EXPERT BARISTA · QUICK GUIDE

Coffee Bean & Roast Guide

Quick Guide 3 — Species, origin and roast level, and what each demands from you

Every bag of coffee is a small set of decisions someone else already made — which species, which farm or region, which processing method, and how far to roast it. Understanding those decisions, and how each one shows up in the cup and at the grinder, turns reading a bag from guesswork into genuinely useful information before you've pulled a single shot.

Arabica vs Robusta

	Arabica	Robusta
Growing conditions	Higher altitude, more demanding	Lower altitude, hardier, easier to grow
Flavour	Sweeter, more delicate, wider flavour range	Bolder, more bitter, often earthy or nutty
Acidity	Higher	Lower
Caffeine	Lower	Roughly double Arabica
Crema	Lighter	Heavier, thicker crema
Typical role	Single origins and specialty blends	Adds body, crema and bitterness resilience to blends

Most specialty single-origin bags are 100% Arabica. Traditional, bold espresso blends often include a portion of Robusta — commonly somewhere in the 10-30% range — for extra crema and body. Neither species is objectively better; they simply suit different goals, and a well-made Robusta-inclusive blend can be an excellent, forgiving everyday espresso even if it doesn't chase the delicate, wine-like notes of a specialty single origin.

Roast level changes the bean's physical structure

This is the single biggest factor in how you'll need to dial in a new bag, independent of origin. As beans roast, they lose density, develop different aromatic compounds through a chemical process called the Maillard reaction and subsequent caramelisation, and become progressively more porous and brittle.

Roast	Bean structure	Typical adjustment	Flavour tendency
Light	Dense — hasn't broken down much in the roaster	Finer grind, hotter water, longer time	Bright, floral, fruity, higher acidity
Medium	Balanced — the forgiving middle ground	Standard settings are a fair starting point	Chocolate, nutty, caramel, balanced
Dark	Porous and brittle — gives up flavour fast	Coarser grind, cooler water, shorter time	Earthy, smoky, syrupy, low acidity

It's worth understanding why roast level affects grind so directly: a denser bean resists water flow more at a given grind setting, so a light roast needs a finer grind just to achieve a similar flow rate to a medium roast. A more porous dark roast does the opposite — resisting less, and therefore needing a coarser grind to avoid the water rushing through too quickly and over-extracting the more fragile, brittle structure.

A brief word on sustainability of supply

Coffee farming faces genuine long-term pressure from shifting growing conditions in many traditional regions, and it's an area worth being at least broadly aware of as someone building a business around the product. Many origins suitable for high-quality Arabica cultivation occupy a fairly narrow altitude and climate band, and farmers and researchers are actively working on adapted varieties and farming practices to protect future supply. This isn't something that needs to change how you buy coffee day to day, but it's part of why supporting well-run, sustainably managed sourcing relationships — whether through certification schemes or direct relationships with roasters who visit their source farms — is a reasonable thing to factor into supplier choice over time, beyond flavour alone.

Where coffee grows, and what that tends to mean

Origin doesn't guarantee a specific flavour — farm, variety, processing and roast all matter too — but certain broad regional tendencies show up often enough to be a useful starting expectation.

Region	Common flavour tendencies
East Africa (e.g. Ethiopia, Kenya)	Often bright and fruity, sometimes floral or wine-like, typically higher acidity
Central and South America (e.g. Colombia, Brazil, Guatemala)	Often balanced, with chocolate, nutty or caramel notes; Brazil in particular is common in espresso blends for its low acidity and body
Southeast Asia (e.g. Indonesia)	Often earthy, heavy-bodied, low acidity — especially pronounced in wet-hulled processed coffees

Treat these as a general compass rather than a guarantee — an individual farm's altitude, variety and processing choices can easily produce a cup that defies the regional stereotype, which is part of what makes single-origin coffee interesting to explore.

Processing methods

After picking, the coffee cherry's fruit needs to be removed from the bean inside, and how that's done has a real effect on the final cup.

- **Washed (wet) process:** fruit is removed before drying, generally producing a cleaner, brighter, more acidic cup that showcases the bean's inherent character clearly.
- **Natural (dry) process:** the whole cherry is dried with the fruit still on, generally producing a heavier body and more pronounced fruity, sometimes wine-like or fermented character.
- **Honey process:** partway between the two, with some fruit mucilage left on during drying, generally producing a body and sweetness between washed and natural.

Process is often printed on specialty bags alongside origin, and is worth paying attention to for the same reason roast level matters — it changes what you should expect in the cup before you've even ground the beans.

Reading a bag

- **Origin** tells you the flavour family to expect (e.g. Ethiopian coffees lean floral and fruity; Brazilian coffees lean nutty and chocolatey).

- **Process** (washed, natural, honey) affects clarity and body — washed tends to be cleaner, natural tends to be fruitier and heavier.
- **Roast date** matters more than almost anything else on the bag. Coffee is best used roughly one to four weeks after roasting, and declines noticeably after a couple of months.
- A roaster's suggested ratio (e.g. "we recommend 1:2.5") is genuinely useful information — but grind and temperature are for you to find by taste, since they depend on your specific grinder and machine.

Understanding bag terminology

Specialty coffee bags carry more information than a supermarket bag typically does, and most of it is genuinely useful once you know how to read it.

Term	What it tells you
Single estate / single farm	All the coffee comes from one specific farm, generally offering the most distinct, traceable flavour character
Cooperative or collective	Coffee is pooled from several smaller farms in a region, still single-origin but with slightly more blended character than a single estate
Variety (e.g. Bourbon, Typica, Geisha)	The specific genetic variety of Arabica plant, which affects flavour independent of where it's grown
Altitude	Generally, higher altitude growing tends to produce denser beans with more developed acidity and complexity
Cupping score	A quality score (commonly out of 100) assigned by professional tasters using a standardised evaluation process; scores above roughly 80 are typically considered specialty grade

None of this terminology is required reading to make a good espresso, but it does help explain why two bags at very different price points, both labelled Arabica, can taste and behave so differently.

Caffeine content in practice

Roast level has a smaller effect on caffeine content than most people assume — caffeine is a fairly stable compound and survives roasting well, so a light roast and a dark roast of the same bean contain broadly similar caffeine per bean by weight, contrary to the common assumption that dark roast is more “stimulating.” What varies far more is density: because dark roasted beans are lighter and more porous, a given volume (rather than weight) of dark roast contains fewer beans, and therefore less caffeine, than the same volume of a denser light roast. If you're dosing by weight, as most espresso preparation does, this distinction matters less in practice.

Species matters far more for caffeine than roast level does — Robusta's roughly double caffeine content compared to Arabica has a much larger practical effect than any roast-level difference.

Certifications and sourcing labels

Many bags carry sourcing certifications, and it's worth understanding roughly what each represents, since they speak to how the coffee was bought and farmed rather than to flavour directly.

Label	What it generally represents
Fair Trade	A certification scheme setting minimum price guarantees and trading standards intended to protect farmer income
Rainforest Alliance / Organic	Certifications focused on environmental and farming practice standards
Direct trade	An informal term (not a formal certification) describing a roaster buying directly from a farm or cooperative, often at a premium above commodity price, without necessarily any third-party audit

Single estate	Traceable to one specific farm, though not itself a certification of trading practice

None of these labels guarantee cup quality on their own — a certification speaks to sourcing practice, not necessarily to how good the coffee tastes. That said, roasters who invest in traceable, well-documented sourcing relationships often also tend to be more selective about the underlying coffee quality, so the two do correlate in practice even though they're not the same thing.

Storage and freshness

Roasted coffee begins losing quality from the moment it leaves the roaster, through a combination of oxidation and the gradual loss of aromatic compounds. Good storage slows this decline considerably, though it can't stop it entirely.

- Keep beans in a sealed, airtight container rather than the bag's original clip or fold, if the bag isn't itself resealable.
- Store away from direct light and heat — a cupboard is better than a spot near a window or heat source.
- Buy in a quantity you'll realistically use within a few weeks, rather than bulk-buying purely for a cost saving that quality decline will offset.
- Whole beans stay fresher for meaningfully longer than pre-ground coffee, since grinding dramatically increases the surface area exposed to air.
- Freezing is a genuinely useful option for longer-term storage of beans you won't use soon, provided they're portioned into airtight, moisture-proof packaging before freezing, and not repeatedly thawed and re-frozen.

Buying beans as a mobile or small operator

If you're sourcing coffee for a small business rather than home use, a few additional practical considerations come into play beyond flavour alone. Consistency across repeat orders matters more commercially than it does for a single home bag, since customers build expectations around your regular offering. Ask a prospective roaster how consistent a given single origin is likely to be across harvests, and whether they offer a house blend specifically designed for reliability if that consistency matters more to your business than showcasing a rotating single origin.

It's also worth discussing realistic lead times and minimum order quantities with any roaster you're considering, and factoring your actual weekly usage into how much you buy at once — buying more than you'll use within the freshness window covered earlier in this guide undermines the quality benefit of sourcing good beans in the first place.

Blends vs single origin

A single origin showcases one farm or region's character as clearly as possible, which is part of the appeal for coffee enthusiasts wanting to explore how origin and process shape flavour. A blend combines multiple origins deliberately, often to achieve a specific, consistent flavour profile or balance that no single origin naturally provides — for instance, pairing a low-acid, high-body Brazilian coffee with a brighter East African coffee to get sweetness, body and acidity all in one cup.

Neither approach is inherently superior. Many professional espresso bars build their house blend specifically because it gives them a more consistent year-round flavour profile than any single origin can guarantee, since single-origin availability and character can shift with each new harvest.

How roasters develop a roast profile

Roasting is a controlled process of applying heat over time, and small changes in that process produce noticeably different results even from identical green beans. Roasters typically track two key moments: first crack, an audible popping sound as the bean's internal structure begins to break down under heat, and (for darker roasts) second crack, a further structural change associated with oils beginning to surface on the bean. Light roasts are typically stopped shortly after first crack; medium roasts allow more development between first and second crack; dark roasts push into or past second crack.

This matters for you as a barista mainly because it explains why roast level correlates so consistently with the grind and temperature adjustments covered earlier in this guide — the physical and chemical changes happening during roasting are the actual underlying cause of the density and flavour differences between roast levels, not an arbitrary labelling choice.

A practical approach to any new bag

- Start from your machine's normal, neutral settings — don't assume a light roast needs an extreme grind change before you've even tasted it.
- Pull a shot, taste it, and diagnose sour vs bitter using the same logic from the Espresso Dial-In Fundamentals guide.
- Adjust one variable at a time and re-taste, rather than changing everything at once.
- Expect roughly two to four attempts to find a good setting on an unfamiliar bag — this is normal, not a sign anything is wrong.
- Note down what worked once you find it, since the same roaster's beans often behave similarly from batch to batch even as the specific harvest changes.

Tasting with a bit more structure

Once you're comfortable identifying basic sour versus bitter, it's worth building a slightly richer tasting vocabulary. Professional tasters commonly evaluate coffee across a handful of distinct qualities rather than a single overall impression.

- **Aroma:** the smell of the coffee, both dry (before brewing) and once brewed — often the first and most immediate signal of quality and character.
- **Acidity:** the bright, lively quality distinct from sourness caused by extraction faults — good acidity reads as vibrant and pleasant, not sharp or unpleasant.
- **Body:** the weight and texture of the coffee in the mouth, ranging from thin and tea-like to thick and syrupy.
- **Sweetness:** genuine perceived sweetness, distinct from any added sugar, that comes through when extraction is well balanced.
- **Finish:** how the flavour lingers, or doesn't, after swallowing.

Practising this kind of structured tasting, even briefly, on every shot you pull builds the palate you'll rely on for faster, more confident dial-in over time — it's the same underlying skill as the sour/bitter diagnosis covered in the Espresso Dial-In Fundamentals guide, just applied with a bit more vocabulary.

Frequently asked questions

Is decaf coffee processed differently in a way that affects dial-in?

Yes — the decaffeination process affects the bean's structure somewhat, and decaf often behaves slightly differently at the grinder even at an equivalent roast level. Treat a new decaf bag as its own dial-in exercise rather than assuming it will match a caffeinated bean at the same roast.

Does a higher price always mean better quality?

Not reliably. Price reflects a combination of factors including scarcity, certification, farming practices and marketing, not purely cup quality. A well-sourced, honestly priced medium-cost coffee can easily outperform an expensive bag that isn't well suited to your specific brewing setup.

Should I choose my bean based on the roast level, or the origin, first?

If you're newer to dialling in, choosing based on roast level first is the more practical approach, since it has the larger, more predictable effect on the grind and temperature settings you'll need. Origin and process are worth exploring once you're comfortable adjusting for roast level confidently.

What does it mean when a bag says the coffee is a specific harvest year?

Coffee is a seasonal agricultural product, harvested roughly once a year depending on the growing region. A harvest date reflects when the raw green coffee was picked, not when it was roasted — always check the roast date separately, since that's the figure that actually determines freshness for brewing purposes.

Is it worth buying whole beans and grinding at home versus pre-ground?

For espresso specifically, yes, strongly. Espresso is far more sensitive to grind consistency and freshness than most other brewing methods, and pre-ground coffee loses aromatic quality within days rather than the weeks a sealed bag of whole beans can hold. A basic decent grinder paired with whole beans will consistently outperform pre-ground coffee for espresso purposes.

Is it worth trying beans from a country you've never had before?

Yes, genuinely — it's one of the more enjoyable and low-cost ways to build a broader palate. Buying a small bag of something unfamiliar, dialling it in using the process described throughout this guide, and simply paying attention to how it differs from your usual coffee builds real, transferable tasting experience over time.

Expert Barista Quick Guide 3 — free for all app users. Try the bean selection and reveal-recipe features in the simulator to put this into practice.