

CJ1352 Costa Rica San Rafael Carlos Fernández Morera Anaerobic Fermentation Crown Jewel

June 12th, 2020 | [See This Coffee Online Here](#)



Intro by Chris Kornman

There's so much about Carlos Fernández Morera's coffee to discuss: farm and farmer history, processing methods, the prestige of a Cup of Excellence top 5 finish in 2017... but really the start of this conversation has to be about its flavor. It's at once immensely unique, immediately delicious, and irrepressibly nostalgic. Undeniable notes of gingerbread and cinnamon toast are its hallmarks, eliciting nearly unanimous descriptors. These top notes are accented by a sugary sweetness and a fruitiness clean enough to integrate seamlessly and

bold enough to stand out in a complex and thought-provoking sensory landscape. It's an experience unlike anything I've had with a cup of coffee.

Carlos Fernández Morera is an experienced farmer. This is his 63rd season growing coffee in San Rafael de San Ramón, where his family has lived since 1895. His deep connection to his trees and the soil he works is evident in the way he talks. "Coffee is a very grateful crop," he says. "If you dedicate a little love, it responds very well... The earth is a living element, we must take care of it, pamper it, so that it transmits to the coffee plant all its force." Sr. Morera's plot of earth is called Finca El Cerro. Many of his 4 grown children and 9 grandchildren help on the estate, his eldest works directly with administration, his youngest works for the export brand, Café de Altura, and his oldest grandson is an agronomist.

The plot of the farm where this award-winning lot originates is called Diamante ("the Diamond"). It contains Caturra and Catuaí cultivars, though other varieties more resistant to rust have been planted in recent years in other areas of El Cerro. After pulping the coffee undergoes a sealed-tank anaerobic fermentation process ([learn more about anaerobic and carbonic fermentation methods here](#)). A selection of mucilage and a little water are added to the mix, and the slurry is closely monitored for pH, temperature, brix, and a host of other variables. Under a watchful eye, the high degree of environmental control this allows contributes immeasurably to the coffee's flavor. Thereafter the lot is dried for 3 days on a patio before moving to raised beds for another eighteen days of drying.

Grower:	Carlos Fernández Morera, Finca El Cerro, Parcela El Diamante	Process:	Fully washed after pulping and fermenting in a sealed tank. Dried in the sun on a patio and then on raised beds.
Region:	San Rafael de San Ramón, Alajuela, Costa Rica	Cultivar:	Caturra
Altitude:	1100 - 1350 masl	Harvest:	November 2019 - March 2020

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Green Analysis by Elise Becker

This little jewel comes to us well cared-for by the producer Carlos Fernández Morera. We have average moisture content at 10.5% as well as average water activity coming in at .558 @ 23.4C and a screen size mainly between 16-19. It does have a surprising density, well above average at 712 g/L (free-settled). This high density may be quite heat resistant, especially early in the roast, so consider using a higher charge or increased energy early on for best results. See the Roast Analyses from Chris, Evan, and Candice for more tips on appropriate heat application.

Finca El Cerro cultivates many varieties of coffee, including a few rust resistant cultivars. This lot, however, is Caturra, a compact plant that is highly susceptible to pests, but rewards the grower with excellent cup quality potential. Careful planting and monitoring of these shrubs on the part of Sr. Morera pays off in the cup, a delightful coffee that tastes of sugar and spice, and everything nice.

<u>Screen Size</u>	<u>Percent</u>	<u>Density</u>
>20	3.35%	712 g/L (free settled)
19	13.18%	781 g/L (Sinar)
18	35.66%	
17	28.17%	<u>Total Moisture Content</u>
16	13.07%	10.5% (Sinar)
15	4.28%	
14	2.29%	<u>Water Activity</u>
≤13	0.00%	0.558 @ 23.4 C (Rotronic)

Ikawa Analysis by Chris Kornman

We've updated our V2 Ikawa Pro machines with the latest Firmware version (24) and run on "closed loop" setting. Our roasters underwent full service in October of 2018 which included replacement heating elements and an updated PT 1000 temperature sensor, and were recalibrated in September 2019.

This distinctive anaerobic Costa Rica has always been a coffee with a strong personality. You could really hamfist it in the roaster and it would still come out the other end with its signature cinnamon and gingerbread aromas. That being said, a thoughtful approach can make the difference between an interesting roast and an extraordinary one.

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I defaulted to my three current favorites in terms of Ikawa profiles, and put the coffee through its paces from home. Roasting on my porch is already a pleasure... the aroma of browning coffee under a canopy of redwoods is an uncommon luxury and one I do not take for granted. This coffee added an additional layer, its pungent sweet spice aromatics lifting and resonating in the air as it roasted. Indulge yourself in the fragrance of this coffee as you roast.

I could not have been more surprised at the results. This is a very dense coffee and I would've anticipated the fastest roast (Standard, blue) to be the optimal but in fact it tasted a bit scorched. Toasty notes, hints of raw vegetables, and some savory caramelized onion marred an otherwise interesting profile of pineapple, cinnamon, and poached pear.

The slightly slower "Maillard +30" (red) was overall nicer but had a slightly abrasive finish. The extended browning did help with the fruit flavors. A lovely pink grapefruit zestiness met unique flavors of prickly pear, papaya, and jackfruit, and the classic gingerbread note was there as well. Some less pleasant fruit flavors began to emerge as the coffee cooled, but overall this was a just-fine profile that was pleasant enough but left plenty of room for improvement.

The 7-minute low airflow profile (yellow), while designed for lower density coffees, had an obviously positive impact on this unique coffee. You'll note that the first crack time and post crack development percentage on this profile are markedly later and shorter than on the other two. The result was perfectly classic in terms of flavor: sweet and juicy, the cup was dominated by apple cider, cinnamon, cranberry, and crystallized ginger. It's probably worth taking your time with this coffee, treating it gently rather than trying to power through first crack, and don't worry too much about shorter development times.

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

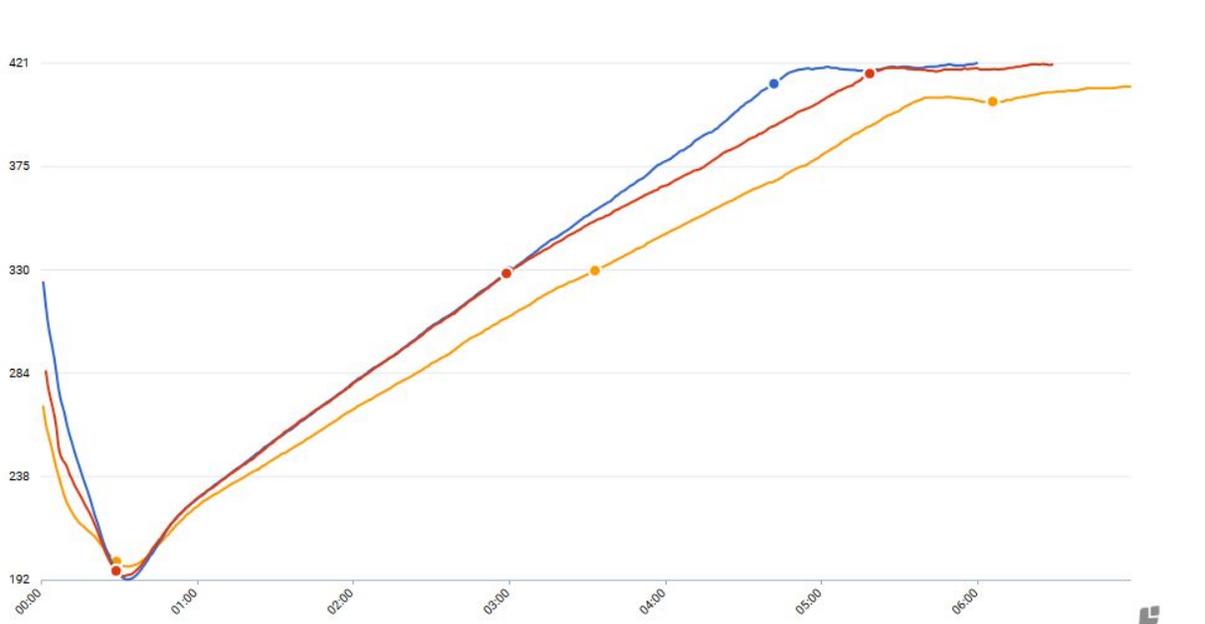
Roast 1: [Crown Standard SR 1.0](#)

Roast 2: [Crown Maillard +30 SR 1.0](#)

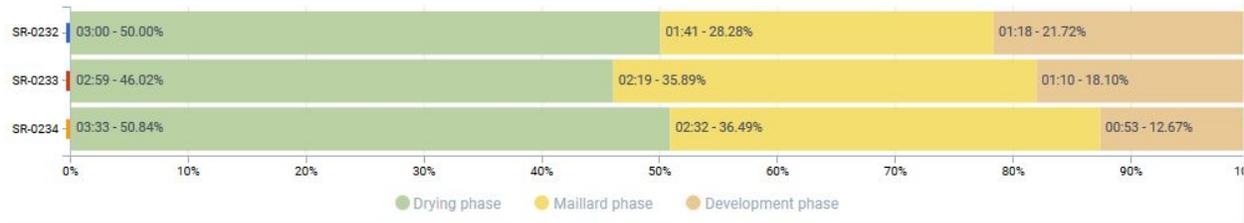
Roast 3: [Crown 7m SR Low AF](#)

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Modulation chart



Behmor Analysis by Evan Gilman

Unless otherwise noted, I follow a set standard of operations for all my Behmor roasts. Generally, I'll use the 1lb setting, manual mode (P5), full power, and high drum speed until crack. [Read my original post and stats here.](#)

A familiar but incredibly unique coffee came in the mail last week. We featured Carlos Fernández Morera's coffee before, and its spicy and warming flavor really took us all aback. And roasting this coffee is a unique experience as well. You can tell even by smelling the green that this coffee offers something fabulous!

This is an incredibly dense coffee, as you can see from Chris's notes above. While this coffee did take some time to get to first crack, it didn't seem to need more of a push to keep chugging through development. I started with my usual parameters of 225g of coffee, P5 (100% power) and high drum

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speed. I wanted to slide into first crack rather than push hard all the way through, so I reduced the heat to P4 at 9:30, and raised it back to P5 at 10:10, just before first crack. Crack occurred at 10:25, and I opened the door a crack to abate heat and smoke. After 1:20 development, I hit “COOL” to stop the roast.

I would strongly recommend cleaning thoroughly after roasting this coffee, as you’re sure to see a bit more chaff than normal!

Tasting this coffee took me back to a couple years ago, when I first tasted it. Sr Morera is nothing if not consistent in his processing! I feel as if I could have done this coffee a little more justice in the roaster by pushing through with high heat application all the way to the end, but the result here was a mellow and juicy cup, with the ginger and spice coming out upon cooling.

Try keeping the heat on this coffee in the Behmor, and you’ll get more of the famously spicy notes. If you’re looking for a sugary cup with juicy lime acidity, try drawing out Maillard just a touch. This coffee has tons of dimension to offer. Roast with confidence, you’re going to get something great no matter your angle.

Brew Analysis by Evan Gilman

Brewing this coffee was an adventure. For my first try, I like to keep things pretty standard: 1:16 ratio of coffee to water in the Chemex, 205F water, and simple concentric pours. This gives me an idea of what I need to change in order to get the best out of the coffee in front of me. This time around, my standard Chemex pour just wasn’t cutting it! I generally get at least 18% extraction with that method, but this coffee needed a little more attention to shine. It was still a very chuggable cup, with light lime and cherry notes, but it was just a little bit thin.

First off, I tried the oldest trick in the book - agitation. Some people might knock agitation, but it works. As an example, I agitated after pre-infusion and after my last pour, using the same exact parameters as my first brew. The result was a more thoroughly extracted cup with apple juiciness, clove, ginger, and a super sugary aftertaste - but I still wanted more.

To that effect, I decided to use a partial immersion technique with yet more agitation, and a finer grind. Again, if you’re not seeing the change you’d like to see after trying everything else, I would recommend agitation. The inverted method on AeroPress provides an opportunity for agitation, and ensures it when you flip the device itself. The results I saw were dramatic, and while it wasn’t the perfect cup of coffee, I believe repeated agitation will get me closer to the desired result.

Interesting flavors like jackfruit, cinnamon pear (that’s a fruit I just made up), and choco-berry came through gingerly. This cup was much heartier, and gave me the confidence I needed to continue. While you’re nearly guaranteed to get a great cup from this coffee, if you’re going to draw the most out of it I would recommend using every technique to increase your extraction!

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Roast	Method	Grind (Virtuoso)	Dose (g)	H2O (g)	Ratio	Preinfusion (g)	Preinfusion (s)	Time	TDS	Ext %
Behmor	Chemex	22	40	640	1:16	80	45	4:30	1.25	17.47
Behmor	Chemex	22	40	640	1:16	80	30	4:30	1.35	18.89
Behmor	AeroPress	16	15	240	1:16	30	30	2:45	1.23	19.93