

The background of the slide is a light gray gradient, decorated with numerous realistic water droplets of various sizes. Some droplets are large and prominent, while others are small and subtle, scattered across the top and bottom edges.

GRINDING FROZEN BEANS FOR ESPRESSO

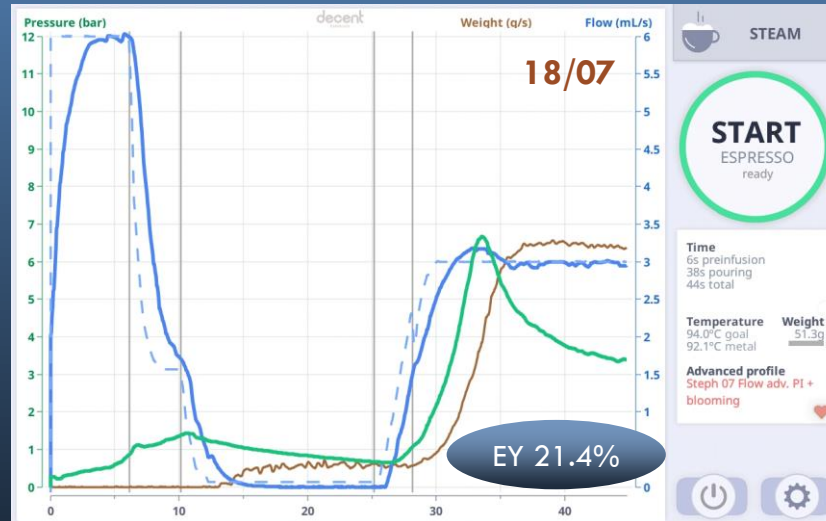
MORE CONSISTENT EXTRACTIONS – MORE RESISTANCE TO WATER FLOW
FREEZING X WEEKS POST ROAST GIVES THE BEST TASTE RESULTS!

STÉPHANE RIBES – JULY 2019

GRINDING FROZEN BEANS FOR ESPRESSO

MORE CONSISTENT EXTRACTIONS

Frozen 07/07 (6 days post roast)

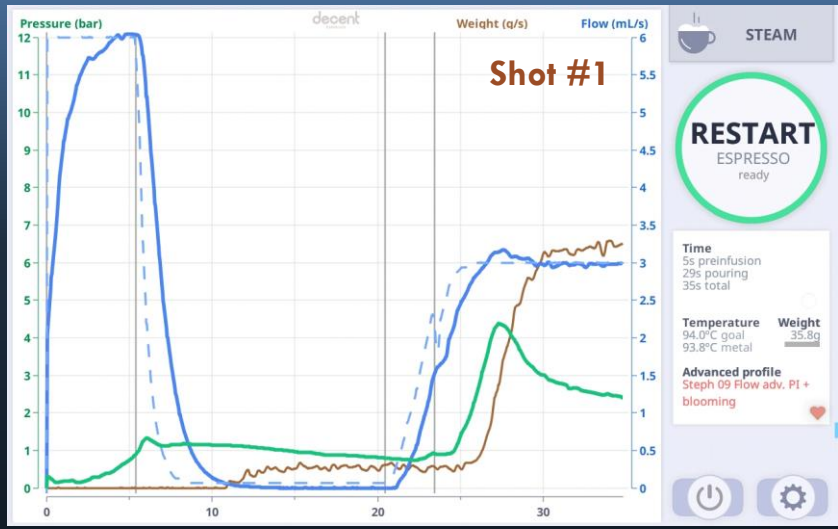


- Same grind setting, extraction parameters and workflow every day (1 single shot/day with these parameters)
 - Friedhats Coffee Roasters – Kochere Boji (natural Yirgacheffe) – Roasting 01/07 (filter roast) – Frozen 07/07 – 18.5g dose in a 22g VST basket
 - Limited variations in extraction pressure and extraction yield
- lower need for dialing in once a tasty recipe has been established!

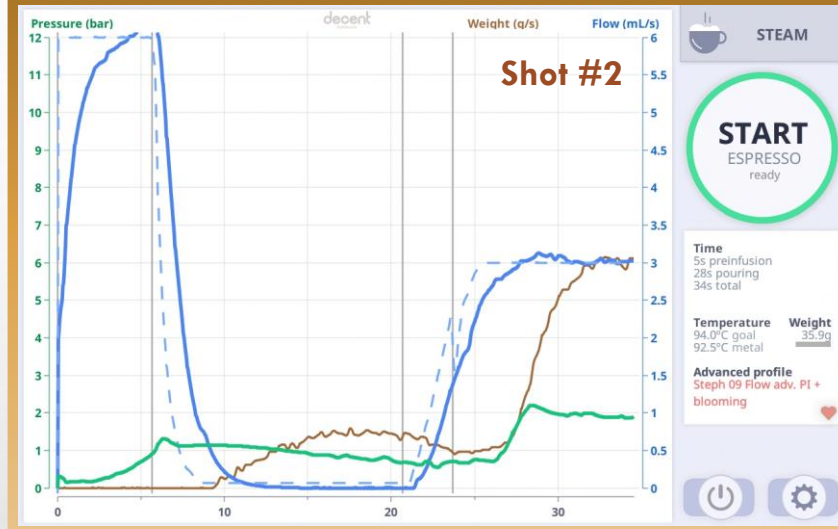
GRINDING FROZEN BEANS FOR ESPRESSO

MORE RESISTANCE TO WATER FLOW

Frozen 22/07 (6 days post roast)



No freezing



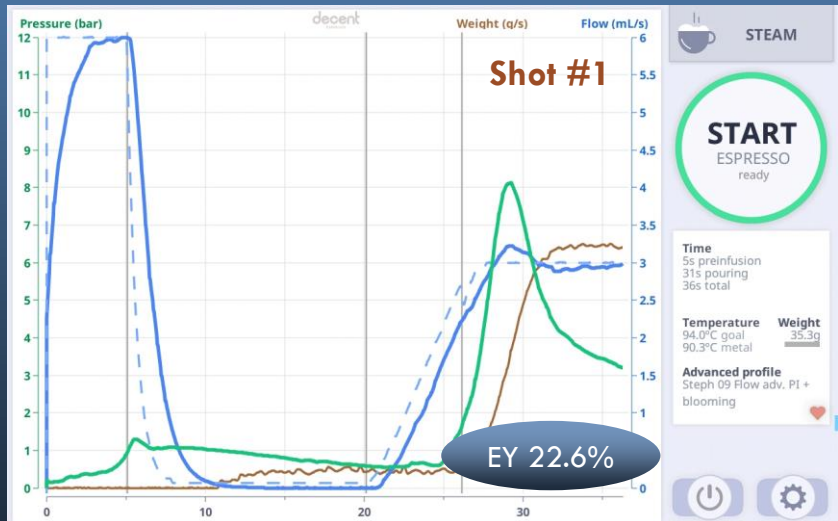
- 2 shots performed in a row (27/07) with unchanged settings
- Terres de Café – Chania Estate French Mission (natural Kenyan) – Roasting 16/07 (filter roast) – 14g dose in a 15g VST basket
- With frozen beans a coarser grind is sufficient to reach a given extraction pressure

→ limitations of some grinders will arise later (e.g. poor grind quality when very fine grind is used)

GRINDING FROZEN BEANS FOR ESPRESSO

IMPACT OF THE RESTING TIME BEFORE FREEZING (1 / 2)

Frozen 22/07 (6 days post roast)



Frozen 28/07 (+12 days)

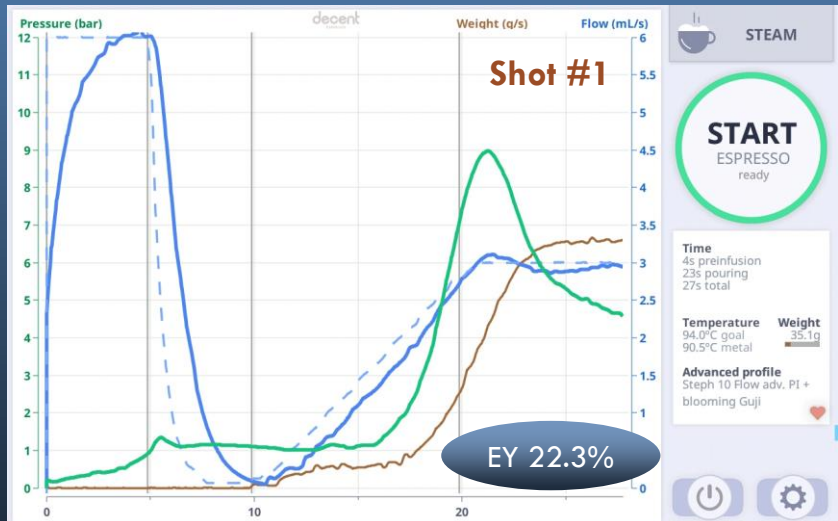


- 4 shots performed in a row (29/07) with unchanged settings
- Terres de Café – Chania Estate French Mission (natural Kenyan) – Roasting 16/07 (filter roast) – 14g dose in a 15g VST basket
- Lower extraction pressure peak with 6 additional resting days after roasting
- Higher extraction yield
- More (pleasant) acidity

GRINDING FROZEN BEANS FOR ESPRESSO

IMPACT OF THE RESTING TIME BEFORE FREEZING (2/2)

Frozen 22/07 (7 days post roast)



Frozen 28/07 (+13 days)



- 4 shots performed in a row (30/07) with unchanged settings
- Terres de Café – Guji Highland Bio (natural Ethiopian) – Roasting 15/07 (filter roast) – 14.5g dose in a 15g VST basket
- Slightly lower extraction pressure peak with 6 additional resting days after roasting
- Slightly higher extraction yield
- More tasty, sweeter shots

GRINDING FROZEN BEANS FOR ESPRESSO

DETAILED TEST PROCEDURE

- **Decent Espresso Machine DE1PRO v1.1** with **IMS SI 200 IM** shower screen
- Mahlkönig EK43 S grinder
- Montille water (Le Mont Dore, France) – **adjusted to SCAA with sodium carbonate and Epsom salts**
- Beans were ground in a double wall stainless steel cup
- WDT in the cup with a mini whisk
- 55 mm diameter Camlab paper filter below the coffee grinds – no preliminary wetting of the filter
- WDT in the basket with a mini whisk – gentle raking of the puck surface with the hog – no taps
- **Hog tool 0.8 mm diameter spikes (“thin” Hog) in and out of the puck (with hog stand to ensure a straight vertical movement)**
- Manual tamp with a 58.6 mm diameter tamper
- TDS measurements: Atago PAL zeroed with SCAA water – no additional filtering of the coffee samples – all samples measured at room temperature after thorough agitation – 1 data point = average of 3 or 4 measurements of each coffee sample

