





TRUE TO TASTE

*An Exploration of
Production Roast
Evaluation*

Story and photos by Anne Cooper

TRUE TO TASTE



ABOVE AND PRECEDING PAGE

Production roast evaluation cuppings.

WHETHER WE WORK AT SMALL, MIDSIZE or large-scale roasting companies, we all need to evaluate the success (or failure) of our production roasting in some form. How else will we know if the coffee we have roasted is as intended and the flavors of the end product are “true to taste”?

Members of the coffee industry often say that quantifying roast quality in general is a huge weakness in our industry, and I have to agree.

The historically low barrier to entry into coffee roasting brings with it a level of inconsistency in skills, technique and overall base understanding of the processes and procedures required for production roasting.

Also, to an extent, most roasters are self-taught (or were taught by another roaster who was likely self-taught) and, as a result, have developed their own methods. This also contributes to a lack of consistency and understanding of some key production roasting processes and procedures.

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Coffee roasting encompasses production and manufacturing, and as such, it needs to be considered more seriously. As a result of not being clearly defined and monitored, the roasting industry lacks strict procedures and unified documents for essential practices like production roast evaluation (PRE).

When I polled many roasters on the topic of PRE, it became clear that within the global coffee roasting community, roasters use varying techniques and documents to evaluate production roasts.

So, what should the coffee industry be considering to help roasters improve their PRE skills? What factors are involved, and how can we further improve PRE processes and procedures to ensure that we are all consistently evaluating our production coffees as being true to taste?

WHY DO WE NEED TO PERFORM PRODUCTION ROAST EVALUATIONS?

PRE is a critical activity for coffee roasting companies to promote consistency, reinforce roasting skills, gain product knowledge, and stay true to the intended flavors of the final roasted product. As roasters, we are in the business of flavor.

Regularly performing PRE is an ideal opportunity to continually improve roast profiles, as PRE is the ultimate connection between the roast profile and desired end flavor of a specific product.

Along with assessing intended flavors, PRE also helps to assess and uphold a brand or individual's roasting style or ethos. For example, a business owner not involved in the roasting process might have a "rogue roaster" who is doing their own thing, being influenced by current trends and ignoring specific brand flavor requirements; this sort of individuality can destroy a business.



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And if you are not the owner of the roasting business, you need clear guidance from management on how they want the coffees to taste so you can then use your roasting skill and knowledge to develop an appropriate roast profile that will deliver the specific product flavors to be reflected in the PRE.

Doing PRE also helps roasters to monitor, over time, the properties and flavor characteristics of the green beans they've purchased (which may be affected by roasting room and storage conditions), as more than ever we are in an era of experimental processing and unique flavors.

Additionally, PRE is beneficial for promoting better understanding of the roasting machine (its controls, burner, drum and probe types and more), as well as troubleshooting any roasting machine issues, such as general set-up and limitations in power and controls, which can cause tasting and roast defects from not being able to deliver the roast profile or "cooking strategy" you want to achieve.

PRE is also useful for building consistency in roasting teams. The process presents valuable opportunities to learn from other team members with different levels of experience, who calibrate and compare with each other. The team explores and learns how to properly evaluate what they are meant to be tasting and achieving in a product, brand and market with a specific roast profile and end flavor.

WHEN IS THE BEST TIME TO ASSESS?

Ideally, as part of a roasting company's standard quality control procedures, roasters should be doing their PRE before the final, roasted product reaches the customer.

When polling roasters on when the best time is to carry out PRE, the majority said the day after roasting. Others would also assess over a range of time (anywhere from 24 to 48 to 72 hours to 7 days after roasting), as the coffee rests and degasses.

But still there is no industry standard for when to perform PRE, possibly due to the wide range of experience, strong individual opinions and influences, and number of samples to be evaluated, as well as scheduling and managing business costs among the many different small and large-size roasting companies in our industry.

Not ever tasting or evaluating your roasts is poor practice but was surprisingly prevalent among roasters I polled. No roaster should be roasting coffee without taking the time to taste/evaluate their own coffee. Some roasters say they use customer feedback as their evaluation gauge—but waiting for customer feedback to roll in weeks after roasting the coffee is too late, especially if the feedback is not good.

When possible, tasting in-store with your customers (after you have done your own PRE) is good practice and a wonderful



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SAMPLE	AROMA	ACIDITY	BODY	SWEETNESS	FLAVOUR	AFTER TASTE	TRUE TO TASTE	COMMENT (&/or any ROAST DEFECTS)
1.	L M H	L M H	L M H	L M H	L M H	L M H	1 2 3	

FIGURE 1 | PRODUCTION ROAST EVALUATION

way to get to know your customers and build a good, trusted business relationship with them as well.

Often, roasters also claim that they are too busy or do not have enough time to do PRE.

If you are short on time, be more strategic and do your PRE during the pre-heat cycle of your roaster—this is a great time to be doing your tasting. I certainly understand and relate to the pressure for time, the need to multi-task and “get things done”—a sentiment that was strongly echoed by many roasters I polled. However, not supporting your PRE with a reliable sample

and data collection routine will affect your ability to make any good evaluations about your roasting.

Throughout your production day, you can also prep your samples to be tasted while roasting (that first 5 minutes of the roast is a great time to do this—social media and other distractions can wait!) or use other strategies, like having your packing team collect samples based on your instructions with the sampling code/number so that it matches your roast data, and you can keep multi-tasking and smashing out your production roasting.

While the timing of when to do PRE may vary between roasters



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Quality control processes in action.



based on their company's specific operating procedures, one should always head into a roasting session with an idea of what the coffee should (or will) taste like—as every roasting session is an opportunity to improve or fix a previous mistake.

How else will you know if your roast profile is on point and the end product flavors are true to taste?

KNOWING THE PURPOSE

The No. 1 rule of cupping, tasting or evaluating roasted coffee is to always know the purpose. Why are you evaluating this coffee—is

it for purchase or production?

If you are determining whether to buy a specific green coffee, then you are looking for characteristics inherent to the green, thus requiring a scoring scale relevant to a level of quality that reflects specific green characteristics.

But for production, in my experience, it is more about evaluating the intensity of a specific quality (in terms of low, medium or high) that contributes to an overall flavor expectation (see Figure 1 on page 79).

We can then assess whether those flavors have met product flavor expectations (are true to taste) on a scale of 1 to 3 (1 = not

FULL PAGE AD

Coffee Holding

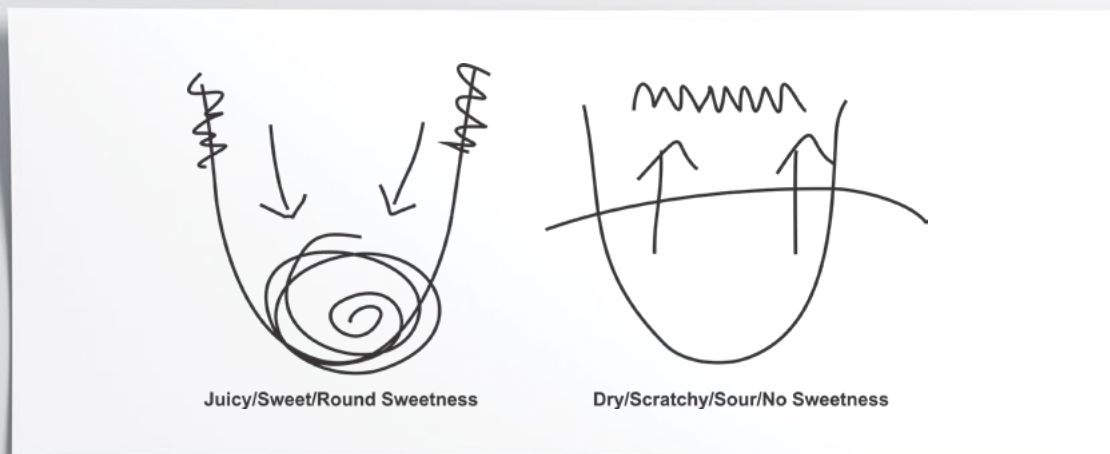


FIGURE 2 | FLAVOR TONGUE MAP

ideal; 2 = O.K.; 3 = ideal), because now we are also thinking about suitability for an intended brew method or recipe, such as filter or espresso.

So, with PRE, we are essentially assessing the success of our roast profile—how have we as roasters influenced the intensity of individual qualities and desired flavors with our roast profile?—regardless if it is a commercial or specialty grade coffee/product. Furthermore, we are now looking at the question of whether the coffee we are evaluating suits an intended brew method—as each brew method has its own specific roast profile approach suited to individual markets or palates.

This is where the “weakness” theory and PRE starts to get a little bit more layered and complicated. However, a clear quality control process will help to give better insight to your PRE, roast profile and everything else involved in creating your desired end flavors.

ESTABLISH A CLEAR QUALITY CONTROL PROCESS

Currently with PRE, there are many different quality control (QC) approaches and techniques being employed by roasters worldwide and traditionally always done in a cupping format. When doing

Q-grading or evaluating green coffee for purchase, there are strict QC industry guidelines to follow that could (and should) be the case for evaluating production roasts as well.

In my experience, and among polled roasters, a good QC process for PRE involves:

- **Evaluating a range of samples.** Always include a mix of random and targeted samples.
- **Managing the number of samples.** Evaluate no more than 12 samples per session so you can stay focused. For more samples, break them up into multiple, smaller tasting sessions. If there is a roast defect present in the sample, it will generally extend across the whole batch. If cupping a blend, set up at least two cups to make sure there is a representative amount of all coffees in the samples being evaluated.
- **Ensuring good table placement.** Products with a certain roast level can really influence and affect an evaluation. The ideal would be placing the samples from light to dark roast, or if basing your table placement on origin, start with more mellow origins like Brazil and finish with the more vibrant origins like Kenya.

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Practice tasting and describing different flavors.

- **Having correct brew ratios, grind size and water quality.** Follow the SCA cupping protocols. Coffee roasters can sometimes grind the coffee too finely or brew with an incorrect ratio, making it difficult to clearly judge and assign any out-of-spec tastes to a specific part of the roast profile.
- **Not only looking for defects.** Look for what is right so that when it does not meet expectations, you will know how to relate back to your data and roast profile to adjust/fix your approach.
- **Doing triangulations to compare samples.** If you do get stuck in an evaluation where something is slightly off-spec or didn't roast to profile, but you think it still tastes good, then do a triangulation with an in-spec roast and see if you can tell the difference.
- **Ensuring correct calibration of evaluation equipment.** If your sampling or handling technique is not consistent, a false reading

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can negatively influence a thought or decision about the suitability of a roast profile. This goes for lab equipment such as roast color analyzers, too.

- **Having a set of roast defects.** Obtain, and regularly update, your own collection of roast defect samples to help you compare and learn how to identify roast defects or other differences and their causes.

- **Knowing what a sample is.** This can help immensely when evaluating levels of intensity and targeted flavors. PRE does not always need to be a blind tasting or cupping to evaluate a sample effectively.

- **Having the right people involved in the QC process.** Involve team members who are familiar with your process and approach to roasting, and the intended flavor profile of the roasted product.

- **Evaluating at consistent times.** Make it a strict part of your roasting schedule to evaluate coffees the same number of hours or days after roasting each time.

- **Keeping it simple and organized.** Ensure that your QC process is clear and organized to make it as easy as possible to perform regularly.

- **Drawing a flavor tongue map.** Interpreting, describing and communicating what you're tasting is definitely the hardest part of production evaluation. I often advise those who don't want to do a production evaluation form because it feels too overwhelming and complicated to draw what they're tasting and focus on the finish—where do they want to taste flavors/finish/intensity on their tongue? This is a great way way to practice tasting and communicate flavors you like and don't like (see Figure 2 on page 82).

QRTR PAGE VERT AD

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● **Practicing tasting and describing specific flavors.** If you don't think you're good at tasting, then practice by tasting the actual ingredients you are wanting to express in your roasted flavors

so you can create a memory tongue map that will make it easier for you to recognize and describe specific flavors when you are evaluating and tasting your own coffees.

FIGURE 3 | DAILY ROAST LOG



DAILY ROAST LOG

DATE: 1/1/19

ROASTING MACHINE: George PL2

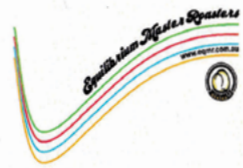
OPERATOR/S: OTC

ROASTING ROOM ENVIRONMENT - TEMP °C/HUMIDITY %

BEFORE PRE-HEAT: 14°C / 54% MID-MORNING: 20°C / 49%

AFTER PRE-HEAT: 16°C / 53% MIDDAY: 25°C / 45%

COFFEE	YELL. TIME	YELL. TEMP	YELL. TO 1C TIME	FIRST CRACK TIME	FIRST CRACK TEMP	TOTAL ROAST TIME	END ROAST TEMP	STRETCH TIME	STRETCH DEGREES	DEVELOP. RATIO %	GREEN KG IN	END WEIGHT	WEIGHT LOSS %
1. Rozer	5:35	164	3:51	9:26	202.6	12:10	216	2:44	13.4	28.4%	10	8.54	14.6%
2. El Sol	5:26	163	3:45	9:11	202	12:16	216	3:05	14	25.13%	10	8.47	15.3%
3. Nic	5:20	163	3:50	9:10	201	12:20	215	3:10	14	25.6%	10	8.48	15.2%
4. El Sol - Style	5:25	163	3:50	9:15	202	11:56	212	2:42	10	28.3%	10	8.5	14.5%
5. Kampa - F	4:45	162	3:40	8:25	199	10:05	205	1:40	6	16.5%	A	3.46	13.5%
6. Nat. Col. - F	5:05	163	4:00	9:05	203	10:20	208	1:15	5	12%	A	3.48	13%
7.													
8.													
9.													
10.													



Ethiopia - 10% / 73.4 kg/hL
 Guatemala - 10.1% / 70 kg/hL - Chris
 Costa Rica - 11% / 71.8 kg/hL - Patrice
 Colombia - 11.3% / 72 kg/hL - Matt

DAILY ROAST LOG

DATE: 1/2/20

ROASTING MACHINE: Robot PL2

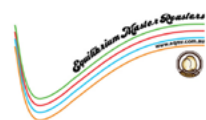
OPERATOR/S: Roasting Course

ROASTING ROOM ENVIRONMENT: TEMP °C/HUMIDITY %

BEFORE PRE-HEAT: 25°C / 54% MID-MORNING 9am: ✓

AFTER PRE-HEAT: 27°C / 51% MIDDAY 12pm: ✓

NAME	YELLOW TIME TEMP	YELL. TO 1C TIME	FIRST CRACK TIME	FIRST CRACK TEMP	TOTAL ROAST TIME	END ROAST TEMP	STRETCH DEGREES	STRETCH TIME	DEVELOP. RATIO %	GREEN KG IN	ROAST KG OUT	WEIGHT LOSS %	WB	GND	DELTA SPREAD
1. Anne-E	5:05/163	4:37	9:42	204.2	12:21	214.2	10	2:34	21.5	4	3.45	14.6%	58.1	67.9	9.8
2. Anne-F	4:51/164	3:41	8:32	204	10:49	216.5	18.5	2:17	21.1	4	3.45	14.3%	60.3	70.1	9.8
3. Matt	5:11/164.7	4:06	9:11	204.3	11:49	213.7	9.4	2:32	22.2	4	3.41	14.75%	59.6	70.4	10.8
4. Patrick	4:56/165.9	4:19	9:15	206.3	11:48	218.2	11.9	2:33	21.6	4	3.4	15.0%	58.5	65.2	6.7
5. Chris	5:44/115	3:47	8:36	205.5	10:52	216.2	12.8	2:16	20.9	4	3.41	14.1%	57.9	68.2	10.3
6. Patrick (F)	4:46/164.5	4:10	8:56	203.9	10:29	209.9	1.33	1:48	14.8	4	3.45	13.62%	66.1	80.7	14.6
7. Matt-2C	5:05-164.5	3:16	7:21	205.4	12:32	229.5	24.1	4:12	33.5	4	3.3	17.5%	44.9	45.2	0.3



MASTER EVALUATION - TRUE TO TASTE - PRODUCTION ROAST EVALUATION

Intensity Scale:	Quality Scale:
L – Low	1 – Not Ideal
M – Medium	2 – Ok/Passable
H – High	3 – Ideal

SAMPLE	AROMA	ACIDITY	BODY	SWEETNESS	FLAVOUR	AFTER TASTE	TRUE TO TASTE	COMMENT
								Specific Flavour Notes (&/or any Roast Defects)
1. Brazil, Yeast Fermentation – Espresso: Milk	L M H 3	L M H 3	L M H 3	L M H 3	L M H 3	L M H 3	1 2 3	Smooth, Milk Chocolate, Syrupy Body, Big Sweetness, Low Acidity
2. El Salvador, La Aradona – Espresso: Milk	L M H 3	L M H 3	L M H 3	L M H 3	L M H 3	L M H 3	1 2 3	Milk Chocolate, Big Body, Brown Sugar Sweetness, Hazelnut, Toffee,
3. Nicaragua, Segovia – Espresso: Milk	L M H 3	L M H 3	L M H 3	L M H 3	L M H 3	L M H 3	1 2 3	Caramel, Toffee-Praline, Brown Sugar Sweetness, Hint of Ripe Mandarin
4. El Salvador, La Aradona – Espresso: SOE	L M H 3	L M H 3	L M H 3	L M H 3	L M H 3	L M H 3	1 2 3	Hazelnut, Toffee, Cherry-Like Acidity, Sweet, Good Body
5. Kenya Gatuya – Filter	L M H 3	L M H 3	L M H 3	L M H 3	L M H 3	L M H 3	1 2 3	Cherry, Red Currant, Crisp Green Apple Acidity & Toffee-Like Sweetness
6. Colombia Natural, Pink Bourbon – Filter	L M H 3	L M H 3	L M H 3	L M H 3	L M H 3	L M H 3	1 2 3	Pink Champagne, Sparkling Acidity, Rose, Raspberry, Guava,
7.	L M H	L M H	L M H	L M H	L M H	L M H	1 2 3	
8.	L M H	L M H	L M H	L M H	L M H	L M H	1 2 3	

FIGURE 4 | MASTER PRODUCTION EVALUATION SENSORY FORM

There are great tools out there to help with practicing flavor identification, but nothing beats the real thing—especially from a cultural palate perspective, as you quickly learn that tasting a strawberry in Australia (quite acidic) is very different from tasting a strawberry in Korea (incredibly lush and sweet), and this does have an effect on perceived cultural palate flavor descriptors in coffee.

Some roasters do go over the top with their QC process and get a case of analysis paralysis by evaluating far too many cups at once. This technique can hinder your ability to make good decisions about your roasting, as you'll be greatly fatigued from the large number of samples. You won't have enough time to evaluate properly and provide appropriate feedback or comparison among team members, thus defeating the purpose of the cupping/tasting in the first place. Cupping and tasting should not be done simply for the sake of tasting, but rather with a purpose to evaluate

and learn from your roasting successes and mistakes.

Another QC issue to highlight is determining the best method of brewing/extraction for PRE. Should production roasts be evaluated using the intended brew method, such as espresso, rather than in the cupping format?

Many roasters are comfortable enough to QC their production roasts as espresso the day after roasting and determine whether it is on track or not. This may challenge the theories around freshness for espresso extraction that exist in our industry, but if a roaster is consistent with this evaluation technique and can successfully move on to their next roast session confident that everything is as it should be, then they are achieving the main goals of their PRE.

So, a good, clear QC process is essential to the success of your PRE, but it also needs support from your roast data.

DATA IS KNOWLEDGE, KNOWLEDGE IS POWER

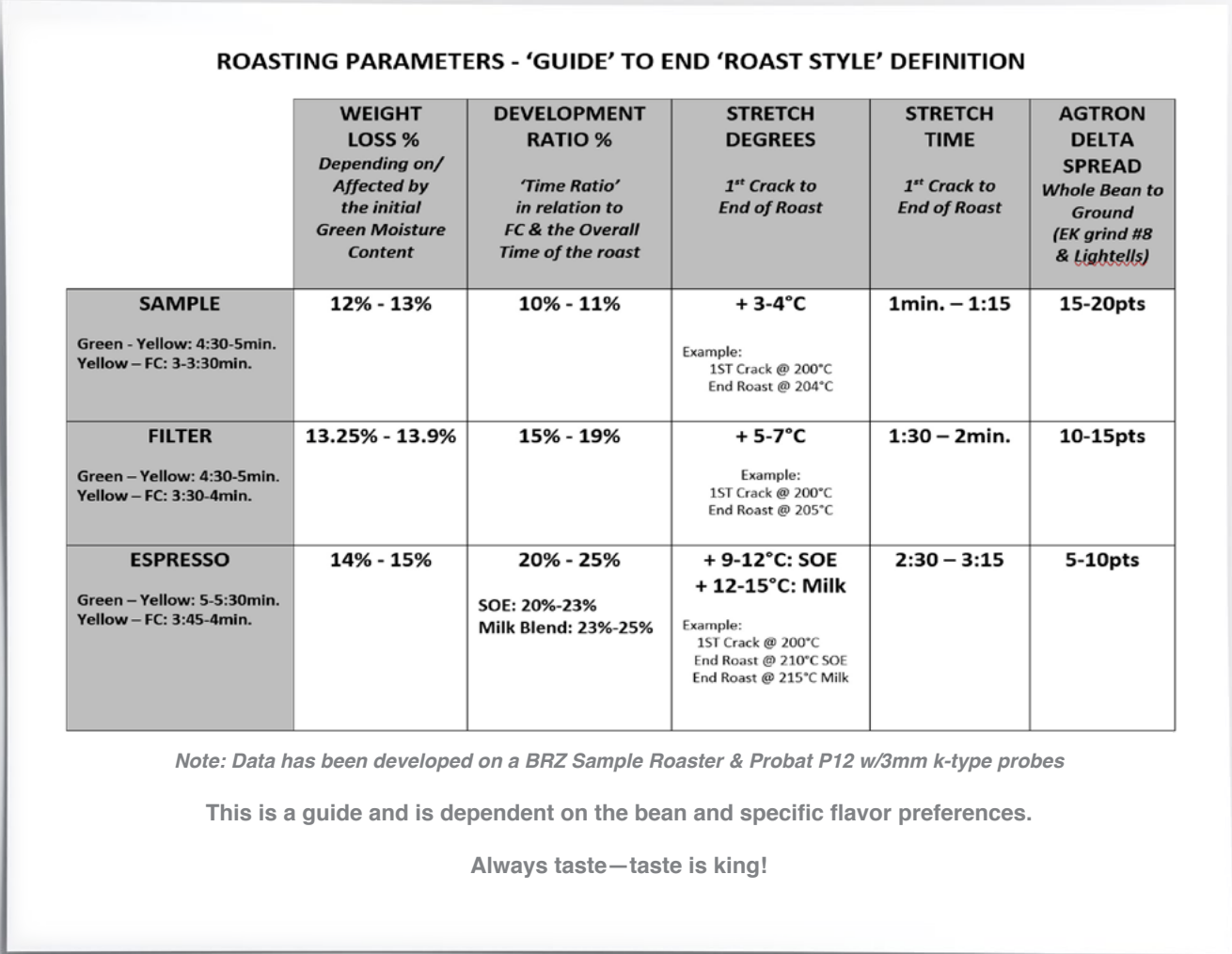
Data collection is an area of weakness for some roasters, who can fall victim to the “I’m too busy” excuse. On the other hand, it can also be overdone to the point that the wrong kind of data is being collected, which then bears no value in terms of being able to use it to make good roasting evaluations/decisions.

In my experience, whenever I am tasting or evaluating my production roasts, I always have these key data documents

available for reference during PRE discussions on the success or failure of a roast profile (and I encourage others to do so):

- **Daily Roast Log** | Keep a record of the day’s roasting session, including key roast profile events/checkpoints, roasting room conditions and, if applicable, color measurements as well (see Figure 3 on page 86). Even when using computer profile programs for recording roast curve data, it is important to collect this information on a separate roast log sheet (regardless if you’re

FIGURE 5 | PARAMETERS CHART



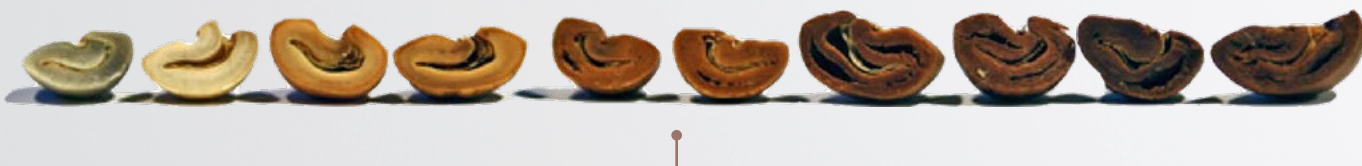


FIGURE 6 | COLOR CHANGE THROUGHOUT THE ROAST

doing four or 40 roasts) to help understand the results of the tasting. In addition, some roasters also like to input data in a spreadsheet on their computers. (There are many different roasting software apps, one of which I am an ambassador for,

but I also want to consider those roasters who don't have access to using these apps and offer some basic, practical solutions to key roast data collection that will support their PRE.)

FIGURE 7 | PRODUCTION CUPPING FORM

DATE: _____ CUPPER: _____ ROAST DATE: _____

SAMPLE	AROMA	ACIDITY	BODY	SWEETNESS	FLAVOUR	AFTER TASTE	TRUE TO TASTE	COMMENT (&/or any ROAST DEFECTS)
1.	L M H	L M H	L M H	L M H	L M H	L M H	1 2 3	
2.	L M H	L M H	L M H	L M H	L M H	L M H	1 2 3	
3.	L M H	L M H	L M H	L M H	L M H	L M H	1 2 3	
4.	L M H	L M H	L M H	L M H	L M H	L M H	1 2 3	
5.	L M H	L M H	L M H	L M H	L M H	L M H	1 2 3	
6.	L M H	L M H	L M H	L M H	L M H	L M H	1 2 3	
7.	L M H	L M H	L M H	L M H	L M H	L M H	1 2 3	
8.	L M H	L M H	L M H	L M H	L M H	L M H	1 2 3	
9.	L M H	L M H	L M H	L M H	L M H	L M H	1 2 3	
10.	L M H	L M H	L M H	L M H	L M H	L M H	1 2 3	
11.	L M H	L M H	L M H	L M H	L M H	L M H	1 2 3	
12.	L M H	L M H	L M H	L M H	L M H	L M H	1 2 3	

Fragrance/ Aroma

Berry Chocolate Vanilla

Floral Spicy Hidy

Fruity Earthy Musty

Caramel Nutty Leather

Malty Lemon Carbon

Grapefruit Pepper

Butter Toast Smoke

Flavour

Sweet Woody

Sour Flat

Salt Greenish

Delicate Fruity

Rich Balanced

Intense Exotic

Pungent Chocolate

Musty Spicy Past Crop

Aftertaste

Short Clean

Dry Sweet

Bitter Floral

Sour Fruit

Harsh Lingering

Dirty Resonant

Acidity

Delicate Vibrant

Mild Grassy

Nippy Hard

Piquant Acid

Sweet Soft

Tangy Sour

Tart Winey

Lemon Grapefruit

Mouth Feel

Buttery Dry

Creamy Chalky

Smooth Gritty

Rich Rough

Velvety Astringent

Watery Metallic

Oily

Intensity Scale:

L – Low

M – Medium

H – High

Quality Scale:

1 – Not Ideal

2 – Ok/Passable

3 – Ideal

SAMPLE	AROMA	ACIDITY	BODY	SWEETNESS	FLAVOUR	AFTER TASTE	TRUE TO TASTE	COMMENT
1. Brazil Yeast Fermentation - Espresso - MILK	L M H 3	L M H 3	L M H 3	L M H 3	L M H 3	L M H 3	1 2 3	Good body, milk chocolate, smooth, sweet, no acidity, rounded
2. Colombia Natural Pink Bourbon - FILTER	L M H 2	L M H 2	L M H 2	L M H 2	L M H 2	L M H 2	1 2 3	Confirmation of profile running too hot & overall flavors not as balanced as usual

FIGURE 8 | EVALUATION FORM EXAMPLE

- **Master Production Evaluation Sensory Form** | Use this form as a benchmark reference guide of the expected sensory attributes of a sample, and to compare and determine whether PRE assessments are within the desired flavor specifications (see Figure 4 on page 87).
- **Parameters Chart** | Key roasting data to support sensory, specific to a roasting machine’s probes, defining an end roasting style/flavor for a product suited to a particular brew method (see Figure 5 on page 88).

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THIRD PAGE

VERTICAL AD

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Sample No. 1
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Roast Level of Sample 1

Fragrance/Aroma 7.25
Dry 10
Wet 10
Break 10
Aftertaste 10
Intensity 10
High 10
Low 10

Flavor 7.75
Milk chocolate, vanilla, hazelnut
low - good

Acidity 5.5
Intensity 10
High 10
Low 10

Body 5.5
Level 10
Heavy 10
Thin 10

Uniformity 10
Balance 10
Sweetness 10
Defects (subtract)
Taint - 2
Fault - 4
of cups 10
Intensity 10

Clean Cup 10
Overall 7.25
Final Score 84

Notes: Medium, chocolaty

FIGURE 9 | SCA CUPPING FORM (NOT IDEAL FOR PRODUCTION ROASTING EVALUATION)

It is essential to keep some form of daily roast log with a record of key milestones and checkpoints achieved throughout the roast. In my production roasting, I always record the timing of physical changes—from green to yellow, yellow to first crack, and first

crack to end—because this is the key to consistency in the roast profile and end flavors. (For more on this, see “Can You Taste the Roasting System?” in *Roast*’s May/June 2019 issue.) Some may say it is “old school” to follow the color/physical change of the beans

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or that it doesn't matter—don't let them convince you of this. Color change, or more specifically the *timing* of color/physical changes and milestone events throughout the roast, is imperative to consistently creating specific flavors (see Figure 6 on page 89).

Specific products will then each have their own desired timing for these milestones, as well as parameters for defining the overall end roasting style. I specifically developed a parameters chart through my own extensive roasting and training experience to help support roasters, and show them how to finish their roasts for a particular product in line with their specific machines' probes, because knowing and deciding how to finish a roast is one of the most terrifying and daunting parts of learning how to roast!

If you have these documents next to you when evaluating your production roasts and identify a product's flavor as being "out of spec" in comparison to the benchmark Master PRE, you'll be able to confirm this by checking the roast profile data on the daily roast log against your unique, desired product parameters chart, see where it's not quite right, and then know how to fix or adjust your roast profile accordingly. It's a great feedback loop and can make doing PRE much easier.

HOW BEST TO COMMUNICATE

Finally, alongside the clear QC process and supporting data documents, we need to be able to consistently communicate and record our PRE in an appropriate format. Communication is the last piece in the "weakness theory" puzzle because PRE requires a more specific production evaluation form, which our industry doesn't seem to have—yet.

A PRE form I created for myself (and others) to use is focused on being able to properly record and communicate levels of intensity of a particular quality (as low, medium or high) and then decide whether those levels assessed are true to taste for the specific product flavors, on a scale of 1 to 3 (1 = not ideal; 2 = O.K.; 3 = ideal). This format can be used for different brew methods as well (see Figure 7 on page 89).

Figure 8 (page 90) is an example of an evaluation form where the Brazil is in spec and the Colombia is not quite in spec but, because the supporting roast and product data is available for reference and comparison, we can determine how to start fixing the roast profile for the Colombia and get it back into spec.

The majority of roasters I polled do generate their own PRE forms, which confirms the need for a more consistent, industry-wide PRE document. Many other roasters simply make general notes on a blank piece of paper, noting what they like and don't like without any supporting documentation, which clearly doesn't help them to benchmark, progress or adjust their roasting accordingly.

But a lot of roasters still make the mistake of using the wrong form of assessment for evaluating their production roasts. Unfortunately, that means using the SCA arabica quality/purchasing evaluation/cupping form (see Figure 9 on page 91). In PRE, this form can really send a roaster on the wrong path because its evaluation structure of generating a "quality score" doesn't match or reflect the purposes of evaluating and focusing on the "intensity" required in production roasting.

I can understand that roasters—especially those who are new to the industry—want to find something with a base of consistency to use for their production evaluations (which is possibly how the use of the SCA form gained traction), but does it really allow us as roasters to see how to connect to our roast profile and identify anything that needs fixing? Unfortunately, the answer is no.

Hence, this is where a major weakness lies in PRE.

I also believe that misusing the SCA form for PRE is contributing to the degradation of the true value and purpose of the Q/SCA 80-point specialty coffee evaluation cupping form. Thus, I appeal to roasters to stop using this evaluation form for their production roast evaluations.

There are fabulous cupping apps out there, but I have chosen not to delve into these as not everyone uses them or likes using them. Using these apps is not currently an industry standard, although perhaps it could or should be. Even though they are still score-

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based, some cupping apps are certainly leading the way by adapting the PRE documents that roasters have created for themselves into an easy format to help them carry out their PRE more consistently and efficiently.

All this being said, though, one can understand why many have commented that quantifying roast quality in general is considered a weakness in our industry.

Coffee is essentially loved by everyone, and everyone has a strong opinion about how it should taste, and how it is best roasted and evaluated across different brewing methods and cultural markets.

A first solution could be as simple as replacing “balance” with “true to taste” as the more clearly defined end purpose in our production evaluations. In fact, true to taste must become a universal part of our PRE vocabulary, as it brings with it so much clarity, consistency and confirmation of a decision on what an end product flavor should be, and it clearly captures the essence of what PRE is all about—we either nailed our roast profile and intended flavors, or we didn’t.

And regularly doing production roast evaluations with supporting data, a clear QC process and a purposeful PRE form will always ensure success in your roasting and an end product flavor that is always true to taste.

The reality is, due to the range of roasting companies (commercial and specialty) in our industry, we’re not all operating in a “protocol evaluation world” as much as we would like to. So, as an industry, we need to find some consistent ways to help satisfy this variation in companies and PRE techniques—just how, and through whom, remains the conundrum.

Overall, as roasters, we are in the business of flavor, and we need to know what we have done to influence end flavors, how we did it and how to fix it if needed. And a unified, standard, purposeful, overall-industry-accepted production roast evaluation document will definitely help to set our dynamic industry on the right track.



ANNE COOPER is an Australian roaster who has gained extensive experience in her 25 years in the coffee industry. A former member of the Roasters Guild Executive Council and Education Committee, Anne now works with her training and consulting company, Equilibrium Master Roasters. There, she continues to inspire flame keepers and develop her extensive roasting skills and knowledge while working on a wide range of roasting machines with small- and large-scale roasting companies, employing various roasting processes and techniques.