



# CJ1403 – Crown Jewel Ecuador San José de Minas Galo Morales Double Anaerobic Fermented & Washed

February 5, 2021 | [See This Coffee Online Here](#)

## Overview

This is an experimental washed coffee from northern Ecuador produced by Galo Morales, Maria Alexandra, and their family on their farm, Finca Cruz Loma.

The flavor profile is floral and juicy, with notes of plum, grape, cherry, rose, and spiced apple cider.

Our roasters found the coffee easy to work with, although first crack seemed to come a little early.

When brewed the coffee proved simple to prepare and delicious, producing unique and nuanced cups on multiple pour-overs.

## Taste Analysis by Sandra Elisa Loofbourow

If you haven't noticed, we love this coffee. One thing I want to make clear is that this coffee doesn't taste like a funky process. Despite its double anaerobic fermentation, it's not fermenty or funky -- it's an incredibly clean, sweet cup. I got a lot of lemon lime soda, pink cherry, pear; it has this lovely, caramelized sugar like panela or piloncillo. It's got light floral notes like lavender and rose water, some stone fruit, and some tropical notes like starfruit and goji berry. All of these are clean crisp flavors that work together in perfect harmony. It's just such a fun coffee to drink! In fact, it's so tasty that I managed to snag a couple boxes for the Crown's Tasting Room and am thrilled to be able to serve it on espresso and batch brew for a limited run.

## Source by Sandra Elisa Loofbourow



If you've been paying attention to Ecuador's coffee scene, you may have heard Galo Morales' name. His coffee has won several quality competitions in the past several years, including Best of Quito Pichincha in 2019 and the national Taza Dorada competition in 2020. His coffee was used in the winning routine for the 2020 national barista competition by Santiago Rodriguez, Ecuador's current champion, who will go on to represent his country in the next World Barista Championship (pandemic permitting). Since then, Finca Cruz Loma's renown has only grown – as chair of the Good Food Awards Coffee Committee I was thrilled to see the Morales family's coffee submitted for this year's competition, and even more pleased to see it finish as a [2021 Good Food Awards winner](#).

Finca Cruz Loma is a family operation, with Galo and his daughters driving the technical aspects of production, and Galo's wife Maria Alexandra handling marketing and promotion. More than 20 years ago, Galo and his four brothers took the farm over from their parents, who themselves had inherited the work from Galo's grandparents. When asked who the most critical people on the farm were, Maria Alexandra said "We work in a team as a family, and we all fulfill a critical role. Each of us has a responsibility we must deliver on so that our coffee is successful."

In the past 5 years, the Morales family has dug deep into specialty coffee, and the results are evidenced not only by their many awards and accolades but also by the exceptional quality of the cup. We've been lucky enough to work with Galo for two years now, and it's clear that they like to push the envelope and continually seek improvement. True fans may remember last year's [Crown Jewel 1332](#), which underwent an initial post-wash fermentation of more than 90 hours, followed by a second fermentation and a period of "pre-drying" before going to raised beds to dry fully. In my colleague Chris Kornman's words, "Don Galo went a little nuts with the fermentation technique", but the results were stellar.

This year's "anaerobic washed" process is no exception: a unique and carefully controlled process that yields a spectacular cup. Galo himself says: "Growing coffee allows me to and continue to develop and apply the skills and abilities I've learned over these years". As each harvest yields more and more delicious coffee and clean but unusual processes, it's clear that the Morales family not only draws constant inspiration from their coffee but that they are committed to continuing to push the boundaries to prove just how delicious Ecuadorian coffee can be.

<b>Grower:</b>	Galo Fernando Morales Flores & Maria Alexandra, Finca Cruz Loma	<b>Process:</b>	Double Anaerobic Fermented & Washed: Ripe cherries floated and then fermented whole for 90-94 hours prior to pulping and fermenting again in parchment underwater for 10-12 hours, then fully washed and dried on raised beds for 18 days.
<b>Region:</b>	San José de Minas, Pichincha, Ecuador	<b>Cultivar(s):</b>	Sidra, Typica Mejorado



<b>Altitude:</b>	1450 masl	<b>Harvest:</b>	June - September 2020
------------------	-----------	-----------------	-----------------------

## Green Analysis by Chris Kornman

Interesting green specs this week, with a green coffee coming to us from Ecuador. While moisture and water activity look nicely below average, the seed shape is fairly oblong, which tends to obscure both the density and screen size measurements, as the beans fall irregularly. Density measures quite low for such an interesting tasting coffee, but the roasts progress fairly uneventfully – other than a slightly early first crack – leading me to believe the Sinar measurement this week in the “slightly above average range” might in fact be more accurate than the manual measurement.

Screening the coffee out was an adventure as well, what started off looking like a tight, slightly above average size hit a snag in the 15 and 16 screens. It appears that peaberries were not sorted out of this lot, making the smallish 15 screen full of them. Again, roasters didn’t complain this week, indicating this shouldn’t have a huge impact on your efforts.

The cultivars in this lot include two of Ecuador’s finest: Sidra and Typica Mejorado. At the risk of repeating hearsay, most of what we’ve been able to uncover about these two varieties comes from unconfirmed sources claiming they are both hybrids. There seems to be a little confusion, and we’re working to communicate with folks on the ground to get a clearer picture, but our best efforts indicate the following at this time: Typica Mejorado and Sidra were both crafted by a now-shuttered Nestle research department in Ecuador. Despite its name, rather than being an “improved” Typica, genetic testing implies this cultivar is a Bourbon hybrid with an unspecified Ethiopian landrace. Sidra, also a hybrid, appears to be a mix of Red Bourbon and Typica. We’ll be sure to update this section with better information as it becomes available.

Screen Size	Percent	Density
>20	0.73	665 g/L (free settled)
19	7.10	688 g/L (Sinar)
18	21.44	
17	31.73	<b>Total Moisture Content</b>
16	12.21	10.3% (Sinar)
15	17.82	
14	7.97	<b>Water Activity</b>
≤13	1.00	0.512 @ 19.9C (Rotronic)

## Diedrich IR:5 Analysis by Candice Madison



This week's coffee comes to us by way of Goldilocks, at least I assume so, as everything was 'just right'. Lovely looking green coffee punctuated by noticeable long seeds and peaberries, an easy and comfortable roast, and a delicious reward for very little work!

I asked for, and received two batches to roast this week, as I hadn't hit the mark on the last two Crown Jewels, and I was becoming more and more irked. I feel it necessary to show you my work, and if I roast the coffee more than once, well, you should be privy to that process. I had a quick look at the green metrics and noted the average plus density, lower than average moisture, and disparate screen size and almost convinced myself that this would be a bumpy ride; lots of carbohydrates and other compounds to transform in tiny, uneven packages.

In order to mitigate any moisture distribution issues, I decided to charge the 4lb batch at 380F, at 90% gas. I wasn't sure how this coffee would roast. The unknown factor here, for me, being the screen size distribution; over 50% of the beans were 17-18 screen, but 20% of the beans are screen size 15, most of which are peaberries! Quite the challenge for even heat transfer and distribution throughout the bean pile, hence my start of roast choices.

I then reduced the gas twice more before stage 2, as well as introducing some air – I felt it important to mark a more exaggerated difference in speed of roast between stage 1 and stage 2, and also to ensure that the coffee went into coloring stage with a steadily declining rate of change (RoC/RoR) of about 30F per minute. I was about 8F per minute faster than my target, but the earlier gas and airflow changes really helped the roast stay on track.

There is a small bump in the RoC at first crack, as I hadn't anticipated it coming quite as early as it did. Although I marked it at around 376F, it may well have started slightly earlier, more quietly, which made the gas change at first crack late, as a result. Either that or the energy released into the drum at first crack could have overwhelmed any moisture release and created the spike in RoC. Whatever the reason, I would advise making any gas or airflow changes you would at first crack, perhaps a little before, to compensate for the energy spike.

I veered a little past my usual 15% development to almost 16%. After the initial burst of energy at first crack, the coffee slowed down quite quickly, and, as I knew the coffee to be so floral, I wanted an end temperature at or around 400F. I managed 395 and was fairly happy with that!

It is no secret around these parts that this coffee is delicious. It had me doing a double take as to the origin. The florality and fragrance of this coffee cannot be overstated. The gorgeous volatile aromatics on the dry fragrance of the cups, so heavy in notes of apricot and coffee blossom, I was sure I had mistakenly picked up an Ethiopian sample and put it on the table!

This processing method this coffee has been subject to has not only elevated it to a taste profile that I believe would not have been achieved by processing this coffee traditionally, but it has done so, so effectively, that all you are left experiencing are clean, fresh, bright flavors that absolutely sparkle in your mouth – a fresh apricot note at the front of the first sip translates, as the coffee cools, into a sweet and almost jammy compote note, fresh which grapes and green apples underscore the light fresh and complex fruit and floral notes that hit you in abundance. With the sweetness of English toffee, the star fruit like acidity interacts in the cup to produce flavor experiences that keep coming from sip to sip. A buttery note grounds and balances the flavor profile and compliments the elegant, silky body.

I would have to recommend a warm pour over to sip at sunrise. The layers of flavor and complexity of attributes would serve as a perfect start to whatever your new day brings you.



## Quest M3s Analysis by Evan Gilman

*Unless otherwise noted, I follow a set standard of operations for all my Quest roasts. Generally, I'll allow the machine to warm up for 15 minutes until my environmental temperature reading is at least 250F, weigh out 150g batch size, and begin roasting when I've reached my desired charge temperature. [Read my initial post here](#) and my [updated post here](#).*

As others have mentioned, this coffee was an absolute peach to roast, and a plum in the cup. Taking a look at the green specs before roasting, the slightly wider-than-usual spread of screen sizes did catch my eye, but the moisture and water activity numbers looked pretty easy to handle. I prepared for a bumpy ride and made sure the Quest was warmed up properly before starting my roast.

This roast used a slightly lower charge temperature than usual, at about 386F. Heat application began at 10A and fan speed was at full during charge. My idea was to use the well-heated roaster to provide extra radiative and conductive heat while keeping heat application the same as I would with a roast using a higher charge temperature. The Environmental Temperature probe read 275F at charge, about 25F higher than usual. Unfortunately I did spend a little more time in the first phase of roasting than I planned, but as you'll see, the results were fine and dandy.

Just before turning point, I disengaged fan to allow the coffee to soak up heat from the barrel. At 270F / 2:25, I introduced the fan again (in retrospect, I might have waited until 300F for this), and at 290F / 2:50 I reduced heat application to 7.5A, mostly in reaction to a very steep rate of rise. The rate of rise did decline nicely and without interruption, but at 315F / 3:25 it was still peaking, and I adjusted heat application down to 5A at this juncture in an attempt to draw this coffee through Maillard stage more slowly. This worked out somewhat, but I'd like to try another roast that spent more time in Maillard than in the first, drying stage of roast.

In any case, this coffee did crack a bit early (as Candice and Chris both note in their analysis). A few errant pops began at 375F, but true crack started at 383.7F / 5:51 for me. I allowed for 1:27 of post-crack development and dropped this coffee at 391F / 7:18, indeed a lower temperature than expected.

The cup was not disappointing in the slightest. Especially when hot, my first sip brought me bright purple plum, thick milk chocolate, and a brown sugar finish. I would swear just drinking this that I spent more time in Maillard! Confectionary pecan and sesame notes came through after cooling, too, reminding me somewhat of one of my favorite shochu, [Beniotome goma shochu](#). A super comforting and well-rounded cup.

A word of warning: this coffee does produce a significant amount of chaff. Make sure to clear out the back of the roaster after each roast of this coffee (and really after each and every roast, regardless)! Happy roasting!

## Ikawa Pro V3 Analysis by Chris Kornman



*As of September 2020 we are running all Crown Jewel Analysis roasts on an Ikawa Pro V3, using the most recent app and firmware version on “closed loop” setting.*

I had a really fun time roasting this coffee this week. The Ikawa was in fact the last of three roasters I used to brown these beans, and it proved an interesting experience. Having manually sample roasted the coffee initially on arrival for approval, and dropping it a little on the light side (the chaff can be a bit deceptive, likely due to the unique processing method), the cupping proved very floral and unique. I also had the opportunity to roast a 4-lb batch on our Diedrich IR-5, and after looking at Candice’s notes I can definitely confirm the early crack, and was glad to have her advice and was able to anticipate the end of roast pretty deftly.

On the three sample roast automated cycles on our Ikawa Pro V3, the early first crack proved slightly problematic. If the roaster had my full attention, I could’ve stopped the profiles a little shorter manually, but I was a bit distracted by prep for a tasting class and unfortunately the roasts didn’t command my undivided attention. As such, they all came out just a little dark. I’ll reiterate here: first crack comes early, be ready to drop a little sooner/cooler than you might otherwise expect.

With that in mind, the coffee shines regardless of profile, a true virtue. I enjoyed the sweetness and ripe fruit flavors of the standard sample roast, though a little toast was evident. The Maillard +30 profile yielded a sweet, fruity cup as well, though lacked the delicate florality and seemed a little savory.

However, it was the surprise low airflow profile that really shone on the table. Rife with dark berry notes and vibrant grapey juiciness, the cup was generously laden with complex floral notes as well, including strong suggestions of lavender and rose water.

I hesitate to draw strong conclusions based on these three roasts, but I will say that the coffee is a unique one that surely benefits from a little extra attention on the part of the roaster, yet will inevitably shine with a unique flavor regardless of the nuance of heat application. Keep an eye on it, but also have fun with it. Probably good advice for just about any coffee, to be fair.

You can download the profile to your Ikawa Pro app here:

Roast 1: [Crown Standard SR 1.0](#)

Roast 2: [Crown 7m SR LowAF 2](#)

Roast 3: [Crown Maillard +30 SR 1.0](#)

**Brew Analysis by Elise Becker**



I have not had the pleasure of brewing many coffees from Ecuador, so it was with great enthusiasm that I picked up the brew tools and set to work. I decided to compare 3 brews using the most classic dripper shapes – the Beehouse, the V60, and the Kalita. Each brew was done with all variables equal, and all yielded delicious cups. The Beehouse clocked the longest brew time, with the highest TDS and extraction percentage, while the V60 was zippiest and the Kalita fell in between.

The heavy Beehouse brew yielded delicious ripe plum, black grape, dark chocolate and molasses. V60 gave us a delightful, fudgy, buttery cup that I likened to a chocolate stout, with delicious layers of juicy navel orange and jammy persimmon. The Kalita was lighter and brighter, featuring flavors of spiced cider, dried cherry, black tea, and grapefruit zest. Overall, brewing was simple and delightful, yielding cups with nice body and super tasty fruit and chocolate that are sure to be a crowd pleaser.

Roast	Method	Grind (EK43S)	Dose (g)	H2O (g)	Ratio	Bloom (g)	Bloom (s)	Total Brew Time	TDS	Ext%
Diedrich	Beehouse	8	16	252	1:16	50	30	4:13	1.58	21.77
Diedrich	V60	8	16	252	1:16	50	30	3:50	1.49	20.51
Diedrich	Kalita	8	16	252	1:16	50	30	3:45	1.53	21.07