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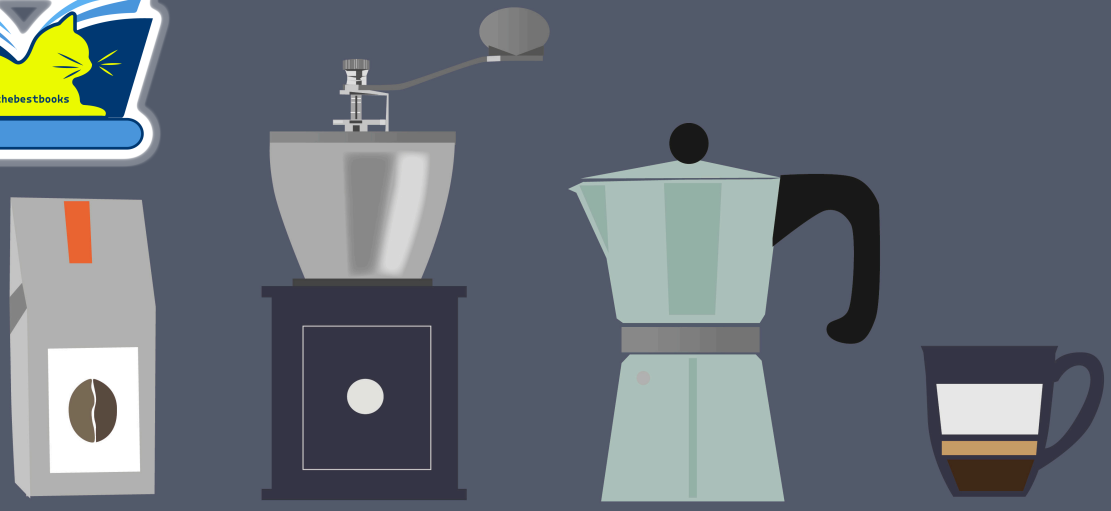
THE COFFEE BOOK



BARISTA TIPS • RECIPES • BEANS FROM AROUND THE WORLD

Previously published as *Coffee Obsession*

ANETTE MOLDVAER

THE COFFEE BOOK

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CONTENTS

INTRODUCTION

CAFÉ CULTURE

For millions all over the world, sitting in a café with a delicious coffee is one of life's great pleasures. Elevating this experience is the specialty café—where a skilled barista can make you a good-quality coffee, just how you like it.

THE CAFÉ EXPERIENCE

Cafés are at the heart of established traditions that go back centuries—from the café au lait in a Parisian café to the bottomless coffee mug in a Texas diner. More of us frequent cafés than ever before, thanks to coffee's flourishing popularity in China, India, Russia, and Japan. Even though drinking coffee is just a normal part of everyday life for many, it is still a new and exciting experience for countless others.

With this fresh passion for coffee, every day an increasing number of specialty cafés open around the world. Visiting such cafés, where you can experience an array of varieties, roasts, and styles, is no longer just for coffee connoisseurs. For anyone who appreciates the value of quality, sustainability, and care, a specialty coffeehouse is the perfect place to socialize, explore new flavors, and soak up a unique atmosphere.

COFFEE IS JUST A PART OF LIFE FOR MANY, BUT FOR SOME, IT IS A NEW AND EXCITING PHENOMENON.

THE CAFÉ ETHOS

It is so easy to take coffee's long journey from farm to cup for granted. Not everyone is aware that a coffee bean is the seed of a fruit or that it needs to be roasted before it can be ground and brewed. An increasing number of cafés treat coffee as the fresh, seasonal product that it is and promote it as an ingredient and a drink that takes skill to grow and prepare. They highlight and celebrate the vast range of unique flavors out there, helping reveal the provenance and human story behind the beans.

Thanks to specialty cafés, coffee lovers are becoming aware of the complexities of production, trade, and preparation. The challenges growers face—with low prices and a treacherous commodity market—have spurred an increasing demand for sustainably traded coffees. The concept that "quality costs more" has long been acceptable when it comes to food and wine, and rapidly consumers are realizing that the same rule should apply to coffee.

While the balance between supply, demand, cost, and ecology is one that remains challenging and unpredictable, specialty coffee companies lead with a focus on quality, transparency, and sustainability. With such an increasing cultural shift that focuses on coffee cultivation and preparation, specialty cafés are more important than ever.

THE BARISTA

A barista in a specialty café is akin to a sommelier in the world of wine. He or she is a professional with expert knowledge, capable of advising you on how to prepare coffee in a way that not only gives you a caffeine kick but also makes it taste interesting, exciting, and, most importantly, good.

THE JOURNEY OF COFFEE

The history of how coffee spread across the world is a story of a world changing. It is a story of religion, slavery, smuggling, love, and community. Although gaps remain, we can trace its journey with the help of both fact and legend.

EARLY DISCOVERIES

Coffee was discovered at least 1,000 years ago. No one knows for sure, but many believe that the origins of Arabica lie in South Sudan and Ethiopia and that Robusta was born in West Africa. Even before the seeds were roasted, ground, and brewed to make the coffee we drink today, coffee cherries and leaves were used for their invigorating properties. Traveling herders in Africa mixed coffee seeds with fat and spices to create "energy bars" for the long periods of time spent away from their homes. The coffee leaves and cherry skin were also boiled to create an invigorating, caffeine-rich infusion.

It is thought that coffee was carried to Yemen and Arabia by African slaves. In the 1400s, Sufis drank a tea made from coffee cherries called "quishr" or "Arabian wine" that helped them stay awake during nightly prayers. The news of its stimulating effects spread, and spaces opened where traders and scholars could drink and interact freely, known as "schools for the wise."

Some people worried that quishr was incompatible with religious beliefs, but these early cafés stayed open and increased coffee's popularity. By the 1500s, Arabs had started to roast and grind the cherry beans to create a coffee much like that we enjoy today, which spread to Turkey, Egypt, and North Africa.

KEY

1600s
- YEMEN TO NETHERLANDS
- YEMEN TO INDIA
- NETHERLANDS TO INDIA, JAVA, SURINAME, AND FRANCE

1700s
- FRANCE TO HAITI, MARTINIQUE, FRENCH GUIANA, AND RÉUNION ISLAND
- RÉUNION TO CENTRAL AND SOUTH AMERICA
- MARTINIQUE TO CARIBBEAN, CENTRAL AND SOUTH AMERICA
- HAITI TO JAMAICA
- FRENCH GUIANA TO BRAZIL

1800s
- BRAZIL TO EAST AFRICA
- RÉUNION TO EAST AFRICA

COLONIAL SPREAD

The first to trade coffee, the Arabs were so protective of their coffee that they boiled the beans so that no one else could cultivate them.

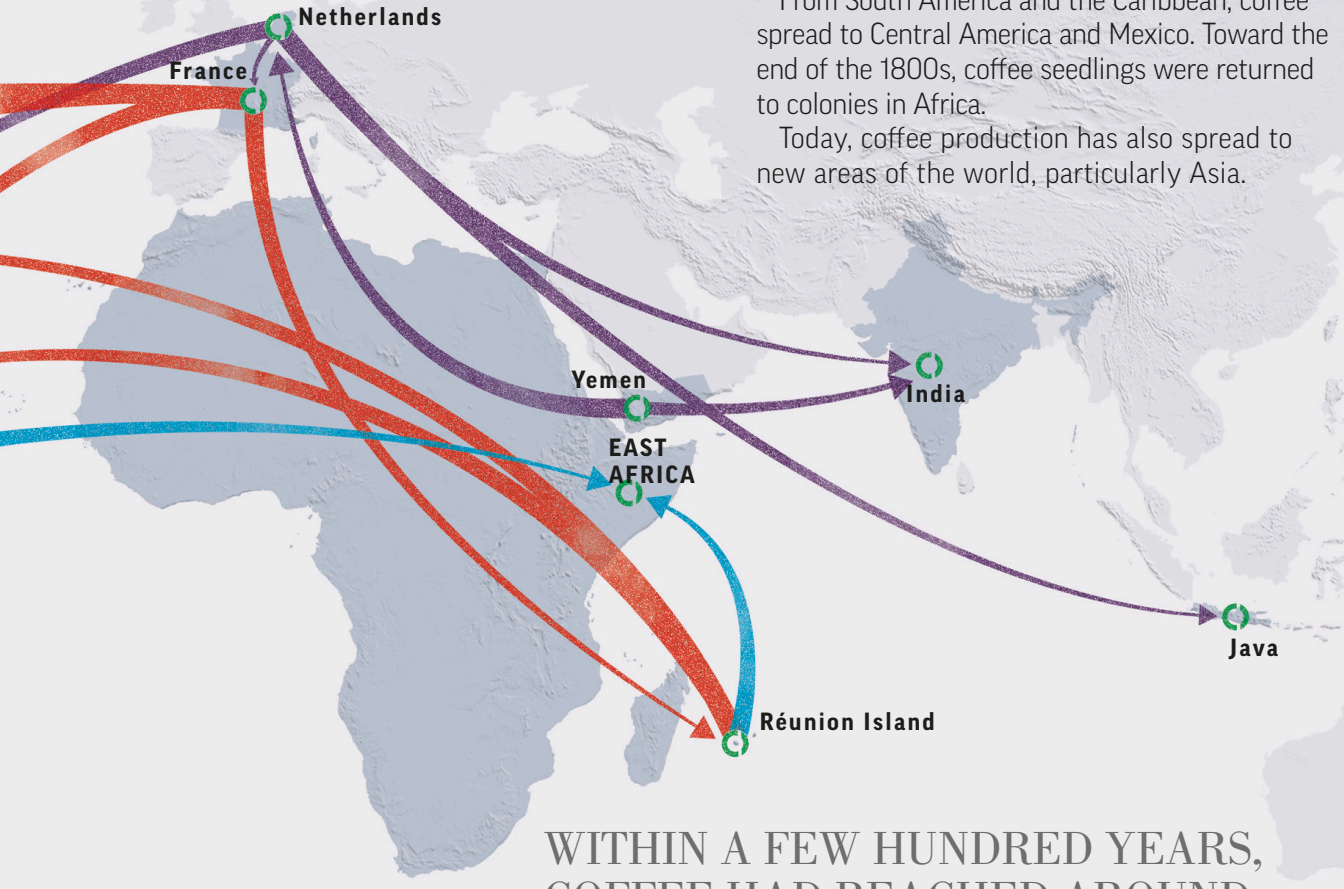
However, in the early 1600s, a Sufi smuggled seeds from Yemen to India, and a Dutch trader smuggled seedlings from Yemen and planted them in Amsterdam. By the end of the 17th century, coffee had been planted in the Dutch colonies, particularly throughout Indonesia.

The Caribbean and South American colonies planted coffee in the early 1700s. The Dutch gave seedlings as a gift to the French, who took them to Haiti, Martinique, and French Guiana. The Dutch planted their coffee in Suriname, and the British brought coffee from Haiti to Jamaica.

In 1727, the Portuguese sent a naval officer from Brazil to French Guiana to bring back coffee seeds. Legend has it that he was denied, so seduced the governor's wife, who smuggled them to him in a bouquet spiked with seedlings.

From South America and the Caribbean, coffee spread to Central America and Mexico. Toward the end of the 1800s, coffee seedlings were returned to colonies in Africa.

Today, coffee production has also spread to new areas of the world, particularly Asia.



WITHIN A FEW HUNDRED YEARS, COFFEE HAD REACHED AROUND THE WORLD, FIRST AS A BEVERAGE, THEN AS A COMMODITY.

SPECIES AND VARIETIES

As with grapes for wine and hops for beer, coffee cherries come from a tree that has numerous species and varieties. Although only a few of these spread across the world, new varieties are continually being cultivated.

COFFEA SPECIES

The genus of this flowering tree is called *Coffea*. A modern way of classifying *Coffea* is evolving, as scientists continually discover new species. Nobody knows exactly how many there are, but to date, around 124 species of *Coffea* have been identified—more than double that of just 20 years ago.

Coffea species are found growing wild, mainly in Madagascar and Africa as well as in the Mascarene Islands, Comoros, Asia, and Australia.

Only the species *C. arabica* and *C. canephora* (commonly known as Arabica and Robusta) are widely grown for commercial purposes, representing around 99 percent of production worldwide. It is believed that *C. arabica* came from a cross of *C. canephora* and *C. eugenioides* that happened around the border of Ethiopia and South Sudan. Some countries also grow small amounts of *C. liberica* and *C. excelsa* for local consumption.

ARABICA AND ROBUSTA VARIETIES

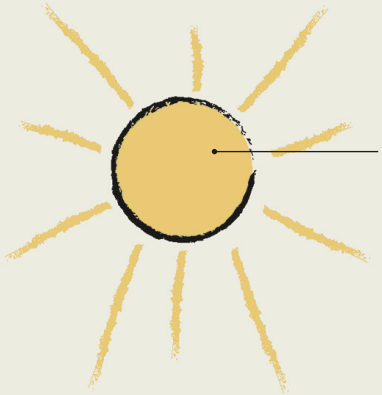
There are many cultivated varieties of Arabica. Records of how it spread around the world are incomplete and sometimes conflicting, but of the thousands of native varieties in Ethiopia and South Sudan, only a few were taken out of Africa, first to Yemen, and from there to other countries (see pp.10–11).

These trees were referred to as Typica, a generalized name for "ordinary" coffee. Typica trees planted in Java were the genetic starting point for the trees that spread to the rest of the world. Bourbon, another of our earliest known varieties, was a natural mutation of Typica that evolved from around the mid-18th to the late 19th century on Bourbon Island, now known as Réunion Island. Today, most varieties are natural or cultivated mutations of these two varieties.

C. canephora was native to West Africa. From the Belgian Congo, seedlings were also planted in Java. From there, it spread across the world to nearly all the Arabica-producing countries. There are several varieties of the species, but they are all commonly referred to as simply Robusta. In addition, Arabica and Robusta have been cultivated together to create new varieties.

The look and flavor of coffee is influenced by many forces, such as soil, sun exposure, rainfall patterns, wind patterns, pests, and diseases. Many varieties are genetically similar but have acquired different regional or local names. This makes it difficult to map accurately the development of Arabica and Robusta, but the family tree (overleaf) shows some of the most commonly grown varieties of these species.

THE *COFFEA* GENUS



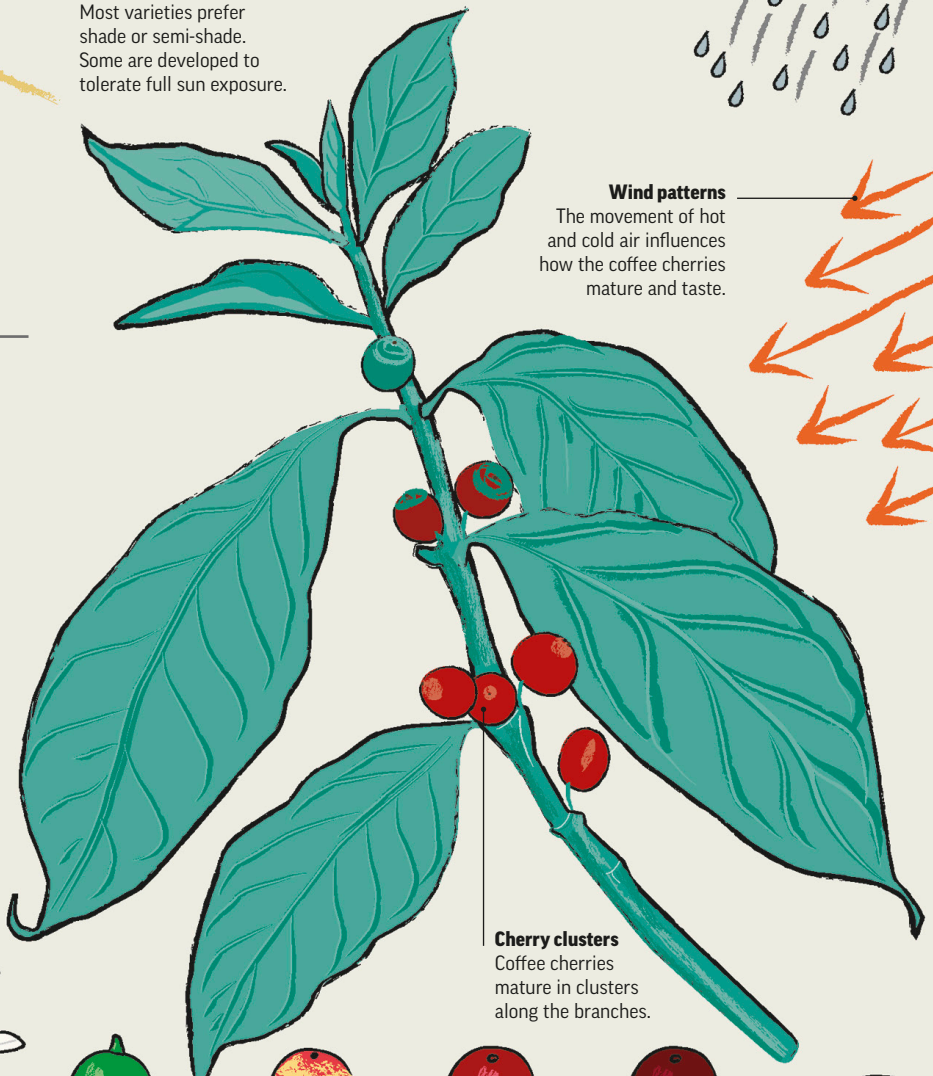
Sun exposure
Most varieties prefer shade or semi-shade. Some are developed to tolerate full sun exposure.

Rainfall patterns
Whether a farm receives frequent showers throughout the year or is in an area with defined wet and dry seasons, rainfall patterns determine flowering times.

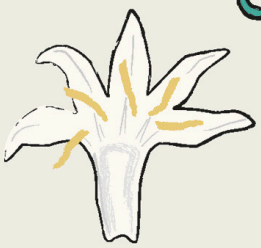
Wind patterns
The movement of hot and cold air influences how the coffee cherries mature and taste.

COFFEA

Kingdom: Plantae
Class: Equisetopsida
Subclass: Magnoliidae
Superorder: Asteranae
Order: Gentianales
Family: Rubiaceae
Sub family: Ixoroideae
Tribe: Coffeeae
Genus: *Coffea*
Main commercial species: *Coffea arabica* and *Coffea canephora* (commonly known as Robusta)



Cherry clusters
Coffee cherries mature in clusters along the branches.



Coffee flowers
These flowers are sweet-scented, reminiscent of jasmine.

Unripe coffee cherry
Cherries grow to full size as green, hard fruit.

Softened coffee cherry
The fruit slowly changes color and softens.

Ripe coffee cherry
Most cherries turn red, although varieties exist.

Overripe coffee cherry
Cherries sweeten as they deepen in color but turn bad quickly.

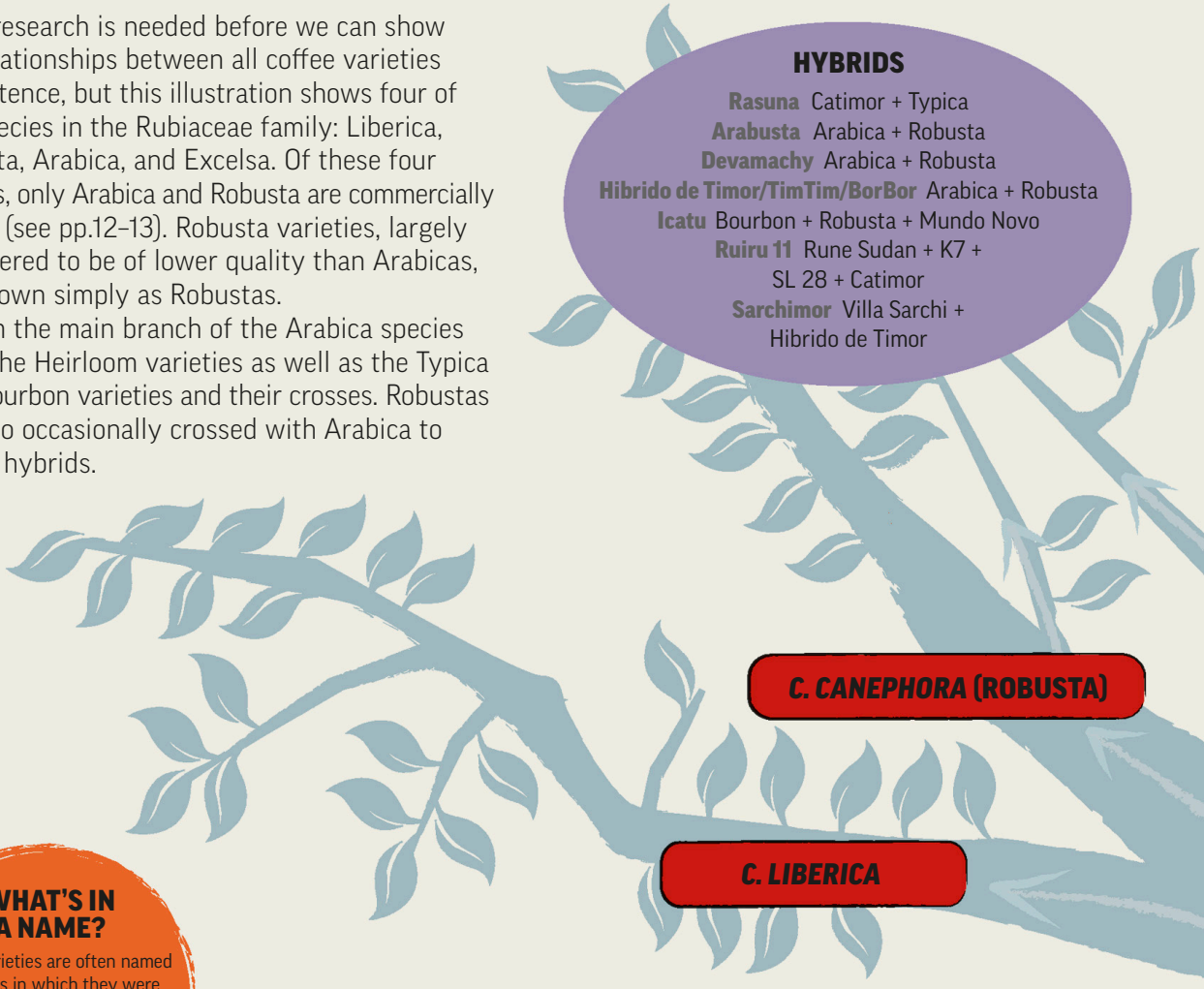
Cross section
Each cherry contains mucilage, parchment, and seeds (see p.16).

THE FAMILY TREE

This simplified tree helps explain the key relationships in the coffee family. As botanists discover new species and varieties with interesting flavors and properties, the family tree continues to grow and develop.

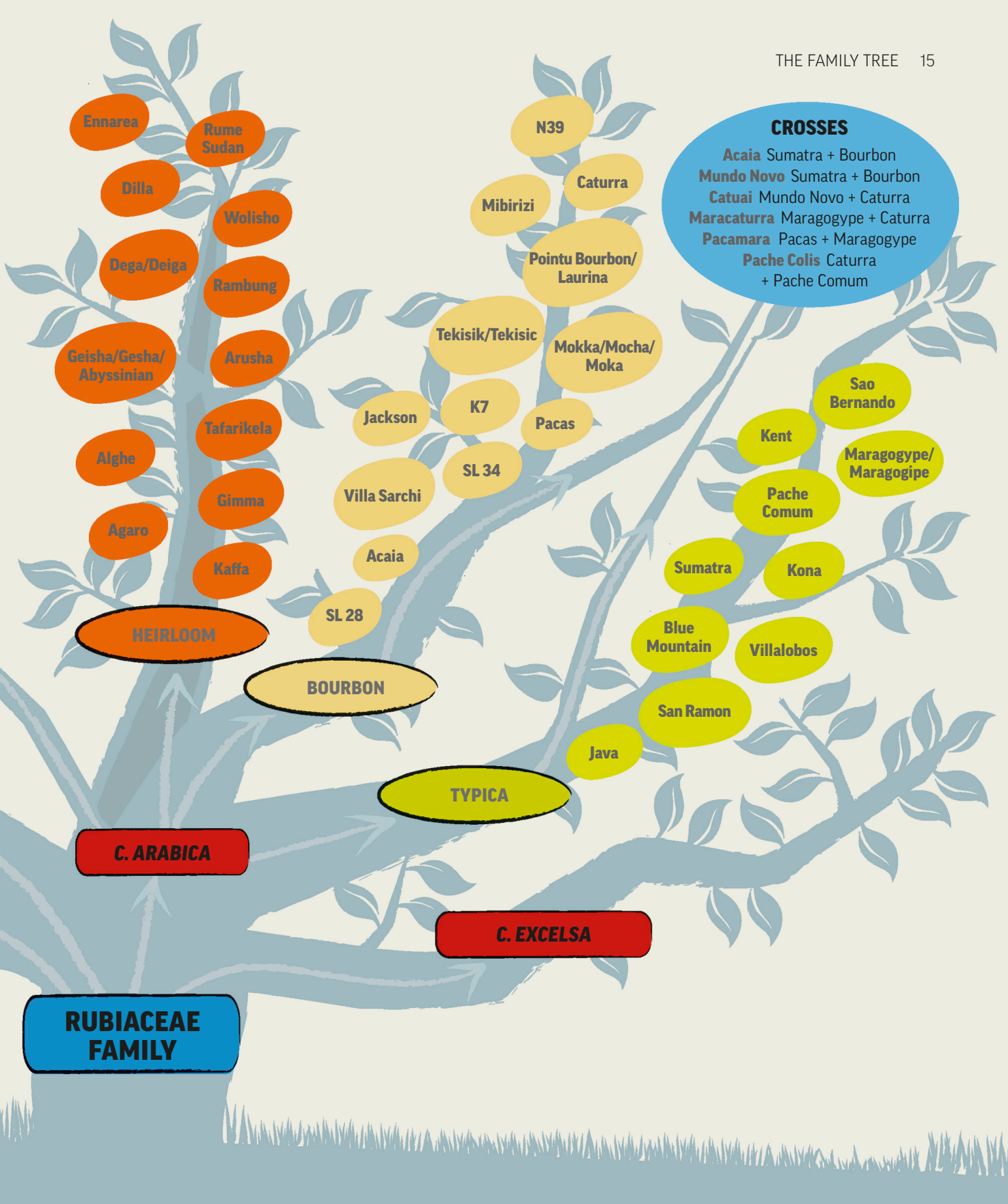
More research is needed before we can show the relationships between all coffee varieties in existence, but this illustration shows four of the species in the Rubiaceae family: Liberica, Robusta, Arabica, and Excelsa. Of these four species, only Arabica and Robusta are commercially grown (see pp.12–13). Robusta varieties, largely considered to be of lower quality than Arabicas, are known simply as Robustas.

From the main branch of the Arabica species stem the Heirloom varieties as well as the Typica and Bourbon varieties and their crosses. Robustas are also occasionally crossed with Arabica to create hybrids.



WHAT'S IN A NAME?

Arabica varieties are often named after areas in which they were first identified and are known by many local names and spellings—for example, the Geisha variety is also known as Gesha or Abyssinian.


Ennarea
Rume Sudan
Dilla
Wolisho
Dega/Deiga
Rambung
Geisha/Gesha/ Abyssinian
Arusha
Tafarikela
Alghe
Gimma
Agaro
Kaffa
HEIRLOOM
N39
Caturra
Mibirizi
Pointu Bourbon/ Laurina
Tekisik/Tekisic
Mokka/Mocha/ Moka
Jackson
K7
Pacas
SL 34
Villa Sarchi
Acaia
SL 28
BOURBON
Sao Bernando
Kent
Maragogype/ Maragogipe
Pache Comum
Sumatra
Kona
Blue Mountain
Villalobos
San Ramon
Java
TYPICA
C. ARABICA
C. EXCELSA
RUBIACEAE FAMILY
CROSSES
Acaia Sumatra + Bourbon
Mundo Novo Sumatra + Bourbon
Catuai Mundo Novo + Caturra
Maracaturra Maragogype + Caturra
Pacamara Pacas + Maragogype
Pache Colis Caturra + Pache Comum

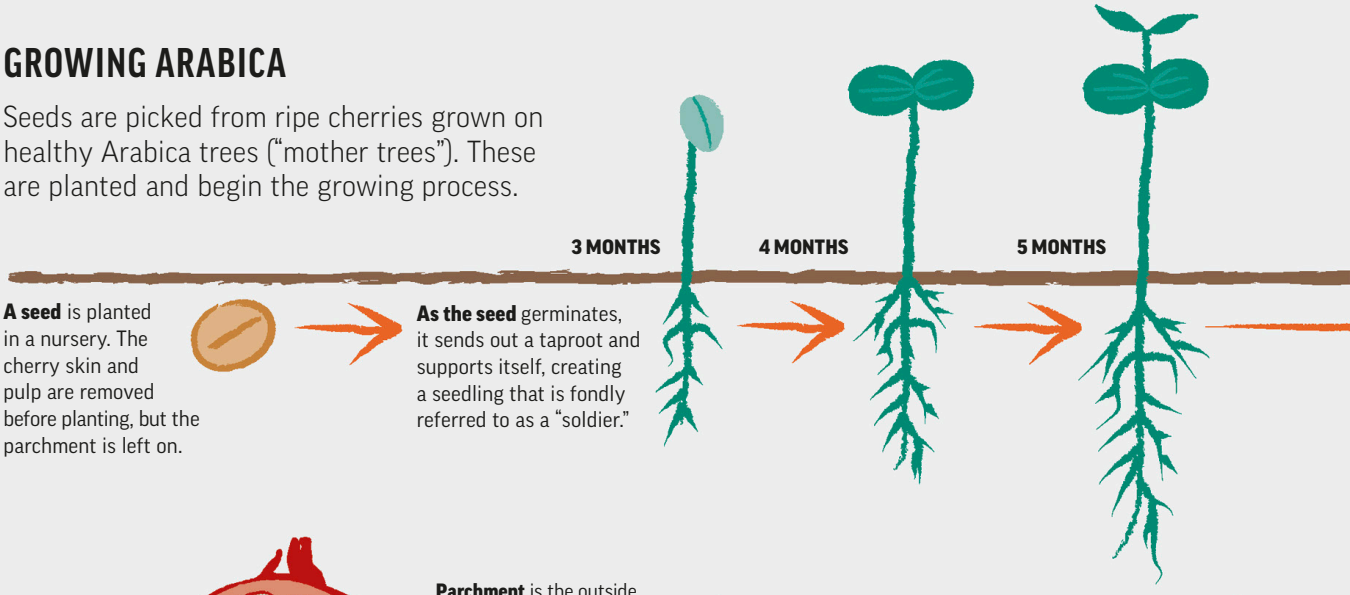
GROWING AND HARVEST

The coffee tree is an evergreen. It grows in about 70 countries that offer suitable climates and altitudes. The trees are cultivated with care and grow for about three to five years before they flower and produce fruit, known as coffee cherries.

Coffee cherries are picked from the tree during harvest–they contain two seeds, which, after processing (pp.20–23), become coffee beans. The main commercially grown coffee tree species are Arabica and Robusta (see pp.12–13). Robustas are high-yielding and resistant to pests and diseases, producing coffee cherries with rustic flavor. They grow from cuttings that are planted in a nursery for a few months before they are moved out to the fields. Growers propagate Arabica trees from seed (see below), which produces coffee cherries that are generally superior in flavor.

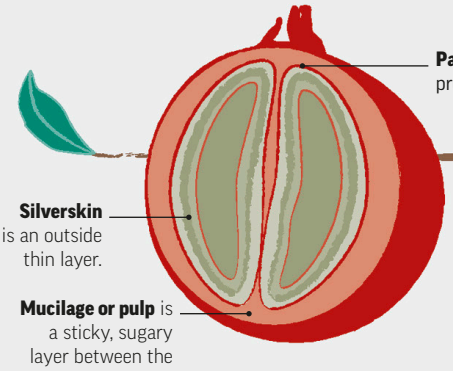
GROWING ARABICA

Seeds are picked from ripe cherries grown on healthy Arabica trees ("mother trees"). These are planted and begin the growing process.



A seed is planted in a nursery. The cherry skin and pulp are removed before planting, but the parchment is left on.

As the seed germinates, it sends out a taproot and supports itself, creating a seedling that is fondly referred to as a "soldier."



Parchment is the outside protective shell.

Silverskin is an outside thin layer.

Mucilage or pulp is a sticky, sugary layer between the parchment and the cherry skin.

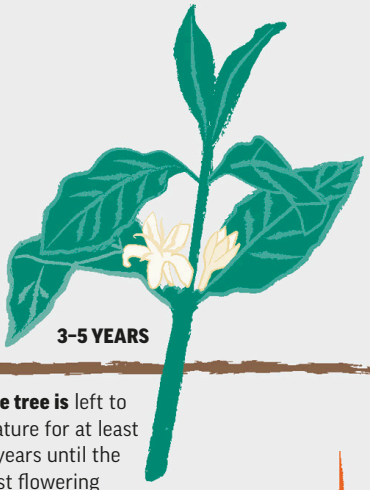
Each cherry contains two seeds–after they are processed, these are known as "beans" (see pp.20–23). The seeds develop with flattened facing sides. Rarely, only one of the two seeds is fertilized, and the single seed develops with nothing to flatten it. This oval (or pea-shaped) speciality seed is known as a peaberry.

GROWING CONDITIONS AFFECT THE QUALITY OF THE COFFEE—THE FLOWERS AND CHERRIES ARE SENSITIVE TO STRONG WINDS, SUNLIGHT, AND FROST.

9 MONTHS

This "soldier" grows into a small tree with 12–16 leaves before it is planted in a field.

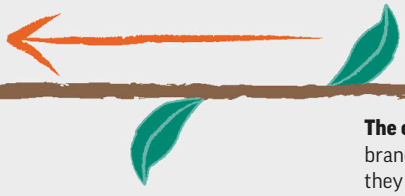
Soil protects the roots as the tree is replanted.



3–5 YEARS

The tree is left to mature for at least 3 years until the first flowering takes place.

These flowers mature into coffee cherries.



3–5 YEARS

The coffee cherries ripen on the branch, deepening in color, until they are ready for harvest (see overleaf). The best-quality coffee cherries grow under shade or cloud cover. Near the equator, higher altitudes are needed to help reach the right temperature.

HARVEST TIME

Whatever the time of year, Arabica and Robusta are being harvested somewhere in the world. Some countries and regions harvest intensively once a year, while others have two distinct harvest periods. Other areas have long seasons that last more or less all year.

Depending on species and variety, the trees can grow several feet high but are usually pruned to about 5 ft (1.5 m) high to facilitate picking, as this is mostly done by hand. Harvesters pick in one pass or several passes—stripping unripe cherries, overripe cherries, and everything in between in one go; or picking only the ripest cherries and returning to the same tree several times throughout the harvest season.

Some countries use machines that strip the branches or that gently shake the trees, causing the ripest cherries to fall off to be gathered.

TREES AND YIELD

One healthy Arabica tree produces about 2¼–11 lb (1–5 kg) of coffee cherries in a season, provided it is well cared for. You normally need about 11–13¼ lb (5–6 kg) of coffee cherries to make 2¼ lb (1 kg) of coffee beans. Whether stripped or selectively hand- or machine-picked, the coffee cherries are subjected to several stages of wet and dry processing (as shown on pp.20–23), before the coffee beans are categorized according to quality.

UNRIPE ARABICA CHERRIES
There are 10–20 large round Arabica coffee cherries per cluster. They fall off the branch when ripe, so farmers carefully monitor and pick frequently. Trees can reach 10–14 ft (3–4 m) in height.

RIPE ROBUSTA CHERRIES
These trees reach up to 33–40 ft (10–12 m) in height. Pickers may use ladders to reach branches. There are 40–50 small round coffee cherries per cluster that do not fall to the ground when ripe.

ARABICA VS. ROBUSTA

The two main species of coffee tree have different botanical and chemical features and qualities. These dictate where they will naturally thrive and offer a sustainable crop as well as how the coffee beans will be categorized and priced. These features also indicate a particular flavor profile.

FEATURES	ARABICA	ROBUSTA
Chromosomes An Arabica tree's genetic structure helps explain why its coffee beans are varied and complex in flavor.	**44**	**22**
Root system Robustas have large, shallow roots that don't require the same depth and soil porosity as Arabicas.	**Deep** Farmers should allow 5 ft (1.5 m) between each tree, so that roots can spread comfortably.	**Shallow** At least 6 ft (2 m) is allowed between Robusta trees.
Ideal temperature Coffee trees are susceptible to frost. Farmers must plant them in areas that don't get too cold.	**60–80°F (15–25°C)** Arabica trees need a temperate climate to thrive.	**70–85°F (20–30°C)** Robusta trees grow well in hot temperatures.
Altitude and latitude Both species grow between the Tropics of Cancer and Capricorn.	**3,000–6,600 ft (900–2,000 m) above sea level** High altitudes contribute to the required temperature and rainfall.	**0–3,000 ft (0–900 m) above sea level** Robusta trees don't require very cool temperatures, so grow at lower levels.
Rainfall range Rain encourages trees to flower, but too much or too little can damage the coffee flowers and cherries.	**60–100 in (1,500–2,500 mm)** A deep root system makes Arabicas capable of thriving when top-level soil is dry.	**80–120 in (2,000–3,000 mm)** Robustas require frequent, heavy rainfall, as their root systems are relatively shallow.
Flowering period Both species flower following a rainfall, but there are contrasts depending on rain frequency.	**After rainfall** It is easy to predict when Arabica trees will flower, as they grow in regions with distinct wet seasons.	**Irregular** Robustas often grow in unstable, humid climates and thus flower in a more irregular pattern.
From flower to cherry time The time it takes for flowers to mature into ripe cherries is different for each species.	**9 months** It takes Arabica trees less time to mature, allowing more time between cycles to prune and fertilize.	**10–11 months** Robusta trees require a relatively slow and prolonged period to mature. Harvest time is less intensive.
Oil content of beans Levels of oil are linked to aromatic intensity and so can give an indication of the quality.	**15–17%** High oil content lends a smooth and supple texture.	**10–12%** The low oil content of Robusta beans explains why Robusta espresso blends have a thick, stable crema.
Sugar content of beans The sugar level changes as the beans roast, affecting how we experience acidity and texture.	**6–9%** A well-roasted bean should have a pleasing natural sweetness from caramelized, but not burned, sugars.	**3–7%** Less sweet than Arabica beans, Robustas can taste "hard" and bitter, leaving a strong, long aftertaste.
Caffeine content of beans Caffeine is a natural pesticide, and so high levels can explain the hardiness of the coffee trees.	**0.8–1.4%** Some rarer varieties, such as Laurina, are almost caffeine-free but yield less and are more difficult to cultivate.	**1.7–4%** This high content makes trees less susceptible to the diseases, fungi, and bugs that thrive in hot, wet climes.

PROCESSING

To become beans, coffee cherries need to be processed. Processing methods vary around the world, but the main methods are dry process (often referred to as "natural") or wet processes (either "washed" or "pulped natural").

Coffee cherries are at their sweetest when fully ripe and should be processed within a few hours of harvest to preserve their quality. Processing can make or break a coffee; it can ruin even the most carefully grown and picked cherries if it is not undertaken with care.

There are many variations to this practice. Some producers process the cherries themselves–if they have their own mills, they can retain control of the coffee until export. Other producers sell cherries to centralized "stations" that take care of the drying and/or milling process.

THE PREPARATION STAGE

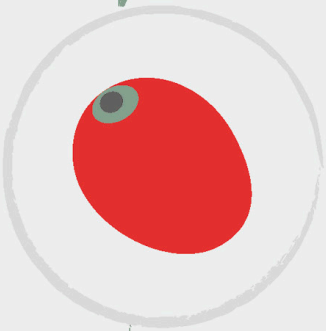
The two initial processes differ but share the same aim–to prepare the coffee cherry for the dry mill stage (see overleaf).

WET PROCESS

1 Coffee cherries are poured into tanks filled with water. Usually both unripe and ripe cherries are poured in, but best practice is to choose only the ripest fruit.

2 The cherries are sent through pulpers to remove the outer layers of the fruit (see p.16). The machines strip off outer skin but leave the mucilage intact. The skin is used for compost and fertilizer in fields and nurseries.

3 The mucilage-covered beans are organized and separated into tanks, according to their weight.



Coffee cherries
Fresh coffee cherries either go through an intensive washing process (above) or are rinsed and dried (below).

DRY PROCESS

NATURAL

1 The whole coffee cherries are put through a quick wash or are floated in water. This separates any debris from the fruit.

2 Producers transfer the cherries onto patios or raised beds where they spend around two weeks drying in the sun.

Under the sun, coffee cherries lose their bright color and shrivel up.

PULPED NATURAL

4 The sugary mucilage-covered beans are carried or pumped onto drying patios and beds outside. They are spread out into 1–2 in (2.5–5 cm) layers and are raked regularly to help them dry evenly.

After a few days, a sugary sticky mucilage still covers the wet beans.

5 The coffee beans are left to dry for 7–12 days, according to the climate. If the coffee beans dry too quickly, it causes defects, limits shelf life, and affects the flavor of the bean. In some places, beans are machine-dried in "guardiolas."

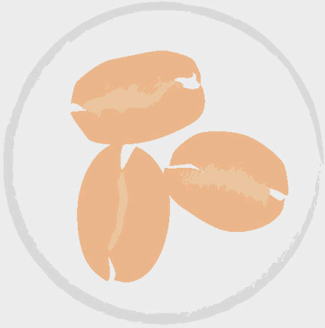
Once fully dried, the parchment-covered coffee beans look mottled with reddish or brown patches.

WASHED

4 The beans soak and ferment in these tanks for anywhere from 12–72 hours, until the mucilage breaks down and is washed off. There may be two soaks to bring out qualities in flavor or appearance.

5 Once all the pulp is removed, the clean parchment-covered beans are taken outside to dry on concrete or raised beds for 4–10 days.

6 Producers sort through the parchment-covered coffee beans by hand, removing damaged beans and turning them over to help with even drying.



Once dried, the parchment-covered coffee beans are uniform, clean, and a light beige color.

After they have dried in the sun, the cherries shrink further and turn brown.

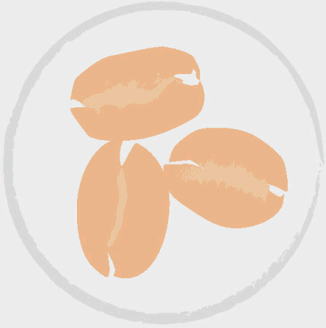
IN GENERAL, THE WET PROCESSES HELP INHERENT FLAVOR ATTRIBUTES OF THE COFFEE BEANS SHINE THROUGH.

THE DRY MILL STAGE →

THE DRY MILL STAGE

The dry natural coffee cherries and pulped natural/washed coffee beans rest for up to two months before further processing at a dry mill.

PULPED NATURAL



WASHED

NATURAL

1 After resting in parchment, the coffee is moved to a dry mill.

2 The dry mill removes dried skin, parchment, and varying degrees of silverskin to reveal the green bean inside.

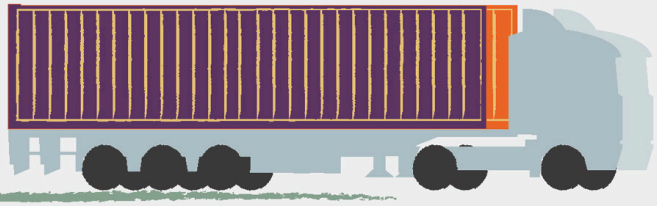
3 The coffee beans are placed on tables and conveyor belts and sorted into low and high quality by machine or by hand.

PRODUCERS ASSIGN COFFEE BEANS INTO DIFFERENT CATEGORIES THAT INDICATE QUALITY.

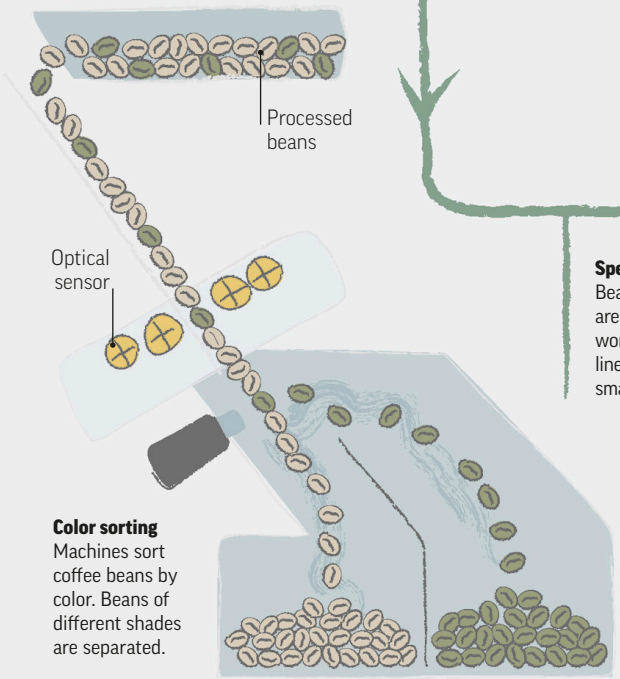
IN COFFEE, EVERYTHING HAS A BUYER, FROM THE CHEAPEST FLOOR SWEEPINGS TO THE TOP 1 PERCENT OF THE CROP.

ONCE LOADED INTO CONTAINERS AND ONTO SHIPS, COFFEE BEANS TYPICALLY SPEND 2–4 WEEKS AT SEA ON THE WAY TO THEIR DESTINATION.

Commercial market
Low- or average-quality coffee is poured into containers for shipping.



4 The machinery at a dry mill can sort beans by density, size, and/or color (see below).



Color sorting
Machines sort coffee beans by color. Beans of different shades are separated.

Specialty market
Beans of the best quality are shipped around the world in protective bags lined with plastic or in small foil vacuum packs.

PROTECTIVE SPECIALTY BAGS OF BEANS WEIGH 130–155 LB (60–70 KG) EACH.

CUPPING

Many of us practice wine tasting but wouldn't evaluate coffee in the same way. However, coffee tasting, known as "cupping," introduces you to unexpected and subtle flavors and helps you identify and appreciate different coffees.

The coffee industry uses cupping to measure and control the quality of coffee beans—a cupping bowl provides a snapshot of the beans, whether it's a "micro lot" of a few bags or a "large lot" of several containers. Coffee is usually scored on a scale from 0 to 100.

It's an industry-wide practice—from the exporters or importers to the roasters and the baristas. Professional cuppers work for coffee companies, sourcing, tasting, and choosing the best coffees in the world. There are even national and international cupping competitions where the best cuppers compete for awards. Increasingly, producers and millers cup at the very beginning of a coffee's journey too.

Cupping is easy to do at home—you don't have to be a tasting expert to know what you enjoy or dislike about a cup of coffee. Building up a vocabulary to describe flavors takes practice, but cupping a range of coffees from around the world soon introduces you to some broad flavor groupings that you can refine with time.

WHAT DO I NEED?

Equipment

filter grinder
digital scale
9 fl oz (250 mL) heatproof cups, glasses, or bowls (If you do not have cups of the same size, use a digital scale or a measuring cup to ensure all cups are filled with the same volume of water.)

Ingredients

coffee beans

HOW TO CUP

You can prepare just one cup of each coffee and explore its flavors or try several side by side. You could cup with pre-ground coffee, but coffee tastes a lot fresher if you grind it yourself (see pp.38–41).

1 Pour 1/4 oz (12 g) of coffee beans into the first cup or glass. Grind each dose of beans to a medium grind, pouring the coffee back into its cup (see Tip).

2 Repeat with the other beans, but "clean" the grinder by grinding through a tablespoon of the next type of bean before you grind the beans you'll actually be cupping.

3 Once all the cups are full of ground coffee, smell them, taking note of how the aromas compare.

TIP

Grind separately, even if you are cupping multiples of the same bean for others to try, so that if there is one defective bean among the dose, it will be isolated in one cup and not spread across all the cups.

4 Bring your water to a boil, then let it cool down to about 200–205°F (93–96°C). Pour the water over the coffee, making sure it is fully saturated. Fill the cup all the way to the top or use a scale or measuring cup to ensure you use the correct volume of water to beans.

5 Leave the coffee to steep for 4 minutes. In this time, you can evaluate the aroma of the "crust"—the floating layer of coffee grounds—taking care not to lift or disturb the cups. Perhaps you'll find the aromas to be stronger, weaker, better, or worse from some coffees compared to others.

6 After 4 minutes, use a spoon to gently stir the surface of the coffee three times, breaking the crust and settling the floating grounds. Rinse your spoon in hot water between every cup so you don't transfer any flavors from one bowl to another. Bring your nose to the cup as you break the crust to catch the release of aromas and consider whether the positive (or negative) attributes you noticed about the aroma in step 5 have changed.

7 Once all the crusts are broken, skim off the foam and floating particles with the help of two spoons, rinsing them with hot water between each skim.

8 When the coffee is cool enough to taste, dip your spoon in and slurp the coffee from the spoon into your mouth with a little air, which helps spread the aromas to your olfactory system and the liquid across your palate. Consider the tactile sensations of the coffee as well as the flavor. How does it feel on your palate: does it seem thin, oily, soft, rough, elegant, drying, or creamy? How does it taste? Does it remind you of anything you have tasted before? Can you pick out any flavors of nuts, berries, or spices?

9 Go back and forth between coffees to compare. Revisit them as they cool and change and take notes to help you categorize, describe, and remember what you're tasting.

Water cools faster than you think, so pour as soon as it is the right temperature.

The crust should not collapse before you stir it—if it does, your water may be too cold or your roast too light.

Once the crust has been broken, use two spoons to help you skim the top of the coffee.

CONSIDER TACTILE IMPRESSIONS AS WELL AS THE FLAVOR—DOES IT FEEL SUPPLE, SYRUPY, DELICATE, GRITTY? HOW DO AFTERTASTES COMPARE?

FLAVOR APPRECIATION

Coffee offers an incredible range of complex aromas and flavors. Identify these subtleties of flavor to get the best from your coffee.

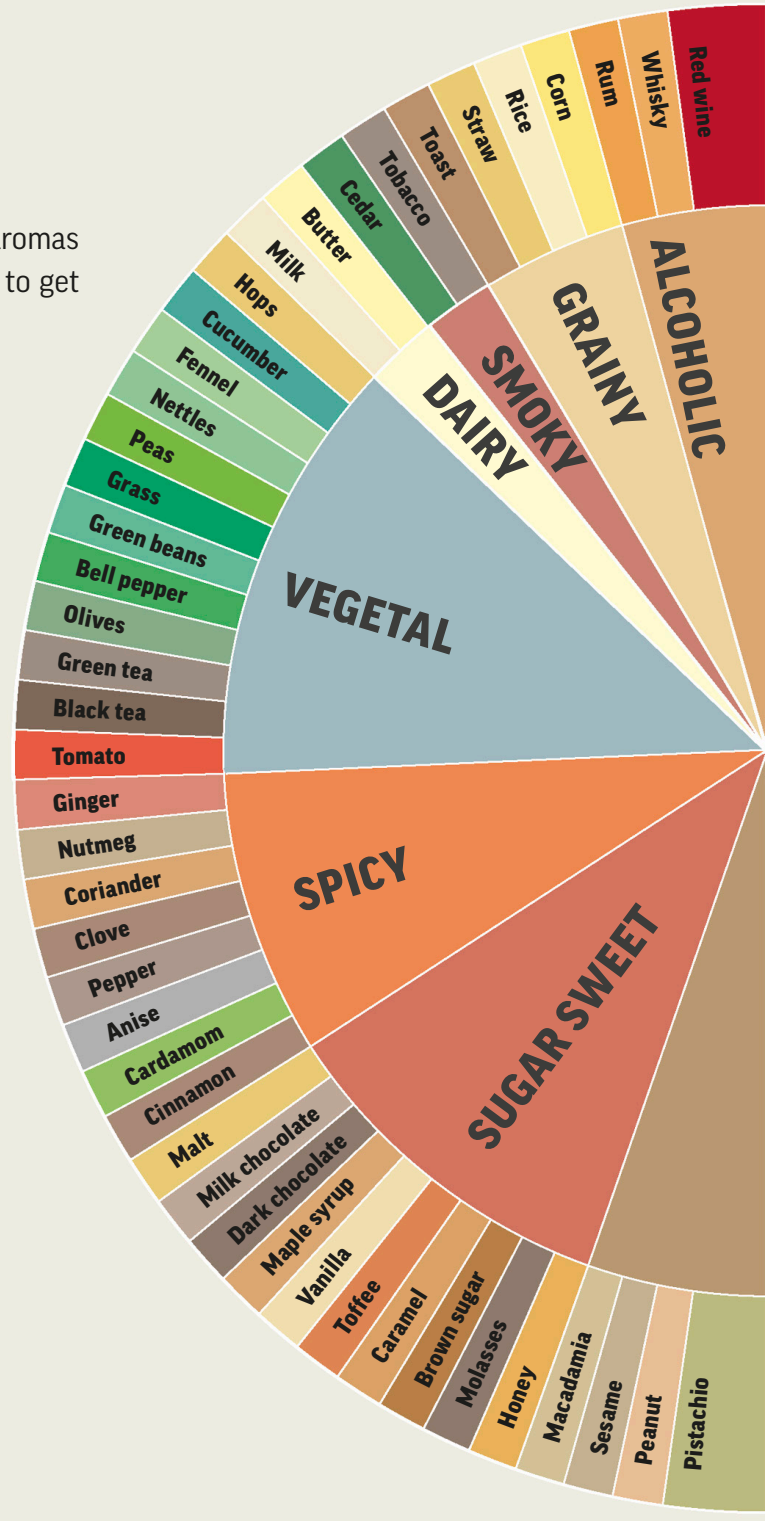
It is easy to improve your tasting palate with a little practice–the more you "cup" (see pp.24–25), the easier it is to differentiate between coffees. These four flavor wheels act as prompts–keep them within easy reference to help you identify and compare the aromas, flavors, textures, acidity levels, and aftertastes in coffee.

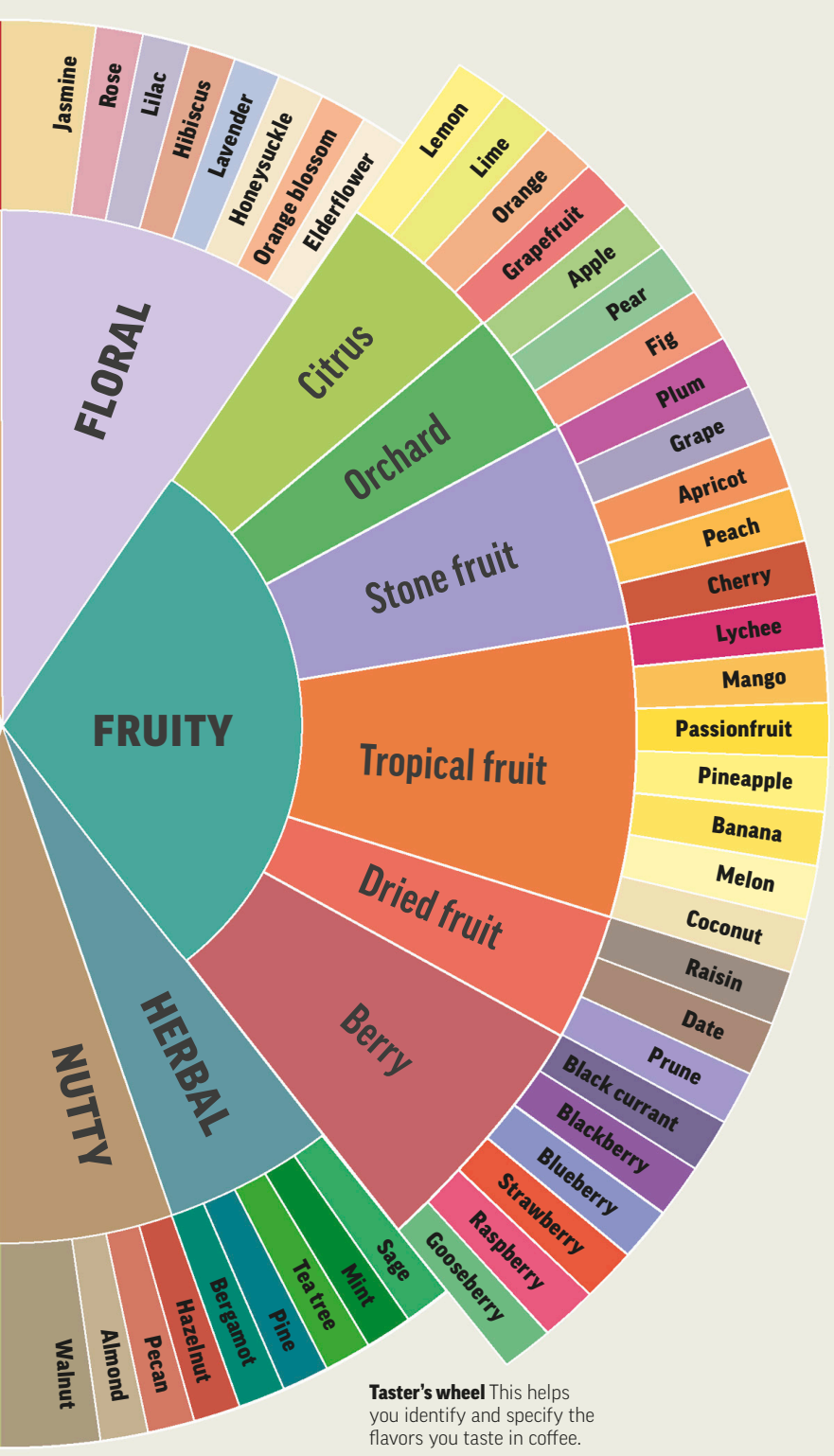
HOW TO USE THE WHEELS

First, identify key flavors by using the large taster's wheel, honing in on specific profiles. Then, use the acidity, texture, and aftertaste wheels to help you analyze physical sensations on the palate.

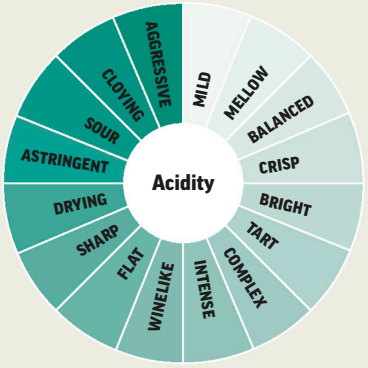
1 **Pour your cup of coffee** Breathe in through your nose, refer to the taster's wheel, and consider. Do you pick up hints of nuts, and, if so, are they reminiscent of hazelnut, peanut, or almond, for example?

2 **Take a sip** Look at the taster's wheel again. Are there fruity notes or nuances of spice? Ask yourself what is missing as well as what is present. Identify broad groups, such as fruit, then move into more detail–decide whether it's more like stone fruit or citrus. If citrus, is it lemon or grapefruit?

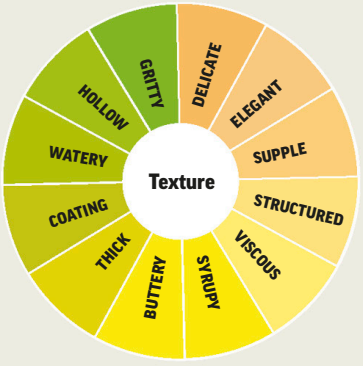




Taster's wheel This helps you identify and specify the flavors you taste in coffee.



3 **Take another sip** A pleasant level of acidity adds freshness. Do you find flavors bright, intense, mellow, or flat?



4 **Focus on the texture** Coffee may be light or heavy. Does yours feel smooth and dense in the mouth or light and refreshing?

5 **Swallow** Does the taste linger for long or disappear? Is it a neutral aftertaste or bitter and unpleasant? Decide whether any of the terms in the wheel apply.

COFFEE KNOW-HOW

INDICATORS OF QUALITY

Coffee companies use specific language on packaging to describe their coffee—this can occasionally be confusing and conflicting, if not outright misleading. Understanding the terminology makes it easier to choose the coffee you want.

IDENTIFYING BEANS

Some coffee packaging only describes coffee as either Arabica or Robusta (the two main coffee species, see pp.12–13). This is the equivalent of telling you only whether a wine is white or red; you just don't have enough information to make an informed purchase. Although Robusta is generally inferior to Arabica, labels that tout only "pure Arabica" are also a misleading indicator of quality. Great Robustas do exist, but they are hard to find, so buying Arabica is often a safer bet—but there is a lot of poor Arabica out there too. So what should discerning consumers expect to see on the labels?

The best-quality coffee beans are usually described with a high level of detail, such as by region, variety, processing method, and flavor (see p.33). Consumers grow in their understanding of good-quality coffee, and, as a result, roasters realize that the key to ensuring customer satisfaction is honesty and traceability.

BLENDS VS. SINGLES

Both commercial and specialty companies often describe their coffee as either a "blend" or a "single origin." This description helps explain the coffee's provenance—a blend is a mix of different coffee beans that creates a particular flavor profile, while a single-origin coffee is sourced from a single country or a single farm.

BLENDS

There are reasons why blends are popular, as they can create stable flavor profiles that remain consistent year-round. In the commercial sector, the ingredients and proportions in blends are closely guarded secrets, and the labels offer no indication of what the beans are or where they come from. Specialty roasters, however, clearly label and celebrate each component of a blend on the packaging—explaining the individual attributes of each bean and how the flavors complement and balance each other (see Sample Blend, opposite).

SINGLE ORIGINS

The term "single origin" is typically used to describe a coffee from a single country. However, identifying a coffee solely by country of origin is too broad, as it could still mean a blend of regions and farms within that country and a mix of varieties and processes. It could also be of any level of quality—100 percent Brazilian, or any other country, does not mean that the coffee will be 100 percent great. Equally, it gives you little indication of flavor, as coffees from one region can taste very different from another.

A "BLEND" IS A MIX OF COFFEE BEANS FROM AROUND THE WORLD. A "SINGLE ORIGIN" REFERS TO A COFFEE FROM ONE COUNTRY, COOPERATIVE, OR FARM.

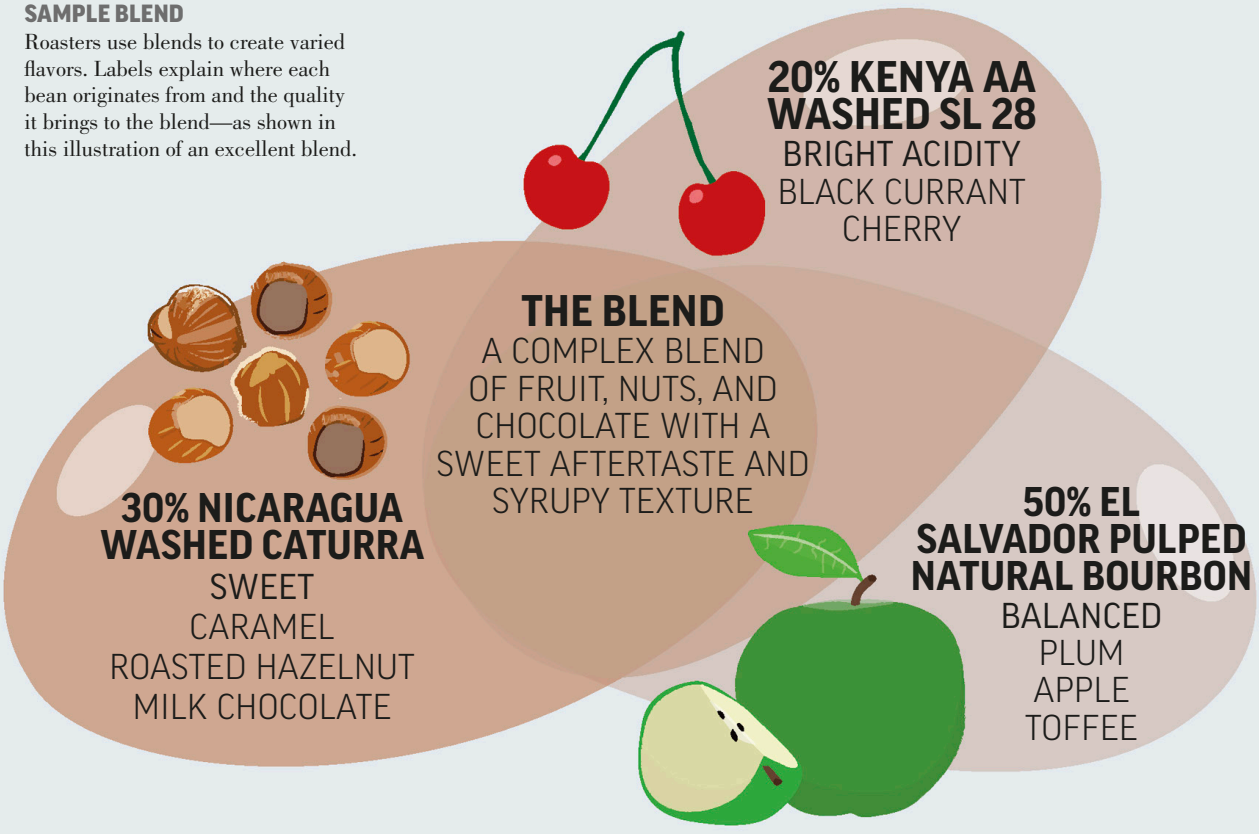
When the specialty coffee sector uses the term "single origin" on their packaging, they usually mean something more specific—coffees from a single farm, a single cooperative, a group of producers, or a producer and their family. These single-source coffees are often sold as limited or seasonal offerings and may not be available year-round, but they will be sold for as long as the supply lasts and the coffee tastes its best.

RESPECTFUL PRACTICE

When coffee beans—regardless of whether they are single origin or blends—are grown and processed well, shipped carefully, and roasted with respect for the intrinsic flavors of the bean, they are a fantastic celebration of the nuances coffee can offer. Specialty coffee companies pride themselves on this practice and, as a result, offer coffees of the highest quality.

SAMPLE BLEND

Roasters use blends to create varied flavors. Labels explain where each bean originates from and the quality it brings to the blend—as shown in this illustration of an excellent blend.



CHOOSING AND STORING

Finding good-quality coffee to brew at home has never been easier—even without a specialty coffee shop close to home. Many coffee roasters sell online and offer brewing equipment and tips on how to make the most of their beans.

CHOOSING

WHERE TO BUY

Supermarkets rarely treat coffee as the fresh product that it is, so you will have more luck buying good, fresh beans from a local or an online shop that specializes in coffee. However, navigating through all the options and exotic descriptions can be a difficult task. Do a bit of research before deciding whom to trust as your coffee supplier. Look for a few key points, such as how the beans are described and packaged, rely on your taste buds, and be open to compare and experiment until you find the coffee provider that gives you the quality you want.

CONTAINERS
If you buy loose beans from a store, ensure you know when the beans were roasted. Coffee is best protected in containers with lids—unless stored airtight, it loses its vibrancy after a few days.

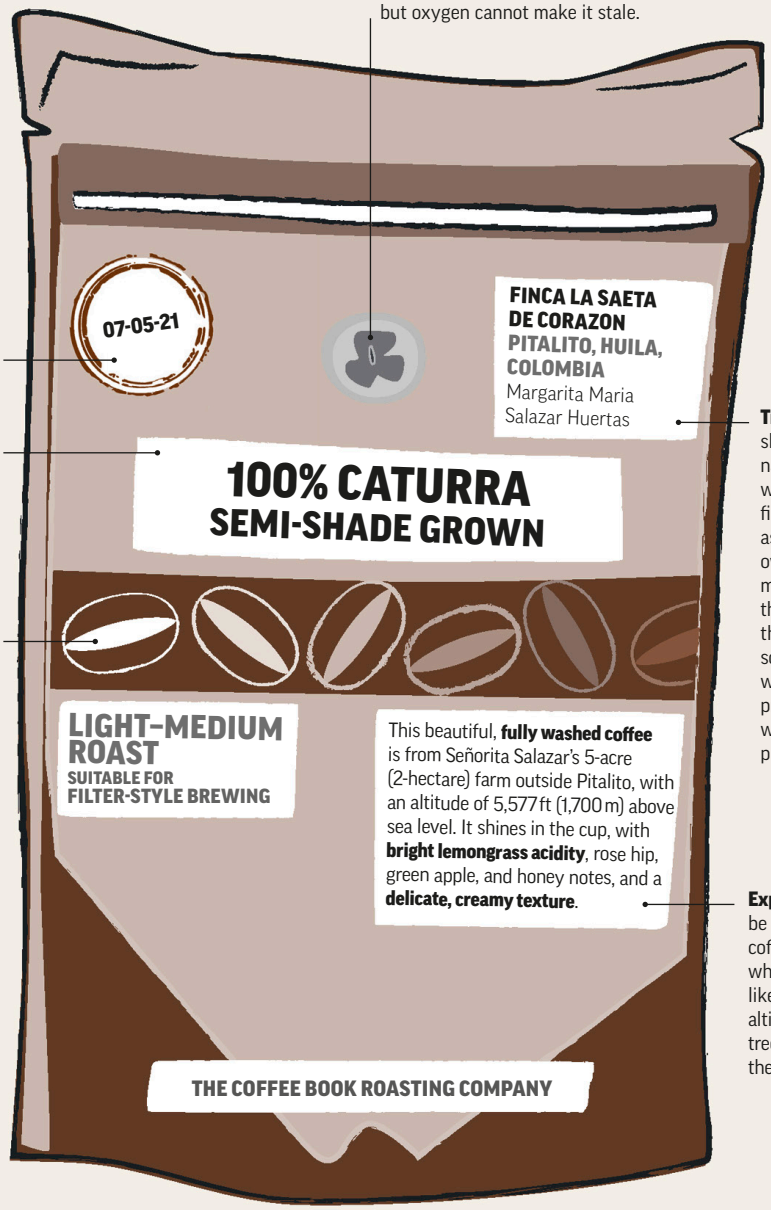
SCALES
Buying less means buying fresh. If you can, buy only the amount of beans you need to brew for a few days or a week at a time. You can often buy as little as 3½oz (100g).

WHAT'S ON THE BAG?

A lot of coffee is sold in attractive packaging that actually offers very little useful information about the product you buy. The more relevant information you find, the better the odds of buying a good-quality product.

One-way valve Fresh coffee expels carbon dioxide as a by-product of the roasting process. If left unprotected, carbon dioxide escapes, oxygen enters, and complex aromatics are lost. A bag with a valve allows you to seal the coffee so the carbon dioxide escapes but oxygen cannot make it stale.

Date The bag should have a "roasted and packed" date on it, not just a "best-before" date. Most commercial coffee companies will not tell you when the coffee was roasted or packed but instead operate with best-before dates that are anything from 12 to 24 months into the future. This is not in the best interest of the coffee or you, the consumer.



Traceability Ideally, you should be able to find the name of a cooperative, washing station, hacienda, finca, or fazenda as well as the name of the farm owner or manager. The more traceable a coffee is, the better are the chances that you are buying something of quality that was traded at a sustainable price and has been handled with care all the way from producer to retailer.

Provenance The label should tell you what species and/or variety the coffee is, where it was grown, and whether it is a blend or single origin (see pp.30–31).

Roast level An indication of roast level is useful, but the language used to communicate roast is not standardized. "Medium roast" could be any shade of brown, depending on whom you ask. "Filter roast" generally indicates something on the lighter end, while "espresso roast" is a darker version. However, it is not uncommon to find filter beans that are darker from one roaster than an espresso roast from another. A knowledgable seller can advise you on which roast you might like.

Expected flavor There should be information on how the coffee was processed and what the flavor should be like. Even information on altitude or presence of shade trees can be indicators as to the quality of the beans inside.

PACKAGING

The main enemies of coffee are oxygen, heat, light, moisture, and strong odors. Avoid buying beans that are stored in open containers or hoppers unless the containers look clean, are protected with lids or sneeze guards, and include a roast date. Unless carefully managed, these containers do nothing to preserve the quality of their contents. Look for coffee in opaque, airtight bags that have a one-way valve on them. This is a small plastic disk that lets the carbon dioxide from the beans out of the bag but prevents oxygen from entering. Kraft paper bags offer minimal protection, so treat these beans as loose-weight coffee. Avoid coffee from bags or bricks that are vacuum-sealed, as this coffee would have completely de-gassed and gone stale before packaging. Buy as fresh as you can, as even a week after roasting can be too old.

IS EXPENSIVE ALWAYS BEST?

The cheapest coffee is never high-quality coffee. It was probably not sourced at a price that covered the cost of production. You should also be wary of coffees where a high price feeds into a marketing gimmick, such as expensive, and frequently fraudulent, animal-feces coffee or exotic island coffee for which you might be paying a premium for the marketing of the brand rather then a superior flavor. The difference in price between poor- and high-quality coffee is often very small, making a truly great cup of coffee one of the most affordable luxuries you can get.

TIP

An increasing number of quality-focused cafés sell single-serve coffee brewers, such as AeroPresses, alongside their coffees. Ask your barista for recommendations and guidance for using your equipment like a pro.

THE PRICE GAP BETWEEN CHEAP COFFEE AND ETHICALLY SOURCED COFFEE IS FAR LESS PROFOUND THAN MANY WOULD THINK.

STORING

Buying whole beans and investing in a home grinder is one of the best ways to make sure you get fresher coffee at home. Pre-ground coffee will become stale in a matter of hours, but whole beans will stay fresh for a few days, or even up to several weeks, if properly sealed. Attempt to buy only what you need for a week or two of drinking. Buy whole beans, invest in a manual or electric home burr grinder (see pp.38–41), and grind only what you need for each brew.

STORING DOS

Store the beans in an airtight container, in a dry, dark place, away from strong odors. If the bag containing the beans does not fulfill these criteria, place the bag in an airtight container.

STORING DON'TS

Avoid storing your coffee beans in the fridge, but if you must preserve your beans for longer, freeze them and thaw only what you need to brew each time. Do not refreeze beans that have already been thawed.

Fresh coffee
As water reacts with the carbon dioxide in fresh coffee, foam and bubbles form a "bloom" that gently settles after a minute or two.

COMPARING STALE AND FRESH COFFEES
Fresh, well roasted coffee should be intensely and sweetly aromatic, free of harsh, acidic, or metallic notes. The presence of carbon dioxide is a very good indicator of freshness. In this visual comparison, two cups have been brewed by using the "cupping" method (see pp.24–25).

Stale coffee
This coffee contains very little or no carbon dioxide for the water to react with, so it forms a flat, dull lid. The grounds can also be very dry and difficult to saturate.

HOME ROASTING

Roast your beans at home to get them to your preferred flavor. To do this, you can use an electric home roaster for a controlled approach or simply heat a batch of coffee beans in a wok over your stove, stirring frequently.

HOW TO ROAST

Finding a balance between time, temperature, and overall degree of roast can take some practice, but roasting is a fascinating and satisfying route to understanding more about the potential flavors of coffee. Keeping within certain parameters, you should be able to experiment and taste until you find a method that works for your beans. There is no one-way-fits-all recipe to roasting coffee that tastes good as well as looks brown. Keep notes on both roasting process and flavor results, and you will soon learn how to manipulate the roast as desired. Aim for an overall roasting time of 10 to 20 minutes. Shorter than this, and the coffee might be green and taste astringent. Longer than this, and it might taste flat and hollow. If you buy an electric home roaster, follow your manufacturer's instructions.

THE STAGES OF THE ROAST

Coffee beans transform as they are roasted, increasing in size, smoothening, and eliciting a range of aromas.

0 MINUTES

UNROASTED GREEN BEANS

Before you roast, the raw bean is green and would have a vegetal flavor if it were used to brew coffee.

3 MINUTES

DRYING PHASE

The beginning of roasting is called the drying phase. Here, the bean turns from green to yellow to light brown. This phase allows water to evaporate and acids to react and break down, removing the vegetal taste of the bean. The bean smells like popcorn or toast, and the color changes can make it look "wrinkled."

6 MINUTES

HIGH PRESSURE

As the water in the bean heats up, steam pressure builds up within the structure, and the color continues to deepen. Some beans turn a shade of brown that makes them look nearly done, but they should briefly pale a little once they reach the next vital stage of the roast, the first crack.

GREEN COFFEE BEANS

If you start with fresh, high-quality green beans—readily available online or in specialty coffee shops—you'll soon be able to create home-roasted coffee to rival anything you would find in a fine coffeehouse. You need to be prepared to try again and again—there is a high chance that you may ruin the flavor of the coffee beans, even if they are of the best quality.

There is no way to take old or low-quality green coffee and make it taste great. All you can do is roast the beans so dark that you cover up the flat, wooden, baggy taste with burned flavors.

TIP

Once you are happy with the roast, cool the beans down for 2–4 minutes and give them a day or two to de-gas before you use them. If you are brewing espresso, allow more time—about 1 week—for this stage.

9 MINUTES

FIRST CRACK

The force of the steam eventually causes the cell structure to rupture, making a sound a bit like popcorn popping. This is where the bean increases in size, gains a smoother surface and an even color, and starts to smell like coffee. Stop the roast 1–2 minutes after the first crack for filter or French press brewing.

13 MINUTES

ROASTING PHASE

Sugars, acids, and compounds react, developing flavors. Acids break down, the sugars caramelize, and the cell structure dries out and weakens.

16 MINUTES

SECOND CRACK

Eventually you reach a second crack, caused by gas pressure, and oils are forced to the surface of the brittle bean. Many espressos are roasted to the beginning or middle of the second crack.

20 MINUTES

BEYOND SECOND CRACK

You have little left of the original flavor of the coffee in the bean. It will mostly be dominated by roasty, ashy, and bitter tastes. As oils travel to the surface, they also oxidize and become harsh-tasting quite quickly.

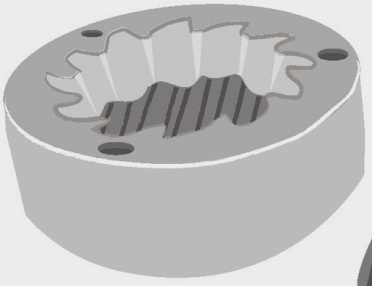
GRINDING

Many of us invest in expensive coffee-brewing equipment but don't realize that one of the easiest ways to vastly improve the quality of the coffee we make and to achieve the correct texture is to grind fresh coffee beans with a good grinder.

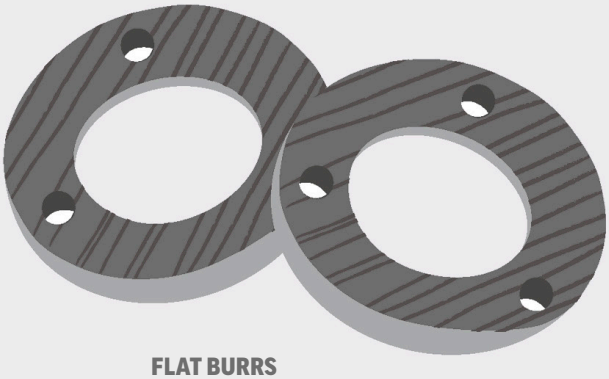
THE RIGHT GRINDER

There is a difference between grinders for espresso and grinders for filter-style brews, so make sure you buy one designed for your preferred method, as shown opposite and on pages 40–41. However, there are some key choices that affect both types of grinders.

Grinders with blades are most commonly available and usually run for as long as you hold down the "on" button. Even if you are using a timer to measure how long to grind for and how fine to go, you will find it hard to replicate accurately the size of ground coffee particles from one cup to another, especially if you vary the amount of coffee each time. Blade grinders also lead to a lot of grit at the bottom of your cup, particularly if you brew with a French press. An advantage is that they are generally quite affordable. If you would like to step it up a notch, invest a little more money in a grinder with "burrs," conical or flat (see below), that crush the beans into particles of a more uniform size and allow for more even extractions. Some grinders have "stepped" adjustments that lock into set grind sizes; others are "stepless" and allow you to adjust in tiny increments. Burr grinders do not have to be expensive, especially if they are the manual, hand-cranked variety. However, if you want to spend a bit more or plan to grind large quantities of coffee each day, choose an electric one. They often have a timer function that you can use as a way of dosing how much coffee you grind. Keep in mind that the coarser a grinder is set, the less time it takes to grind through a 1-oz (30-g) dose of beans, and the finer it is set, the longer it takes to grind the same amount.



CONICAL BURRS
These burrs are more resilient than flat ones, but they need replacing after you have ground around 1,650–2,000 lb (750–1,000 kg) coffee.

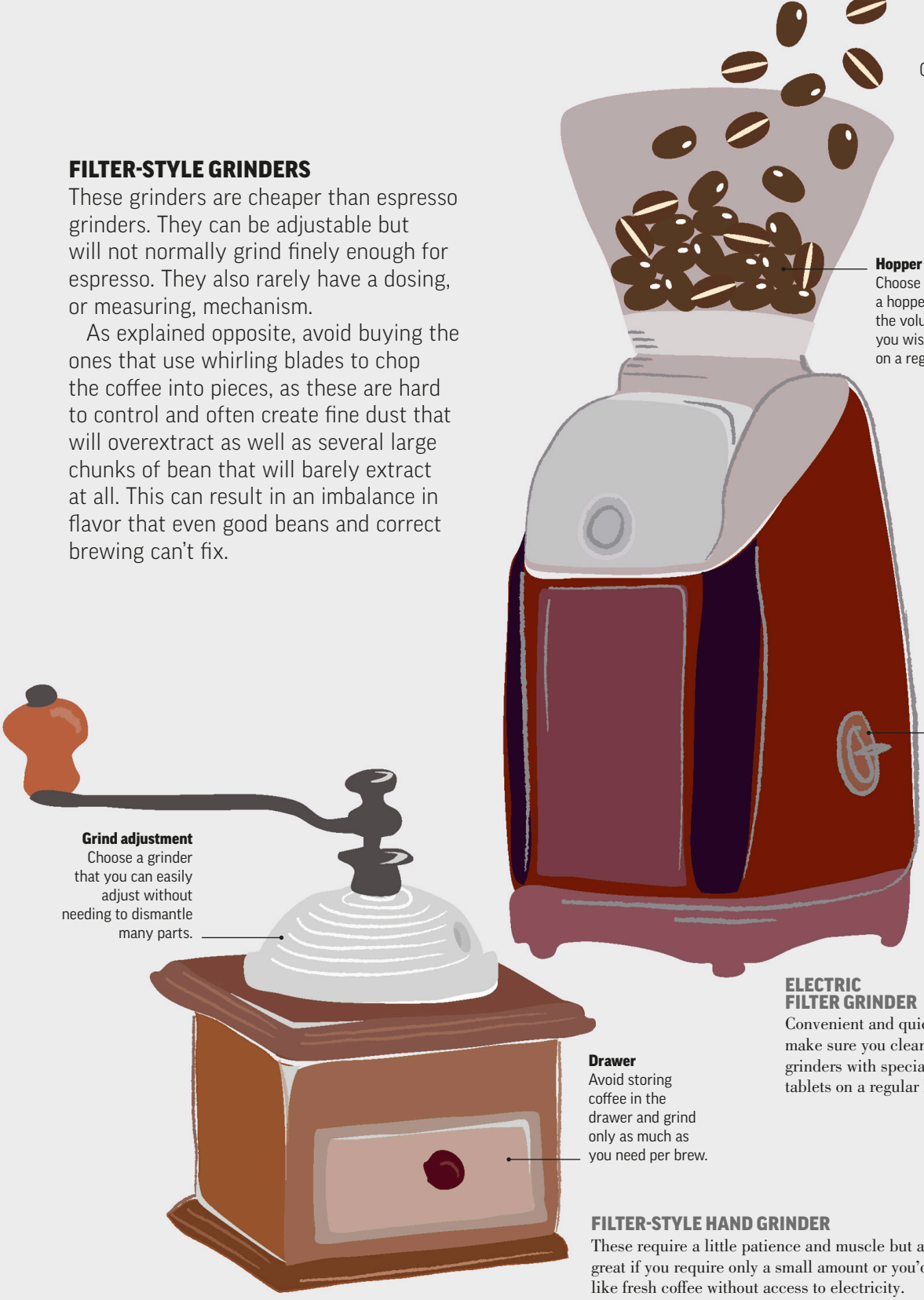


FLAT BURRS
Grinders with flat burrs are usually cheaper but need replacing after you have ground around 550–1,300 lb (250–600 kg) of coffee.

FILTER-STYLE GRINDERS

These grinders are cheaper than espresso grinders. They can be adjustable but will not normally grind finely enough for espresso. They also rarely have a dosing, or measuring, mechanism.

As explained opposite, avoid buying the ones that use whirling blades to chop the coffee into pieces, as these are hard to control and often create fine dust that will overextract as well as several large chunks of bean that will barely extract at all. This can result in an imbalance in flavor that even good beans and correct brewing can't fix.



ELECTRIC FILTER GRINDER

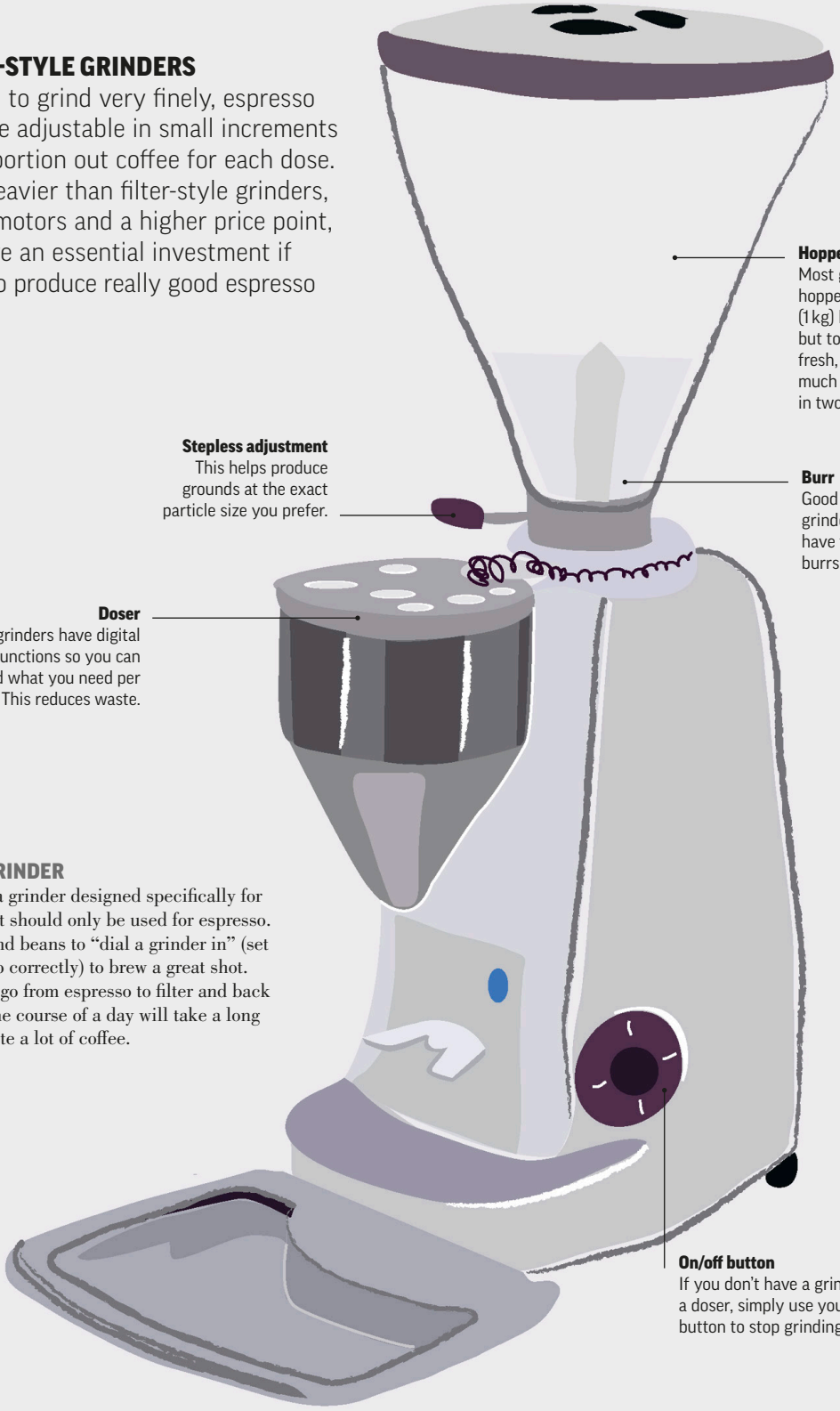
Convenient and quick to use, make sure you clean electric filter grinders with special cleaning tablets on a regular basis.

FILTER-STYLE HAND GRINDER

These require a little patience and muscle but are great if you require only a small amount or you'd like fresh coffee without access to electricity.

ESPRESSO-STYLE GRINDERS

Engineered to grind very finely, espresso grinders are adjustable in small increments and often portion out coffee for each dose. They are heavier than filter-style grinders, with solid motors and a higher price point, but they are an essential investment if you want to produce really good espresso at home.



Hopper
Most grinders have hoppers that hold 2¼ lb (1 kg) beans at a time, but to keep your coffee fresh, fill with only as much as you can brew in two days.

Burr
Good espresso grinders should have flat or conical burrs (see p.38).

Stepless adjustment
This helps produce grounds at the exact particle size you prefer.

Doser
Some grinders have digital timer functions so you can grind what you need per shot. This reduces waste.

On/off button
If you don't have a grinder with a doser, simply use your on/off button to stop grinding.

ESPRESSO GRINDER

You will need a grinder designed specifically for espresso, and it should only be used for espresso. It takes time and beans to "dial a grinder in" (set your grinder up correctly) to brew a great shot. Adjusting it to go from espresso to filter and back again during the course of a day will take a long time—and waste a lot of coffee.

WHICH GRIND FOR WHICH METHOD?

METHOD	GRIND
Ibrik coffee pot The texture for making Turkish coffee in an ibrik should be almost powdery, so that the maximum flavor gets extracted in the brewing process. Most grinders won't grind finely enough for this—you need a special hand grinder for this purpose.	
Espresso machine Espresso is the least-forgiving brew method, and as such the grounds' particle size must be just the right fine grind, allowing a balanced shot to be extracted.	
Filter Medium-ground coffee is suitable for many brewing methods, including filter pour-over, cloth brewer, stove-top pot, electric filter-brew, and cold dripper. Within limits, you can increase or decrease the dosage of coffee you use to get the result you prefer.	
French press These brewers have no filtration system, so water has time to penetrate the cell structure of coarser ground beans. This helps dissolve pleasant solubles while helping avoid excessive bitterness.	

COFFEE Q&A

There are many mixed messages about coffee in the media, and it can be difficult to find information that relates to you—especially as caffeine affects us all in different ways. Here are reliable answers to common coffee queries.

HOW ADDICTIVE IS COFFEE?

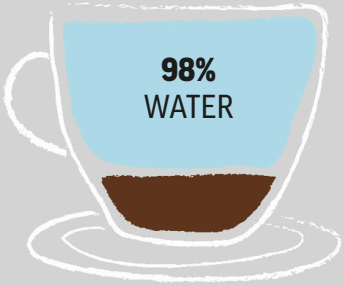
Coffee is not considered a drug of dependence, and any "withdrawal symptoms" can be alleviated by gently decreasing the daily consumption of coffee over a short period of time.

CAN DRINKING COFFEE BE GOOD FOR OUR HEALTH?

Coffee and its antioxidants—caffeine and other organic compounds—have been shown to have positive effects on a wide range of health problems.

IS COFFEE DEHYDRATING?

While coffee can have a diuretic effect, a cup of it consists of about 98 percent water and as such is not dehydrating. Any loss of fluid is effectively offset by the intake itself.



CAN COFFEE IMPROVE LEVELS OF CONCENTRATION?

Brain activity that controls memory and concentration is boosted temporarily when we drink coffee.

WHY DON'T I GET A CAFFEINE KICK?

You can desensitize yourself to the effects of caffeine by drinking coffee at the same time every day, so change your routine every now and then.

WHAT EFFECT DOES CAFFEINE HAVE ON PHYSICAL ABILITY?

The effects of moderate caffeine intake can improve endurance in aerobic sports as well as performance in anaerobic exercises. It opens up your bronchial tubes, improving breathing, and releases sugar into your bloodstream, directing it to muscles.

HOW DOES CAFFEINE KEEP US AWAKE?

Caffeine blocks a chemical called adenosine from attaching to its receptors, which would normally make you feel sleepy. The blockage also triggers the production of adrenaline, increasing your feeling of alertness.

DO DARK ROASTS CONTAIN MORE CAFFEINE?

Very dark roasts might actually contain less caffeine and definitely won't perk you up faster.

WHY DOES SOME COFFEE TASTE BITTER?

Coffee contains some naturally bitter-tasting compounds, but the main factor in a bitter cup is the roast degree. The darker and oilier the beans are, the more bitter the beverage will taste. Badly brewed coffee or dirty equipment can also leave a bitter aftertaste.

WHICH HAS MORE CAFFEINE—COFFEE OR TEA?

As a raw material, tea leaves contain more caffeine than coffee beans, but when brewed, a cup of coffee typically has more caffeine than a cup of tea.

CAN COFFEE GO BAD?

Coffee can go moldy if stored in a humid environment but can, in theory, last for many years if stored well. However, the flavor will deteriorate over time, making for an unpalatable cup.

WHICH COUNTRY DRINKS THE MOST COFFEE?

In sheer volume, the US imports the most coffee in the world, but it's the Nordic countries who drink the most coffee per capita, led by the Finns, who consume an average of 26 lb (12 kg) of coffee per person per year.

IS THE FRIDGE THE BEST PLACE TO STORE GROUND COFFEE?

Coffee does not need to be stored in the fridge, where it could absorb humidity and aromatics from surrounding food. Store your coffee in a dry, airtight container, away from direct sunlight and heat.

TESTING THE WATER

Water makes up 98–99 percent of a cup of coffee, so the quality of water you brew with has a major impact on the flavor.

WHAT'S IN YOUR WATER?

Water for brewing coffee should be odorless and clear in color. The combination of minerals, salts, and metals that can affect the brew may not be perceptible by sight or taste. Some areas have water that is clean and soft, while others have hard water that may contain chemical flavors, such as chlorine or ammonia. If the water in your area is too hard, it is in essence already saturated with minerals and may underextract the coffee, leaving you with a thinner, weaker brew. You may find it necessary to use a higher dose of coffee or a finer grind to compensate for this. Equally, water that is too soft or has had all minerals removed can overextract your coffee, dissolving undesirable elements from the bean and making your coffee taste bitter or sour.

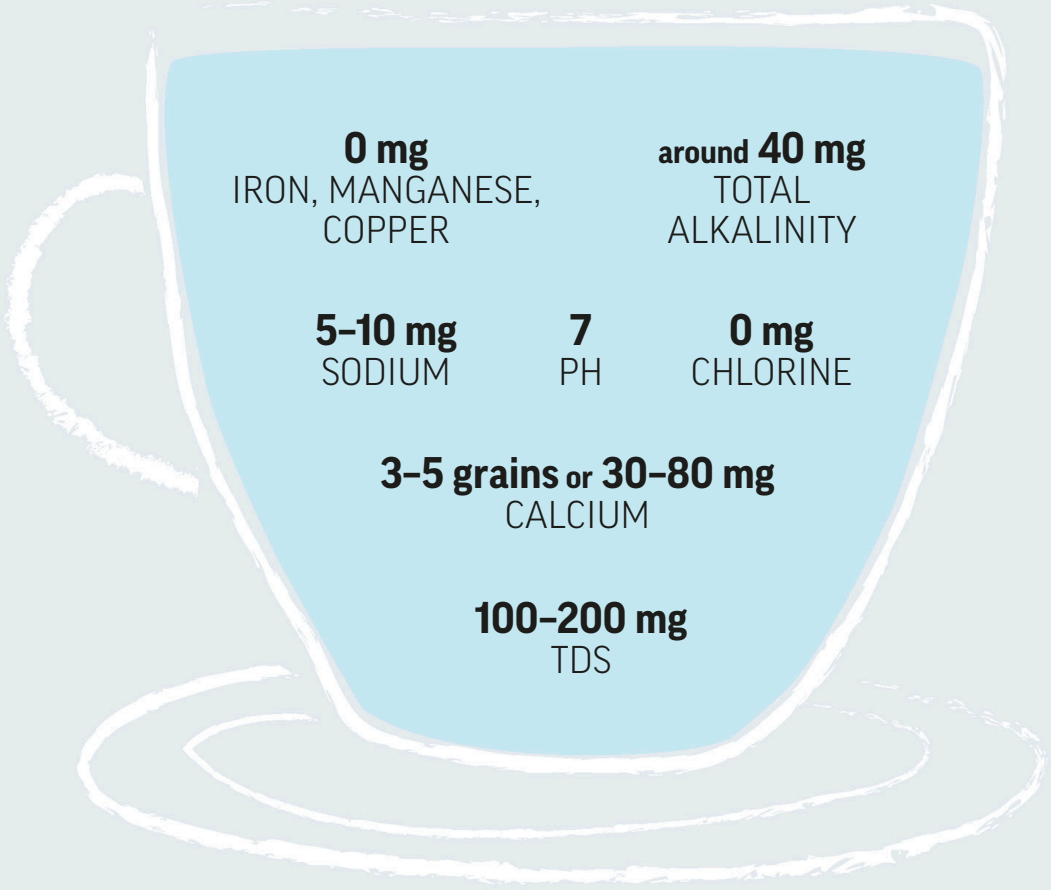
QUALITY CHECK

Test water quality in your own kitchen. Brew two bowls of coffee by using the cupping method (as shown on pp.24–25). Keep the beans, grind, and brew recipe the same, but brew one with tap water and the other with bottled water. Taste them side by side, and you may notice flavors in the coffee that you've never noticed before.

WATER FILTER
Replace the filter regularly (when 22 gallons/100 liters water have been filtered, or more often if you have hard water).

FILTER IT

If your tap water is too hard and you don't want to use bottled water for brewing coffee, investing in a simple home water filter can give you good results. You can buy filtration kits that are installed on your water line or a simple water jug with a replaceable carbon filter (as shown above). The difference in flavor between water with and without the optimum mineral content is quite stark and is often a surprise to most consumers. Changing from tap to bottled or filtered water is one of the easiest ways to improve the quality of coffee at home.



WHAT DOES IT ALL MEAN?

The most common term used to describe water quality in relation to the extraction of coffee is Total Dissolved Solids (TDS), measured in mg/L or parts per million (ppm). This is the combined amount of organic and inorganic compounds in your water. "Grains of hardness" is another term, used to describe the amount of calcium ions present. The pH should be neutral: if it's too high or too low, it can cause the coffee to have a flat or unpleasant flavor.

THE PERFECT COMPOSITION

Buy a test kit to analyze your water. These are target water analysis results for coffee, based on 1¾ pints (1 liter) of water.

BREWING ESPRESSO

Espresso is the only method of brewing coffee by using pump pressure. When you brew coffee with an espresso machine, the water temperature is kept below the boiling point, which helps avoid scalding the coffee.

WHAT IS ESPRESSO?

There are many theories and practices when it comes to brewing espresso, from the classic Italian approach to the American adaptations and the Scandinavian versions to the Antipodean interpretations. Irrespective of which approach you prefer and follow, it's useful to remember that espresso, at its core, is just a brewing method as well as the name of a beverage. Many people also use the term "espresso" as a way of describing a roast color, but, in fact, you can brew espresso by using any level of roast and any bean or blend that you prefer.

PREPARING THE MACHINE

In addition to your machine manufacturer's recommendations, here are a few guidelines that can help make the road to a good home espresso a bit smoother.

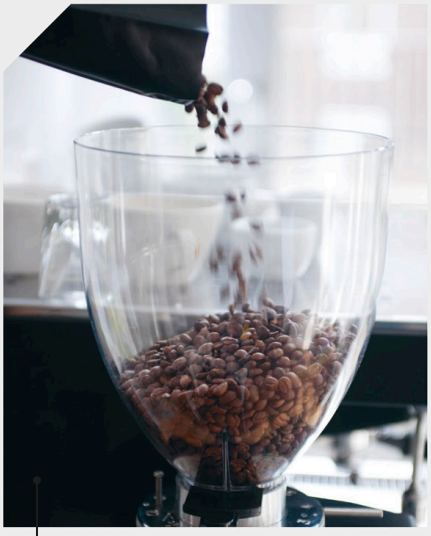
WHAT DO I NEED?

Equipment

espresso machine
espresso grinder
dry cloth
tamper
tamping mat
cleaning powder
cleaning tools

Ingredients

roasted coffee beans (rested)



1 Fill the clean espresso machine with fresh water and the grinder with beans that have been given a week or two to rest and de-gas since roasting. Allow the machine and portafilter to become thoroughly warmed up.

2 Wipe the basket of the portafilter clean with a dry cloth, so that none of the coffee grounds in the machine are rebrewed.

THEORIES ABOUND ABOUT THE RIGHT ROAST AND BEAN, BUT AT ITS CORE, ESPRESSO IS JUST A BREWING METHOD.

TIP

Good espresso takes practice. Try using an electric scale and small measuring glasses to help get proportions right, taking notes as you go. Trust your taste and experiment to find out what you like.

3 Flush some water through the group head to stabilize the temperature and clean any old coffee residue off the shower screen.

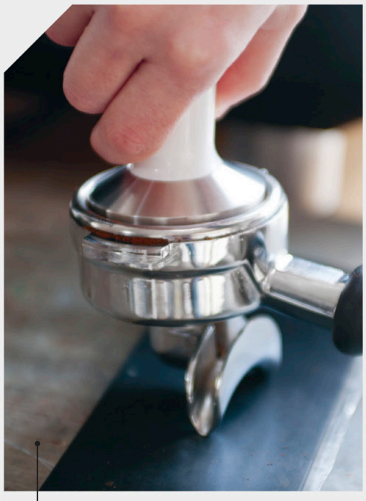
4 Grind the coffee and dose between ½oz (16 g) and ¾oz (20 g) into the basket, according to its size and your preferred recipe.

BREWING THE SHOT

Brewing great coffee repeatedly and consistently can be very challenging, and making espresso at home takes a lot more effort than any other brewing method. For those who choose to invest in the machinery required to do a good job, it is a hobby as much as a daily drinking ritual.

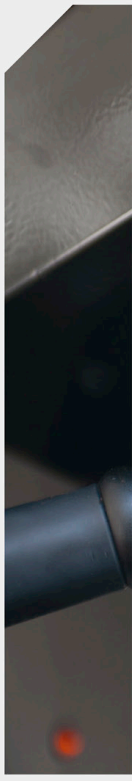
Coffee for espresso must be very finely ground, allowing the water to extract from a larger surface area. The result is a small, intense, viscous drink with a foam called crema that highlights all the good, but potentially also the bad, qualities of the bean, roast, and preparation.

1 Distribute the coffee evenly by gently shaking the portafilter or tapping it gently on the counter. Use a designated distribution tool (as shown) if you prefer.



2 Use a tamper that fits the size of your basket. Keeping it level with the edges of the basket, press the coffee down with a firm push to create a solid puck of even thickness. It is not necessary to apply excessive force, to tap the portafilter, or to tamp repeatedly.

3 The goal is to push all the coffee down to create a firm, even bed of grounds that will withstand the pressure of the water and allow the water to flow through and extract the coffee evenly.



TIP

Don't press down as you level the bed of ground coffee—use a tool or your finger and move the mound of coffee from side to side and up and down until you have loosely filled in all the gaps.

BREWING ESPRESSO CAN BECOME A HOBBY OR A DAILY DRINKING RITUAL. IT REQUIRES SOME WORK BUT IS GREAT FUN TO MASTER.

TIP

You may have to throw away several shots each day before you grind your coffee to the right coarseness and get a shot you are happy with. Check out the common pitfalls to brewing the perfect espresso on p.50.

4 Insert the portafilter into the group head and immediately activate the pump to brew, using either the volumetric settings for two shots of espresso or the free-flow button, which you switch off when you reach the desired volume.

5 Place a warmed espresso cup under the spouts (or two cups if you wish to split the shot into two singles).

6 The coffee should appear after 5–8 seconds, dripping and flowing with a deep brown or golden color that lightens as the brew progresses and the solubles are washed out. You should extract around 1½ fl oz (50 mL) in 25–30 seconds, including crema.

IS IT PERFECT?

A well-brewed espresso should have a smooth layer of crema (see p.48) with a deep golden brown color, free from any large bubbles and pale or broken spots. The crema needs to be a couple of millimeters thick once settled and should not dissipate too quickly. The taste should be balanced between sweet and acidic, and the texture should be smooth and creamy, leaving you with a pleasant lingering aftertaste. You should be able to taste the qualities of the coffee itself over the roast or brewing technique—be it a chocolaty Guatemalan, a nutty Brazilian, or a black currant–like Kenyan.

WHAT COULD GO WRONG?

If you have extracted more than 1½fl oz (50 mL) at the given time (see p.49), it could be because:
- the grind size is too coarse and/or
- the dose is too low

If you have extracted less than 1½fl oz (50 mL), it could be because:
- the grind is too fine and/or
- you are using too much coffee

If a coffee is too acidic and sour, it could be because:
- the water in the machine is too cold
- the beans are too lightly roasted
- the grind is too coarse
- the dose is too low

If an espresso is too bitter, it could be because:
- the water is too hot
- the machine is dirty
- the beans are roasted too dark
- the grinder burrs are too dull
- the grind is too fine
- the dose is too high

WELL-BREWED ESPRESSO

IMPERFECT ESPRESSO

CLEANING THE MACHINE

Coffee is made up of oils, particles, and other solubles. If you don't keep your equipment clean, these substances can build up and impart a bitter, ashy taste to coffee. Rinse with water between shots and backflush with specialized cleaning solution daily or as often as is possible.

TIP

Use a small, clean brush to clean off the rubber gasket in the group head of your machine. To make sure your gasket stays in place, keep the portafilter locked into the machine even when you are not using it.

1 Set the cup to the side and remove the portafilter from the group head.

2 Knock the spent puck out of the portafilter and wipe it clean with a dry cloth.

3 Flush the group head with some water to remove any coffee stuck on the screen, rinsing off the spouts at the same time. Place the portafilter back in the group head to keep it warm for the next shot.

MILK MATTERS

A good cup of coffee deserves to be enjoyed black, without milk, sugar, or other flavorings, but nobody can deny that milk is a perfect pairing that is enjoyed by millions every day. Steam your milk to accentuate its naturally sweet flavor.

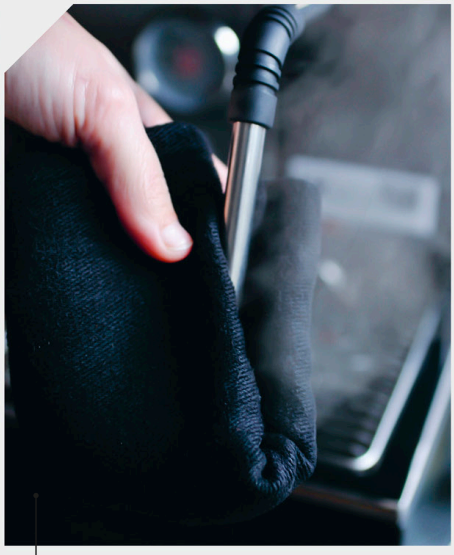
TYPES OF MILK

You can steam any type of milk you like—whole, low-fat, or fat-free—but there are differences in the taste and texture. Low-fat milks produce a lot of foam but might feel a bit dry and crisp. Full-fat milks might produce less foam but will be smooth and creamy. Even nondairy milks like soy, almond, hazelnut, or lactose-free milk will steam and produce foam. Rice milk does not produce much foam but can be a substitute for those with nut allergies. Some of these milks seem to heat quicker, and the foam might be less stable or smooth than with dairy.

STEAMING

Practice with larger volumes of milk than you might need to prepare your drink. This gives you time to experiment before the temperature gets too high and you have to stop. A pint (1-liter) pitcher, half full with milk, is best to start with, as long as the steam wand on your machine reaches the surface of the milk. If it doesn't, try a 1½-pint (750-mL) or 16-fl-oz (500-mL) pitcher. Any smaller than this can make it tricky, as the milk heats up too fast for you to get used to the movement of the milk and the rate at which to add air.

1 Use a steaming pitcher that tapers slightly at the top, as you will need room for the milk to swirl, expand, and foam up without spilling. Start with cold, fresh milk and fill the pitcher no more than half full, as shown.



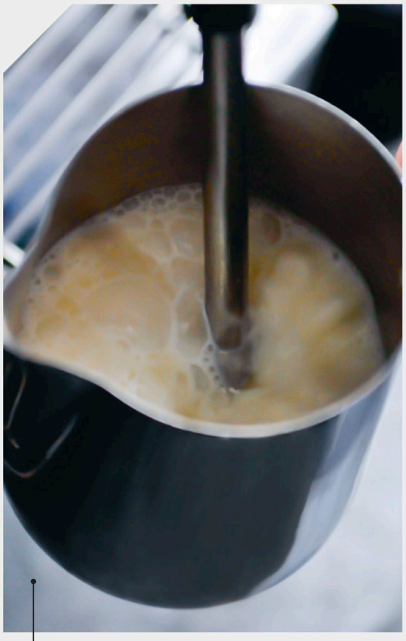
2 Purge any water or milk residue out of your steam arm until only clean steam comes out. To avoid spilling, wrap a dedicated cloth around the steam nozzle to catch any water. Take care to keep your fingers away from the nozzle so as not to burn them.

AS TINY POCKETS OF AIR AND STEAM ARE ADDED TO THE MILK, YOU WILL HEAR GENTLE, CONTROLLED SLURPING NOISES.

TIP

If you don't want to waste a lot of milk to practice on, you can use water with a small drop of dishwashing liquid to mimic the process until you're comfortable with the concept of adding air and spinning the milk in a controlled manner.

3 Hold the pitcher level and upright. Position the steam arm inside the pitcher at an angle, slightly off-center but not touching the sides. The nozzle should be only just submerged.



4 If you're right-handed, hold the handle of the pitcher in your right hand and use your left to turn the steam on. Don't hesitate to turn it up quite high. If you don't use enough steam pressure, you won't create any bubbles, and the milk will make a loud, screeching sound. Move your left hand to the bottom of the steam pitcher. It will now function as your temperature gauge.

5 The direction of the steam pressure should push the milk around in circles. The longer you maintain the slurping noise, the more foam you will generate. As the foam increases, it acts as a sound buffer and reduces the noise. As the noise gets gentler, the bubbles get smaller, creating a denser foam.

TECHNIQUE CONTINUES →

STEAMING (continued)

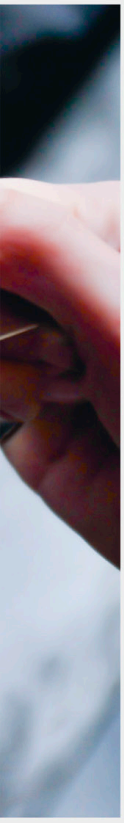
TIP

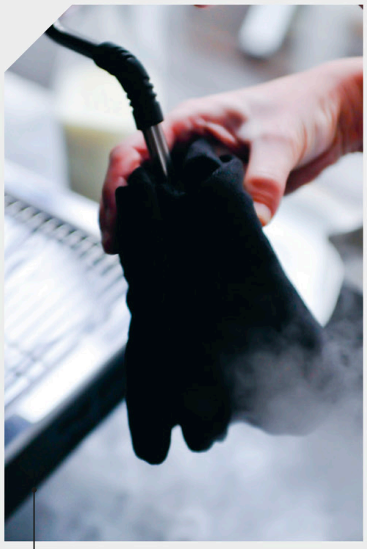
Milk will taste sweet and can be enjoyed immediately when it is steamed to about 140–150°F (60–65°C). Any higher than that may result in a boiled oatmeal–like taste.

6 As the milk warms, it expands and rises up above the nozzle, cutting off the air. For lots of foam, lower the pitcher so the nozzle remains at the surface. For less, let the milk rise above the nozzle. Maintain the swirling of the liquid and beat the big bubbles into smaller bubbles to create a smoother, denser foam.

7 Add air only while the milk is still cold. Once you feel the base of the pitcher reach body temperature, stop adding air—any bubbles formed beyond about 99°F (37°C) are harder to mix into a smooth foam. If you add air in as soon as the steam is switched on, you should have plenty of time to create as much foam as you'd like.

8 Swirl the milk until the bottom of the pitcher becomes too hot to touch. Move your left hand away, give the process another 3 seconds, and turn the steam off. This should result in milk at about 140–150°F (60–65°C). If you hear a deep, rumbling noise, you are boiling the milk, and it will taste eggy or oatmeal-like, not ideal for coffee.





9 Set the pitcher down to the side. Use a damp cloth to clean the steam wand and purge for a few seconds into the cloth to ensure that any milk residue on the inside of the wand is expelled. If there are any big bubbles on the surface of the milk, a few seconds of rest will weaken them. Gently tap the jug on the countertop to burst them.

TIP

There is no need to move the milk pitcher vigorously at any stage. The force and direction of the steam should do all the work, so just keep a steady position and controlled angle of the steam arm and pitcher.

10 Once the big bubbles stop appearing, swirl the milk around in the pitcher until you achieve a glossy, shiny texture of milk and foam combined. If you are left with an "island" of dry foam floating around in the middle, gently slosh the milk from side to side to try to incorporate it and then swirl again in a circular motion.

STORING MILK

As long as the milk is fresh, it will produce foam with the right steaming technique. Even if the milk is within its "best-before" date, the vital foam-stabilizing proteins may have degenerated to the point where they will struggle to aid in the formation of bubbles, so always go for milk with the most shelf life left. Daylight is also damaging, so buy your milk in an opaque container and keep it refrigerated between uses.

11 By swirling to keep the milk and foam mixed right up until the point where you pour it into your cup, you will not need a spoon to get the foam out, and with some practice, you will also be able to create latte art.

PLANT-BASED MILKS

For those who don't wish to consume milk from animals, the market is full of plant-based options. Many are also easy to make yourself with the help of a blender and a fine sieve or cloth.

Perhaps best known, and most similar in nutritional content to cow's milk, is soy milk, made from the soybean, which is a legume. Almond milk and oat milk have also become popular, and there are a host of other variants vying for a regular spot in our fridges.

THE INGREDIENTS AND ALLERGENS

When considering which plant-based milk might be right for you and your morning cappuccino, taste and texture are not the only things to consider. Read the list of ingredients and nutritional labeling. Although many milks are fortified with vitamins and minerals, such as calcium, some have added sugar, so choose the unsweetened versions if this is a concern. Check for fat and sodium content as well as for added emulsifiers or stabilizers to make sure you are not unwittingly ingesting any unwanted additives.

Alternative milks are generally made from grains, nuts, seeds, and legumes, but names can be misleading, so make sure you check the labeling for allergens. Nut allergies are quite common, but some seeds and legumes can also cause reactions. The main ingredient in some plant-based milks can also be different from how they are marketed. It's not always obvious what makes a true botanical nut, seed, or legume and what simply has a misleading name. For example, peanuts are legumes, almonds are seeds from a drupe, and Brazil nuts are the seed of a capsule.

Some ingredients can be safe on paper but have been processed in factories where cross contaminations can occur. Oats, while gluten-free, are often processed in factories that also handle wheat, and trace amounts can cause reactions for celiacs.

Many plant milks, such as soy, almond, and oat, will form a good foam when steamed for lattes or cappuccinos, while some others will remain frothless but still delicious. Some are more sensitive to heat, and if curdling when steaming becomes an issue, try heating plant milks to a lower temperature than cow's milk.

MAKE YOUR OWN

Choose from among the following to make your own plant-based milk:

- Soy
- Oat
- Almond
- Rice/brown rice
- Coconut
- Pea
- Hemp
- Macadamia
- Peanut
- Chestnut
- Cashew
- Tigernut
- Hazelnut
- Flaxseed
- Walnut
- Quinoa
- Pistachio
- Brazil nut
- Pumpkin seed
- Sesame
- Sunflower seed
- Pecan
- Spelt

When making your own milk, you can control exactly what your ingredients are and decide whether to add sweeteners and flavorings. Agave, coconut sugar, honey, maple syrup, and dates, for example, make good sweeteners; a pinch of salt can mitigate bitterness; and flavorings such as ginger, turmeric, cinnamon, vanilla, and cocoa powder add another dimension to your coffee.

Most plant milks are made by puréeing with water and separating the liquids from the solids. To soften the seeds, grains, or nuts, most require presoaking, which can also help leach out enzymes or acids that are harder to digest. You can remove any skins loosened during the soaking to avoid imparting a bitter, earthy taste. Remaining solids do not need to go to waste—dry them, freeze them, or use them in cooking.

CASHEW MILK

5 oz (140 g) raw unsalted cashews
2½ cups (750 mL) water for soaking
3½ cups (1 liter) water for blending

1 **Soak** the cashews in water for 3 hours.
2 **Drain** and discard the water.
3 **Using a blender**, blend the cashews with 3½ cups (1 liter) fresh water until almost smooth.
4 **Strain** the mixture through a muslin cloth or fine sieve, squeezing out as much of the liquid as possible.
5 **Pour** into a bottle and keep refrigerated for up to 4 days.

COCONUT MILK

3½ cups (1 liter) water
6 oz (175 g) unsweetened shredded coconut

1 **Heat** the water until it's about 200°F (95°C). Add the hot water and shredded coconut to a blender and mix until smooth.
2 **Strain** the mixture through a muslin cloth or fine sieve, squeezing out as much of the liquid as possible.
3 **Pour** into a bottle and keep refrigerated for up to 4 days.

NUT MILK

5 oz (140 g) raw unsalted almonds, hazelnuts, macadamia nuts, pecans, walnuts, or Brazil nuts
2½ cups (750 mL) water for soaking
3½ cups (1 liter) water for blending

1 **Soak** the nuts in water for 12 hours. Drain and discard the water.
2 **Remove** any loose skins if preferred and blend the nuts with 3½ cups (1 liter) fresh water until smooth.
3 **Strain** the mixture through a muslin cloth or fine sieve, squeezing out as much of the liquid as possible.
4 **Pour** into a bottle and keep refrigerated for up to 4 days.

RICE MILK

3½ cups (1 liter) water
7 oz (200 g) cooked white or brown rice

1 **Using a blender**, blend the water and rice until smooth.
2 **Strain** the mixture through a muslin cloth or fine sieve, squeezing out as much of the liquid as possible.
3 **Pour** into a bottle and keep refrigerated for up to 4 days.

SUNFLOWER SEED MILK

5 oz (140 g) raw unsalted sunflower seeds
2½ cups (750 mL) water for soaking
¼ tsp cinnamon powder (optional)
3½ cups (1 liter) water for blending

1 **Soak** the seeds in water for 12 hours. Drain and discard the water.
2 **Using a blender**, blend the seeds and cinnamon, if using, with 3½ cups (1 liter) fresh water until smooth.
3 **Strain** the mixture through a muslin cloth or fine sieve, squeezing out as much of the liquid as possible.
4 **Pour** into a bottle and keep refrigerated for up to 4 days.

QUINOA MILK

7 oz (200 g) cooked quinoa
2½ cups (750 mL) water
1 tsp coconut sugar (optional)

1 **Using a blender,** blend the quinoa with the water until smooth.
2 **Strain** the mixture through a muslin cloth or fine sieve, squeezing out as much of the liquid as possible. Add the coconut sugar, if using, and blend again.
3 **Pour** into a bottle and keep refrigerated for up to 4 days.

Sediment
If you use a fine sieve and some sediment comes through, it will settle to the bottom after a short time.

HEMP MILK

3½ cups (1 liter) water
3 oz (85 g) hulled hemp seeds
3 dates (optional)
pinch of salt (optional)

1 **Using a blender**, blend the water and hemp seeds until smooth. If you're using dates to sweeten or adding salt, add these at the same time.
2 **Strain** the mixture through a muslin cloth or fine sieve, squeezing out as much of the liquid as possible.
3 **Pour** into a bottle and keep refrigerated for up to 4 days.

SOY MILK

3½ oz (100 g) white soybeans
2½ cups (750 mL) water for soaking
3½ cups (1 liter) water for blending
¾ in (2 cm) vanilla pod (optional)

1 **Soak** the beans in water for 12 hours.
2 **Drain** and discard the water, rinse the beans, and remove the skins.
3 **Using a blender,** blend the beans with 3½ cups (1 liter) fresh water until smooth.
4 **Strain** the mixture through a muslin cloth or fine sieve, squeezing out as much of the liquid as possible.
5 **Bring** the liquid to a boil with the vanilla pod, if using, and boil for 20 minutes, stirring continuously.
6 **Let cool**, pour into a bottle, and keep refrigerated for up to 4 days.

LATTE ART

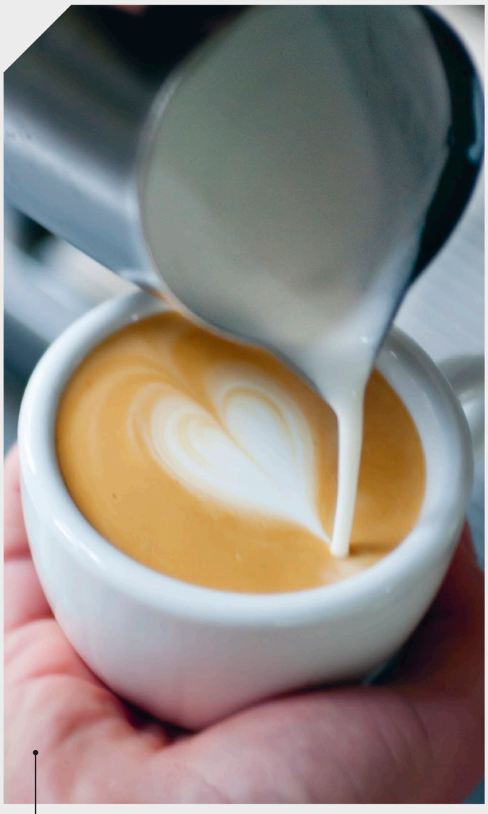
Your milk must be smooth and have a dense foam, but it should look beautiful too! Latte art takes practice, but once mastered, it'll spruce up a cup of coffee. Many designs originate with a basic heart, so start with that and see where it takes you.

HEART

This design suits a slightly thicker layer of milk foam and so is a good choice to try on cappuccinos.

1 Start by pouring the steamed milk into the middle of the crema from about 2 in (5 cm) above the cup, letting the crema rise and stretch the "canvas."

2 Once the cup is about half full, quickly lower the pitcher down to the cup while maintaining your pour and its position in the middle. You should see a circle of milky foam start to spread out into the cup.



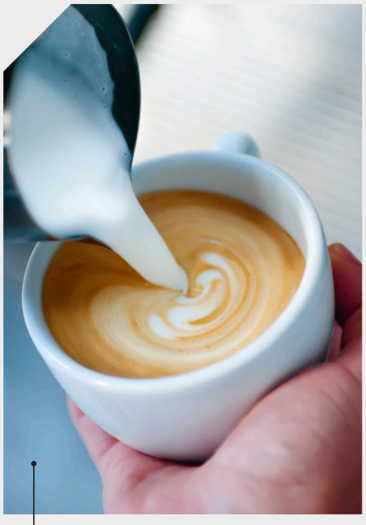
3 When the cup is nearly full, lift your pitcher back up and pour a line through the circle, allowing the flow of the milk to pull it out into a heart shape.

POURING LIKE A PRO

If you pour milk from too great a height, it lifts up the crema, leaving very little white on the surface. Conversely, if you pour the milk when your pitcher is too close to the cup, it drowns the crema in white foam. If you pour too slowly, you won't get the movement you need to create a pattern; if too fast, the crema and milk will mix uncontrollably. Practice pouring from a 16-fl-oz (500-mL) pitcher into a large cup until you find the perfect balance between height and speed.

ROSETTA

Often seen on caffè lattes and flat whites, the rosetta works best with a slightly thinner foam.



1 Follow step 1 for the heart, opposite, then once the cup is about half full, quickly lower the pitcher down to the cup. Start rocking it gently from side to side in a "tick tock" motion.

2 Let the flow of milk spill out in a zigzag-like pattern. When your cup is nearly full, start moving the pitcher backward to create increasingly smaller zigzag shapes.

3 When you have finished creating your zigzags, pour a line straight down the middle to finish, holding your pitcher a little higher.

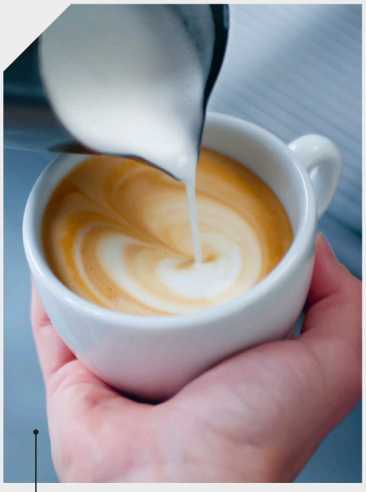
SWIRL THE JUG CONTINUOUSLY, RIGHT UP TO THE POINT OF POURING, TO KEEP THE FOAM AND MILK FROM SEPARATING.

TIP

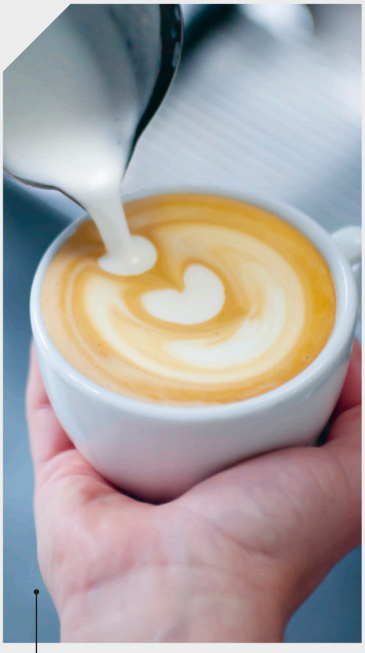
As well as free-pouring latte art designs like the heart, rosetta, and tulip, some enjoy etching. This involves creating designs, such as chasing hearts (pictured, far left), by pulling a thin utensil through dollops of milk foam.

TULIP

The tulip is an advanced version of the heart (see p.58) that uses a stop-and-start technique.



1 Start as you would for the heart, pouring a small circle of white into the middle of the cup.



2 Stop your pour and start again ½in (1cm) behind the first pour, carefully moving the pitcher forward as the foam comes out, pushing the first circle forward and out to the sides in a crescent shape.

3 Repeat until you have as many "leaves" as you would like. Finish with a small heart on top, pulling the line down through the leaves to create the stem.

ELABORATE Adapt the basic designs to create (clockwise from top left): multi-tulips, chasing hearts, swans, and rosetta hearts.

DECAFFEINATED COFFEE

Many myths surround caffeinated and decaffeinated coffee, their health benefits, and health risks. For those who love and appreciate the flavor of good coffee but would like to reduce their caffeine intake, there are options.

IS CAFFEINE BAD FOR YOU?

Caffeine, a purine alkaloid, is an odorless, slightly bitter compound, which in pure form is an extremely toxic white powder. In natural, brewed-coffee form, caffeine is a common stimulant that, once ingested, rapidly affects the central nervous system and equally rapidly leaves the body. Its effects vary from person to person. It can increase your metabolism and give you a feeling of reduced fatigue, but it can also increase nervousness. Depending on your gender, weight, genetic heritage, and medical history, caffeine can be a positive pick-me-up or cause levels of discomfort, so it is important to have an awareness of how it makes you feel and the affect on your health.

HOW DO THE BEANS COMPARE?

Green decaf beans are darker green or brown in color. The darker hue is also apparent, but less noticeable, when they have been roasted. Due to weakened cell structure, you may see a sheen of oil on the surface of a light-roasted decaf. It may also appear smoother or more even in color.

COFFEE BEANS

DECAFFEINATED COFFEE BEANS

THE TRUTH ABOUT DECAF

Decaffeinated coffee is readily available in most stores and cafes and generally has 90–99 percent of the caffeine removed, reducing the level down to well below that of a cup of black tea and to about the same as a mug of hot chocolate. Sadly, most decaffeinated coffee is made from old or poor-quality green beans and often comes darkly roasted to cover up the unpleasant flavors. If you find a supplier that decaffeinates fresh, good-quality green coffee beans and roasts them well, the flavor will not be compromised. You may not be able to tell the difference between a regular and a decaf and can enjoy it without any ill effect.

THE SCIENCE BIT

There are different methods of decaffeination—some introduce solvents, and others rely on more natural processes. Look out for this information on decaf coffee-bean labels.

SOLVENTS PROCESS

The beans are steamed or soaked in hot water to open up the cell structure. Ethyl acetate and methylene chloride are then used to rinse the caffeine out of the beans or from the water in which they were soaked. These solvents are not highly selective and can sometimes remove positive attributes from the coffee, and the process can damage the structure of the bean, causing challenges in storing and roasting.

SWISS WATER PROCESS

The beans are soaked in water to open up the cell structure. A water-based green coffee extract, or water saturated with green coffee compounds, is used to wash the caffeine out. The extract is then filtered through carbon to remove the caffeine and reused to extract more caffeine until the desired level is reached. Chemical-free, this process is gentle on the bean and leaves much of its natural flavor intact.

The Mountain Water method is nearly identical in process but is produced in Mexico by using water from the Pico de Orizaba mountain.

CO_2 PROCESS

Liquid carbon dioxide (CO_2) is used at low temperatures and pressure to extract the caffeine from the cells of the bean. This disrupts very few of the compounds that affect the flavor of the coffee. The caffeine is filtered or evaporated from the CO_2, and the liquid is reused to further soak more caffeine out of the beans. Preserving the natural flavors of the beans, this process is chemical-free, gentle, and considered organic.

CO_2 PROCESS DECAF BEANS
This process leaves beans smooth and glossy with a deep green color.

COFFEES OF THE WORLD

Coffee is generally grown between the tropics of Cancer and Capricorn, with a few notable exceptions, such as Nepal and parts of Australia. Around 100 countries and territories can, and do, grow coffee, but only around 60 countries are recognized as exporting countries of note. While largely grown as monocultures based on only two main species, coffees from around the world are surprisingly diverse in flavor. Coffee is also incredibly rich in history. Simultaneously facing great challenges and great opportunities, coffee can play a key part in developing equality among human beings and fostering a healthier planet. Often taken for granted and undervalued, a cup of coffee connects people around the world in ways that few other beverages do.

COFFEES OF
THE WORLD

AFRICA

ETHIOPIA

The complex mix of species and varieties that are native to Ethiopia gives these coffees their potential for unique flavors. They are famed for unusually distinct and elegant floral, herbal, and citrus notes.

Ethiopia is often hailed as the birthplace of Arabica coffee, although recent studies indicate that South Sudan may also have the right to claim this title. Ethiopia doesn't have a lot of coffee farms—they are either referred to as garden, forest, semi-forest, or plantation—but around 15 million people are involved in the coffee-production process, from picking to exporting. Coffee grows wild, produced largely by subsistence farmers, who sell it only for a few months every year.

Ethiopia has a biodiversity of species and varieties that are not found elsewhere, with many yet to be identified. Due to the mix of Heirloom varieties grown—such as Moka and Geisha—coffee beans from Ethiopia often lack uniformity in size and shape.

Climate change is eradicating wild species of coffee trees that may hold genetic keys to coffee's survival. The huge genetic range of local Heirloom varieties will be key to securing the future of coffee worldwide.

UNRIPE COFFEE CHERRIES
When ripened (see pp.16–17), coffee cherries are picked once, twice, or three times a week.

ETHIOPIAN COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 4.5%

HARVEST October–December

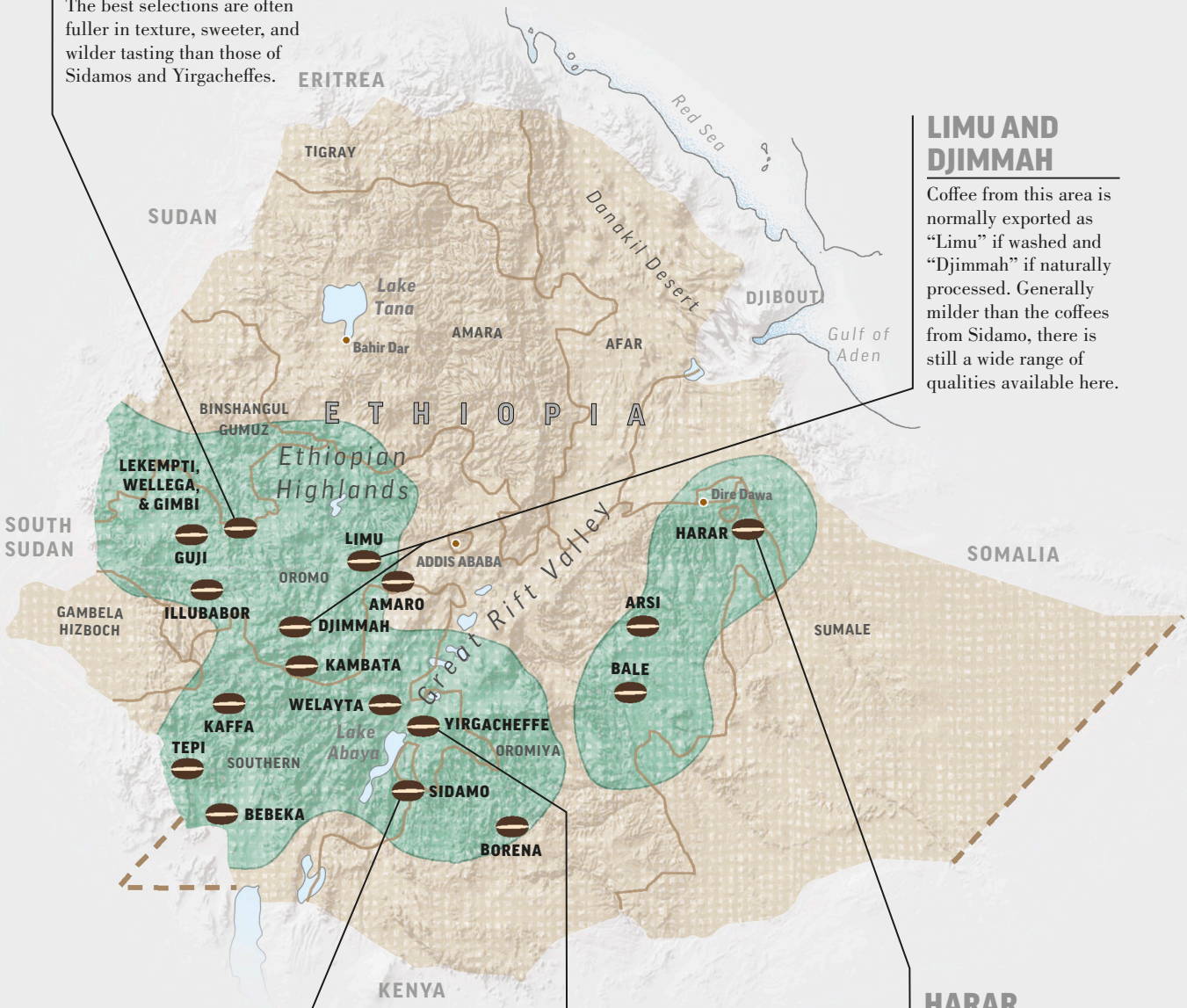
PROCESSES Washed and natural

MAIN TYPES Arabica native heirloom varieties

WORLD RANKING AS A PRODUCER 5th

LEKEMPTI, WELLEGA, AND GIMBI

These areas produce both washed and naturally processed coffees. The best selections are often fuller in texture, sweeter, and wilder tasting than those of Sidamos and Yirgacheffes.



LIMU AND DJIMMAH

Coffee from this area is normally exported as "Limu" if washed and "Djimmah" if naturally processed. Generally milder than the coffees from Sidamo, there is still a wide range of qualities available here.

KEY

- NOTABLE COFFEE-PRODUCING REGIONS
- AREA OF PRODUCTION
- DISPUTED BORDER

0 km 200
0 miles 200

SIDAMO

The lush and green Sidamo area is varied in landscape. It produces coffees with a wide range of complex flavors—sometimes fruity and citrus, sometimes nutty and herbal.

YIRGACHEFFE

This small area within the Sidamo region grows some of the finest Ethiopian coffees. They often have bright lemony notes and floral characteristics, with a light texture and a well-balanced sweetness.

HARAR

This region is dry, hot, and almost desertlike. Coffee produced here often has an earthy flavor. The most prized beans have blueberry and fruity flavors, and nearly all Harar coffee is naturally processed.

KENYA

Kenya offers some of the most intensely aromatic, brightly acidic coffees in the world. Flavors from region to region vary subtly, but most feature uniquely complex fruit and berry notes, citrus acidity, and juicy, rich textures.

Only around 330 farms in Kenya are estates of 37 acres (15 hectares) or more. Just over half of the coffee producers are farmers with only a couple of acres of land each. These farmers are grouped into factories that belong to cooperative societies, with each factory receiving coffee cherries from hundreds of, to even a couple of thousand, producers.

Kenya grows Arabica—specifically, SL, K7, and Ruiru varieties. Most beans are washed for exporting (see pp.20–21); usually any smaller selections of naturally processed coffee cherries are consumed in Kenya. Once processed, most of the coffee beans are traded via a weekly auction system, where exporters bid on samples they tasted the previous week. Although this is still susceptible to swings of the commodity market, prices at the auction reward the best-quality coffees and thus provide incentives for producers to improve agricultural practices and the quality of their coffee.

LOCAL KNOWLEDGE

Kenyans are studying a large quantity of wild Arabica trees as well as smaller numbers of eight other wild Rubiaceae species that have been found in the Marsabit Forest.

CHARACTERISTIC RED SOIL
Kenya's aluminum and iron-rich red clay soil contributes to the unique flavor of its coffee.

KENYAN COFFEE KEY FACTS

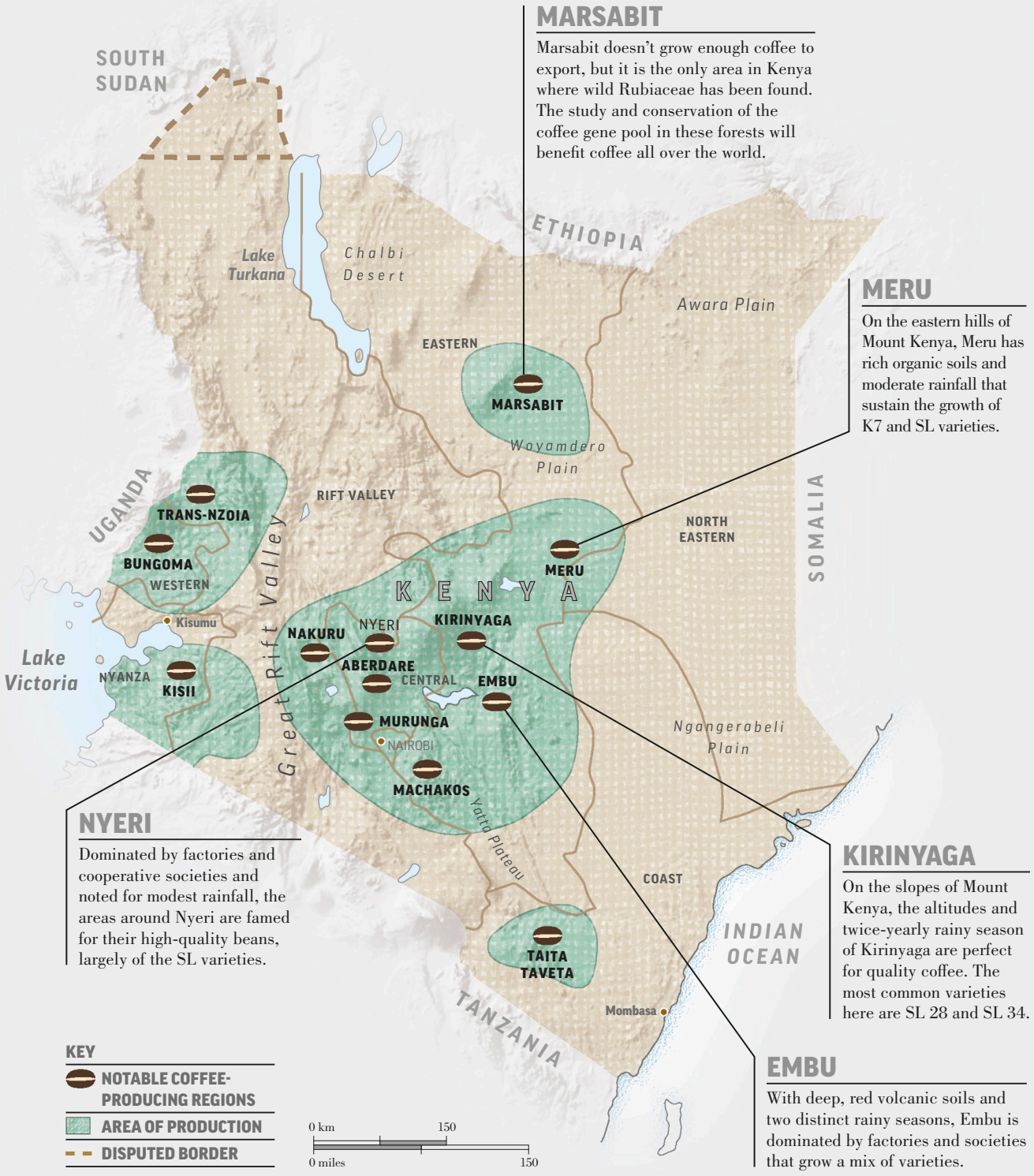
PERCENTAGE OF WORLD MARKET 0.52%

HARVEST Main crop October–December; small "fly" crop April–June

PROCESSES Washed, some natural process

MAIN TYPES Arabica SL 28, SL 34, K7, Ruiru 11, Batian

WORLD RANKING AS A PRODUCER 18th



MARSABIT

Marsabit doesn't grow enough coffee to export, but it is the only area in Kenya where wild Rubiaceae has been found. The study and conservation of the coffee gene pool in these forests will benefit coffee all over the world.

MERU

On the eastern hills of Mount Kenya, Meru has rich organic soils and moderate rainfall that sustain the growth of K7 and SL varieties.

NYERI

Dominated by factories and cooperative societies and noted for modest rainfall, the areas around Nyeri are famed for their high-quality beans, largely of the SL varieties.

KIRINYAGA

On the slopes of Mount Kenya, the altitudes and twice-yearly rainy season of Kirinyaga are perfect for quality coffee. The most common varieties here are SL 28 and SL 34.

EMBU

With deep, red volcanic soils and two distinct rainy seasons, Embu is dominated by factories and societies that grow a mix of varieties.

TANZANIA

Flavors of Tanzanian coffee can be split between the heavy-bodied, sweet, naturally processed Robustas and Arabicas near Lake Victoria and the bright, citrus, berrylike washed Arabicas of the rest of the country.

Coffee was introduced in Tanzania by Catholic missionaries in 1898. Today, Tanzania grows some Robusta, but the majority of the crop is Arabica—Bourbon, Kent, Nyassa, and the famous Blue Mountain. It is prone to wild swings in production, from 753,000 bags in 2014–2015 to more than 1,175,000 bags in 2018–2019. Around 20 percent of Tanzania's export earnings come from coffee. Yield of fruit per tree is low, adding to other growing challenges, such as low prices and a lack of training and equipment.

Almost all the beans are grown by small producers on family farms. About 450,000 families are involved in coffee growing, and the industry as a whole employs around 2.5 million people.

As with some other African countries, the coffee is sold at auction, but there is a "direct" window open for buyers who wish to buy from the exporters themselves. This window allows higher-quality coffee to be rewarded with higher prices, creating a sustainable cycle of production in the long term.

TANZANIAN COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 0.56%

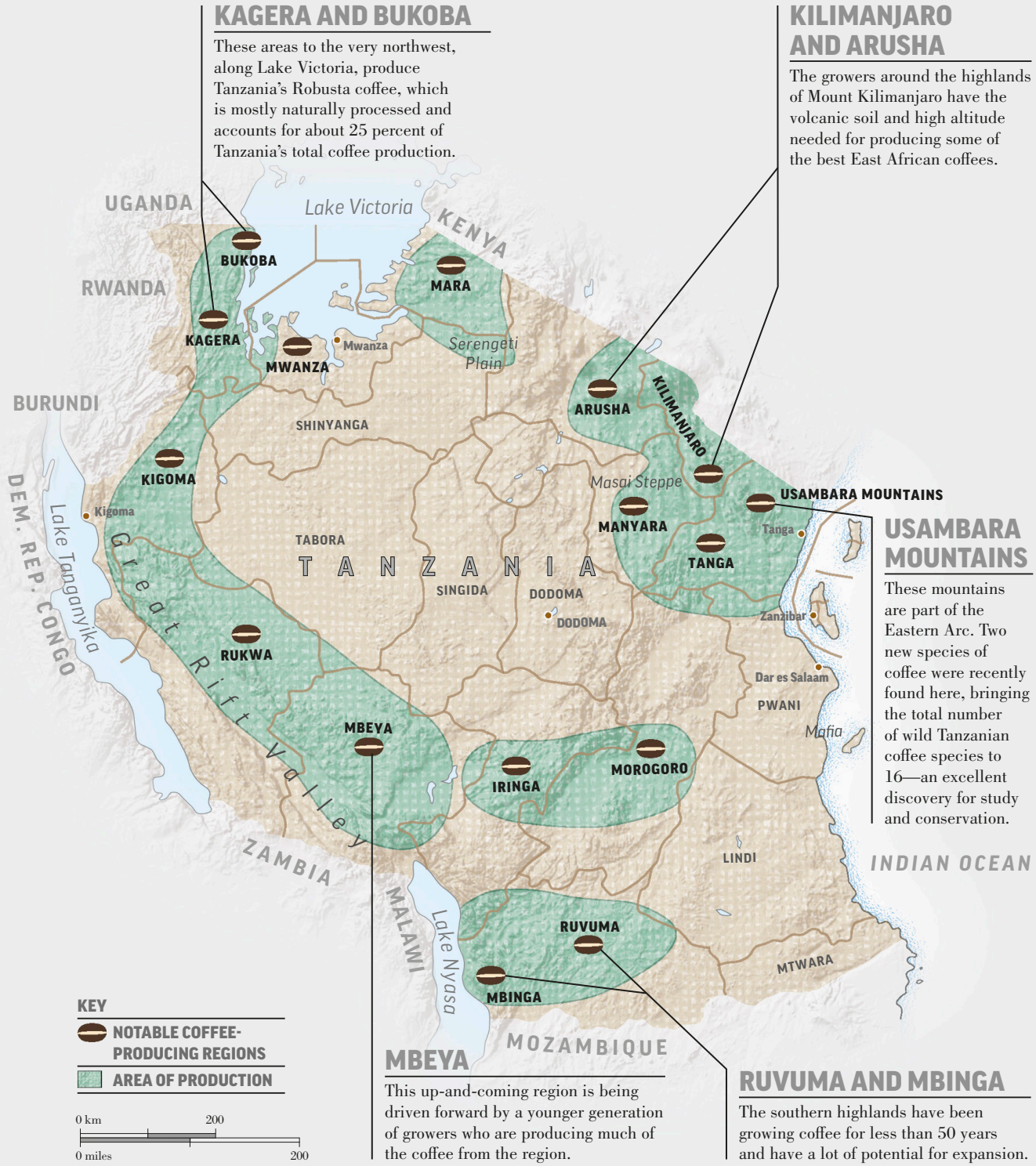
HARVEST Arabica July–February; Robusta April–December

PROCESSES Arabica washed, Robusta natural

MAIN TYPES 70% Arabica Bourbon, Kent, Nyassa, Blue Mountain; 30% Robusta

WORLD RANKING AS A PRODUCER 16th

CHERRY RIPENING
Cherries ripen at different speeds. Pickers return to the same tree several times to collect ripe ones.


KAGERA AND BUKOBA
These areas to the very northwest, along Lake Victoria, produce Tanzania's Robusta coffee, which is mostly naturally processed and accounts for about 25 percent of Tanzania's total coffee production.
KILIMANJARO AND ARUSHA
The growers around the highlands of Mount Kilimanjaro have the volcanic soil and high altitude needed for producing some of the best East African coffees.
UGANDA
Lake Victoria
KENYA
RWANDA
BUKOBA
MARA
KAGERA
MWANZA
Mwanza
Serengeti Plain
BURUNDI
SHINYANGA
ARUSHA
KILIMANJARO
KIGOMA
Masai Steppe
USAMBARA MOUNTAINS
Kigoma
MANYARA
Tanga
TABORA
TANZANIA
TANGA
DEM. REP. CONGO
Lake Tanganyika
Great Rift Valley
SINGIDA
DODOMA
DODOMA
Zanzibar
RUKWA
Dar es Salaam
PWANI
MBEYA
Mafia
IRINGA
MOROGORO
LINDI
INDIAN OCEAN
ZAMBIA
MALAWI
Lake Nyasa
RUVUMA
MTWARA
MBINGA
MOZAMBIQUE
USAMBARA MOUNTAINS
These mountains are part of the Eastern Arc. Two new species of coffee were recently found here, bringing the total number of wild Tanzanian coffee species to 16—an excellent discovery for study and conservation.
KEY
NOTABLE COFFEE-PRODUCING REGIONS
AREA OF PRODUCTION
0 km 200
0 miles 200
MBEYA
This up-and-coming region is being driven forward by a younger generation of growers who are producing much of the coffee from the region.
RUVUMA AND MBINGA
The southern highlands have been growing coffee for less than 50 years and have a lot of potential for expansion.

RWANDA

The coffees from Rwanda are often some of the softest, sweetest, and most floral of East African coffees–delicately balanced and rapidly winning the hearts of coffee lovers worldwide.

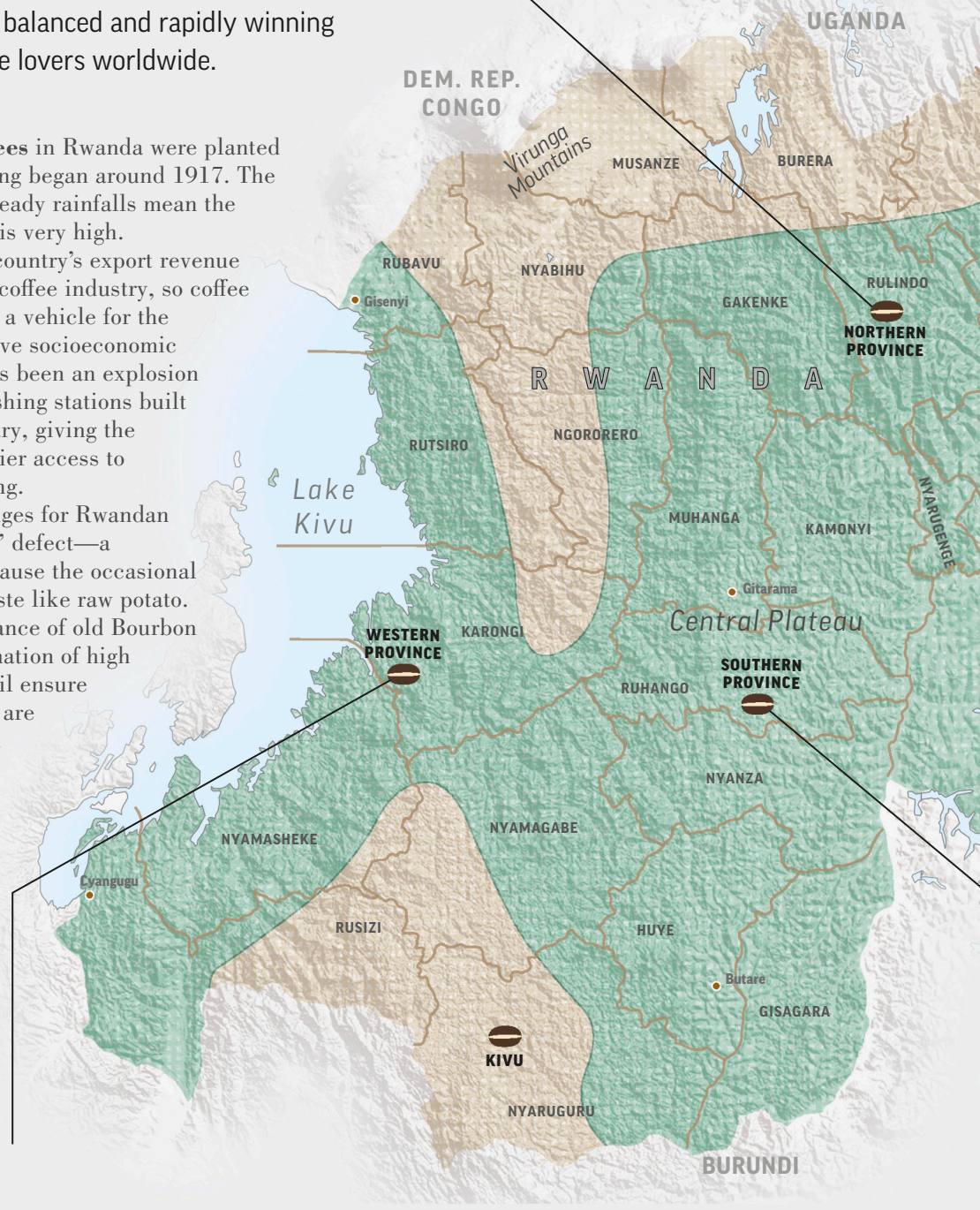
The first coffee trees in Rwanda were planted in 1904, and exporting began around 1917. The high altitudes and steady rainfalls mean the potential for quality is very high.

About half of the country's export revenue now comes from the coffee industry, so coffee has recently become a vehicle for the government to improve socioeconomic conditions. There has been an explosion in the number of washing stations built throughout the country, giving the 500,000 growers easier access to resources and training.

One of the challenges for Rwandan coffee is the "potato" defect—a bacterium that can cause the occasional bean to smell and taste like raw potato. However, the dominance of old Bourbon trees and the combination of high altitudes and rich soil ensure that Rwandan beans are still some of the best on the market.

NORTHERN PROVINCE

The citrus, stone fruit, and caramel tones of the coffees from the south of the Northern Province make these coffees balanced and sweet.



WESTERN PROVINCE

The districts along Lake Kivu are home to some of the most famed washing stations in Rwanda, consistently producing complex, floral, elegant, juicy coffees of the highest quality.

RWANDAN COFFEE KEY FACTS

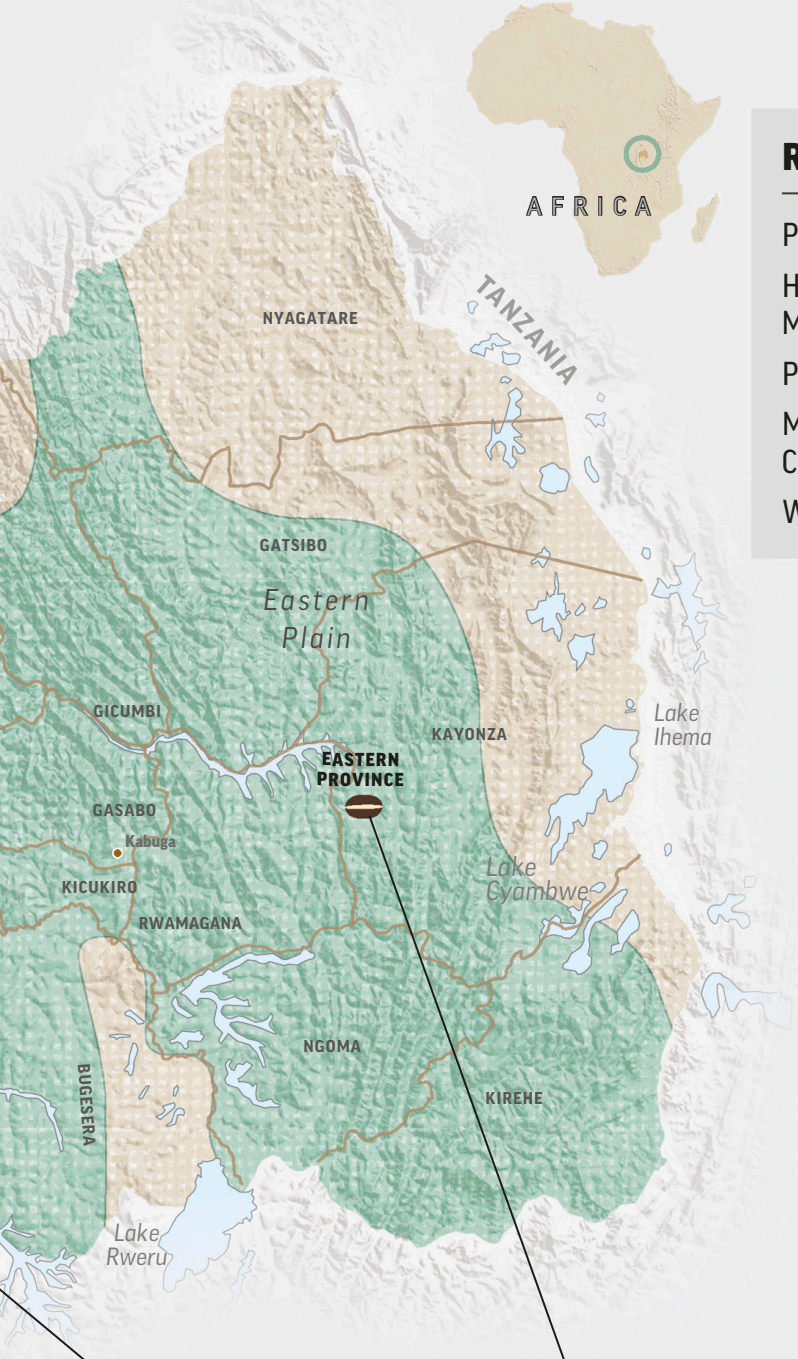
PERCENTAGE OF WORLD MARKET 0.16%

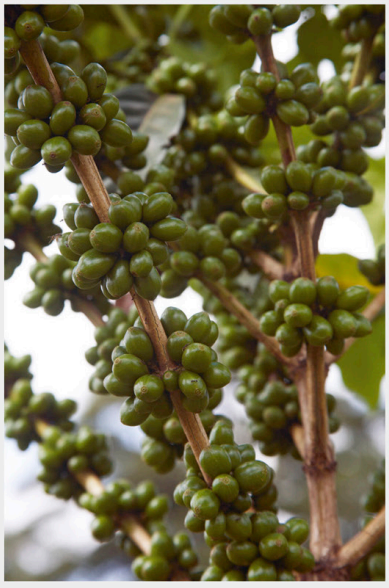
HARVEST Arabica March–August; Robusta May–June

PROCESSES Washed, some natural

MAIN TYPES 99% Arabica Bourbon, Caturra, Catuai; 1% Robusta

WORLD RANKING AS A PRODUCER 29th





UNRIPE ARABICA CHERRIES
When these ripen, Rwandan pickers gather each cherry by hand.

KEY

NOTABLE COFFEE-PRODUCING REGIONS

AREA OF PRODUCTION

0 km 20

0 miles 20

SOUTHERN PROVINCE

The higher elevations of Rwanda's Southern Province produce coffees with classic floral or citrus flavors and creamy textures—subtle and sweet.

EASTERN PROVINCE

The southeast corner is home to a small number of washing stations and farms that are slowly gaining a reputation for coffees with rich chocolate and forest-fruit notes.

IVORY COAST

The finest grades of Ivorian coffee can show layers of dark chocolate, nut, and tobacco notes. Ivory Coast is predominantly a Robusta producer.

When Ivory Coast (Côte d'Ivoire) gained independence from France in 1960, the new president wanted to develop a milder, sweeter, and less bitter coffee. Research into hybrids of Robusta and Arabica led to a new and improved Arabusta, nicknamed the "Presidential Coffee."

In spite of its improved taste, producers did not embrace the new plant, as it took longer to reach its first harvest, yielded less, and required more care. Only a few small producers fly the Arabusta flag.

Ivory Coast was once the third-largest coffee producer after Brazil and Colombia, and while coffee remains its second-largest export, Brazil and Vietnam have long since surpassed it in overall volume. Production peaked in 2000 but has dropped significantly since then due to a lack of investment and two civil wars. Recently, more funds have been allocated for farmer training schemes. Ivorians aren't too fond of the sometimes-bitter taste of their coffee, but the way to their hearts might just be through the variety they nearly lost, Arabusta.

IVORIAN COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 1.08%

HARVEST November–April

PROCESS Natural

MAIN TYPES Robusta; Arabusta

WORLD RANKING AS A PRODUCER 14th

DEMOCRATIC REPUBLIC OF THE CONGO

Democratic Republic of the Congo (DRC) is rebuilding its coffee industry and today has some of the finest coffee in the world—rich and heavy bodied with berry, spice, and chocolate notes, rivaling that of its more established neighbors.

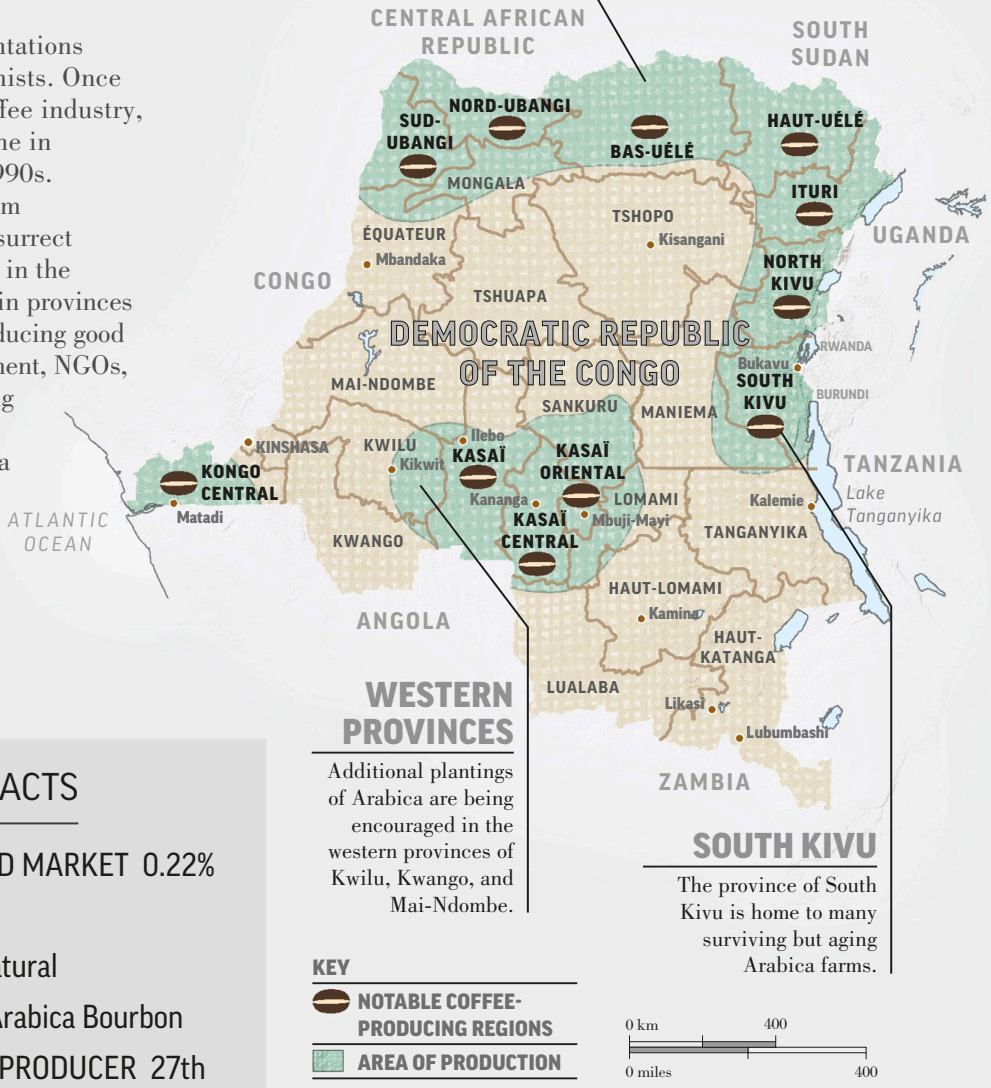
DRC saw its first large plantations established by Belgian colonists. Once a country with a thriving coffee industry, it experienced a steep decline in production from the early 1990s.

In 2012, a recovery program was introduced, aiming to resurrect production to the levels seen in the 1980s. This work is focused in provinces across the country and is producing good results, thanks to the government, NGOs, and the private sector working together for a common goal.

The beginnings of a new era for DRC's coffee can be seen. The Congolese are now viewing coffee as a way to heal some of the wounds caused by decades of exploitation and violence.

NORTHERN PROVINCES

There are plans to boost the production of Robusta in the northern provinces of Bas-Uélé, Haut-Uélé, and Tshopo.



WESTERN PROVINCES

Additional plantings of Arabica are being encouraged in the western provinces of Kwilu, Kwango, and Mai-Ndombe.

SOUTH KIVU

The province of South Kivu is home to many surviving but aging Arabica farms.

KEY

- NOTABLE COFFEE-PRODUCING REGIONS
- AREA OF PRODUCTION

0 km 400
0 miles 400

DRC COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 0.22%
HARVEST October–May
PROCESSES Washed, natural
MAIN TYPES Robusta; Arabica Bourbon
WORLD RANKING AS A PRODUCER 27th

BURUNDI

Producing coffees that range from soft, floral, and sweetly citrus to chocolaty and nutty, Burundi offers few distinct regional flavor profiles, but its diverse coffees capture interest from specialty companies.

Burundi has been growing coffee only since the 1930s, and it has taken a while for its great coffees to get onto the radar of connoisseurs. The coffee sector has struggled through political instability and climatic challenges, and being a landlocked country makes it difficult to get coffee to buyers without quality suffering noticeably.

Robusta grows in some small pockets, but the majority of the crop is Arabica—washed Bourbon, Jackson, or Mibirizi, grown largely organically, as funds for chemical fertilizers or pesticides have not been available. There are about 600,000 growers with 200–300 trees each, who normally also grow other food crops or keep livestock. Growers deliver to washing stations (see Local Technique, right). These stations are members of Sogestals—companies that look after the transportation and commercial aspects.

Coffee suffers from the potato defect (see p.74), but local research aims to reduce the problem.

LOCAL TECHNIQUE

There are more than 160 washing stations dotted around the hilly areas of Burundi. These stations wash the coffee beans in specialized tanks (see p.21).

BOURBON CHERRIES
Burundi grows mostly Bourbon, which was introduced to Réunion Island by French missionaries.

BURUNDIAN COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 0.14%

HARVEST February–June

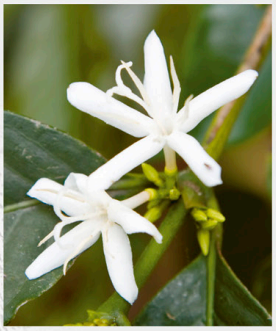
PROCESS Washed

MAIN TYPES 96% Arabica Bourbon, Jackson, Mibirizi; 4% Robusta

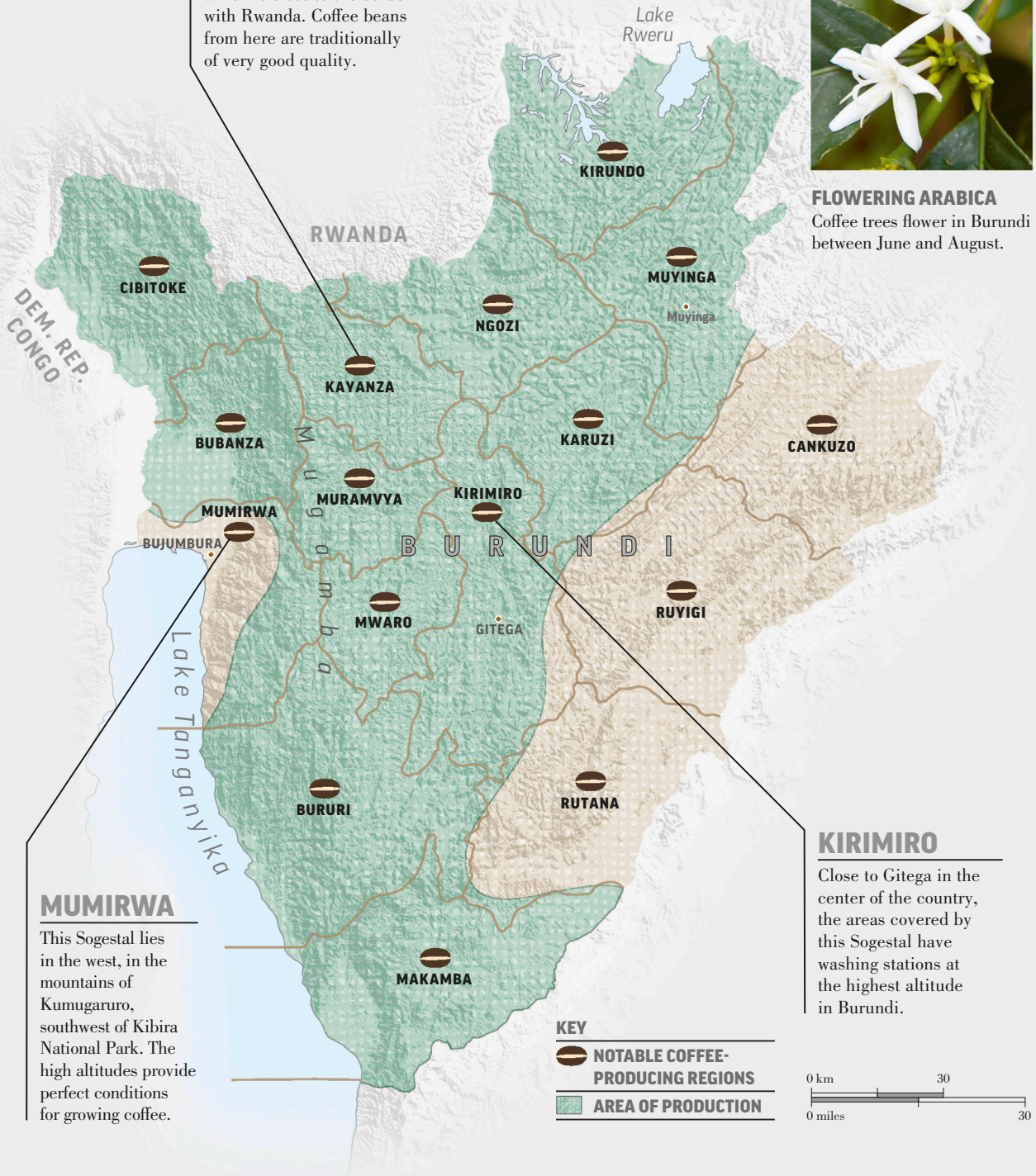
WORLD RANKING AS A PRODUCER 30th

KAYANZA

The Kayanza region is in the northern part of Burundi, which is close to the border with Rwanda. Coffee beans from here are traditionally of very good quality.



FLOWERING ARABICA
Coffee trees flower in Burundi between June and August.



KIRIMIRO

Close to Gitega in the center of the country, the areas covered by this Sogestal have washing stations at the highest altitude in Burundi.

MUMIRWA

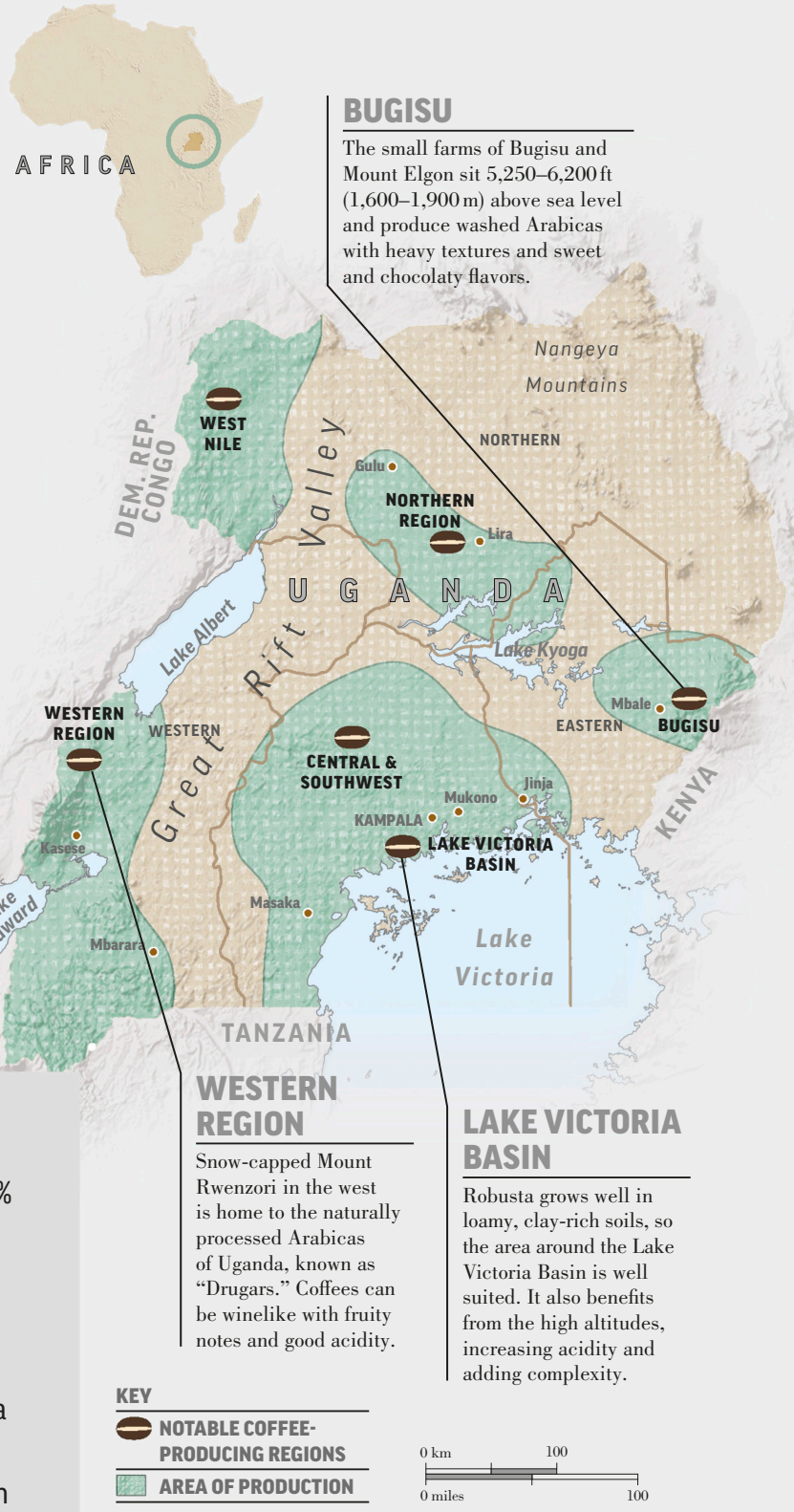
This Sogestal lies in the west, in the mountains of Kumugaruro, southwest of Kibira National Park. The high altitudes provide perfect conditions for growing coffee.

UGANDA

Robusta is indigenous to Uganda and still grows wild in some places—little wonder that the country is the world's second-largest exporter of Robusta coffee.

Arabica was introduced in the early 1900s, and most of it is now grown on the foothills of Mount Elgon. About 3 million families rely on the coffee sector for income. Some Arabica is produced, including Typica and SL varieties.

For both Arabica and Robusta, new production and processing practices increase coffee quality. Robusta, generally thought of as inferior to Arabica and traditionally grown in lowland areas, grows here at heights of 4,900 ft (1,500 m). The beans are also washed, not naturally processed (see pp.20–21). As quality improves, farmers reap the rewards of good agricultural practice.



UGANDAN COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 2.7%

HARVESTS Arabica October–February; Robusta all year, peak in November–February

PROCESSES Washed and natural

MAIN TYPES 80% Robusta; 20% Arabica Typica, SL 14, SL 28, Kent

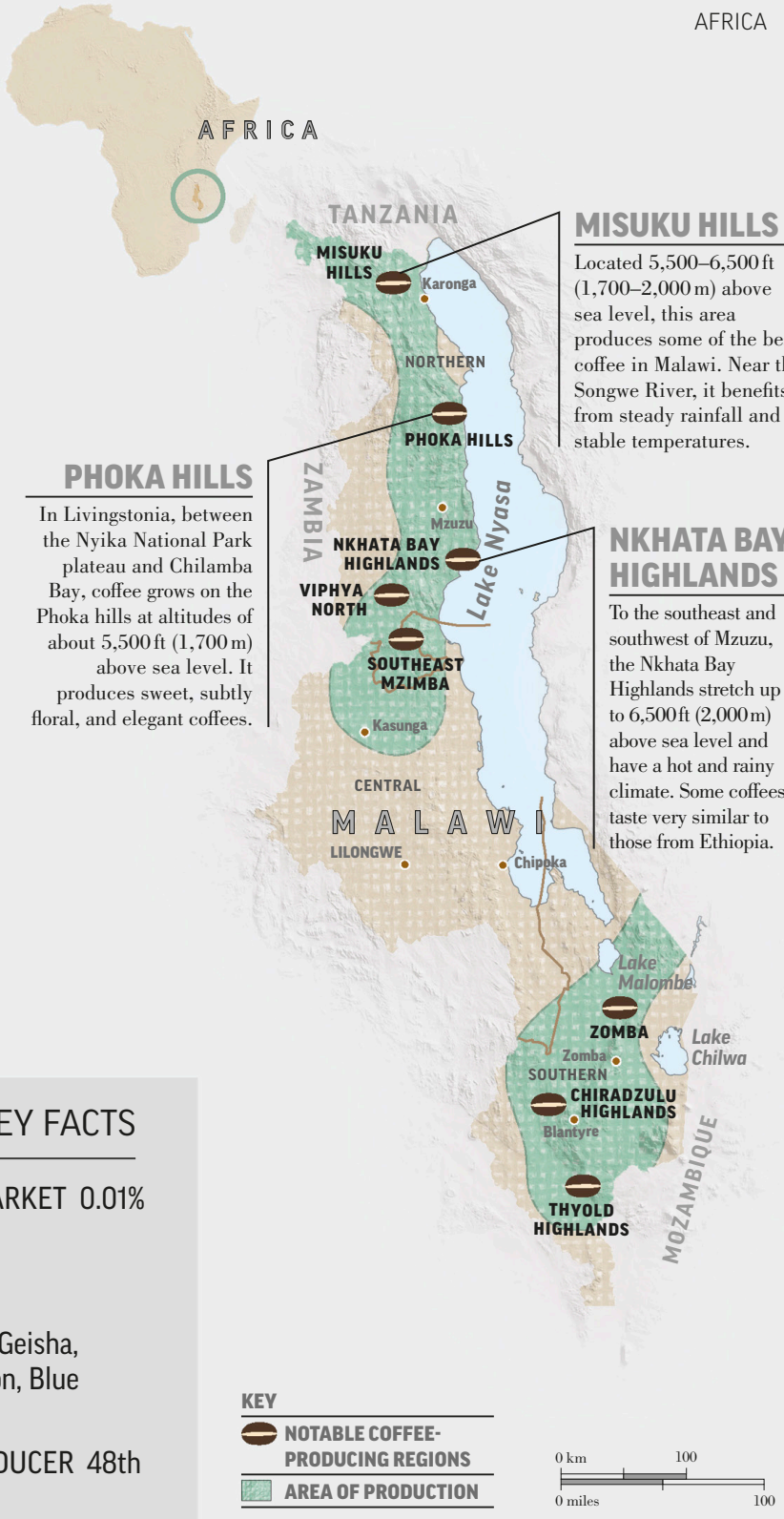
WORLD RANKING AS A PRODUCER 8th

MALAWI

One of the world's smallest producers, Malawi is drawing interest for its subtle, floral, East African coffees.

Coffee came to Malawi in 1891, brought by the British. Uniquely, the Arabica varieties here are predominantly Geisha and Catimor, with some Agaro, Mundo Novo, Bourbon, and Blue Mountain. Kenyan SL 28 is also being planted to help invigorate the specialty sector.

Unlike in other African countries, many coffee trees are grown on terraces to try to combat soil erosion and retain water. Malawi produces about 20,000 bags on average per year and consumes very few of those internally. About 500,000 farmers grow coffee.



MISUKU HILLS

Located 5,500–6,500 ft (1,700–2,000 m) above sea level, this area produces some of the best coffee in Malawi. Near the Songwe River, it benefits from steady rainfall and stable temperatures.

PHOKA HILLS

In Livingstonia, between the Nyika National Park plateau and Chilamba Bay, coffee grows on the Phoka hills at altitudes of about 5,500 ft (1,700 m) above sea level. It produces sweet, subtly floral, and elegant coffees.

NKHATA BAY HIGHLANDS

To the southeast and southwest of Mzuzu, the Nkhata Bay Highlands stretch up to 6,500 ft (2,000 m) above sea level and have a hot and rainy climate. Some coffees taste very similar to those from Ethiopia.

MALAWIAN COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 0.01%

HARVEST June–October

PROCESS Washed

MAIN TYPES Arabica Agaro, Geisha, Catimor, Mundo Novo, Bourbon, Blue Mountain, Caturra

WORLD RANKING AS A PRODUCER 48th

CAMEROON

Dominated by Robusta, Cameroonian coffees are heavy bodied and low in acidity, with notes of cocoa and nuts and an earthy aroma.

Coffee growing in Cameroon started in German colonial times in the late 1800s. Rather than roll out extensive plantations, the colonists established regional trial gardens. Concluding that Littoral and West were the areas best suited, the industry expanded in earnest in the 1950s. However, in the early 1990s, the government cut subsidies and liberalized the sector, causing costs to soar. Unable to turn reliable profits, many producers converted their farms to other, more stable cash crops.

Once the eighth-largest coffee producer in the world, Cameroon's industry has faced multiple challenges, and output has declined severely. To boost the sector, the government has encouraged Cameroonians to drink more coffee. Increased domestic consumption will indeed help the sector and provide much-needed income in rural areas.

CAMEROONIAN COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 0.23%
HARVEST October–January
PROCESS Washed, pulped natural, natural
MAIN TYPES Robusta; Arabica Java, Typica
WORLD RANKING AS A PRODUCER 26th

ZAMBIA

With flavors from fruit punch to floral, chocolate to caramel, and both sweetness and acidity, Zambian coffee is notably East African in expression, thanks to seeds brought in from Kenya and Tanzania.

A latecomer to the industry, Zambia didn't grow coffee until the 1950s. British colonialists brought Bourbon seeds from Kenya and Tanzania and established large estates around Lusaka. The conditions were adequate but not optimal.

After Zambia won independence in 1964, work to maintain the coffee industry continued. In the 1970s, the focus moved to finding better soils and climate, and production gradually moved to the Northern Province and Muchinga. Within a few years, more than 1,000 local small producers had embraced the new crop. In 1985, Zambia exported its first bags of coffee.

Zambian coffee has gone through periods of peaks and valleys, from a high of 119,000 bags in 2003 to a low of 3,000 in 2014. The numbers are on the rise again, boosted by funding from the private and public sectors.

KEY

NOTABLE COFFEE-PRODUCING REGIONS

AREA OF PRODUCTION

0 km 200

0 miles 200

ZAMBIAN COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 0.01%

HARVEST June–October

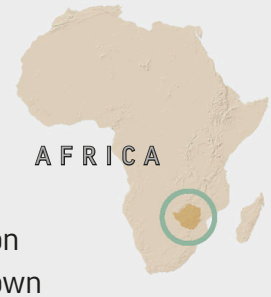
PROCESSES Washed, natural, honey

MAIN TYPES Arabica Bourbon, Catimor, Castillo, Java

WORLD RANKING AS A PRODUCER 52nd

ZIMBABWE

Zimbabwe didn't see commercial-level coffee production take off until the 1960s. Zimbabwean Arabicas are known for their citrusy, winelike, and sweet characteristics.



Some small farms had been established in the 1890s, but diseases and droughts over the next few decades meant the crop struggled to get a foothold. With renewed optimism, the 1960s and 1990s saw the sector go through a golden period of growth.

But at the start of the 2000s, the volatile political climate, failing economy, and growing dissent fueled a growing number of militants, who seized private farms and land back from white owners. All but a handful of white commercial farmers left their properties. Production dropped to a low of just 7,000 bags in 2013.

Since the new government came to power in 2017, renewed energy and hope for the sector have started to emerge. Boosted by interest from the private sector and NGOs, Zimbabwe's coffee regions are planting again.

HONDE VALLEY

More remote areas, such as Honde Valley, are seeing a resurgence. From some 2,000 farmers in 2000, only around 300 small producers still tend to their coffee fields here. However, the number is expected to multiply over the next few years.

EASTERN HIGHLANDS

The Zimbabwean coffee lands run along the eastern highlands bordering Mozambique. They encompass Chipinge and Chimanimani in the south, Vumba farther west, and Honde Valley and Mutasa in the north.

ZIMBABWEAN COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 0.01%
HARVEST June–October
PROCESS Washed
MAIN TYPES Arabica Catimor, Caturra
WORLD RANKING AS A PRODUCER 53rd

MADAGASCAR

Madagascar is home to a treasure trove of very rare coffee species, with potential flavors we have yet to discover. The Malagasy coffees we do have access to can come in many forms, from earthy and toffeelike to citrusy and floral.

As one of the most biodiverse places on the planet, it might not come as a surprise that this island nation is also a precious bounty of wild coffee species. Of the 124 recorded species, more than 50 grow only in Madagascar. It is a unique and invaluable genetic resource for a crop that is essentially a monoculture everywhere else in the world, with its associated risks of susceptibility to disease, pests, and a changing climate.

Sixty percent of the species are considered to be under threat of extinction, including wild Arabica. The future of coffee could depend on the urgent and important work being done to protect habitats for its wild-growing relatives and increasing the number of species currently saved in seed banks.

NORTHEAST AND CENTRAL REGIONS

A small amount of Arabica is found in the northeast and central regions. Arabica grows in Mahajanga, Haute-Matsiatra, and Amoron'i Mania.

ROBUSTA AREAS

Around 98 percent of the island's production is Robusta. As well as on Nosy Be Island, Robusta can be found in Atsinanana, Haute-Matsiatra, and Atsimo-Andrefana.

KEY

NOTABLE COFFEE-PRODUCING REGIONS

AREA OF PRODUCTION

0 km 200

0 miles 200

MALAGASY COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 0.29%

HARVEST May–October

PROCESSES Natural, washed

MAIN TYPES Robusta; Arabica Typica, Bourbon, Catimor

WORLD RANKING AS A PRODUCER 24th

COFFEES
OF THE WORLD

INDONESIA, ASIA, AND OCEANIA

INDIA

Indian Arabica and Robusta are especially popular for espresso preparation, because they are heavy-bodied and low in acidity. There are some defined regional flavor attributes, and exporters are eager to discover more.

Coffee in India is grown under shade, normally alongside other crops, such as pepper, cardamom, ginger, nuts, oranges, vanilla, bananas, mangoes, and jackfruits. At harvest, coffee cherries are either washed, naturally processed, or "monsooned" (see Local Technique, right)—a method that is unique to India.

Arabica grows here, including Catimor, Kent, and S 795 varieties, but the majority of the crop is Robusta. There are about 250,000 growers in India, nearly all small producers. For almost a million people, coffee is a livelihood. Harvest occurs twice a year for Robusta, but this often varies by several weeks, depending on the climatic conditions.

In the last five years, production has averaged about 5.7 million bags per year. Around 80 percent of this is exported, but more and more Indians choose to drink local coffee.

Traditional Indian filter coffee, made from three quarters coffee and one quarter chicory, is popular around the country.

ROBUSTA CHERRIES
After harvest, Indian Robusta beans are sometimes processed using the monsooned method.

INDIAN COFFEE KEY FACTS

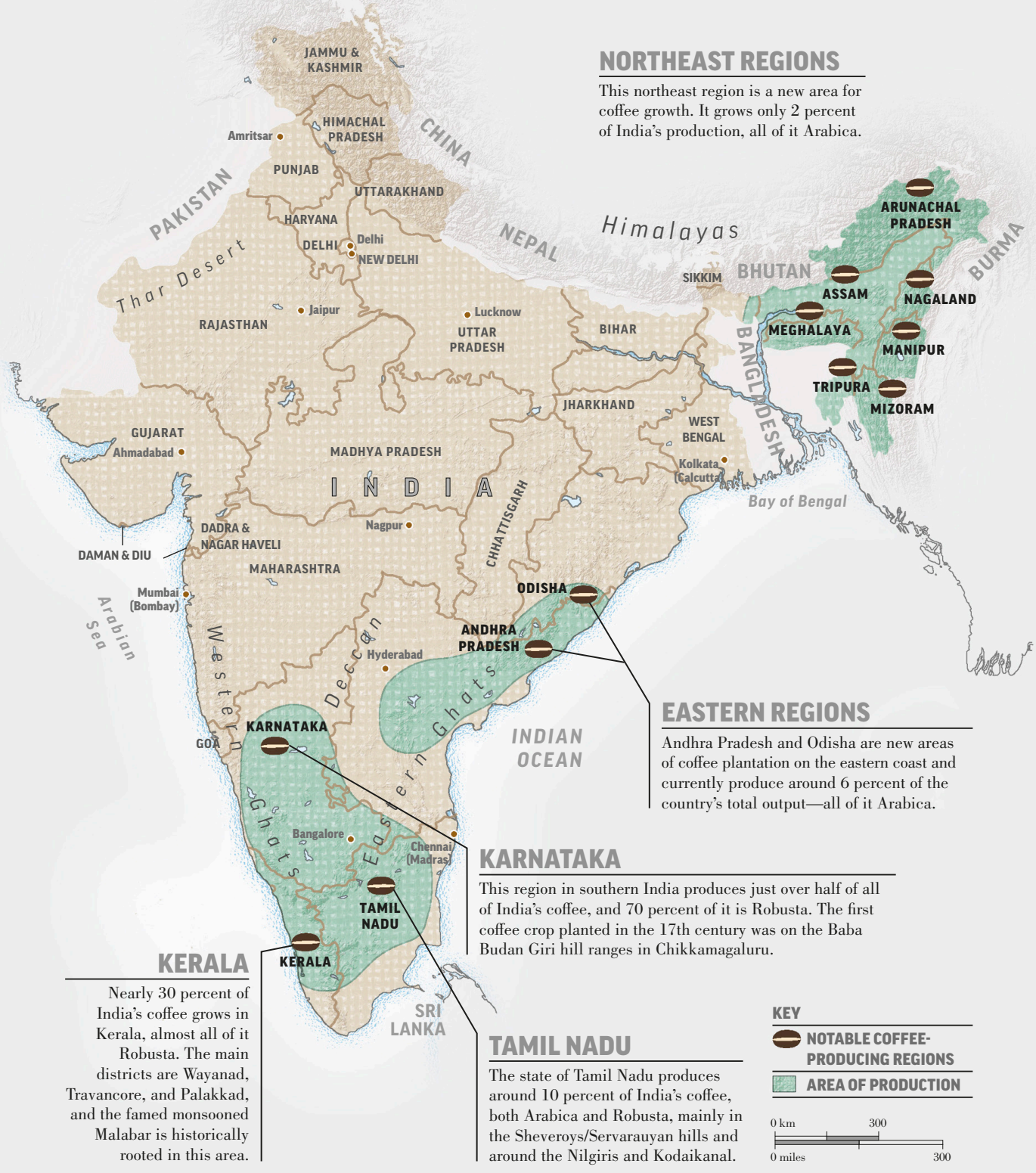
PERCENTAGE OF WORLD MARKET 3.5%

HARVEST Arabica October–February; Robusta January–March

PROCESSES Natural, washed, semi-washed, and monsooned

MAIN TYPES 60% Robusta; 40% Arabica Cauvery/Catimor, Kent, S 795, Selections 4, 5B, 9, 10, San Ramon, Caturra, Devamachy

WORLD RANKING AS A PRODUCER 7th



NORTHEAST REGIONS

This northeast region is a new area for coffee growth. It grows only 2 percent of India's production, all of it Arabica.

EASTERN REGIONS

Andhra Pradesh and Odisha are new areas of coffee plantation on the eastern coast and currently produce around 6 percent of the country's total output—all of it Arabica.

KARNATAKA

This region in southern India produces just over half of all of India's coffee, and 70 percent of it is Robusta. The first coffee crop planted in the 17th century was on the Baba Budan Giri hill ranges in Chikkamagaluru.

KERALA

Nearly 30 percent of India's coffee grows in Kerala, almost all of it Robusta. The main districts are Wayanad, Travancore, and Palakkad, and the famed monsooned Malabar is historically rooted in this area.

TAMIL NADU

The state of Tamil Nadu produces around 10 percent of India's coffee, both Arabica and Robusta, mainly in the Sheveroys/Servarauyan hills and around the Nilgiris and Kodaikanal.

KEY

- NOTABLE COFFEE-PRODUCING REGIONS
- AREA OF PRODUCTION

0 km 300

0 miles 300

SRI LANKA

An emerging specialty coffee market is tracing its roots back to wild Ethiopian varieties, with potential for floral and fruity flavors rarely seen elsewhere.

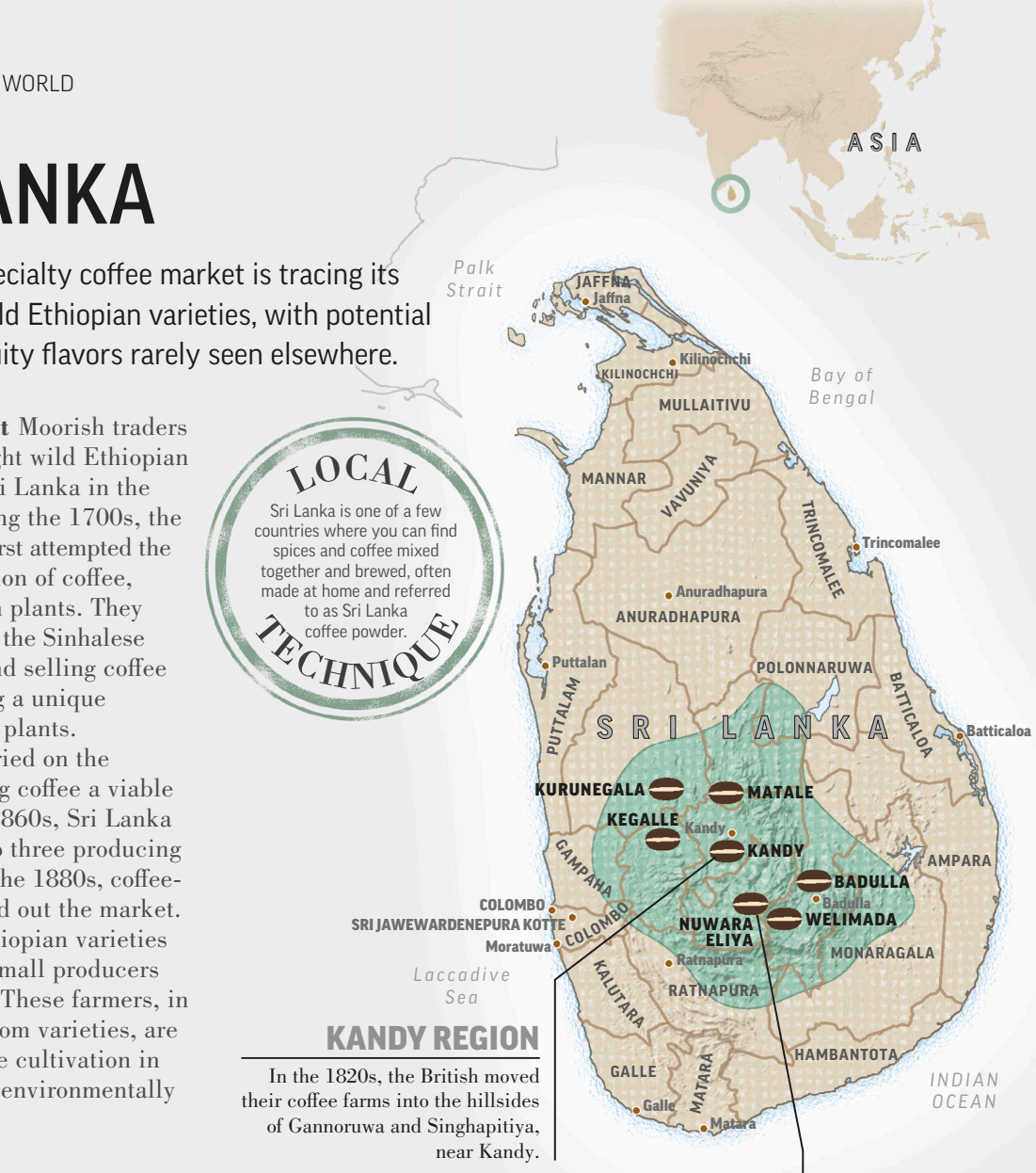
It is thought that Moorish traders from Yemen brought wild Ethiopian coffee plants to Sri Lanka in the early 1500s. During the 1700s, the Dutch occupiers first attempted the organized production of coffee, bringing their own plants. They largely failed, and the Sinhalese started growing and selling coffee locally, preserving a unique diversity of coffee plants.

The British carried on the attempts at making coffee a viable crop, and by the 1860s, Sri Lanka was among the top three producing countries. But by the 1880s, coffee-leaf rust had wiped out the market.

Some of the Ethiopian varieties protected by the small producers survived the rust. These farmers, in focusing on heirloom varieties, are approaching coffee cultivation in a sustainable and environmentally friendly way.

LOCAL TECHNIQUE

Sri Lanka is one of a few countries where you can find spices and coffee mixed together and brewed, often made at home and referred to as Sri Lanka coffee powder.



KANDY REGION

In the 1820s, the British moved their coffee farms into the hillsides of Gannoruwa and Singhapitiya, near Kandy.

NUWARA ELIYA

Some trees in this area are thought to date back as many as 150 years. From these invaluable biological resources, a small but burgeoning specialty industry is emerging, spurred on by general global demand.

SRI LANKAN COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 0.02%
HARVEST October–March
PROCESSES Natural, washed
MAIN TYPES Robusta; Arabica
WORLD RANKING AS A PRODUCER 46th

NEPAL

Described as both sweet and savory, with cedar, dried fruit, and citrus notes, coffee from Nepal is bringing a taste of the Himalayas to a growing market of discerning consumers.

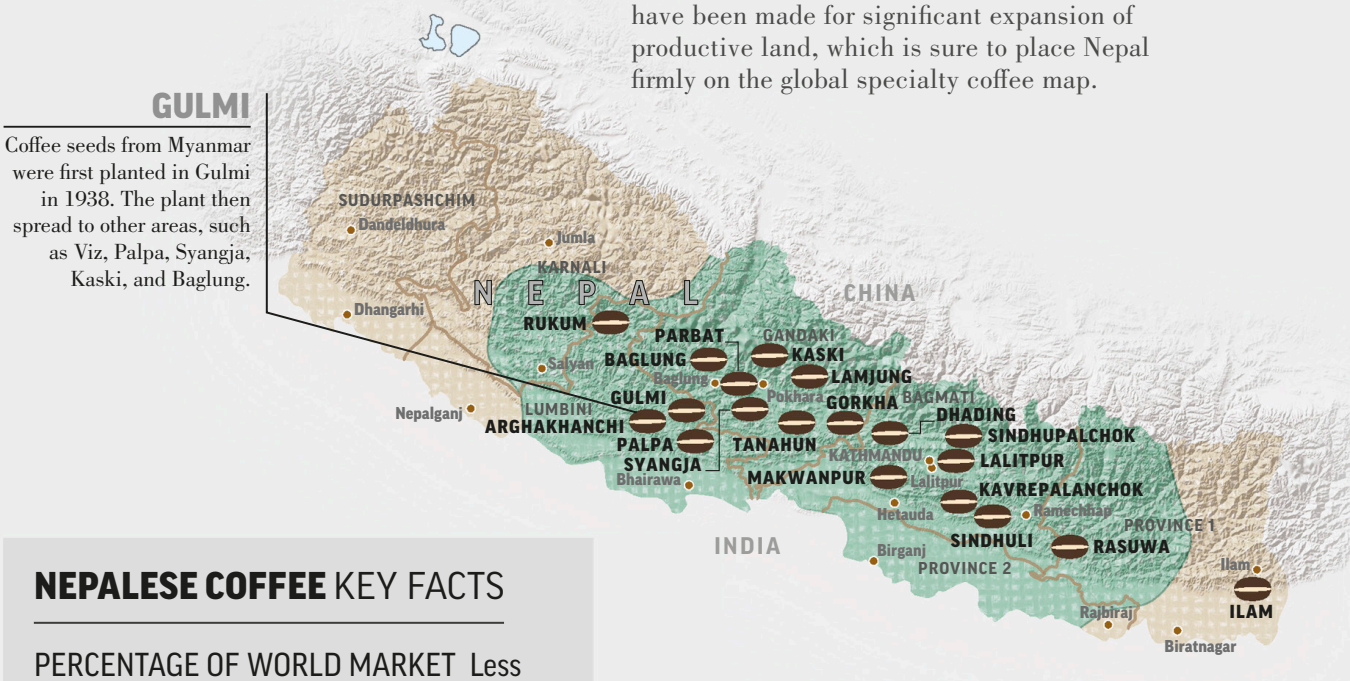
Hira Giri is said to be the man who brought coffee to Nepal, in 1938. Farmers grew coffee to drink at home or sell on the local market. Any further progress was cut short as coffee-leaf rust swept across the country, killing the majority of the plans. Farmers changed to growing tea instead.

In the late 1970s, a new stock of seeds arrived from India, and small coffee farms reemerged. Commercial production began in earnest in the 1990s, and significant progress was made over the following 10 years.

Coffee now grows in 42 districts and provides an income to around 32,500 households. Plans have been made for significant expansion of productive land, which is sure to place Nepal firmly on the global specialty coffee map.

GULMI

Coffee seeds from Myanmar were first planted in Gulmi in 1938. The plant then spread to other areas, such as Viz, Palpa, Syangja, Kaski, and Baglung.



NEPALESE COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET Less than 0.01%

HARVEST December–January

PROCESS Washed

MAIN TYPES Arabica Bourbon, Typica, Pacamara, Caturra

WORLD RANKING AS A PRODUCER 58th

HIMALAYAS

Coffee from the Himalayas captured the imagination of tourists and expats as well as the Nepali themselves. Between 30 and 50 percent of their total harvest is kept for domestic consumption.

KEY

NOTABLE COFFEE-PRODUCING REGIONS

AREA OF PRODUCTION

0 km 100

0 miles 100

SUMATRA

Sumatra is the largest island within Indonesia. Coffees here can have wooden notes, heavy textures, low acidity, and flavors that range from earthy, cedary, and spicy to fermented fruit, cocoa, herbs, leather, and tobacco.

Indonesia produces mostly rustic-flavored Robusta and a small proportion of Arabica. The first coffee plantations in Sumatra appeared in 1888, and they are now the largest producer of Indonesian Robusta, supplying around 75 percent of the country's total output.

Of the Arabicas, Typica is still the most common. Some Bourbon, as well as S-line hybrids, Caturra, Catimor, Hibrido de Timor (Tim Tim), and Ethiopian lines called Rambung and Abyssinia are also grown here.

Producers often grow mixed plots of various trees, causing a lot of natural hybridization. Water can be scarce, so growers mostly use the traditional Giling Basah processing method (see Local Technique, right), giving the coffee its blue-green color. Unfortunately, the method can cause damaged beans and defect taints.

The quality of Indonesian coffees is inconsistent, and internal logistical challenges make it difficult to source premium selections.

LOCAL TECHNIQUE

The Giling Basah method involves pulping the coffee beans (see p.20), leaving them to dry for a day or so, and then hulling the parchment while the beans still have a high moisture content.

RIPE ROBUSTA FRUIT
Sumatran Robusta trees grow predominantly in the central and southern part of the island.

SUMATRAN COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 7.2% (Indonesia)

HARVEST October–March

PROCESSES Giling Basah and washed

MAIN TYPES 75% Robusta; 25% Arabica Typica, Caturra, Bourbon, S-line hybrids, Catimor, Tim Tim

WORLD RANKING AS A PRODUCER 4th (Indonesia)


ACEH
At the northern tip of Sumatra, the areas around Gayo Mountain, Takengon, and Lake Laut Tawar are home to farms at 3,600–4,260 ft (1,100–1,300 m) above sea level.
KEY
NOTABLE COFFEE-PRODUCING REGIONS
AREA OF PRODUCTION
0 km 200
0 miles 200
LAMPUNG
At the southern tip of the island is one of the biggest Robusta-producing regions in Sumatra, with a well-suited climate and altitudes of 1,300–2,300 ft (400–700 m) above sea level.
LINTONG
The coffee farms around Lake Toba lie at 3,900–4,900 ft (1,200–1,500 m) above sea level. Production stretches from Lintong Nihuta up to Sidikalang. This area grows some of Indonesia's most prized Arabicas.
SOUTHWEST REGION
Bengkulu and Mangkuraja are new areas of coffee production, where Giling Basah and naturally processed beans are prepared, resulting in heavy, rustic-tasting Robustas.
Andaman Sea
Banda Aceh
ACEH
Medan
SUMATERA UTARA
Lake Toba
LINTONG
Simeulue
Strait of Malacca
MALAYSIA
Barisan Mountains
RIAU
Pekanbaru
INDONESIA
Sumatra
Siberut
Padang
Mentawai Strait
SUMATERA BARAT
Jambi
JAMBI
SUMATERA SELATAN
Palembang
BENGKULU & MANGKURAJA (SOUTHWEST REGION)
BENGKULU
LAMPUNG
Bandarlampung
INDIAN OCEAN

SULAWESI

Of all the islands in Indonesia, Sulawesi grows the most Arabica trees. Well-processed coffees display flavors of grapefruit, berries, nuts, and spices. Coffees often taste savory, and most have low acidity and thick texture.

Sulawesi represents only about 2 percent of Indonesia's coffee crop, with roughly 7,715 tons (7,000 tonnes) of Arabica produced per year. Some Robusta is also grown, but it is largely consumed in Sulawesi rather than being exported.

Sulawesi has iron-rich soils and grows old Typica, S 795, and Jember varieties at very high altitudes. Most of the farmers here are small producers—only about 5 percent of the crop comes from larger estates. Giling Basah is the traditional processing method, as used in Sumatra (see p.92). This results in coffee beans that display a hint of the classic Indonesian dark-green color.

Some producers are starting to wash coffee beans (see pp.20–21) in a similar way to Central America, which helps add value to their product. Much of this development is due to Japanese importers, who are the biggest buyers and have invested heavily in the Sulawesian coffee industry to ensure that high-quality standards are met.

RIPENING ROBUSTA
The small proportion of Robusta trees in Sulawesi are mostly found in the northeastern areas.

SULAWESIAN COFFEE KEY FACTS

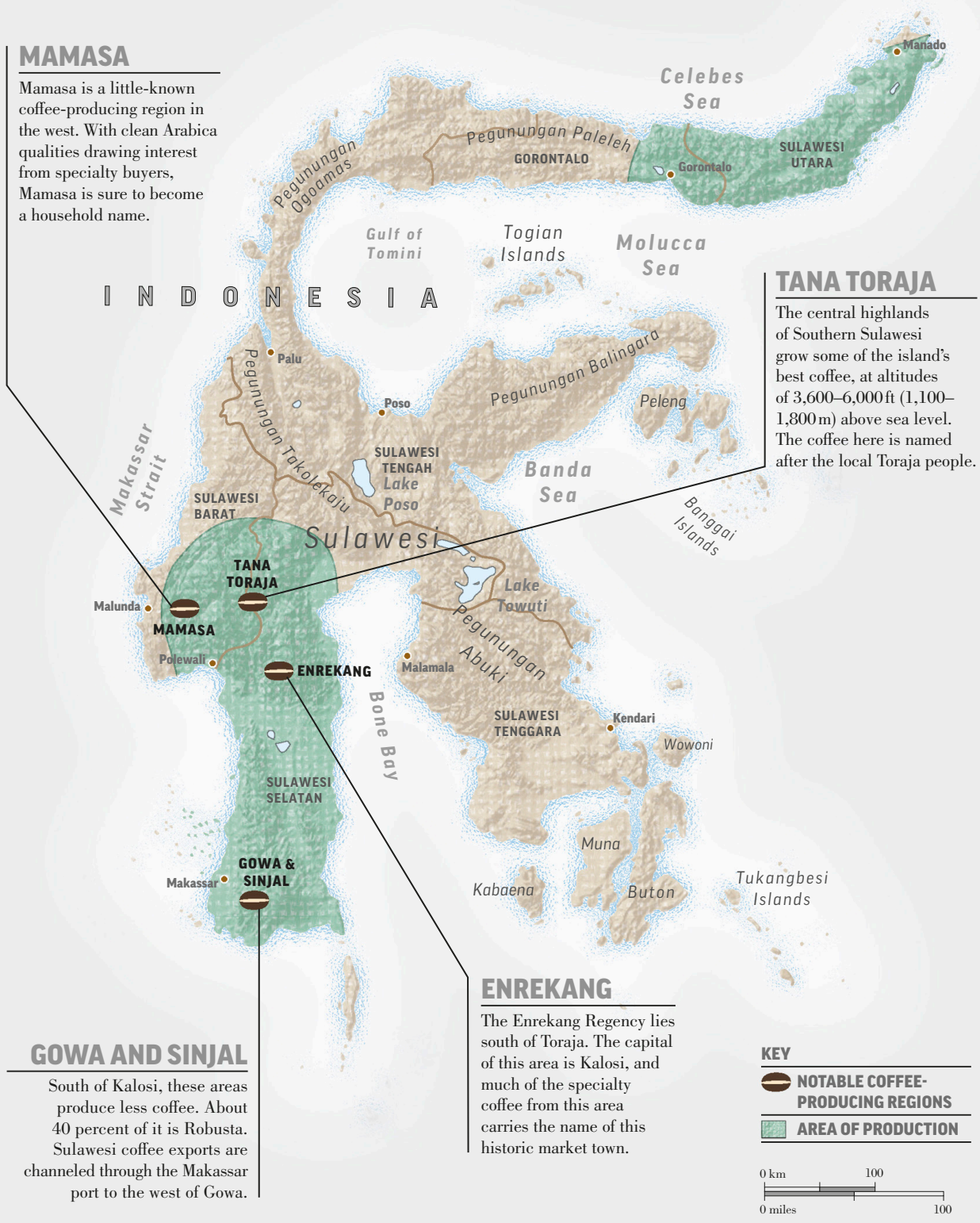
PERCENTAGE OF WORLD MARKET 7.2% (Indonesia)

HARVEST July–September

PROCESSES Giling Basah and washed

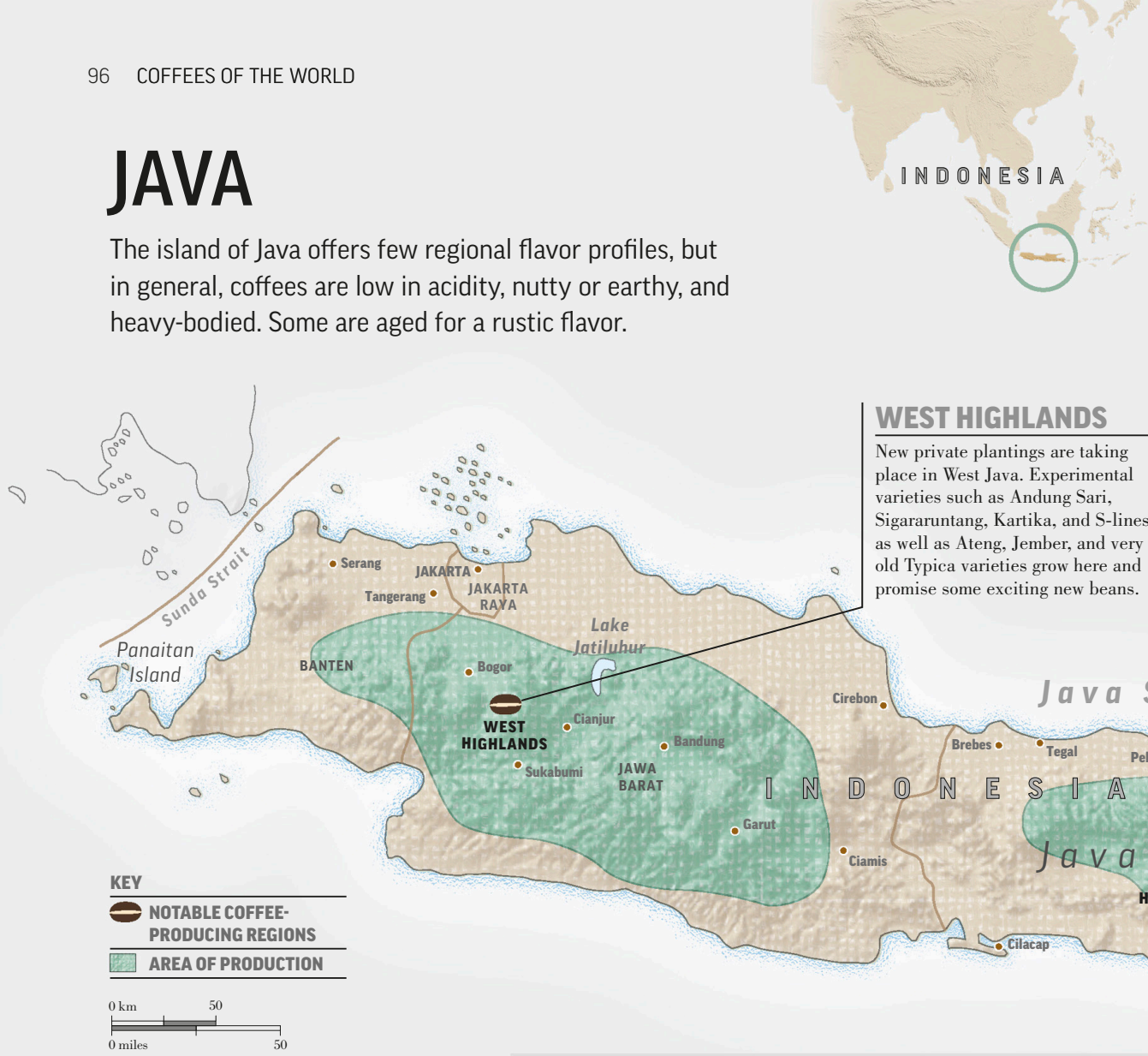
MAIN TYPES 95% Arabica Typica, S 795, Jember; 5% Robusta

WORLD RANKING AS A PRODUCER 4th (Indonesia)


MAMASA
Mamasa is a little-known coffee-producing region in the west. With clean Arabica qualities drawing interest from specialty buyers, Mamasa is sure to become a household name.
TANA TORAJA
The central highlands of Southern Sulawesi grow some of the island's best coffee, at altitudes of 3,600–6,000 ft (1,100–1,800 m) above sea level. The coffee here is named after the local Toraja people.
ENREKANG
The Enrekang Regency lies south of Toraja. The capital of this area is Kalosi, and much of the specialty coffee from this area carries the name of this historic market town.
GOWA AND SINJAL
South of Kalosi, these areas produce less coffee. About 40 percent of it is Robusta. Sulawesi coffee exports are channeled through the Makassar port to the west of Gowa.
Celebes Sea
Manado
Pegunungan Paleleh
GORONTALO
Gorontalo
SULAWESI UTARA
Pegunungan Ogoamas
Gulf of Tomini
Togian Islands
Molucca Sea
INDONESIA
Palu
Pegunungan Balingara
Poso
Peleng
Pegunungan Takolekaju
SULAWESI TENGAH
Lake Poso
Banda Sea
Makassar Strait
SULAWESI BARAT
Sulawesi
Banggai Islands
TANA TORAJA
Lake Towuti
Malunda
MAMASA
Pegunungan Abuki
Polewali
ENREKANG
Malamala
Bone Bay
SULAWESI TENGGARA
Kendari
Wowoni
SULAWESI SELATAN
Muna
GOWA & SINJAL
Makassar
Kabaena
Buton
Tukangbesi Islands
KEY
NOTABLE COFFEE-PRODUCING REGIONS
AREA OF PRODUCTION
0 km 100
0 miles 100

JAVA

The island of Java offers few regional flavor profiles, but in general, coffees are low in acidity, nutty or earthy, and heavy-bodied. Some are aged for a rustic flavor.



WEST HIGHLANDS

New private plantings are taking place in West Java. Experimental varieties such as Andung Sari, Sigararuntang, Kartika, and S-lines as well as Ateng, Jember, and very old Typica varieties grow here and promise some exciting new beans.

LOCAL TECHNIQUE

Javans mainly use the washed method. This decreases the risk of taints or defects caused when the beans are processed by using the Giling Basah method (see p.92).

JAVANESE COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 7.2% (Indonesia)

HARVEST June–October

PROCESS Washed

MAIN TYPES 90% Robusta; 10% Arabica, Andung Sari, S-lines, Kartika, Ateng, Sigararuntang, Jember, Typica

WORLD RANKING AS A PRODUCER 4th (Indonesia)

Indonesia was the first non-African country to cultivate coffee on a large scale. It began in 1696 with the areas around Jakarta, West Java. The first seedlings did not survive due to a flood, but in a second attempt three years later, they took root.

Production flourished until leaf rust killed most Typica trees in 1876, causing widespread planting of Robusta. New Arabica plantings did not occur until the 1950s and still only represent about 10 percent of Javanese coffee.

Most of the coffee grown in Java today is Robusta, but it also grows some varieties of Arabica, such as Ateng, Jember, and Typica. Coffee is largely grown on government-owned (PTP) plantations, centered at the Ijen Plateau in East Java. These state-owned plantations produce washed coffees, cleaner than many other Indonesian coffees. New private plantings are taking place in West Java, around Mount Pangalengan, making this area one to watch for the future.

ROBUSTA CLUSTER
Coffee cherries mature at different speeds—one of the reasons for the long harvest period in Java.

PRUNED ROBUSTA TREES
Javanese trees are sometimes allowed to grow high, but most are pruned to help the pickers during harvest.

EAST HIGHLANDS

The largest PTP plantations are Blawan, Jampit, Pancoer, Kayumas, and Tugosari. Robusta is grown on several estates, with Kaliselogiri and Satak being two of the most well known. There are also some private estates, such as Kalibendo and Ayer Dingin, located at lower altitudes, that use the Giling Basah method (see p.92).

EAST TIMOR

Still relatively unknown, but with great potential, the best-quality Timorese coffees are clean and well balanced and can show great complexity through brown sugar sweetness, floral high notes, and citric acidity.

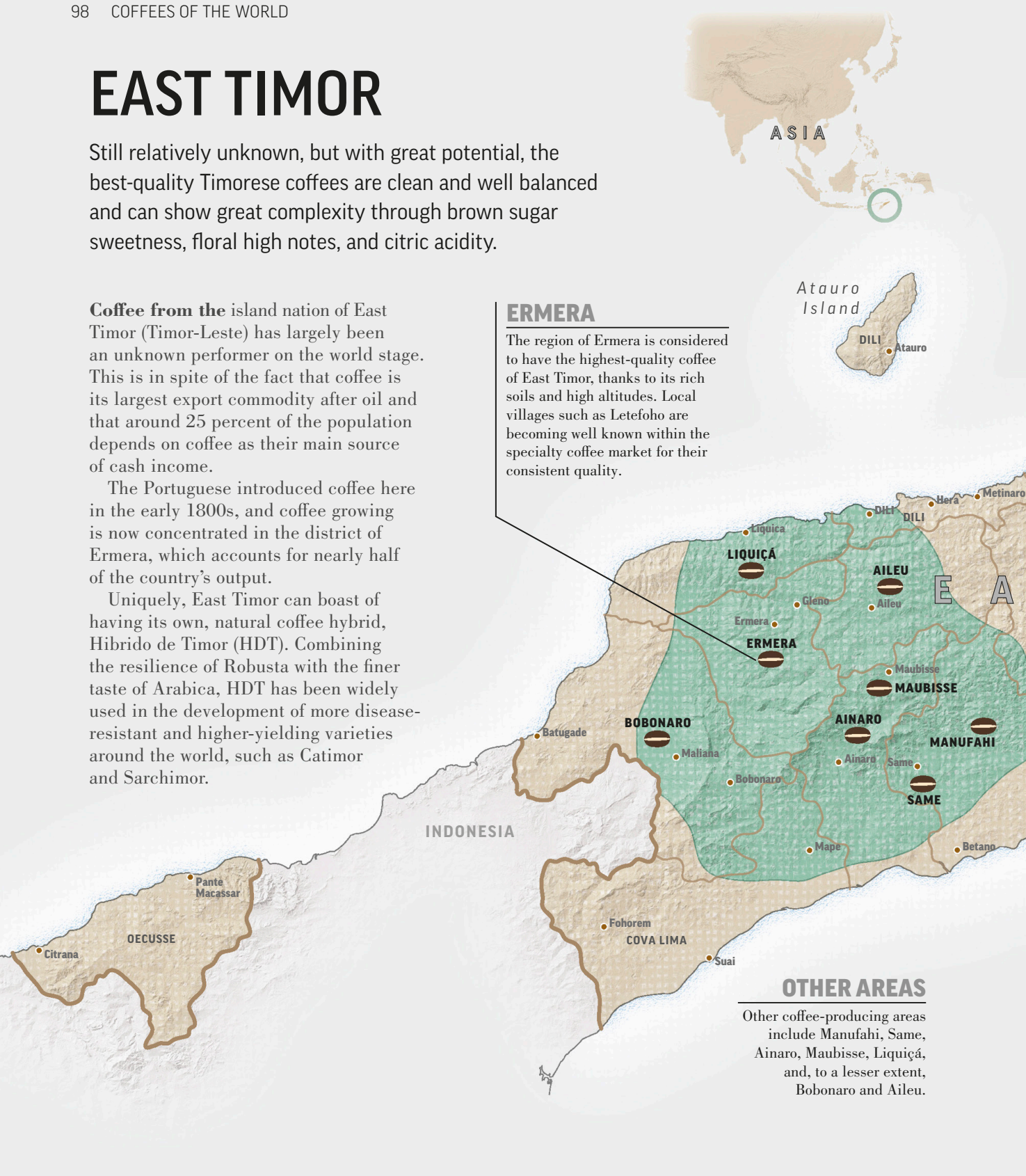
Coffee from the island nation of East Timor (Timor-Leste) has largely been an unknown performer on the world stage. This is in spite of the fact that coffee is its largest export commodity after oil and that around 25 percent of the population depends on coffee as their main source of cash income.

The Portuguese introduced coffee here in the early 1800s, and coffee growing is now concentrated in the district of Ermera, which accounts for nearly half of the country's output.

Uniquely, East Timor can boast of having its own, natural coffee hybrid, Hibrido de Timor (HDT). Combining the resilience of Robusta with the finer taste of Arabica, HDT has been widely used in the development of more disease-resistant and higher-yielding varieties around the world, such as Catimor and Sarchimor.

ERMERA

The region of Ermera is considered to have the highest-quality coffee of East Timor, thanks to its rich soils and high altitudes. Local villages such as Letefoho are becoming well known within the specialty coffee market for their consistent quality.



OTHER AREAS

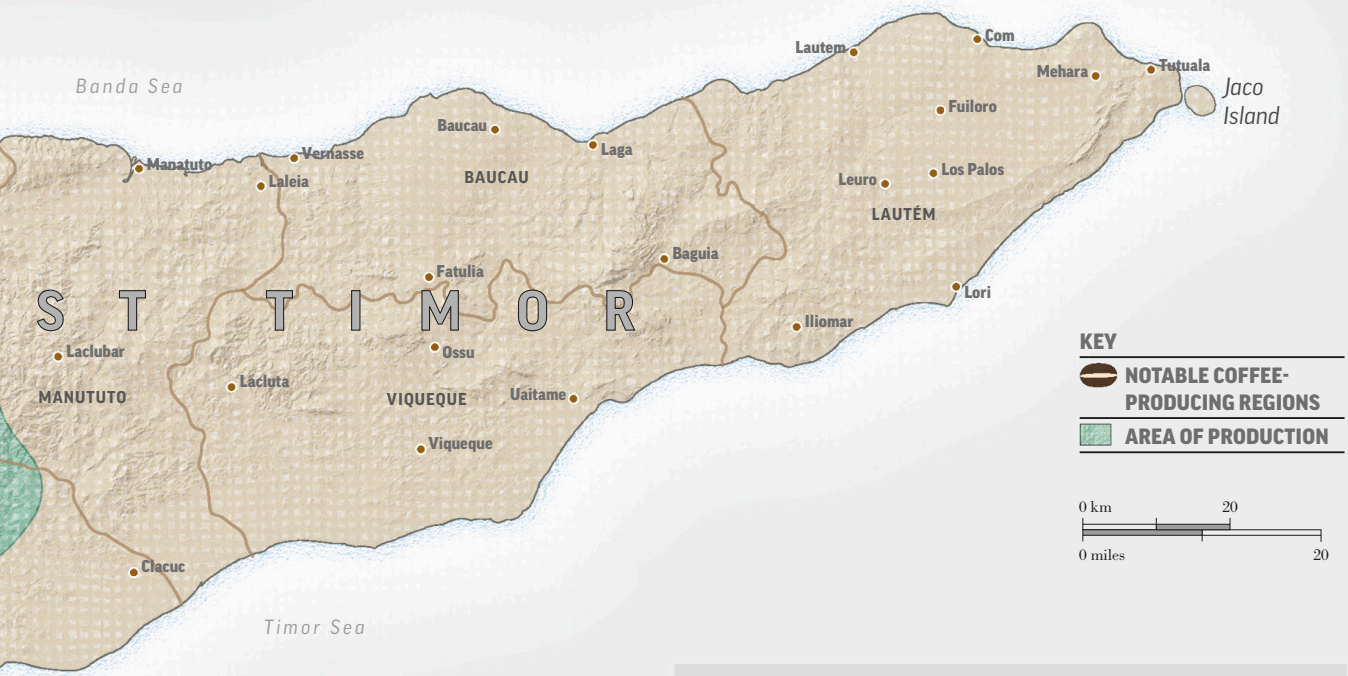
Other coffee-producing areas include Manufahi, Same, Ainaro, Maubisse, Liquiçá, and, to a lesser extent, Bobonaro and Aileu.

DRYING COFFEE
Many small producers dry their coffee on tarpaulins outside their homes.

LOCAL

One of the most famous hybrids, Hibido de Timor (HDT), sometimes referred to as Tim Tim, is a spontaneous cross of Arabica and Robusta. It was discovered on the island in 1927.

HYBRID



TIMORESE COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 0.06%

HARVEST May–October

PROCESSES Washed, natural

MAIN TYPES 80% Arabica; 20% Robusta Typica, HDT, Catimor, Sarchimor

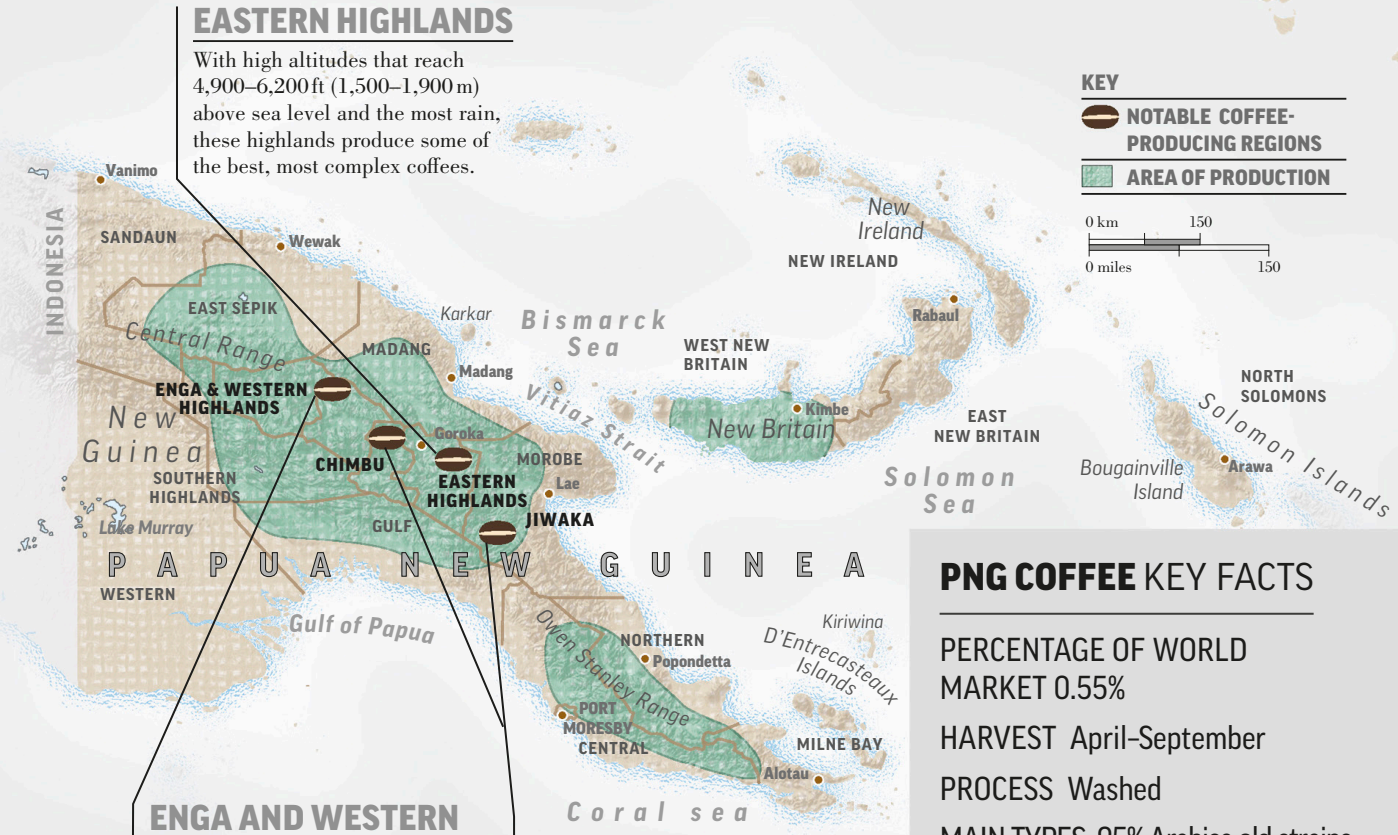
WORLD RANKING AS A PRODUCER 40th

PAPUA NEW GUINEA

Coffees produced in Papua New Guinea have dense textures, low-to-medium acidity, and a range of herbal, woody, and tropical- or tobacco-like flavors.

Most coffee is grown in small producers' gardens, some in plantations, and a small amount in a state program. Almost all is highland-grown washed Arabica, including Bourbon, Arusha, and Mundo Novo varieties. Two to three million people rely on coffee for their livelihoods.

There is great interest for all the coffee-growing provinces to plant more trees and produce coffee of better quality.



EASTERN HIGHLANDS

With high altitudes that reach 4,900–6,200 ft (1,500–1,900 m) above sea level and the most rain, these highlands produce some of the best, most complex coffees.

ENGA AND WESTERN HIGHLANDS

These relatively dry highlands, between 3,900 and 6,000 ft (1,200 and 1,800 m) above sea level, grow lower-acidity beans with herbal, nutty notes.

CHIMBU AND JIWAKA

At 5,250–6,200 ft (1,600–1,900 m) above sea level, some of the highest-grown coffee in Papua New Guinea grows here; the best coffees are bright, with gentle fruity notes.

PNG COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 0.55%

HARVEST April–September

PROCESS Washed

MAIN TYPES 95% Arabica old strains of Typica, Bourbon, Arusha, Blue Mountain, Mundo Novo; 5% Robusta

WORLD RANKING AS A PRODUCER 17th

AUSTRALIA

The flavor of Australian Arabicas is varied but often nutty, chocolaty, and softly acidic, with scope for sweetly citrus and fruity notes.

Arabica has grown here for 200 years, but the industry has gone through highs and lows. With the move to mechanical harvesting in the last 40 years, new farms have been established to revive the sector, with some producers also starting to plant on Norfolk Island, off the east coast.

Growers here plant new varieties, such as the popular K7, Catuai, and Mundo Novo, alongside old Typica and Bourbon.

AUSTRALIAN COFFEE KEY FACTS

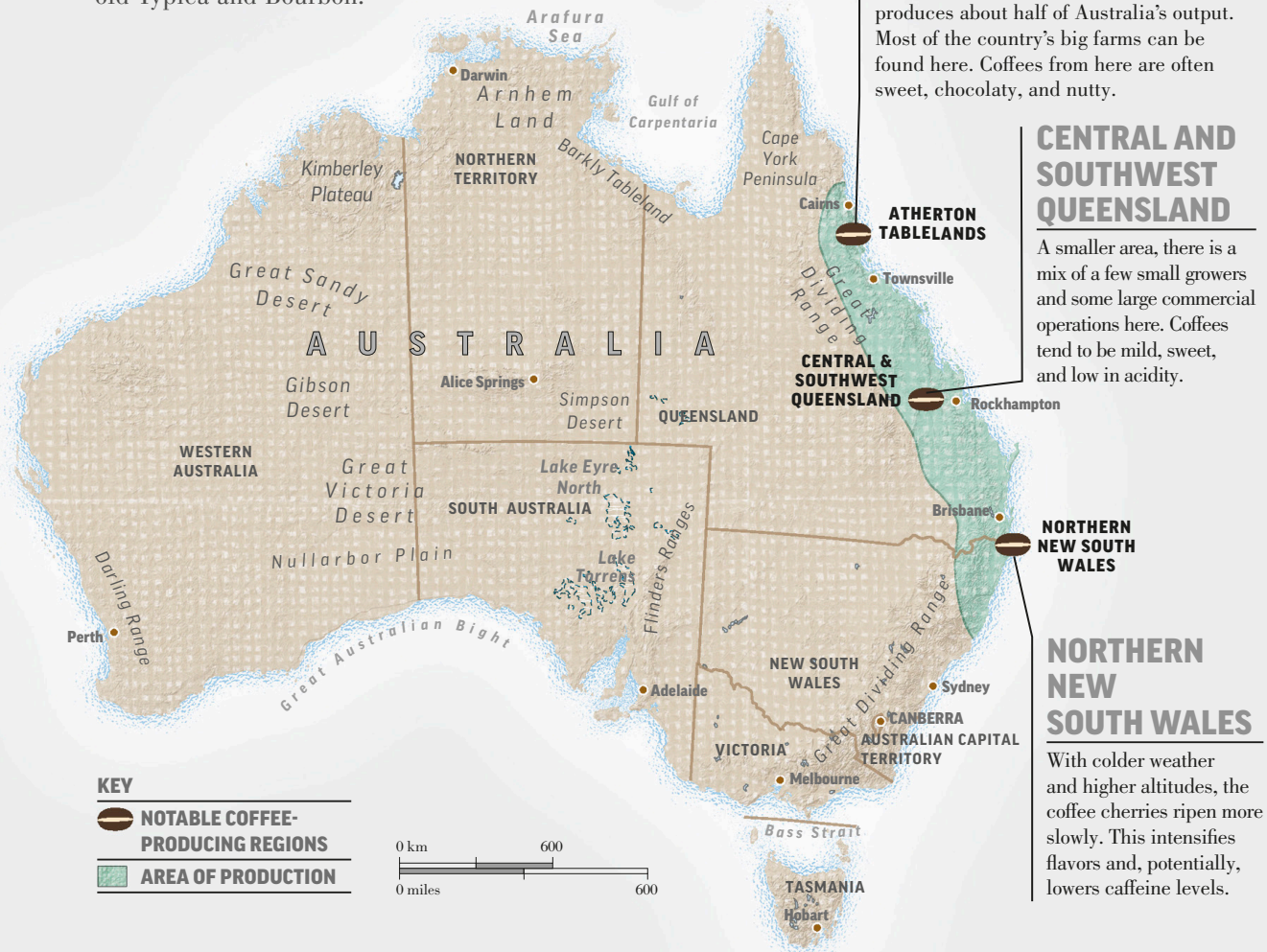
PERCENTAGE OF WORLD MARKET
less than 0.01%

HARVEST June–October

PROCESSES Washed, pulped, natural

MAIN TYPES Arabica K7, Catuai, Mundo Novo, Typica, Bourbon

WORLD RANKING AS A PRODUCER 56th



ATHERTON TABLELANDS

This region in far north Queensland produces about half of Australia's output. Most of the country's big farms can be found here. Coffees from here are often sweet, chocolaty, and nutty.

CENTRAL AND SOUTHWEST QUEENSLAND

A smaller area, there is a mix of a few small growers and some large commercial operations here. Coffees tend to be mild, sweet, and low in acidity.

NORTHERN NEW SOUTH WALES

With colder weather and higher altitudes, the coffee cherries ripen more slowly. This intensifies flavors and, potentially, lowers caffeine levels.

MYANMAR

A rising star in the specialty coffee world, Myanmar (Burma) is embracing access to new markets with its mild, softly citric washed coffees with earthy undertones and bold, berry-forward naturals.

Coffee as an agricultural crop was introduced to Myanmar in 1885, when British colonists and missionaries planted the first Robusta trees in the southernmost region of Tanintharyi. Production quickly spread farther north through Mon, Kayin, Bago, and Rakhine, and in 1930, Arabica trees began to be established in the state of Shan and the region of Mandalay.

Production was on a relatively small scale, and after British rule ended in 1948, the coffee sector lacked momentum and was neglected for decades, with many farmers abandoning their trees altogether. The crops that were produced were normally sold to neighboring countries, such as Thailand, Laos, and China.

However, after the political reforms of 2011, the government of Myanmar recognized the potential of coffee as a commercial crop and a growing interest from buyers far beyond its immediate borders. Several organizations have since been established in order to support and develop the industry, with the aim of positioning Myanmar as a global supplier of high-quality Arabicas.

NATIVE FOREST
Coffee trees grow in native forest under the shade of tall trees.

BURMESE COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 0.09%

HARVEST December–March

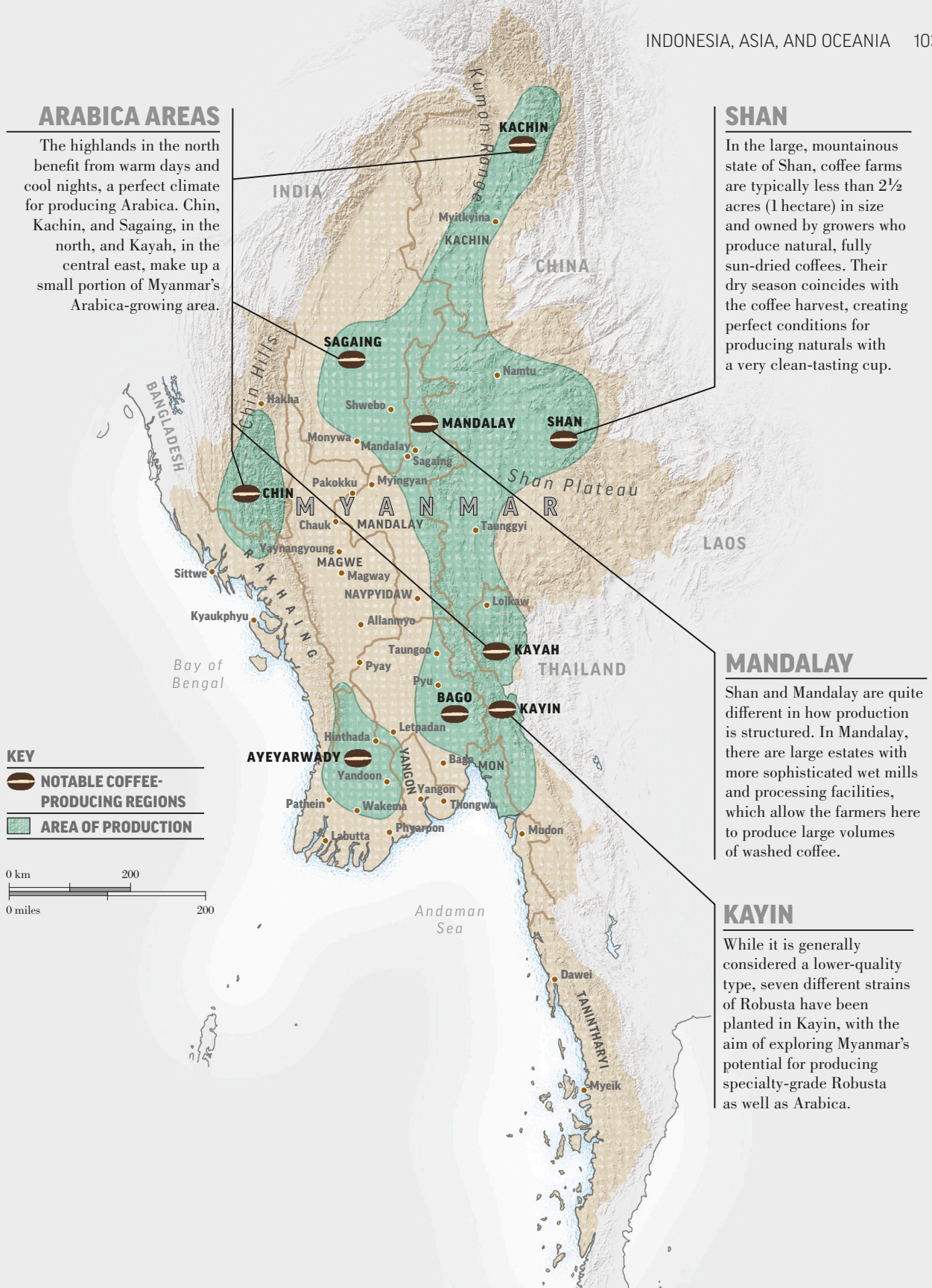
PROCESSES Washed, natural

MAIN TYPES 80% Arabica; 20% Robusta
S-795, Caturra, Catuai, Catimor, Blue Mountain

WORLD RANKING AS A PRODUCER 35th

ARABICA AREAS

The highlands in the north benefit from warm days and cool nights, a perfect climate for producing Arabica. Chin, Kachin, and Sagaing, in the north, and Kayah, in the central east, make up a small portion of Myanmar's Arabica-growing area.



SHAN

In the large, mountainous state of Shan, coffee farms are typically less than 2½ acres (1 hectare) in size and owned by growers who produce natural, fully sun-dried coffees. Their dry season coincides with the coffee harvest, creating perfect conditions for producing naturals with a very clean-tasting cup.

MANDALAY

Shan and Mandalay are quite different in how production is structured. In Mandalay, there are large estates with more sophisticated wet mills and processing facilities, which allow the farmers here to produce large volumes of washed coffee.

KAYIN

While it is generally considered a lower-quality type, seven different strains of Robusta have been planted in Kayin, with the aim of exploring Myanmar's potential for producing specialty-grade Robusta as well as Arabica.

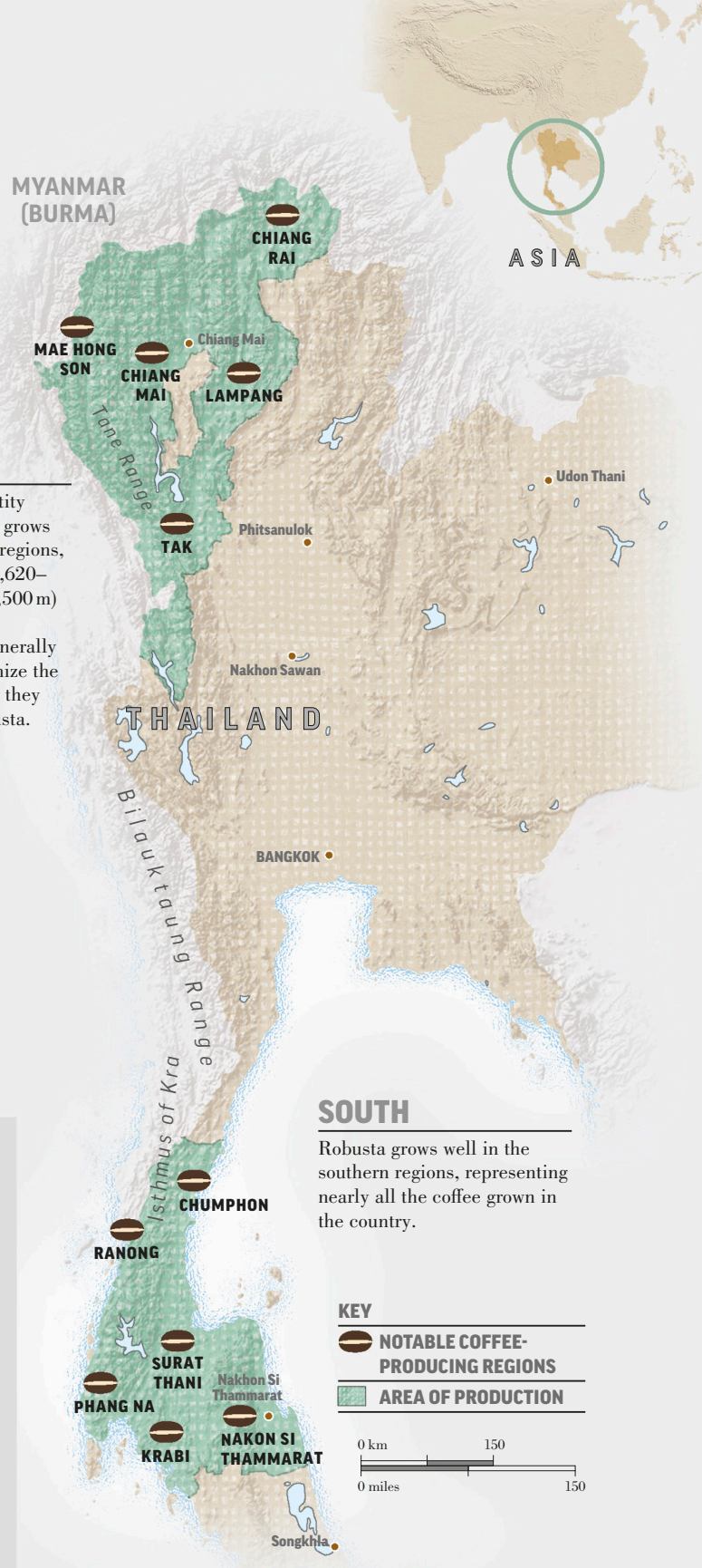
THAILAND

Robustas dominate in Thailand, but the best Arabicas show soft textures, low acidity, and the potential for pleasant floral notes.

Almost all the coffee growing in Thailand is Robusta. Most of it is naturally processed and used to make instant coffee. In the 1970s, seeing the potential for higher-quality Arabicas, farmers were encouraged to plant trees, such as Caturra, Catuai, and Catimor. Unfortunately, the follow-up on this was lacking, and farmers had little incentive to do anything with the trees. Interest in Thai coffee has grown in recent years, and investment helps farmers produce high-quality coffee.

NORTH

The small quantity of Arabica here grows in the northern regions, at altitudes of 2,620–4,900 ft (800–1,500 m) above sea level. Arabicas are generally washed to optimize the premium prices they fetch over Robusta.



THAI COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 0.41%

HARVEST October–March

PROCESSES Natural, some washed

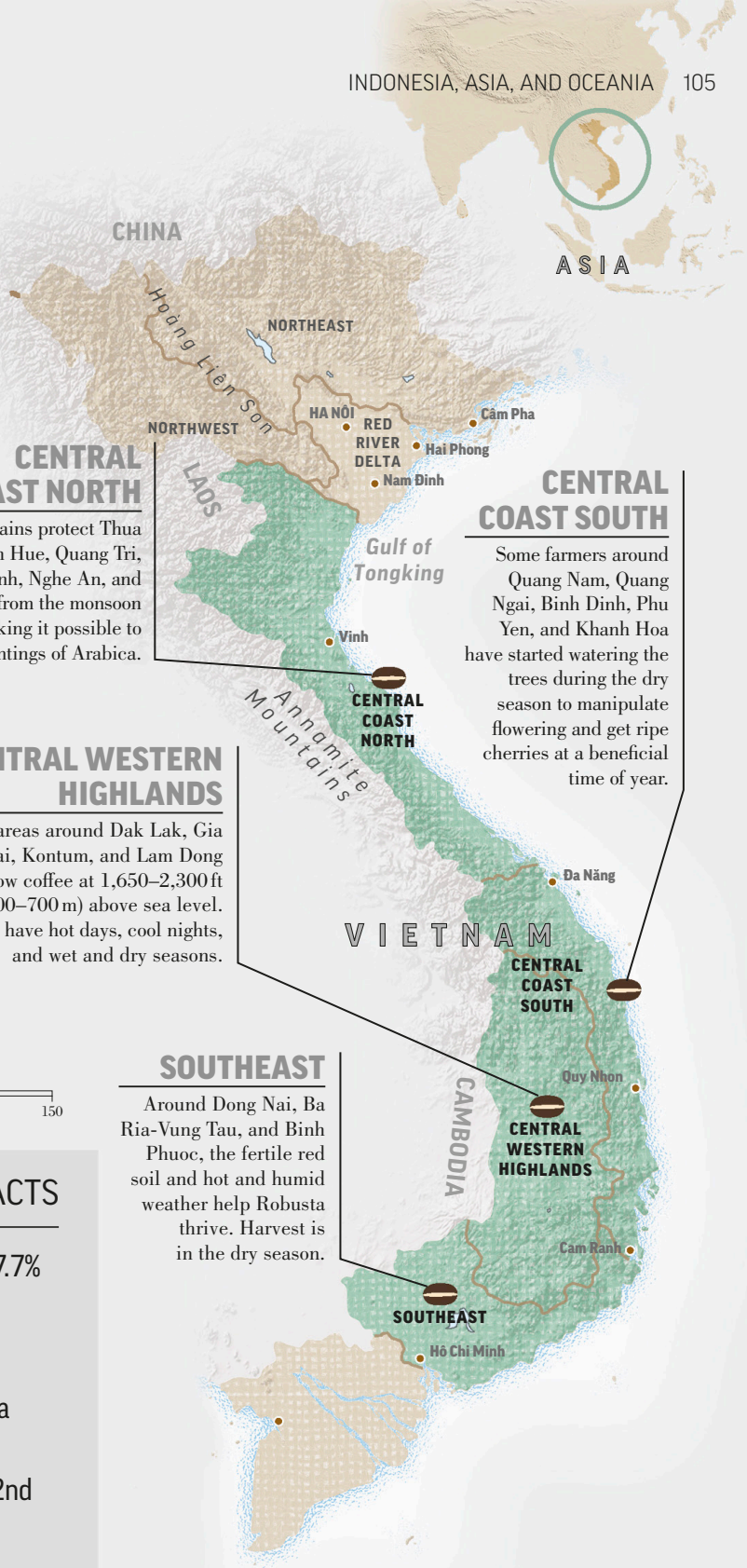
MAIN TYPES 98% Robusta; 2% Arabica Caturra, Catuai, Catimor, Geisha

WORLD RANKING AS A PRODUCER 19th

VIETNAM

There are some soft, sweet, and nutty varieties here that are of interest to the specialty market.

Vietnam began to produce coffee in 1857. In the early 1900s, after some political reforms, farmers boosted their coffee production to capitalize on good market prices. Over a 10-year period, Vietnam became the second-largest coffee producer in the world. As a result, inferior Robustas flooded the market, causing a low-price, low-quality trend. Today, the government aims for a balance between supply and demand. Robusta is the main crop, but a little Arabica also grows.



CENTRAL COAST NORTH

Mountains protect Thua Thien Hue, Quang Tri, Ha Tinh, Nghe An, and Thanh Hoa from the monsoon winds, making it possible to expand plantings of Arabica.

CENTRAL COAST SOUTH

Some farmers around Quang Nam, Quang Ngai, Binh Dinh, Phu Yen, and Khanh Hoa have started watering the trees during the dry season to manipulate flowering and get ripe cherries at a beneficial time of year.

CENTRAL WESTERN HIGHLANDS

The areas around Dak Lak, Gia Lai, Kontum, and Lam Dong grow coffee at 1,650–2,300 ft (500–700 m) above sea level. They have hot days, cool nights, and wet and dry seasons.

SOUTHEAST

Around Dong Nai, Ba Ria-Vung Tau, and Binh Phuoc, the fertile red soil and hot and humid weather help Robusta thrive. Harvest is in the dry season.

KEY

- NOTABLE COFFEE-PRODUCING REGIONS
- AREA OF PRODUCTION

0 km 150
0 miles 150

VIETNAMESE COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 17.7%

HARVEST October–April

PROCESSES Natural, some washed

MAIN TYPES 95% Robusta; 5% Arabica Catimor, Chari (Excelsa)

WORLD RANKING AS A PRODUCER 2nd

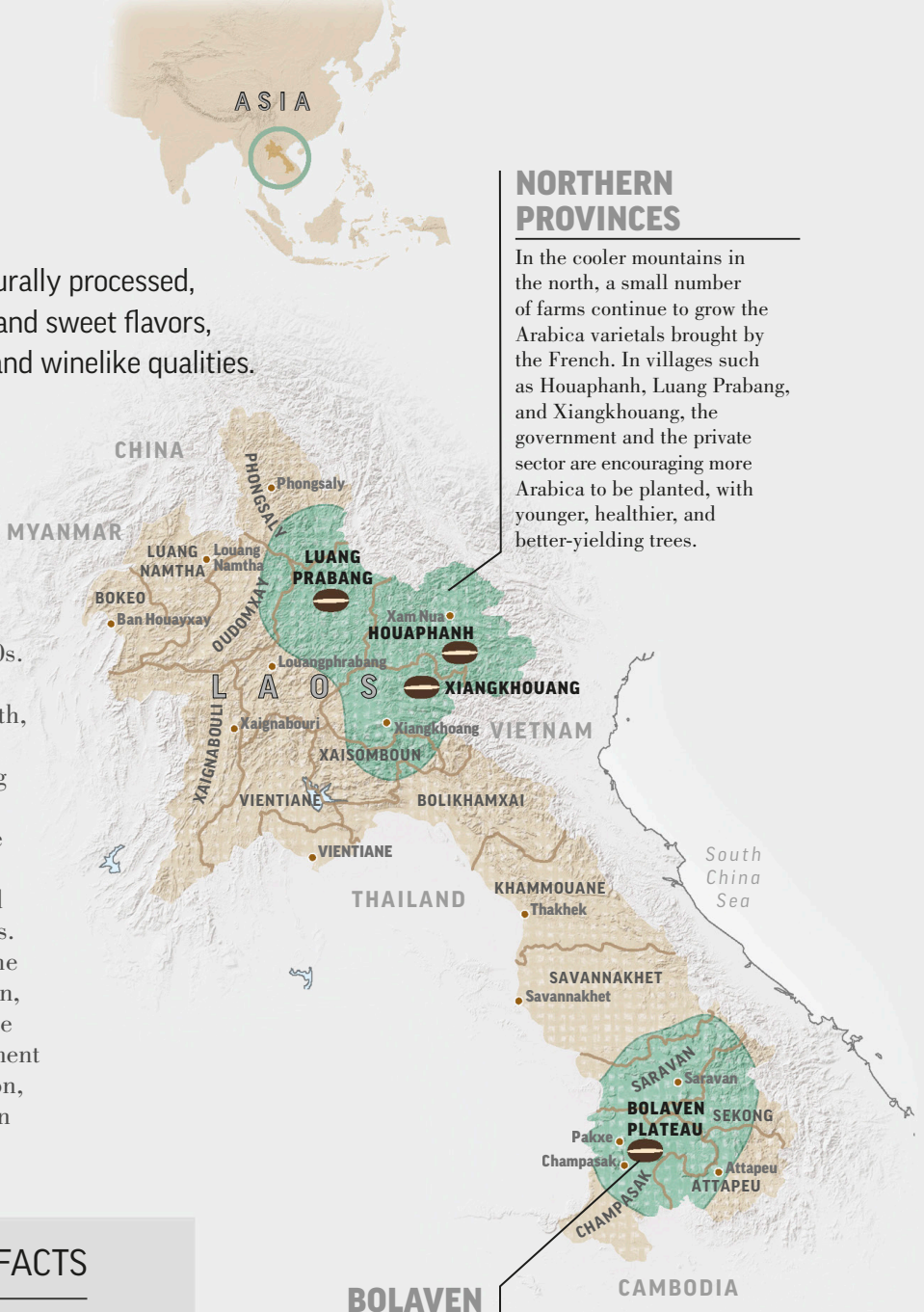
LAOS

Laotian coffees are usually naturally processed, which can lead to both savory and sweet flavors, with heavy-bodied, dark fruit, and winelike qualities.

Bordering Vietnam, the world's second-largest coffee-producing country, Laos and its coffee might have lived in the shadow of its neighbor for a while, but it is poised to step into the limelight.

The French colonialists first brought coffee to Laos in the 1920s. They concluded that the Bolaven Plateau in Champasak, in the south, had the optimal microclimate for Arabica. However, after struggling through decades of disease, catastrophic winter frosts, and the ravages of war, much of the tree stock was pulled out and replaced with more resilient Robusta plants.

The Bolaven Plateau remains the center of Laotian coffee production, with 95 percent of the total volume being harvested here. The government has plans for expanding production, and there is an increasing focus on growing quality over quantity.



NORTHERN PROVINCES

In the cooler mountains in the north, a small number of farms continue to grow the Arabica varietals brought by the French. In villages such as Houaphanh, Luang Prabang, and Xiangkhouang, the government and the private sector are encouraging more Arabica to be planted, with younger, healthier, and better-yielding trees.

BOLAVEN PLATEAU

The French believed that the fertile volcanic soil and highland climate of Laos would lend itself well to cultivation of high-quality varieties, such as Typica and Bourbon. They settled on the Bolaven Plateau for its growing conditions.

KEY

- NOTABLE COFFEE-PRODUCING REGIONS
- AREA OF PRODUCTION

0 km 200
0 miles 200

LAOTIAN COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 0.34%

HARVEST November–April

PROCESSES Natural, washed

MAIN TYPES 80% Robusta; 20% Arabica Typica, Bourbon, Catimor

WORLD RANKING AS A PRODUCER 23rd

PHILIPPINES

Filipino coffees include well-balanced Arabicas with sweet cocoa and dried fruit notes and heavier Robustas with more malty, woody tones and a dense texture.

Coffee arrived in the Philippines with the Spanish in the 1740s, and it quickly became the largest producing country in Asia, at one point ranking fourth in the world. But after a devastating plague of coffee-leaf rust in the late 1880s, many of the plantations were wiped out, and regeneration did not start in earnest until the 1950s and 1960s.

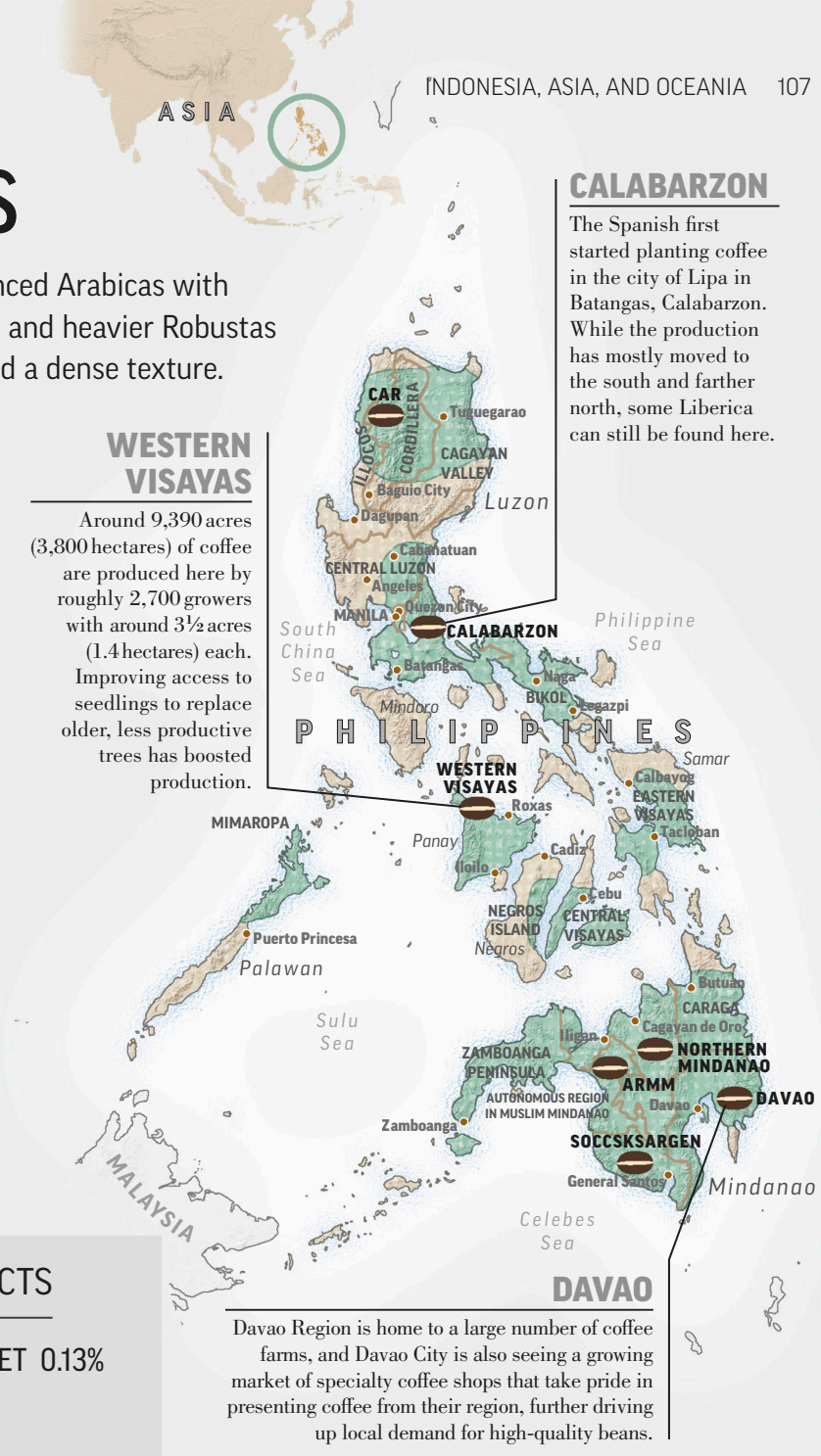
With many farms having converted to other crops in the meantime, and farmers' subsequent loss of skill and knowledge about coffee, growth has been slow. However, unlike many other Asian peoples, Filipinos have always preferred coffee over tea and have had to import large volumes from other countries. This domestic demand has prompted the government to allocate greater resources to the coffee sector, increasing the acreage and developing processing techniques to raise quality as well as quantity.

WESTERN VISAYAS

Around 9,390 acres (3,800 hectares) of coffee are produced here by roughly 2,700 growers with around 3½ acres (1.4 hectares) each. Improving access to seedlings to replace older, less productive trees has boosted production.

CALABARZON

The Spanish first started planting coffee in the city of Lipa in Batangas, Calabarzon. While the production has mostly moved to the south and farther north, some Liberica can still be found here.



DAVAO

Davao Region is home to a large number of coffee farms, and Davao City is also seeing a growing market of specialty coffee shops that take pride in presenting coffee from their region, further driving up local demand for high-quality beans.

KEY

NOTABLE COFFEE-PRODUCING REGIONS

AREA OF PRODUCTION

0 km 200

0 miles 200

FILIPINO COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 0.13%

HARVEST December–May

PROCESSES Natural, washed

MAIN TYPES Robusta; Arabica Excelsa, Liberica, Typica, Bourbon, Catimor

WORLD RANKING AS A PRODUCER 33rd

CHINA

Chinese coffees are generally soft and sweet, with delicate acidity and nutty flavors that can cross over into caramel and chocolate.

Coffee has been growing in China since 1887, when it was brought to Yunnan by missionaries. It took another century before the government focused efforts on its production. New measures have improved practices and conditions, helping total coffee production grow by about 15 percent every year. While the per-capita consumption is currently only 2–3 cups a year, this is also increasing. Arabica varieties grown here include Catimor and Typica.

YUNNAN PROVINCE

The Pu'er, Kunming, Lincang Wenshan, and Dehong regions grow 95 percent of Chinese coffees. Most are Catimor, while some old Bourbon and Typica can still be found in the Baoshan prefecture. Coffees are mostly low-acidic, nutty, or cereal-like in taste.

HAINAN ISLAND

Off the southern coast of China, the island of Hainan grows about ⅓–½ ton (300–400 kg) of Robusta annually. Production may be in decline, but coffee culture is strong among the people here. The coffee is often mild, woody, and heavy-bodied.

FUJIAN PROVINCE

The coastal province across from Taiwan is a large producer of tea, but some Robusta coffee is grown here, making up a small percentage of China's total output. Robustas are typically low in acidity and full-bodied.

KEY

NOTABLE COFFEE-PRODUCING REGIONS

AREA OF PRODUCTION

0 km 400

0 miles 400

CHINESE COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 1.2%

HARVEST November–April

PROCESSES Washed and natural

MAIN TYPES 95% Arabica Catimor, Bourbon, Typica; 5% Robusta

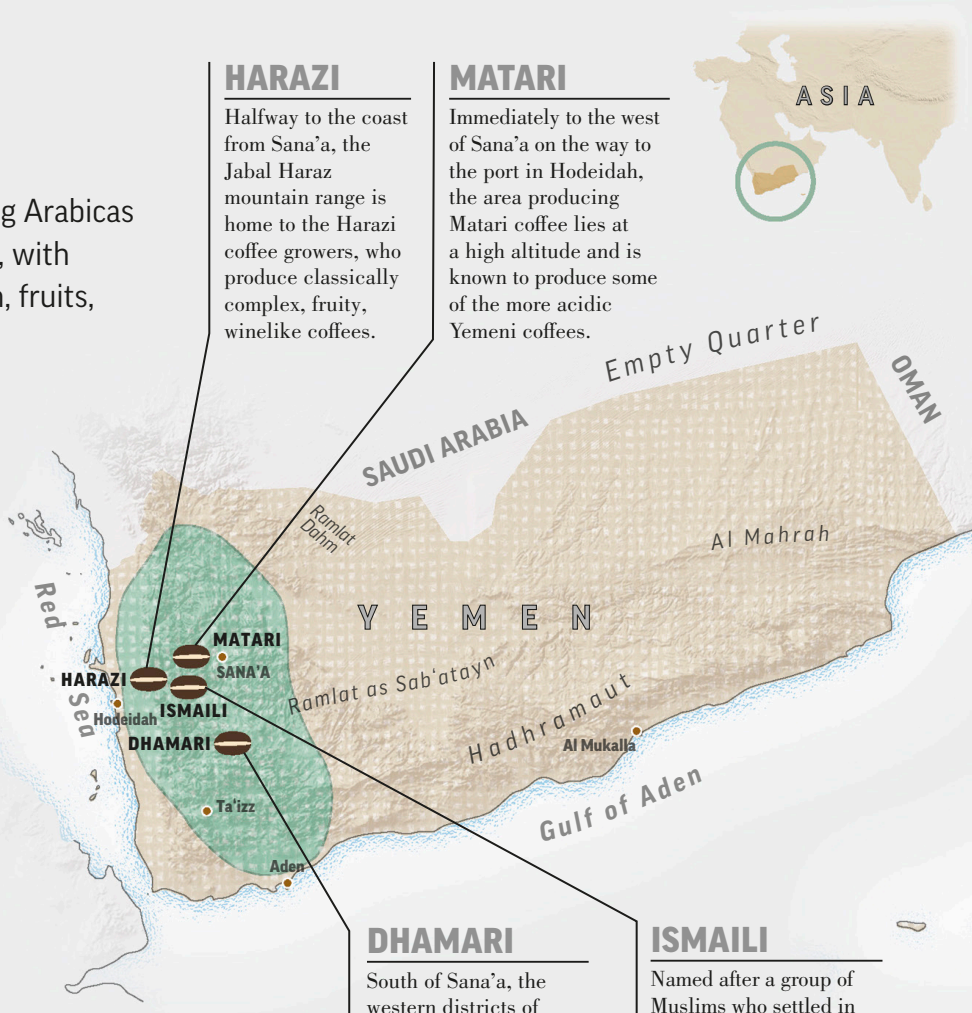
WORLD RANKING AS A PRODUCER 13th

YEMEN

Some of the most interesting Arabicas in the world grow in Yemen, with "wild" flavors of spice, earth, fruits, and tobacco.

Coffee grew in Yemen long before it reached any other country outside Africa. The small town of Mocha was the first port to establish commerical exporting.

Coffee still grows wild in some places, but the main cultivated areas grow old Typica and old Ethiopian strains. Varieties often share the same name as regions, making it difficult to trace and identify them.



HARAZI

Halfway to the coast from Sana'a, the Jabal Haraz mountain range is home to the Harazi coffee growers, who produce classically complex, fruity, winelike coffees.

MATARI

Immediately to the west of Sana'a on the way to the port in Hodeidah, the area producing Matari coffee lies at a high altitude and is known to produce some of the more acidic Yemeni coffees.

DHAMARI

South of Sana'a, the western districts of the Dhamar governorate produce coffees that have classic Yemeni traits but are often softer and rounder than the western coffees.

ISMAILI

Named after a group of Muslims who settled in the area around Hutayb, Ismaili is both the name of a local variety and the general area, producing some of the more rustic Yemeni coffees.

YEMENI COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 0.1%

HARVEST June–December

PROCESS Natural

MAIN TYPES Arabica Typica, Heirloom

WORLD RANKING AS A PRODUCER 34th

LOCAL TECHNIQUE

Growing and processing have remained unchanged for the past 800 years, and chemical use is uncommon. Due to the lack of water, coffees are naturally processed and can look irregular.

KEY

NOTABLE COFFEE-PRODUCING REGIONS

AREA OF PRODUCTION

0 km 150

0 miles 150

COFFEES
OF THE WORLD

SOUTH AND CENTRAL AMERICA

BRAZIL

Brazil is the world's largest producer of coffee. Regional differences are difficult to distinguish, but it is widely accepted that Brazil produces soft-washed Arabicas and sweet naturals with mild acidity and medium texture.

In 1920, Brazil produced about 80 percent of all the coffee grown in the world. As other countries increased their production, Brazil's market share decreased to the current 35 percent, but it remains the largest producer worldwide. It mainly grows Arabica—Mundo Novo and Icatu varieties, among others.

After the devastating frost of 1975, many farmers established new plantations in Minas Gerais, which now alone produces nearly half of Brazil's coffee—enough to rival the output of Vietnam, the second-largest producer in the world. When Brazil has a peak or slump in production, it sends ripples through the market and affects the livelihoods of millions—the price we all pay for our cup of coffee.

Today, there are about 300,000 farms across the country, ranging in size from 1¼ acres to more than 25,000 acres (0.5–10,000 hectares). Brazil consumes about half of all the coffee it produces.

PRECISE PLANTINGS
Neat rows of trees on flat terrain help farmers machine harvest—a key part of Brazil's farming system.

BRAZILIAN COFFEE KEY FACTS

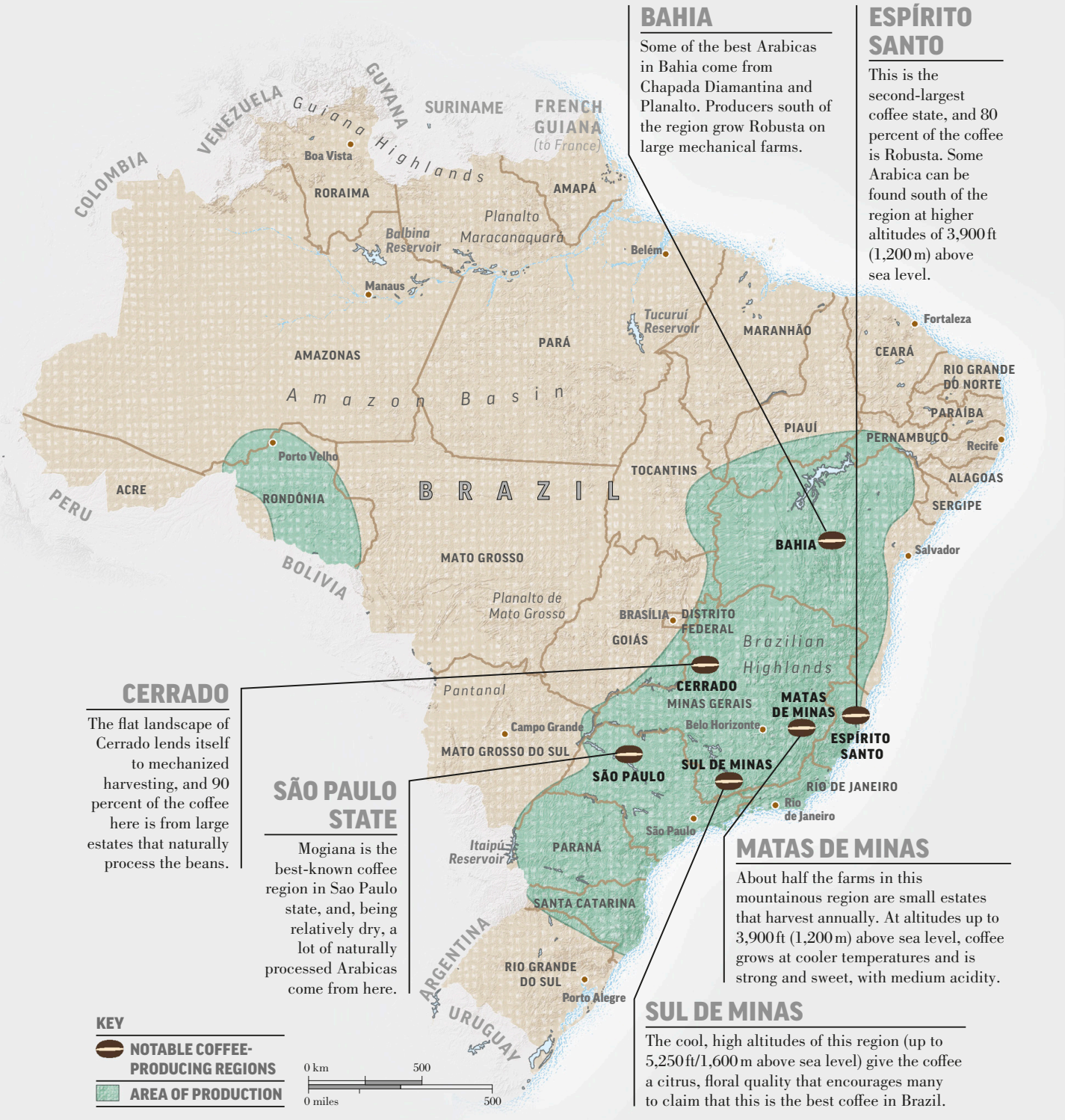
PERCENTAGE OF WORLD MARKET 35.2%

HARVEST May–September

PROCESSES Natural, pulped natural, semi-washed, and fully washed

MAIN TYPES 80% Arabica Bourbon, Catuai, Acaia, Mundo Novo, Icatu; 20% Robusta

WORLD RANKING AS A PRODUCER 1st



BAHIA

Some of the best Arabicas in Bahia come from Chapada Diamantina and Planalto. Producers south of the region grow Robusta on large mechanical farms.

ESPÍRITO SANTO

This is the second-largest coffee state, and 80 percent of the coffee is Robusta. Some Arabica can be found south of the region at higher altitudes of 3,900 ft (1,200 m) above sea level.

CERRADO

The flat landscape of Cerrado lends itself to mechanized harvesting, and 90 percent of the coffee here is from large estates that naturally process the beans.

SÃO PAULO STATE

Mogiana is the best-known coffee region in Sao Paulo state, and, being relatively dry, a lot of naturally processed Arabicas come from here.

MATAS DE MINAS

About half the farms in this mountainous region are small estates that harvest annually. At altitudes up to 3,900 ft (1,200 m) above sea level, coffee grows at cooler temperatures and is strong and sweet, with medium acidity.

SUL DE MINAS

The cool, high altitudes of this region (up to 5,250 ft/1,600 m above sea level) give the coffee a citrus, floral quality that encourages many to claim that this is the best coffee in Brazil.

COLOMBIA

Colombian coffees are generally rich and full bodied. They span a vast range of flavor attributes–from sweet, nutty, and chocolaty to floral, fruity, and almost tropical. Each region offers a distinct profile.

The mountains of Colombia create an abundance of microclimates that bring out potentially unique qualities in the coffee. All the coffee is Arabica—including Typica and Bourbon varieties—and traditionally washed, and there are one or two harvests a year, depending on the region. Some harvest from September to December, with another smaller harvest in April or May. Others harvest their main crop from March to June and gain another crop from October to November.

Two million Colombians rely on coffee for their livelihoods. Most of these people work for a group of small farms, but about 560,000 of them are producers who have only 2–4½ acres (1–2 hectares) of land. In recent years, the specialty industry has gained access to work with small farmers individually, buying small volumes and paying more for quality crops.

More and more Colombians drink Colombian coffee—around 20 percent of the total coffee production.

LOCAL TECHNIQUE

Most farmers have their own wet-milling facilities and so can control the drying process (see pp.20–21). Raised beds are now popular–these help producers turn beans easily as they dry.

COLOMBIAN COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 8.6%

HARVESTS March–June and September–December

PROCESS Washed

MAIN TYPES Arabica Typica, Bourbon, Tabi, Caturra, Colombia, Maragogipe, Castillo

WORLD RANKING AS A PRODUCER 3rd

CHALLENGES Controlled drying, finance, soil erosion, climate change, lack of water, lack of security

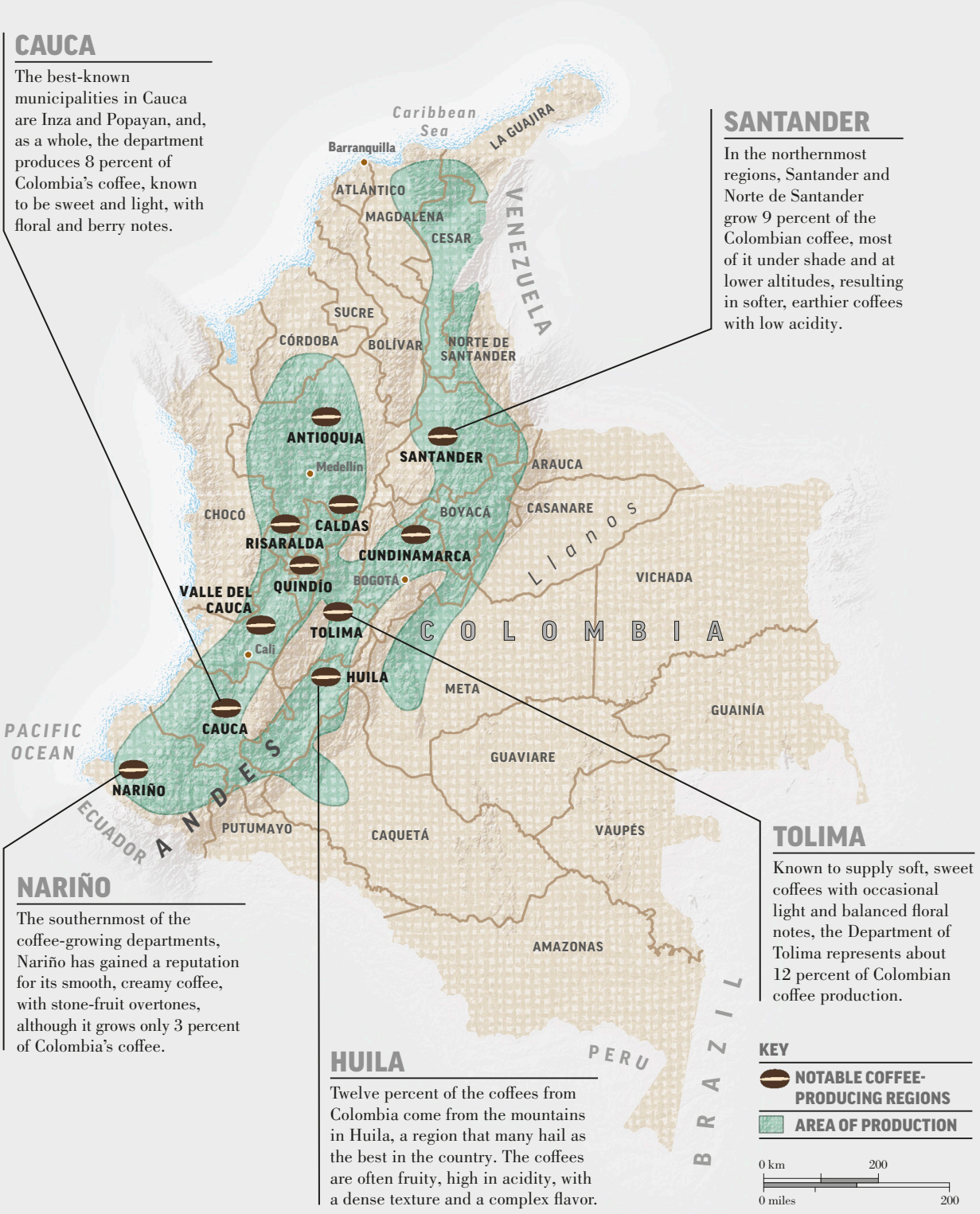
DRYING BEANS
Beans usually dry on concrete, but where terrain is too steep, workers choose to dry them on rooftops.

CAUCA

The best-known municipalities in Cauca are Inza and Popayan, and, as a whole, the department produces 8 percent of Colombia's coffee, known to be sweet and light, with floral and berry notes.

SANTANDER

In the northernmost regions, Santander and Norte de Santander grow 9 percent of the Colombian coffee, most of it under shade and at lower altitudes, resulting in softer, earthier coffees with low acidity.



NARIÑO

The southernmost of the coffee-growing departments, Nariño has gained a reputation for its smooth, creamy coffee, with stone-fruit overtones, although it grows only 3 percent of Colombia's coffee.

HUILA

Twelve percent of the coffees from Colombia come from the mountains in Huila, a region that many hail as the best in the country. The coffees are often fruity, high in acidity, with a dense texture and a complex flavor.

TOLIMA

Known to supply soft, sweet coffees with occasional light and balanced floral notes, the Department of Tolima represents about 12 percent of Colombian coffee production.

KEY

- NOTABLE COFFEE-PRODUCING REGIONS
- AREA OF PRODUCTION

0 km 200

0 miles 200

VENEZUELA

Once rivaling Colombia in volume of coffee grown, Venezuela now only produces a fraction of the volume of its heyday. The best of its beans are known to be sweet, rich, notably fruity, and with a balanced acidity.

A priest called Joseph Gumilla gets the credit for bringing coffee to Venezuela. From 1732 onward, coffee plantations were rapidly established in the Andes. The sector continued to grow into the 1900s, but after years of intensive farming, yields gradually declined, and the country's focus shifted to oil.

In 2003, price controls and other regulations imposed on the coffee sector restricted production, and many farmers abandoned their trees. Domestic demand eventually outstripped supply, and Venezuela began importing more coffee than it exported.

With the oil industry now facing challenges, interest has again turned to the almost forgotten export commodity of coffee. A nation that loves drinking coffee as much as the Venezuelans do is unlikely to ever give up on growing its own and making it the best it can be.

The majority of the coffees in Venezuela are Arabicas. Best known are those sold under the banner of Maracaibo, from the Andean ranges to the west. The eastern coastal mountains grow coffees labeled Caracas, and small sections of Robusta can be found in the lowlands.

VENEZUELAN COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 0.38%

HARVEST October–January

PROCESS Washed

MAIN TYPES Arabica Bourbon, Typica, Caturra, Mundo Novo

WORLD RANKING AS A PRODUCER 22nd

COFFEE PULPER
Growers use a coffee pulper to separate the fruit skin and pulp from the parchment-covered coffee seeds.

MARACAIBO

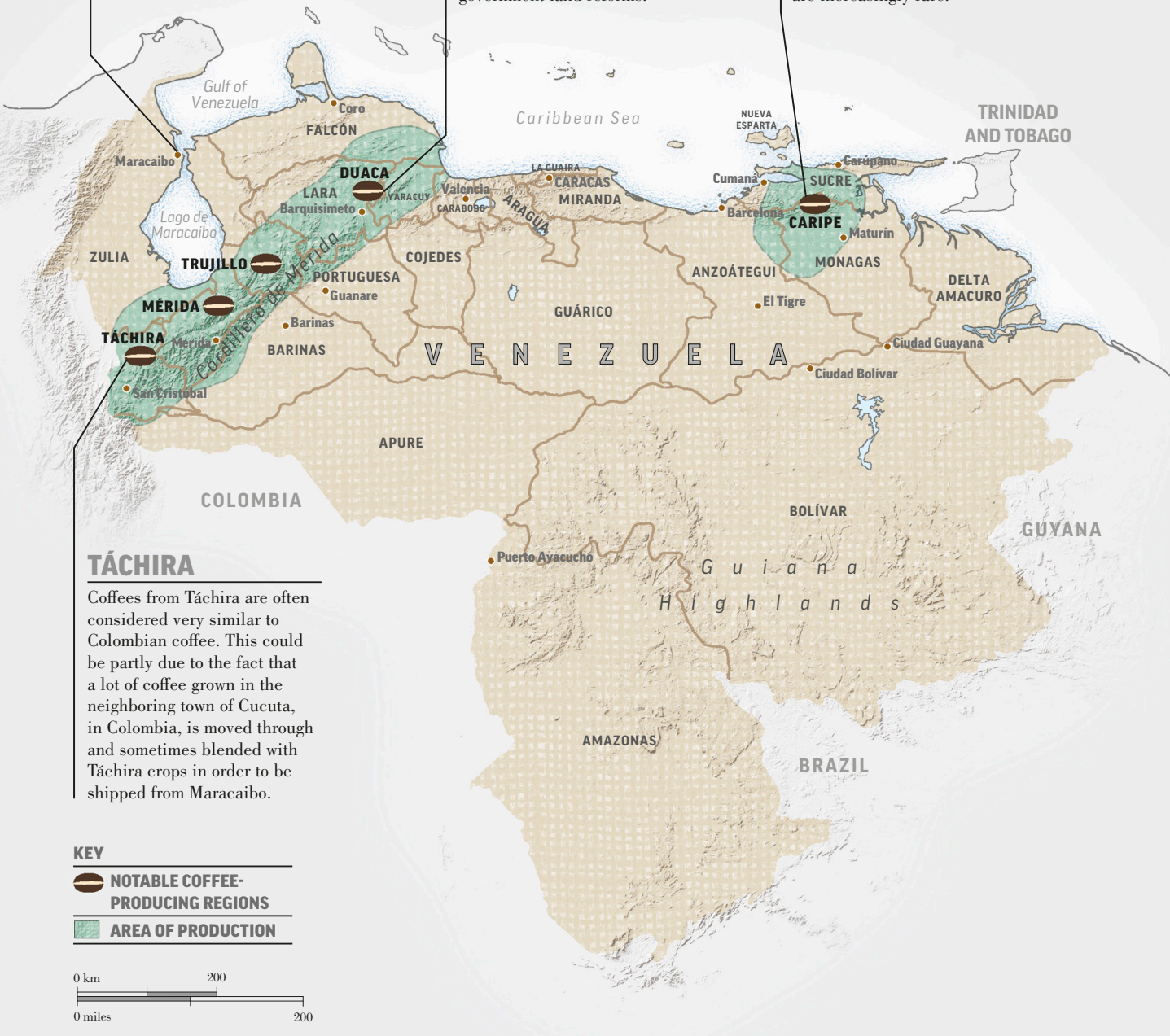
Coffees sold under the name of Maracaibo are shipped from the port of the same name. These are coffees from Trujillo, Mérida, Táchira, and Duaca in the Andean ranges to the west.

DUACA

In Duaca, small farmers initially benefited from the coffee boom, but within a few decades, they were outcompeted by a growing élite class and government land reforms.

CARIPE

The eastern coastal mountains toward Caripe, in the state of Monagas, grow coffees labeled Caracas. The very best qualities are labeled Lavado Fino but are increasingly rare.



TÁCHIRA

Coffees from Táchira are often considered very similar to Colombian coffee. This could be partly due to the fact that a lot of coffee grown in the neighboring town of Cucuta, in Colombia, is moved through and sometimes blended with Táchira crops in order to be shipped from Maracaibo.

KEY

- NOTABLE COFFEE-PRODUCING REGIONS
- AREA OF PRODUCTION

0 km 200

0 miles 200

BOLIVIA

There are few known regional flavor profiles in Bolivia, but coffees can be sweet and balanced, floral and herbal, or creamy and chocolaty. It is a small coffee producer with the potential to grow stunning varieties.

With a coffee culture that includes around 23,000 small, family-run farms of 5–20 acres (2–9 hectares) each, Bolivia consumes around 40 percent of the coffee it produces.

Bolivian coffees have only recently captured the interest of specialty buyers, as internal challenges of transportation, processing, and lack of technical support make quality unpredictable. Most coffee for export is shipped out via Peru, as Bolivia is landlocked, adding to its logistical challenges. Investment in education and new processing facilities near growing regions have improved quality, and exporters are starting to explore international markets.

Bolivia mainly grows Arabica varieties, such as Typica, Caturra, and Catuai. Coffee grows organically almost everywhere. Main regions of production are La Paz provinces, such as North and South Yungas, Franz Tamayo, Caranavi, Inquisivi, and Larecaja. Harvest times vary, as they depend on altitudes, rainfall patterns, and temperatures.

BOLIVIAN COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 0.06%

HARVEST July–November

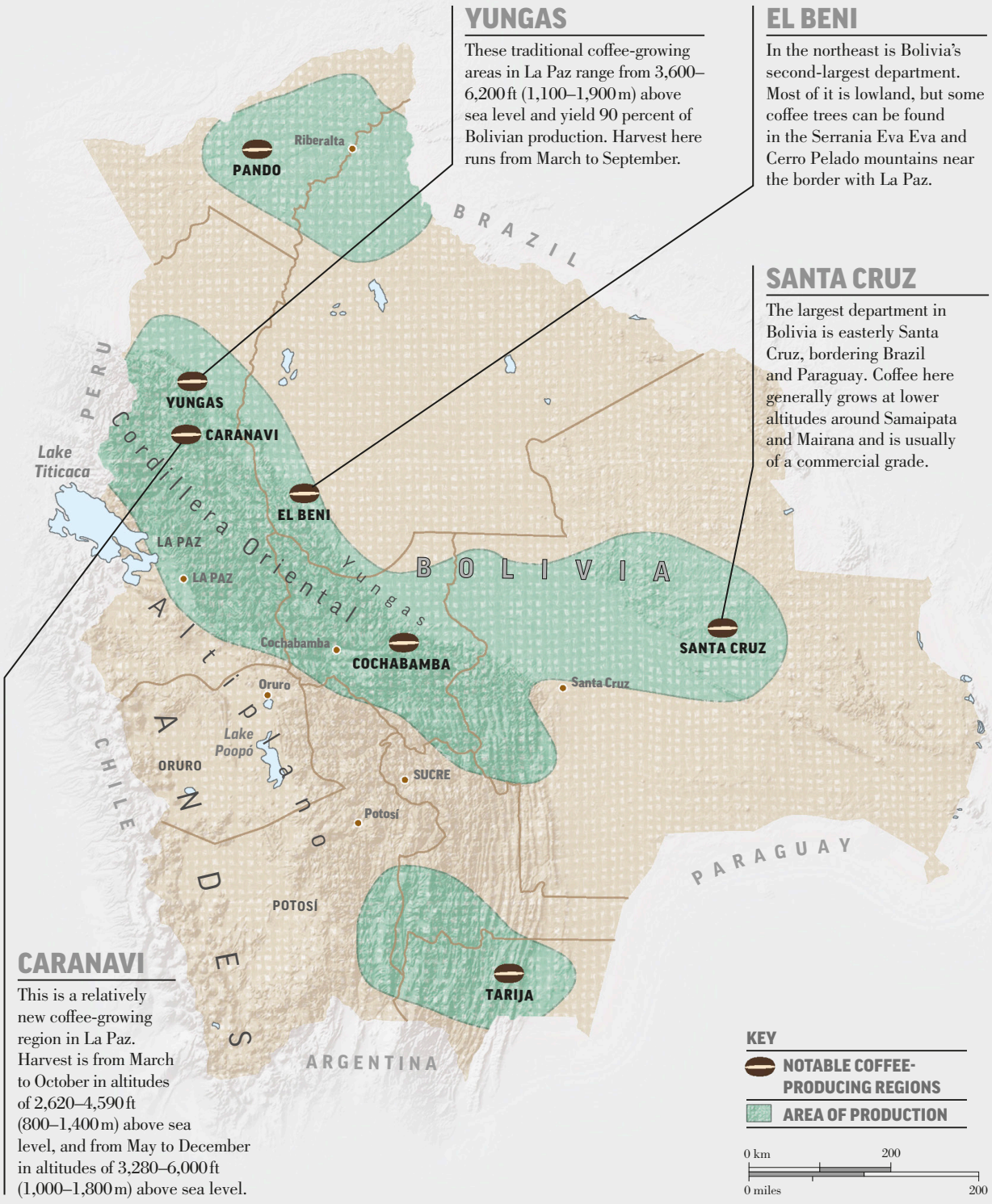
PROCESSES Washed, some natural

MAIN TYPES Arabica Typica, Caturra, Criollo, Catuai, Catimor

WORLD RANKING AS A PRODUCER 39th

CHALLENGES Unreliable transportation, lack of processing equipment, and technical support

GROWING AND HARVEST
A lot of Bolivian coffee is organic by default, as growers have little or no funds for chemicals.

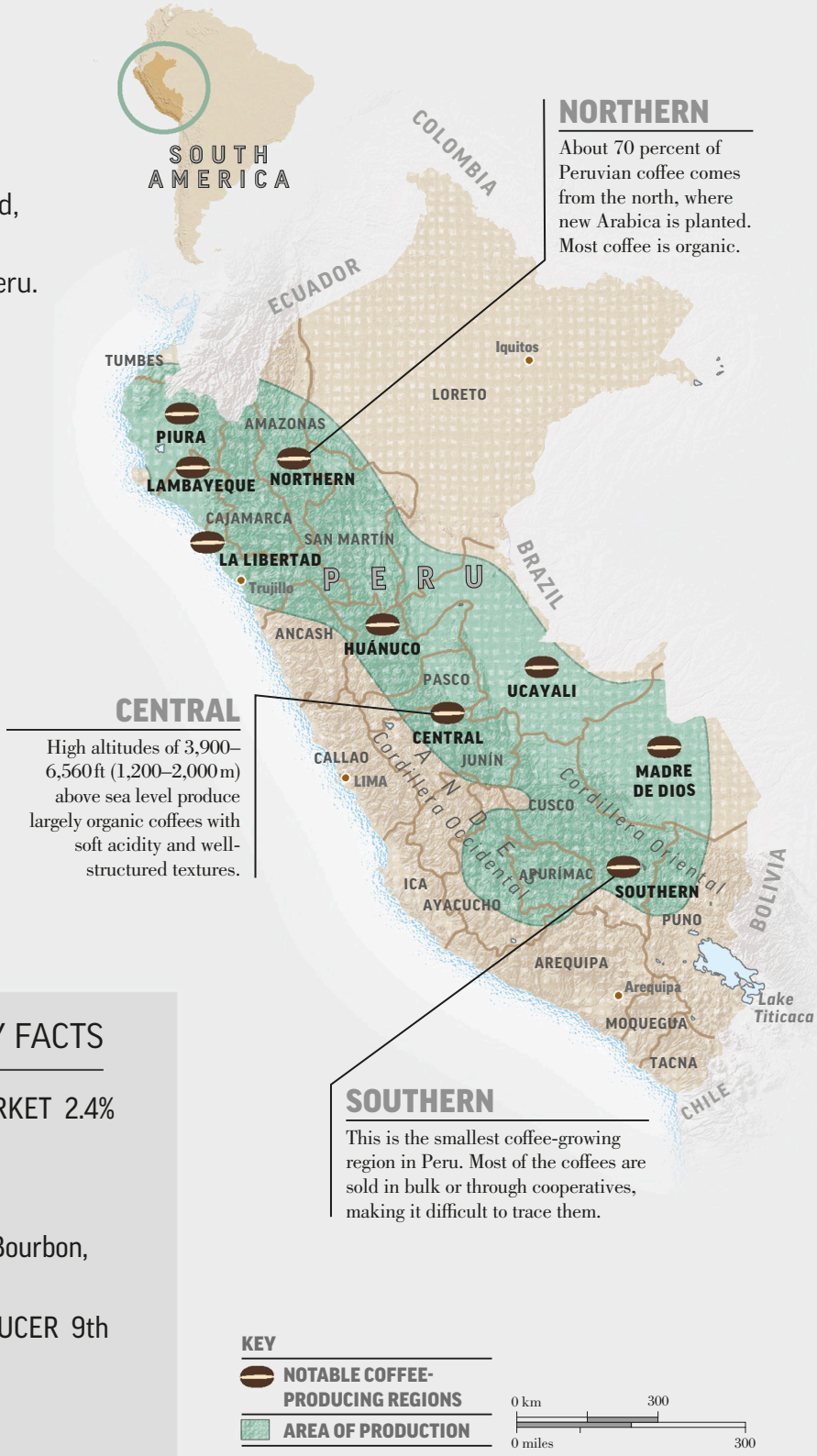

YUNGAS
These traditional coffee-growing areas in La Paz range from 3,600–6,200 ft (1,100–1,900 m) above sea level and yield 90 percent of Bolivian production. Harvest here runs from March to September.
EL BENI
In the northeast is Bolivia's second-largest department. Most of it is lowland, but some coffee trees can be found in the Serrania Eva Eva and Cerro Pelado mountains near the border with La Paz.
SANTA CRUZ
The largest department in Bolivia is easterly Santa Cruz, bordering Brazil and Paraguay. Coffee here generally grows at lower altitudes around Samaipata and Mairana and is usually of a commercial grade.
CARANAVI
This is a relatively new coffee-growing region in La Paz. Harvest is from March to October in altitudes of 2,620–4,590 ft (800–1,400 m) above sea level, and from May to December in altitudes of 3,280–6,000 ft (1,000–1,800 m) above sea level.
BRAZIL
PERU
CHILE
ARGENTINA
PARAGUAY
BOLIVIA
PANDO
Riberalta
YUNGAS
CARANAVI
EL BENI
LA PAZ
LA PAZ
Lake Titicaca
Cordillera Oriental
Yungas
Altiplano
Cochabamba
COCHABAMBA
SANTA CRUZ
Santa Cruz
Oruro
ORURO
Lake Poopó
SUCRE
Potosí
POTOSÍ
TARIJA
KEY
NOTABLE COFFEE-PRODUCING REGIONS
AREA OF PRODUCTION
0 km
200
0 miles
200

PERU

A small number of well-textured, balanced coffees with earthy, herbal notes are produced in Peru.

Despite its high-quality coffees, Peru faces problems of inconsistent standards. A major cause is the lack of internal logistics, but the government continues to invest in education and infrastructure, such as roads, as well as in new growing areas—especially in the north, where new Arabica is grown.

Peru mainly grows varieties of Arabica, such as Typica, Bourbon, and Caturra. Around 90 percent of the coffee is grown on around 120,000 small farms, most of them cultivating approximately 5 acres (2 hectares) each.



PERUVIAN COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 2.4%

HARVEST May–September

PROCESS WASHED

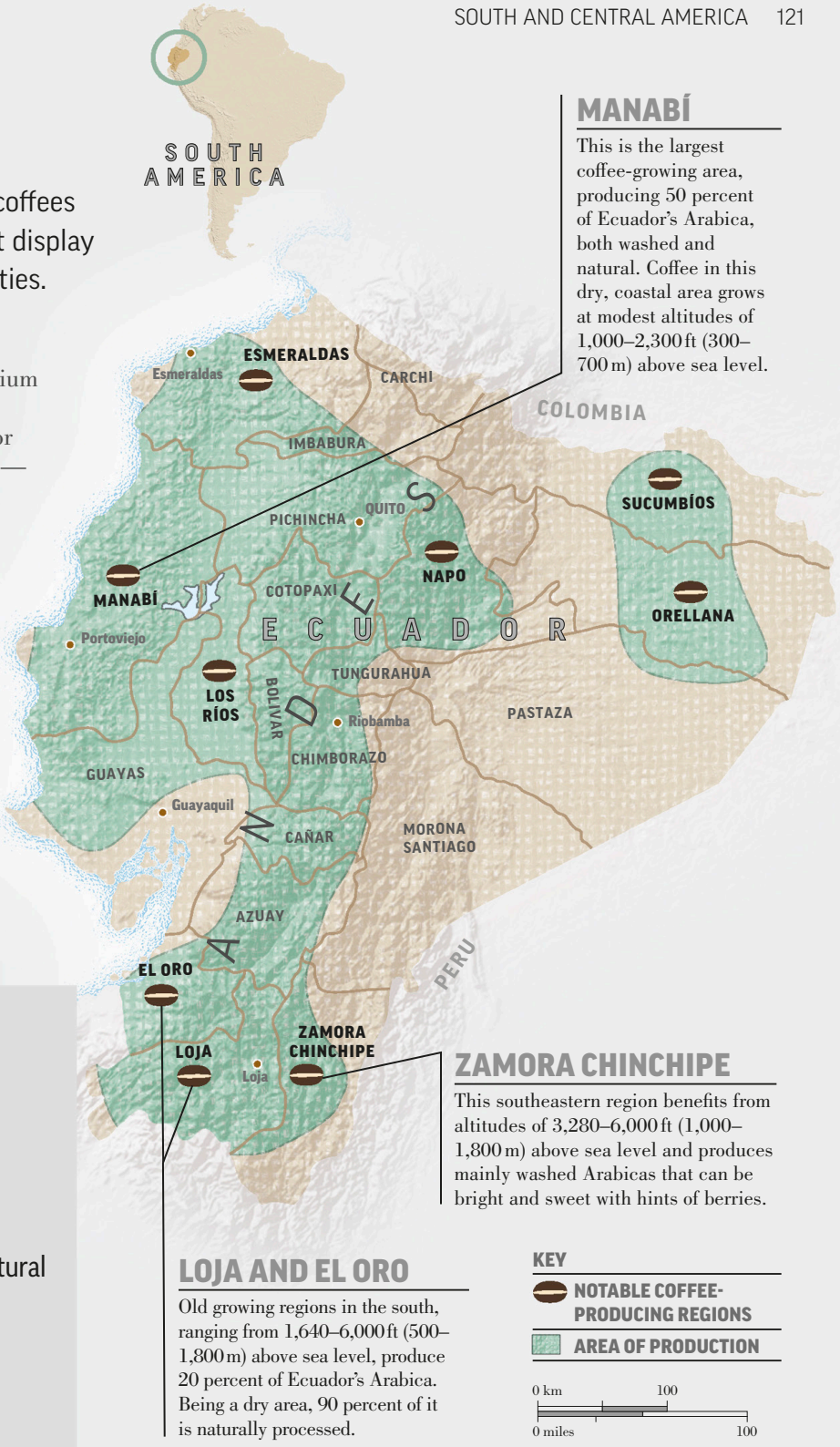
MAIN TYPES Arabica Typica, Bourbon, Caturra, Pache, Catimor

WORLD RANKING AS A PRODUCER 9th

ECUADOR

Varied ecosystems result in coffees that range in flavor, but most display classic South American qualities.

These qualities include a medium body, structured acidity, and pleasant sweetness. The Ecuador coffee industry faces challenges—the lack of credit facilities, low yields, and high labor costs are detrimental to quality. The overall area under cultivation has halved since 1985. It produces Robusta and low-quality Arabica. Most coffee is shade-grown and organic, and most small producers have their own wet mills. Still, the potential for quality is present in the highest altitudes, and in addition to Typica and Bourbon varieties, plantings of Caturra, Catuai, Pacas, and Sarchimor are taking place.



MANABÍ

This is the largest coffee-growing area, producing 50 percent of Ecuador's Arabica, both washed and natural. Coffee in this dry, coastal area grows at modest altitudes of 1,000–2,300 ft (300–700 m) above sea level.

ZAMORA CHINCHIPE

This southeastern region benefits from altitudes of 3,280–6,000 ft (1,000–1,800 m) above sea level and produces mainly washed Arabicas that can be bright and sweet with hints of berries.

LOJA AND EL ORO

Old growing regions in the south, ranging from 1,640–6,000 ft (500–1,800 m) above sea level, produce 20 percent of Ecuador's Arabica. Being a dry area, 90 percent of it is naturally processed.

KEY

- NOTABLE COFFEE-PRODUCING REGIONS
- AREA OF PRODUCTION

ECUADORIAN COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 0.4%

HARVEST May–September

PROCESSES Washed and natural

MAIN TYPES 60% Arabica; 40% Robusta

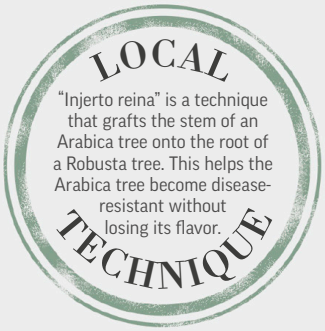
WORLD RANKING AS A PRODUCER 21st

GUATEMALA

Guatemalan coffees offer some exceptionally varied regional flavor profiles–ranging from sweet with cocoa and toffee notes to herbal, citrus, or floral coffees that display a crisp acidity.

There are many microclimates here—from the mountain ranges to the plains—and these, with the varied rainfall patterns and rich soils, create coffee with a huge range of flavors.

Coffee grows in nearly all the departments, and the Guatemalan National Coffee Association has identified eight main regions that offer distinct profiles. Within these regions there are great variations in aroma and flavor, influenced by varieties and local microclimates. Around 670,000 acres (270,000 hectares) are dedicated to growing coffee varieties, almost all of which are washed Arabica, such as Bourbon and Caturra. A small amount of Robusta grows at lower altitudes in the southwest. There are nearly 100,000 producers, most of whom have small farms of 5–7 acres (2–3 hectares) each. Most farms deliver their coffee cherries to a wet mill for processing (see pp.20–23), but it is increasingly common for producers to have their own small *beneficios* (processing plants).



HILLSIDE PLANTATION
The lush hillsides of high-altitude Guatemalan coffee regions are often laced with clouds.

GUATEMALAN COFFEE KEY FACTS

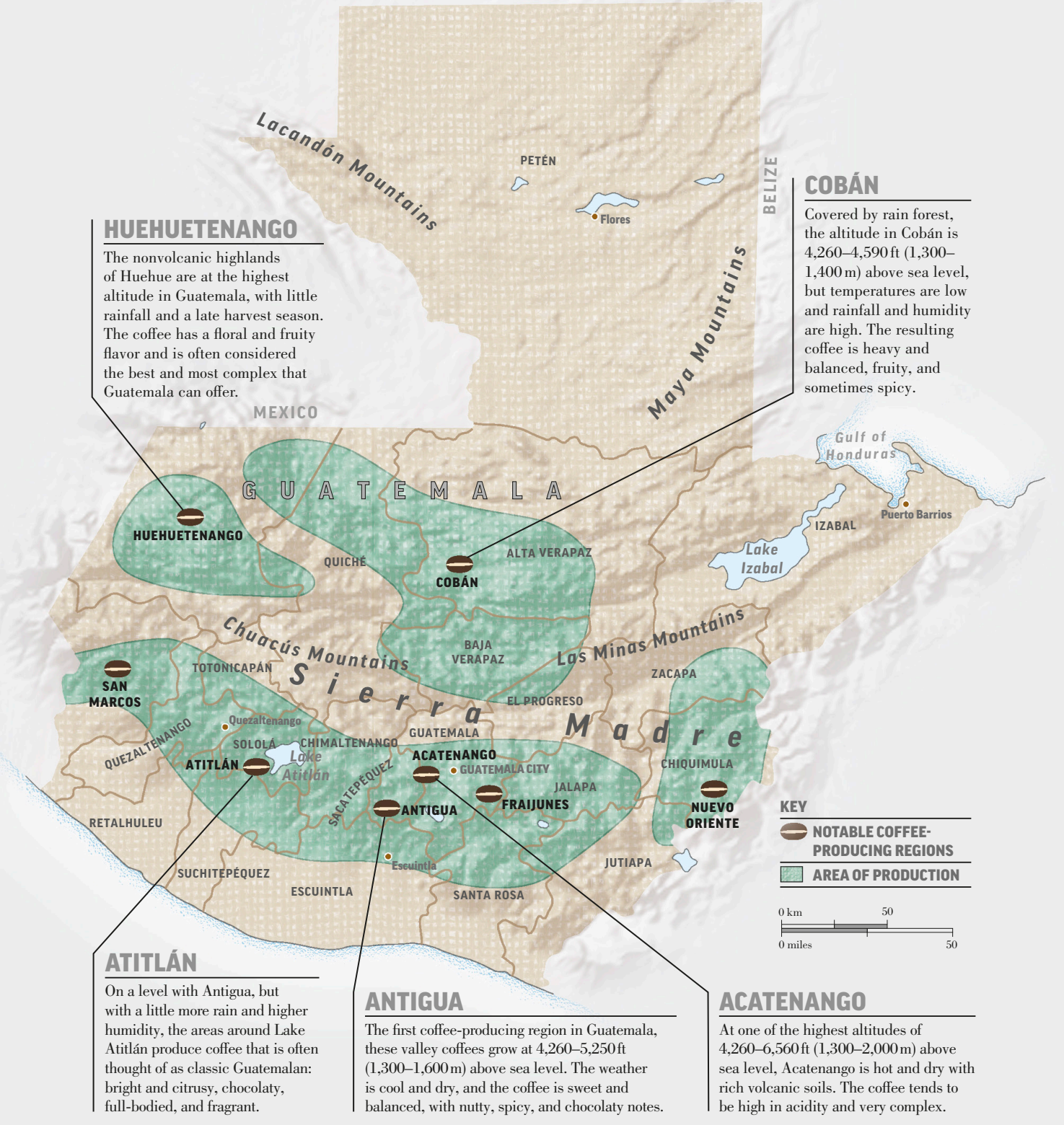
PERCENTAGE OF WORLD MARKET 2.3%

HARVEST November–April

PROCESSES Washed, small amounts of natural

MAIN TYPES 98% Arabica Bourbon, Caturra, Catuai, Typica, Maragogipe, Pache; 2% Robusta

WORLD RANKING AS A PRODUCER 11th



HUEHUETENANGO

The nonvolcanic highlands of Huehue are at the highest altitude in Guatemala, with little rainfall and a late harvest season. The coffee has a floral and fruity flavor and is often considered the best and most complex that Guatemala can offer.

COBÁN

Covered by rain forest, the altitude in Cobán is 4,260–4,590 ft (1,300–1,400 m) above sea level, but temperatures are low and rainfall and humidity are high. The resulting coffee is heavy and balanced, fruity, and sometimes spicy.

ATITLÁN

On a level with Antigua, but with a little more rain and higher humidity, the areas around Lake Atitlán produce coffee that is often thought of as classic Guatemalan: bright and citrusy, chocolaty, full-bodied, and fragrant.

ANTIGUA

The first coffee-producing region in Guatemala, these valley coffees grow at 4,260–5,250 ft (1,300–1,600 m) above sea level. The weather is cool and dry, and the coffee is sweet and balanced, with nutty, spicy, and chocolaty notes.

ACATENANGO

At one of the highest altitudes of 4,260–6,560 ft (1,300–2,000 m) above sea level, Acatenango is hot and dry with rich volcanic soils. The coffee tends to be high in acidity and very complex.

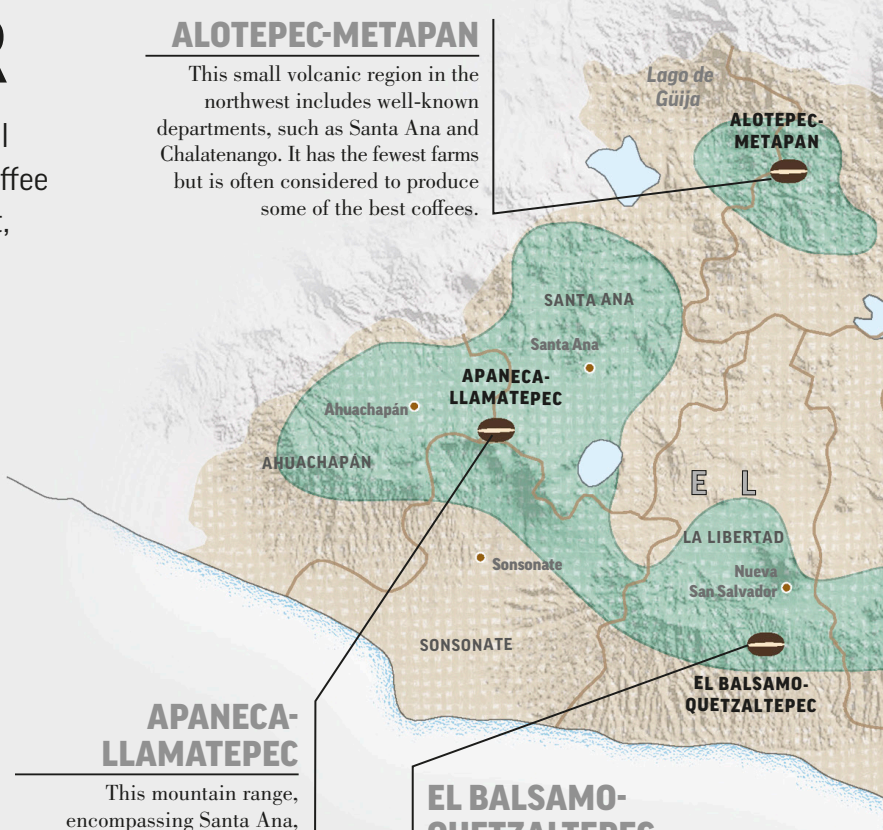
EL SALVADOR

Producing some of the most flavorful coffees in the world, El Salvador's coffee is sweet and creamy, with dried fruit, citrus, chocolate, and caramel notes.

The very first Arabica varieties to arrive in El Salvador were left undisturbed on farms while the country went through political and economical challenges. Almost two-thirds of the coffee grown now are Bourbon, with the remaining one-third being mostly Pacas, and some Pacamara—a popular cross created in El Salvador.

There are about 20,000 growers in El Salvador—95 percent of whom have small farms of less than 50 acres (20 hectares) that are about 1,640–3,900 ft (500–1,200 m) above sea level. Nearly half of these farms can be found in the Apaneca-Llamatepec region. As coffee is grown in the shade, coffee plantations have played a vital part in the battle against deforestation and loss of habitats for wildlife. If these trees disappeared, El Salvador would have virtually no natural forest left.

In recent years, the growers have focused largely on improving the quality of their coffee and marketing it to specialty buyers—creating a trade that better withstands the fluctuations of the commodity market.



ALOTEPEC-METAPAN

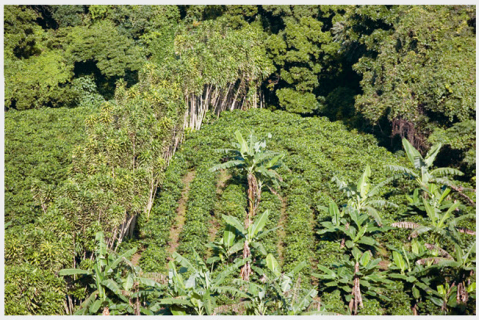
This small volcanic region in the northwest includes well-known departments, such as Santa Ana and Chalatenango. It has the fewest farms but is often considered to produce some of the best coffees.

APANECA-LLAMATEPEC

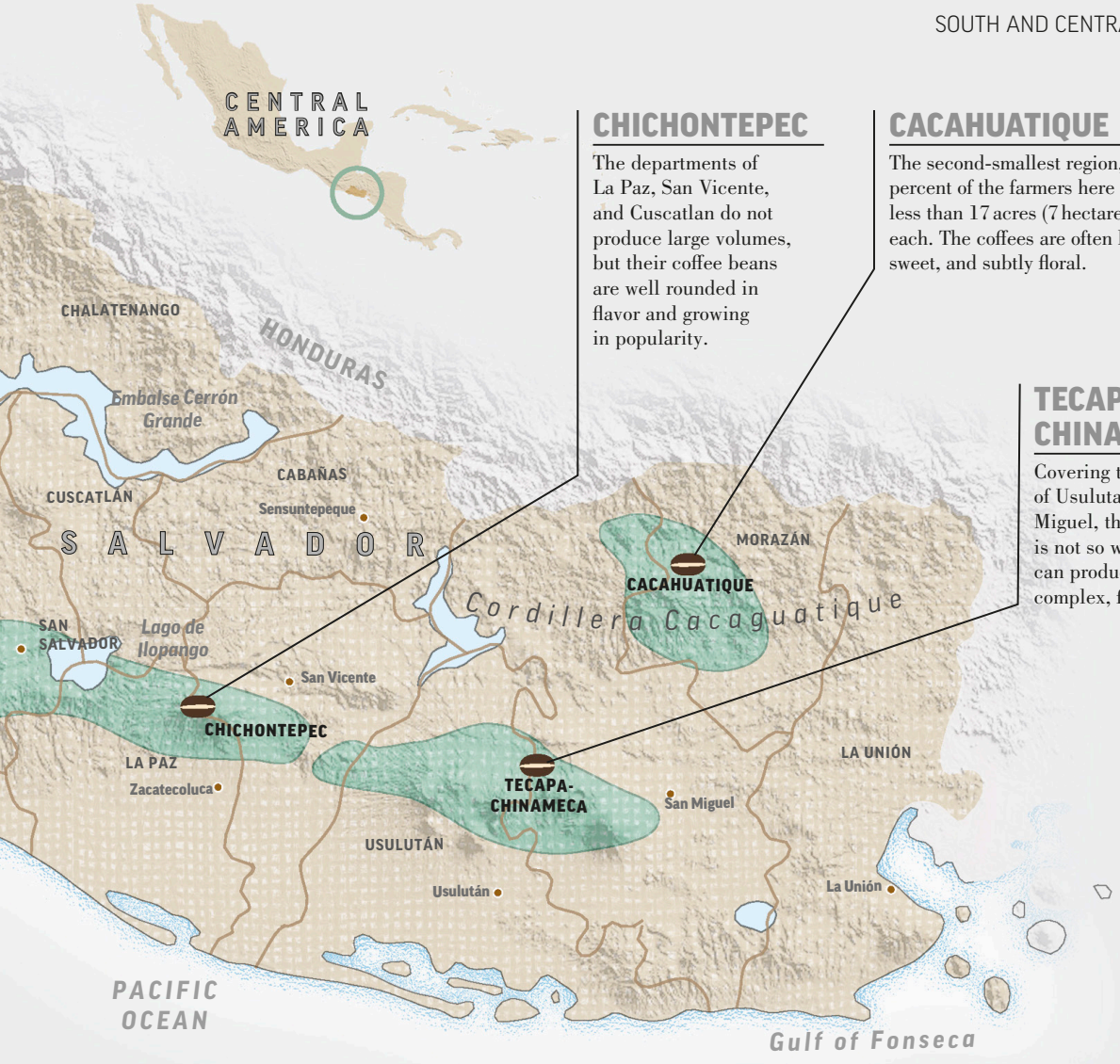
This mountain range, encompassing Santa Ana, Sonsonate, and Ahuachapan, is the largest coffee-growing area in the country and contains a majority of the mid- to large-sized farms.

EL BALSAMO-QUETZALTEPEC

In the southern parts of the central belt, the Balsamo Range and San Salvador volcano are home to nearly 4,000 growers who produce full-bodied coffees with a classic Central American balance.



COFFEE PLANTATION
Coffee is often intercropped with false banana, other fruit trees, or trees grown for timber production.



CHICHONTEPEC

The departments of La Paz, San Vicente, and Cuscatlan do not produce large volumes, but their coffee beans are well rounded in flavor and growing in popularity.

CACAHUATIQUE

The second-smallest region, 90 percent of the farmers here have less than 17 acres (7 hectares) each. The coffees are often light, sweet, and subtly floral.

TECAPA-CHINAMECA

Covering the departments of Usulutan and San Miguel, this eastern region is not so well known but can produce some very complex, fine coffees.

SALVADORAN COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 0.41%

HARVEST October–March

PROCESSES Washed, some natural

MAIN TYPES Arabica Bourbon, Pacas, Pacamara, Caturra, Catuai, Catisic

WORLD RANKING AS A PRODUCER 20th

KEY

NOTABLE COFFEE-PRODUCING REGIONS

AREA OF PRODUCTION

0 km 30

0 miles 30

COSTA RICA

Costa Rican coffees are delicious and easy to drink. They display a complex sweetness combined with refined acidity, mellow textures, and a range of citrus, floral flavors.

Taking great pride in the coffee it grows and produces, Costa Rica has banned Robusta production to protect its Arabica varieties, such as Typica, Caturra, and Villa Sarchi. The government has also issued strict environmental guidelines to protect vulnerable ecosystems and the future of coffee production.

There are more than 50,000 coffee growers in Costa Rica, and around 90 percent of them are small producers with less than 12 acres (5 hectares) each. The industry has gone through something of a revolution in the production of quality coffee. Numerous micro-mills have been built around growing regions, allowing single producers or small groups of farmers to process their own beans, control and add value to their crop, and trade directly with buyers around the world.

This development has helped younger generations continue family farms in spite of unstable markets—a trend that is sadly not common everywhere in the world.

LOCAL TECHNIQUE

The term "honey process" is used in Costa Rica to describe the pulped natural process (see p.21), when varying degrees of pulp are left on the parchment. Honeys are white, yellow, red, black, or gold.

COSTA RICAN COFFEE KEY FACTS

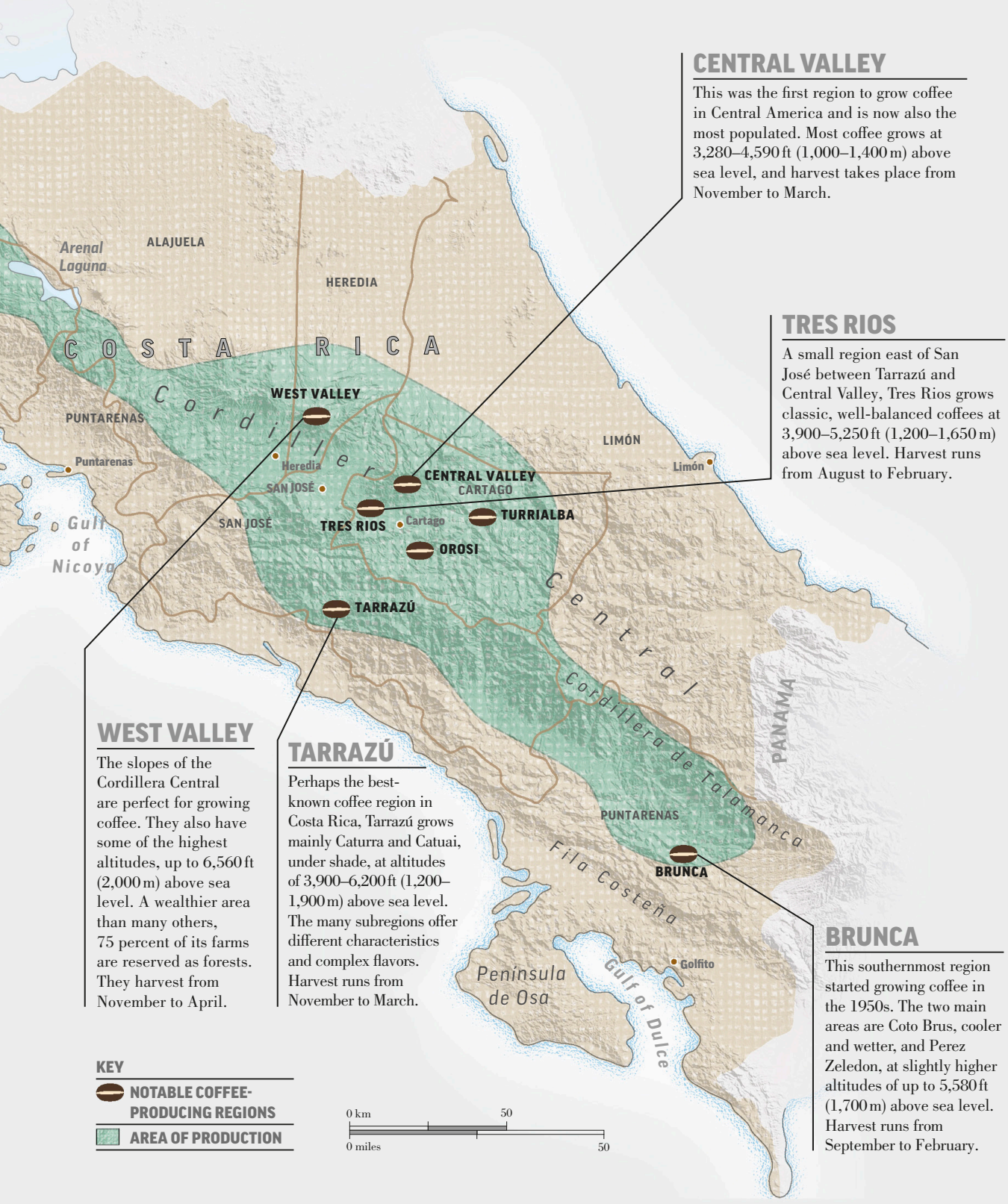
PERCENTAGE OF WORLD MARKET 0.93%

HARVEST Varies from region to region

PROCESSESES Washed, honey, natural

MAIN TYPES Arabica Typica, Caturra, Catuai, Villa Sarchi, Bourbon, Gesha, Villalobos

WORLD RANKING AS A PRODUCER 15th



CENTRAL VALLEY

This was the first region to grow coffee in Central America and is now also the most populated. Most coffee grows at 3,280–4,590 ft (1,000–1,400 m) above sea level, and harvest takes place from November to March.

TRES RIOS

A small region east of San José between Tarrazú and Central Valley, Tres Rios grows classic, well-balanced coffees at 3,900–5,250 ft (1,200–1,650 m) above sea level. Harvest runs from August to February.

WEST VALLEY

The slopes of the Cordillera Central are perfect for growing coffee. They also have some of the highest altitudes, up to 6,560 ft (2,000 m) above sea level. A wealthier area than many others, 75 percent of its farms are reserved as forests. They harvest from November to April.

TARRAZÚ

Perhaps the best-known coffee region in Costa Rica, Tarrazú grows mainly Caturra and Catuai, under shade, at altitudes of 3,900–6,200 ft (1,200–1,900 m) above sea level. The many subregions offer different characteristics and complex flavors. Harvest runs from November to March.

BRUNCA

This southernmost region started growing coffee in the 1950s. The two main areas are Coto Brus, cooler and wetter, and Perez Zeledon, at slightly higher altitudes of up to 5,580 ft (1,700 m) above sea level. Harvest runs from September to February.

NICARAGUA

The best Nicaraguan coffees show a range of flavors—from sweet, fudge, and milk chocolate to more floral, delicate and acidic, herbal, savory, and honeyed—and specific flavor profiles vary from region to region.

There is no doubt that this large, thinly populated country is capable of growing excellent coffees. However, between devastating hurricanes and political and financial instability, both the production of coffee and its reputation have suffered. Nevertheless, as coffee is the main export, producers are eager to resurrect its standing in specialty markets and continue to work on enhancing their agricultural practices within an improving infrastructure.

There are about 40,000 growers in Nicaragua, 80 percent of whom have farms of fewer than 7 acres (3 hectares) each, at altitudes of 2,620–6,200 ft (800–1,900 m) above sea level. Most coffee grown here is Arabica, including varieties such as Bourbon and Pacamara. They are usually organic due to lack of funds for chemicals. The growers are hard to trace because they sell their coffee to large mills for processing, but single farms are beginning to trade directly with specialist buyers.

NICARAGUAN COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 1.45%

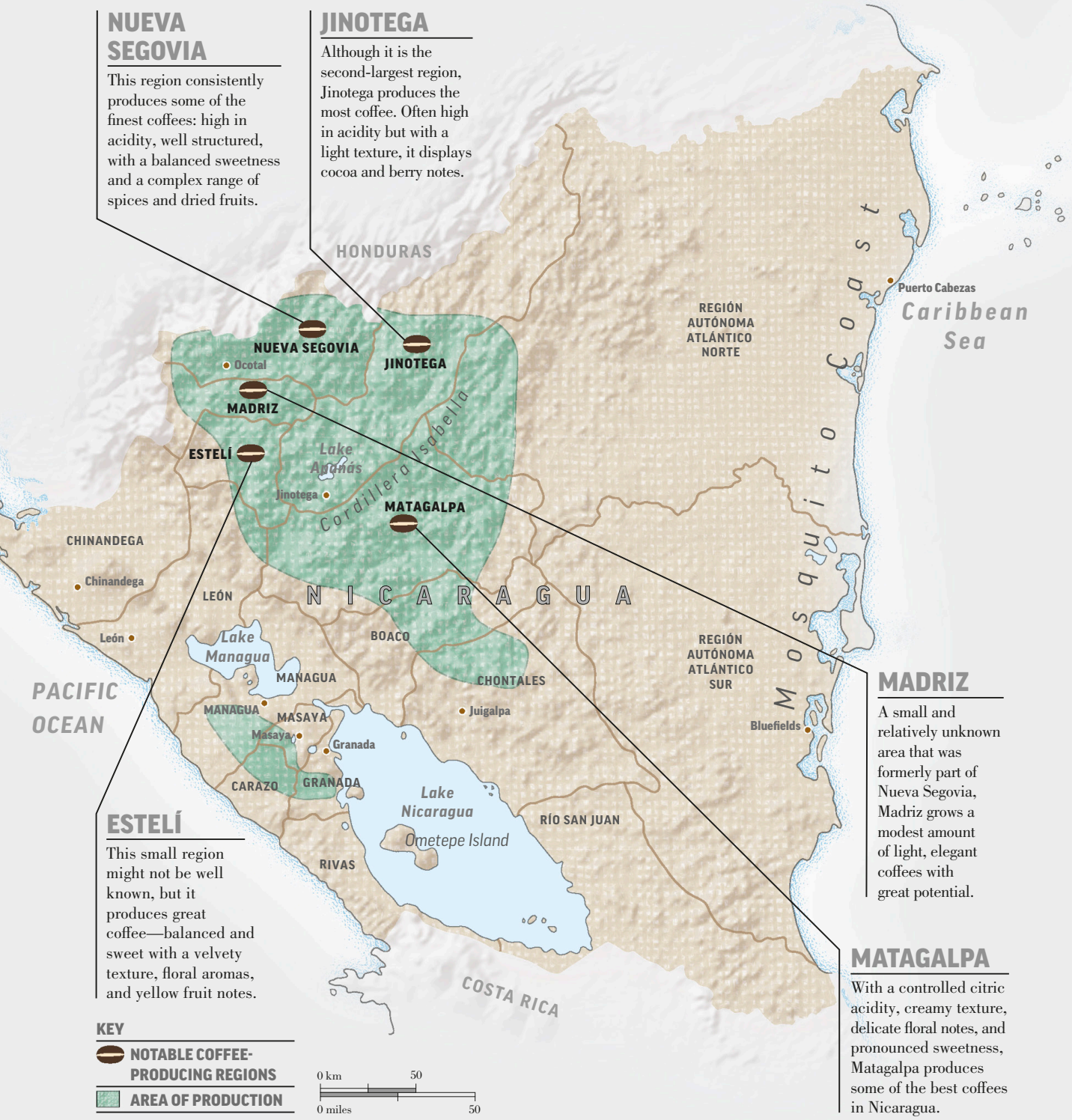
HARVEST October–March

PROCESSES Washed, some natural, and pulped natural

MAIN TYPES Arabica Caturra, Bourbon, Pacamara, Maragogype, Maracaturra, Catuai, Catimor

WORLD RANKING AS A PRODUCER 12th

INCREASING YIELD
Farmers are starting to prune and fertilize more effectively to increase the yield of their coffee trees.


NUEVA SEGOVIA
This region consistently produces some of the finest coffees: high in acidity, well structured, with a balanced sweetness and a complex range of spices and dried fruits.
JINOTEGA
Although it is the second-largest region, Jinotega produces the most coffee. Often high in acidity but with a light texture, it displays cocoa and berry notes.
HONDURAS
NUEVA SEGOVIA
Ocotal
JINOTEGA
MADRIZ
ESTELÍ
Lake Apanás
Cordillera Isabella
Jinotega
MATAGALPA
CHINANDEGA
Chinandega
LEÓN
León
NICARAGUA
Lake Managua
BOACO
MANAGUA
CHONTALES
Juigalpa
MANAGUA
MASAYA
Masaya
Granada
CARAZO
GRANADA
Lake Nicaragua
Ometepe Island
RÍO SAN JUAN
RIVAS
COSTA RICA
PACIFIC OCEAN
REGIÓN AUTÓNOMA ATLÁNTICO NORTE
REGIÓN AUTÓNOMA ATLÁNTICO SUR
Mosquito Coast
Puerto Cabezas
Caribbean Sea
Bluefields
ESTELÍ
This small region might not be well known, but it produces great coffee—balanced and sweet with a velvety texture, floral aromas, and yellow fruit notes.
MADRIZ
A small and relatively unknown area that was formerly part of Nueva Segovia, Madriz grows a modest amount of light, elegant coffees with great potential.
MATAGALPA
With a controlled citric acidity, creamy texture, delicate floral notes, and pronounced sweetness, Matagalpa produces some of the best coffees in Nicaragua.
KEY
NOTABLE COFFEE-PRODUCING REGIONS
AREA OF PRODUCTION
0 km 50
0 miles 50

HONDURAS

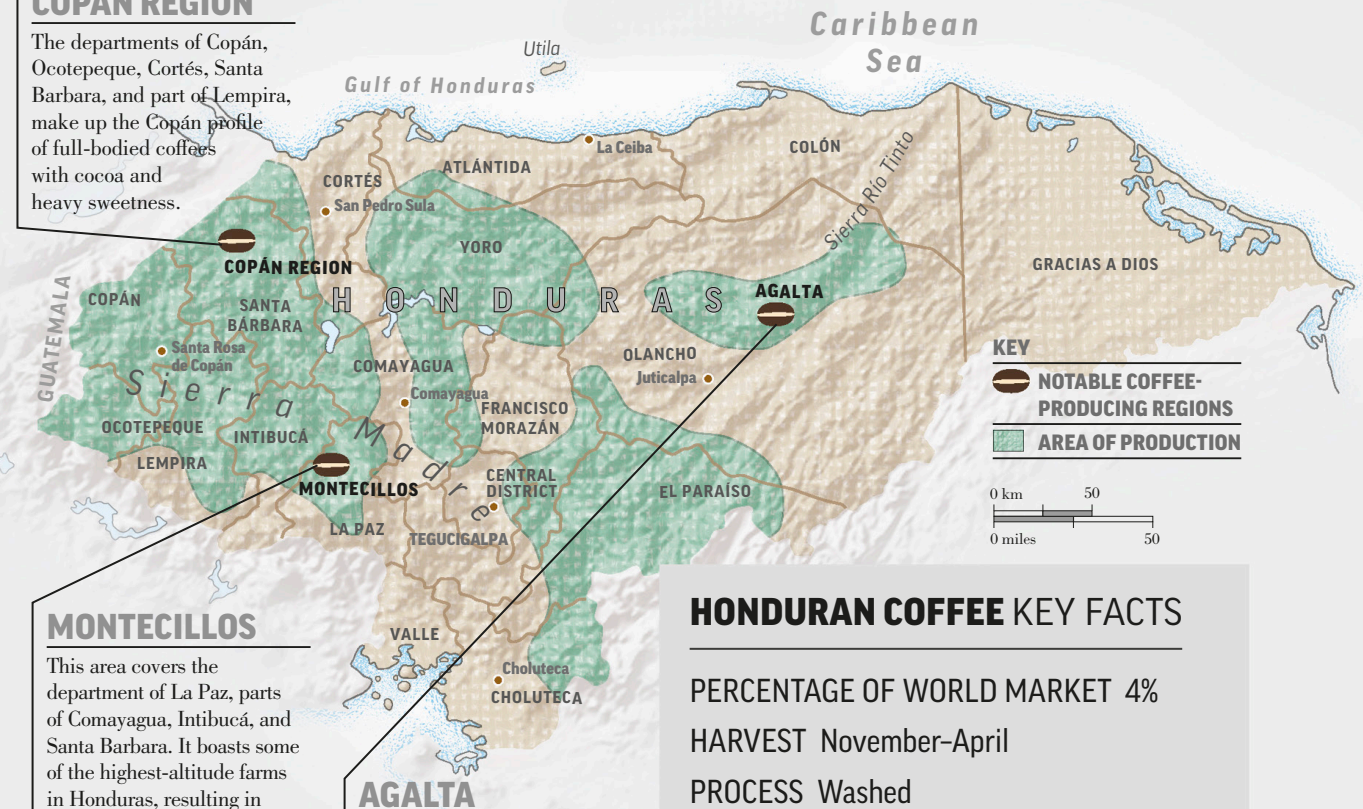
Some of the most contrasting flavor profiles in Central America are produced in Honduras—from soft, low-acid, nutty, and toffeelike to highly acidic Kenyan-style coffees.

Honduras is capable of growing very clean, complex coffees but suffers from poor infrastructure and a lack of controlled drying facilities.

More than half of the coffee comes from just three departments. Small producers mainly grow varieties of Arabica, including Pacas and Typica. Coffee is often organic by default, and nearly all of it is shade-grown. To promote local specialty coffee, the National Coffee Institute is investing in training and education.

COPÁN REGION

The departments of Copán, Ocotepeque, Cortés, Santa Barbara, and part of Lempira, make up the Copán profile of full-bodied coffees with cocoa and heavy sweetness.



MONTECILLOS

This area covers the department of La Paz, parts of Comayagua, Intibucá, and Santa Barbara. It boasts some of the highest-altitude farms in Honduras, resulting in bright, citrusy, and well-structured coffees.

AGALTA

Agalta spans the departments of Olancho and Yoro. Coffees here are sometimes tropical and sweet, with high acidity and chocolaty notes.

HONDURAN COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 4%

HARVEST November–April

PROCESS Washed

MAIN TYPES Arabica Caturra, Catuai, Pacas, Typica

WORLD RANKING AS A PRODUCER 6th

PANAMA

Panamanian coffees are sweet and balanced, at times floral or citrus, well-rounded, and easy to drink. Unusual varieties, such as Geisha, are very expensive.

Most coffee grows in the western province of Chiriqui, where climate and fertile soils offer perfect conditions, and the high altitudes of the Baru volcano aid slow ripening. This area mainly grows Arabica varieties, such as Caturra and Typica. Farms are small- to medium-sized and family-run, and the country has good processing facilities and a well-developed infrastructure. Development threatens farmland, so the future looks treacherous for coffee here.

VOLCAN

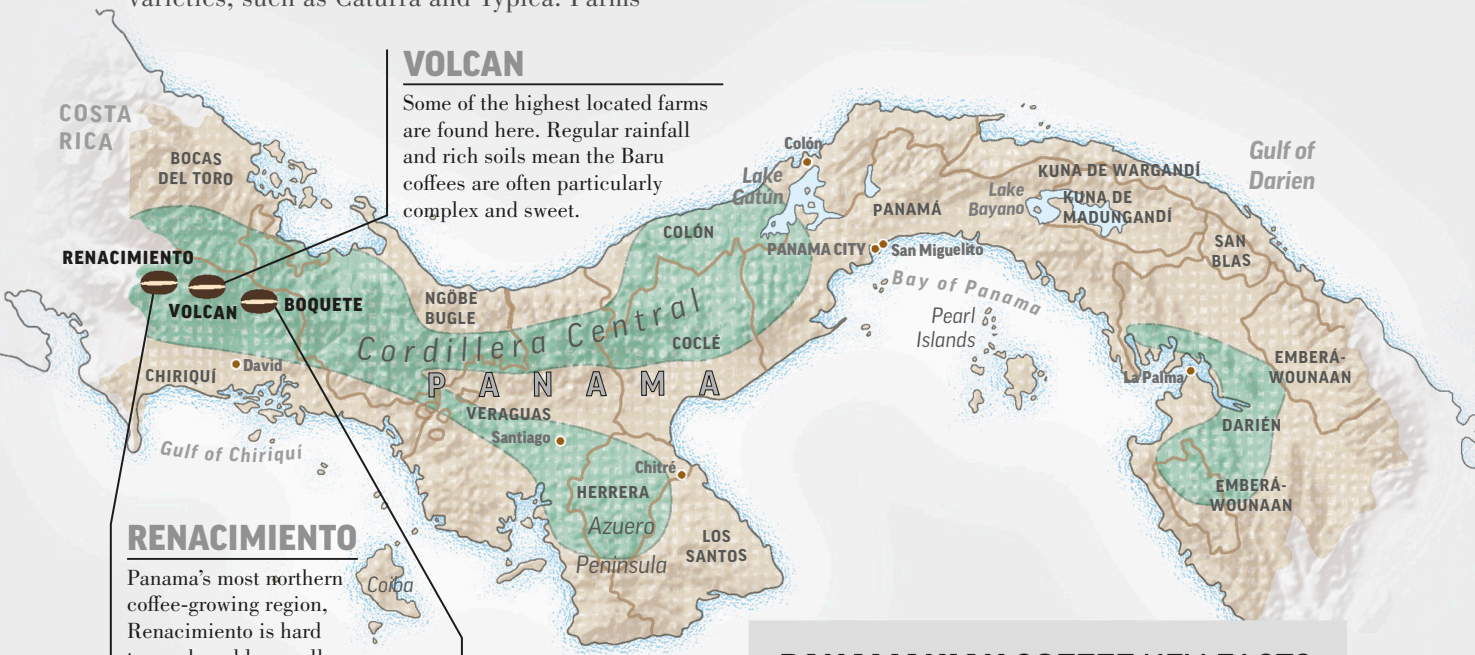
Some of the highest located farms are found here. Regular rainfall and rich soils mean the Baru coffees are often particularly complex and sweet.

RENACIMIENTO

Panama's most northern coffee-growing region, Renacimiento is hard to reach and less well known. Right on the border with Costa Rica, Renacimiento has farms up to 6,560 ft (2,000 m) above sea level with great potential for clean, high-acidity coffees.

BOQUETE

The oldest and best-known district for coffee in Panama is cool, misty, and home to some of the most highly priced coffees in the world. Flavors range from cocoa to fruity with subtle acidity.



KEY

- NOTABLE COFFEE-PRODUCING REGIONS
- AREA OF PRODUCTION

0 km 50
0 miles 50

PANAMANIAN COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 0.07%

HARVEST December–March

PROCESSES Washed and natural

MAIN TYPES Arabica Caturra, Catuai, Typica, Geisha, Mundo Novo; some Robusta

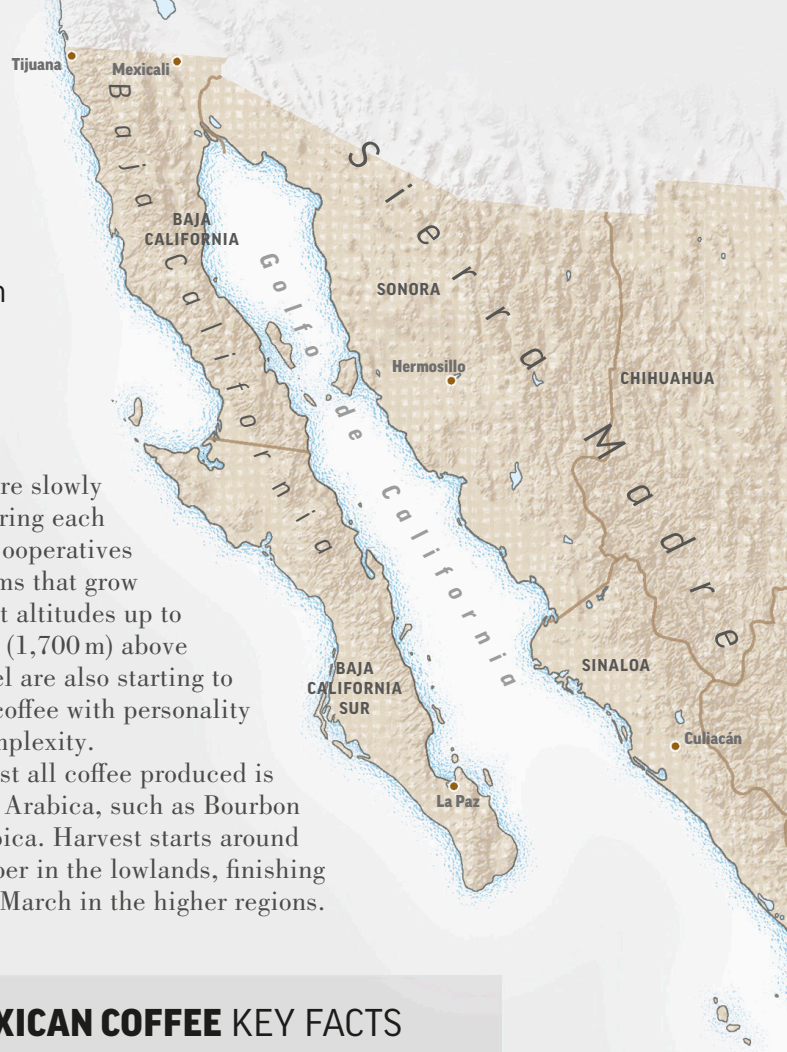
WORLD RANKING AS A PRODUCER 36th

COFFEES
OF THE WORLD

CARIBBEAN AND NORTH AMERICA

MEXICO

Coffees from Mexico are slowly emerging on the specialty market, gaining popularity for their sweet, soft, mild, and balanced flavors.



About 70 percent of Mexican coffee is grown 1,300–2,950 ft (400–900 m) above sea level. The coffee industry involves more than 300,000 people, most of whom are producers with small farms that are less than 60 acres (25 hectares) in size. Low yields, limited financial support, poor infrastructure, and little technical assistance make it difficult for producers to improve quality. However, specialty coffee buyers and producers with the potential to grow high-quality coffee are slowly discovering each other. Cooperatives and farms that grow coffee at altitudes up to 5,500 ft (1,700 m) above sea level are also starting to export coffee with personality and complexity.

Almost all coffee produced is washed Arabica, such as Bourbon and Typica. Harvest starts around November in the lowlands, finishing around March in the higher regions.

COFFEE SEEDLINGS IN A NURSERY
In Mexico, as in most other countries and regions, coffee-tree seedlings start life growing in a nursery (see pp.16–17), protected under shade cover.

MEXICAN COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 2.4%

HARVEST November–March

PROCESSES Washed, some natural

MAIN TYPES 90% Arabica Bourbon, Typica, Caturra, Mundo Novo, Maragogype, Catimor, Catuai, Garnica; 10% Robusta

WORLD RANKING AS A PRODUCER 10th

CHALLENGES Low yields, limited financial and technical support, poor infrastructure

PUEBLA

Puebla is the fourth-largest coffee-producing region. Coffee from here is grown up to 4,590 ft (1,400 m) above sea level and is generally soft and subtle with nutty tones.

VERACRUZ

Along the coast of the Gulf of Mexico, Veracruz has both high- and lowland-growing coffees that display a range of flavors and qualities.

CHIAPAS

Coffees from Chiapas can have stone-fruit flavors and cocoa notes. On the border with Guatemala, this tropical jungle in the southeastern corner is the largest and most popular coffee-producing area in Mexico.

OAXACA

On the southern coast, this region produces coffee up to 5,500 ft (1,700 m) above sea level, with medium body, chocolate and almond notes, and a delicate acidity.

PUERTO RICO

One of the smallest coffee-producing nations, Puerto Rico grows sweet, low-acidity coffees with a smooth, rounded texture and cedar, herbal, and almond notes.

Coffee production in Puerto Rico has declined in recent years due to political instability, climate change, and high production costs. It is estimated that nearly half of the crop is left unharvested due to a lack of pickers.

Farms are located throughout the western central mountains from Rincon to Orocovis, with most of the coffee grown at 2,460–2,780 ft (750–850 m) above sea level. However, there is also potential for growing at higher altitudes, such as in Ponce, where the highest peak reaches 4,390 ft (1,338 m) above sea level.

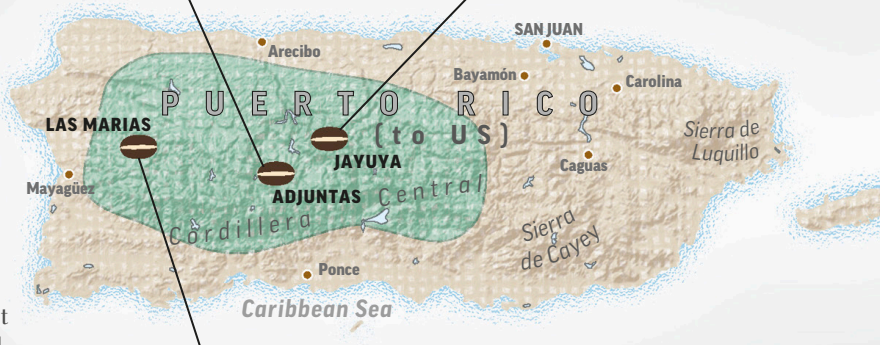
Arabica varieties are mainly grown here, such as Bourbon, Typica, Pacas, and Catimor. Puerto Ricans drink only a third of the homegrown coffee—the rest comes from the Dominican Republic and Mexico. A small quantity is exported.

ADJUNTAS

Mediterranean immigrants brought coffee to this area, which is nicknamed the "Switzerland of Puerto Rico" for its cool climate and altitudes of up to 3,280 ft (1,000 m) above sea level.

JAYUYA

Also known as the indigenous capital of the country, nestled in the tropical cloud forests in the Cordillera Central, Jayuya has the second-highest altitude in Puerto Rico.



LAS MARIAS

Known as the City of Citrus Fruit, Las Marias's agriculture also centers around coffee. Many of the old coffee haciendas are on the route of the Puerto Rican coffee tour operators.

KEY

NOTABLE COFFEE-PRODUCING REGIONS

AREA OF PRODUCTION

0 km 30

0 miles 30

PUERTO RICAN COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 0.04%

HARVEST August–March

PROCESS Washed

MAIN TYPES Arabica Bourbon, Typica, Caturra, Catual, Pacas, Sarchimor Limani, Catimor Pediment

WORLD RANKING AS A PRODUCER 42nd

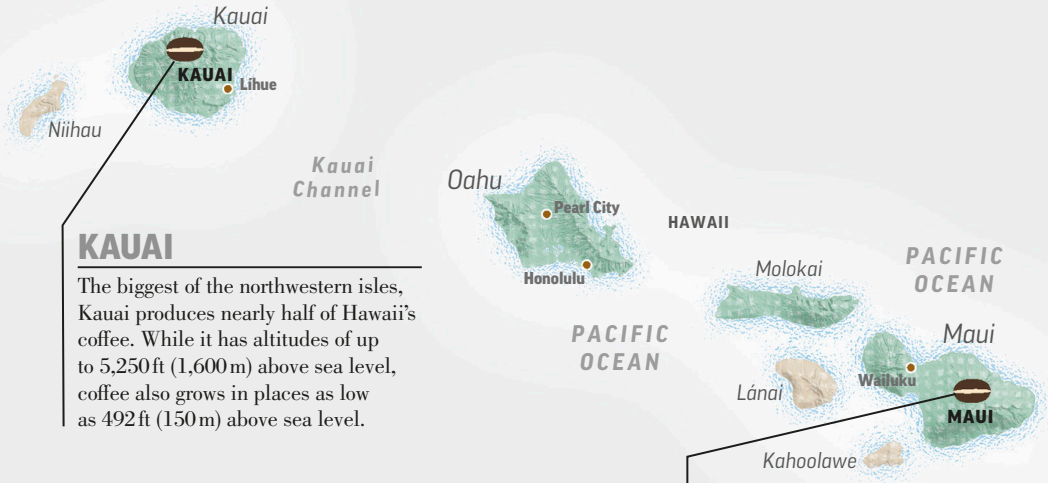
HAWAII

Hawaiian coffees are balanced, clean, delicate, and mild, with some milk chocolate; subtle, fruity acidity; and medium body. They can be aromatic and sweet.

Hawaii mainly grows varieties of Arabica, such as Typica, Catuai, and Caturra. Hawaiian coffees are well marketed and expensive, which means they are some of the most counterfeited coffees in the world—especially the coffee from Kona.

On the island, coffee has to have at least 10 percent Kona-grown coffee in it to bear the name, while, controversially, the mainland US has no such rules.

Production and labor costs are high; many stages are highly mechanized.



KAUAI

The biggest of the northwestern isles, Kauai produces nearly half of Hawaii's coffee. While it has altitudes of up to 5,250 ft (1,600 m) above sea level, coffee also grows in places as low as 492 ft (150 m) above sea level.

MAUI

Maui has the second-highest elevation of the islands and harvests nearly all year. Sixty percent of the coffee beans are naturally processed. Nearly all the coffee is sold already roasted.

HAWAII

The areas of Kona, Ka'u, Hamakua, and North Hilo stretch down the sides of the Mauna Loa volcano, and the coffee trees here thrive in the rich, black soil. Most of the coffees from this island are fully washed.

KEY

NOTABLE COFFEE-PRODUCING REGIONS

AREA OF PRODUCTION

0 km 50

0 miles 50

HAWAIIAN COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 0.14%

HARVEST September–January

PROCESSES Washed and natural

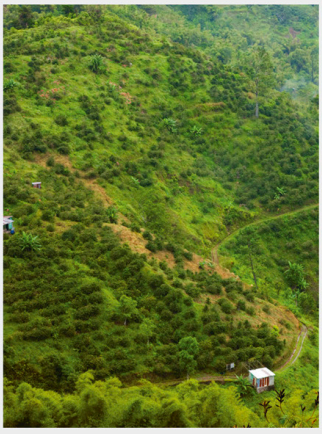
MAIN TYPES Arabica Typica, Caturra, Catuai, Mocha, Blue Mountain, Mundo Novo

WORLD RANKING AS A PRODUCER 31st

JAMAICA

Some of the most well-marketed and expensive coffees in the world grow here. Beans are sweet, soft, and mellow, with nutty notes and medium textures.

The most famous Jamaican coffees are those from the Blue Mountain range. These iconic beans ship in wooden barrels rather than jute or burlap bags. The variety is expensive but often counterfeit—either partially or completely—and measures are being developed to protect it. Typica also grows here in large quantities.



BLUE MOUNTAIN PLANTATION
A Jamaican coffee estate on the slopes of the Blue Mountain, which has mineral-rich, fertile soil.

CENTRAL AND WEST

While they are not named Blue Mountain, the rest of Jamaica grows the same variety, but in different microclimates and at lower altitudes, peaking at around 3,280 ft (1,000 m) above sea level, where the borders of Trelawny, Manchester, Clarendon, and Saint Ann meet.

EAST

The Blue Mountain peaks at 7,400 ft (2,256 m) and borders Portland and Saint Thomas. The mountain range provides a cool, misty climate, well suited to coffee growing.

KEY

- NOTABLE COFFEE-PRODUCING REGIONS
- AREA OF PRODUCTION

0 km 30
0 miles 30

JAMAICAN COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 0.01%

HARVEST September–March

PROCESS Washed

MAIN TYPES Arabica, mostly Typica, Blue Mountain

WORLD RANKING AS A PRODUCER 50th

DOMINICAN REPUBLIC

There are several growing regions here with varying microclimates. They produce coffee that ranges from chocolaty, spicy, and heavy to floral, bright, and delicate.

As many Dominicans drink local coffee, only a modest amount is exported. Combined with low prices and hurricane damage, this has led to a decline in quality. Most coffee is Arabica—Typica, Caturra, and Catuai. Measures are being taken to improve the coffee grown here.

HARVEST SEASON
Harvest runs almost all year, due to lack of a consistent climate or defined wet season.

CIBAO

Coffees are full, sweet, and nutty in the lower regions and light, fruity, and floral at altitudes of up to 4,900 ft (1,500 m) above sea level.

NEYBA

The areas around the town of Neyba in Baoruco grow some of the most lemony and light-bodied coffees. Harvest is between November and February.

BARAHONA

Perhaps the best-known province for coffee, Barahona grows full-bodied, low-acidity coffees with chocolaty notes 1,970–4,260 ft (600–1,300 m) above sea level.

KEY

- NOTABLE COFFEE-PRODUCING REGIONS
- AREA OF PRODUCTION

0 km 50
0 miles 50

DOMINICAN COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 0.26%

HARVEST September–May

PROCESSES Washed, some natural

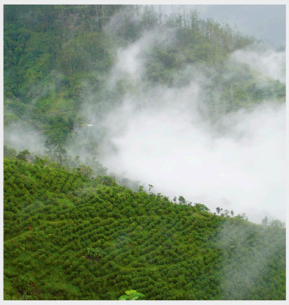
MAIN TYPES Arabica, mostly Typica, some Caturra, Catuai, Bourbon, Maragogype

WORLD RANKING AS A PRODUCER 25th

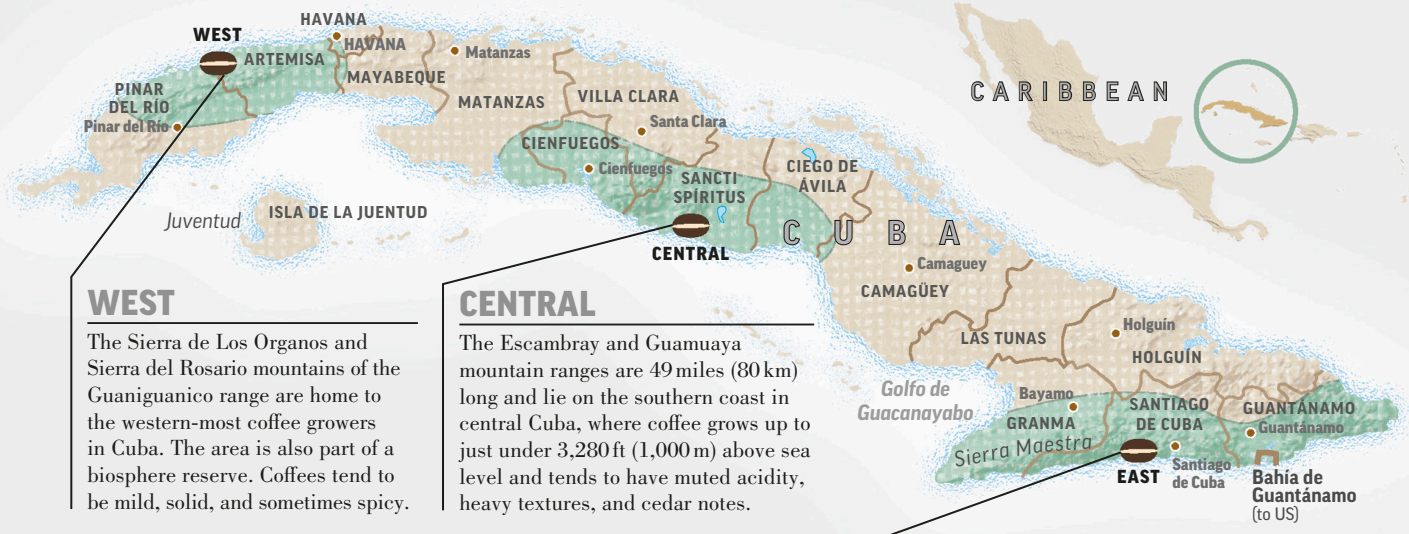
CUBA

Cuban coffees have a mixed reputation and are highly priced. They are generally heavy-bodied, with low acidity, balanced sweetness, and earthy tobacco notes.

Coffee was introduced to Cuba in the mid-1700s. Cuba grew to become one of the world's largest exporters before political turmoil and economic restrictions saw it surpassed by South American countries. The majority of the crop is Arabica—Villalobos and Isla 6–14. Cubans drink more coffee than they grow, so only a minor percentage is exported. Only a small part of the island has the altitude to grow specialty grades, but the mineral-rich soil and climate increase its potential.



CUBAN MOUNTAIN RANGES
Steep Cuban mountain ranges provide a cool climate with good sun exposure.



WEST

The Sierra de Los Organos and Sierra del Rosario mountains of the Guaniguanico range are home to the western-most coffee growers in Cuba. The area is also part of a biosphere reserve. Coffees tend to be mild, solid, and sometimes spicy.

CENTRAL

The Escambray and Guamuaya mountain ranges are 49 miles (80 km) long and lie on the southern coast in central Cuba, where coffee grows up to just under 3,280 ft (1,000 m) above sea level and tends to have muted acidity, heavy textures, and cedar notes.

EAST

The Sierra Maestra and Sierra Cristal are mountains along the southern coast of the east of Cuba. This area has the highest altitudes, with Turquino Peak rising up to 6,200 ft (1,974 m) above sea level—the best climate for more complex specialty coffee.

CUBAN COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 0.07%

HARVEST July–February

PROCESS Washed

MAIN TYPES Arabica Villalobos, Isla 6–14; some Robusta

WORLD RANKING AS A PRODUCER 37th

KEY

NOTABLE COFFEE-PRODUCING REGIONS

AREA OF PRODUCTION

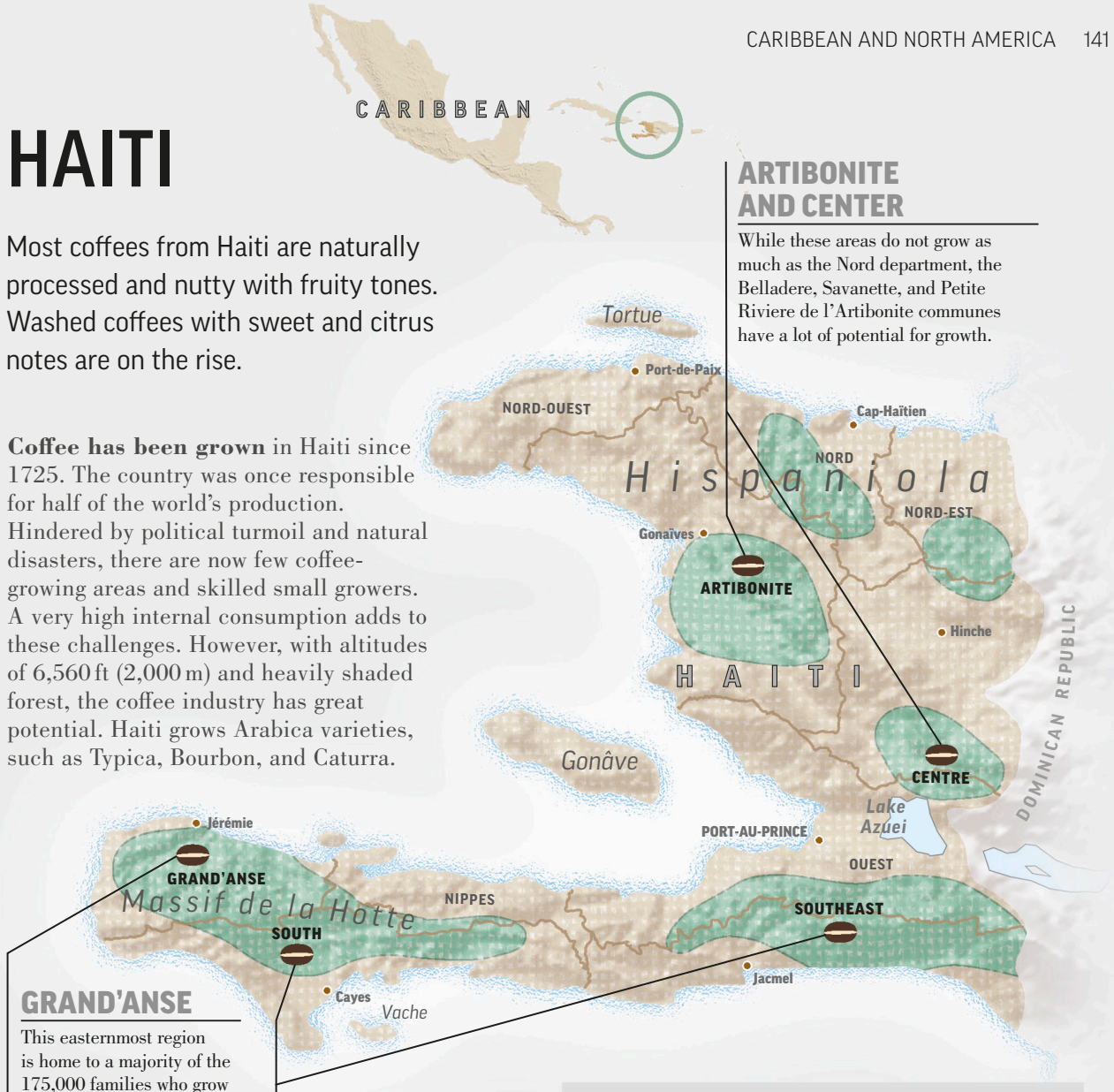
0 km 150

0 miles 150

HAITI

Most coffees from Haiti are naturally processed and nutty with fruity tones. Washed coffees with sweet and citrus notes are on the rise.

Coffee has been grown in Haiti since 1725. The country was once responsible for half of the world's production. Hindered by political turmoil and natural disasters, there are now few coffee-growing areas and skilled small growers. A very high internal consumption adds to these challenges. However, with altitudes of 6,560 ft (2,000 m) and heavily shaded forest, the coffee industry has great potential. Haiti grows Arabica varieties, such as Typica, Bourbon, and Caturra.



ARTIBONITE AND CENTER

While these areas do not grow as much as the Nord department, the Belladere, Savanette, and Petite Riviere de l'Artibonite communes have a lot of potential for growth.

GRAND'ANSE

This easternmost region is home to a majority of the 175,000 families who grow coffee in Haiti, most of them with small farms with up to 17 acres (7 hectares) each.

SOUTH AND SOUTHEAST

Haiti's southern coast, particularly the area bordering Dominican Republic, is home to many of the smallest farms with conditions suitable for growing high-quality coffee.

KEY

NOTABLE COFFEE-PRODUCING REGIONS

AREA OF PRODUCTION

0 km 50

0 miles 50

HAITIAN COFFEE KEY FACTS

PERCENTAGE OF WORLD MARKET 0.22%

HARVEST August–March

PROCESSES Natural, some washed

MAIN TYPES Arabica Typica, Bourbon, Caturra, Catimor, Villalobos

WORLD RANKING AS A PRODUCER 28th

EQUIPMENT

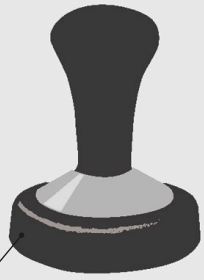
ESPRESSO MACHINE

An espresso machine relies on pump pressure to force water through coffee to extract the desired solubles. It produces a small and viscous drink when used correctly—an intense shot that is balanced between sweet and acidic. The technique for using the machine is shown on pages 46–51.

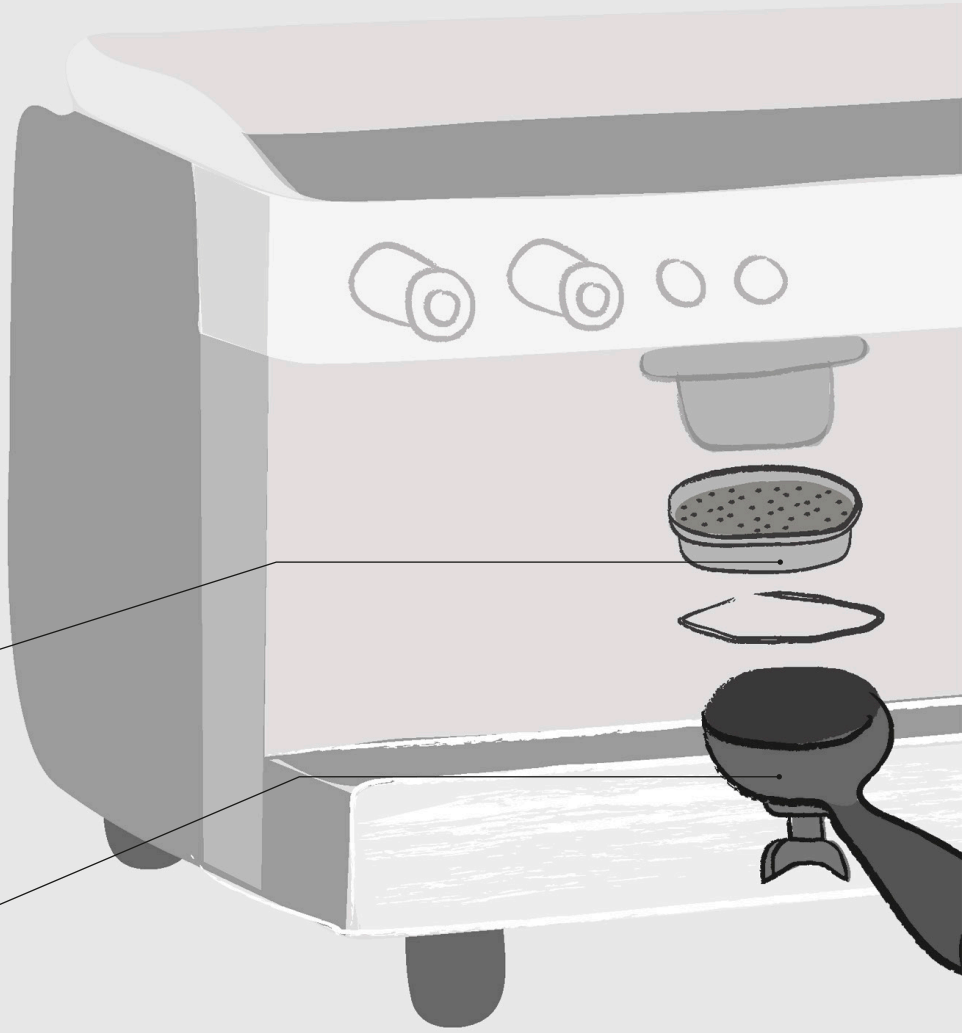
Warming time
A standard machine takes about 20–30 minutes to heat up to the correct temperature, so keep this in mind before you brew.

WHAT YOU NEED

Fine-ground coffee (see p.41)



The tamper
Use this to compress the bed of coffee down to expel pockets of air and create a compact, even layer of grounds. This layer needs to withstand the pressure of water and allow all the coffee to extract as uniformly as possible. A rubber tamping mat will protect your table from getting dented by the spouts.



The filter basket
The coffee is portioned into a removable filter basket held in place with a clip. Baskets come in a range of sizes, depending on how much coffee you prefer to use when preparing your espresso. The number, shape, and size of the tiny holes at the bottom of the basket will also affect the result you get in the cup.

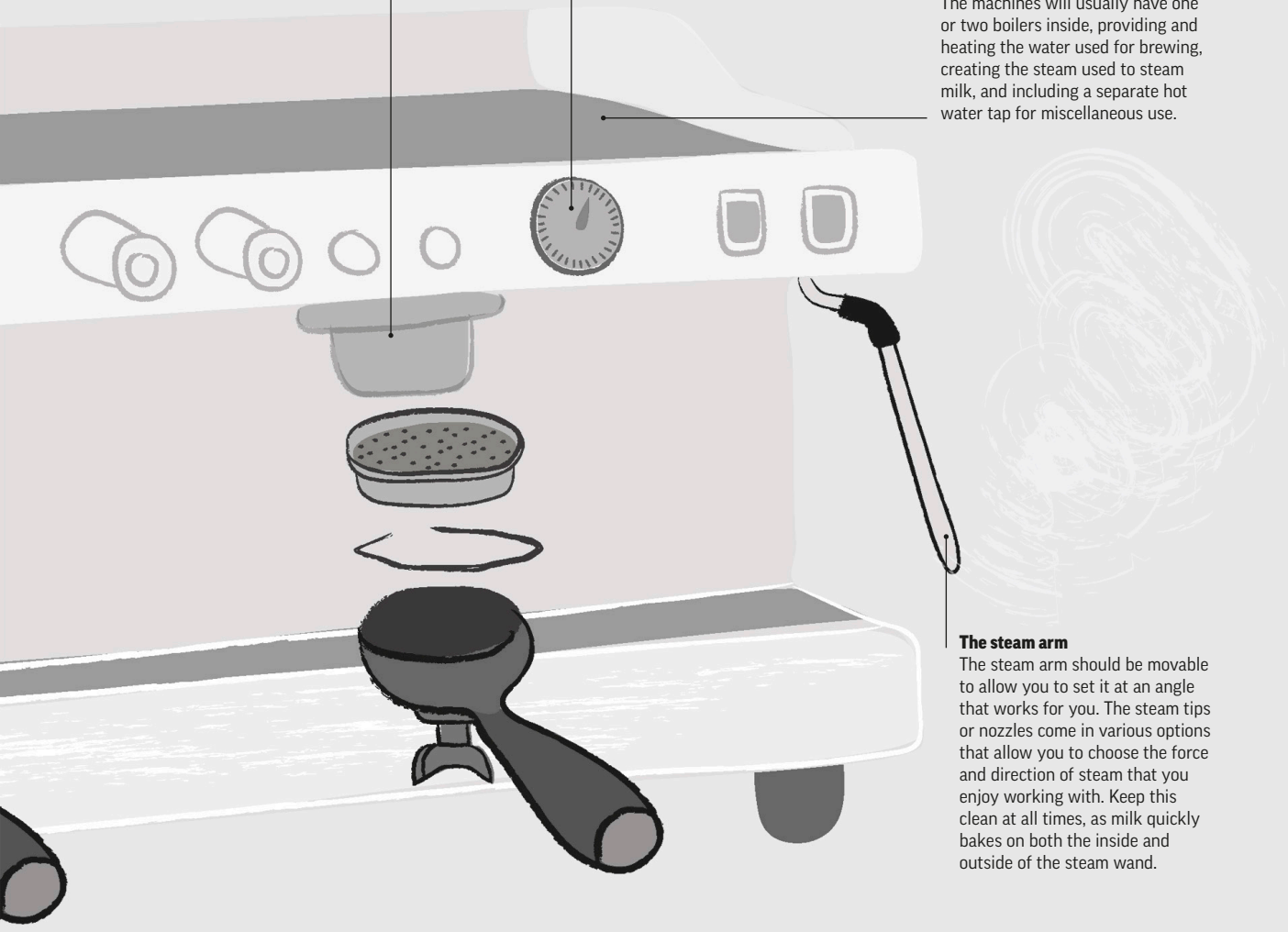
Portafilter
The filter basket fits into a portafilter, which is a handle with one or two spouts.

Pressure gauge
Many home espresso machines are advertised as having unnecessarily high bar pressure. Professional machines are normally set to brew at 9 bars, with a steam pressure of 1–1.5 bars. Some machines will have the option of allowing pre-infusion, an initial phase of gently wetting the coffee before full pump pressure is applied.

Water temperature
Adjust this to 195–200°F (90–95°C) to bring out the best flavors in the coffee. Some coffees taste better with hot water, while others taste better with cooler water.

The group head
The portafilter fastens into a group head where water is dispersed through a metal screen onto the bed of coffee, saturating and extracting it evenly.

The boilers
The machines will usually have one or two boilers inside, providing and heating the water used for brewing, creating the steam used to steam milk, and including a separate hot water tap for miscellaneous use.



The steam arm
The steam arm should be movable to allow you to set it at an angle that works for you. The steam tips or nozzles come in various options that allow you to choose the force and direction of steam that you enjoy working with. Keep this clean at all times, as milk quickly bakes on both the inside and outside of the steam wand.

FRENCH PRESS

The classic press, sometimes known as a cafetière, is a great vessel for brewing good coffee. It's simple and quick—water and coffee infuse together before a mesh filter pushes through the brew, leaving oils and fine particles. This gives the coffee a great texture.

WHAT YOU NEED

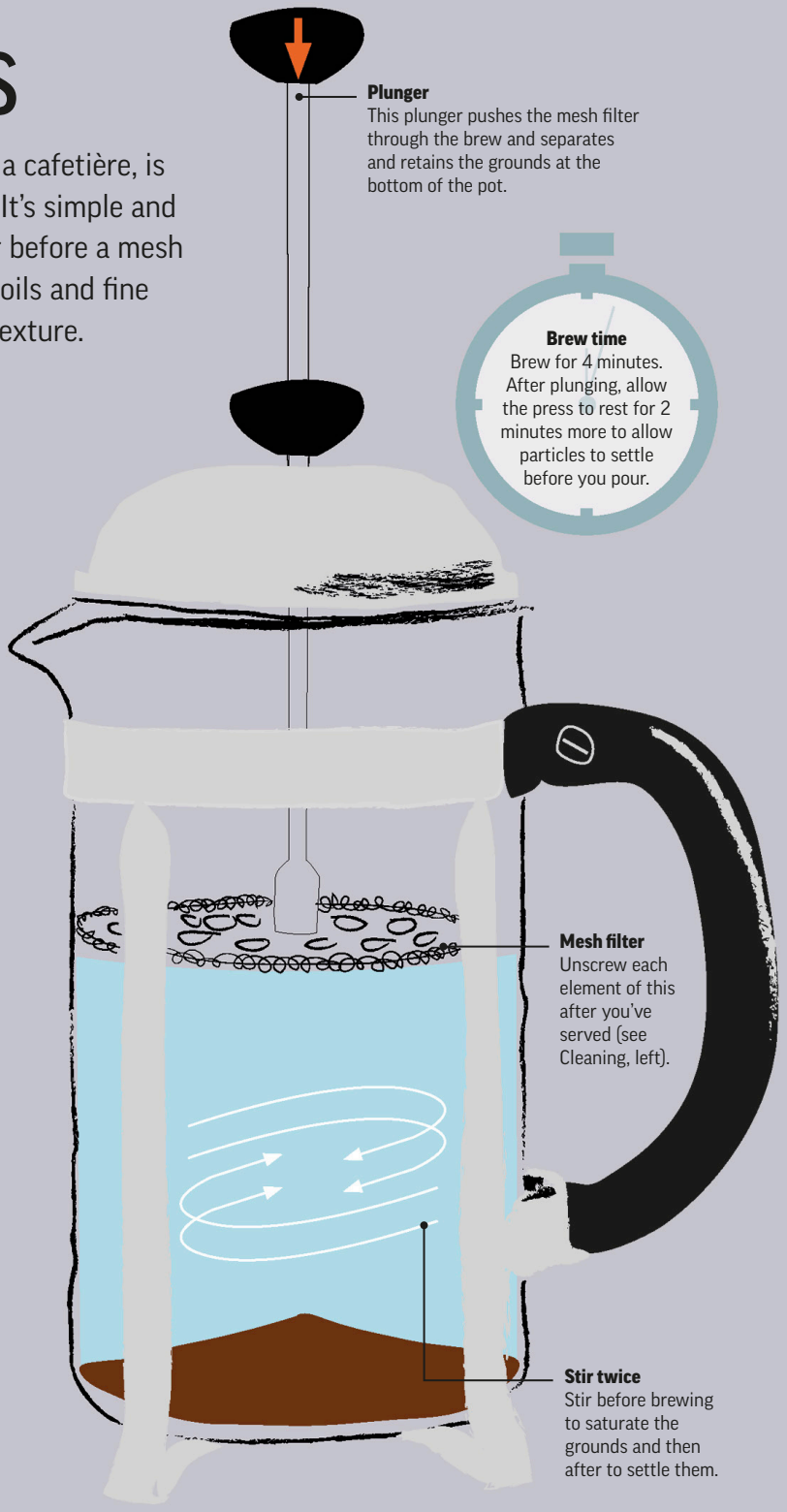
- **Coarse-ground coffee** (see p.41)
- **Digital weighing scale** to help you get the coffee-water ratio right

HOW IT WORKS

1 **Preheat** the press with hot water and then discard the water. Place the press on a scale and tare.
2 **Add the coffee** to the press and tare again. A good ratio to start with is 1 oz (30 g) coffee to 16 fl oz (500 mL) water.
3 **Add the water,** checking that it is the right volume and temperature, preferably 195–200°F (90–94°C).
4 **Stir the coffee** once or twice.
5 **Leave to brew** for 4 minutes and then carefully stir the surface again.
6 **Skim** the foam and floating particles off the surface with a spoon.
7 **Place the filter** on top of the press and gently push down until the grounds are collected at the bottom. If you meet too much resistance, you may have used too much coffee or too fine a grind, or you have not let the coffee steep for long enough.
8 **Allow to rest** in the press for a couple of minutes and then serve.

CLEANING

- **Often dishwasher-safe** Check your model.
- **Dismantle** This avoids trapped grounds and oils that may impart a bitter or sour flavor.



FILTER POUR-OVER

Brewing through a paper filter is an easy way to make coffee straight into a mug or serving vessel. As the grounds are easily disposed of with the paper filter, the method is also clean and stress-free.

WHAT YOU NEED

- **Medium-ground coffee** (see p.41)
- **Digital weighing scale** to help you get the coffee-water ratio right

HOW IT WORKS

1 **Rinse** the paper filter well. Preheat the filter holder and pitcher or mug with warm water. Discard the water.

2 **Place the pitcher** or mug onto a scale. Place the filter on top and tare.

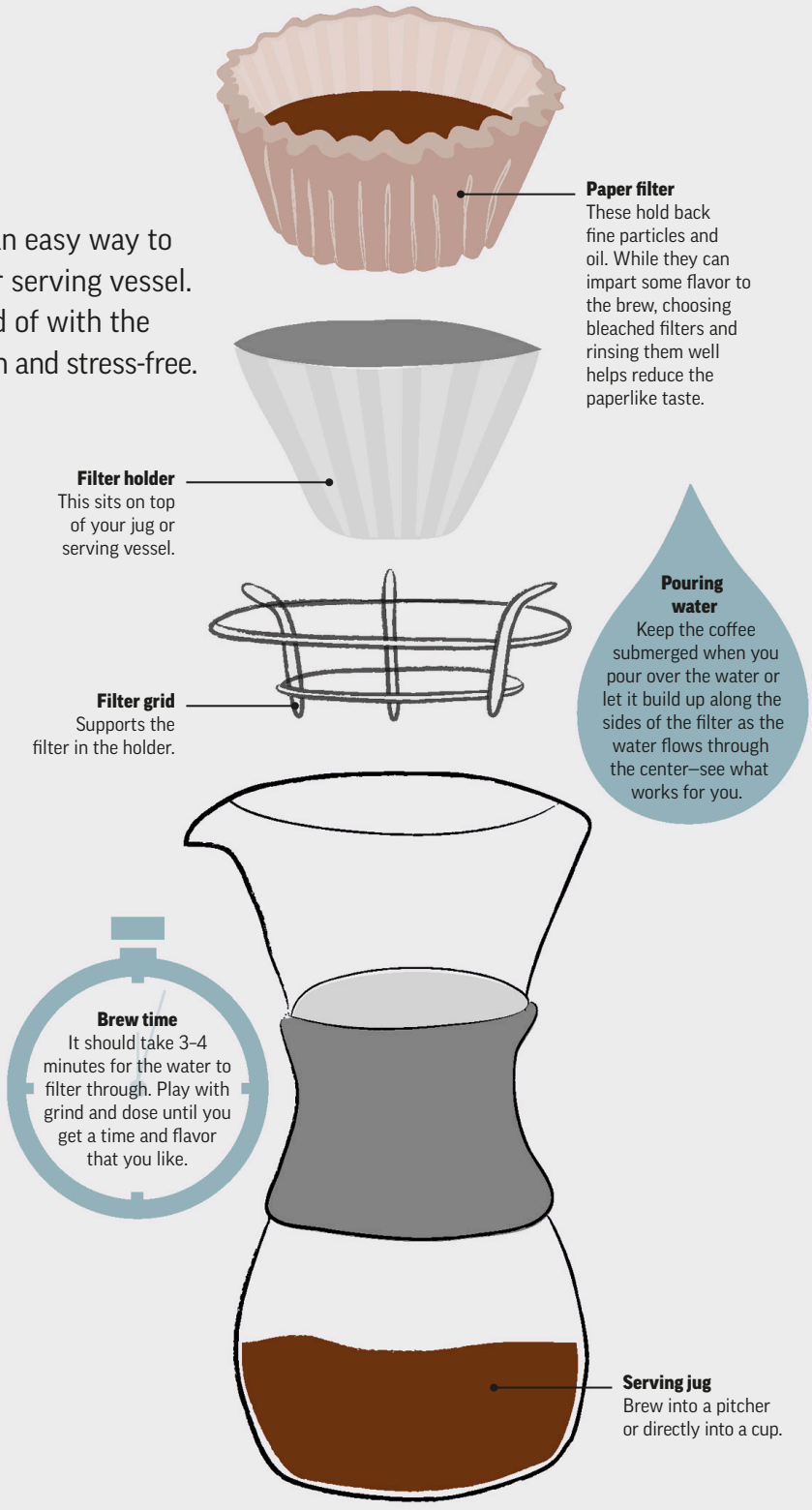
3 **Add the coffee** to the filter and tare again. A good ratio to start with is 2 oz (60 g) coffee to 3½ cups (1 liter) water.

4 **Saturate the grounds** with a little water at preferably 195–200°F (90–94°C) and leave them to swell for about 30 seconds to allow the "bloom" to settle.

5 **Keep pouring water** over in a slow, continuous stream or in portions until you have poured over the right volume of water. Serve when the water has filtered through.

CLEANING

- **Dishwasher-safe** Most filter holders are machine-washable.
- **Sponge wash** Use a soft sponge and some lightly soapy water to rinse off any oils and particles.



CLOTH BREWER

A traditional way of filtering through the grounds, cloth-brewing is also known as "sock" or "nel" brewing. Fans prefer it to paper-filter brewing because the process doesn't impart a papery flavor. The coffee also gains a richer texture due to the oils that pass through the cloth.

WHAT YOU NEED

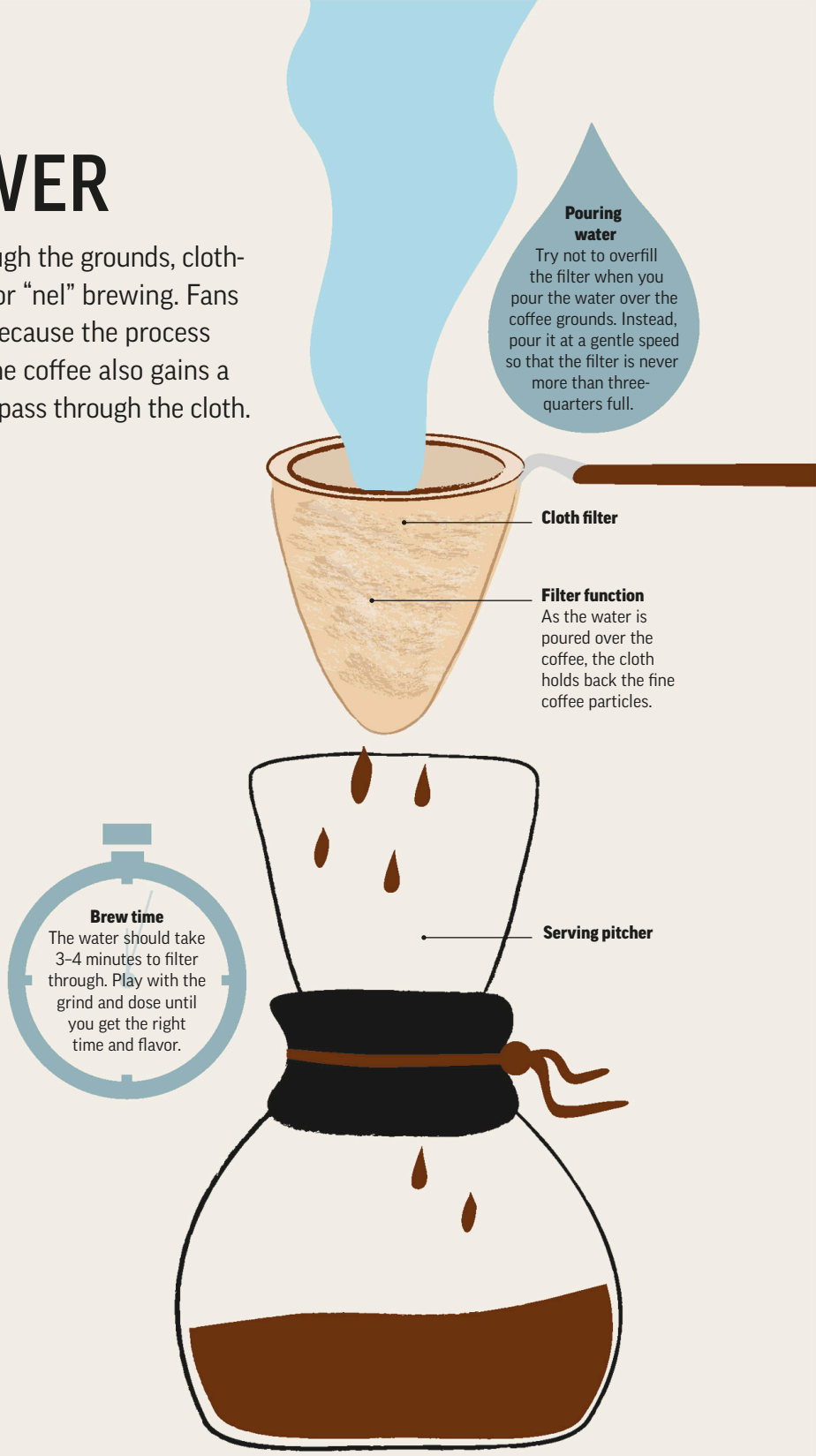
- **Medium-ground coffee** (see p.41)
- **Digital weighing scale** to help you get the coffee-water ratio right

HOW IT WORKS

1. **Rinse** the cloth filter thoroughly in hot water before the first use to clean and preheat the filter. If you have frozen your filter (see below), this process will defrost it at the same time.
2. **Place the filter** on top of the brewing vessel and pour hot water through to preheat it. Discard the water.
3. **Tare the brewer** by placing it on a digital scale.
4. **Add the coffee,** working on a base recipe of ½ oz (15 g) coffee to 9 oz (250 mL) water.
5. **Wet the grounds** with a little water at approximately 195–200°F (90–94°C). Let them swell for 30–45 seconds to allow the "bloom" to settle down.
6. **Continue pouring water** over the coffee in a gentle, continuous stream or in stages. When all the water has filtered through, serve the coffee.

CLEANING

- **Reusable** Discard the grounds and rinse filters in hot water. Do not use soap.
- **Keep moist** Either freeze filters when wet or keep in a sealed container in the fridge.



AEROPRESS

A quick and clean brewer, an AeroPress can brew a full filter-style cup or a strong, more concentrated coffee that can be diluted with hot water. It is easy to play with grind, dose of coffee, and pressure, making it a wonderfully flexible choice.

WHAT YOU NEED

- **Fine- to medium-ground coffee** (see p.41)
- **Digital weighing scale** to help you get the coffee-water ratio right

HOW IT WORKS

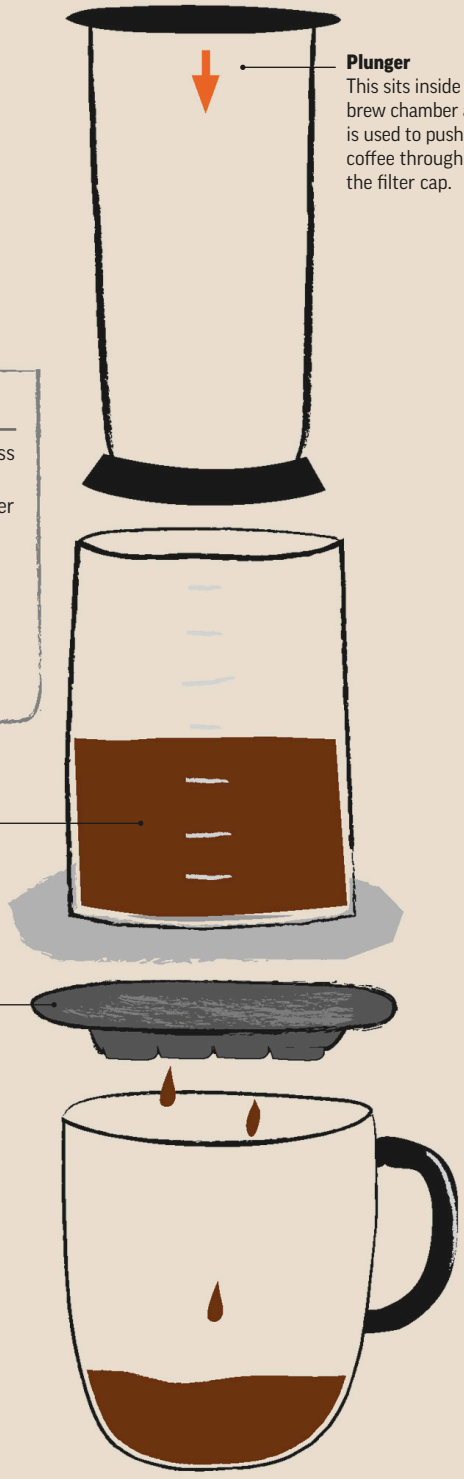
1. **Insert the plunger** about ¾ in (2 cm) into the brew chamber.
2. **Tare the AeroPress** by placing it on a scale, inverted, with the plunger down and brew chamber up. Ensure that the seal is tight and stable and that the AeroPress will not fall over.
3. **Add ¼ oz (12 g) coffee** to the brew chamber and tare the brewer again.
4. **Add 7 fl oz (200 mL) hot water** and stir carefully to avoid knocking the AeroPress over. Let sit for 30–60 seconds and stir again.
5. **Place a filter paper** in the cap and rinse it well and then screw it onto the brew chamber.
6. **Quickly but gently flip** the AeroPress over to sit the filter cap down on top of a sturdy cup or serving vessel.
7. **Press the plunger down** gently to brew the coffee into your cup. Serve.

CLEANING

- **Taking apart** Twist off the filter cap and push the plunger all the way through to pop out the spent grounds in the filter. Discard.
- **Wash** Rinse well and use soapy water or wash in the dishwasher.

ALTERNATIVE METHOD

Rather than flipping the AeroPress over the cup at step 6, place the empty AeroPress (with filter paper in the cap) over the vessel. Add coffee and water. As soon as the coffee and water are poured in, the plunger needs to be quickly placed on top to keep the coffee from dripping into the cup.



SYPHON

One of the most visually interesting methods of brewing coffee, syphons are particularly popular in Japan. Brewing takes time in a syphon, but this is part of its ceremonial appeal.

WHAT YOU NEED

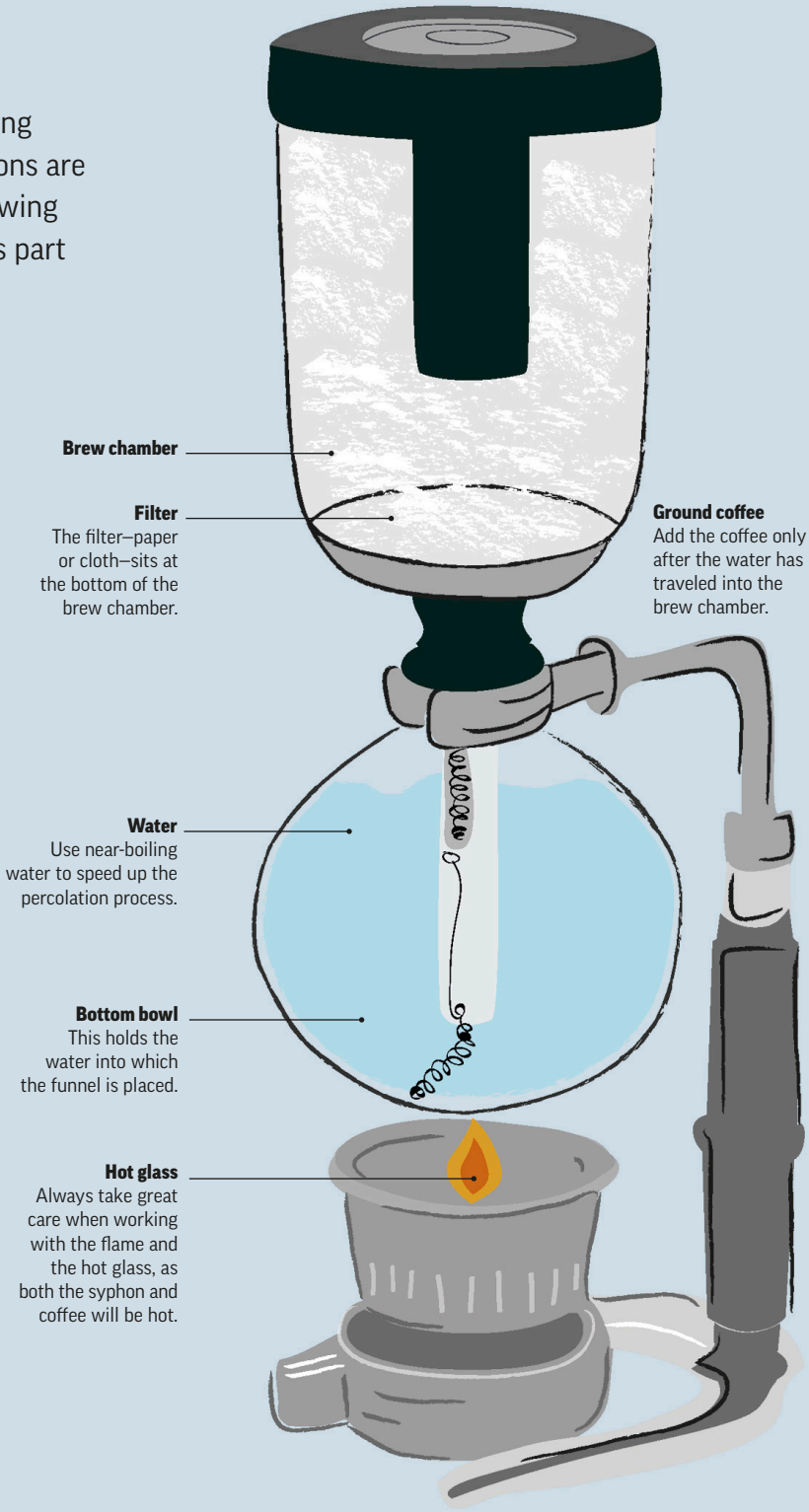
- **Medium-ground coffee** (see p.41)

HOW IT WORKS

1 **Fill the bottom bowl** of the syphon with near-boiling water, up to the desired number of cups.
2 **Position the filter** in the brew chamber by dropping it in and pulling the beaded string through the funnel until the little hook can fasten to the opening. The string should touch the glass of the bowl.
3 **Place the funnel** gently into the bowl of water. Rest the chamber on a slight slant without sealing the bowl off.
4 **Light the flame,** and as the water starts to boil, secure the brew chamber onto the bowl. Don't tighten it—just ensure that it is sealed. The brew chamber will begin to fill. Some water will remain in the bowl below the funnel.
5 **When the brew chamber** has filled, add the coffee—½ oz (15 g) coffee to 9 fl oz (250 mL) water—and stir for a few seconds.
6 **Allow to brew** for one minute.
7 **Stir the coffee again** and remove the flame to begin the draw-down process.
8 **When the coffee has drained** into the bottom bowl, gently remove the brew chamber and serve.

CLEANING

- **Paper filter** Discard this and rinse the filter holder in soapy water.
- **Cloth filter** Use the technique on p.148.



STOVE-TOP POT

The stove-top, or moka pot, brews a strong cup of coffee by using steam pressure, which imparts a silky texture. Contrary to popular belief, it is not designed to make espresso, but its use of high temperatures gives the coffee an intense flavor.

WHAT YOU NEED

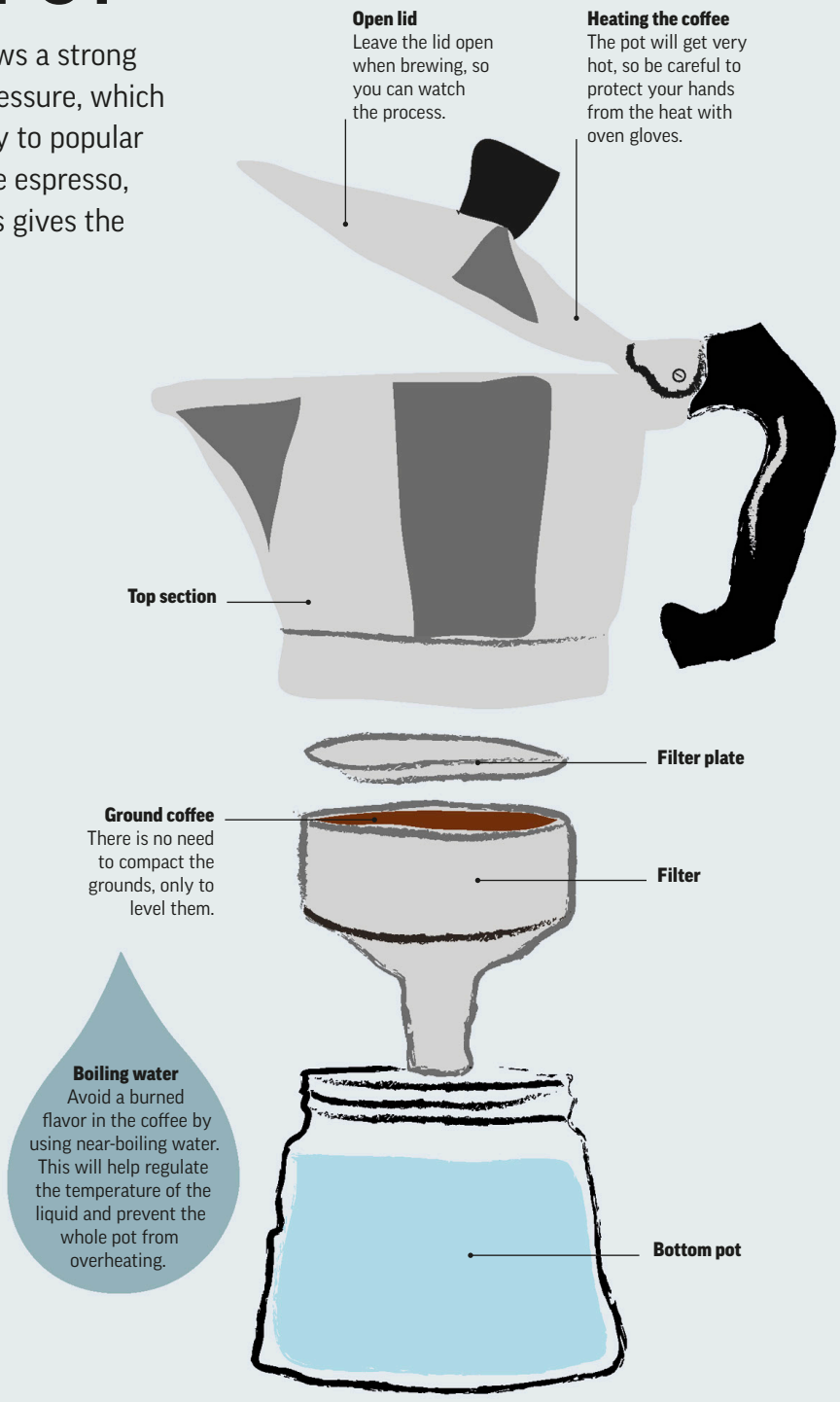
- **Medium-ground coffee** (see p.41)

HOW IT WORKS

1. **Pour hot water** into the bottom part of the pot until it is just under the inside valve.
2. **Fill the filter with coffee** loosely, using a ratio of a scant 1 oz (25 g) coffee to 16 fl oz (500 mL) water. Level it off.
3. **Place the filter** in the bottom pot and screw on the top section.
4. **Place the stove-top pot** over medium heat, leaving the lid open.
5. **Monitor the brew** as the water boils and coffee begins to appear.
6. **Remove the pot from the heat** when the coffee goes pale in color and starts to bubble.
7. **Wait until the bubbling stops,** then serve.

CLEANING

- **Allow to cool** Let the pot sit for 30 minutes before dismantling it or run it under cold water to cool it down.
- **Sponge in hot water** Do not clean the parts with soap. Using a nonabrasive sponge or brush and hot water will be sufficient.



COLD DRIPPER

Use cold water to brew low-acidity coffee that can be served cold or hot. It is not as easy to extract with cold water, so it requires more time and a cold dripper tower. If you don't have one, you can also add the coffee and water to a French press, leave it overnight in the fridge, then strain it through a filter.

WHAT YOU NEED

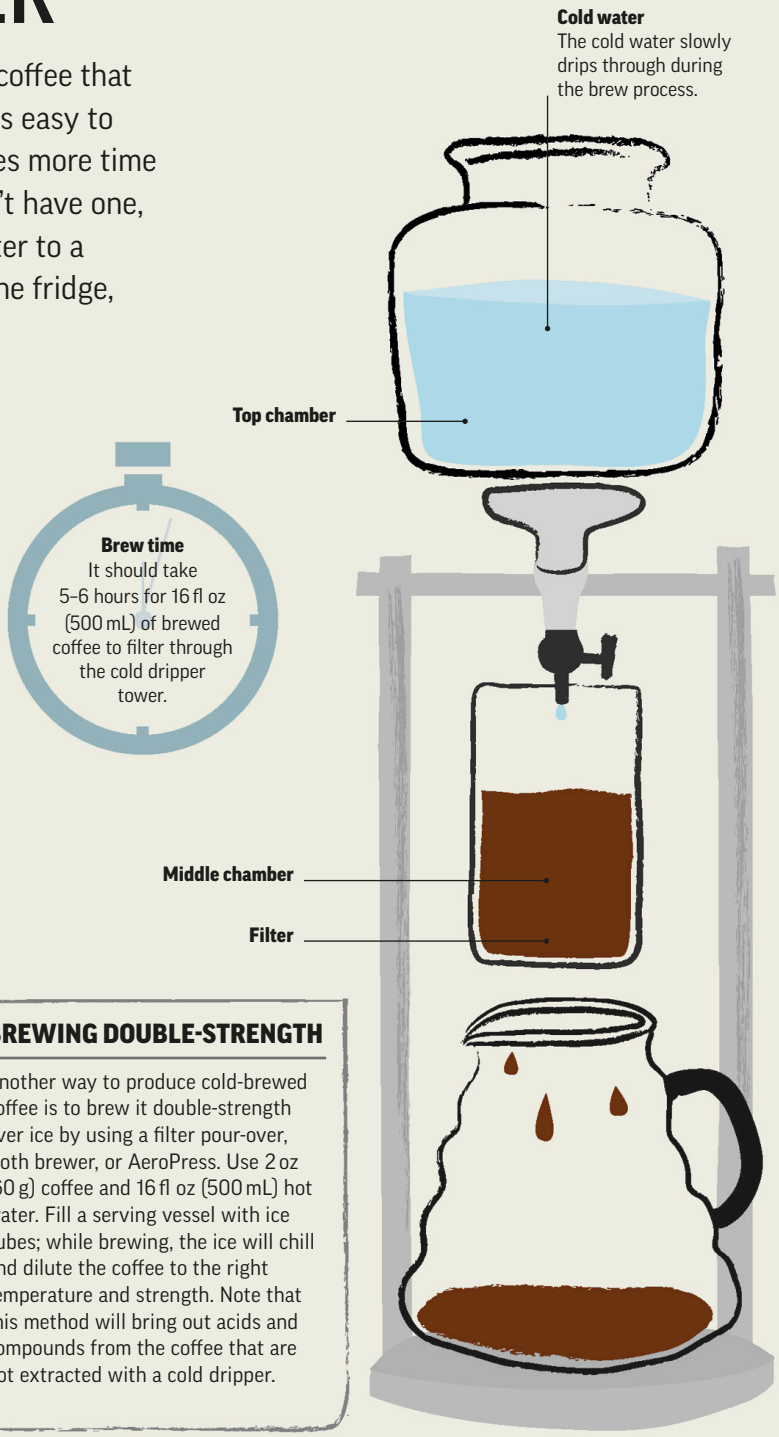
- **Medium-ground coffee** (see p.41)

HOW IT WORKS

1 **Close the drip valve** on the top chamber and fill it with cold water.
2 **Rinse the middle chamber filter** thoroughly and add the coffee. Use a ratio of 2 oz (60 g) coffee to 16 fl oz (500 mL) water.
3 **Shake gently to distribute** evenly and cover with another rinsed filter.
4 **Open the valve** and allow a small amount of water to run into the coffee to wet it and start the extraction.
5 **Adjust the valve** to drip about once every two seconds, or 30–40 drops per minute.
6 **When all the water** has dripped through, you will have cold coffee you can enjoy neat, diluted with hot or cold water, or served over ice.

CLEANING

- **Hand-wash** Follow the manufacturer's instructions. If in doubt, wash gently with hot water and a soft cloth, without soap. Rinse the cloth filter in water and store it in the fridge or freezer between uses.



BREWING DOUBLE-STRENGTH

Another way to produce cold-brewed coffee is to brew it double-strength over ice by using a filter pour-over, cloth brewer, or AeroPress. Use 2 oz (60 g) coffee and 16 fl oz (500 mL) hot water. Fill a serving vessel with ice cubes; while brewing, the ice will chill and dilute the coffee to the right temperature and strength. Note that this method will bring out acids and compounds from the coffee that are not extracted with a cold dripper.

ELECTRIC FILTER-BREW

This humble coffee maker may not seem like an exciting way to brew, but it can produce great coffee if you use quality beans and fresh water. It is easy to clean, as the grounds are easily removed and composted.

Brew time
It should take about 4–5 minutes. If you have brewed too much coffee, decant the leftover into a preheated Thermos.

WHAT YOU NEED

- **Medium-ground coffee** (see p.41)
- **Preheated thermos** to store leftover coffee.

HOW IT WORKS

1 **Fill the reservoir** of the machine with fresh, cold water.
2 **Rinse the paper filter** thoroughly and place it in its holder.
3 **Add coffee** measuring about 2 oz (60 g) coffee to 3½ cups (1 liter) water and shake the filter holder gently to distribute.
4 **Place the filter** back in the machine and start the brew cycle. When the machine has finished brewing, serve.

CLEANING

- **Use filtered water** This reduces limescale buildup and helps keep the heating element and water lines clear.
- **Descaling** A descaling solution can be a good preventative measure against limescale buildup.

PHIN

Easy to use, the Vietnamese phin uses a gravity-based filter insert to compress the coffee. In Chinese phins, the filter is screwed on, allowing more extraction control. All phins are very user-friendly, enabling you to change grind and dose to your preference.

WHAT YOU NEED

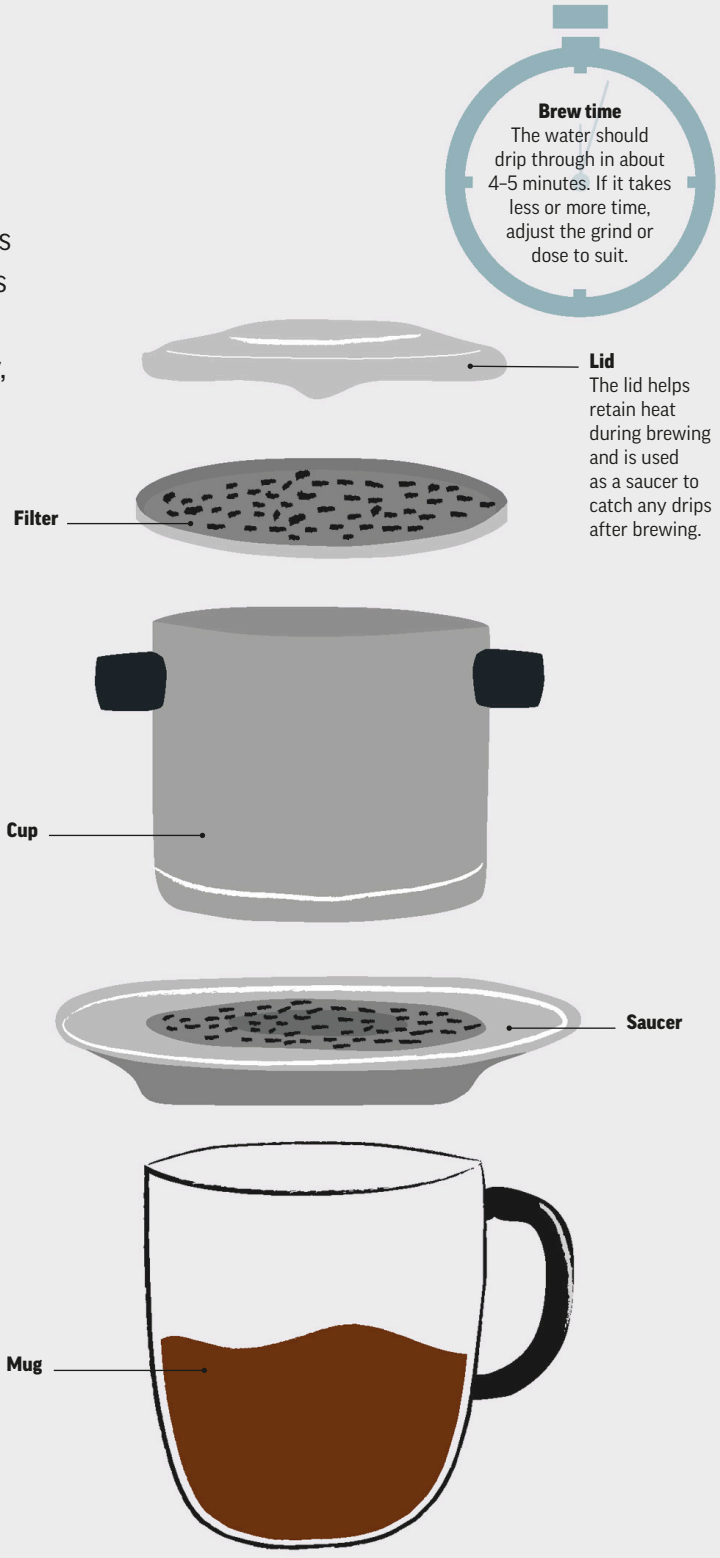
- **Fine- to medium-ground coffee** (see p.41)

HOW IT WORKS

1 **Preheat** the phin by placing the phin saucer and the phin cup on top of a mug and pouring hot water through. Discard the water from the mug.
2 **Place the coffee** in the bottom of the phin cup—use a ratio of a heaped teaspoon (7 g) coffee to 3½ fl oz (100 mL) water—and shake gently to distribute the coffee grounds evenly.
3 **Place the filter** on top, twisting it a little to even out the grounds.
4 **Pour** about one-third of the hot water over the filter. Allow the coffee to swell for one minute.
5 **Continue to pour** the rest of the water over the filter. Place the lid on the phin to retain the heat and watch as the water slowly drips through to brew the coffee. After 4–5 minutes, serve your drink.

CLEANING

- **Dishwasher** Most can be washed in the dishwasher, but check your instructions.
- **Easy cleaning** Hot water and soap are also fine for removing coffee oils from the metal cup and filter.



IBRIK

Popular in Eastern Europe and the Middle East, the ibrik, also known as cezve, briki, rakwa, finjan, and kanaka, is a tin-lined copper pot with a long handle. It brews coffee with a distinct, thick texture. The superfine grind, amount of heat, and grind-water ratio produces a full-flavored coffee.

WHAT YOU NEED

- **Very fine, powderlike coffee** (see p.41)

HOW IT WORKS

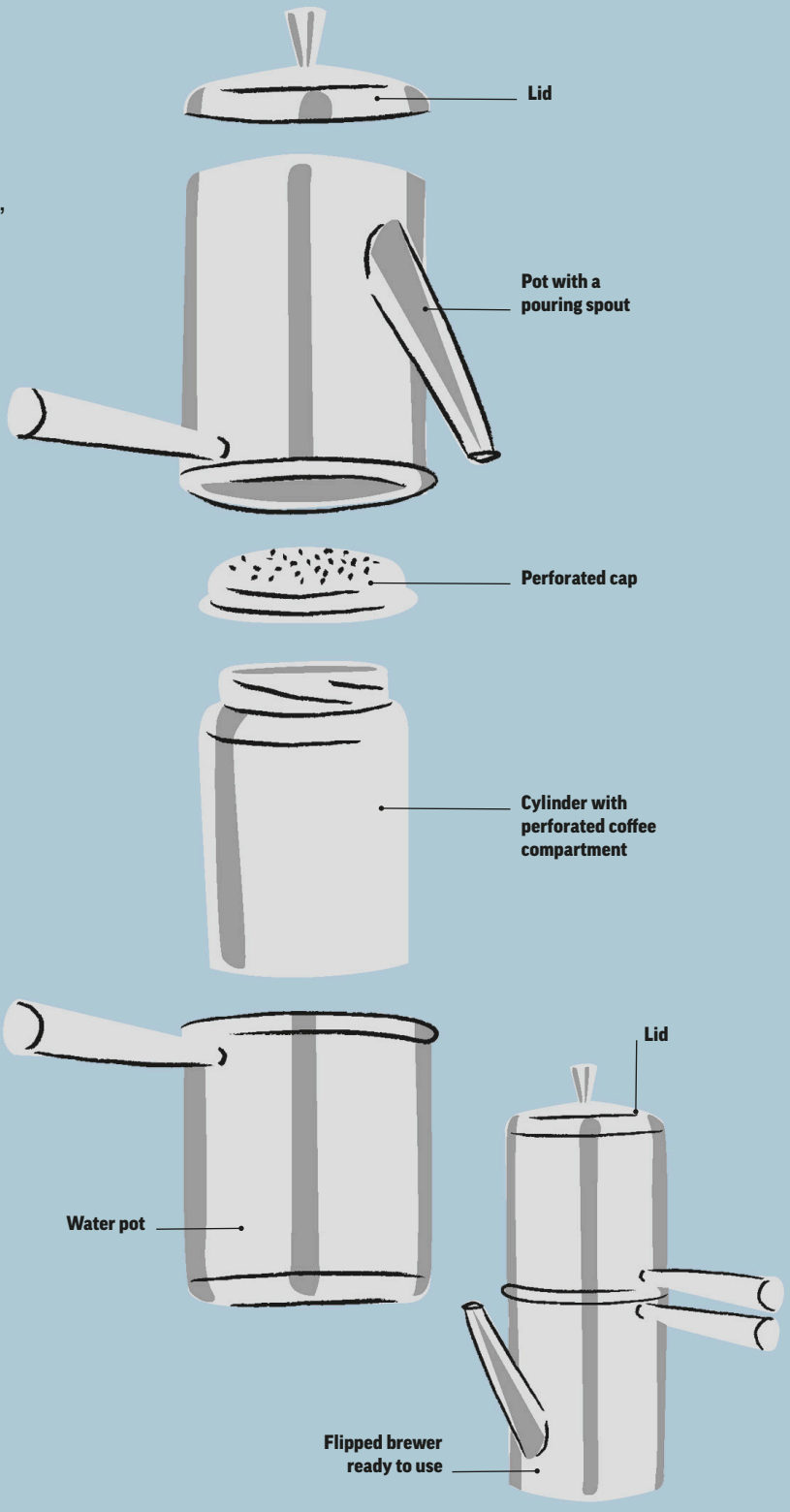
1 **Pour cold water** into the ibrik and bring it to a boil over medium heat.
2 **Remove** from the heat.
3 **Add coffee** to the ibrik–1 teaspoon per cup–and any additional ingredients, if desired.
4 **Stir to dissolve** and infuse the ingredients.
5 **Return the ibrik** to the stove and heat the coffee while stirring gently until it starts foaming. Do not allow to boil.
6 **Remove from the heat** and allow to cool for one minute.
7 **Return to the heat** and warm back up while stirring gently until it starts foaming. Again, do not allow to boil. Repeat this.
8 **Spoon a little foam** into the serving cups and carefully pour the coffee in.
9 **Let it settle** for a couple of minutes and serve. Take care to stop sipping when you reach the grounds in the bottom of the cup.

CLEANING

- **Sponging** Use a nonabrasive sponge or soft brush with some hot soapy water to hand wash the ibrik.
- **Care** The tin lining might darken over time. This is normal so do not attempt to remove it.

NEAPOLITAN

Perhaps less well known than the moka pot, the traditional Neapolitan, or Napoletana, flip coffee maker can nonetheless be found in many homes around the world. Relying on gravity rather than steam to brew the coffee, this brewer requires a slightly coarser grind and can provide a less bitter brew.



WHAT YOU NEED

- **Medium- to coarse-ground coffee** (see p.41)

HOW IT WORKS

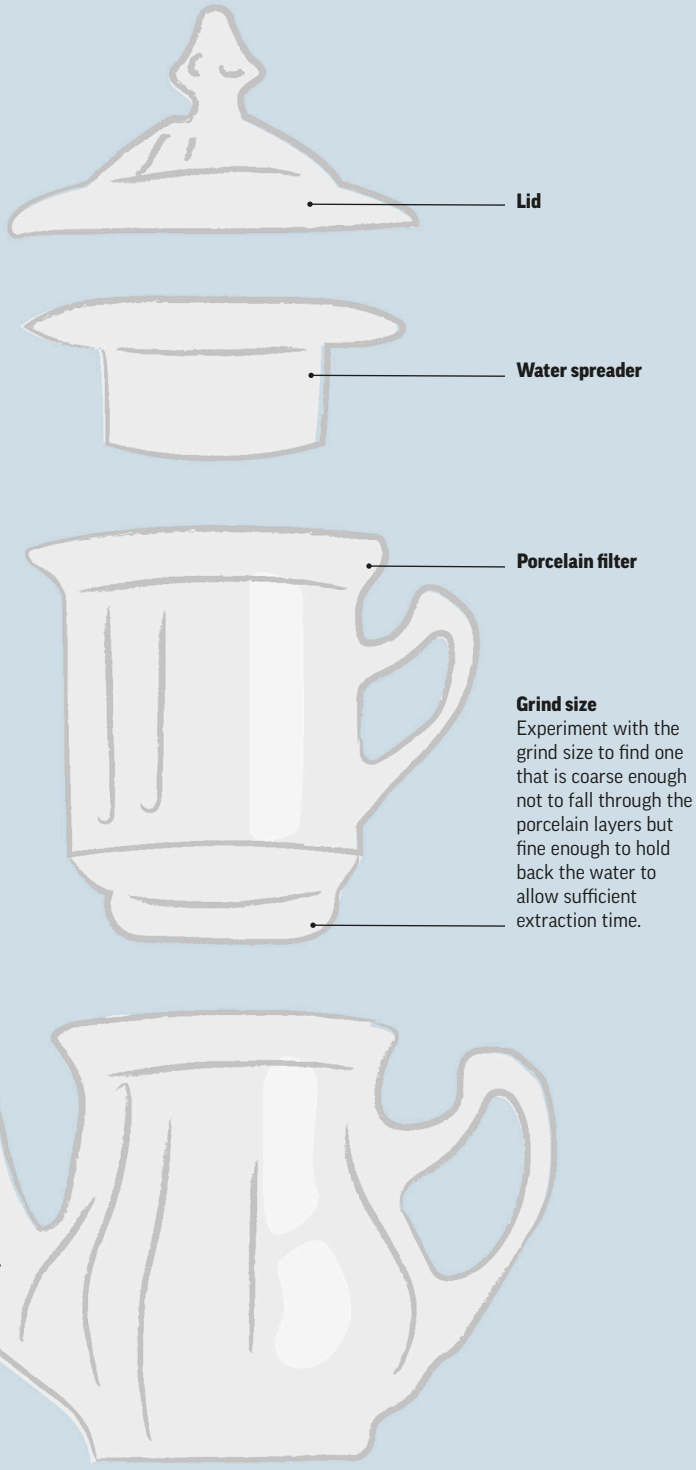
1 **Fill the unspouted** water pot with water to just below the small hole.
2 **Place the filter** cylinder into the water pot, coffee filter pointing up.
3 **Fill the compartment** with ground coffee at a ratio of 2 oz (60 g) coffee to 3½ cups (1 liter) water and twist on the perforated cap.
4 **Place the spouted** pot upside down on top. Put the stacked brewer on the hob and bring to the boil.
5 **When steam and water** start to come out of the small hole, take the pot off the heat.
6 **Carefully grab the handles** and flip the whole brewer upside down, allowing the water to drain though the coffee into the spouted pot.
7 **After** a few minutes, remove the water pot and the filter holder. Use the lid to keep your coffee warm.

CLEANING

- **Depending** on the material of your Neapolitan, machine- or hand-wash it with mild soap.

KARLSBADER

A brewer with a rare double-layered porcelain filter, the German Karlsbader is both beautiful and easy to use. The glazed porcelain filter means no papers or cloths interfere with the taste, allowing coffee oils and fine particles to come together for a rich, full-bodied coffee experience.



WHAT YOU NEED

- **Coarse-ground coffee** (see p.41)

HOW IT WORKS

1 **Place the filter** section on top of the pouring pot.
2 **Add the coffee** at a ratio of 2 oz (60 g) coffee to 3½ cups (1 liter) water.
3 **Place the water** spreader on top and slowly add just-boiled water.
4 **When you have added** the sufficient amount of water, remove the filter section and use the lid to keep your coffee warm.

CLEANING

- **The porcelain filter** is delicate, so hand wash it with mild soap and a soft brush or cloth.

Grind size
Experiment with the grind size to find one that is coarse enough not to fall through the porcelain layers but fine enough to hold back the water to allow sufficient extraction time.

THE RECIPES

CAPPUCCINO

GEAR **ESPRESSO** DAIRY **MILK** TEMP **HOT** SERVES **2**

Most Italians drink their cappuccino in the mornings, but this classic breakfast coffee has now been adopted as an all-day drink worldwide. For many fans, the cappuccino represents the most harmonious ratio of coffee to milk.

WHAT DO I NEED?

Equipment

2 medium cups
espresso machine
milk pitcher

Ingredients

½–¾ oz (16–20 g) fine-ground coffee
about 4–5 fl oz (130–150 mL) milk
chocolate or cinnamon powder, optional

1 Warm your cups on top of your machine or by heating them with hot water. Using the technique on pp.48–49, brew one shot/1 fl oz (25 mL) of espresso into each cup.

2 Steam the milk to about 140–150°F (60–65°C). Avoid scalding it. When the bottom of the pitcher is just too hot to touch, the milk is at a comfortable drinking temperature (see pp.52–55).

TIP

This recipe shows you how to make two cups, but it is easy enough to make one—you can use a single basket and/or single spout portafilter. If all else fails, you could always treat a friend to the spare espresso!

HAVING OUTGROWN ITS ORIGINS AS AN ITALIAN BREAKFAST DRINK, THE CAPPUCCINO IS NOW POPULAR ALL OVER THE WORLD.

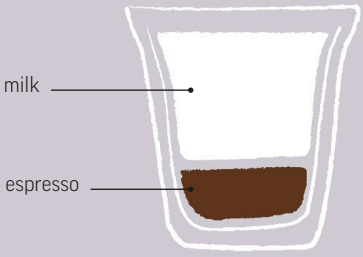
3 Pour the milk over each espresso, maintaining an area of crema around the rim of the cup so that the first sip will have a strong coffee flavor. Aim for a 1/2 in (1 cm) layer of foam.

4 Using a shaker or a mini sieve, sprinkle over some chocolate or cinnamon powder, if desired.

CAFFÈ LATTE

GEAR **ESPRESSO** DAIRY **MILK** TEMP **HOT** SERVES **1**

The caffè latte is another classic Italian breakfast beverage. It is milder in taste and heavier on the milk than all the other espresso-based recipes. It is now popular all over the world and is enjoyed throughout the day.



medium glass

1 Warm the glass on top of your machine or by heating it with hot water. Using the technique on pp.48–49, brew **one shot/1 fl oz (25 mL) of espresso** into your glass. If your glass does not fit under the spouts, brew your shots into a small pitcher instead.

2 Steam **about 7 fl oz (210 mL) milk** (see pp.52–55) to about 140–150°F (60–65°C), or until the pitcher is just too hot to touch.

3 If your espresso has been poured into a small pitcher, pour it into the glass. Pour the milk over the coffee, holding the pitcher close to the cup and pouring with a gentle side-to-side rocking motion. If desired, create a tulip latte art design, as shown on p.60. Aim for a ¼ in (5 mm) layer of foam.

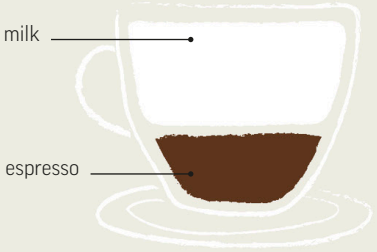
SERVE IT UP **Serve immediately, with a spoon to stir. If you prefer a latte to have a crisp white layer of foam on top, simply brew your espresso into a small pitcher and then pour your milk into the glass first, followed by the espresso.**

CHOOSE A COFFEE THAT HAS RICH COCOA OR NUTTY TONES TO COMPLEMENT THE SWEETNESS OF STEAMED MILK.

FLAT WHITE

GEAR **ESPRESSO** DAIRY **MILK** TEMP **HOT** SERVES **1**

Originally from Australia and New Zealand, this recipe varies from region to region. The flat white is similar to a cappuccino but has a stronger coffee flavor and less foam and is usually served with elaborate latte art on top.



medium cup

1 Warm the cup on top of your machine or by heating it with hot water. Using the technique on pp.48–49, brew **two shots/1½ fl oz (50 mL) espresso** into the cup.

2 Steam **about 4 fl oz (130 mL) milk** (see pp.52–55) to about 140–150°F (60–65°C), or until the pitcher is just too hot to touch.

3 Pour the milk over the coffee, holding the pitcher close to the cup and pouring with a gentle side-to-side rocking motion, using the techniques on pp.58–61. Aim for a ¼ in (5 mm) layer of foam.

SERVE IT UP **Serve immediately—the longer the drink sits waiting, the more likely it is that the milk will lose its glossy shine.**

TRY FRUITY OR NATURALLY PROCESSED COFFEES. COMBINED WITH MILK, THEY BRING OUT A FLAVOR REMINISCENT OF A STRAWBERRY MILKSHAKE.

BREVE

GEAR **ESPRESSO** DAIRY **MILK** TEMP **HOT** SERVES **2**

The breve is an American take on the classic latte. A twist on typical espresso-based beverages, it replaces half the milk with half-and-half (ideally with about 15 percent fat content). Sweet and creamy, try it as an alternative to dessert.

WHAT DO I NEED?

Equipment

2 medium glasses or cups
espresso machine
milk pitcher

Ingredients

½–¾ oz (16–20 g) fine-ground coffee
2 fl oz (60 mL) milk
2 fl oz (60 mL) half-and-half

1 Warm the glasses or cups on top of your machine or by heating them with hot water. Using the technique on pp.48–49, brew one shot/1 fl oz (25 mL) of espresso into each glass.

TIP

Steaming with cream is a different experience. The sound while steaming a combination of milk and cream may be louder than when you steam pure milk and will not result in as much foam.

BREVE TRANSLATES FROM ITALIAN INTO "BRIEF" OR "SHORT." THE HALF-AND-HALF HELPS CREATE A FOAMY, DENSER DRINK.

2 Mix the milk and cream and steam to about 140–150°F (60–65°C) or until the pitcher is just too hot to touch (see pp.52–55).

3 Pour the steamed milk and cream mixture over the espresso, allowing the crema and the thick foam to combine.

MACCHIATO

GEAR **ESPRESSO** DAIRY **MILK** TEMP **HOT** SERVES **2**

Another Italian classic, the macchiato gets its name from the custom of "marking" the espresso with milk foam, which lends a little more sweetness to the shot as you drink it. It is sometimes also called a caffè macchiato or an espresso macchiato.

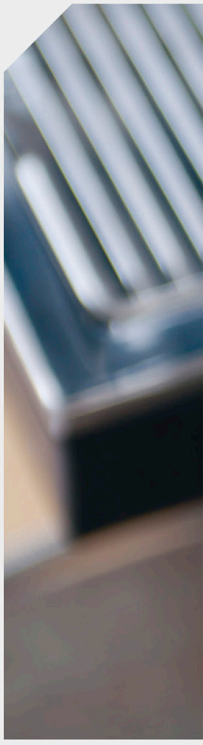
WHAT DO I NEED?

Equipment

2 demitasse cups
espresso machine
milk pitcher

Ingredients

½–¾ oz (16–20 g) fine-ground coffee
3½ fl oz (100 mL) milk



1 Warm the cups on top of your machine or by heating them with hot water. Using the technique on pp.48–49, brew one shot/1 fl oz (25 mL) espresso into each cup.

TIP

While a traditional Italian macchiato has only espresso and milk foam, it is not unusual to find versions elsewhere that incorporate some of the warm liquid milk that is created when you steam to make the foam.

YOU NEED ONLY THE SMALLEST TOUCH OF MILK FOAM FOR AN AUTHENTIC ITALIAN MACCHIATO. IT ADDS A TOUCH OF SWEETNESS.

2 Steam the milk (see pp.52–55) to about 140–150°F (60–65°C), or until the pitcher is just too hot to touch.

3 Carefully spoon 1–2 teaspoons of foam on top of the crema of each espresso shot and serve.

CAFFÈ MOCHA

GEAR **ESPRESSO** DAIRY **MILK** TEMP **HOT** SERVES **2**

Coffee and dark chocolate are a classic flavor combination. Add chocolate pieces, shavings, or homemade or store-bought chocolate sauce to a caffè latte or cappuccino to create a rich, slightly sweet, dessertlike beverage.

WHAT DO I NEED?

Equipment

2 large glasses
milk pitcher
espresso machine
small pitcher

Ingredients

4 tbsp dark chocolate sauce (see pp.162–63)
14 fl oz (400 mL) milk
1–1½ oz (32–40 g) fine-ground coffee

1 Measure out the chocolate sauce. Pour it into your glasses.

2 Steam the milk (see pp.52–55) to about 140–150°F (60–65°C), or until the pitcher is just too hot to touch. Add enough air to create a foam layer of about ½ in (1 cm).

TIP

If you don't have chocolate sauce on hand, use some pieces of dark chocolate or a few tablespoons of powdered hot chocolate mix. Mix them with a drop of milk first so they blend into the drink and don't form lumps.

3 Pour the steamed milk carefully over the chocolate sauce in each glass to achieve a striking layered effect.

DARK CHOCOLATE IS MOST COMMONLY USED; TRY MILK CHOCOLATE OR A MIX OF THE TWO FOR A SWEETER FLAVOR.

4 Using the technique on pp.48–49, brew two double shots/1½ fl oz (50 mL) of espresso into small pitchers and pour them through the milk.

5 Serve as the espresso blends into the steamed milk. Stir gently with a long spoon to continue to dissolve and mix the ingredients.

TIP

For a uniform chocolate flavor, mix the milk with the chocolate sauce in the pitcher and steam them together. Afterward, make sure you thoroughly clean your steam wand inside and out before you use it again.

CAFÉ AU LAIT

GEAR **BREWER** DAIRY **MILK** TEMP **HOT** SERVES **1**

The classic French breakfast coffee with milk is traditionally served in a bowl without handles, big enough to accommodate the dipping of a baguette. Picking up the bowl to drink will warm your hands on chilly mornings.

WHAT DO I NEED?

Equipment

drip or filter-style brewer
small saucepan
large bowl

Ingredients

6 fl oz (180 mL) strong filter coffee
6 fl oz (180 mL) milk

1 Prepare the coffee in your choice of drip or filter-style brewer (see pp.146–155).

CHOOSING YOUR COFFEE

For an authentic flavor, choose a darker roast. The French have a tradition of roasting their coffee until it is slightly oily and bittersweet. This style works best of all when combined with a lot of whole milk.

TIP

While the French press (see p.146) might seem the most appropriate brewer for a café au lait, a lot of people in France use the stove-top moka pot at home (see p.151), which can create a stronger brew.

WHOLE MILK, WARMED SLOWLY ON THE STOVE, COMPLEMENTS A STRONG, DARK ROASTED FILTER COFFEE.

TIP

If you want something to dip into your café au lait—but don't want the traditional French baguette—why not keep with the theme and choose a delicious flaky croissant or pain au chocolat?

2 Pour the milk into the small saucepan and set over medium heat. Allow it to heat up gently for about 3–4 minutes, until 140–150°F (60–65°C).

3 Pour the brewed coffee into the bowl. Pour in the warm milk to taste and enjoy.

ESPRESSO CON PANNA

GEAR **ESPRESSO** DAIRY **CREAM** TEMP **HOT** SERVES **1**

Con panna is Italian for "with cream." A topping of luscious whipped cream can be added to any beverage—be it a cappuccino, caffè latte, or caffè mocha. It makes for a great presentation and adds a velvety quality to the drink.

WHAT DO I NEED?

Equipment

demitasse cup or glass
espresso machine whisk

Ingredients

½–¾ oz (16–20 g) fine-ground coffee
heavy cream, sweetened to taste

1 Warm the cup or glass on top of your machine or by heating it with hot water. Using the technique on pp.48–49, brew a double shot/1½ fl oz (50 mL) of espresso into the glass.

TIP

If you prefer a softer taste, you can whisk the cream until thick but not stiff and float it on top of the crema. This allows the espresso and cream to combine as you sip your coffee, diluting the double shot.

ADDING CREAM IS NOT SOLELY AN ITALIAN PRACTICE. IN VIENNA, A CAPPUCCINO IS OFTEN SERVED WITH A LID OF WHIPPED CREAM.

2 Pour the cream into a small bowl. Using a whisk, whip up the cream for a few minutes until it is stiff enough to hold its shape.

3 Spoon 1 tablespoon of whipped cream on top of the double espresso shot. Serve with a spoon for stirring.

RISTRETTO AND LUNGO

GEAR **ESPRESSO** DAIRY **WITHOUT** TEMP **HOT** SERVES **2**

Alternatives to the "normale" espresso are "ristretto" and "lungo." All that changes is how much water you allow to pass through the grounds—you either restrict the extraction or let the shots run long to wash out more solubles.

WHAT DO I NEED?

Equipment

espresso machine
2 demitasse glasses or cups

Ingredients

½–¾ oz (16–20 g) fine-ground coffee per shot

RISTRETTO

The ristretto is espresso for the advanced drinker—an essence of coffee that leaves a strong, lingering aftertaste.

1 Using the technique on pp.48–49, brew one shot/1 fl oz (25 mL) espresso into each glass or cup.

2 Stop the flow of water at about 1 tbsp–½ fl oz (15–20 mL) in each glass or cup (after 15–20 seconds) for a concentrated sip of coffee with a thick texture and intensified flavors.

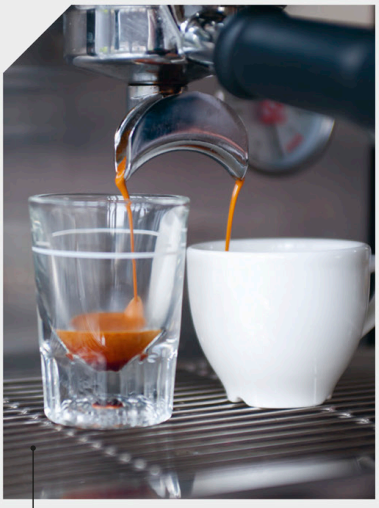
TIP

As an option, you can use a slightly finer grind or more coffee to restrict the water and extract more solubles, although these methods often result in increased bitterness, which you want to avoid.

RISTRETTO MEANS "RESTRICTED," AND LUNGO TRANSLATES AS "LONG." SURPRISINGLY, A RISTRETTO CONTAINS LESS CAFFEINE THAN A LUNGO.

LUNGO

A softer version of the espresso, a lungo is brewed with an increased volume of water.



1 Using the technique on pp.48–49, brew one shot/1 fl oz (25 mL) espresso into each glass or cup.

2 Instead of turning off the flow of water into each glass or cup at around 1 fl oz (25 mL), or after 25–30 seconds, let it continue to brew through until you reach anything from 1½–3 fl oz (50–90 mL). Allowing an increased volume of water to pass through an amount of grounds intended for a normale espresso will result in a milder cup, thinner body, and higher astringency.

TIP

By brewing a lungo into a 3 fl oz (90 mL) demitasse glass or cup, you have an easy measure of volume that helps you know when to cut the flow of water and avoids any excessive compromise of flavor.

AMERICANO

GEAR **ESPRESSO** DAIRY **WITHOUT** TEMP **HOT** SERVES **1**

During World War II, American soldiers in Europe found the local espresso too strong. They diluted the shots with hot water, creating the Americano—a brew similar in strength to filter coffee but with some of the flavors of an espresso.

WHAT DO I NEED?

Equipment
medium cup
espresso machine

Ingredients
½–¾ oz (16–20 g) fine-ground coffee

1 Warm the cup on top of your machine or by heating it with hot water. Using the technique on pp.48–49, brew two shots/1½ fl oz (50 mL) of espresso into the cup.

TIP

An alternative method is to fill the cup with hot water first, leaving room for two shots/1½ fl oz (50 mL) of espresso. This helps keep the crema floating on the surface—which some prefer for presentation.

AMERICANOS RETAIN THE TEXTURE FROM THE OILS AND SOLUBLES OF THE ESPRESSO BUT SOFTEN THE BREW INTENSITY.

TIP

This is a great way to make a long cup of coffee with your machine. If you're not sure how strong to make it, serve the water in a pitcher and fill the cup half to three-quarters full, tasting and adding more water if desired.

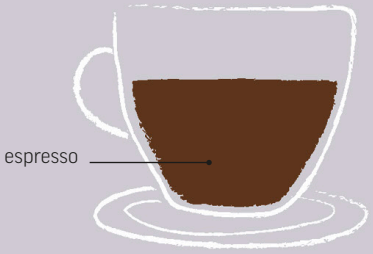
2 Carefully pour in boiling water, as desired, over the double espresso. There is no correct ratio, but try one part espresso to four parts water to start with and add more if you prefer.

3 If you prefer, you could remove the crema with a spoon—some do this because it results in a cleaner, less bitter-flavored coffee. You can remove the crema before or after adding the water—both are valid methods.

ROMANO

GEAR **ESPRESSO** DAIRY **WITHOUT** TEMP **HOT** SERVES **1**

It is easy to put a spin on the flavor of espresso without adding lots of ingredients. A simple lemon twist lends a fresh, citrusy undertone to the espresso—making this a potent classic.



demitasse cup

1 Using the technique on pp.48–49, brew **two shots/1½ fl oz (50 mL) of espresso** into the cup.

2 Using **1 lemon**, make a twist of peel by using a channel knife or zester.

3 Rub the peel gently around the rim of the cup and let it hang over the edge.

SERVE IT UP **Sweeten to taste with demerara sugar and serve immediately.**

RED EYE

GEAR **BREWER AND ESPRESSO** DAIRY **WITHOUT** TEMP **HOT** SERVES **1**

If you can't quite get started in the mornings or need a caffeine-fueled kick to keep you going through the day, try the Red Eye, also lovingly nicknamed the Alarm Clock in gratitude for its invigorating caffeine content.

large mug

1 Brew **¼ oz (12 g) medium-ground coffee** by using a French press (see p.146), AeroPress (see p.149), or brewer of your choice. Pour 7 fl oz (200 mL) of brewed coffee into the mug.

2 Using the technique on pp.48–49, brew **two shots/1½ fl oz (50 mL) of espresso** into a small pitcher.

SERVE IT UP **Pour the espresso into the brewed coffee and serve immediately.**

CUBANO

GEAR **ESPRESSO** DAIRY **WITHOUT** TEMP **HOT** SERVES **1**

Also called a Cuban shot or Cafecito, this short and sweet coffee is a popular drink in Cuba. When brewed through the espresso machine, the sugar creates a smooth, sweet espresso shot. Use it as a base for numerous coffee cocktails.

demitasse cup

1 Mix **½–¾ oz (14–18 g) ground espresso coffee** with **2 teaspoons demerara sugar** and place the mix into the portafilter of your espresso machine (see p.48, steps 1–3).

2 Brew the coffee and sugar through the machine until your cup is about half full.

SERVE IT UP **Serve immediately. If desired, use as base for alcoholic espresso-based cocktails (see pp.212–217).**

SASSY MOLASSES

GEAR **ESPRESSO** DAIRY **WITHOUT** TEMP **HOT** SERVES **1**

Sassafras is a flowering, fruit-bearing tree native to eastern North America and eastern Asia. The extract from its bark is typically used to flavor root beers. Choose a safrole-free version of sassafras for any recipe you work with.

demitasse cup

1 Spoon **1 teaspoon molasses** into your demitasse cup.

2 Using the technique on pp.48–49, brew **two shots/1½ fl oz (50 mL) espresso** over the molasses.

SERVE IT UP **Add 5 drops sassafras root extract and serve immediately with a stirring spoon.**

CAFFÈ TOUBA This spiced drink is gaining popularity in other cities—both in and outside Senegal.

CAFFÈ TOUBA *Senegalese coffee*

GEAR **BREWER** DAIRY **WITHOUT** TEMP **HOT** SERVES **4**

Caffè Touba is a spicy drink from Senegal, named after the holy city of Touba. Green coffee beans are roasted with peppers and spices, crushed in a mortar and pestle, and brewed through a cloth filter. It can be sweetened to taste.

large mug

1 Roast **2 oz (60 g) green coffee beans** with **1 teaspoon selim pepper grains** and **1 teaspoon cloves** in a wok over medium heat. Stir continuously.

2 Once you have reached the desired roast (see pp.36–37), remove the beans from the wok and allow to cool. Stir.

3 Crush the coffee beans and spices finely in a mortar and pestle. Place the coffee in a cloth filter (see p.148) and mount it on a serving pitcher. Pour over **16 fl oz (500 mL) boiling water**.

SERVE IT UP **Sweeten with sugar, divide between the mugs, and serve.**

SCANDINAVIAN COFFEE

GEAR **BREWER** DAIRY **WITHOUT** TEMP **WARM** SERVES **4**

The practice of adding egg to the brewing process might seem unusual, but the proteins in the egg bind the sour and bitter components of coffee together. This results in a mild drink with all the body of a non-paper-filtered brew.

large mug

1 Mix **2 oz (60g) coarse-ground coffee**, **1 egg**, and **2 fl oz (60 mL) cold water** together to make a paste.

2 Pour **4¼ cups (1 liter) water** into a saucepan and bring to a boil. Add the paste, stirring gently.

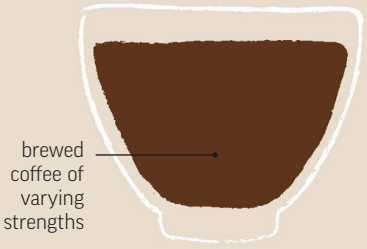
3 Allow to boil for 3 minutes. Remove from heat, add **3½ fl oz (100 mL) cold water**, and let the grounds settle.

SERVE IT UP **Divide the coffee between the mugs, pouring it through a fine mesh or cheesecloth to filter, and serve.**

BUNA *Ethiopian coffee ceremony*

GEAR **BREWER** DAIRY **WITHOUT** TEMP **HOT** SERVES **10**

Ethiopians drink buna during ceremonies with family and friends. Frankincense burns on the coals while coffee is roasted and served from a traditional "jebena." The grounds are brewed three times, resulting in three very different cups of coffee.



small bowl

1 Roast **3½ oz (100 g) green coffee beans** in a pan over medium heat. Stir until they are dark and oily. In a mortar and pestle, crush them fine.

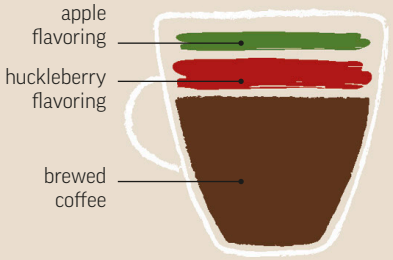
2 Pour **4¼ quarts (1 liter) water** into a jebena or saucepan over medium heat; bring to a boil. Add the ground coffee and stir. Steep for 5 minutes.

SERVE IT UP **Pour out 10 bowls of the first brew, avoiding the grounds. Serve. Add another 4¼ quarts (1 liter) water to the pan, allow to boil, and then divide among the bowls for the second brew. Finally, add another 4¼ quarts (1 liter) water, repeat the process, and serve the weakest brew.**

I'M YOUR HUCKLEBERRY

GEAR **BREWER** DAIRY **WITHOUT** TEMP **HOT** SERVES **1**

Huckleberries, the state fruit of Idaho, look and taste like blueberries. A lot of apples grow in Idaho, and this flavor is often featured in the high-quality coffee served there. This tribute to the region incorporates apple in the steeping time.



large mug

1 Brew **9 fl oz (250 mL) coffee** and **a few apple slices** in a filter pour-over (see p.147) or other brewer. If you use a pour-over, place the apple on the coffee grounds and pour water over the top. With a French press (see p.146), add the apple and coffee into the pot and then pour over the water.

2 Pour the coffee into your mug and add **1 fl oz (25 mL) huckleberry flavoring** and **1 tablespoon** apple flavoring.

SERVE IT UP **Garnish with a lime twist and some apple slices. Sweeten with simple syrup and serve.**

CAFFÈ DE OLLA *Mexican brew*

GEAR **BREWER** DAIRY **WITHOUT** TEMP **HOT** SERVES **1**

An olla—the traditional clay pot used to brew this Mexican drink—lends an earthy dimension to the brew. If you don't have an olla, a regular saucepan still allows the texture and oil from the beans to give the brew extra body.

earthenware mug

1 In a saucepan over medium heat, bring **16 fl oz (500 mL) water**, **2 cinnamon sticks**, and **1¾ oz (50 g) piloncillo or dark brown sugar** to a boil and simmer, stirring constantly until the sugar is dissolved.

2 Remove the pan from heat, cover, and steep for 5 minutes. Add **1 oz (30 g) medium-ground coffee** and steep for another 5 minutes. Strain the mixture through a fine-wire mesh or cheesecloth into the mug.

SERVE IT UP **Serve with a cinnamon stick—it looks good and imparts a more pronounced flavor.**

TURKISH COFFEE

GEAR **BREWER** DAIRY **WITHOUT** TEMP **HOT** SERVES **4**

You prepare Turkish coffee in an ibrik, cezve, or briki (see p.155), which is a small coffee pot with one long handle. Served in demitasse cups, the finished brew has a layer of foam on top and heavy sediment at the bottom.

demitasse cup

1 Add **4 fl oz (120 mL) water** and **2 tablespoons sugar** to a Turkish coffee pot or saucepan and bring to a boil over medium heat.

2 Remove from heat and add **4 tablespoons superfine-grind coffee**. Add **cardamom**, **cinnamon**, or **nutmeg**, **if desired**, stirring to dissolve.

3 Brew the coffee as shown on p.155. Spoon some of the foam into 4 cups and carefully pour the coffee in so the foam does not dissipate.

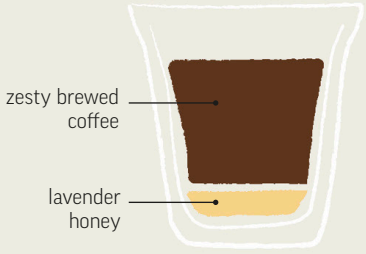
SERVE IT UP **Allow to settle for a couple of minutes and serve. Take care to stop sipping when you reach the grounds at the bottom of the cup.**

MADHA ALAY coffee is inspired by the Marathi people of Maharashtra, western India.

MADHA ALAY

GEAR **BREWER** DAIRY **WITHOUT** TEMP **HOT** SERVES **2**

A concoction of ginger, honey, and lemon is the perfect remedy if you feel a cold coming on, and it works very well with a splash of whisky. Using coffee prepared in a stove-top pot (see p.151), it makes enough for two small glasses.



small glass

1 Using the technique on p.151, brew **1 oz (32 g) coarse-ground coffee** in a 10 fl oz (300 mL) stove-top pot.

2 Spoon 1 tablespoon lavender honey into each glass, **½ in (1 cm) piece chopped fresh ginger** and **peel from ½ lemon** between the glasses.

3 Boil **9 fl oz (250 mL) water**. Pour over the mixture, filling half of each glass. Allow to steep for a minute.

SERVE IT UP **Pour over 2½ fl oz (75 mL) freshly brewed coffee into each glass. Stir to help dissolve the honey and serve with a spoon.**

KOPI JAHE *Indonesian coffee*

GEAR **BREWER** DAIRY **WITHOUT** TEMP **WARM** SERVES **6**

In Indonesia, the boiling of fresh ginger and sugar with ground coffee makes Kopi Jahe, an aromatic brew. The name means "coffee ginger" in Bahasa. Add spices such as cinnamon or cloves to the process for enhanced flavor.

large cups

1 Bring **6 tablespoons medium-ground coffee**, **2 pints (1.5 liters) water**, **3 in (7.5 cm) piece crushed fresh ginger**, **3½ oz (100 g) palm sugar**, and, if desired, **2 cinnamon sticks and/or 3 cloves** to a boil in a saucepan over medium heat. Reduce to a simmer, stirring until the sugar dissolves.

2 Remove from heat when you have extracted the ginger to taste, about 5 minutes.

SERVE IT UP **Divide between the six cups, straining through muslin, and serve immediately.**

VANILLA WARMER

GEAR **BREWER** DAIRY **WITHOUT** TEMP **HOT** SERVES **2**

When exploring flavors that complement coffee, very little beats the pure simplicity of vanilla. There are many forms of vanilla to play with, such as whole pods (used here), powdered, syrup, extract, and even alcoholic spirits.

large mug

1 Split open **2 vanilla pods**. Add the pods to a saucepan filled with **16 fl oz (500 mL) water** over medium heat. Allow to boil and then remove from heat, set the pods aside, and add **1 oz (30 g) coarse-ground coffee** to the pan. Cover with a lid and allow to sit for 5 minutes.

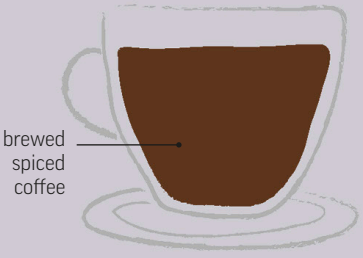
2 Meanwhile, using a pastry brush, brush the insides of two mugs with **1 tablespoon vanilla flavoring**.

SERVE IT UP **Strain the coffee through a cheesecloth into the mugs, add the pods, and serve.**

SYPHON SPICE

GEAR **BREWER** DAIRY **WITHOUT** TEMP **HOT** SERVES **3**

Syphon brewers (see p.150) are perfect for infusing coffee grounds with spices, whether whole or ground. If you do add flavorings, it's best to use a paper or metal syphon filter, keeping the cloth filters purely for coffee preparation.



medium cup

1 Place **2 whole cloves** and **3 whole allspice** in the lower bulb of a regular 3-cup or 12 fl oz (360 mL) syphon. Fill with **10 fl oz (300 mL) water**.

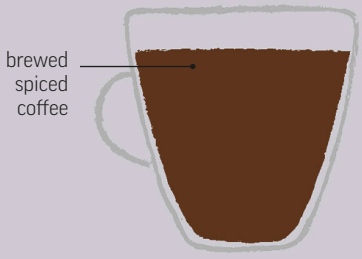
2 Mix **¼ teaspoon ground nutmeg** with **½ oz (15 g) medium-ground coffee** and add to the water once it has traveled to the upper glass. Allow the coffee and nutmeg to infuse for a minute before removing the flame. Watch as the coffee drains back down.

SERVE IT UP **Pour into three cups and serve.**

CALCUTTA COFFEE

GEAR **BREWER** DAIRY **WITHOUT** TEMP **HOT** SERVES **4**

In many parts of the world, coffee is substituted with ground chicory, the roasted and ground root of the herbaceous plant. Give this beverage an exotic spin by adding some ground mace and a few saffron threads.



medium mug

1 Pour **4¼ quarts (1 liter) water** into a saucepan. Add **1 teaspoon ground mace** and **a few saffron** threads and bring to a boil over medium heat.

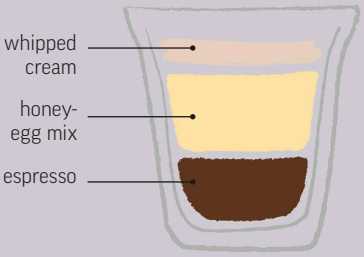
2 Remove from heat and add **1½ oz (40 g) medium-ground coffee** and **¾ oz (20 g) medium-ground chicory**. Cover and steep for 5 minutes.

SERVE IT UP **Strain through a paper filter into a pitcher. Divide between the mugs and serve.**

KAISER MELANGE *Austrian coffee*

GEAR **ESPRESSO** DAIRY **WHIPPED CREAM** TEMP **HOT** SERVES **1**

This Austrian recipe uses egg yolk and coffee, a combination also popular in Scandinavia. Combined with honey, the egg yolk gives this espresso a voluptuous texture, and the optional brandy will add another layer of flavor.



small glass

1 Using the technique on pp.48–49, brew **one shot/1 fl oz (25 mL) espresso** into your glass. Add **1 fl oz (25 mL) brandy, if desired**.

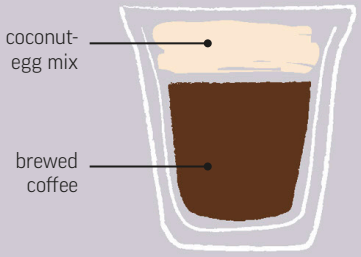
2 In a small bowl, combine **1 egg yolk** with **1 teaspoon honey**. Gently pour it over the espresso so it floats on the surface.

SERVE IT UP **Top with 1 tablespoon whipped cream and serve immediately.**

COCONUT-EGG COFFEE

GEAR **BREWER** DAIRY **WITHOUT** TEMP **HOT** SERVES **1**

Inspired by Vietnamese egg coffee, this recipe replaces condensed milk with cream of coconut, lending another dimension to the taste and making the recipe suitable for those with a dairy intolerance.



medium glass

1 Brew **4 fl oz (120 mL) coffee** by using a phin (see p.154). Alternatively, brew it in a French press (see p.146). Pour into your glass.

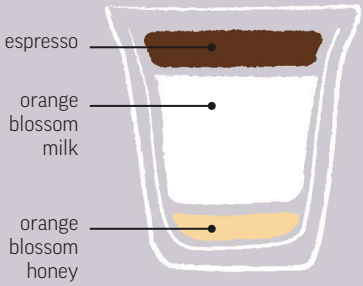
2 Whisk **1 egg yolk** and **2 teaspoons cream of coconut** together until fluffy. Gently spoon the mixture over the coffee so it floats.

SERVE IT UP **Sweeten to taste with demerara sugar and serve with a spoon.**

HONEY BLOSSOM

GEAR **ESPRESSO** DAIRY **MILK** TEMP **HOT** SERVES **1**

As honeybees feed on various flowers and herbs, the honey they produce takes on some of the properties from the nectar. Orange blossoms are one such source, and a water distillate highlights their flavor in this recipe.



medium glass

1 Steam **5 fl oz (150 mL) milk** in a pitcher with **1 tablespoon orange blossom water** to about 140–150°F (60–65°C), or until the pitcher is just too hot to touch (see pp.52–55). Aim for about ½ in (1 cm) of foam.

2 Spoon **1 tablespoon orange blossom honey** into the bottom of the glass and pour the milk over.

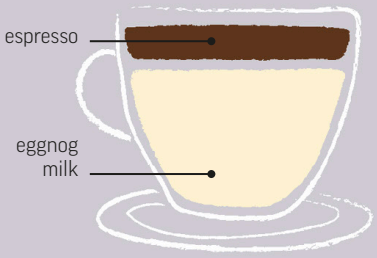
3 Using the technique on pp.48–49, brew **one shot/1 fl oz (25 mL) espresso** into a pitcher. Pour the espresso into the glass, through the foam.

SERVE IT UP **Serve with a spoon for stirring, to help dissolve the honey.**

EGGNOG LATTE

GEAR **ESPRESSO** DAIRY **MILK** TEMP **HOT** SERVES **1**

This latte is decadent and rich, making the most of a holiday favorite. Store-bought eggnog does not usually contain raw egg, but if you choose to make your own, beware of the risks of contamination and curdling when hot.



medium cup or glass

1 Gently heat **5 fl oz (150 mL) eggnog** and **2½ fl oz (75 mL) milk** in a saucepan over medium heat, stirring continuously. Do not allow to boil. Pour the warm eggnog mixture into the cup or glass.

2 Using the technique on pp.48–49, brew **two shots/1½ fl oz (50 mL) espresso** into a small pitcher and pour it over the eggnog mixture.

SERVE IT UP **Grate some fresh nutmeg over the top and serve.**

SOY EGGNOG LATTE

GEAR **ESPRESSO** DAIRY **SOY MILK** TEMP **HOT** SERVES **1**

Choose a good-quality brand of soy milk and soy eggnog for this dairy-free alternative to the classic eggnog latte. You can add brandy or bourbon to make it a grownup drink or replace nutmeg with chocolate shavings.

large cup

1 Heat **3½ fl oz (100 mL) soy eggnog** and **3½ fl oz (100 mL) soy milk** in a saucepan over medium heat. Do not allow to boil.

2 Using the technique on pp.48–49, brew **two shots/1½ fl oz (50 mL) espresso** into the cup.

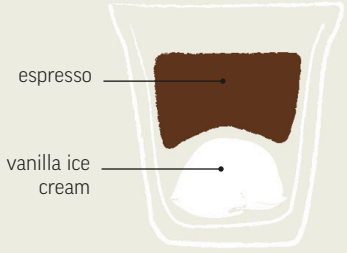
3 Pour the warm eggnog–milk mixture into the cup over the espresso and stir.

SERVE IT UP **Add a dash of brandy, if desired**, sprinkle with **ground nutmeg**, and serve.

AFFOGATO

GEAR **ESPRESSO** DAIRY **ICE CREAM** TEMP **HOT AND COLD** SERVES **1**

This is one of the simplest of all espresso-based treats. A scoop of ice cream drowned in strong espresso makes for a perfect end to any meal. Choose egg-free vanilla ice cream for a light version or add flavored ice cream for variety.



small glass

1 Spoon **1 scoop of vanilla ice cream** into your glass. It looks most attractive if you can form a full ball of ice cream by using a scoop.

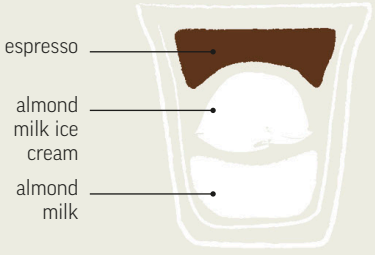
2 Using the technique on pp.48–49, brew **two shots/1½ fl oz (50 mL) espresso** and pour it over the ice cream.

SERVE IT UP **Serve with a spoon to eat as a dessert or allow to melt while sipping.**

ALMOND AFFOGATO

GEAR **ESPRESSO** DAIRY **ALMOND MILK** TEMP **HOT AND COLD** SERVES **1**

Almond milk is a great alternative if you are lactose-intolerant. Made of ground almonds and water and sweetened to taste, almond milk and ice cream are easy to make at home. Enjoy the fresh flavors they can bring to your coffee.



small glass

1 Pour **1 fl oz (25 mL) almond milk** into a small glass. Top with **1 scoop almond milk ice cream**.

2 Using the technique on pp.48–49, brew **one shot/1 fl oz (25 mL) espresso** into a small pitcher. Pour it over the ice cream.

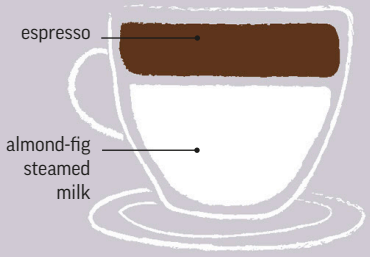
SERVE IT UP **Sprinkle over ½ teaspoon cinnamon** and **1 teaspoon chopped almonds** and serve.

ALMOND AFFOGATO is a delicious dairy-free coffee recipe. If you are allergic, try rice milk with rice milk ice cream.

ALMOND FIG LATTE

GEAR **BREWER** DAIRY **MILK** TEMP **HOT** SERVES **1**

Figs are used as a flavor enhancer in many coffees around the world but rarely as an ingredient in a beverage. It is combined here with almond essence, which gives this variation of a caffè latte real depth of flavor.



large cup

1 Steam **9 fl oz (250 mL) milk** with **1 teaspoon almond essence** and **5 drops fig flavoring** in a pitcher to about 140–150°F (60–65°C), or until the pitcher is just too hot to touch (see pp.52–55). Pour into the cup.

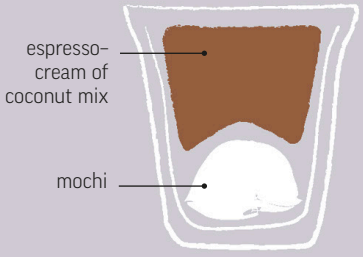
2 Brew **3½ fl oz (100 mL) coffee** by using a French press (see p.146), AeroPress (see p.149), or brewer of your choice. Brew the coffee double-strength, if you prefer a more pronounced coffee taste.

SERVE IT UP **Pour the brewed coffee over the flavored steamed milk and serve.**

MOCHI AFFOGATO

GEAR **ESPRESSO** DAIRY **COCONUT MILK ICE CREAM** TEMP **HOT** SERVES **1**

A popular Japanese dessert, Mochi ice cream is a ball of cold ice cream covered in a smooth, doughlike rice paste. This recipe uses a Mochi made with coconut milk, making it suitable for those with a dairy intolerance.



small glass

1 Place **1 black sesame–flavored coconut milk mochi** in your glass.

2 Using the technique on pp.48–49, brew **two shots/1½ fl oz (50 mL) espresso** into a small pitcher.

3 Mix **1½ fl oz (50 mL) cream of coconut** with the espresso and pour it over the mochi.

SERVE IT UP **Serve immediately with a spoon.**

YUANYANG *Hong Kong coffee*

GEAR **BREWER** DAIRY **CONDENSED MILK** TEMP **HOT** SERVES **4**

Most people would not think to mix tea and coffee together, but this creamy mix with black tea has delicious results. Originally served by street vendors, yuanyang is now a favorite in many Hong Kong restaurants.

medium glass or mug

1 Combine **2 tablespoons black tea leaves** and **9 fl oz (250 mL) water** in a large 4¼ quarts (1 liter) saucepan and simmer for 2 minutes.

2 Remove the saucepan from heat and discard the tea leaves. Stir in **9 fl oz (250 mL) condensed milk**, return to heat, and simmer for another 2 minutes. Remove from heat.

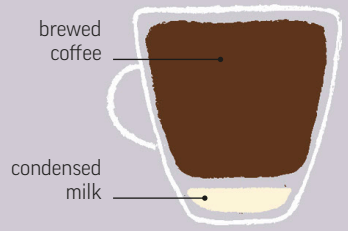
3 Using the technique on p.146, brew **16 fl oz (500 mL) coffee** in a French press and pour into the saucepan. Mix thoroughly with a wooden spoon.

SERVE IT UP **Pour into 4 glasses or mugs, sweeten with sugar, and serve.**

CA PHE SUA NONG *Vietnamese coffee*

GEAR **BREWER** DAIRY **CONDENSED MILK** TEMP **HOT** SERVES **1**

You don't have to use a Vietnamese phin coffee dripper to make Ca phe sua nong, but it's a clean and easy-to-use brewing method that also lends itself well to black coffee. Here, condensed milk makes for a sweet and creamy drink.



small mug

1 Pour **2 tablespoons condensed milk** into the bottom of the mug. Place **2 tablespoons medium-ground coffee** at the bottom of a phin (see p.154) or filter pour-over (see p.147). Shake to distribute and screw the top filter on.

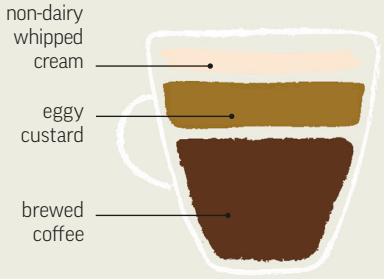
2 Bring **4 fl oz (120 mL) water** to a boil and pour about a third of it over the filter. Allow the coffee to swell for a minute. Loosen the filter a couple of turns and pour the rest of the water on. The water should drip through in about 5 minutes.

SERVE IT UP **Serve with a spoon to stir and dissolve the condensed milk.**

POT OF GOLD

GEAR **BREWER** DAIRY **WITHOUT** TEMP **HOT** SERVES **1**

If you are lactose intolerant, there are plenty of lactose-free milks to explore, including nut and seed milks. This recipe includes raw egg, which adds a wonderful creaminess. The glowing gold custard that decorates the drink inspired the name.



small mug

1 Using the technique on p.151, brew **3½ fl oz (100 mL) strong stove-top coffee**.

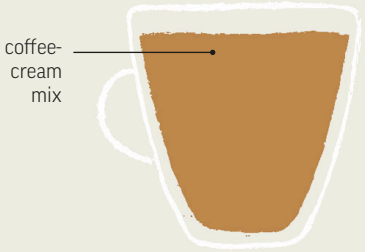
2 To make the eggy custard, separate **1 egg** and discard the white. Mix the yolk and **2 tablespoons lactose-free custard** in a small bowl. Add 1 teaspoon of the coffee and blend it in.

SERVE IT UP **Pour the coffee into the mug and top with the eggy custard. Top up with non-dairy whipped cream, sprinkle over vanilla sugar, if desired, and serve.**

GINGERBREAD GROG

GEAR **BREWER** DAIRY **HEAVY CREAM** TEMP **HOT** SERVES **6**

Beautifully fragrant and deliciously warming on a cold night, this drink may take a few minutes to prepare, but it will be worth the wait. Perfect after a good meal, the richness of the butter and sugar makes it a great alternative to dessert.



large mug

1 Place an equal amount of sliced **peel from 1 lemon** and **1 orange** in the mugs.

2 Brew **6⅓ quarts (1.5 liters) coffee** by using a French press (see p.146) or electric-filter brew (see p.153).

3 Pour into a pitcher and add **9 fl oz (250 mL) heavy cream**. Pour the coffee-cream mix over the citrus peels.

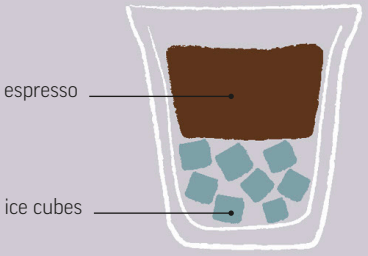
SERVE IT UP **Divide the gingerbread butter** (see opposite) **between the mugs, about 1 teaspoon in each. Allow to melt and serve.**

GINGERBREAD GROG To make the gingerbread butter, mix 2 tablespoons soft, lightly salted butter with 3½ oz (100 g) brown sugar, ¼ teaspoon each ground allspice, nutmeg, cinnamon, and cloves, and 2 teaspoons rum essence. As the flavored butter melts and the spices dissolve, little pearls form on the surface.

MAZAGRAN *Portuguese iced coffee*

GEAR **ESPRESSO** DAIRY **WITHOUT** TEMP **COLD** SERVES **1**

A Portuguese variation of cold coffee, Mazagran is made with strong coffee or espresso. It is served over ice with a twist of lemon, slightly sweetened, and occasionally spiked with rum.



small glass

1 Place **3–4 ice cubes** and **a wedge of lemon** into the glass.

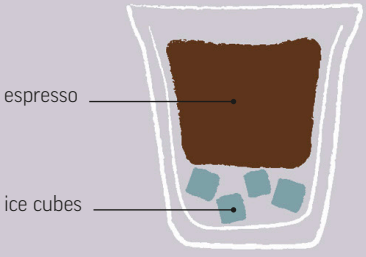
2 Using the technique on pp.48–49, brew **two shots/ 1½ fl oz (50 mL) espresso** over the ice.

SERVE IT UP **Add sugar syrup, if desired, to taste and serve immediately.**

ICE ESPRESSO

GEAR **ESPRESSO** DAIRY **WITHOUT** TEMP **COLD** SERVES **1**

The quickest way to chill an espresso is to pour it over ice, but if you shake it with ice, you create an attractive foam. Experiment with different types of sugar—white, demerara, or muscovado—to provide contrasting flavors.



small glass

1 Using the technique on pp.48–49, brew **two shots/1½ fl oz (50 mL) espresso** into a small cup and dissolve **sugar** into it, if desired.

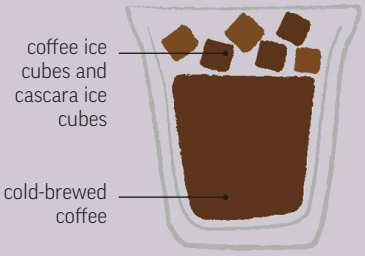
2 Pour the espresso into a cocktail shaker filled with **ice cubes** and shake vigorously.

SERVE IT UP **Fill the glass with a few ice cubes, strain the coffee over the top, and serve.**

ICED CASCARA COFFEE

GEAR **BREWER** DAIRY **WITHOUT** TEMP **COLD** SERVES **1**

Coffee usually comes from a roasted seed, but sometimes other parts of the coffee plant can be used to prepare traditional beverages, such as kuti, hoja, and qishr. Here, hibiscus-like cascara (dried coffee cherries) brightens up a cold brew.



medium glass

1 To prepare cascara ice cubes, make tea from **dried cascara**. Pour the infusion into an ice-cube tray and transfer to the freezer. Allow to freeze. Prepare coffee ice cubes the same way, by filling an ice-cube tray with **brewed coffee**.

2 Using the technique on p.152, prepare **5 fl oz (150 mL) cold-brewed coffee** by using a cold dripper.

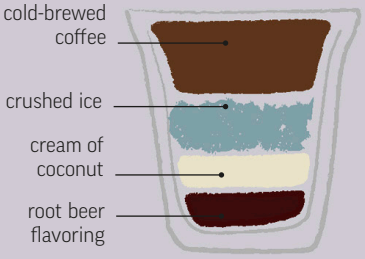
3 Add the **cascara ice cubes** and **coffee ice cubes** to a cocktail shaker. Pour over the cold coffee, add **1 teaspoon dried cascara**, and shake.

SERVE IT UP **Pour into the glass and serve immediately.**

ROOT OF ALL GOOD

GEAR **BREWER** DAIRY **WITHOUT** TEMP **COLD** SERVES **1**

Root beer and coffee are especially pleasing when combined in a cold beverage. Instead of adding dairy, this recipe uses cream of coconut for texture and sweetness, which complements the root beer.



medium glass

1 Using the technique on p.152, prepare **5 fl oz (150 mL) cold-brewed coffee** by using a cold dripper.

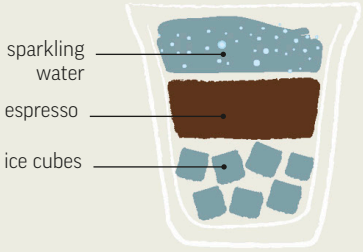
2 Add **1½ fl oz (50 mL) root beer flavoring** and **1 fl oz (50 mL) cream of coconut** to the glass and mix well.

SERVE IT UP **Top with crushed ice, pour the cold coffee over, and serve with a straw.**

SPARKLING ESPRESSO

GEAR **ESPRESSO** DAIRY **WITHOUT** TEMP **COLD** SERVES **1**

Adding sparkling water to an espresso might seem an unusual practice, but the resulting effervescence is really quite refreshing. Beware that combining the two very abruptly might lead to an eruption of foam.



small glass

1 Place the glass in the freezer for an hour or so before you wish to serve.

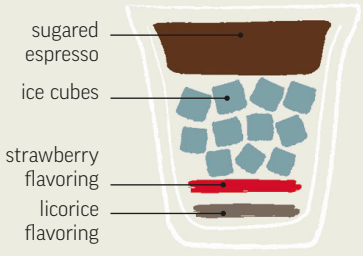
2 Using the technique on pp.48–49, brew **two shots/1½ fl oz (50 mL) espresso** into a small pitcher. Fill the glass with **ice cubes** and pour the espresso over.

SERVE IT UP **Gently top with sparkling water, taking care not to let the foam overflow, and serve.**

SNOW WHITE

GEAR **ESPRESSO** DAIRY **WITHOUT** TEMP **COLD** SERVES **1**

This chilled coffee combines the unusual flavors of strawberry and licorice and is made with a lot of ice. The name of the recipe comes from the contrasting colors of red and black, which are reminiscent of Snow White's lips and hair.



medium tumbler

1 Using the technique on pp.48–49, brew **two shots/1½ fl oz (50 mL) espresso** into a pitcher. Dissolve **1 teaspoon white sugar** into it. Add the espresso and **ice cubes** to a cocktail shaker and shake vigorously.

2 Fill the tumbler with **1 tablespoon licorice flavoring** and **1 tablespoon strawberry flavoring** and top with ice cubes.

3 Strain the espresso over. For a creamier flavor, add **1½ fl oz (50 mL) cold milk, if desired**, before pouring the espresso over the top.

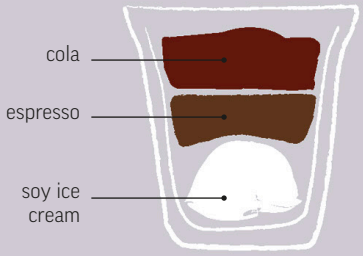
SERVE IT UP **Serve with a spoon to stir all the ingredients together.**

SNOW WHITE You could try crushed ice instead of ice cubes. It keeps the drink cooler for longer—but will dilute quickly.

COFFEE COLA FLOAT

GEAR **ESPRESSO** DAIRY **SOY ICE CREAM** TEMP **COLD** SERVES **1**

There are many good soy ice creams on the market, so if you cannot tolerate dairy, you can still experience the classic cola float. Be careful when you combine the cola and coffee, as it can get very foamy.



medium glass

1 Place **1 scoop soy ice cream** in the bottom of your serving glass.

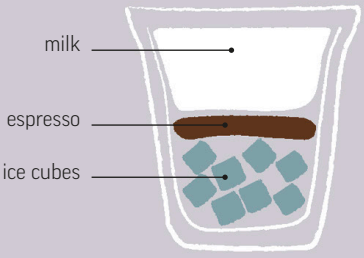
2 Using the technique on pp48–49, brew **one shot/1fl oz (25ml) of espresso**. Pour it over the ice cream and carefully top up with **cola**.

SERVE IT UP **Serve with a spoon.**

ICE LATTE

GEAR **ESPRESSO** DAIRY **MILK** TEMP **COLD** SERVES **1**

Refreshing on hot days, the ice latte can be shaken or stirred, sweetened or flavored, and tailored to the strength you prefer. If you enjoy the more pronounced coffee taste of a cappuccino, use only half the milk in this recipe.



medium glass

1 Fill half the glass with **ice cubes**. Using the technique on pp.48–49, brew **1 shot/1 fl oz (25 mL) espresso** into a pitcher and pour it over the top.

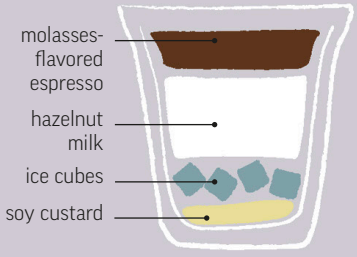
SERVE IT UP **Top up with 6 fl oz (180 mL) milk** and sweeten to taste with **simple syrup.**

ALTERNATIVELY **Brew 1 shot/1 fl oz (25 mL) espresso**, add it to **ice cubes** in a cocktail shaker, and shake well. Fill half the serving glass with **ice cubes** and add **6 fl oz (180 mL) milk** until the glass is three-quarters full. Strain the chilled espresso into the glass and serve.

HAZELNUT ICE LATTE

GEAR **ESPRESSO** DAIRY **HAZELNUT MILK** TEMP **COLD** SERVES **1**

For a more complex dairy-free alternative, mix various nut and seed milks together and take the opportunity to play with textures as well. Sweetening with molasses instead of sugar adds another level of flavor.



medium glass

1 Using the technique on pp.48–49, brew **two shots/1½ fl oz (50 mL) espresso** into a small pitcher and dissolve **2 teaspoons molasses** into it. Add to a cocktail shaker filled with **ice cubes** and shake well.

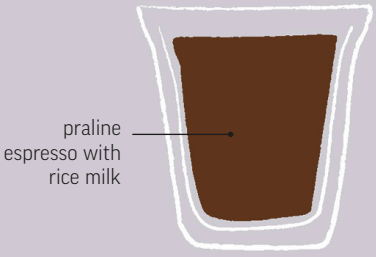
2 Spoon **2 tablespoons soy custard** into the bottom of the glass and add a few **ice cubes**. Top up with **5 fl oz (150 mL) hazelnut milk**.

SERVE IT UP **Strain the espresso over the top and serve with a spoon.**

RICE MILK ICE LATTE

GEAR **ESPRESSO** DAIRY **RICE MILK** TEMP **COLD** SERVES **1**

One of the more naturally sweet alternatives to cow's milk, rice milk does not froth well when steamed, but that makes it more suitable for iced coffees. Nut extracts go very well with rice milk, but experiment with berries as well.



medium glass

1 Using the technique on pp.48–49, brew **one shot/1 fl oz (25 mL) espresso** into a small pitcher. Allow to cool.

2 Mix the espresso, **6 fl oz (180 mL) rice milk**, and **1 fl oz (25 mL) praline flavoring** in a cocktail shaker. Add some **coffee ice cubes** (see p.199, iced cascara coffee, step 1) and shake vigorously.

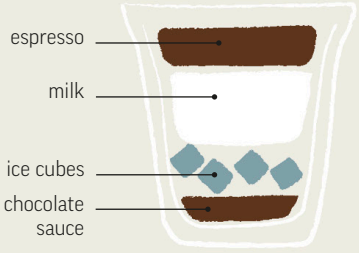
SERVE IT UP **Double-strain into the glass and serve immediately with a straw.**

ICE MOCHA Pure refreshment on a summer's day, this drink is the perfect post-barbecue pick-me-up.

ICE MOCHA

GEAR **ESPRESSO** DAIRY **MILK** TEMP **COLD** SERVES **1**

A popular variation of the ice latte, the ice mocha requires chocolate sauce, which imparts a rich, sweet taste. If you would like the coffee flavor to come through more intensely, use less milk or reduce the amount of chocolate sauce.



medium glass

1 Pour **2 tablespoons fresh or purchased light or dark chocolate sauce** into the glass. Fill with **ice cubes** and pour over **6 fl oz (180 mL) milk**.

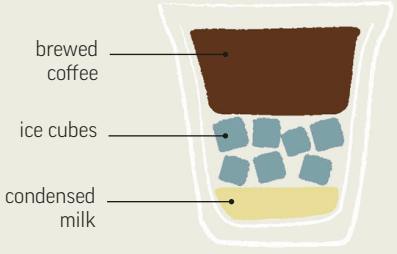
2 Using the technique on pp.48–49, brew **two shots/1½ fl oz (50 mL) espresso** into a pitcher and pour it over the milk.

SERVE IT UP **Serve immediately with a straw to help stir and dissolve the chocolate sauce.**

CA PHE SUA DA *Vietnamese iced coffee*

GEAR **BREWER** DAIRY **CONDENSED MILK** TEMP **COLD** SERVES **1**

If you don't have a Vietnamese phin coffee dripper, use a French press (see p.146) or a stove-top moka pot (see p.151). Prepared in much the same way as the Ca phe sua nong (see p.195), the iced version is more diluted but still sweet and creamy.



medium glass

1 Pour **2 tablespoons condensed milk** into the bottom of the glass and fill with **ice cubes**.

2 Remove the filter from a phin (see p.154) and pour in **2 tablespoons medium-ground coffee**. Shake to distribute the grounds and screw the filter back on.

3 Place the phin on top of the glass. Bring **4 fl oz (120 mL) water** to a boil and pour about a quarter of it over the filter. Using the phin, brew the coffee by following the directions on p.154.

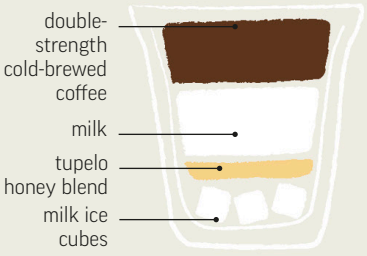
SERVE IT UP **Stir to dissolve the condensed milk and serve.**

MILK AND HONEY Frozen milk cubes or coffee cubes prevent the coffee drink from diluting too much.

MILK AND HONEY

GEAR **BREWER** DAIRY **MILK** TEMP **COLD** SERVES **1**

Honey is a flavorsome natural sweetener and works well in both hot and cold drinks. In this recipe, you can add it to the coffee before it is chilled or stir in just before serving. To make milk cubes, simply freeze milk in an ice-cube tray.



tall glass

1 Using the technique on p.152, brew **3½ fl oz (100 mL) cold-brewed coffee** double-strength over **ice cubes**.

2 Place **3–4 frozen milk cubes** into the glass and add **½ teaspoon vanilla extract**, **1 tablespoon tupelo honey**, and **¼ teaspoon ground cinnamon**.

SERVE IT UP **Pour 3½ fl oz (100 mL) milk followed by the coffee into the glass and serve with a stirring spoon.**

BLENDED ICE COFFEE

GEAR **ESPRESSO** DAIRY **CREAM/MILK** TEMP **COLD** SERVES **1**

Like a coffee milkshake, this creamy, smooth concoction can be enjoyed on its own or flavored with any number of ingredients. If you prefer a lighter texture, replace the cream with regular milk or use low-fat milk.

medium glass

1 Using the technique on pp.48–49, brew **one shot/1 fl oz (25 mL) espresso** into a small pitcher.

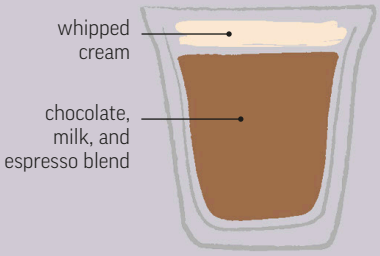
2 Pour the espresso, **5–6 ice cubes**, **1 fl oz (30 mL) cream**, and **5 fl oz (150 mL) milk** into a blender and mix until smooth.

SERVE IT UP **Sweeten to taste with simple syrup and serve in the glass with a straw.**

FRAPPÉ MOCHA

GEAR **ESPRESSO** DAIRY **MILK** TEMP **COLD** SERVES **1**

For a twist on blended ice coffee, add some chocolate sauce and increase the amount of espresso to balance out the flavors. Try a milk chocolate sauce for a milder taste or go for a white chocolate sauce.



medium glass

1 Using the technique on pp.48–49, brew **two shots/1½ fl oz (50 mL) espresso** into a small pitcher.

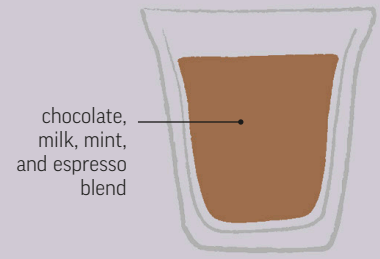
2 Pour the **espresso**, **6 fl oz (180 mL) milk**, **2 tablespoons homemade or store-bought chocolate sauce**, and **5–6 ice cubes** into a blender and mix until smooth. Sweeten to taste with **simple syrup**.

SERVE IT UP **Pour into the glass, top with 1 tablespoon whipped cream, and serve with a straw.**

CHOC-MINT FRAPPÉ

GEAR **ESPRESSO** DAIRY **MILK** TEMP **COLD** SERVES **1**

Like an After Eight dipped in coffee, this cool drink is a great post-dinner treat: rich and smooth with the beautiful pairing of mint and chocolate underpinned by the espresso. Sweeten to taste and enjoy with a chocolate mint.



medium glass

1 Using the technique on pp.48–49, brew **two shots/1½ fl oz (50 mL) espresso** into a small pitcher.

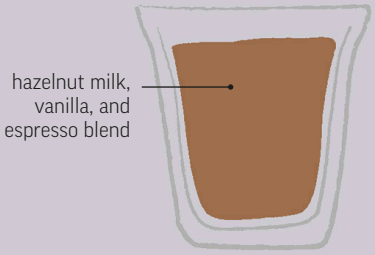
2 Pour the **espresso**, **5–6 ice cubes**, **6 fl oz (180 mL) milk**, **1 fl oz (25 mL) mint flavoring**, and **2 tablespoons homemade or store-bought chocolate sauce** into a blender, and mix until smooth. Sweeten to taste with **simple syrup**.

SERVE IT UP **Pour into the glass, garnish with chocolate shavings and mint leaves, and serve. For a pretty serving vessel, try a coupette glass.**

HAZELNUT FRAPPÉ

GEAR **ESPRESSO** DAIRY **WITHOUT** TEMP **COLD** SERVES **1**

Hazelnut milk is a dairy-free option that matches well with coffee and is easy to make at home. With the addition of vanilla, the flavors blend together perfectly.



medium glass

1 Using the technique on pp.48–49, brew **two shots/1½ fl oz (50 mL) espresso** into a small pitcher.

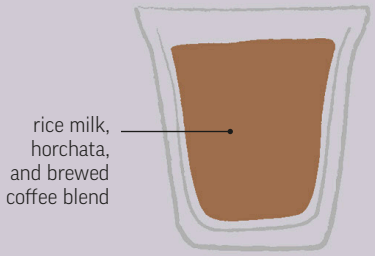
2 Pour the **espresso**, **7 fl oz (200 mL) hazelnut milk**, **5–6 ice cubes**, and **1 teaspoon vanilla sugar** into a blender and mix until smooth.

SERVE IT UP **Pour into the glass and serve with a straw.**

HORCHATA FRAPPÉ

GEAR **BREWER** DAIRY **WITHOUT** TEMP **COLD** SERVES **4**

Horchata is a Latin American drink made from almonds, sesame seeds, tigernuts, or rice. Vanilla and cinnamon are common flavorings. You can make your own or buy it ready-made.



small wine glass

1 Using the technique on p.149, brew **3½ fl oz (100 mL) strong coffee** by using an AeroPress.

2 Pour the **coffee**, **2 tablespoons horchata powder**, **3½ fl oz (100 mL) rice milk**, **seeds from 2 vanilla pods**, **½ teaspoon ground cinnamon**, and **10–15 ice cubes** into a blender and mix until smooth.

SERVE IT UP **Add simple syrup to taste**, garnish with **vanilla pods or cinnamon sticks**, and serve.

COFFEE LASSI

GEAR **ESPRESSO** DAIRY **YOGURT** TEMP **COLD** SERVES **1**

Yogurt works well as an alternative to milk, imparting a fresh taste and adding texture to a blended beverage on par with cream or ice cream. A scoop of frozen yogurt can be substituted for the yogurt in this recipe.

1 Using the technique on pp.48–49, brew **two shots/1½ fl oz (50 mL) espresso** into a small pitcher.

2 Place **5–6 ice cubes** in a blender and pour the espresso over the top. Allow to cool.

3 Add **5 fl oz (150 mL) yogurt**, **1 teaspoon vanilla flavoring**, **1 teaspoon honey**, and **2 tablespoons homemade or store-bought chocolate sauce** to the blender. Mix until smooth.

SERVE IT UP **Sweeten to taste with additional honey and serve in the glass with a straw.**

ICE CREAM RUM RAISIN

GEAR **ESPRESSO** DAIRY **MILK** TEMP **COLD** SERVES **1**

Rum and raisin is a classic flavor pairing most commonly enjoyed in ice cream. The two also work really well with coffee, as both flavors are often used to describe the flavor profile of naturally processed beans.

1 Using the technique on pp.48–49, brew **two shots/1½ fl oz (50 mL) espresso** into a small pitcher.

2 Pour the espresso, **4 fl oz (120 mL) milk**, **1 fl oz (25 mL) rum-raisin flavoring**, and **1 scoop vanilla ice cream** into a blender. Mix until smooth.

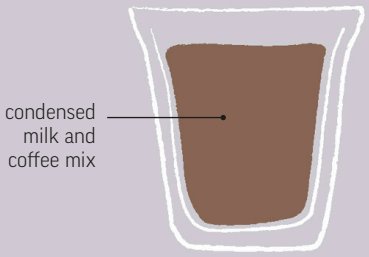
3 Sweeten to taste with **simple syrup** and pour into the glass.

SERVE IT UP **Top with whipped cream, if desired**, and serve with a straw.

VOLUPTUOUS VANILLA

GEAR **ESPRESSO** DAIRY **MILK** TEMP **COLD** SERVES **1**

Making a blended beverage with condensed milk adds a certain voluptuous texture that will make it feel like you're drinking liquid silk. If you prefer it less sweet, you could try evaporated milk or half-and-half instead.



small glass

1 Using the technique on pp.48–49, brew **one shot/1 fl oz (25 mL) espresso** into a small pitcher.

2 Pour the espresso, **3½ fl oz (100 mL) milk**, **2 tablespoons condensed milk**, **1 teaspoon vanilla extract**, and **5–6 ice cubes** into a blender and mix until smooth.

SERVE IT UP **Pour into the glass and serve immediately.**

MALTED MIX

GEAR **ESPRESSO** DAIRY **MILK** TEMP **COLD** SERVES **1**

Nondiastatic malt powder is used in drinks as a sweetening agent. Use it here for sweet flavor and a thick, comforting texture. You could use malted milk powder instead—chocolate malt works too.

beer mug

1 Using the technique on pp.48–49, brew **two shots/1½ fl oz (50 mL) espresso** in a small pitcher.

2 Pour the **espresso**, **1 small scoop chocolate ice cream**, **5–6 ice cubes**, **5 fl oz (150 mL) milk**, and **2 tablespoons malt powder** into a blender and mix until smooth.

SERVE IT UP **Pour into the mug and serve immediately with malted milk cookies on the side.**

CORRETTO ALLA GRAPPA

GEAR **ESPRESSO** DAIRY **WITHOUT** TEMP **HOT** SERVES **1**

An espresso corretto is a shot of espresso "corrected" with a shot of spirit or liquor, usually grappa, but sometimes sambuca, brandy, or Cognac. The shot is usually added before serving, but you can also serve it on the side.

demitasse cup

1 Using the technique on pp.48–49, brew **one shot/1 fl oz (25 mL) espresso** into your cup.

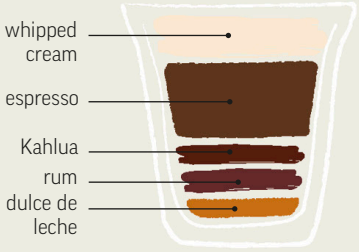
2 Pour **1 fl oz (25 mL) grappa**, or any spirit of your choice, over the top of your espresso.

SERVE IT UP **Serve immediately.**

RON DULCE

GEAR **ESPRESSO** DAIRY **WHIPPED CREAM** TEMP **HOT** SERVES **1**

Caramel is a flavor that goes seriously well with coffee. This recipe embraces that taste combination with creamy dulce de leche, added coffee flavor from the sweet Kahlua, and a warming sensation from the rum.



medium glass

1 Pour **1 tablespoon dulce de leche** into the glass. Pour over **1 fl oz (25 mL) rum** and **1 tablespoon Kahlua**.

2 Using the technique on pp.48–49, brew **two shots/1½ fl oz (50 mL) espresso** into a small pitcher and pour it over the alcohol.

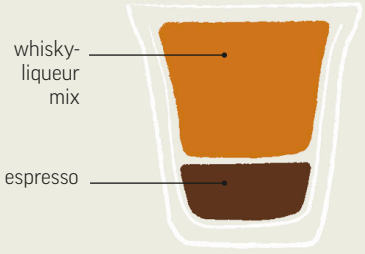
3 Whisk **1 fl oz (25 mL) whipped cream** until thickened but not stiff.

SERVE IT UP **Layer the cream on top, pouring it in off the back of a spoon, and serve.**

RUSTY SHERIDANS

GEAR **ESPRESSO** DAIRY **WITHOUT** TEMP **HOT** SERVES **1**

Inspired by the Rusty Nail, the most famous Drambuie cocktail, this recipe leads with whisky but adds Sheridan's for sweetness and to make the coffee flavor more pronounced. For a brighter note, let the lemon twist infuse in the espresso.



small glass

1 Using the technique on pp.48–49, brew **1 shot/1 fl oz (25 mL) espresso** into the glass.

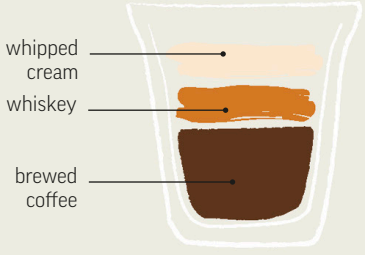
2 Mix **1 fl oz (25 mL) Drambuie**, **1 fl oz (25 mL) Sheridan's**, and **1½ fl oz (50 mL) whiskey** in a pitcher and pour the mixture carefully into the glass, allowing the crema of the espresso to sit on the rising surface as you pour.

SERVE IT UP **Garnish with a lemon twist and serve.**

IRISH COFFEE

GEAR **BREWER** DAIRY **CREAM** TEMP **HOT** SERVES **1**

Joe Sheridan created the Irish coffee in 1942, and it has since become the most famous coffee-based drink in the world. It mixes coffee (strong as a friendly hand) and Irish whiskey (smooth as the wit of the land) with sugar and cream.



Irish coffee glass

1 Using the technique on p.147, brew **4 fl oz (120 mL) strong coffee** in a pour-over filter.

2 Pour the coffee and **2 teaspoons brown sugar** into the glass and stir until the sugar dissolves.

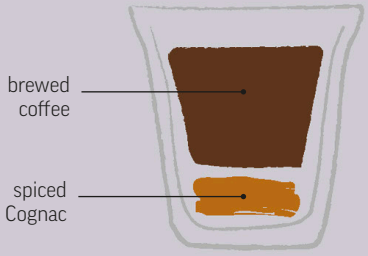
3 Add **1 fl oz (30 mL) Irish whiskey** and stir. Lightly whip **1 fl oz (30 mL) cream** until it thickens but doesn't become stiff.

SERVE IT UP **Float the cream on top of the coffee by pouring it gently off the back of a spoon and serve.**

COGNAC BRULOT

GEAR **BREWER** DAIRY **WITHOUT** TEMP **HOT** SERVES **1**

This variation of the classic New Orleans Caffè Brulot uses either Cognac or brandy as the spirit. Caffè Brulot was invented by Jules Alciatore at Antoine's Restaurant during Prohibition–the citrus and spice were a clever way to conceal alcohol.



snifter glass

1 Pour **1 fl oz (30 mL) Cognac** into the glass and keep it warm by using a brandy warmer. Add **1 teaspoon brown sugar**, **1 cinnamon stick**, **1 clove**, **1 lemon twist**, and **1 orange twist**.

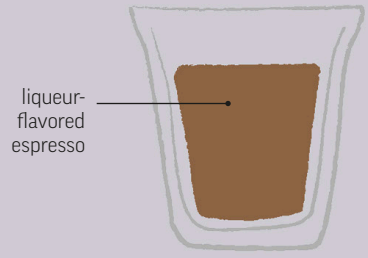
2 Brew **about 5 fl oz (150 mL) coffee** by using a French press (see p.146), AeroPress (see p.149), or brewer of your choice. Pour it into the glass. If the angle of the snifter means the coffee will overflow, take it off the brandy warmer stand before filling.

SERVE IT UP **Stir with the cinnamon stick until the sugar is dissolved and the ingredients have infused and serve.**

ESPRESSO MARTINI

GEAR **ESPRESSO** DAIRY **WITHOUT** TEMP **COLD** SERVES **1**

This is an elegant drink that can be enjoyed with or without the added sweetness of a chocolate liqueur, such as Crème de Cacao. If you don't want to use the Crème de Cacao, double your quantity of Kahlua.



martini glass

1 Using the technique on pp.48–49, brew **two shots/1½ fl oz (50 mL) espresso**. Let it cool slightly.

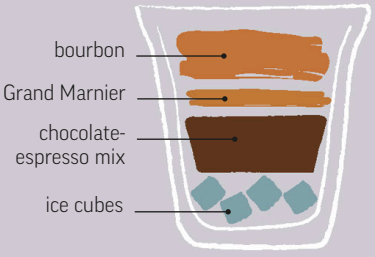
2 Combine the **coffee** with **1 tablespoon Crème de Cacao**, **1 tablespoon Kahlua**, and **1½ fl oz (50 mL) vodka** in a cocktail shaker. Add ice cubes and shake well. If you combine the espresso and alcohol first, the liquid will be cooler, and the ice cubes won't melt as much.

SERVE IT UP **Double strain into the glass, garnish the foam with 3 coffee beans, and serve.**

GRAND CHOCOLATE

GEAR **ESPRESSO** DAIRY **WITHOUT** TEMP **COLD** SERVES **1**

Chocolate and orange is a classic flavor combination, and when combined with bourbon and espresso, the complexity of aromas makes this drink a firm after-dinner favorite. You could try it served hot—simply take out the ice cubes.



small glass

1 Using the technique on pp.48–49, brew **two shots/1½ fl oz (50 mL) espresso** into a small pitcher and stir in **1 teaspoon homemade or store-bought chocolate sauce** until it melts.

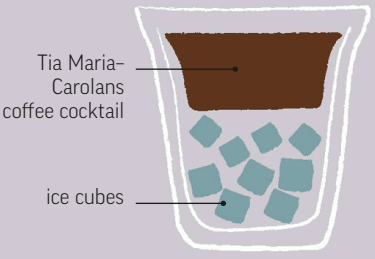
2 Place **4–5 ice cubes** in the glass and pour the chocolate-espresso mix over. Stir until the espresso cools. Add **1 tablespoon Grand Marnier** and **1½ fl oz (50 mL) bourbon**.

SERVE IT UP **Garnish with an orange twist and serve.**

RUMMY CAROLANS

GEAR **BREWER** DAIRY **WITHOUT** TEMP **COLD** SERVES **1**

Sometimes sweet and warming is what you want, even from an iced cocktail. This combination of rum and Carolans with the boost of coffee flavor from the Tia Maria gives you just that—refreshment and comfort.



medium glass

1 Fill a saucer with a little **rum** and another with **sugar**. Wet the rim of the glass in the rum and then dip it into the sugar.

2 Using a French press (see p.146) or AeroPress (see p.149), brew **2½ fl oz (75 mL) double-strength coffee** over **ice cubes**.

3 Pour the coffee, **1 tablespoon Tia Maria**, **1 tablespoon Carolans**, **1 fl oz (25 mL) rum**, and **sugar to taste** into a cocktail shaker and shake.

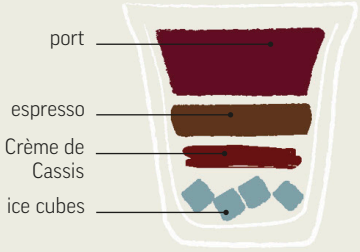
SERVE IT UP **Fill the glass with ice cubes, double-strain the drink over the top, and serve.**

PORT CASSIS Place your glass in the freezer for an hour or so before serving to help to keep the coffee cool.

PORT CASSIS

GEAR **ESPRESSO** DAIRY **WITHOUT** TEMP **COLD** SERVES **1**

Fortified wines match beautifully with coffee, especially if you brew an espresso from a bean that shares the same fruit characteristics. Crème de Cassis adds a layer of sweetness to round it all off.



snifter glass

1 Place **4–5 ice cubes** in the snifter glass and pour in **1 fl oz (25 mL) Crème de Cassis**.

2 Using the technique on pp.48–49, brew **one shot/1 fl oz (25 mL) espresso** into the snifter and stir to cool the coffee. Gently pour in **2½ fl oz (75 mL) port**.

SERVE IT UP **Garnish with a blackberry and serve.**

RECOMMENDED BEANS **The fruity and winelike notes in a good Kenyan coffee will complement the berries and port.**

COLD KIRSCH

GEAR **ESPRESSO** DAIRY **WITHOUT** TEMP **COLD** SERVES **1**

Evocative of a liquid Black Forest Gâteau, you could serve this drink with dark chocolate truffles or a rich chocolate ice cream. Cool the espresso completely before adding the egg white and double strain to achieve the creamy texture.

goblet

1 Place **ice cubes** in a cocktail shaker. Using the technique on pp.48–49, brew **two shots/1½ fl oz (50 mL) espresso** over the top, allowing it to cool.

2 Pour **1 fl oz (25 mL) Cognac**, **1 fl oz (25 mL) cherry brandy**, and **2 teaspoons egg white** into the shaker,and shake well. Double strain into the goblet.

SERVE IT UP **Sweeten to taste with simple syrup and serve.**

GLOSSARY

ARABICA
One of two commercially grown species of coffee (*see also Robusta*). Arabica is the higher-quality species of the two.

BENEFICIOS
A Spanish word for a processing mill (either wet or dry).

BURRS
Disks in grinders that crush coffee beans into particle sizes for brewing or espresso.

CAFFEINE
A chemical found in coffee that contributes to feelings of alertness.

CHAFF
The thin layer of skin that covers a roasted coffee bean.

COFFEE CHERRY
The fruit of the coffee tree. It is surrounded by a skin and contains mucilage, parchment, and, usually, two coffee seeds.

COLD-BREWED COFFEE
Coffee that is prepared with a dripper tower and cold water or a hot brew that is allowed to cool.

COMMODITY MARKET
The coffee trade market in New York, Brazil, London, Singapore, and Tokyo.

CREMA
The layer of foam that forms on top of an espresso.

CULTIVAR
A cultivated variety (*see also Variety*) intentionally bred for consumption.

CUPPING
The practice of tasting and evaluating coffees.

DE-GASSING
The practice of leaving beans to release gases created during the roasting process.

DEMITASSE
A "half cup"—typically referring to a 3 oz (90 mL) espresso cup with a handle.

DOSE
A measure of coffee intended for brewing with water.

EXTRACTION
A process that occurs during brewing, when coffee solubles dissolve into water.

GREEN BEANS
Raw, unroasted coffee beans.

HYBRID
A cross between two species of coffee.

MUCILAGE
The sticky, sweet fruit meat or pulp surrounding the parchment-covered coffee seeds inside a coffee cherry.

NATURAL PROCESS
The practice of processing coffee cherries by leaving them out to dry in the sun.

PEABERRIES
Single (as opposed to double) round seeds that may be found inside coffee cherries.

POTATO DEFECT
The raw potato smell and taste attributed to coffee beans affected by a certain bacterium.

PULPED NATURAL PROCESS
The practice of processing coffee cherries by removing the skin but leaving the mucilage intact before they are left out to dry.

ROBUSTA
One of two commercially grown species of coffee (*see also Arabica*). Robusta is the lower-quality species of the two.

SOGESTAL
The managing body of Burundian washing stations, akin to Cooperative Societies in Kenya.

TAMPING
The practice of compacting ground coffee in the filter basket of an espresso machine.

TRACEABILITY
The assertable origin, source, information, and backstory of a coffee.

VARIETY
A taxonomy class describing members of a species—such as Arabica—that have identifiable differences.

WASHED PROCESS
The practice of processing coffee cherries by removing the skin and mucilage with soaks and rinses before leaving parchment-covered beans out to dry in the sun.

INDEX

Page numbers in **bold** refer to recipes

D

E

F

G

ABOUT THE AUTHOR

Anette Moldvaer is the co-founder and owner of Square Mile Coffee Roasters, a multi-award-winning coffee roasting company based in London, England. Square Mile sources, buys, imports, and roasts coffees to sell to consumers and businesses. Anette began her career as a barista in her native Norway in 1999 and has spent years visiting coffee producers and sourcing coffees from around the world.

Anette has judged international industry competitions worldwide, such as the World Barista Championships, the Cup of Excellence, and the Good Food Awards, and has led coffee workshops all over Europe, the United States, Latin America, and Africa. She roasted the winning espresso at the World Barista Championship in 2007, 2008, and 2009 and won the World Cup Tasters Championship in 2007.

ACKNOWLEDGMENTS

Anette would like to thank:
Martha, Kathryn, Dawn, Ruth, Glenda, Christine, DK, Tom, and Signe; Krysty, Nicky, Bill, San Remo, and La Marzocco; Emma, Aaron, Giancarlo, Luis, Lyse, Piero, Sunalini, Gabriela, Sonja, Lucemy, Mie, Cory, Christina, Francisco, Anne, Bernard, Veronica, Orietta, Rachel, Kar-Yee, Stuart, Christian, Shirani, and Jose; Stephen, Chris, and Santiago; Ryan, Marta, Chris, Mathilde, Tony, Joanne, Christian, Bea, Grant, Dave, Kate, Trine, and Morten; Jesse, Margarita, Vibeke, Karna, Stein, and my coffee family and friends.

DK would like to thank:
FIRST EDITION
Photography William Reavell
Art direction Nicola Collings
Prop styling Wei Tang
Additional photography and latte art Krysty Prasolik
Proofreading Claire Cross
Indexing Vanessa Bird
Editorial assistance Charis Bhagianathan
Design assistance Mandy Earey, Anjan Dey, and Katherine Raj
Creative technical support Tom Morse and Adam Brackenbury

SECOND EDITION
Illustrations Steven Marsden (pp.156–57)
Proofreading Katie Hardwicke
Indexing Vanessa Bird

Thanks also to Augusto Melendrez at San Remo. Key Fact statistics featured on pp.64–141 are based on the 2013–2019 ICO figures, apart from those on pp.101, 102, 108, 136, 137, and 138.

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This American Edition, 2021
First American Edition, 2014
Published in the United States by DK Publishing
1450 Broadway, Suite 801, New York, NY 10018

21 22 23 24 25 10 9 8 7 6 5 4 3 2 1
001–322780–June/2021

A catalog record for this book is available from the Library of Congress.
ISBN 978-0-7440-3373-1

Printed and bound in Malaysia

For the curious

www.dk.com

A note on the maps

Coffee bean icons show the location of notable coffee-producing regions on the maps on pp.64–141. Green shading indicates coffee production over a larger area—either within political boundaries or over approximate climate-driven geographical areas.

A note on the recipes

For best results, refer to these recommended volumes. **Cups** demitasse—3 fl oz/90 mL; small—4 fl oz/120 mL; medium—6 fl oz/180 mL; large—9½ fl oz/250 mL. **Mugs** small—7 fl oz/200 mL; medium—9½ fl oz/250 mL; large—10½ fl oz/300 mL. **Glasses** small—6 fl oz/180 mL; medium—10½ fl oz/300 mL; tall—12 fl oz/350 mL.

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