



CJ1229 Nicaragua Pueblo Nuevo Donal Canales Raised Bed Crown Jewel

September 5th, 2018 | [See This Coffee Online Here](#)



Intro by Chris Kornman

Donal Antonio Canales Sevilla produced [this gem of a Nicaraguan coffee](#) on the Cascabeles farm, located in Pueblo Nuevo, a municipality located within Nicaragua's Estelí department just to the south of the Honduran border.

Since April of this year, Nicaragua has been in the throes of revolution in the wake of massive social security rollbacks by the government, led by President Daniel Ortega. The response to peaceful protests led by angered citizens has been brutal, and

[condemned as a human rights violation](#) by the UN.

While coffee production may not be the first thing on the mind of Nicaragua's farmers, there's at least some hope that income from exports to pay for daily necessities can free them to engage with their fellow citizens and government and work towards a resolution. In the meantime, despite [logistical hurdles](#) of moving coffee during a time of unrest, we're pleased and proud to carry a number of excellent coffees and continue supporting our long term partners in Estelí.

Cascabeles is one of a group of family farms collectively referred to as Los Delirios, run by Daniel Canales and his sons Milton, Donal, and Norman. It is also part of a larger collective of regional farms overseen by the family called El Edén, and together they destroy the competition, expertly producing spectacularly complex and sweet coffees that rise head and shoulders above the next best Nicaraguan offering.

Having recently installed raised beds at the wet mill, under canopy of shade, the coffees produced by the Canales family continue to pursue innovation and excellence. This lovely coffee show off exceptional sweetness at nearly every roast level, and can be characterized by a soft nuttiness, a delicate apricot and golden raisin flavor, and a vanilla or bourbon-like finish.

Grower:	Donal Antonio Canales Sevilla and family, Finca Los Delirios, Cascabeles	Process:	Fully washed after pulping and fermenting, then dried on patios in the sun and on raised beds in solar dryers.
Region:	Pueblo Nuevo, Estelí, Nicaragua	Cultivar:	Bourbon, Caturra, Typica
Altitude:	1200 - 1350 masl	Harvest:	December 2017 - February 2018



CJ1229 Nicaragua Pueblo Nuevo Donal Canales Raised Bed Crown Jewel

September 5th, 2018 | [See This Coffee Online Here](#)

Green Analysis by Chris Kornman

Very good density and moderate moisture numbers characterize [this large screen-size coffee](#). A high proportion of the beans are very spherical, a signal of the heirloom Bourbon heritage of their genes. Nicaraguan coffee farms were utterly devastated by leaf rust, and the country's response has largely been to grow resistant Catimor type varieties that can sometimes have less favorable cup scores. However, that is not the case for the Canales family, who have managed to keep alive a thriving, organic and heirloom Arabica coffee farm.

<u>Screen Size</u>	<u>Percent</u>	<u>Density (freely settled)</u>
>19	26.05%	0.691 g/mL
18	37.26%	
17	22.99%	<u>Total Moisture Content</u>
16	9.18%	11.3% (Sinar)
15	3.29%	10.7% (Kett)
14	1.23%	<u>Water Activity</u>
≤13	0.00%	0.61 @ 23.7C

Ikawa Roast Analysis by Chris Kornman

With Jen out of town at the annual Roasters' Guild Retreat, the rest of the team was subject to my Ikawa attempts for the week. I decided to try my hand at roasting using the new "open" firmware v23 settings for this week's Ikawa analysis. For [this Nicaragua](#), I took two of Jen's profiles that have been out of rotation to see what they might pull off at the new fan settings.

Roast 1 (red) used a slightly more aggressive approach to first crack. The cupping yielded plenty of sweetness and a brighter acidity but a bit of peanut and grain. Roast 2 (blue) started with a lower charge temperature and an overall gentler slope into first crack. On the cupping table, it was smooth and full, with ample sweetness but a little less fruit. Cuppers noted its cleanliness, and I was a little surprised that the slight differences in roast profile resulted in such stark preferences on the table.

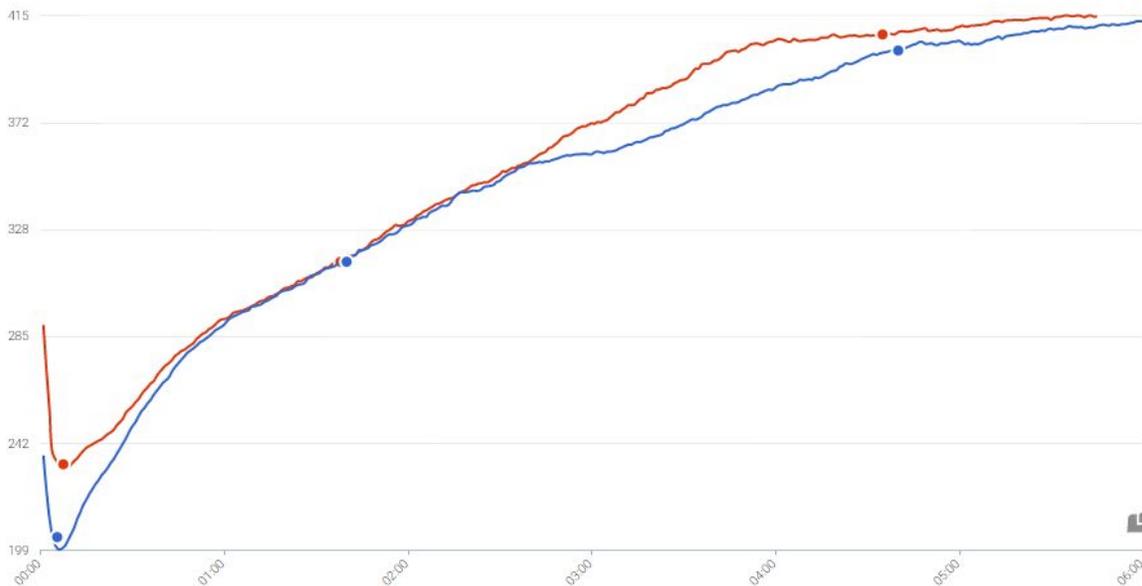
Roast 1: [5:45 417 \m/fc LM](#)

Roast 2: [6:00 415 \m/fc low charge](#)

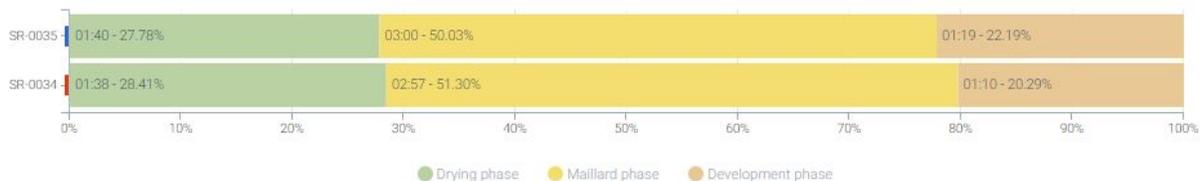


CJ1229 Nicaragua Pueblo Nuevo Donal Canales Raised Bed Crown Jewel

September 5th, 2018 | [See This Coffee Online Here](#)



Modulation chart



Probatino Analysis by Jen Apodaca

This very large coffee really threw me for a loop this week. Using Chris' Ikawa Roasts as a barometer, I knew that this coffee would need the right finessing to keep the marshmallow sweetness without squashing the fruit acidity in the cup. The coffee is dense with relatively high moisture and high water activity, but the screen size is huge which will surely be a factor in how it will roast.

In Roast (1), I used an average charge temperature and applied heat rather late in the drying stage to extend the total roast time. My usual approach to coffees this large is to extend the roast time to ensure that the coffee is fully developed internally. With a post crack development time of 1:31 this particular roast was gentle in approach with minimal heat adjustments. In Roast (2) I decided to use more aggressive heat and shorten the total roast time to see if I could bring out more of the citrus acidity that the Ikawa roasts hinted at. I used a high charge temperature of 389°F and turned the heat up to 3 gas shortly after turnaround. I reached yellowing earlier than my first roast and turned the heat down to



CJ1229 Nicaragua Pueblo Nuevo Donal Canales Raised Bed Crown Jewel

September 5th, 2018 | [See This Coffee Online Here](#)

extend the Maillard time. Comparing the two roasts, my total times for the developing stages of the roast are very similar, except for the drying stage which is much longer in Roast (1).

When I checked the Colortrack numbers, I was shocked to learn that both ground samples were extremely light. I also expected more difference between the two numbers because the profiles were so very different. A difference of 0.2 is an acceptable difference when you are attempting to recreate the same roast for several batches. I was also worried that both of these roasts would taste underdeveloped and would taste mostly of peanut and brown sugar.

I found some more of the sample and I roasted one last batch. This time I would apply heat throughout the roast steadily building up until just before first crack. Despite the low first crack temperature, I also decided to roast to a higher end temperature than in my previous roasts. For a moment I thought I may have overdone it, but my ground sample Colortracked to 56.4 which is much higher than my previous roasts, but still rather light.

On the cupping table Roast (1) was very classically sweet like a fruit and nut bar while Roast (2) had the fruit acidity that I was looking for with a nice juicy orange and a sweet chocolate cookie finish. Roast (3) was also fruit forward with dark chocolate undertones. Roast (2) was the overall favorite and Roast (3) was also very nice with lots of sugar-browning flavors. When roasting this coffee I recommend using a more aggressive heat profile and to not pay too much attention to the Colortrack numbers. This sweet coffee proved to be delicious at any number.

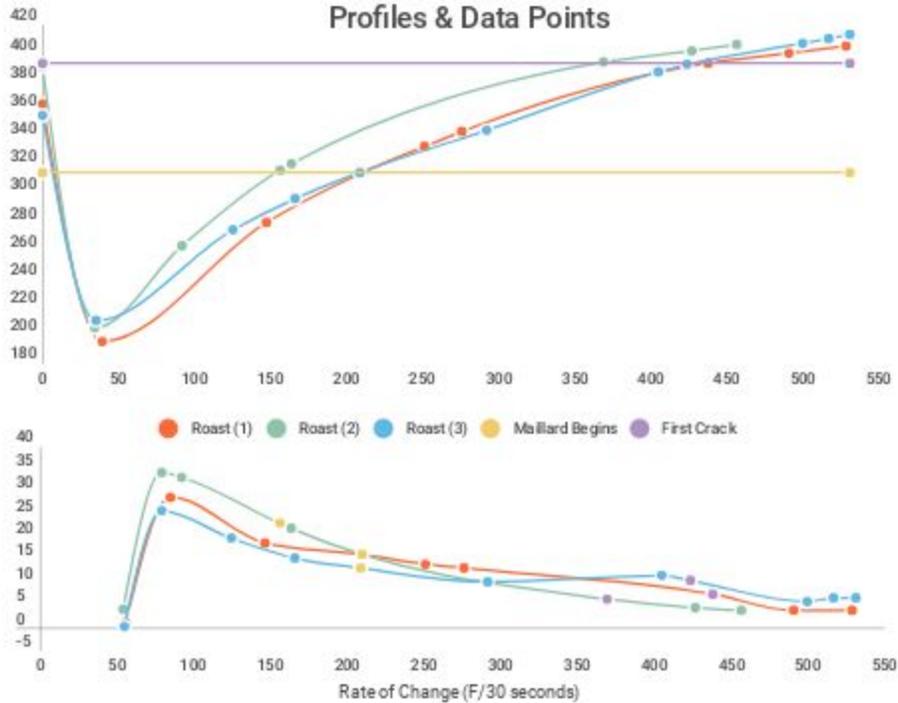


CJ1229 Nicaragua Pueblo Nuevo Donal Canales Raised Bed Crown Jewel

September 5th, 2018 | [See This Coffee Online Here](#)

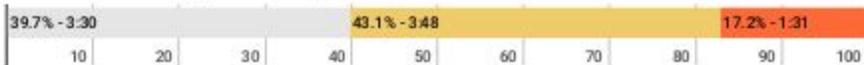
PROBATINO

Profiles & Data Points



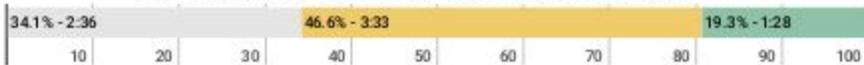
Roast (1)

First Crack 7:18 @ 392.7°F End of Roast 8:49 @ 404.9°F
 13.5% loss Colortrack: 60.2 whole bean sample/ 52.5 ground sample
 Tasting notes: raisin, almond, chocolate



Roast (2)

First Crack 6:09 @ 393.9°F End of Roast 7:37 @ 406.0°F
 13.5% loss Colortrack: 58.9 whole bean sample/ 52.7 ground sample
 Tasting notes: orange, apricot, chocolate cookie, vanilla, smooth



Roast (3)

First Crack 7:04 @ 392.1°F End of Roast 8:51 @ 413.0°F
 14.0% loss Colortrack: 59.1 whole bean sample/ 56.3 ground sample
 Tasting notes: cherry, orange, dark chocolate





CJ1229 Nicaragua Pueblo Nuevo Donal Canales Raised Bed Crown Jewel

September 5th, 2018 | [See This Coffee Online Here](#)

Quest M3s Analysis by Evan Gilman

For this roast (my inaugural roast using the new thermocouple setup) I used two thermocouples: the [TJ36-ICSS-18U-6-SB from Omega](#) for ET (Environmental Temperature) and an [a12031600ux0143 from Uxcell](#) for bean temperature (BT). I also broke out the [Yocto-Thermocouple](#), a small device that relays the information coming from the probes to a computer of your choice. In this case, I used a [Raspberry Pi 3 Model B](#) running [Raspbian Stretch](#). There are some excellent guides to set this system up, which I will detail in a later article!

The ET probe fits perfectly into the top left attachment point of the green bean chute. I removed the nut, and placed the probe most of the way in, but not completely flush. The BT probe screws right into the face of the roaster, directly below the trier.

While not entirely plug-and-play, I was able to get the system working. I placed the two leads in the appropriate ports on the Yocto-Thermocouple chip, opened up [VirtualHub](#) at the default 127.0.0.1:4444 address in my web browser, and was able to see that both of my probes were giving readings by opening up the API. If you want to see a visual representation of these readings, you can get [Yocto-Visualization](#), a free software that works with this setup. One minor point: you'll have to stop VirtualHub with the command 'sudo systemctl stop yvirtualhub.service' if you want to use Yocto-Visualization. Only one of these programs can run at a time.

On to the actual roasting of the coffee!

After speaking with Jen about this remarkably large Nicaraguan coffee and its propensity to develop slowly, I decided to use an average charge temperature and attempt to be a bit more aggressive with heat application.

I started with a 336F charge temperature as read by the ET probe, 9A power, and the back open to stymie airflow. My turning point was at 1:40/197.6F per the BT probe, and I closed the back of the roaster at 2:40/239F. I waited until 3:20/266F to engage the fan to 3. At 4:50/312.8F I decreased power to 7.5A, as I wanted to draw out the roast a bit longer. The gambit played out, and at 8:15/377.6F I knew I was finally approaching first crack, and increased my fan speed to 6. Crack happened loudly and decisively at 8:33/381.2F, and I allowed the coffee to develop for 1:07 until 9:40/388.4F.

These BT temperatures seemed fairly low in terms of many roasts I have performed - I usually achieve crack around 385F, but I know that this thermocouple isn't out of calibration! Though these numbers seemed out of the ordinary, they at least provided me with a base point from which to work through my other roasts. The readings from the ET probe were especially helpful, as I could see when temperatures were starting to pick up more delta near first crack, and was able to adjust my fan speed accordingly.

This coffee was fairly light in terms of internal development, just as Jen mentioned above, but tasted great on the cupping table. Don't worry too much about these numbers. While all my roasts were a bit lighter this week (and intentionally so, since I had more information to work with), the results were very



CJ1229 Nicaragua Pueblo Nuevo Donal Canales Raised Bed Crown Jewel

September 5th, 2018 | [See This Coffee Online Here](#)

pleasant. No nuttiness or dry flavors came through from this roast, and I'd be happy to drink this coffee with my breakfast day after day.

Brew Analysis by Sandra Loofbourow

Based on our cupping notes, I worried that Donal Canales' coffee might be a little one-dimensional when brewed. I was relieved to find that this was not the case at all; this Nicaragua is full of fruit sweetness and beautiful fruit sugars. I focused on Jen's second roast, which scored highest on the cupping table. Before making too many decisions I brewed a Chemex as part of fact finding mission - I wanted to know what this coffee had to offer as a pour over before making any decision on how to start dialing it in.

Using grind setting 9 on the EK 43, I brewed a 1:15 ratio Chemex using 150g pulse pours and (as always) stirring the bloom. This was on day 3 after roasting, so I let the bloom go for a full 45 seconds, allowing a little extra time to degass. I like to keep Chemex brews shorter than 5:00 minutes, which can sometimes be a challenge. This one came in at 4:20 with plenty of time to spare. The TDS read out at 1.39, just on the slightly higher end of extraction. In the cup we found notes of apple pie, peach, almond, and heath bar. It was a really lovely cup of coffee, meeting all necessary requirements to be considered "chuggable", and tasting even better than it had on the cupping table with a base note of brown sugar that brought balance and sweetness.

The next time I brewed this coffee it was now 5 days off roast, and I still wanted to know a little more about it. Pulling out the trusty V60, I brewed a 1:16 ratio cup with grind setting 8 on the EK 43. This presented lots of delicate caramelized sugars like date, wildflower honey, pecan, and vanilla, with some very mild notes of dried orange, apricot, and raspberry. The slightly drying finish and heavy flavors of sugar browning intimated that this Donal's coffee might benefit from slightly less extraction. I coarsened the EK 43 up a half notch to 8.5 and tried again. This time there were prevalent notes of plum, apricot, mandarin orange, and cranberry balanced out by rose water, vanilla, and butterscotch. With conscious dialing, this coffee from Pueblo Nuevo can be elegant and sweet, suited for most pour over methods and likely really delicious on espresso too.

Roast	Method	Grind (EK43)	Dose (g)	H2O (g)	Ratio	Preinfusion (g)	Preinfusion (s)	Time	TDS	Ext %
Probat (2)	Chemex	9	30	450	1:15	60	45	4:20	1.39	22.07
Probat (2)	V60	8	25	400	1:16	50	30	3:46	1.36	23.02
Probat (2)	V60	8.5	25	400	1:16	50	30	3:30	1.32	22.35