

BUYING GREEN COFFEE



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Buying Green Coffee

Written by Chris Kornman

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Preface

Buying green coffee is easy.

You can book online, use a credit card or even apply for micro-loans and credit terms directly through importer websites like ours (royalcoffee.com). You can call a trader, ask for a recommendation, send over your billing information, and sooner or later coffee will show up at your door.

Buying green coffee responsibly is hard.

It takes careful planning, conscious effort, well-defined parameters, and above all good communication.

What do we mean when we talk about responsible coffee buying?

One aspect might include sustainability – financial, social, and/or ecological – to your suppliers, your customers, and ultimately to yourself.

Another might include working knowledge of coffee industry norms that underpin its trade – factors like the “C” market, cup quality standards, seasonal availability, and international commerce terms.

Finally, responsibility in the coffee supply chain often involves a degree of trust and good communication – laying foundational groundwork for relationships should be considered as crucial step in the journey of the coffee buyer.

These considerations for responsible coffee buying inform my career as a coffee buyer and will underpin the recommendations I’ll be making for you in this document.





Background Basics – Green Coffee Processing and Preparation

If you're new to coffee, we should cover a few basics – green coffee* is the term we use for unroasted coffee, the raw product that ships to roasters. Green coffee is the processed and dried seed of the coffee fruit, which grows on shrubby trees, mostly located at moderate elevations across countries in the tropics.

A simple overview of the supply chain – coffee's path from the tree to the roaster – might look like this: Coffee grows and is harvested on a farm, usually partly processed on-site or close-by. Once it is dried sufficiently, it will be transported to a centralized mill where it is further processed and bagged for shipment. When it's ready to ship, it will be "stuffed" (loaded) into a standard 20' shipping container and taken to a port. It will sail across international waters to a destination port, where it will be picked up and transported to a warehouse, usually owned by a coffee importer like Royal, who will "devan" or unload the bags and often palletize them for ease of storage and transportation. Roasters will then receive coffee trucked from the importer's warehouse, where they will then store, roast, package, and distribute the consumer-ready product: roasted coffee.

Primary coffee processing is important to understand because it defines many specialty coffee flavors and can affect its value. To understand coffee processing a brief overview of the coffee fruit can help us understand the work that needs to be done to get to the seed.

*Portions of this booklet are adapted from *Green Coffee: A Guide for Roasters and Buyers*, available at roastmagazine.com/greencoffee. Excerpts throughout used with permission.

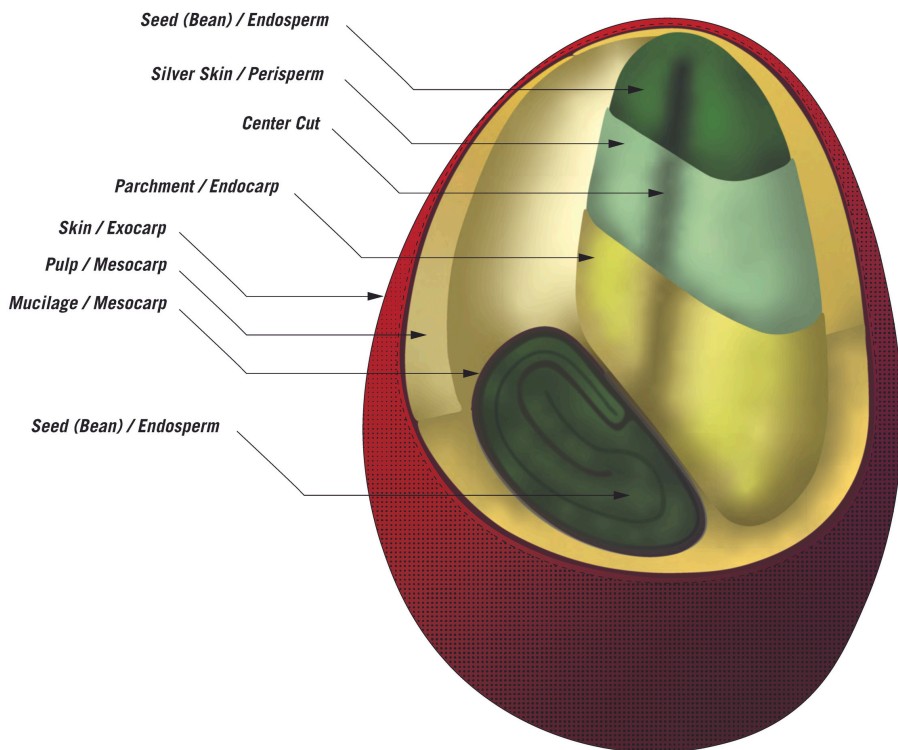


Image conceptualized by Chris Kornman and designed by Evan Gilman for
Green Coffee: A Guide for Roasters and Buyers



The so-called coffee “cherry” is a drupe, a pitted (or “stone”) fruit like a peach, plum, or orchard cherry. Inside the coffee fruit skin is a thin layer of mesocarp – often called “pulp” or “mucilage” in the coffee industry – which may be removed using a mechanical depulper, fermented off using yeasts and bacteria, left on to dry in the sun, or some combination of the above.

The pulpy mucilage clings tightly to a thick layer of cellulose endocarp called “parchment.” It’s a protective shell and, when dried, is hard and brittle. It must be removed before roasting, and this usually takes place at a large processing facility (dry mill) before export.

Inside the parchment is the endosperm (the seed, what most folks call a “bean”). Most coffee cherries contain two facing seeds (aka “flat beans”), while the “peaberry” is a developmental anomaly that yields a single bean. The endosperm is covered by waif-like, semi-translucent perisperm, called “silver skin.” When roasted, this becomes brownish chaff that flies off with a slight breeze inside the machine, but in its green form it clings closely to the seed.

Coffee processing is, in the simplest of terms, removing all layers of the fruit from the seed and preparing it for export. Two traditional methods exist:

Dry processed coffee, commonly called “natural,” is a low intervention method where the coffee fruit remains on bean to be dried out in the sun, and typically tastes berry-like and fruity.

Wet processed coffee, also known as washed coffee, requires more effort and equipment. Immediately after picking, the skin and pulp is removed from the bean, and the coffee ferments for a night or two to remove remaining mucilage. It’s then washed and graded before drying. This is the most common processing method for specialty grade beans, and typically provides the best opportunity for consistency and control. It’s associated with brighter citrusy acidities and caramel-like sweetness.

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At the dry mill, a large, centralized location for final preparation before export, coffee will be hulled (parchment and/or dry cherry skin is removed) and graded for density, sorted (either mechanically or by hand to remove defects and foreign matter), sorted for size and bagged.

Bean size, specifically, has been a traditional value marker in the coffee industry dating back decades, if not centuries, before the emergence of the specialty market, and continues to impact value and quality discourse to this day. Usually, larger beans are considered more valuable, but there are many outliers and exceptions. Various countries have implemented diverse standards for these sizes, which are outlined in more detail in *Green Coffee* and the Royal Coffee blog*.

Various standard bags depending on country of origin (and other factors) might affect the size of the bag, which determines how many fit onto a container. Usually, coffee is packed in 60 kg (132.28 lb) packages, but in Central America most coffee is loaded in 69 kg (152.12 lb) size bags, and Colombia defaults to 70 kg (154.32 lb) iterations**.



*<https://royalcoffee.com/green-coffee-analytics-part-ii-screen-size/>

**A full list of these conventions and their exceptions can be found in a brief pdf on the Royal Coffee website: <https://royalcoffee.com/resources/>



The Complexities of the Supply Chain and Direct Trade

Understanding and managing the supply chain is a more complicated matter than it might appear on its surface. In coffee, it is inexorably linked to changes in the physical state of the raw product and to means of transportation. The number of people involved in growing, processing, importing, and exporting coffee can number in the thousands.

Farmers' plot sizes may range from hundreds or thousands of hectares on macro farms to just a few trees planted in a garden. Regardless of farm size, once the coffee is harvested, it must be rushed to a wet mill (or dried in the sun, if dry-process). For smallholders, moving raw cherry to its next stage of processing often involves a transaction that effectively ends the farmer's involvement in the supply chain. However, for estate farmers, controlling the next step in processing may add value to their crop.

The wet mill (or beneficio, washing station, pulper, central pulping unit, factory, etc.) provides a number of services to raw coffee. Most large farms have a wet mill on-site, so there is good control of the supply chain from raw cherry to dried parchment. This makes the farmer-buyer relationship especially fruitful (excuse the pun): the two parties can converse about pre- and post-harvest concerns simultaneously.

Once coffee finishes drying it must be prepared for export. This includes steps that take place in the dry mill, including hulling, size, defect, and density sorting, and bagging. In many cases, fresh coffee will rest in parchment until it is sold before dry milling. Micromilling farmers very rarely operate their own dry mill. Rather, they must sell their dried coffee to the mill.



Buyers seeking relationships with dry mills may expect to have conversations about physical specs (bean size or defect count, e.g.) or about milling lots together and/or keeping small lots separate for individual runs through the dry mill. This can cause complications, as the microlots frequently associated with Direct Trade models are often smaller than the recommended minimum batch size for a mill, and can slow production.

Direct trade models might involve pricing and quality at any of the previous nodes of the supply chain, but all will eventually move through an exporter and importer – entities that often act as mirror images (and may be perceived as middlemen).

Exporters facilitate logistics, provide quality analysis and control, file paperwork with regulatory agencies, provide insurance and financing, warehouse and trade coffee. Coffee buyers entering into relationships with exporters will find many services at their disposal, not the least of which being coffee farmer and washing station discovery and introductions upstream along the supply chain.

Importers frequently officially take possession of coffee once it passes the bridge of the ship at the port of origin, but in many cases they have “direct” relationships that extend beyond the exporter. Specialty importers like Royal are in the habit of developing their own partnerships with farmers and mills for access to particular lots. Benefits of good roaster-importer relations include consolidation, wherein a roaster will preselect a given amount of coffee from a particular origin. The importer will then work to fill the rest of the shipping container with similar coffee destined to be sold elsewhere, thereby lowering the overall logistics expense for the roaster*.

Defining direct trade, therefore, is complicated. The baseline definition of “roasters bypassing middlemen” is undercut by the realities of international commerce conventions. Even large-scale roasters capable of filling full container loads (FCLs, roughly 40,000 lbs or 18 metric tons) frequently rely on exporters and importers to help facilitate logistics and even “purchase” the coffee, effectively pre-financing it for the buyer.

*For further reading, you can look up the article “Directing Trade Through the Supply Chain” on the Royal Coffee blog and download a copy of the infographic:
<https://royalcoffee.com/directing-trade-through-the-supply-chain/>
<https://royalcoffee.com/the-coffee-supply-chain-an-infographic/>





Roasters might form direct relationships with farmers, cooperatives, and even exporters, each of whose roles in the supply can be diverse and distinct, and therefore reliant on other actors to help complete the chain. Direct Trade allows pricing transparency from the buyer to seller, but these transactions still require all the other work implicit in preparation of coffee from harvest to shipment.

A frequent perk of relationship coffee might include travel to visit coffee producers. Benefits to such activities include the opportunity to meet face-to-face, to taste coffee together and align, to observe unfamiliar practices (like fermentation and processing – often a complexity buyers may not fully comprehend until seen in-person) and securing photos and returning with samples. Some drawbacks to travel might include its high carbon footprint and expense, and the propensity for reinforcing buyer-seller inequity – often in the form of unreasonable requests (such as ill-informed suggestions for cultivar selections or fermentation methods) and perpetuation of exploitative narratives. Coffee buyers should engage in travel with eyes open and an awareness of the consequences of their visits.





Global Production and Consumption Trends

Worldwide, two species of coffee dominate commercial cultivation: Robusta (*Coffea canephora*) and Arabica. Robusta's resilience to hostile environments (e.g., heat, low elevation) and disease makes it attractive to grow, but its perception as bitter and less flavorful than Arabica has traditionally limited its value, particularly in specialty coffee circles. It accounts for about 40% of total volume annually. Arabica has milder flavors, but is more sensitive to climate, elevation, and disease, and has lower caffeine content.

Brazil is the globe's leading coffee producer, primarily growing Arabica. Vietnam produces most of the world's Robusta. Colombia, Honduras, Peru, and Ethiopia each supply substantial amounts of Arabica, while Indonesia, India, and Uganda are major Robusta producers.

Coffee typically has one main harvest annually, and occasionally a second, lower volume harvest during the off-season sometimes called a "fly crop." Colombia's unique geography contributes to regional anomalies allowing it to be one of the only countries in the world where coffee is harvested year-round.

For most countries and growing regions, the main harvest occurs during hemispheric winter. Brazil, for example, will pick coffee from May to September, while Mexico harvests from October through January*.

The long harvesting timeframe is followed by a long processing period – it can take coffee from two to four weeks to dry (unless mechanical dryers are used) and often during peak season the queue to get coffee through the dry mill may be two or more weeks. When the coffee is finally loaded onto a container ship, ocean transit to the United States can take a few weeks to a few months, depending on location and whatever the current shipping crisis is.

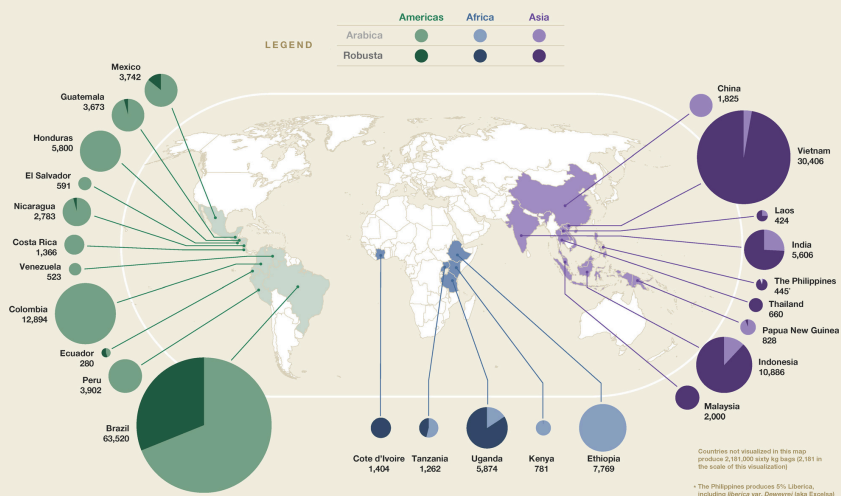
*You can read more about harvest and arrival timelines on the Royal Coffee blog. <https://royalcoffee.com/harvest-arrival-a-roasters-guide-to-coffee-seasons/>



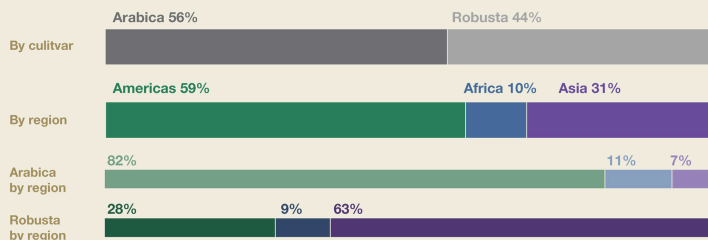
World Dispersal & Production of Coffee

Modern Arabica & Robusta Production

(Average 2018 – 2022, thousands of 60 kg bags)



Production Share (2018 – 2022)





Thus, arrivals domestically typically occur a few months after the coffee is picked. Coffee shipments rarely occur without a guaranteed buyer (like a roaster or importer), so most coffee must wait to embark on its overseas journey until sufficient samples have been approved (a subject for a section a little later).

According to information gathered by the International Coffee Organization (ICO), since the 1990s coffee production and consumption are both increasing globally, with Asian farmers and buyers both the growth leaders during that time. Brazil also continues to increase its production substantially on an annual basis.





The “C” Market and Real World Trading

The “C” Market is coffee’s global trading benchmark, a system of contracts managed by the Intercontinental Exchange (ICE) for futures commodity trades.

While commodities futures were originally conceived of as protections for various types of farmers during the offseason (to secure financing for upcoming harvests) the futures trade has evolved into mostly paper trading – buying and selling without the market actors taking physical possession of the actual stock lots.

This tends to primarily benefit two groups of people – market speculators (those who try to make money on market fluctuations) and entities dealing with the physical commodity who use the market to hedge (buying and selling paper coffee to protect their physical coffee from market fluctuations).

A “C” contract is 37,500 lbs in weight, underpinned by certified stocks from specific countries, ports, and shipping timeframes. Typically, a hedger would buy a contract on the market when they sell a real-world coffee, and vice-versa, to protect their physical investments.

Market price might be influenced by factors like supply and demand, the strength of the dollar, events in major producing countries (e.g., drought in Brazil), and the influence of major financial institutions.

What is the market good for? Other than hedging and speculation, it is used as a price discovery mechanism. Even countries who produce coffee not traded on the “C” will use it to inform their pricing mechanisms.

*See Karl Wienhold’s deep and dense book on the economics underpinning the coffee trade, Cheap Coffee: <http://www.cheapcoffeebook.com/>



The market is, however, not particularly adept at interpreting value, which we should distinguish from cost. Market price takes no accounting for the actual value of labor, land, infrastructure, investment, and the many intangibles that contribute to a living wage. The “C” presents itself as a disinterested third party from buyer and seller, solely concerned with the economics of supply and demand, resulting in a globally acknowledged pricing matrix which fails to consider the true value of coffee*.

Specialty coffee – that is, coffee differentiated* from commodity coffee traded by the “C” market – emerged in part as a response to this harsh reality. In attempts to distinguish from the “C” price, specialty beans typically trade in two ways: on differentials, or at fixed prices.

Differential trading means that the coffee’s value is tied to the market, and usually expressed as a margin (say “plus 50” – that is, \$0.50 per pound over the market price) and fixed by either the buyer or the seller on a particular date and time, per their mutual agreement. Margins might be determined by various factors including quality, origin, certification, etc.

Fixed price coffees may use the market to inform their price but do not vary as the market changes. Coffees priced outright in this way are usually at a cost well above market price, valuable on its own terms based on buyer and seller defined qualities and intrinsic properties that distinguish it substantially from commodity coffee**.



*For a broader discourse on the nature and definition of Specialty Coffee, see the Royal Coffee blog entry entitled “What is Specialty Coffee, Anyway?” <https://royalcoffee.com/what-is-specialty-coffee-anyway/>

**For further reading, see Royal Coffee’s Sustainability eBook: <https://royalcoffee.com/resources/>





International Commerce and Contract Terms

Pricing is not only (possibly) contingent on market trends, but also on terms that define ownership and risk, recognized internationally. A standard set of specific language is established as “International Commerce Terms” or INCOTerms and indicates when ownership transfer takes place.

By far the most common of these for international coffee transactions is the “Free on Board” or FOB price. For roasters and importers, the FOB price is the exporter’s final price before accounting for ocean transit. It means that the various costs of production – the entire supply-side expense – are rolled into a single easy-to-digest figure for international buyers.

Once loaded onto a boat, an important document – usually either a Bill of Lading (BL) or Seaway bill – is presented to evidence that the coffee was transferred cleanly (without damage to the product). This typically triggers payment from buyer to seller.

Alternatives in infrequent use might include cost, insurance, and freight (CRF) or other variations on these themes. Be sure to check your contracts and request specificity from the seller if it’s unclear.

Domestically, roasters will also enter into similar agreements with importers, who may use phrases like “Ex Warehouse” (EXW) or “Free on Truck” (FOT) to describe the cost of the coffee loaded but not yet shipped by truck or train. FOT includes minor expenses like palletization, while a strict reading of Ex Warehouse does not (though most sellers colloquially use EXW when they really mean FOT, including Royal).

Coffee might be booked in advance of its arrival – a “Forward” contract – or simply purchased from available stock, called a “Spot” purchase. Payment terms for a roaster might hinge on particular agreements (including credit terms) with their seller (i.e., an importer) or might be required immediately (i.e., NCAD or “Net Cash Against Documents”).





Sampling, Approval, and Feedback

For many buyers, sampling is an important part of contract approvals. The time honored ritual of trying before buying in specialty coffee is usually undertaken via cupping, scoring, and reporting sensory feedback.

Understanding the type a sample in question is critical to smooth transactions. There are a few essential categories:

- **Type Sample** – used as an indication of potential or an example of past work, does not represent coffee for sale
- **Stocklot Sample** – represents a specified quantity of real coffee available at a location
- **Offer Sample** – represents coffee offered for sale
- **Preshipment Sample (PSS)** – represents the final milled coffee, ready to export. Used as a final confirmation of quality and approval of a (usually) pre-existing contract or agreement
- **Spot Sample** – represents coffee that is “spot,” or domestically available

By understanding at what state the sample is in (i.e., is it a Spot Offer, or just a Type?), the evaluator can better know what may or may not be changed based on feedback. For a Type sample, a simple indication that “this is about the quality we’d hope you can supply us in the future” or “we typically don’t buy coffees like the one you showed us” might be sufficient to advance to the next stage of the conversation.

For a PSS, the evaluator of an approval might need provide little to no feedback at all, indicating the Preshipment Sample conforms with previously agreed upon conditions and expectations (and possibly matches a prior Offer Sample), and is therefore approved. However, a rejection would likely require some specific explanations of shortcomings*.

*For further reading, see The Green Coffee Sample Feedback Guide at <https://royalcoffee.com/resources/> or chapter 3 of Green Coffee: A Guide for Roasters and Buyers



Preshipment samples may also be built in contractually with terms and abbreviations like SAS (“Subject to Approval of Sample”) and NANS (“No Approval No Sale”). These terms offer high degrees of protection for buyers, allowing them to confirm the quality of a product before purchase and shipping.

For any supplier you work with, providing details about your needs draws a direct line to getting those needs fulfilled. Consider the following when asking for samples:

- **Price** - Give a ceiling and floor price you hope to achieve. Most sellers will be quick to let you know if your expectations can or can't be met. This will help prevent the awkward, enthusiastic approval of a sample you can't possibly afford.
- **Cup score** - The SCA or CQI cup score can be a useful figure as it's well defined and somewhat universally understood. If you plan to use a proprietary cup score or non-standard scoring system, let your supplier know what the parameters of your scale are so they're not confused. As cuppers expectedly vary in their individual perception, a range or approximation may be a more useful parameter than a hard and fast rule.
- **Flavor attributes** - Flavor profile is an important component of many coffee brand identities, and clearly stating your preferences (like “no boozy naturals, please” or “really bright, sharp acidity is what I want out of a Colombia”) can help your supplier find the right options for you without showing you coffee you don't want. As with cup score, sensory attributes are a soft science, so expect a little variation in cup notes from taster to taster. Also, keep your expectations realistic: you're unlikely to find a wet-hulled Sumatra that tastes like guava jelly... that's just not how that processing style tastes.
- **Country or region prerequisites** - This is particularly important when working with suppliers who can offer many hundreds of microregions across the globe. Try to be as specific as possible. If you approach an average importer and simply ask for an 84 point coffee that tastes like caramel, be prepared to answer some follow up questions about regional preferences, as they likely have half a warehouse of coffee from all over the world that roughly meets your criteria.
- **Other requirements** - Do you need it certified (e.g., organic, Fair Trade, etc.)? Do you need it in GrainPro or similar?
- **Timing** - When do you need the coffee to arrive in your warehouse? Is this an immediate purchase or a future (aka forward) contract?





Knowing these kinds of specific details will help your supply partner provide you with accurate options.

Requesting samples is only part of the equation, however. Communication and follow-up are critical steps to consider when buying coffee.

The sample communication timeline can be broken down into three parts: anticipation, analysis and follow-up.

Anticipation

After you've communicated your sample needs, don't forget to plan on time for sample shipments and occasional delays. Domestic shipments can take a few days, international sample shipping usually takes at least a week or more to clear various customs hurdles. Ask your supplier for tracking data and be sure to communicate when you've received the sample. In many cases, internationally shipped samples require prior notice and an FDA number from the supplier to arrive.

Analysis

Take the time you need to properly assess the samples you've received to make sure they're right for you, including looking at physical specs like moisture or screen size if necessary. You'll want to schedule your sample roasting and cupping with enough time for setup and cleanup. Be sure to log your results promptly. Having a policy in place for feedback turnaround can help codify your process. If you promise yourself and suppliers that you'll return results within five business days of receipt (for example), you'll provide yourself with a path to success with a specific, achievable deadline.

Follow-Up

A general rule about providing your feedback is "the sooner the better." The conversation can take place while the topic is still fresh on everyone's mind and you can secure your coffee without the potential threat of another buyer beating you to the coffee if you prevent delays in your process.



However, if you jump the gun and send your results before your analysis is complete, you can confuse your supplier, especially if there are mixed signals about quality or intent to purchase. Take the time to be thorough, compose your thoughts succinctly, and then wait for a response before sending additional details or questions.

For the specialty coffee buyer, sensory feedback is undoubtedly the best way to communicate preference and get the best coffee. With regard to flavor profiles, there's a pretty fine line between helpful and vague. The best kinds of communication will help you confirm your preferences to your supplier and offer sensory feedback that's accurate and valuable.

Specific notes and scores are incredibly valuable but being overly precise or decorative with your descriptions (like how you might be for a customer) can sometimes distract from the conversation.

Keep in mind that professional relationships are well-maintained with civil language. Defects, disappointments, and inconveniences can be very frustrating, but eviscerating your supply partners isn't going to help you solve the problem. Instead, calm demeanor and clear language will help resolve the problem amicably.

When your supplier sends you coffee that cups well, meets or exceeds expectations, and fits your budget and needs, let them know. This is a great way to maintain contact and level-up your relationship. Common goals and understanding will lead to consistency and improvements in future interactions.





Final Thoughts

Coffee buying doesn't have to be rocket science, but awareness of standard trade practices and knowledge of coffee processing, exporting, and sampling all contribute to a well-rounded buyer's ability to navigate the landscape easily.

Good communication with trade partners is key. Establishing expectations and common understandings about availability, pricing, shipping terms, and more will help everyone involved successfully move coffee through the supply chain.

Coffee traders are always happy to help you navigate your way towards great coffee. Don't hesitate to reach out with questions, it's always better to ask than to find out after the fact.





Royal Coffee

Royal Coffee is a family-owned and operated importer of specialty green coffees, serving the international roasting community. Founded in 1978 by Bob Fulmer and Pete McLaughlin in a tiny office on Hollis St., the company began with the purchase of a single bag of coffee that Bob and Pete used as a desk until they found a buyer for it. They turned the proceeds of the first sale into two more bags, and the rest is history.

We now import the finest coffees in the world, from over 30 countries of origin and a vast network of producing partners. Royal supplies some of the top roasting houses around the globe, from warehouses in Oakland, Seattle, Madison, Houston, Shanghai, and Vancouver. Our humble roots continue to inform our day to day operations though, as many of our clients get their start with us buying a single bag of coffee.

Regardless of how you buy from Royal, we hope that you will stop by The Crown: Royal Coffee Lab & Tasting Room to experience our favorite coffees, thoughtfully prepared. Join us for a class, event, tasting or cupping in the heart of Oakland. We offer cutting-edge original workshops, CQI courses & guest curricula by the industry's thought-leaders.

Chris Kornman

Chris Kornman is a coffee romantic, a quality specialist, and the Director of Education at The Crown: Royal Coffee Lab & Tasting Room in Oakland, California.

He is the author of *Green Coffee: A Guide for Roasters and Buyers* and regularly contributes coffee-related disquisitions to publications worldwide.

