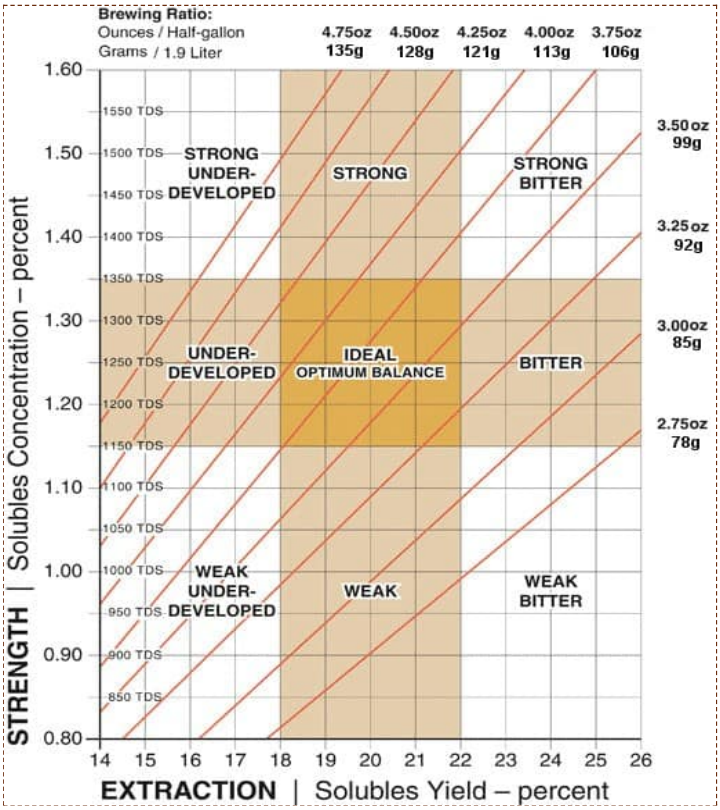

Mountain City Coffee Roasters



***Brewing -- the American Standard:***




The graph above is what's called a "Brewing Control Chart", the key to making whatever coffee you're using taste as good as possible (and not to mention getting all the flavor you're paying for into the pot). It may look a little confusing at first, but a little study will clear that up and there's a worthwhile payoff for your time spent understanding the brew process.

On the left is plotted the **strength** of the brewed coffee, along the bottom is the **extraction**, and the diagonal lines in red indicate the **brew ratio,** the amounts of coffee and water you're brewing with. To use the SCAA brew control chart below, you need those three basic measurements -- the weight of ground coffee in the brew basket, the volume of water poured over that ground coffee, and the strength of the brewed coffee -- and then you can plot these to determine the extraction.

The objective, of course, is get into the 'Optimum Balance' area. Way back in the 1950's, the Coffee Brewing Institute, under the direction of Prof E. E. Lockhart at MIT, asked a lot of coffee drinkers their preferences and determined that there was indeed an optimum balance of extraction and strength. The SCAA repeated this survey at one of their annual conferences and confirmed the people's preference is still about the same today, at least if you're American and the coffee is roasted medium. There is a difference for dark roasted coffee -- it tastes stronger than medium roast -- and Europeans like stronger coffee (but at the same extraction).

### How the chart works

Here, 'strength' means how much of the coffee beverage is actually coffee, so 1.25 on the scale above indicates that 1.25% of what you're drinking are coffee solids dissolved in the water. 'Extraction' means what fraction of the original dry ground coffee has ended up in your cup. For example, if you start with 5 oz of ground coffee, and 1 oz dissolves during brewing, then the extraction is 1/5 or 20%. The red diagonal lines show how much coffee you started with -- for example, the line labeled 3.75oz (106 grams) means you put that much ground coffee into the brew basket. On this particular chart, the brewing formula always assumes 1/2 gal (1.9 liters) of hot water with each coffee weight.

Remember that the brew chart applies to the actual amount of water you pour over the coffee grounds. If you want to end up with 64oz of brewed beverage, you'll need to start with more water -- about 70 oz in this case. To maintain the 4oz/half gallon ratio, you would need to increase the weight of coffee to (70/64) * 4oz = 4.37 oz.

A complete brew analysis looks also at the temperature of the brew water and how long the water is in contact with the coffee, and includes assessments of how fine or coarse the coffee is ground, the

in contact with the coffee, and includes assessments of how fine or coarse the coffee is ground, the bed depth of ground coffee in the brew basket, and how well the spray head is wets the grounds.

For the algebraically inclined, the calculations assume that about 1.5oz of water per oz of ground coffee will remain in the basket after brewing. So if you start with 4oz of ground coffee, pour 1/2 gallon of hot water over it, and measure the strength to be 1300 ppm (1.3% TDS), then the extraction is just

{[64oz water - (4oz coffee x 1.5oz water/oz coffee)] x .013}/4oz coffee ~ 19% extraction

SCAA Back SCAE NCA