

Coffee

A Handbook





Brewing pour over coffee using
the Hario V60.

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In life we have few rituals remaining. Coffee endures.

Every one of us has different memories we associate with coffee. Usually they boil down to a moment of stillness in the vortex of modern life, a slice of reality shared with others in an era of surface connection.

Coffee is the liquid that connects us, the richness of life itself pooled in our favorite cups. Coffee is also one of the most-consumed beverages in the world and a unique opportunity to connect with other humans, where every dollar counts and personal ritual impacts us all.

Coffee also happens to be one of the most complex beverages in existence. It's not easy to understand and a true coffee lover's "favorite" coffee can change daily. Important factors like the country it was grown in, how it was processed, roasted and brewed all effect the flavor profile and ultimately how it tastes in your cup. Our goal with this book is to help you understand all of these factors so you can start tasting coffee like a pro.

Drink well!

WHAT IS *Single Origin?*

crema.co/guides/single-origin-coffee

One of our favorite things about coffee is its diversity.

This magic bean has taken us around the world. In its pursuit we have eaten strange things, climbed breathtaking mountains, drunk rum and sung with stranger-friends under foreign stars. We have picked coffee cherries fresh from the trees and burst their sun-warmed sweetness between our teeth. With each cup, each trip, each fumbling conversation, our worldview broadens; we carry our privileges and responsibilities with more weight and a deeper understanding of where we fit among the billions of people who are all scrambling to thrive in the global economy.





Second-generation coffee farmer Ruben Ramirez in front of his house in Cauca, Colombia.

This diversity extends far beyond our personal experience. Most likely discovered in the verdant mountains of Ethiopia and spread around the world by smugglers, spies, and sneaky lovers, the humble *Coffea Arabica* tree has blanketed the equatorial lands with countless varieties, both man-made and spontaneously occurring. These days, coffee producers from Yemen to Panama labor to bring forth from their own soil a unique flavor that will make an impression on a massive, churning world market. And just when we coffee drinkers start to expect a particular region's beans to taste a certain way, something shifts among the countless variables, and our expectations are redefined.

Simply put, the label "single origin" means that your cup of coffee came from just one country, not several.

From elevation to climate to growing and processing practices, each country has its own complex set of environmental factors influencing how its coffee tastes. When you drink a single origin coffee, you're tasting the shade trees, the soil, and the care that coaxed the trees to produce their best flavors. Tasting, liking, disliking and exploring coffees (something your Brew Log makes simple) is a way of honoring the people and cultures that produced them.

But over the past twenty years, single origin has become a much more nuanced term. Where once it described a single country, now we seek single district, single farm, single genetic variety. When we recognize that every cup of coffee we drink has been loved long before it reached us, the natural progression is to trace the connections as far back as we can to make sure everyone is treated with justice. We become acquainted with coffee farmers, many of whom are multi-generational owners or laborers on the same land their grandparents once tended. The current generation is seeking modern ways to carry on their parents' legacies.

Single origin coffee isn't better than a blend. Blends are legit, and as we said earlier, coffee is intensely personal. But enjoying single origin coffees helps confirm our intention to be thoughtful coffee drinkers, thoughtful humans who grasp where we fit in the value chain while expanding our horizons beyond the concept of homogenous blends.



A CRASH COURSE ON

Roasting

crema.co/guides/coffee-roasts

Once roasted, the beans are dropped into a cooling bin and gently agitated, as shown here.

Are you a dark roast fan (you dig heavy chocolate and toast)? Maybe you prefer your coffees colored light like caramel and bursting with citrus acidity?

Or, do you lie somewhere in the middle, falling for a balanced brew that straddles the line of sweetness and piquancy? Coffee's journey to your cup is a long one full of physical and chemical processes

that ultimately result in the delicious flavor you've come to expect. Starting off as a sweet and spicy red (or yellow, pink, or orange) fruit in its country of origin, the coffee cherry is quickly stripped of its fruit by washing or by drying and friction. The resulting coffee bean (seed) is generally light green in color and even smells slightly vegetal. Once green coffee beans are dumped into a coffee roaster and heat is applied, the magic kicks in.

There are hundreds of aromatic and organic compounds discovered so far in coffee, many times more than are found in wine. Through careful application of heat (380-450 Fahrenheit / 193-232 Celsius) over



Light

Light roasting lets the terroir (taste characteristics influenced by soil, water, etc.) of the origin country shine through. Coffees tend to have bright acidity and a light caramel color.



Medium

Medium roasting balances coffee's natural acidity and vibrancy with its sweetness and caramelization of sugars. Coffees are a milk chocolate color.



Dark

The classic roasting style, which brings out woody, chocolate, and heavy body in coffee and produces a shiny dark brown coffee bean. Stands up beautifully to milk and sugar.

time, roasters can coax specific compounds to the forefront to design the ideal coffee experience for your mouth.

In the first stage of roasting, coffee dries, losing its water content in the form of steam. At this stage, it smells vegetal, leading through the yellowing stage to the most exciting part: First Crack! This is when you might wonder if some corn kernels slipped into the roaster drum, as audible "pops" sound. First Crack is where many lighter-roasted coffees are dropped into the cooling tray of the roaster, maximizing organic acids and resulting in bright, articulate coffees.

Just before First Crack, caramelization of the natural sugars in the bean begins, a process which continues during the development stage. Through careful heat application roasters can balance the browning of sugars with the brightness of organic acids, creating a delicate, complex dance between caramel and fruit.

And then, along comes Second Crack. At this point in the roasting process, the coffee's cellular structure is breaking down and the roaster begins to impart smokiness to the bean. Coffee dropped at this stage can be magical, with dark chocolate and fruits balanced with a bitterness ranging from cocoa to carbon. Beyond this point is the historic "French Roast" development, visually identified by the sheen of coffee oil on the outside of the bean.

AN OVERVIEW OF *Flavor Profiles*

crema.co/guides/coffee-flavor-profiles

You know what you like. You know how deep into detail you dive when you describe your favorite meal or your ideal cup of coffee.

We can safely assume at this stage in our relationship that you're a dedicated coffee drinker, and that you have a personal relationship with the sensory attributes of this beverage. Interestingly, the very subjective na-



ture of this relationship between us and our beverages makes coffee assessment complicated. You and your spouse may disagree on the attributes of the same cup of coffee, and who's to say you aren't both right?

With hundreds of chemical and organic compounds contained in the tiny brown bean (and more being discovered constantly), and with many factors influencing which compounds you taste, this complexity makes sense. The genetics of the particular coffee plant influence its flavor, as does the soil in which it grows and the kind of water it receives. Additionally, even within the same variety, every coffee plant reacts differently to the same factors, and many coffees are blends of local groupings of plants. Or even different regions or countries.

Historically, coffee research has lagged centuries behind the comparable discipline of wine, only really beginning a couple hundred years ago. The first mapping of coffee's flavor profile was done a little over 20 years ago by the Specialty Coffee Association (SCA) and resulted in the first Coffee Taster's Flavor Wheel. More recently, World Coffee Research (WCR) coordinated the largest coffee research project yet, subsequently producing the WCR Sensory Lexicon, which identifies 110 flavor, aroma, and texture attributes of coffee. In turn, the SCA updated its Flavor Wheel (pictured on the previous page). The result is another step toward objective coffee assessment so we can all better understand exactly what we like or

dislike in coffee and adjust production and purchasing accordingly.

Professional coffee "cuppers" have rigorous protocols for assessment of coffees. These include a format for tasting that follows cooling coffee through its flavor arc and evaluates the relevant compounds starting with Fragrance and Aroma, observing through Flavor and Aftertaste, Acidity and Body, and ending with uniformity and defect analysis. The end result? A nuanced flavor profile analysis that can be used to inform producers on better farming and processing practices, set market value, and determine ideal customer demographics.

For you as a coffee drinker, knowing the level of attention that cuppers and coffee quality graders pay to developing and accurately representing the flavor profile of your coffee can be empowering. You can also choose to track your likes and dislikes through your Brew Log. This unique feature lets you observe not only the countries and growing regions you like most, but also a beautiful branching visual map of the flavor attributes you gravitate toward.

Next time you brew up a batch of coffee, pay close attention to the evolution of the cup. Try this: sniff the dry grounds, noting fragrances. After you add water, smell again to detect flavor-to-aroma development and changes. Then as you first sip the coffee, think about the acidity: is it sprightly, like soda, or bright like citrus? You know what you like.



AN INTRO TO *Coffee* *Processing*

crema.co/guides/coffee-processing-methods

Like any plant, the coffee tree responds to careful nurture.

And, like most plants, it can thrive under challenging conditions and yet emerge unscathed. In areas of Ethiopia, where coffee was discovered centuries ago, wild “heirloom” coffee bushes proliferate everywhere—by the roadsides, on the hills, untended. On the other

end of the spectrum, in some countries—Colombia and Brazil, for example—research and mechanization have changed the face of coffee growing, and many new cultivars are produced in laboratories.

Coffee climates are typically found within 1,000 miles of the equator, and coffee grows sweeter as the altitude rises, until around 7,000 feet (2,100 meters) above sea level. At this point, the climate ceases to be temperate enough to permit growth. Coffee plants are usually nurtured from seed to seedling and then transplanted to the field, beginning to produce fruit in their fourth or fifth year. With careful tending, coffee trees can last for upwards of 40 years, depending on the variety.

Picture a coffee tree glowing with health and bursting with ripe fruit, often a deep pie-cherry or dark burgundy red. Producers and harvesters who understand the demands of specialty coffee pick only fully-ripe (in Latin America, *maduro*) cherries, weighing them up at the end of the day, pouring them from baskets, and preparing them for either wet or dry processing.

Coffee processing removes the fruit from the seed; skin, pulp, parchment, and silverskin slough off to reveal a beautiful bean. Ranging from pale yellow to pale green, if bitten, the bean gives slightly under the tooth.

In countries where water is plentiful, the cherries are usually passed through a pulping machine, sorted by weight, and deposited in a fermentation tank. Here, naturally occurring enzymes dissolve the pulp until it can be washed from the bean, a process that takes 12 to 72 hours depending on factors such as temperature and humidity. Once fermented, the washed coffee, still in its parchment (filmy, paper-like covering) is spread out to dry until it reaches around 11% moisture content. At this point, the seed is stabilized and won't germinate. This is commonly called a "Washed" process.

In other countries where water is not as readily available, freshly-picked cherries are spread out on tarps, patios, and even sometimes along the road—wherever the fruit can best dry in the sun. Reaching optimal moisture content can take weeks. During this drying process, the coffees are regularly turned with rakes to ensure even drying. This is commonly called a "Pulped Natural", "Semi-Washed", "Honey" (Miel) Process.

Whether wet or dry processed, hulling then removes the parchment from bean. Methods for hulling range from primitive hand mills to highly sophisticated equipment. Once hulled, coffees are sorted into screen sizes and then defect sorting takes place—sometimes a line of 80-plus women visually inspecting and removing defects, sometimes cutting-edge laser sorters performing this important step.



WHAT ARE COFFEE *Varieties?*

crema.co/guides/varieties

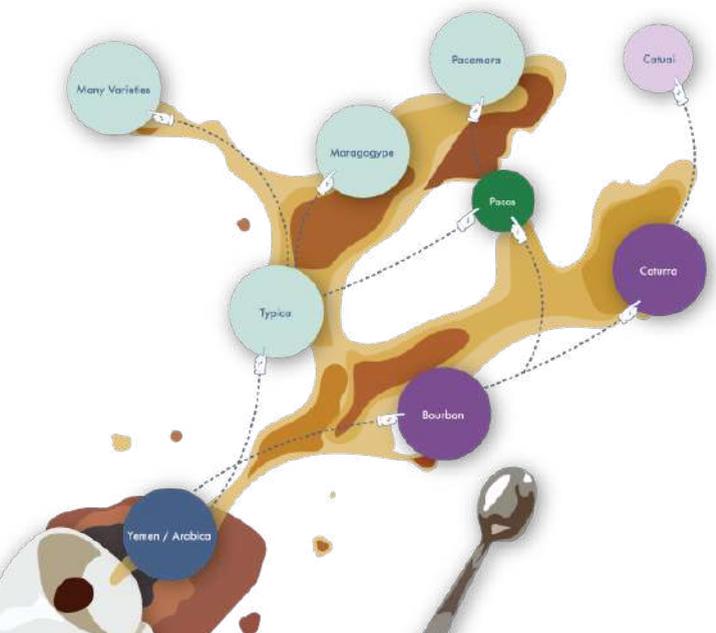
Coffee sprang from nothing (like the gods from Zeus's forehead) in the rolling highlands of southern Ethiopia or so some say...



Fresh coffee cherries
before they've been picked.

Beginning with a leap to Yemen early on, coffee was spread through the world through espionage, lover's assignations, and the blight of colonialism. Usually, a single sprig of coffee was transplanted, and from that would come new cultivars, varietals, and hybrids.

Basic varieties origin chart:



Essential coffee varieties:

- **Typica**
This is considered the original variety from which all other varieties have mutated or been genetically selected .
- **Bourbon**
Named for the island (now La Réunion) to which the French transplanted coffee plants from Yemen.
- **Ethiopia Heirloom**
The climate of Ethiopia naturally nurtures these varieties. This variety is the genetic key to coffee's future.
- **Caturra**
A natural mutation of the Bourbon plant, Caturra has been selectively bred for the dwarf gene that results in low-to-the-ground trees.
- **Geisha**
A delicate, fruity and balanced coffee that performs beautiful at very high altitudes with careful cultivation.
- **SL-28**
Created in Kenya by Scott Laboratories in the 1930s, selected from a drought resistant variety from Tanzania.



HOW TO BREW

Coffee

crema.co/guides/how-to-brew-coffee

Coffee-brewing is as simple or as complex as you make it.

At its heart, brewing coffee is the act of breaking open coffee beans and then exposing the grounds to hot water (extraction). The result is that organic compounds within the bean are absorbed into the water and coffee is born.

Good coffee, however, is the result of an alignment of a number of variables including the four most important: water temperature, grind size, length of brew, and coffee-to-water ratio.

Water temperature influences how bitter your coffee is. It's most efficient in extracting in the "safe range" of 195-205 Fahrenheit (90-96 Celsius), resulting in a better cup. Temperature will vary based on your elevation.

Grind size is important, since it dictates how much of the coffee's surface is exposed to the water and how evenly it extracts. We recommend a burr grinder.

Brew time impacts which compounds are dissolved into the water—pleasant or unpleasant.

Coffee-to-water ratio is a sticky topic that can boil down to personal preference and that depends on the coffee and other factors.



HOW TO BREW

French Press

crema.co/guides/french-press-coffee

The French Press is the perfect low-maintenance brew method for lazy Sunday mornings. Done right, it produces a creamy-bodied coffee.

Coffee

27g (5 Tbsp) coffee, coarsely ground

Water

400g (1.75 cups) water

Time

4 minutes

Equipment

4-cup French Press
Chopstick or spoon for stirring
Kitchen timer
Kitchen scale

Recipe is for the 4-cup (17-oz/500-ml) French Press, which makes 2 small mugs of coffee. Double everything for the 8-cup (34-oz/1000-ml) version.



Step 1: Prepare

Preheat your press with hot water, then pour hot water into your cup. Measure 5 Tbsp (27 grams) of coffee and grind. It should have the consistency of kosher salt.



Step 2: Add coffee

Tip your coffee into the press and give it a gentle shake to level the grounds.



Step 3: Add water

Starting the timer, add water in a circular motion, wetting all the grounds, until the press is half full. Pause and enjoy the bloom.



Step 4: Stir

30 seconds in, give the grounds a gentle stir with a chopstick or spoon.

Step 5: Add more water

Evenly pour water to the top of the press and add the lid, gently resting the plunger on the grounds. (Around 400g of water altogether.)



Step 6: Plunge

Wait until your timer reads 4:00, then slowly push the plunger all the way down.



Step 7: Pour

Immediately decant the coffee to prevent over-extraction.



Step 8: Enjoy

Enjoy with friends, by yourself, or with the dog.





HOW TO BREW

Pour Over

crema.co/guides/hario-v60-pour-over

*Pour over brewing puts you in complete control of the process. Whether you use the **Kalita Wave**, **Bee House**, **Bonmac** or **Hario V60**, this is a simple and elegant option.*

Coffee

25g (4 Tbsp) coffee, medium grind

Water

375g (1.5 cups) water, just off boil

Time

2.5 - 3 minutes

Equipment

Hario V60

1 paper filter

While we're using the Hario V60 in this guide, the same recipe also applies to other pour-over drippers such as the Bee House, Kalita Wave, and Bonmac.



Step 1: Rinse filter

Insert filter and rinse with hot water to remove paper residue and pre-heat vessels. Discard water.



Step 4: Add more water

Gradually pour the remaining water in circular motions until all 375 grams have been added.



Step 2: Add coffee

Add 25 grams (about 4 tablespoons) of medium-ground coffee.



Step 5: Remove dripper

Once the coffee has finished brewing—ideally around the 2.5 to 3 minute mark—discard the grounds.



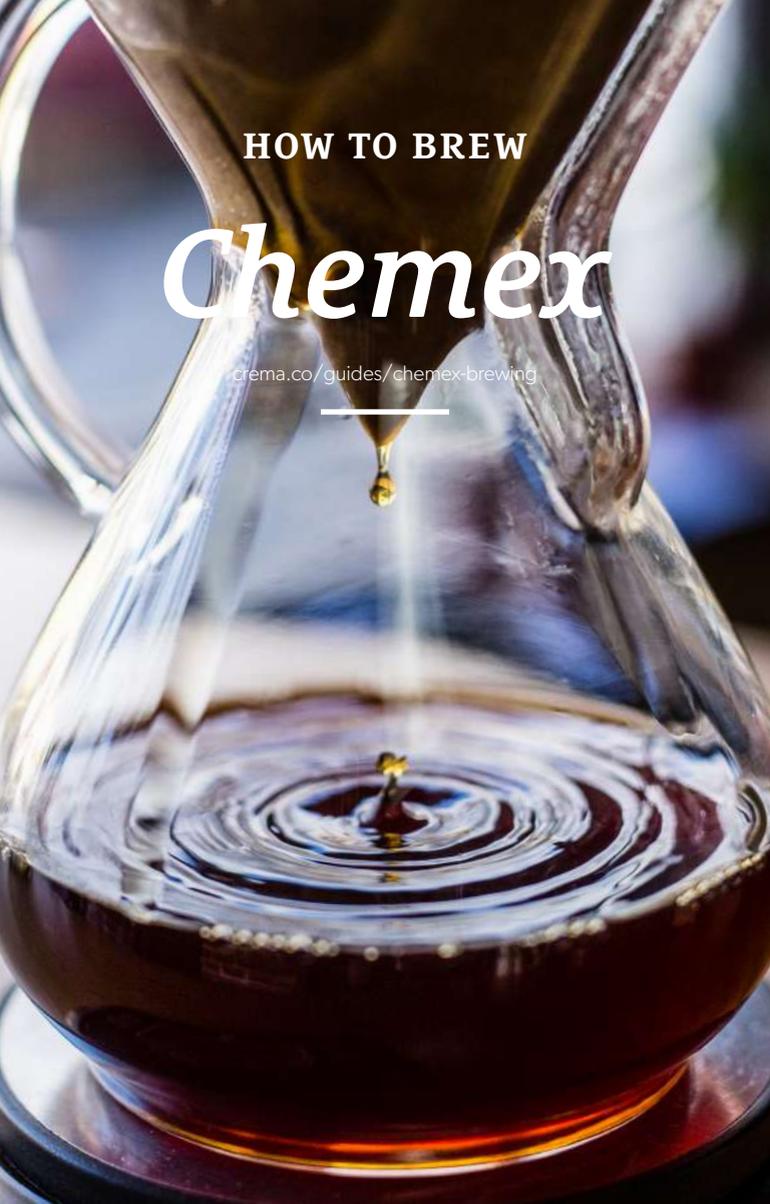
Step 3: Initial pour

Submerge the coffee in 75 grams of water, then pause for 30 seconds to let it bloom.



Step 6: Enjoy

Enjoy a delicious cup of coffee.



HOW TO BREW

Chemex

crema.co/guides/chemex-brewing

The curvy Chemex is both a stylish brewing device and a manifestation of pop culture—it's housed in the MOMA and has been called "one of the best-designed products of modern times."

Coffee

35g (5.5 Tbsp) coffee, coarsly ground

Water

525g (2 cups) water

Time

4 minutes

Equipment

Chemex
1 Chemex filter
Kitchen scale

This recipe is for the 6-cup (30-oz./890-ml) Chemex, but you can follow the same steps for other sizes too.



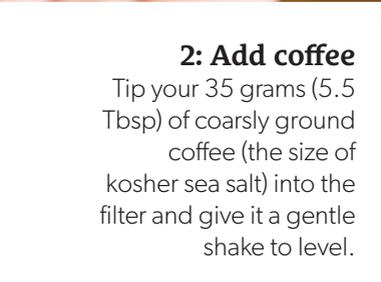
1: Rinse filter

Unfold the Chemex filter so that three layers cover the spout. Pre-heat your Chemex and filter with hot water.



5: Add water

Half a minute in, begin the main pour in a slow, circular movement until the water nears the top.



2: Add coffee

Tip your 35 grams (5.5 Tbsp) of coarsely ground coffee (the size of kosher sea salt) into the filter and give it a gentle shake to level.



6: Add more water

Allow the water level to lower, then add the remaining water until you reach 525g.



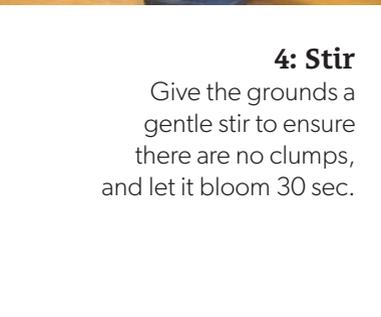
3: Wet the grounds

Starting the timer, pour just enough water to saturate the grounds.



7: Ponder

Let the coffee finish draining. The entire brew process should clock in around 4 minutes.



4: Stir

Give the grounds a gentle stir to ensure there are no clumps, and let it bloom 30 sec.



8: Enjoy

Enjoy a delicious cup of coffee with a friend. Don't spill!





HOW TO BREW

AeroPress

crema.co/guides/aeropress

This small and unique brewer gives you the option of deliciously brewed coffee wherever you may travel. Think french press meets pour over... You get the clean brew from the filter while still getting the full infusion of a french press.

Coffee

17g coffee, light / medium grind

Water

220 g water

Equipment

AeroPress
AeroPress Filters

This recipe is for the AeroPress coffee maker currently available in one size. Makes 1 - 3 cups per pressing.



Step 1: Grind

Grind 1 AeroPress spoon's worth (about 17 grams) of coffee to the consistency of table salt.



Step 2: Add coffee

Place the AeroPress basket to the top of your mug or carafe and pour your coffee grounds into the basket.



Step 3: Add water

Pour water in the brewer until you reach the number 4 printed on the brewer, or about 220 grams of water.

Step 4: Stir & wait

Stir your coffee quickly. Then place the plunger barely on the top (don't push down yet!) Push it down at a slight angle just enough so it stays, then ever so slightly pull up, creating some pressure. Leave it in.



Step 5: Plunge

After 1 minute and 15 seconds pull off your plunger, stir once more, put the plunger back in and slowly push down. Push until you hear a slight hiss.



Step 6: Enjoy

Clean out your AeroPress and sip on your fresh brewed coffee.



HOW TO BREW

Ratio

ratiocoffee.com/how-to-brew-with-ratio-eight/

Our personal favorite way to brew, the Ratio home brewers are beautifully designed to take the guesswork out of brewing. Just one touch and it all magically comes together.

Coffee

35 - 70g coffee, medium grind

Water

Desired level of water

Equipment

Ratio Home Brewer
Chemex paper filter or Ratio Kone

Works for the Ratio 8 and Ratio 6 home brewers.
View collection at ratiocoffee.com



Step 1: Choose

It's important to choose delicious beans for the Ratio—we recommend any range from light to dark as the Ratio has the incredible ability to maintain all those yummy flavors.



Step 2: Add water

Fill to desired level with fresh, cool water. If using Ratio carafe to transfer water, ensure it is free of coffee residue from previous brews.



Step 3: Grind

Add freshly ground coffee to your filter. We recommend starting with 14 level tablespoons, or 70 grams for a full batch. For a half batch, add 7 level tablespoons, or 35 grams.

Step 4: Push

Simply press the start button and you're all done. While your beautiful machine brews your coffee for you, compose a haiku.



Step 5: Pour

Pour your fresh and delicious coffee from your lovely Ratio carafe. Make sure to use your favorite mug!



Step 6: Enjoy

You've got coffee. Your day can get started now!





WHAT YOU

NEED TO KNOW ABOUT

Farmer. Roaster. You.

Get to know the people
who grow and roast your coffee.

Crema.co

Browse Coffees

Your Playlist

Your Playlist is like a playlist for coffee.

1. Add coffees to your Playlist
2. Set a shipment frequency
3. Get the next coffee on your Playlist each delivery

You can update or pause your Playlist at any time.
Each coffee is roasted to order, just for you. Yay!

Your Brew Log

The Brew Log is a snapshot of your coffee palate that helps you explore the characteristics behind the coffees you love—from flavors and aromas, to roasting styles and origins.

Rate Your Coffee

The more coffees you rate, the more we learn about what coffee you enjoy, and the more personalized our recommendations for you will become.



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