



CJO1391 Peru Villa Rica Dagoberto Marin Ludeña Biodynamic Organic Crown Jewel

November 13, 2020 | [See This Coffee Online Here](#)



Intro by Chris Kornman with Mayra Orellana Powell

While our first couple of entries in the Peru Crown Jewel series for 2020 have focused on coffees from Cajamarca in the far north, there is excellent coffee being grown throughout the country whose Pacific coastline is longer than that of the contiguous United States. As proof, we submit this delicious offering from Villa Rica in the central growing region, a designation which includes the departments Huánuco, Junín, and Pasco.

Dagoberto Marin Ludeña owns La Chacra D' Dago estate, which is located in Villa Rica in the Oxapampa Province within the Pasco Region of Peru. The 74 acres estate has been biodynamically cultivated

since 2006. The Ludeña family also works with other local farmers to expand the biodynamic method throughout the region.

Biodynamic farming began as a reaction to deteriorating soil and poor harvest and livestock conditions in the wake of increased chemical fertilizer applications in the 1920s. Emphasizing organic agricultural practices, in conjunction with synchronizing planting and harvest cycles to terrestrial conditions and celestial (especially lunar) movements, the philosophy attempts to promote ethical treatment of natural resources and harmonious human interaction with the natural world. The actions of humans, animals, and plant life are seen as interactive parts of a living system.

Practically speaking, Biodynamic farmers set aside at least a portion of their land to promote undisturbed biodiversity (i.e., encouraging the ongoing existence of natural ecosystems) and attempt to be entirely self-sustaining with a conscious effort to return as many natural resources to the earth as are taken from it. For further reading, [Demeter](#) (the only US Biodynamic certifying agency) is an excellent source for the [principles and practices](#) of Biodynamic farming.

The coffee from Chacra D' Dago is anecdotal evidence that supports the argument that sustainably grown and harvested crops, including coffee, can be equally if not more delicious than their conventionally produced counterparts. The coffee is elegantly clean with a bright, clear acidity that reminds us of sparkling lemonade. We picked up papaya and chile mango flavors, some oolong-tea-like notes, as well as subtler fruit flavors like pear and raisin. The sweetness is candy-like, reminding us of almond butter, caramel, and butterscotch.



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It's an undeniably enjoyable coffee, made so much more so by virtue of its conscientious production under the guidance of Dagoberto Marin Ludeña and his family.

Grower:	Dagoberto Marin Ludeña La Chacra D' Dago	Process:	Fully washed after depulping and fermenting, then dried in the sun.
Region:	Villa Rica, Oxapampa, Pasco, Peru	Cultivar:	Bourbon, Catimor, Catuai, Caturra, and Typica
Altitude:	1,550 meters	Harvest:	April - August 2020

Green Analysis by Nate Lumpkin

This coffee from Peru comes to us with somewhat below average density, and about average moisture content and water activity. Its screen size is well sorted into mostly sizes 17 through 19, with almost a majority of the coffee falling into screen size 18, and only very small amounts falling outside that. Coffee of this tight a range of screen sizes should lead to consistent roasting. Its somewhat lower density may lend itself to scorching, especially early in the roast, so consider using a lower charge or lower heat early on.

This coffee is composed of a number of different varieties. Typica and Bourbon are the first and second varieties to ever be globally cultivated. Both are selected from landraces in Yemen, and are both known for their excellent cup quality as well as their susceptibility to disease. Typica was brought from India to Indonesia and from there spread globally. Bourbon was brought from Yemen to the island of La Reunion (then called Bourbon), and from there spread to Brazil and the rest of the Americas. Caturra is a short-statured mutation of Bourbon, which allows for denser planting and higher yields, and is a parent of both Catimor and Catuai. Catimor is a cross of Caturra and the Timor Hybrid, and shows higher resistance to disease while retaining Caturra's short stature. Catuai is known for its resistance to wind and higher productivity.

<u>Screen Size</u>	<u>Percent</u>	<u>Density</u>
>20	3.13%	673 g/mL (free settled)
19	18.60%	705 g/mL (Sinar)
18	46.84%	
17	24.13%	<u>Total Moisture Content</u>
16	5.04%	10.6% (Sinar)
15	1.71%	
14	0.54%	<u>Water Activity</u>
≤13	0.00%	0.558 @ 21.59 C (Rotronic)



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Ikawa Analysis by Nate Lumpkin

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

In roasting this coffee I used two of our previously standard profiles, as well as a new low airflow profile. After switching to the Ikawa Pro V3 from the V2, we discovered that our low airflow profile was struggling to move the beans in the Maillard portion of the roast. We just increased fan speed a small amount up to 70% at the lowest point of the roast, which has seemed to resolve the problem.

Our first standard roast has a high charge temperature of 320 degrees F and a duration of six minutes. The results in the cup were delicious: a rooibos and black tea aroma, with juicy flavor notes of peach, nectarine, and milk chocolate, and a creamy body. There was also a touch of mild wheat, and a white sugar sweetness. I liked this cup a lot, but would prefer a roast without the wheat note.

Our second roast profile has a charge temperature of 290 degrees F and lengthens the Maillard phase by thirty seconds, for a total duration of 6:30. Interestingly, this cup was somewhat brighter, with notes of pear, tangerine, orange creamsicle, peach candy, and bright chocolate. The wheat note from the first note was also present as a toasted wheat quality, and its body was heavy and coating. I was surprised at how bright this cup was compared to the standard roast--I would expect this roast to have smoothed out the acids--but I won't say no to unexpected results. This cup was quite delicious, and I recommend a roast of this style if you're looking for a creamy, candy-like cup that doesn't sacrifice its stone fruit qualities.

Our new low airflow profile has a lower charge temperature of 270 degrees F, a longer duration of seven minutes, and a lower drop temperature of 410 F. In the cup, this coffee was quite light bodied with a milder flavor profile. I tasted notes of tangerine, peach, pear, dark chocolate, and black tea. This was not my favorite, but still quite delicious. Try this style of roast if you're interested in a lighter roast with fewer bright acids.

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 LowAF 2](#)



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Probatino Analysis by Chris Kornman

I happened to have the Probatino up and running this week for a few special projects and managed to convince Candice to let me take a turn on production analysis for a change of pace.

Having warmed up the machine and feeling settled in, I was able to track pretty closely to Candice's background CJ analysis profile. The first roast, in blue, dipped a little lower on the turnaround and I kept the gas on at level 3 until just before first crack, accelerating the Maillard reactions and tendering a total roast time just shy of 7 minutes. The rapid Maillard development being a key component of Roast 1, I figured I'd try my hand at the opposite approach with the remaining coffee at my disposal. A slightly warmer drum and an earlier gas adjustment put enough momentum through the drying phase that I could confidently reduce my gas slightly even before color change was apparent visibly. The curve tapered nicely as a contrast to the first roast and gently coasted through first crack, pushing just past the 7 minute mark at the end, a mere 14 seconds longer than the previous roast.

I pulled both coffees on visual cue rather than temperature or time, due to the low rate of rise at the end of each profile. Old instincts aren't always trustworthy but I managed to peg nearly identical external Colortrack readings in the upper 58s. Internally the second roast was lighter by 0.5, perhaps due to the slightly lower drop temperature; it also lost about half a percent more weight as well... a curiosity I might attribute to the slightly longer overall roast time. At around 53 Colortrack internally for both roasts, these are a bit lighter in color overall than similar analyses in recent history.

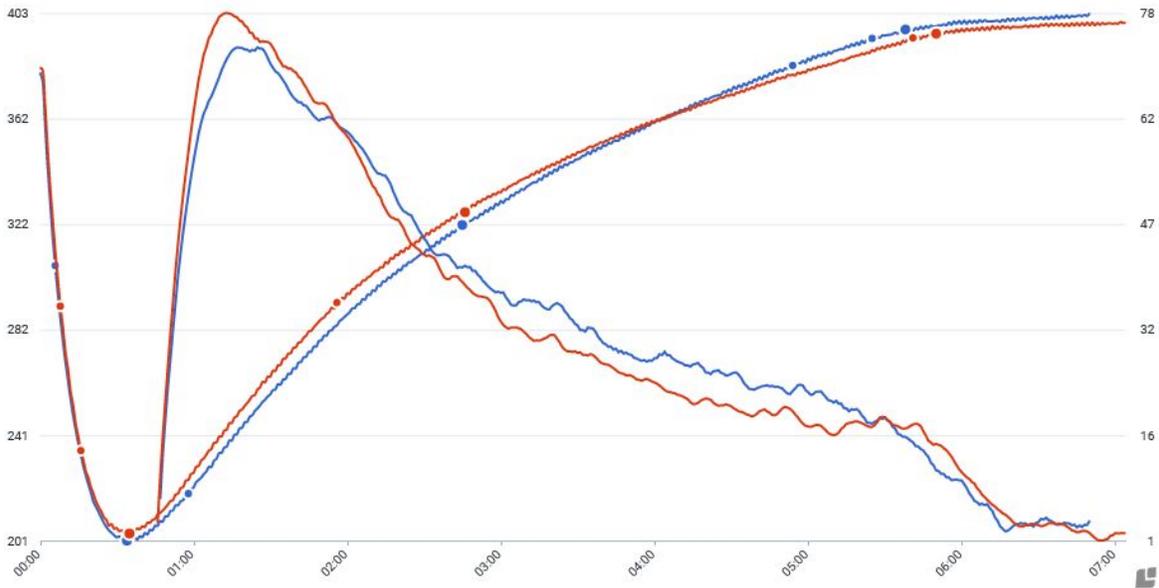
On the cupping table I found the first roast to have a lovely tropical fruit aroma with some chocolate and fudge flavors and a citrusy acidity. The coffee seemed well developed but was a little simple, although the marzipan sweetness I thought was very enjoyable. The second roast offered a little less aromatically but delivered nicely on tasting with a silky body and clean finish. I picked up a whisper of cherry blossom and a good amount of pear, applesauce, and melon candy, with a brown sugar and honey-like sweetness. I'd wager you could stretch your roasts a bit longer, if that's your pleasure, to draw out some more viscosity and sugar browning notes, but don't be shy about staying on the lighter side as this coffee remains enjoyable; its acidity won't overpower you and the risk of hay-like underdeveloped flavors, for me, were practically non-existent.

This is a roaster-friendly coffee, one that responds easily to a light touch and won't offer any unwelcome surprises as you put it through its paces. For fans of sweet easy drinking espressos, I'd put money on this coffee stealthily stealing hearts in demitasse-size portions.

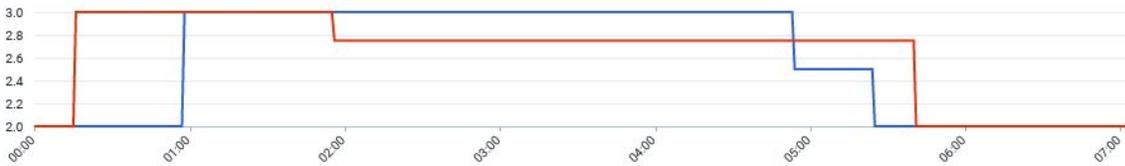


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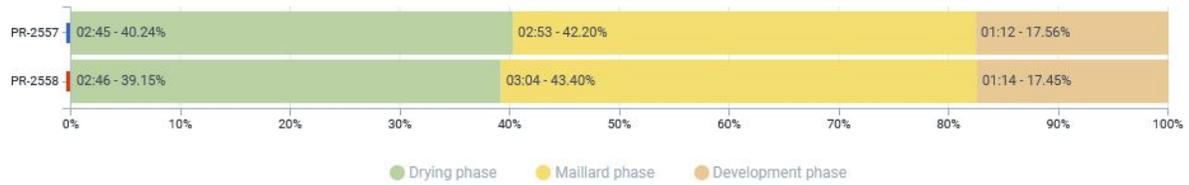
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Gas comments



Modulation chart





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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](#).

Peru is coming in very strong this year, and this addition to the menu of Crown Jewels is particularly pleasing to yours truly for its deep sweetness. Biodynamic coffees are not easy to come by, and most I've tasted have come from Brazil. That made this Peruvian selection from Chacra D' Dago particularly interesting to me.

Reading the notes above on the bright and juicy acidity of this coffee, I decided I wanted to move the roast through drying stage quickly in order to preserve these flavors. In order to do this, I started with a slightly higher charge temperature of 399F, 10A heat application, and the lowest fan speed setting. I kept the heat on, too, and only reduced heat application to 7.5A and introduced airflow to 3 on the dial at 300F / 3:10. This roast was really taking off at this point, so I introduced full airflow at 330F / 3:50 to pull away moisture and heat from the barrel. Nearing first crack at a clip, I cut off heat application to 0A at 360F / 4:30.

This was a really fast roast, but not unheard of on the Quest M3s with its smaller capacity. I reached first crack roughly a minute later at 384.6F / 5:24, and allowed for 1:24 of post-crack development for a whopping total of 20.6% of the roast being spent in post-crack development. My final temperature was reasonable at 403F, but I would have liked to spend a bit more time in Maillard. Most of this roast was still spent in the drying stage.

The cups here were still incredibly sweet! Plum and raisin flavors, with a coating of dark chocolate made me think of raisinettes, and upon cooling I got a fleeting crisp honeydew note. Melon is pretty much my favorite fruit, so I kept on coming back for sips of this coffee, especially when cold. I know, I'm a monster, but it's somehow still summer in California.

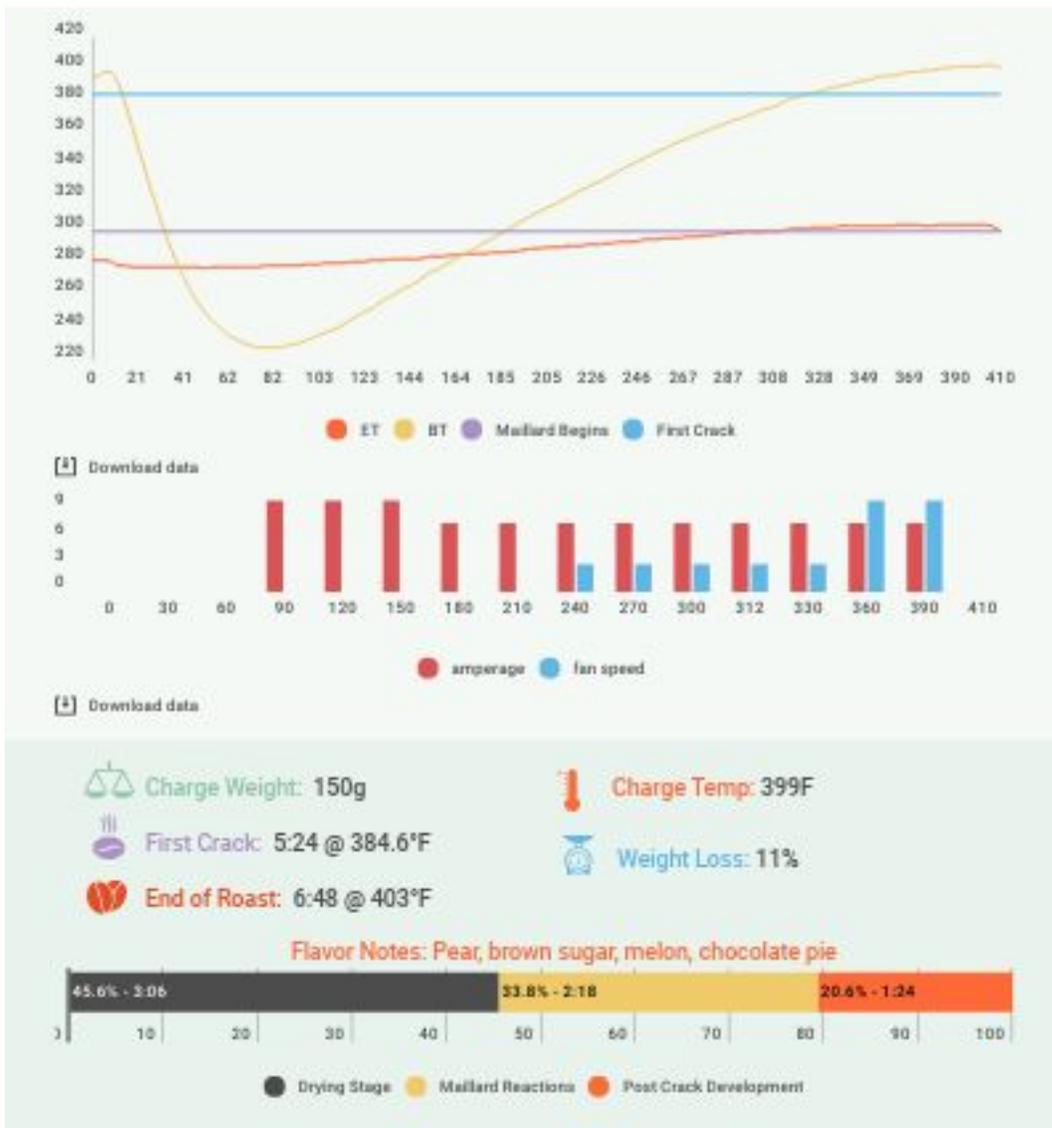
Again, I might suggest taking this coffee longer through Maillard than I did on my profile shown here, but you're bound to get a tasty result regardless. This coffee really excelled in my AeroPress, so I think for you espresso fans out there, you're going to have a good time with porous filter or full immersion brewing techniques. This coffee has sugar for days!



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QUEST M3s Profiles & Data Points





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Brew Analysis by Alex Taylor

With another promising Peru in front of me, I decided to do some comparative brewing between two different devices for this coffee's brew analysis. Using Chris's second Probatino roast I used Fellow's Stagg dripper for the first brew and the new Espro Bloom for the second, with the same recipe: a 1:15 brew recipe that is unremarkable except for a pretty fine grind, and more pulses than usual, both to try to boost my extraction a little.

The Stagg brew performed as expected; typically a faster brew device, it did its best to keep up with my aggressive recipe, but ultimately started to choke a little towards the end, due to the fine grind and increased agitation. The brew still finished under 4 minutes though, so I wasn't concerned. The Espro Bloom, the bottom of which resembles an espresso basket in many ways, finished brewing a little faster, coming in at 3:30. Both brews had decently high TDS readings and extractions, at 1.58/21.43% and 1.65/22.40% respectively.

I found both brews to be quite pleasant, with a few subtle differences between the two. The first had a really nice floral note throughout and a surprisingly creamy body. I tasted peach, molasses, white grape, and dark chocolate, to name just a few of the many many flavors present in the cup. The second brew was even smoother and more balanced. I hadn't even thought the first brew to be unbalanced until I tasted the second, but the second cup was pretty spot on. I found some pleasant citrus notes like lemon and tangerine up front, followed by honey and milk chocolate, with a delicate, but lasting chocolatey finish reminiscent of high quality drinking chocolate. I think this coffee could really shine as a more approachable option on a pour-over menu, or as a really killer batch brew! Heck, it's probably amazing as espresso too; I really can't think of a way I wouldn't want to enjoy this coffee!

Roast	Method	Grind (EK43s)	Dose (g)	H2O (g)	Ratio	Preinfusion (g)	Preinfusion (s)	Time	TDS	Ext %
Probatino 2	Stagg	7	20	300	1:15	60	30	3:50	1.58	21.43
Probatino 2	Espro Bloom	7	20	300	1:15	60	30	3:30	1.65	22.40