

# Stocks & Braises

## Stock-Making Basics

History of stocks and how they have been the foundation of culinary traditions. These traditions are now largely lost.

### I. Types of Stocks

- A. Cook Time Differences depending on bone thickness of fish v. chicken v. beef v. other?
- B. Uses for each type of stock

### II. Nutritional Aspects of Beef Stocks (I would do general, but it may take too long)

- A. Minerals
- B. Proteins
- C. Other nutrients

### III. How to Make a Super Beef Stock

- A. Choosing a good mix of different types of bones, choosing pot
- B. Choosing veggies and herbs
- C. Browning bones and veg
- D. Slow cooking stock in ample good water for long time
- E. Straining and Storing

## Braising Basics

Define “braising” and answer the questions “Why are braised meats and veggies so extraordinarily tender?” “What happens under the braising pot?” The term braising may be less well-known than other cooking techniques such as grilling, baking or roasting...but braised dishes are among the most loved recipes in any cook’s collection.

### Learning the Art of Braising

#### The Main Ingredient

##### Long Braises

Best foods for long braising

What makes a certain cut of meat tough or tender?

##### Short Braises

Best foods for short braises

#### Choosing the right braising pot

The importance of weight

The importance of size

Lids and parchment paper

## Browning the first step of a extraordinary braise

### Tips for successful browning

- Surface of foods must be dry
- Just enough oil or fat to coat bottom of pan
- Give food plenty of space
- Be patient
- Don't walk away or set heat too high

### Alternative methods of browning

- Broiler
- Skillet
- Grill
- No browning
- After browning evaluate drippings and pan

## Role of fat in adding flavor to your braise

### The aromatics – the basis of a braise

- Readying aromatics for the braising pot

### Choosing the braising liquid

- Determining the flavor of the sauce

## Deglazing and reducing 2 keys to maximum flavor

- Deglazing drippings in a broiler pan or on a baking sheet

## The choice between stovetop or oven braising

- The use of a heat diffuser

## Individualizing a braise adding a final layer of flavor enhancements

- Spice rubs and herb pastes
- Dredging
- Meaty enhancements

## Finishing the braise

- Straining the braising liquid
- Degreasing the braising liquid
- Reducing the braising liquid
- Other finishing touches

## Stocks

1)The cooking hearth is as old as humanity itself. Stocks and braised foods began at the cooking hearth thousands of years ago and are found in all traditional cultures around the globe to this day. In days gone by, most animals were slaughtered locally and nothing went to waste. Often, the tough cuts of meat respond very favorably to a low heat braise, revealing a tender, succulent result very dissimilar to the same piece eaten by fast, dry heat cooking methods. You can't throw a brisket on the grill for a few minutes and expect anything good tasting or chewable. Yet, with time and care, a brisket is a very tender cut of meat. And who can gnaw on beef bones? Yet with water, a bit of an acid, such as vinegar or lemon juice, and low heat, we can coax the minerals and other nutrients out of the bones. These are the waste not, want not foods that we have all but forgotten about in our fast-paced lives. We wish to bring these foods back into vogue in this country, as they are not only economical, but they are very nutritious and tasty as well.

### Definition

2) Stock, by definition, a liquid made by simmering meat, bones and perhaps vegetables and herbs for a period of time. Broth can often mean a liquid made from meat alone. We will use the two terms interchangeably since our stocks will contain some meat as well as bones. It might be a few hours of cooking for a delicate fish stock, or more than a day for a hearty beef stock. Stock varieties include beef, lamb, pork, fish, chicken, turkey and goose, among others. And the cook time does tend to concern the thickness of the bones themselves, as well as the richness desired. The good news is, there are no hard fast rules to making the best stock you have ever tasted.

### General Uses

3)Homemade meat stocks were the traditional cure for colds and flu across all cultures, and they have also been used historically for illnesses that affect connective tissues such as the gastrointestinal tract, the joints, the skin, the lungs, the muscles and the blood. These foods have been fed to the sick and the elderly for centuries with good results. The increased pace of life and reduction of home cooking in general has seen stocks and the foods - such as braised dishes - upon which they are based fall by the wayside. We suffer in far-reaching ways for this neglect. Gourmet cuisine, at least, still continues to value the splendid flavors and nutrients that bone-based broths impart to many fine dishes. It serves as the foundation for many recipes including soups, sauces and gravies. Aspics make use of chilled, gelled stocks, although they are not as popular now as they were decades ago. We would do well to follow the traditional approach to food by incorporating meat-based stocks in our cooking repertoire on a regular basis.

### Nutrients (Maybe this talk can go on during the browning of the bones?)

4) Stock contains the same things that the bones themselves contain. In the case of beef stock, which we are making today, this means minerals from the bone, which happen to be in a form that the body can absorb easily. In the stomach, hydrochloric acid physically breaks down our food and also extracts minerals from the food. A similar situation occurs in the making of stock. An acid is necessary to remove the minerals from the bone, while it cooks.

This is the purpose of using vinegar, lemon juice or wine when making broth. Minerals available in stock include calcium, magnesium, phosphorus, sodium, potassium, silicon, sulfur and other trace minerals.

5) Meat stocks contain the material from cartilage, tendons and other connective tissues. Chondroitin sulphates and glucosamine are among these constituents; and it is much better to get them in this natural source than to buy expensive pills for joint relief containing these substances. Collagen (also known as gelatin) is an important nutrient in stock. Collagen represents about one-fourth of all the protein in the human body. People with poor digestion often improve with the addition of traditional stocks in the diet, due to the gelatin contained within them. Stocks are calming and soothing to the GI tract. Glycine, a key ingredient in gelatin, plays a vital role in the blood in the production of hemoglobin. Proline and glycine, both non essential amino acids, are both very important to joint health. The ability of the body to produce these amino acids (which is why they are called non essential), however, may vary with the health status of the individual. With so many people suffering from stiff joints, skin diseases and other collagen, connective tissue and cartilage disorders might be suffering serious shortfalls of proline, glycine and other needed nutrients. There are other nutrients in stock as well, which are not mentioned here due to time constraints.

For more information about the health benefits of stocks, please see:

<http://www.townsendletter.com/FebMarch2005/broth0205.htm>

## **Let's Make Beef Stock**

### **Cookware & Heat Sources**

6) We need a stock pot, dutch oven or crock pot for cooking the stock. Any large stainless steel pot will do. Many restaurants use aluminum cookware; however, acidic foods will chemically react with the pot, so it is well worth the time to invest in stainless steel or enameled cast iron. Also, plain cast iron can react with acids and leach iron, which may be a concern as well for something like a stock, which cooks over several hours. Many stainless pots have aluminum bottoms, but these never contact the food, and are fine to use. In fact, a stock pot with a heavy bottom will heat more slowly and evenly. You may wish to use a heat diffuser under a thin pot. Some stock pots come with strainer-like inserts which make removal of all but the stock a breeze. These do reduce slightly the amount of volume they can hold. A concern with crock pots is that the ceramic core may contain lead and/or cadmium, which can leach into foods upon heating. Hamilton Beach is one brand that claims that no measurable amounts of these heavy metals are allowed in their slow cookers.

7) It is important that each of us take the effort and responsibility of using equipment that fits our own comfort level in an imperfect world. And that means doing research and calling companies about their products, as things may change over time, and so assumptions may be incorrect. Let the buyer beware is the best advice we can give on cooking utensils.

8) We also need a roasting pan or skillet to brown the bones. A stainless steel or cast iron roasting pan or skillet is fine for this. A glass baking dish will work too. Also, we will need

spoons, ladles, a strainer and cheese cloth. We will need storage vessels as well. Mason jars, or glass or stainless bowls are good options.

(Allow a browsing of the pots and pans we have available now, which will let people stretch their legs and keep interest?)

9) When making the stock in the pot, an initial small boil is fine, but then the heat should be lowered down to a very low simmer for several hours. Achieving this level of heat will depend not only on your cookware choice, but also your heat source. If you are making stock on the stove, temperatures may vary depending on the type of stove it is; gas, electric, cook top. You can make stock in a dutch oven in the oven after the initial boil, but you will want to experiment with the temperature needed to keep a low simmer going. The reason why we don't want a hard boil over prolonged periods is that the connective tissues break down too far under high heat, and the stock itself can become cloudy.

### **Burgundy Pasture Beef Stock Recipe Demonstration**

10) We will be using the general recipe for beef stock today. These are the bones we will be using. Wendy will explain the significance of using each of these types of bone for a well rounded stock. We will first brown these bones so that we can achieve a chemical reaction to form compounds that give flavor and color.

11) So now that we have achieved a good browning of the bones and Karen has chopped the vegetables and assembled the other ingredients, we will now add everything to the pot except the herbs. The water should be cold, as this will provide a superior stock containing well-extracted flavors with the slow heating method. Here we have a finished stock that we will now strain. Also, please see this cooled stock and how nicely it has gelled. Let the stock cool in a cold water bath in the sink before refrigerating. Stock will stay in the fridge 4-5 days. Freezing is a fine storage choice if you don't know when you will need some stock. In time, you may find yourself using stocks more and more, benefiting from the nutritional and culinary goodness of meat-based stocks.

### **Wrap up, Q & A, 5-10 minute break**

#### **Braises**

12) Now we will move on to the basics of braising, which, more often than not, do make use of meat stocks as the braising liquid. And just like stocks, braises are an ancient method of cooking that keep all the nutrients in the lidded cooking vessel. In the old days, people would submerge the braising pot in the embers of the open hearth, or else place the pot in the community oven to work its magic over several hours. The basic definition of braising is to cook meat and/or vegetables by browning in fat, then simmering in a small quantity of liquid in a covered container. What happens is the juices from the meat and vegetables are released into the braising liquid, which steams and condenses back down on the food.

13) Pot roasts and stews are very similar dishes, but use more liquid. Often, inexpensive, tougher meat cuts respond beautifully to any of these moist heat methods, whereas choice meats can be cooked either with a dry heat or a moist heat method, depending on the desired

result. You may want to marinate a tougher cut for up to 24 hours to tenderize it. More tender cuts of meat will require much less cooking time than tougher cuts or cuts from older animals. This is because all meat is generally muscle. The parts of animal that will receive the most exercise will become thicker and more coarsely grained over time. Also, the amount of collagen in the particular meat cut will also determine it being tender or tough. Collagen needs a good amount of time to break down and create a tender finished product. Lamb shanks are one such example - they will be chewy if not cooked long and slowly, preferably as a braised dish. Whereas with chicken, either a short braise or a roast will both provide tasty results. Overcooking a chicken may result in stringy pieces fallen from their bones. Vegetables may also be braised, but be careful on the time you allow them to cook, or the results will be mushy. When cooking a tough cut of meat, just add the vegetables in the last 3/4 hour of cooking to infuse the flavors well, yet keep the veggies firm and tasty.

14) The fat content of the meat also should be considered. If it is very lean, cooks of old would lard the meat for added flavor and juices. Strips of salt pork or bacon - Burgundy Pasture Beef freshly sliced bacon would be ideal with a bit of herbs and seasonings rubbed in - are threaded through the meat with a larding needle. Of course, this was back before the fear of fat took hold in this country. Browning in ample fat will also add to the flavor and richness of the meat.

### **Let's Make a Zinfandel Pot Roast with a Boneless Chuck Roast**

15) The pot you choose for your particular braise should be large enough to hold the contents, without too much space around the meat on the sides or the top. If you have a tall roast, you will need a taller pot, a flat brisket needs a wider, shorter pot. Using a pot too larger can cause the sauce to evaporate. There are a variety of pots and pans you may use to achieve good results braising, but any of them should be thick. Enameled cast iron dutch oven or braiser is very nice, as iron is a good conductor and will hold heat well. Plain cast iron, aluminum clad stainless steel and even covered casseroles can work, as can covered deep skillet for some dishes. For this dish we will use this pot.

16) Depending on the braising vessel, you may or may not want to brown the meat for the braise directly in it. You might brown on the stove top or broiler, depending on the meat. Enameled cast iron, such as Le Creuset braisers and French ovens, have ambiguous use instructions; on the one hand saying that medium and low heats will be best for most purposes, including searing and frying, while on the other hand stating that no pan should ever be heated empty. If you are like me, you are familiar with the old adage, hot pan, cold fat, foods won't stick. Furthermore, placing the fat in an enameled pan and then heating it will take enough time to heat up that the fat may end up being too strong, depending on what type of fat you are using. For example, butter may burn. Thus, with these pricey pots, I always brown in another medium like a cast iron skillet, deglaze that pan and add the meat and pan drippings to the enameled pot for low heat braising.

#### Tips for successful browning

Surface of foods must be dry

Just enough oil or fat to coat bottom of pan

Give food plenty of space

Be patient

Don't walk away or set heat too high

17) Delicate foods, such as chicken and fish require not browning for great results. Most red meats do best with an initial searing to add flavor and color, just like roasting stock bones. For our chuck roast, we are going to brown all sides in 2 tablespoons of olive oil for about 18 minutes total.