



CJ1197 - Costa Rica Santa Maria Coopedota El Cedral Natural Crown Jewel

May 9, 2018 | [See This Coffee Online Here](#)



Intro by Chris Kornman

Santa Maria de Dota is home to one of Costa Rica's finest cooperatives, Coopedota. It is the world's first certified carbon-neutral coffee exporter, but it's much more than just a supplier with a great certification. Recently retired Director Roberto Mata built up an amazing industry, integrating social services and environmental protections while producing some of the highest quality coffee available in Costa Rica.

Coopedota's farms stretch deep into central Costa Rica and while they produce a significant volume,

they also are deeply invested in highlighting exceptional microlots. Coopedota provides members with access to wet and dry milling services, yet the outreach extends far beyond processing: coffee by-products are used to fuel the mechanical drying *guardiolas* and water use during processing is reduced by using eco-pulpers. The cooperative manages trash pickup in the city of Santa Maria de Dota, and has been able to repurpose waste into renewable forms of energy. They also roast their own coffee and operate three cafes and a cupper/barista training center.

The farm El Cedral is owned and operated by the cooperative, established seven years ago after longtime use as an annex for the wet mill. It is now run as a "model farm," where members can explore coffee cultivation strategies. [This particular lot](#) was a repeat of last year's successful experiment in dry processing: the coffee spent two days sun-drying on a patio, then moved to covered, high-airflow solar dryers to protect from rains, and finished for 48 in a *guardiola*.

The result is a delightfully coffee with both the distinctive hallmarks of impressive Costa Rican cleanliness and the inimitable fruitiness from drying perfectly in the cherry. This coffee sells out very quickly, so be sure to grab it before it's gone.

Grower:	Cooperativa de Caficultores de Dota, R.L. (CoopeDota), Finca El Cedral	Process:	"Natural" dried in the cherry on patios in the sun, under solar canopies, and in mechanical dryers.
Region:	Santa Maria de Dota, San José Province, Costa Rica	Cultivar:	Red Catuai
Altitude:	1900 masl	Harvest:	November 2017 - March 2018



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Green Analysis by Chris Kornman

While most dry processed coffee is fragrant, [this natural Costa Rica](#) is downright punchy - zippy fruit notes and a hint of cider greet you on opening the bag. I was also a little startled by the coffee's density. Having graded two very dense Kenyas this week already, I expected the El Cedral to be a little lighter - but that wasn't the case. In fact, it was the most dense of the three. I suspect this speaks to the high elevation and good dry milling practices in place at Coopedota. Otherwise, the coffee is as expected: moderately low moisture, average water activity, and moderately large EP screen sizes.

The trees are 100% Catuai, a cultivar popular in the Americas for its short stature and potential for dense planting, affording it a higher yield per hectare than comparably prolific, taller/wider trees. It's a pure Arabica strain, a cross of two spontaneous varieties, first developed in 1949 but not released until 1972 in Brazil by the Instituto Agronomico do Campinas. The low height gene originates in its Caturra parent, a Bourbon mutation first observed in Brazil in 1937, while the other side of its genetic lineage is Mundo Novo, a naturally occurring Typica-Bourbon Hybrid, also first observed in Brazil.

<u>Screen Size</u>	<u>Percent</u>	<u>Density (freely settled)</u>
>19	2.18%	0.704 g/mL
18	18.59%	
17	39.36%	<u>Total Moisture Content</u>
16	29.84%	10.4% MC (Sinar)
15	8.93%	9.9% MC (Kett)
14	1.02%	<u>Water Activity</u>
≤13	0.08%	0.57 @ 22.0C

Ikawa Analysis by Jen Apodaca

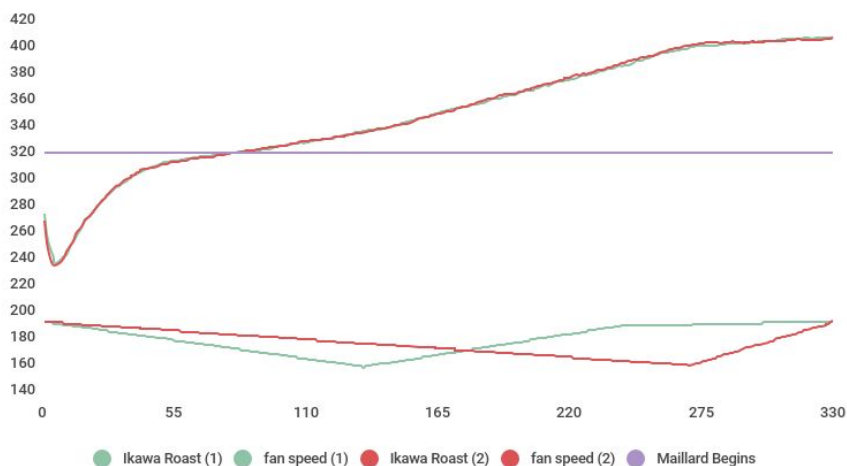
These two Ikawa roasts are identical on the temperature graph with only the different air flow profiles to differentiate them. In the Ikawa Roaster, when the fan speed is set high, the machine must compensate by adding more heat to reach its target temperature. When the fan speed is slow, more heat is retained in the chamber and there the coffee itself spins slower, allowing more conductive energy from the metal casing in the roasting chamber and with the coffee itself.

Ikawa Roast (1) employed the V airflow technique, which slows the fan speed as Maillard begins, then gradually speeds up for the remainder of the roast. Ikawa Roast (2) gradually decreases through first crack, then increases for the remainder of the time. Higher heat towards the end of the roast decreased my first crack temperature by 3.2 °F. First crack also occurred 25 seconds earlier. This allowed for more time to develop flavors and aromatics post first crack. While Ikawa Roast (1) was a classy peanut butter sandwich, it was the jammy sweetness of Ikawa Roast (2) that won us over.



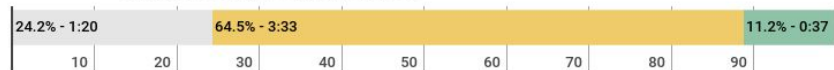
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Ikawa Roast (1)

First Crack 4:53 @ 408.0 °F
End of Roast 5:30 @ 412.7 °F
12.2% loss
Tasting Notes: apricot, nutty, raspberry

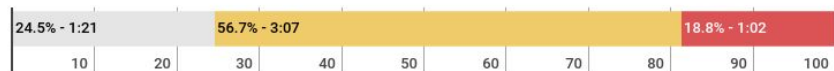


● Drying Stage ● Maillard Reactions ● Post Crack Development



Ikawa Roast (2)

First Crack 4:28 @ 404.8 °F
End of Roast 5:30 @ 411.8 °F
12.8% loss
Tasting Notes: strawberry jam, vanilla, lemon



● Drying Stage ● Maillard Reactions ● Post Crack Development

Roast Analysis by Jen Apodaca

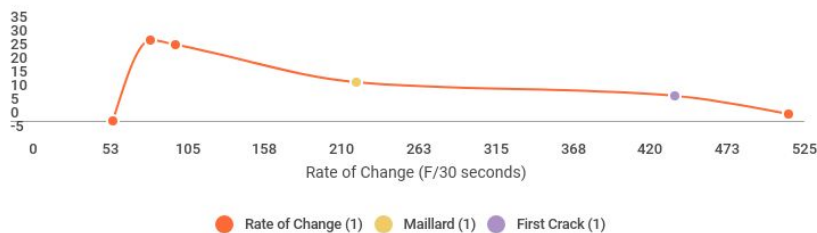
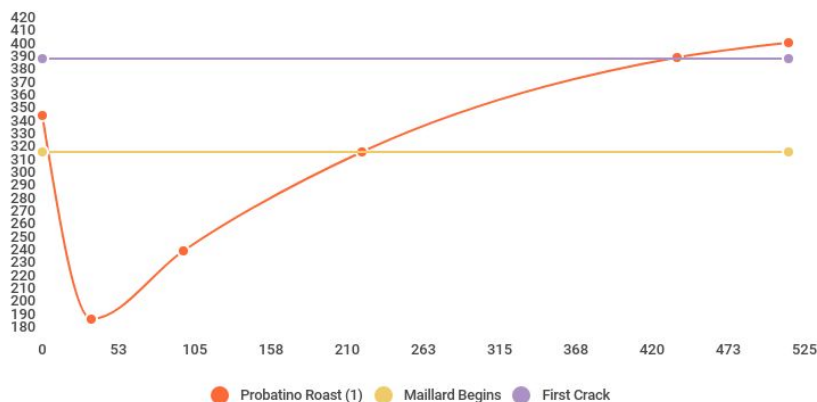
With only the high density being out of character for this coffee, I knew that I would need ample heat at the onset of the roast. The relatively high water activity and moisture of a dried process coffee was to be expected and I knew that I would need to slowly curb the heat just before first crack, so the coffee would not race through. With a raging hot drum, I decided to let it cool off a bit before loading dup the Cedral. I had previously been roasting the same batch size on some high density Kenyan coffees and the same heat adjustment that I used for them hardly made an impact on the Cedral. Looking back, I can see that the Cedral had the highest density of the three!



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Using the Ikawa Roasts as a guide, I knew that I wanted to draw out the post crack development time for a nice jammy coffee. With my Maillard time stretched out a little longer than I had planned, I cut my roast short by 10-20 seconds. On the cupping table this coffee is very sweet with lots of blackberry jam and a hint of lemon zest. If I was to roast this coffee again, I would not hesitate to pack in a lot of heat at the beginning to really push this coffee forward, it can take the heat.



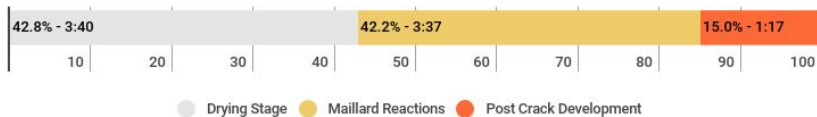
Probatino Roast (1)

First Crack 7:17 @ 394.9°F

End of Roast 8:34 @ 407.2 °F

13.6% loss Colortrack: whole bean sample/ ground sample

tasting notes: grape, blackberry, chocolate, lemon zest





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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.](#)

The most solid of three incredibly solid coffees this week was the [Costa Rica Santa Maria El Cedral](#). This super-dense coffee needs plenty of heat to be pushed into first crack, and you'll need to be patient with the Behmor when roasting this coffee. Full heat is absolutely necessary when roasting this coffee, especially since we're dealing with a charge temp of roughly room temperature.

Due to the density and heat retention, once you reach first crack this coffee will continue to pop without much goading. In fact, this is one of the only coffees that continued to crack well after I had taken it out of the roaster.

One thing to note with this coffee is that there will be a significant amount of chaff. Definitely clean out your roaster after each roast cycle. I do this every time, personally, but it's well worth stating again!

This coffee was a natural's natural on the cupping table. Plenty of fruity sweetness, notes of strawberry and rhubarb, and a pleasant vanilla finish. If ever there was a springtime coffee, this is it (provided you enjoy fruit-dried coffees)!

Brew Analysis by Sandra Loofbourow

This coffee is a crowd pleaser; although the natural processing created tons of sticky fruit sweetness, these bright funky notes were met with a pleasant base of nougat and marzipan. I started with my standard operating procedure on V60: grind setting 8 on the EK43, 1:16 ratio water at 200F. Lately I've begun stirring the bloom to make sure all the grounds get covered in water as soon as possible; I try to complete the bloom pour and stir within the first 10 seconds whenever possible, and I used that technique here.

The first brew was delicious, but didn't offer the sweetness and balance that I knew Coopedota's beans are capable of. While it did taste like strawberry juice and nougat when hot, as it cooled there was a hint of nuttiness that I was sure I could dial out. I coarsened the grind by a half notch to 8.5 on the EK and tried again. My TDS and percent extraction went down significantly with this brew, in part because I passed my desired brew water dose by nearly 20 grams. I'm glad I did, because this brew knocked it out of the park. Full of blackberry jam and sweetened strawberry lemonade, the cup was incredibly well rounded with hints of caramel and marzipan. I just loved this particular brew.

[This coffee from Santa Maria de Dota](#) had such great structure that after dialing it into deliciousness on pour over, I felt moved to pull it on espresso. Sure enough, with just a few adjustments I was producing a shot that juicy and zippy, with notes of strawberry, chocolate, fruit leather, and salted caramel.



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Roast	Method	Grind (EK43)	Dose (g)	H2O (g)	Ratio	Preinfusion (g)	Preinfusion (s)	Time	TDS	Ext %
Probat	V60	8	25	408	1:16	50	30	3:32	1.30	22.43
Probat	V60	8.5	25	417	1:16.6	50	30	2:46	1.19	20.96
Probat	GS3	Mazzer	16.4	37.4	1:2.25	-	-	00:38	8.37	19.94