Brewing Fundamentals

Last Tiny Joy we covered Roasting Fundamentals, so this time I want to cover Brewing Fundamentals. I think it is a good idea to double check your brewing technique to make sure you are tasting all you can in the beans. These comments primarily address drip, vacuum or French press brewing, not espresso.

Coffee: The first step to great brewed coffee is to use fresh roasted, fresh ground coffee. Homeroasters have a distinct advantage here because they know their coffee is fresh roasted, and of course since you get coffee from us, you are getting the best coffee possible! Coffee (as it accepts oxygen) stales quickly once ground - flavor oils are very volatile and are quickly lost. So you lose a lot of aroma and flavor if you use pre-ground coffee. [I remember a friend snickering when I told him this - he thought grinding coffee just before brewing was extravagant. But if it results in better flavor - isn't that reason enough? Extravagance be damned! ]

What type of grinder should you use? Different brew methods require different standards of grind - some more exacting than another. We suggest a burr mill grinder in general but whirling blades will generally suffice for drip filter brewing. Vacuum brewing requires a more precise grind, so use a burr mill that can produce a very even medium grind. French press needs an even medium to coarse grind so you do not get too much sediment in the cup and over-extraction.

The standard way to measure ground coffee has been by volume - via a scoop. But what we have found is that, for absolute consistency, it is best to weigh your ground coffee. This makes sense since a lighter roast is more dense than a dark roast, so the mass of coffee that fits in the traditional coffee scoop can vary quite a bit - enough to impact the flavor of what you brew. We use one SCAA coffee scoop measure (~10-11 grams of a light roast, about 8 to 9 grams of a dark roast) - roughly about 2 rounded tablespoons - and 6 oz of water. And there is some room in this for personal preference - I like coffee a bit on the weaker side, Tom likes it stronger. If you know you are always brewing the same roast - for us this is generally a city + roast - using a volumetric scoop is probably fine.

It is important to keep in mind that dark roasts also crumble more easily in a grinder, so you can get more fine particles that can lead to over-extraction. With dark roast coffees, it is better to grind coarser and extract for longer – as long as 5 minutes in a French press. Of course then you can get heat loss – so that is why some folks wrap their French press in towels, or you can use a stainless steel or double wall glass French press. Heat loss can be an issue in any brewing method where you are not constantly adding hot water. To prevent heat loss, some people pre-heat their filtercone or press with hot water before brewing. This might seem like a hassle, but try it and see if it makes a difference. Of course it depends a lot on the ambient temperature where you are brewing.

Tom has started to experiment with a hand-held refractometer to measure total dissolved solids (TDS) and total brew solids (TBS) of brewed coffee. This device allows a quantification of what you taste in the cup and plots the strength of the coffee along two axes, from strong to weak, and underdeveloped to bitter. Tom will be doing more testing with this device and post results with revised recommendations for brewing with different methods.
**Water:** We have always used filtered tap water to make coffee; distilled water is too flat, too devoid of minerals to make good coffee. Water should have some taste, but not so much that it is obtrusive. It's important to use fresh hot water just off-boil at 195-200 degrees. You will not get proper extraction if the water is not in this range. Here at Sweet Maria's we've always preferred coffee brewing methods involving a hot water kettle (like French Press and Filter cone) since you know that the water is the right temperature. We do use an automatic drip machine - the Technivorm KBTS - to brew coffee for the office and warehouse staff since it is easier (less time consuming) and the results are good. We use the switch on the filter to allow the coffee to steep.

It seems that in the last year that people have rediscovered filtercone brewing (did we forget?) with the popular Beehouse ceramic filtercone with their ergonomic style and peek-a-boo window. Filtercone brewing is so simple, just cone, filter, water and coffee. Controlling extraction time can be a problem though and there are all sorts of techniques that people have developed to slow the flow of water through the cone. That is why we are excited about the **Clever Coffee Dripper**, which is a 4# filtercone with a drip stop mechanism that is similar to the switch on the Technivorm but here it is activated by a mechanism on the bottom of the filter. This allows the coffee and water to steep or infuse for as long as you want, and then you release the coffee into a vessel. The result is a more flavorful cup.

In the past few years we've seen a lot of improvements on the brewing front, and it will be exciting to see what develops as new brewing inventions seem to be in regular development these days.

**Which Method to Choose?** There is no one BEST way to make coffee. All the different methods have advantages and disadvantages, either in terms of ease of use and/or clean-up. Some folks like the full-bodied cup you get from French press (which has more dissolved solids) or the cleaner cup that you get from vacuum brewing. It is of course crucial that you keep brewing equipment clean, and that ought to be a factor in what method you choose. A few weeks ago we brewed a couple of bad pots on the Technivorm, and we were all puzzled. Then we cleaned it a few times and that did the trick!

We have a lot more information on Brewing fundamentals here on this page: [http://www.sweetmarias.com/grind.brew.php](http://www.sweetmarias.com/grind.brew.php)

When Tom finishes his tests with the refractometer – he will post results to the Forum: [http://www.sweetmariascoffee.com/forum](http://www.sweetmariascoffee.com/forum)

**Home Roaster's Dream Camp**

On Saturday July 25th, 2009, Josh Housh facilitated a "home roasters dream camp" at our warehouse in Oakland. Each participant was asked to roast two different coffees (Peru FTO San Ignacio Cajamarca and Indonesia Flores Organic Manggarai) to a City+ level so we could compare and contrast cup quality from different roasting methods. Each sample was logged and assigned a random number so we could do a "blind" cupping. The results were very intriguing and we've compiled a detailed list of photos and notes about the results. It was a fun-filled day of roasters sharing stories and profile ideas with each participant getting a chance to try different machines and the group roasting two batches on the 12 kilo Probat. A list of all participants, photos and cupping notes are all posted on line and in the SM forum. Thanks so much to the wonderful folks who attended the first camp, you really did a great job!

We will have future camps on roasting or brewing or other topics so folks can continue to improve their skills. At least for us, there is always something new to learn about coffee.

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