

Chapter 6
Stocks, Sauces,
and Soups

Case Study *Want to Do Lunch?*

Uptown Grille has been open for dinner for two years. Linda thinks that if they offer a lunch menu, they might attract new clientele—people who might be hesitant to try them out for dinner, given their trendy, upscale reputation.

Linda has conducted research on the local lunch market and knows that there is an audience for this service—individuals, local volunteer groups, and business people. In addition, she has canvassed their “regulars” to see what might be an appealing menu format. Most were enthusiastic about the plan, suggesting that she offer a menu that draws attention to their fine dining, yet is relatively affordable.

Uptown Grille started to offer lunch in March on Wednesdays through Saturdays. Linda and Chef Jean have created a limited, yet reasonably priced menu, focusing on fine soups and assorted companion dishes, such as appetizers, breads, and seasonal salads. The five daily soups range from organic, low-fat vegetable to cream of asparagus to bouillabaisse. The appetizers are varied. Some include fish, some include meat, some are vegetarian. The salad dressings for the various salads range from oil and vinegar to spicy sesame. All in all, Linda thinks there is something for everyone.

Now, it is May...two months later. After an initial spurt, business has slowed down. The customers have mostly responded positively to the quality and flavor of the food, the service, and the prices. Linda is not sure why they aren't doing better.

As you read this chapter, think about the following questions:

1. What problems might Uptown Grille face with the menu selection?
2. What can Linda do to retain and bring in new customers?
3. Other than the menu, service, and price, what do you think might impact the volume of business?

Frederic (“Fritz”) H. Sonnenschmidt CMC, AAC, HOF

Certified Master Chef, Teacher, Author, TV Personality

“Cooking and baking is an art, a science, and a way of sharing.”

I was always fascinated by the culinary arts. In 1947, a cook in the U.S. Army, which was using my school for a field kitchen, introduced me to the exciting possibilities of the cooking profession. I was 11 years old.

I started my career with an apprenticeship in Munich, Germany. After that, I had extensive experiences in hotel kitchens, including Executive Chef at the Sheraton Hotel in New York City. I became a teacher at the Culinary Institute of America in 1968, and retired from the institute as Culinary Dean in 2002.

By the way, in 2004, Chef Fritz was inducted into the American Academy of Chefs Culinary Hall of Fame, and he received a Lifetime Achievement Award from the Academy in 2007.

I believe in cooking using the 12 basic culinary fundamentals, focusing on their use in classical, modern, regional, global, eclectic, molecular, and fusion cuisine. When in doubt, fall back on these—they will save you!

For those of you interested in pursuing culinary arts, let me tell you a little story. When I started my apprenticeship, I worked for a top professional, Chef Anna Eichner. I wasn't terribly serious about my assignments. First, I had to clean the walls and floor of the meat refrigerator every day. Instead, I started a poker game. Of course, I got caught! After that, I was demoted to peeling potatoes and caring for the vegetable storeroom.

But when boredom set in, I started throwing eggs into a circle on the door. And yes, you guessed it. Caught again! My last chance was to clean the stove and start the fire every day, which meant going to work at 3 a.m. To do this, I used an acid chemical that is normally used to clean pipes. Well, you can imagine what the stove smelled like once I started the fire. Then, it started to corrode in front of my eyes. Chef Anna called me a very long list of unflattering names...but it made me realize that I had to change my behavior.

Many years later, I went back and visited Chef Anna. She referred to me as her star pupil. As we talked, she told me that: “Nobody's perfect. I had to shock you into changing your attitudes. Never regret your past mistakes. Change them, and help others to overcome theirs.” It is the best advice I can pass on.

About Stocks, Sauces, and Soups

My favorite sauce is the demi-glace; it is the base of all sauces. And, my favorite soup is onion soup. It is simple, but needs all of the passion and cooking knowledge of a master chef.



6.1 Stocks

- The essential parts of stock
- Types of stock
- Preparing bones for stock
- Preparing ingredients for stock
- Cooling stock
- Degreasing stock

6.2 Sauces

- Grand sauces
- Basic ingredients in sauces
- Preparing different kinds of sauces
- Matching sauces to food

6.3 Soups

- Basic kinds of soup
- Preparing soup

SECTION 6.1 STOCKS

Stocks are an important part of any professional kitchen. Stock is an essential ingredient in many soups and sauces. If you can make a great stock, you can make a great soup and sauce. When preparing stocks, flavor, clarity, and body are most important.

Study Questions

After studying Section 6.1, you should be able to answer the following questions:

- What are the four essential parts of a stock and the proper ingredients for each?
- What are the various types of stock and their specific ingredients?
- What are the three methods for preparing bones for stock?
- What are the ingredients for several types of stock?
- How and why do you degrease stock?
- What is the proper way in which to cool stock?

The Essential Parts of Stock

There are four essential parts to all stocks:

- A major flavoring ingredient
- A liquid, most often water
- Mirepoix (meer-PWAH)
- Aromatics

Mirepoix is a French word that refers to the mixture of coarsely chopped onions, carrots, and celery that provide a flavor base for stock. The mixture is usually 50 percent onions, and 25 percent each of carrots and celery (see Figure 6.1). For pale or white sauces, such as fish fumet, chefs usually use white mirepoix, in which they substitute parsnips, additional onions, leeks, and even chopped mushrooms for carrots.

Aromatics, such as bouquet garni and *sachet d'épices*, are the herbs, spices, and flavorings that create a savory smell. **Bouquet garni** (boo-KAY gahr-NEE), French for “bag of herbs,” is a bundle of fresh herbs, such as thyme, parsley stems, and a bay leaf tied together. **Sachet d'épices** (sah-SHAY day-PEESE) is similar to bouquet garni, except it really is a bag of herbs and spices. The chef places the spices, including parsley stems, dried thyme, bay leaf, and cracked peppercorns, together in a cheesecloth bag. If the stock is going to be strained, these ingredients do not need to be contained in a bag.

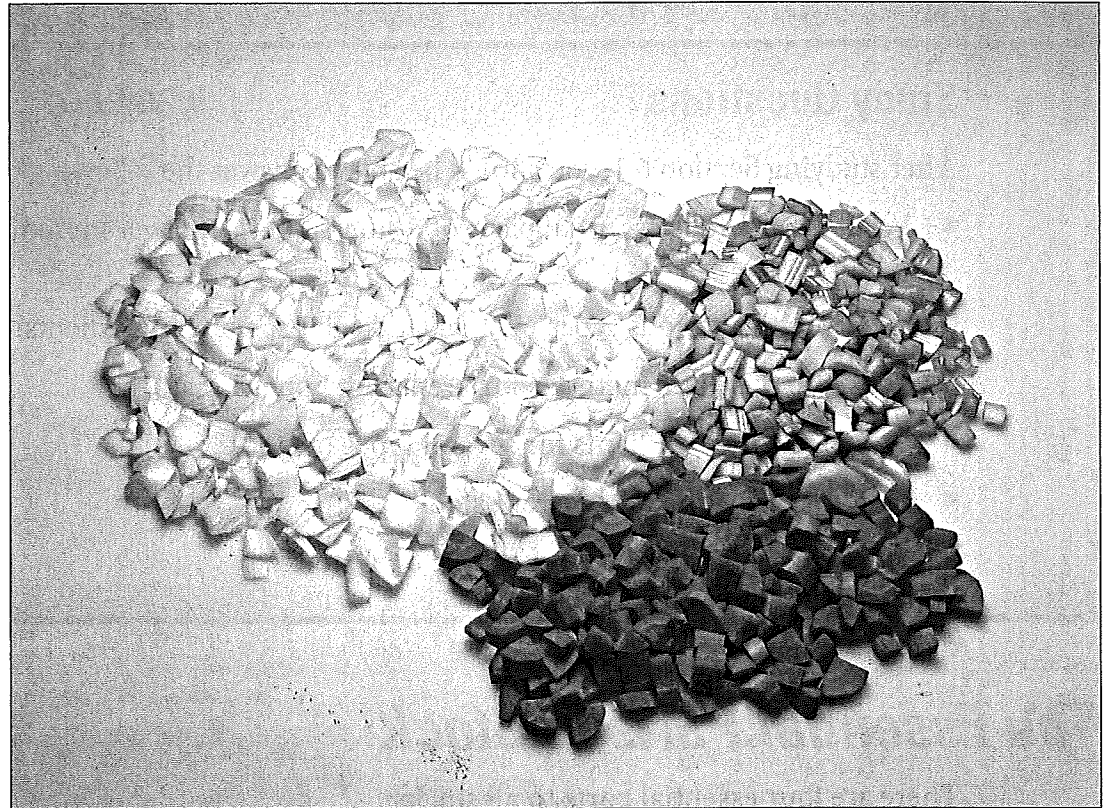


Figure 6.1: Mirepoix, a mixture of white onions, carrots, and pale green celery, enhances the flavor and aroma of stock.

Types of Stocks

Stocks are often called the chef's "building blocks." They form the base for many soups and sauces. A **stock** is a flavorful liquid made by gently simmering bones and/or vegetables. This extracts the flavor, aroma, color, body, and nutrients of the ingredients. Some stocks may take up to 24 hours to properly cook, but stocks are one of the most cost-effective ways to use vegetable, meat, and fish trimmings.

There are many types of stock. Several are shown in Figure 6.2 below:

- **White stock:** This is a clear, pale liquid made by simmering poultry, beef, or fish bones.
- **Brown stock:** This is an amber liquid made by simmering poultry, beef, veal, or game bones that have been browned first.
- **Fumet (foo-MAY):** Very similar to fish stock, this is a highly flavored stock made with fish bones.
- **Court bouillon (court boo-YON):** This is an aromatic vegetable broth used for poaching fish or vegetables.
- **Glace (glahs):** Sometimes referred to as "glaze," this is a reduced stock with a jelly-like consistency, made from brown stock, chicken stock, or fish stock.
- **Remouillage (ray-moo-LAJ):** This is a weak stock made from bones that have already been used in another preparation, sometimes used to replace water as the liquid used in a stock; *remouillage* is the French word for "rewetting."

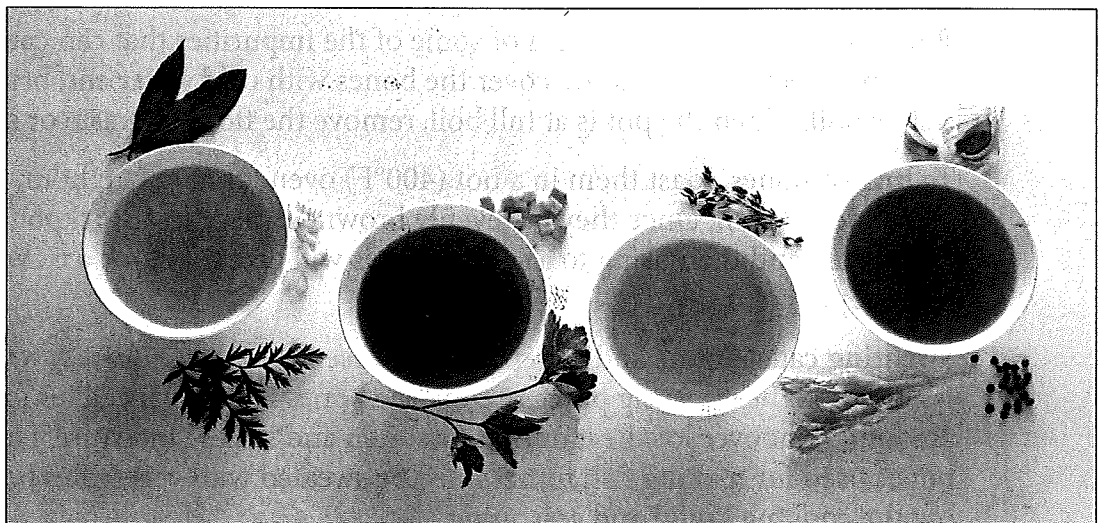


Figure 6.2: Stocks are made from a combination of vegetables, seasonings, bones, and liquids.

- **Bouillon** (BOO-yon): This is the liquid that results from simmering meats or vegetables; also referred to as broth.
- **Jus**: This is a rich, lightly reduced stock used as a sauce for roasted meats.
- **Vegetable stock**: This is usually made from mirepoix, leeks, and turnips. Tomatoes, garlic, and seasonings may also be added to flavor or darken the stock, but tomatoes must be strained with a cheesecloth or filter so that no seeds or skins get into the stock. This is referred to as tomato *conçassé* (kawn-ka-SAY). A chef might roast the vegetables or add a large amount of a particular vegetable, such as mushrooms for a mushroom stock.

Some kitchens use convenience items, such as prepared stocks, stock or sauce bases, and commercial concentrates to cut costs of food and labor in the kitchen. It's ideal to prepare all items from scratch, but it may not always be possible due to budget issues or staff skill levels. Fortunately, there are many quality convenience products available that can be used to good advantage in today's kitchen. The key to choosing any of these products is careful evaluation to make sure they provide a good level of quality. The quality of the stock affects the quality of all dishes prepared from it; if the prepared stock, base, or concentrate is high quality and has good flavor, then using it will not compromise quality. High-quality stock helps deliver high-quality product. Keep in mind, though, that commercially prepared stocks may contain a large amount of sodium (salt), depending on how they are produced.

Preparing Bones for Stock

To use bones for stock, they must first be cut to the right size and then prepared by blanching, browning, or sweating.

Blanching the bones rids them of some of the impurities that can cause cloudiness in a stock. In a stockpot, cover the bones with cold water and bring them to a slow boil. When the pot is at full boil, remove the floating waste or scum.

To **brown** bones, roast them in a hot (400°F) oven for about an hour, until they are golden brown. Once they are evenly browned, place in a stockpot, cover with cold water, and then bring to a simmer. This will give the stock a richer flavor and deeper color.

Sweating causes bone and mirepoix to release flavor more quickly when liquid is added. In the sweating process, cook the bones and/or vegetables in a small amount of fat over low heat until they soften and release moisture. For example, bones used for making fish fumet must be sweated with vegetables before adding the cooking liquid and seasoning.

Essential Skills

Blanching Bones

- ① Place at least 8 lbs of bones in a stockpot and cover with cold water. See Figure 6.3.
- ② Bring the water to a slow boil. Skim the surface if necessary.
- ③ Once the water reaches full boil, drain the bones through a sieve or, if the stockpot has one, allow the water to drain away through a spigot.
- ④ Once the water reaches full boil, drain the bones through a sieve or, if the stockpot has one, allow the water to drain away through a spigot. Discard the water.
- ⑤ Now the bones are ready for any recipe that calls for blanched bones.

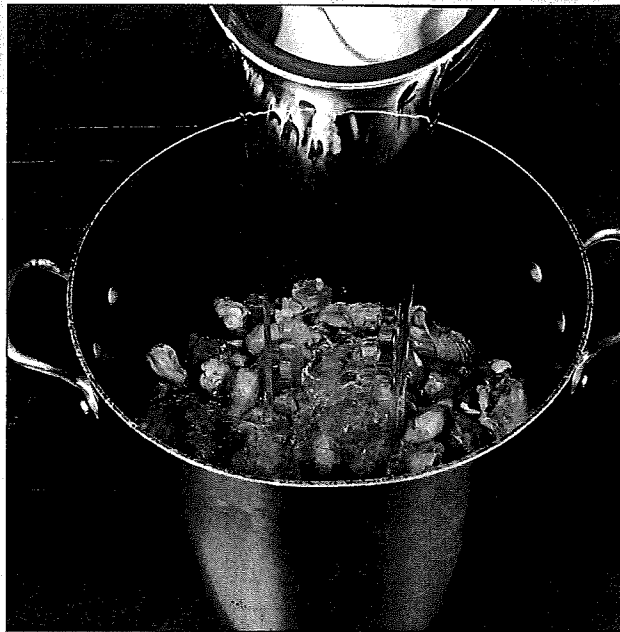


Figure 6.3: Step 1—Blanching bones.

Preparing Ingredients for Stock

Flavor, color, body, and clarity determine the quality of stock. A stock should be flavorful, but not so strong that it overpowers the other ingredients in the finished dish. In a chicken noodle soup, for example, you should taste the chicken, noodles, and vegetables as well as the broth. Fish, chicken, and beef stock have the strongest flavors, while white veal stock is considered neutral. With the exception of fumet, stocks should be almost crystal clear when they are hot. See Figure 6.4.



Figure 6.4: Stock should be brought to a boil and then reduced to a simmer to bring out the full flavor. Rapid boiling of a stock causes impurities and fats to blend with the liquid.

Mirepoix should be trimmed and cut into a size suited for the type of stock. For stocks with short cooking times, like fish stock, the mirepoix should be sliced or chopped in small pieces. For stocks with cooking times of longer than one hour, such as beef stock, the vegetables may be cut into larger pieces. These can be 1 to 2 inches long, or even left whole.

Bouquet garni or *sachet d'épices* can be added to the simmering stock. Aromatics are usually added in the last hour for two reasons: to allow the heat to bring out their flavors and to prevent the loss of flavor (or development of unpleasant flavors) caused by overcooking. The flavors and aromas will be released from the herbs and spices as the stock cooks. Once the stock is flavored to taste, remove the aromatic.

To make stock, the ratio of liquid to flavoring ingredients is standard. To make one gallon of stock, use the following proportions:

- Chicken, beef, veal, and game stock: 8 lbs of bones to 6 qts of water, adding 1 lb of mirepoix
- Fish/shellfish stock or fumet: 11 lbs of bones or shells to 5 qts of water, adding 1 lb of mirepoix
- Vegetable stock: 4 lbs of vegetables to 4 qts of water, adding $\frac{3}{4}$ lb of mirepoix

Essential Skills

Preparing Stock

- ① Combine the major flavoring ingredient and the cold liquid.
- ② Bring to a simmer.
- ③ Skim as necessary throughout the cooking time.
- ④ Add the mirepoix and aromatics at the appropriate time, usually in the last hour of cooking.
- ⑤ Simmer until the stock develops flavor, body, and color.
- ⑥ Strain, then use immediately, or cool and store. Straining through cheesecloth or a coffee filter helps to remove fat. See Figure 6.5.

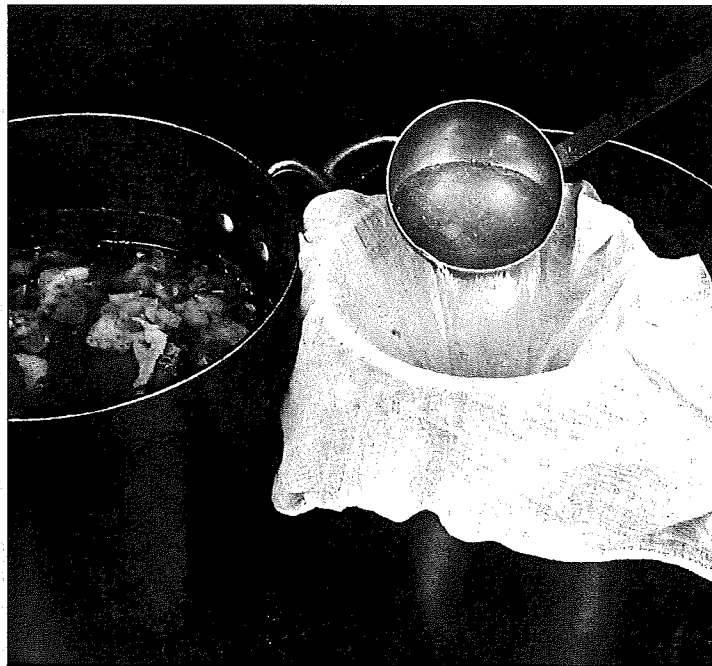


Figure 6.5: Step 6—Strain, then use immediately, or cool and store.

Cooling Stock

Foodborne pathogens need time and moisture to grow, but they won't grow when the temperature of the food is colder than 41°F or hotter than 135°F. The temperatures between 41°F and 135°F are in the temperature danger zone (also known as TDZ). Follow proper food safety practices when cooling stock. This will minimize the time the stock spends in the temperature danger zone.