



CJ1279 - Tanzania Ngorongoro Vohora Family Carbonic Maceration Crown Jewel

May 15th, 2019 | [See This Coffee Online Here](#)



Intro by Chris Kornman

This is the third Crown Jewel we've released from the Vohora family farms, Edelweiss, Ascona, and Helgoland, but the first true microlot, and it's a fun one.

Let's start with the process: Carbonic maceration is a term lifted from the wine industry and it applies to the fermentation method. First, the coffee cherries are siphoned to remove low-density "floaters," then added to a large barrel filled with clean water. The barrel is sealed with a one-way valve for off-gassing:

the environment allows no new oxygen in (this is the "carbonic" environment). In traditional carbonic maceration in winemaking, grapes are fermented whole, without crushing. The technique yields fruity tasting wines that can be consumed soon after bottling. For the coffee, this unique fermentation environment limits the populations of microbes and demonstrably changes the fermentation type.

The "maceration" or "microbial digestion" - basically fermentation - occurs at different rates in the layers in the barrel. The coffee at the bottom of the barrel will be lightly crushed and undergo a more traditional fermentation, whereas the intact cherries closer to the top ferment more slowly, inside the skin of the coffee fruit. After 5-7 days in the barrel, the water becomes filled with fermenting enzymes and byproducts and begins to foam out the valve. This is the indication for Neel Vohora, the farm's manager, to end fermentation, pulping the fruit and sending it straight to the drying tables.

I met Neel in Chicago years ago before visiting the farms with him for the first time in 2014. Neel is a third-generation Tanzanian of Indian heritage, and his family has been in the Tanzanian coffee business since the end of the second World War. The family export business based in Arusha has more than 60 years experience in the country.

Since 1971, the Vohora's have owned about 1000 acres of farmland on the southern exterior slopes of the Ngorongoro caldera near the town of Karatu in Tanzania's lush rift valley. The farms possess Rainforest Alliance certificate, and the family and their 50+ full-time employees on the farm have done a remarkable job of upkeep and preservation of natural beauty while also running a thriving coffee business. They are diversifying into Macadamia, provide temporary housing for harvest labor, and even supply land on the farm for local smallholders to grow beans - a mutually beneficial crop as the legumes fix nitrogen in the soil, a critical step in a healthy cycle of crops.

Neel's sister Kavita runs the dry mill, roasterie, and export business from Arusha, a two-hour drive away from the farms. Their father, Ajai, lives in nearby Nairobi, Kenya, and is still very much involved in the business of exporting coffee as well, and has been instrumental in maintaining the relationship. Kavita is



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a licenced Q-grader, a meticulous cupper and quality agent, a lively companion for a glass of wine, and a mother. She keeps a small army of pets around the office, including terriers and ducks. Neel, an excellent cook and vivacious host, is also a knowledgeable farmer with a persistent drive to experiment, has staffed the estate with experienced management. He's also fond of dogs and has a beautiful and rambunctious Rhodesian Ridgeback that stays on the farm.

This Carbonic Maceration coffee is just great. Loaded with brown sugar, vanilla, and maple syrup sweetness and supported by a strong showing of ripe peach and white grape notes, the coffee is just a pleasure to drink, and likely one of the juiciest Tanzanias you'll try.

Grower:	The Vohora Family, Edelweiss/Ascona/Helgoland Estates.	Process:	Siphoned for floaters, then fermented in the whole cherry underwater for 5-7 days via carbonic maceration, then pulped and dried on raised beds.
Region:	Southern slopes of the Ngorongoro Caldera, Karatu District, Arusha Region, Tanzania,	Cultivar:	Batian, Blue Mountain Typica, Bourbon, Kent, SL-28
Altitude:	1600 - 1850 masl	Harvest:	July - December 2018

Green Analysis by Chris Kornman

Moderate to low moisture is an encouraging sign with this experimentally processed microlot - there's always risk even after completion that a fermentation trial could be foiled by poor drying. But that's not the case here, as we have an otherwise strong looking green coffee with surprisingly high density (perhaps aided by the siphon flotation) and above-average, albeit slightly wide screen size distribution.

The Vohoras are growing an interesting mix of coffee varieties on their farms. In addition to the heritage Bourbons and New World Typicas, they have planted SL28 (a drought-resistant selection made in Tanzania in 1931), Kenya's improved and backcrossed Batian hybrid (named for Mt. Kenya's highest peak and a prominent Masai leader), and lastly Kent, a Typica selection made in India — the first such selection made for rust resistance.

<u>Screen Size</u>	<u>Percent</u>	<u>Density</u>
>20	7.79%	0.690 g/mL (free settled)
19	22.32%	0.699 g/mL (Sinar)
18	28.82%	
17	17.08%	
16	13.31%	
15	6.52%	

Total Moisture Content
10.6% (Sinar)



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14	2.79%	Water Activity
≤13	1.37%	n/a (Rotronic)

Roast Analysis by Candice Madison

I think the word of the week was a resounding, 'Wow!'. [This coffee](#) is a truly beautiful example of both its origin, and its meticulous processing. It stood out on the arrivals table and didn't disappoint on the cupping table. As gorgeous as this coffee is to drink, it presented an interesting challenge to roast. It happily drank in all of the heat I put into the drum.

I kept the gas at a steady 2.5 until first crack, and in all honesty, I could have kept applying heat beyond that. First crack arrived at 392 F, as expected. It was lively and loud and, audibly, released what I was expecting to see reflected in the roast data, a lot of energy into the drum. However, as much energy was released into the drum at first crack, the amount of moisture released into the drum, was overwhelming. There was seemingly no exothermic portion to this coffee's first crack. So much so, that I regretted coming off the heat as early as I did. Surprisingly, even though I only took the heat down by half a notch, the result was a significant drop in the rate of change and a fear that I ruined the roast. Although the coffee had a full minute of development time, the roast ended 2 degrees below the initial temperature rise, post first crack.

Every roaster who has a roast seemingly go wrong, waits anxiously until they can cup their roast. Knowing what a delightful coffee this was made that wait all the more maddening. But as much as coffee can be a fickle beast, it can be an incredibly forgiving one. And so, the next day revealed cups filled with brown sugar, lemon and lime flavors - a tartness that was perfectly matched by the syrupy texture and taste of peach juice. There were notes of sweet, sweet apple sauce, blackberry, dried dates, malt, and bittersweet chocolate. I could add a lot more 'and's to this - the coffee only got better as it cooled! All I can say is, dive in, have fun, and sometimes, just when you think it's ruined, you'll have revealed a masterpiece in all its glory! After all, quality along the entire supply chain from farm to cup are vital ingredients, and I can only be grateful to receive the hard work done by producers such as the Vohora family, the roasting merely showcases this.

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.](#)



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This coffee was truly stunning on the cupping table. While I felt that my roast didn't go as planned, thankfully nobody noticed upon tasting the coffee.. In fact, maybe the coffee was pushing me around on this roast for a reason.

I noticed that this coffee took on heat very quickly. Immediately upon first crack (which occurred at 9:50), I dialed down the heat to 75% using the P4 button. I had to open the door after first crack because of the amount of smoke and cracking going on in the roaster - this coffee really wanted to rush through the roast! I allowed it to develop for 1:15, and cooled the coffee with the door open.

Honestly, this is just one of those flukes - everyone loved this roast. With bright berries, green banana, and tart, sugary notes, this coffee was a table favorite. I will keep this in mind when roasting Tanzanian coffees in the future, and especially ones like [this splendid lot from the Vohora family](#).

Brew Analysis by Alex Taylor

I was very excited to brew the two roasts of this coffee after tasting them on the cupping table. Evan's Behmor roast was super fruity and juicy, while Candice's roast came across as more clean with some deeper sweet notes as well. Both roasts surprised me with their brightness and acidity, especially compared to the other coffee from this farm that we had been serving as espresso. Such a fun example of how different two coffees from the same producers can taste! Anyway, on to the fun part:

I went with the Clever Dripper for these coffees, hoping that the hybrid immersion/infusion brewer would be able to pull out all the sweetness and deliciousness we had been tasting on the cupping table while still yielding a nice clean cup. I brewed the two roasts identically, dosing 20g of coffee, 250g of 200F brew water, and setting the dripper to drain at the 2:00 mark. After finishing the brew, I added a 25g bypass to bring the coffee back down to a ready-to-drink strength (the initial brews clocked in around 1.8 TDS, which dropped to about 1.5 after dilution). Both brews featured middle-of-the-road extractions, and both brews were delicious! Both cups presented lots of dark fruit (black cherry, plum, and dates) as well as plenty of developed sugars (pie, brown sugar, dark chocolate, caramel, and vanilla). In fact, this may have been the first coffee we've done brew analysis on that didn't get any negative tasting notes or even euphemisms for unpleasant tastes! We thoroughly enjoyed both of these brews, and I certainly wouldn't be upset if this coffee came to the menu at The Crown (hint hint, Chris)...

Roast	Method	Grind (EK43)	Dose (g)	H2O (g)	Ratio	Preinfusion (g)	Preinfusion (s)	Time	TDS	Ext %
Behmor	Clever	10.5	20	250 + 25 bypass	1:12.5	40	30	3:45	1.85	20.64
PR1673	Clever	10.5	20	250 + 25 bypass	1:12.5	40	30	3:39	1.77	19.73