



Thomas Hammer Coffee Roasters

Brewing Standards

Guidelines for espresso and batch brewing to ensure proper extraction and flavor.

The Three Most Important Variables in All Coffee Brewing

- Water (Temperature and Quality)
- Ratio of Coffee to Water
- Grind Size

Water

- Water used for brewing must be between 200 - 205 degrees Fahrenheit.
- Water must be clean and filtered, but must still retain some trace minerals and hardness. (Reverse osmosis water is too pure for coffee brewing, filtered tap water is fine.)

Ratio of Coffee to Water

- The ideal ratio of coffee to water is 55 grams of whole bean coffee (1.94 oz by weight) for every 1 liter of water used for brewing, + - 5 grams (0.18 oz by weight).
- This is easier to apply to batch brewing; we will talk about espresso extraction and ratios on page 2.

Grind Size

- The coffee should be ground to a size that yields the correct brewing time for the brewing method being used. Eg: Batch Brewing - 4-6 minutes, Espresso - 25-30 seconds. These time windows give us the correct contact time between coffee and water to extract as much flavor from the coffee as possible.

Batch Brewing

These standards must be met to ensure proper extraction

- Temperature of brewing water must be between 200 – 205 degrees Fahrenheit.
- The amount of coffee used to brew a batch must fall into the ideal ratio noted on page 1 under “Ratio of Coffee to Water”.
- The entire brew cycle must fall within the 4 – 6 minute brew time window. Adjust your grind size to ensure this. Start at a “medium” grind size, and adjust from there.
- If your brew cycle takes longer than 6 minutes, make your grind coarser in small adjustments until it is within the 4 – 6 minute window. If your brew cycle takes less than 4 minutes, make your grind finer in small adjustments until it is within the 4 – 6 minute window.
- The finished coffee should be full in flavor and body, not watery, astringent, sour or bitter.
- Batch brewed coffee must be dumped and replaced every 90 minutes.

Espresso

These standards must be met to ensure proper extraction

- Temperature of brewing water must be between 200 – 205 degrees Fahrenheit.
- For a double shot of espresso (Doppio), you must use 18 grams (0.63 oz by weight) for a 2 fl oz yield of espresso. 18 grams in, 2 fl oz out.
- The entire brew cycle must fall within the 25 – 30 second brew time window. Adjust your grind size to ensure this. Start at a “fine” grind size, and adjust from there.
- If your brew cycle takes longer than 30 seconds, make your grind coarser in small adjustments until it is within the 25 – 30 second window. If your brew cycle takes less than 25 seconds, make your grind finer in small adjustments until it is within the 25 – 30 second window.
- The finished espresso shot should be full in flavor and body with a nice crema, not watery, astringent, sour or bitter. Color should be a nice amber color, not straw yellow or deep red.
- Espresso shots must be used immediately after brewing.