and travel directly to the item being heated with no conductor between heat source and food. Examples are grilling, broiling, and toasting.

Drawn: A whole fish that has been scaled and gutted but still has its head, fins, and tail.

Dredge: To coat food with a dry ingredient such as flour or bread crumbs.

Dry sauté: To sauté without fat, usually using a nonstick pan.

Dry cure: A combination of salts and spices used usually before smoking to process meats and force-meats.

Duxelles: An appareil of finely chopped mushrooms and shallots sautéed gently in butter.

E

Egg wash: A mixture of beaten eggs (whole eggs, yolks, or whites) and a liquid, usually milk or water, used to coat baked goods to give them a sheen.

Emincé (Fr.): To cut an item, usually meat, into very thin slices.

Emulsified (emulsion) forcemeat (5/4/3) : A forcemeat in which meats and fat are carefully brought into a state of emulsion, with strict adherence to temperature controls to assure a perfectly homogenous end product.

Emulsion: A mixture of two or more liquids, one of which is a fat or oil and the other of which is water-based, so that tiny globules of one are suspended in the other. This may involve the use of stabilizers, such as egg or mustard. Emulsions may be temporary, permanent, or semi-permanent.

Emulsion sauce: Sauce may be by suspending two substances which normally will not mix into a permanent or temporary mixture. Hot emulsion sauces include hollandaise and beurre blanc; cold sauces include mayonnaise and vinaigrette.

En papillote (Fr.): Foods prepared by encasing them in paper and cooking at high enough temperatures to cause steam to build up in the bag.

Escalope (Fr.): Same as scallop; a small boneless piece of meat or fish of uniform thickness.

Espagnole sauce (Fr.): "Spanish sauce." Brown sauce made with brown stock, caramelized mirepoix and tomato puree, and seasonings.

Essence: A concentrated flavoring extracted from an item, usually by infusion or distillation; includes items like vanilla and other extracts, concentrated stocks, and fumets.

Estouffade (Fr.): Stew. Also, a type of brown stock based on pork knuckle and veal and beef bones that is often used in braises.

Ethylene gas: A gas emitted by various fruits and vegetables; ethylene gas speeds ripening, maturing, and eventually, rotting.

Etouffé (Fr.): "Smothered." A cooking method similar to braising in which items are cooked with little or no added liquid in a pan with a tight-fitting lid. (Also étuver, à l'étuvée.)

F

Farina (It.): Flour or fine meal of wheat.

Fatback: Pork fat from the back of the pig, used Fat: One of the basic nutrients used by the body to provide energy. Fats also provide flavor in food and give a feeling of fullness.

Fermentation: The breakdown of carbohydrates into carbon dioxide gas and alcohol, usually through the action of yeast on sugar.

Filé: A thickener made from ground, dried saffron leaves; used primarily in gumbos.

Fillet/Filet: A boneless cut of meat, fish, or poultry.

Fine brunoise: See brunoise.

Fines herbes: A mixture of herbs, usually parsley, chervil, tarragon, and chives.

Flat fish: A fish skeletal type characterized by its flat body and both eyes on one side of its head (for example, sole, plaice, and halibut).

Foaming method: Cake batters made by first preparing a foam of eggs, egg whites, or egg yolks with sugar. Little if any fat is included in the batter.

Foie gras (Fr.): The fattened liver of a duck or goose.

Fond (Fr.): Stock.

Fondant: An icing made with sugar, water, and glucose; used primarily for pastry and confectionery.

Forcemeat: A mixture of chopped or ground meat and other ingredients used for pâtés, sausages, and other preparations.

Fork tender: A test of doneness for foods; should be easily pierced or cut by a fork, or should slide readily from a fork when lifted.

Frenching: The process of scraping meat from bones before cooking.

Fricassée (Fr.): A stew of poultry or other white meat with a white sauce.

Fritter: Sweet or savory foods coated or mixed into batter and deep-fried (also in French, beignet).

Fructose: A simple sugar found in fruits.

Fruit curd: Similar to a hollandaise sauce, made by cooking a fruit juice with sugar, eggs, and butter.

Full tang: An extension of the blade into the handle; full tangs are associated with high quality knives.

Fully cooked: State in which foods are cooked to the exact point of doneness.

Fumet (Fr.); essence: A type of stock in which the main flavoring ingredient is allowed to smother with wine and aromatics; fish fumet is the most common type.

G

Galantine: Boned meat (usually poultry) that is stuffed, rolled, poached, and served cold, usually in aspic.

Garbure (Fr.): A thick vegetable soup usually containing beans, cabbage, and/or potatoes.

Garnish: An edible decoration or accompaniment to a dish.

Gazpacho (Sp.): A cold soup made from vegetables, typically tomatoes, cucumbers, peppers, and onions.

Gelatin: A protein-based substance found in animal bones and connective tissue. When dissolved in hot liquid and then cooled, it can be used as a thickener and stabilizer.

Gelatinization: A phase in the process of thickening a liquid with starch in which starch molecules swell to form a network that traps water molecules.

Glace (Fr.): Reduced stock; ice cream; icing.

Glaze: To give an item a shiny surface by brushing it with sauce, aspic, icing, or another appareil. For meat, to coat with sauce and then brown in an oven or salamander.

Glucose: A simple sugar; the preferred source of energy for the human body.

Gluten: An elastic protein formed when hard wheat flour is moistened and agitated. Gluten gives yeast doughs their characteristic elasticity.

Grand sauce: One of several basic sauces that are used in the preparation of many other small sauces. The grand sauces are: demi-glace, velouté, béchamel, hollandaise, and tomato. (Also called mother sauce.)

Gratin dish: A cooking vessels used to hold foods that are to be browned under the broiler or salamander.

Gratin forcemeat: A mixture of meats and fat in which the garnish meat is first seared and cooled before being incorporated.

Gratiné (Fr.): Browned in an oven or under a salamander (au gratin, gratin de). Gratin can also refer to a forcemeat in which some portion of the dominant meat is sautéed and cooled before grinding.

Grill; grilling: A cooking technique in which foods are cooked by a radiant heat source placed below the food. Also, the piece of equipment on which grilling is done. Grills may be fueled by gas, electricity, charcoal, or wood.

Griswold: A pot, similar to a rondeau, made of cast iron; may have a single short handle rather than the usual loop handles.

Gumbo: A Creole soup/stew thickened with filé or okra.

H

HACCP (Hazard Analysis Critical Control Point): A monitoring system used to track foods from the time that they are received until they are served to consumers to assure that they are free from contamination and foodborne illness by establishing standards and controls for time and temperature, as well as safe handling practices.

Haricot (Fr.): ``Bean.'' Haricots verts are green beans.

HDL (high-density lipoproteins): A type of fatty acid often referred to as "good cholesterol" due to its role in helping to flush the arteries of plaque that could otherwise build up on the lining of the artery wall, leading to atherosclerosis.

High carbon stainless steel: A metal that contains a high percentage of carbon in relation to stainless steel. Favored for use in most knife blades.

High-ratio cake: Made by preparing a batter that includes a high percentage of sugar in relation to other ingredients. Prepared by the two-stage mixing method.

Hollandaise: A classic emulsion sauce made with a vinegar reduction, egg yolks, and melted butter flavored with lemon juice. It is one of the grand sauces.

Hominy: Corn that has been milled or treated with a lye solution to remove the bran and germ.

Hors d'oeuvre (Fr.): ``Outside the work.'' An appetizer.

Hot smoking: The process of preparing foods in a smokehouse (after they have been cured or brined) at temperatures above 145F (63°C).

Hydrogenation: The process in which hydrogen atoms are added to an unsaturated fat molecule, making it partially or completely saturated, hence, solid at room temperature.

I

Induction burner: A type of heating unit that relies on magnetic attraction between the cook top and metals in the pot to generate the heat that cooks foods in the pan. Reaction time is significantly faster than with traditional burners.

Infusion: Steeping an aromatic or other item in liquid to extract its flavor. Also, the liquid resulting from this process.

J

Julienne: Vegetables, potatoes, or other items cut into thin strips; $\frac{1}{8}$ -inch square x 1 to 2 inches is standard. Fine julienne is $\frac{1}{16}$ -inch square.

Jus (Fr.): Juice. Jus de viande is meat gravy. Meat served au jus is served with its own juice or jus li .

Jus li  (Fr.): Meat juice thickened lightly with arrowroot or cornstarch.

K

Kasha (Russ.): Buckwheat groats that have been hulled and crushed; usually prepared by boiling.

Knead/kneading: The process of stretching dough repeatedly in order to give it a good consistency. Also helps to ensure proper quality in the finished, baked item.

Kosher salt: Pure, refined rock salt used for pickling because it does not contain magnesium carbonate. It thus does not cloud brine solutions. Also used to kosher items. (Also known as coarse salt or pickling salt.)

L

Lag phase: The point at which a pathogen's rate of growth and reproduction is equal to the rate of death.

Lacto/ovo-vegetarian: A person who consumes a vegetarian diet composed of fruits, vegetables, nuts, grains, legumes, milk products and eggs

Lactose: The simple sugar found in milk.

Lean dough: A yeast dough that includes very little or no fat.

Leavener: Any ingredient or process that produces air bubbles and causes the rising of baked goods. (See chemical and mechanical leaveners, yeast, baking soda, baking powder.)

Legume: The seeds of certain plants, including beans and peas, which are eaten for their earthy flavors and high nutritional value. Also, the French word for vegetable.

Liaison: A mixture of egg yolks and cream used to thicken and enrich sauces. (Also loosely applied to any appareil used as a thickener.)

Lox: Salt-cured salmon.

Lozenge/diamond cut: A knife cut in which foods are cut into small diamond shapes.

Lyonnaise (Fr.): Lyons style; with onions and usually butter, white wine, vinegar, and demi-glace.

M

Madère (Fr.): A sauce made with demi-glace flavored with Madeira.

Mandoline: A slicing and cutting tool, named for the stroking motion used as foods are passed over the blades.

Marbling: The intramuscular fat found in meat that makes the meat tender and juicy.

Marinade: An appareil used before cooking to flavor and moisten foods; may be liquid or dry. Liquid marinades are usually based on an acidic ingredient, such as wine or vinegar; dry marinades are usually salt-based.

Matelote (Fr.): A fish stew traditionally made with eel.

Matignon (Fr.): An edible mirepoix that is often used in poêlées dishes and is usually served with the finished dish. Typically, matignon includes two parts carrot, one part celery, one part leek, one part onion, one part mushroom (optional), and one part ham or bacon.

Mayonnaise: A cold emulsion sauce made of oil, egg yolks, vinegar, mustard, and seasonings.

Mechanical leavener: Air incorporated into a batter to act as a leavener. Usually, eggs or cream are whipped into a foam, then are folded into the batter.

Medallion (Fr.): A small, round scallop of meat.

Meringue (Fr.): Egg whites beaten until they are stiff, then are sweetened and possibly baked until stiff. Three types are regular or common, Italian, and Swiss.

Meunière, à la: A cooking technique for fish.

Microwave: A method of heat transfer in which electromagnetic waves (similar to radio waves) generated by a device called a magnetron penetrate food and cause the water molecules in it to oscillate. This rapid molecular motion generates heat, which cooks the food.

Mie (Fr.): The soft part of bread (not the crust); mie de pain is fresh white bread crumbs.

Milled grains: Grains that have been processed by grinding or milling.

Millet: A small, round, gluten-less grain that is boiled or ground into flour.

Mince/mincing: To chop into very small pieces.

Minestrone: A vegetable soup, typically includes dried beans and pasta.

Mirepoix: A combination of chopped aromatic vegetables--usually two parts onion, one part carrot, and one part celery--used to flavor stocks, soups, braises, and stews.

Mise en place (Fr.): "Put in place." The preparation and assembly of ingredients, pans, utensils, and plates or serving pieces needed for a particular dish or service period.

Mode, à la (Fr.): "In the style of" (usually followed by a descriptive phrase). Boeuf à la mode is braised beef; pie à la mode is served with ice cream.

Monosodium glutamate (MSG): A flavor-enhancer without a distinct flavor of its own; used primarily in Chinese and processed foods. It may cause allergic reactions in some people.

Monté au beurre (Fr.): "To lift with butter." A technique used to enrich sauces, thicken them slightly, and give them a glossy appearance by whisking in whole butter.

Mother sauce: See grand sauce.

Mousse (Fr.): A dish made with beaten egg whites and/or whipped cream folded into a flavored base appareil; may be sweet or savory.

Mousseline (Fr.): A mousse; a sauce made by folding whipped cream into hollandaise; or a very light forcemeat based on white meat or seafood lightened with cream and eggs.

N

Napoleon: A pastry made of layered puff pastry rectangles filled with pastry cream and glazed with fondant.

Napper/Nappé (Fr.): To coat with sauce; thickened.

Navarin (Fr.): A stew, traditionally of lamb, with potatoes, onions, and possibly other vegetables.

Nitrates/nitrates: Chemical substances used to preserve foods, found especially in cured meats and TCM (tinting curing mix, or curing salt).

Noisette (Fr.): Hazelnut. Also, a small portion of meat cut from the rib. Pommes noisette are tournéed potatoes browned in butter. Beurre noisette is browned butter.

Nouvelle cuisine (Fr.): "New cooking." A culinary movement emphasizing freshness and lightness of ingredients, classical preparations, and innovative combinations and presentation.

Nutrients: The basic components of foods used by the body for growth, repair, restoration, and energy: carbohydrates, fats, proteins, water, vitamins, and minerals.

O

Oblique/roll cut: A knife cut used primarily with long, cylindrical vegetables such as carrots. The item is cut on a diagonal, rolled 180 degrees, then cut on the same diagonal, producing a piece with two angled edges.

Oignon brûlé (Fr.): "Burnt onion." A peeled, halved onion seared on a flat-top or in a skillet and used to enhance the color of stock and consommé.

Oignon piqué (Fr.): "Pricked onion." A whole, peeled onion to which a bay leaf is attached, using a whole clove as a tack. It is used to flavor béchamel sauce and some soups.

Oven spring: The rapid initial rise of yeast doughs when placed in a hot oven. Heat accelerates the growth of the yeast, which produces more carbon dioxide gas and also causes this gas to expand.

Ovo-vegetarian: A person whose diet consists of plant based foods, with the addition of eggs.

P

Paella: A Spanish dish of rice cooked with onion, tomato, garlic, vegetables, and various meats, including chicken, chorizo, shellfish, and possibly other types.

Paillard (Fr.): A scallop of meat pounded until thin; usually grilled.

Palette knife: A flexible, round-tipped knife used to turn pancakes and grilled foods and to spread fillings and glazes; may have a serrated edge. (Also called a metal spatula.)

Panada: An appareil based on starch (such as flour or crumbs), moistened with a liquid, that is used as a binder.

Pan-broil: A cooking method similar to dry sautéing that simulates broiling by cooking an item in a hot pan with little or no fat.

Pan-fry: A cooking method in which items are cooked in deep fat in a skillet; this generally involves more fat than sautéing or stir-frying but less than deep-frying.

Pan-steaming: Cooking foods in a very small amount of liquid in a covered pan over direct heat.

Papillote, en (Fr.): A moist-heat cooking method similar to steaming, in which items are enclosed in parchment and cooked in the oven.

Parcook: To partially cook an item before storing or finishing by another method; may be the same as blanching.

Parisienne scoop: A small tool used for scooping balls out of vegetable or fruit. (Also called a melon baller.)

Pasta (It.): Dough/paste; noodles made from a dough of flour (often semolina) and water or eggs. This dough is kneaded, rolled, and cut or extruded, then cooked by boiling.

Pasteurization: A process in which milk products are heated to kill microorganisms that could contaminate the milk.

Pâte (Fr.): Noodles or pasta; dough or batter.

Pâte à choux: Cream puff paste, made by boiling a mixture of water, butter, and flour, then beating in whole eggs.

Pâte brisée: Short pastry for pie crusts.

Pâte feuilletée: Puff pastry.

Pâte sucrée: Sweet short pastry.

Pâté (Fr.): A rich forcemeat of meat, game, poultry, seafood, and/or vegetables, baked in pastry or in a mold or dish.

Pâté en croûte: Pâté baked in a pastry crust.

Pâté de campagne: Country-style pâté, with a coarse texture.

Pâté dough: A lean dough used to line a pâté mold, for pâté en croûte.

Pâté mold: A hinged loaf pan used to prepare pâté en croûte.

Pâtissière (Fr.): Pastry chef. This station is responsible for baked items, pastries, and desserts. This is often a separate area of the kitchen.

Paupiette: A fillet or scallop of fish or meat that is rolled up around a stuffing and poached or braised.

Paysanne cut: A knife cut in which ingredients are cut into flat, square pieces, 1/2 inch by 1/2 inch by 1/2 inch is standard.

Peel: A paddle used to transfer shaped doughs to a hearth or deck oven.

Pesco-vegetarian: A person who consumes a diet based primarily on plant-based foods with the addition of eggs, dairy and fish.

Pesto (It.): A thick, pureed mixture of an herb, traditionally basil, and oil used as a sauce for pasta and other foods and as a garnish for soup. Pesto may also contain grated cheese, nuts or seeds, and other seasonings.

pH scale: A scale with values from 0 to 14 representing degree of acidity. A measurement of 7 is neutral, 0 is most acidic and 14 is most alkaline. Chemically, pH measures the concentration/activity of the element hydrogen.

Physical leavener: Name given to the action of steam when trapped in a dough.

Pickling spice: A mixture of herbs and spices used to season pickles, often includes dill weed and/or seed, coriander seed, cinnamon stick, peppercorns, bay leaves, and others.

Pilaf: A technique for cooking grains in which the grain is sautéed briefly in butter, then simmered in stock or water with various seasonings. (Also called pilau, pilaw, pullao, pilav.)

Pincé/pinçage (Fr.): To caramelize an item by sautéing; usually refers to a tomato product.

Poach: A method in which items are cooked gently in simmering liquid.

Poêlé/poêléng: A method in which items are cooked in their own juices (usually with the addition of a matignon, other aromatics, and melted butter) in a covered pot, usually in the oven. (Also called butter roasting).

Polyunsaturated fat: A fat with more than one available bonding site not filled with a hydrogen atom. Food sources include corn, cottonseed, safflower, soy, and sunflower oils.

Pot au feu (Fr.): A classic French boiled dinner that typically includes poultry and beef, along with various root vegetables. The broth is often served as a first course, followed by the meats and vegetables.

Proof: To allow yeast dough to rise. A proof box is a sealed cabinet that allows control over both temperature and humidity.

Protein: One of the basic nutrients needed by the body to maintain life, supply energy, build and repair tissues, form enzymes and hormones, and perform other essential functions. Protein can be obtained from animal and vegetable sources.

Puff pastry dough: A roll-in dough made by layering a lean, unleavened dough with butter, which is rolled and folded in the appropriate sequence.

Pulse: The edible seed of a leguminous plant, such as a bean, lentil, or pea. (Often referred to simply as legume.)

Purée: To process food (by mashing, straining, or chopping it very fine) in order to make it a smooth paste. Also, a product produced using this technique.

Puree soup: A soup may be cooking various ingredients in a broth or other liquid until tender enough to puree. Typically, the base ingredients provide all the necessary thickening.

Q

Quenelle (Fr.): A light, poached dumpling based on a forcemeat (usually chicken, veal, seafood, or game) bound with eggs that is shaped in an oval by using two spoons.

Quickbread: Bread made with chemical leaveners, which work more quickly than yeast. (Also called a batter bread.)

R

Raft: A mixture of ingredients used to clarify consommé (see clarification). The term refers to the fact that the ingredients rise to the surface and form a floating mass.

Ragout (Fr.): Stew.

Ramekin: A small, oven-proof dish, usually ceramic. (Also in French, ramequin.)

Range: A term used to describe a cooking surface. Often, an oven unit is part of a range's configuration.

Reduction: The product that results when a liquid is reduced.

Refresh: To plunge an item into, or run under, cold water after blanching to prevent further cooking.

Remouillage (Fr.): "Re-wetting." A stock made from bones that have already been used for stock; it is weaker than a first-quality stock and is often reduced to make glaze.

Rich dough: A yeast dough that contains fats such as butter or egg yolks. May also contain sweeteners.

Risotto: Rice that is sautéed briefly in butter with onions and possibly other aromatics, then combined with stock, which is added in several additions and stirred constantly, producing a creamy texture with grains that are still al dente.

Roast/roasting: A cooking method in which items are cooked in an oven or on a spit over a fire.

Roll-in: Butter or a butter-based mixture that is placed between layers of pastry dough, then rolled and folded repeatedly to form numerous layers. When the dough is baked, the layers remain discrete, producing a very flaky, rich pastry. (See *pâte feuilletée*.)

Rondeau: A shallow, wide, straight-sided pot with two loop handles.

Rondelle: A knife cut that produces flat, round or oval pieces; used on cylindrical vegetables or items trimmed into cylinders before cutting.

Rôti (Fr.): Roasted.

Rôtisseur (Fr.): Roast chef/station. The position is responsible for all roasted foods and related sauces.

Roulade (Fr.): A slice of meat or fish rolled around a stuffing; also, filled and rolled sponge cake.

Roux (Fr.): An appareil containing equal parts of flour and fat (usually butter) used to thicken liquids. Roux is cooked to varying degrees (white, pale/blond, or brown), depending on its intended use.

Royale (Fr.): A consommé garnish made of unsweetened custard cut into decorative shapes.

S

Sabayon (Fr.): Wine custard. Sweetened egg yolks flavored with marsala or other wine or liqueur, beaten in a double boiler until frothy. (The Italian name is zabaglione.)

Sachet d'épices (Fr.): "Bag of spices." Aromatic ingredients, encased in cheesecloth, that are used to flavor stocks and other liquids. A standard sachet contains parsley stems, cracked peppercorns, dried thyme, and a bay leaf.

Saturated fat: A fat whose available bonding sites are entirely filled with hydrogen atoms. These tend to be solid at room temperature and are primarily of animal origin. (Coconut and palm oil are vegetable sources of saturated fat.) Food sources include butter, meat, cheese, chocolate, and eggs.

Saucier (Fr.): Sauté chef/station. The chef de partie responsible for all sautéed items and their sauces.

Saucepan: A pot used for stovetop cooking; typically has a single handle and is taller than it is wide.

Sausage: A forcemeat mixture shaped into patties or links; typically highly seasoned.

Sauté, sautéing: A cooking method in which items are cooked quickly in a small amount of fat in a pan (see sauteuse, sautoir) on the range top.

Sauteuse: A shallow skillet with sloping sides and a single, long handle. Used for sautéing and referred to generically as a sauté pan.

Sautoir: A shallow skillet with straight sides and a single, long handle. Used for sautéing and referred to generically as a sauté pan.

Sauce vin blanc (Fr.): Literally "white wine sauce." Made by combining a reduced cooking liquid with prepared hollandaise, velouté, or diced butter.

Scald: To heat a liquid, usually milk or cream, to just below the boiling point. May also refer to blanching fruits and vegetables.

Sear: To brown the surface of food in fat over high heat before finishing by another method (for example, braising) in order to add flavor.

Semolina: The coarsely milled hard wheat endo-sperm used for gnocchi, some pasta, and couscous.

Shallow-poach/shallow poaching: A method in which items are cooked gently in a shallow pan of simmering liquid. The liquid is often reduced and used as the basis of a sauce.

Simmer/simmering: To maintain the temperature of a liquid just below boiling. Also, a cooking method in which items are cooked in simmering liquid.

Simple carbohydrate: Any of a number of small carbohydrate molecules (mono- and disaccharides), including fructose, lactose, maltose, and sucrose.

Simple syrup: A mixture of water and sugar (with additional flavorings or aromatics as desired), heated until the sugar dissolves. Used to moisten cakes or to poach fruits.

Single-stage technique: A cooking technique involving only one cooking method--for example boiling or sautéing--as opposed to more than one method, as in braising.

Skim: To remove impurities from the surface of a liquid, such as stock or soup, during cooking.

Slurry: Starch dispersed in cold liquid to prevent it from forming lumps when added to hot liquid as a thickener.

Small sauce: A sauce that is a derivative of any of the grand sauces.

Smoker: An enclosed area in which foods are held on racks or hooks and allowed to remain in a smokebath at the appropriate temperature.

Smoke-roasting: A method for roasting foods in which items are placed on a rack in a pan containing wood chips that smolder, emitting smoke, when the pan is placed on the range top or in the oven.

Smoking: Any of several methods for preserving and flavoring foods by exposing them to smoke. Methods include cold smoking (in which smoked items are not fully cooked), hot smoking (in which the items are cooked), and smoke- roasting.

Smoking point: The temperature at which a fat begins to break when heated.

Smother: To cook in a covered pan with little liquid over low heat.

Sorbet (Fr.): Sherbet. A frozen dessert made with fruit juice or another flavoring, a sweetener (usually sugar), and beaten egg whites, which prevent the formation of large ice crystals.

Soufflé (Fr.): "Puffed." A preparation made with a sauce base (usually béchamel for savory soufflés or pastry cream for sweet ones), whipped egg whites, and flavorings. The egg whites cause the soufflé to puff during cooking.

Sourdough: Yeast dough leavened with a fermented starter instead of, or in addition to, fresh yeast. Some starters are kept alive by "feeding" with additional flour and water.

Spaetzle (Ger.): A soft noodle or small dumpling made by dropping a prepared batter into simmering liquid.

Spider: A long-handled skimmer used to remove items from hot liquid or fat and to skim the surface of liquids.

Spit-roast: To roast an item on a large skewer or spit over, or in front of, an open flame or other radiant heat source.

Sponge: A thick yeast batter that is allowed to ferment and develop a light, spongy consistency and is then combined with other ingredients to form a yeast dough.

Stabilizer: An ingredient (usually a protein or plant product) that is added to an emulsion to prevent it from separating (for example, egg yolks, cream, and mustard). Also, an ingredient, such as gelatin, that is used in various desserts to prevent them from separating (for example, Bavarian creams).

Standard breading procedure: The assembly-line procedure in which items are dredged in flour, dipped in beaten egg, then coated with crumbs before being pan-fried or deep-fried).

Steamer: A set of stacked pots with perforations in the bottom of each pot. They fit over a larger pot that is filled with boiling or simmering water. Also, a perforated insert made of metal or bamboo that can be inserted in a pot and used to steam foods.

Steaming: A cooking method in which items are cooked in a vapor bath created by boiling water or other liquids.

Stew/stewing: A cooking method nearly identical to braising but generally involving smaller pieces of meat and, hence, a shorter cooking time. Stewed items also may be blanched, rather than seared, to give the finished product a pale color. Also, a dish prepared by using the stewing method.

Stir-fry/stir-frying: A cooking method similar to sautéing in which items are cooked over very high heat, using little fat. Usually this is done in a wok and the food is kept moving constantly.

Stock: A flavorful liquid prepared by simmering meat, poultry, seafood, and/or vegetables in water with aromatics until their flavor is extracted. It is used as a base for soups, sauces, and other preparations.

Straight forcemeat: A forcemeat combining pork and pork fat with another meat in equal parts that is made by grinding the mixture together.

Straight mixing method: The dough mixing method in which all ingredients are combined at once by hand or machine.

Suprême (Fr.): The breast fillet and wing of chicken or other poultry. Sauce suprême is chicken velouté enriched with cream.

Sweat/sweating: To cook an item, usually vegetables, in a covered pan in a small amount of fat until it softens and releases moisture.

Swiss: To pound meat, usually beef, with flour and seasonings; this breaks up the muscle fibers, tenderizing the meat.

T

Tart: A pie without a top crust; may be sweet or savory.

Tartlet: A small, single-serving tart.

TCM/Tinted curing mixture: See curing salt.

Temper: To heat gently and gradually. May refer to the process of incorporating hot liquid into a liaison to gradually raise its temperature. May also refer to the proper method for melting chocolate.

Tempura (Jap.): Seafood and/or vegetables that are coated with a light batter and deep-fried.

Terrine: A loaf of forcemeat, similar to a pâté, but cooked in a covered mold in a bain-marie. Also, the mold used to cook such items, usually an oval shape made of ceramic.

Thickeners: Ingredients used to give additional body to liquids; arrowroot, cornstarch, gelatin, roux, and beurre manié are examples.

Timbale/timbale mold A small pail-shaped mold used to shape rice, custards, mousselines, and other items. Also, a preparation made in such a mold.

Tomato concasse: See CONCASSE.

Toque blanche (Fr.): "White hat." A chef's hat.

Tourner/Tourné: To cut items, usually vegetables, into barrel, olive, or football shapes.

Tranche (Fr.): A slice or cut of meat, fish, or poultry.

Truss/trussing: To tie up meat or poultry with string before cooking it in order to give it a compact shape for more even cooking and better appearance.

Tuber: The fleshy root, stem, or rhizome of a plant that is able to grow into a new plant. Some, such as potatoes, are eaten as vegetables.

Tunneling: A fault in baked batter products caused by overmixing; the finished product is riddled with large holes or tunnels.

Two-stage method: A procedure for preparing a batter for HIGH-RATIO CAKES.

U

Unsaturated fat: A fat with at least one available bonding site not filled with a hydrogen atom. These may be monounsaturated or polyunsaturated. They tend to be liquid at room temperature and are primarily of vegetable origin.

V

Vanilla sauce: Custard sauce made from milk or cream, sugar, and eggs.

Vegan: An individual whose diet is strictly plant-based, excluding any and all animal products.

Vegetable soup: A broth- or water-based soup garnished primarily with vegetables; may include meats, legumes, and noodles as well; may be clear or thick.

Vegetarian: An individual whose diet is primarily plant-based; there are different forms of vegetarian diets including vegan, fruititarian, ovo- and lacto/ovo-vegetarian, pesco-vegetarian, and semi-vegetarian.

Velouté: A sauce of white stock (chicken, veal, seafood) thickened with white roux;; one of the grand sauces.

Velouté soup: A cream soup made with a velouté sauce base and flavorings (usually pureed) that is usually finished with a liaison.

Vinaigrette (Fr.): A cold sauce of oil and vinegar, usually with various flavorings; it is a temporary emulsion sauce. (The standard proportion is three parts oil to one part vinegar.)

Vinegar: An acidic liquid made by fermenting various items, including wine or cider.

W

Wet cure: A curing process in which foods are completely submerged in a brine or marinade.

Whey: The liquid left after curds have formed in milk.

Whip/whisk: To beat an item, such as cream or egg whites, to incorporate air. Also, a special tool for whipping made of looped wire attached to a handle.

White mirepoix: Mirepoix that does not include carrots and may include chipped mushrooms or mushroom trimmings. It is used for pale or white sauces and stocks.

White stock: A light-colored stock made with bones that have not been browned.

Whole grains: Unmilled or processed grains.

Whole-wheat flour: Flour milled from the whole grain, including the bran and germ. Graham flour is a whole-wheat flour named after Sylvester Graham, a 19th century American dietary reformer.

Y

Yam: A large tuber that grows in tropical and subtropical climates; it has starchy, pale-yellow flesh and is often confused with the sweet potato.

Yeast: Microscopic fungus whose metabolic processes are responsible for fermentation. It is used for leavening bread and in cheese-, beer-, and wine-making.

Yogurt: Milk cultured with bacteria to give it a slightly thick consistency and sour flavor.

Z

Zabaglione: See sabayon.

Zest: The thin, brightly colored outer part of citrus rind. It contains volatile oils, making it ideal for use as a flavoring.