

The Best Roast? Yours! Coffee Roasting 101

Picture entering a coffee shop that roasts its own coffee. The first thing that appeals to your senses is the rich aroma of freshly roasted coffee. Two steps in the door and you are hooked — you've got to have that coffee. The barista pours you a cup of this freshly roasted just ground coffee, and if like me, you have it black. Nothing should impair its taste. The coffee looks, smells and tastes heavenly. This coffee will never taste this good if shelved for a week, let alone a month or more as many whole bean coffees are sold. This is why I home roast.

I began roasting coffee on a whim, purchasing a Cafe Roasto, a hot air roaster, from Mal, the barista and owner of Cafe Bon Ami. From there it was off to the internet to learn the art of roasting and to purchase green beans (green beans are unroasted coffee beans that can be purchased online or from local vendors). The internet has been a great help in providing background information, but the site that is far and away the best is Sweet Maria's. It has many resources, emailed questions are answered and their forums are useful. Local people in the business also have been a great help — they love discussing their trade.

One big surprise I encountered was that there are many different roasts. In my mind there were only three: light, dark, and espresso, but there are many more. Not all beans should be roasted dark because they lose their individual character and taste burnt, which is a common complaint about Starbucks Coffee. On the opposite side of the spectrum is under roasting, which makes coffee bitter — a complaint about Dunkin Donuts. When purchasing beans, ask which roast is recommended. The most common roasts range from a city roast (light) through a French roast (dark). It all depends on where in the cracking phase the roasting ended.

Cracking is the sound the beans make as they roast. Green beans are a lot like popcorn. Both coffee beans and kernels contain water, and under intense heat the water boils within the bean. When the green bean makes a popping sound, the water is released and the chaff, an outer layer of skin on the bean, comes free. When this step is complete, it is a city roast. If a darker roast is desired, keep roasting into the second crack. The sound of a second crack is a lot like the sound of the crackling of burning wood. Some roasts are stopped in the very beginning of the second crack, and darker roasts, later in the crack, but no beans should be roasted till the end of the second crack or they'll end up burnt.

Choosing the coffee beans to roast, though a personal preference, is also important. There are two types of coffee beans: Arabica and Robusta. Arabica beans are a better quality bean and most commonly used by all roasters. Robusta are a cheaper, lower quality bean that has twice as much caffeine as an Arabica bean. These beans are used in almost all canned coffee. Did you know that a can of decaf coffee could have more caffeine than a caffeinated Arabica bean?

I choose beans I roast by asking questions about the quality of the bean when I purchase locally through Mills Coffee. But if I purchase online, I read the descriptions and coffee ratings. Once roasting on a regular basis (at least monthly) you will have a good handle on which beans you want to roast. The hardest beans to roast are decaf, because it is very difficult to hear when the first crack ends and the second crack begins, because the process that turns the beans into decaf affects the amount of water in the bean. Regardless of the bean I use, I have to sit by the roaster and listen for the cracking. My first roaster was the Cafe Roasto, a hot air roaster, but after a year I switched to a Behmor 1600, primarily

because it is quiet, which allows you to hear the cracking more clearly. It also roasts a larger quantity, up to a pound depending on how dark you want it.

There are several types of roasters available, but none in the \$300 to \$1,000 range roast much more than a pound. Roasters that can do 3 pounds or more are commercial roasters cost a significant amount of money. Start small in price and size, then move up to meet your needs.

Once you've roasted your first batch, you'll need a way to grind the beans and brew a cup of the fruits of your labor. Beans are best ground in a burr style grinder, which are found just about anywhere that sells coffee makers. A burr grinder will do anything from a coarse grind to a fine powder. Selections are made by simply turning a dial. The coffee is at its best when ground just before use, but because that is not convenient during the morning rush, I usually grind a batch for several days, then store it in an airtight container.

There are countless ways to make a cup of coffee and which you choose is a matter of preference. Pure coffee enthusiasts usually prefer a French Press, because you get full flavor of the bean. Pod style coffee makers are not the choice of coffee purests. The water passes through the coffee much too fast to absorb the flavors, the ground coffee is sitting in the pods for an extended time, and you have little control over the brew. They sell strictly because they're convenient.

Home roasting is not difficult. With practice you will recognize the different cracking sounds and know the time between cracks, the characteristics of the bean, and the little idiosyncrasies of your roaster. Expect some rookie problems in the beginning. I often missed the stages of the cracking because I was preoccupied with something else and the hot air roaster was so noisy that it obscured the cracking sound. I either ended up with coffee under roasted and too bitter to drink or a barely drinkable dark roast. And smoke detectors were always going off in my house and still do despite my practice — medium and dark roasts produce smoke.

As a home roaster, you can be creative. Blend two or three different kinds of beans or roast the same bean as a dark roast and again as a light roast then blend them. If decaf is your desired roast, home roasting gives you more choices than the two or three offerings in most cafes. There are more decaf green beans available, and through blending, you extend your options. Above all, have fun and enjoy the process from shopping for beans to drinking the freshest, tastiest cup of coffee you will ever drink.