





Homogenization protocol for Dry Corn Kernel using Bullet Blender

Materials:

Samples: 250 mg of crushed dry corn kernel (Smash the samples with a hammer prior to weighing)

Bead lysis kit: 5 mL Eppendorf Lysis Kit (SKU: NAVY5E20 or NAVE5E100)

Buffer volume: 2 mL of buffer

Method - Homogenization:

- 1. Determine the sample size, buffer (depends on the downstream application), buffer volume and the bead lysis kit. *Note:* Choose the correct <u>lysis kit</u> for optimal homogenization.
- 2. Cut the sample and place into the buffer-filled tubes (Figure 1).
- 3. Close the tubes tightly and place into the Bullet Blender. **Note:** Confirm the compatibility of the <u>contact</u> <u>plate</u> with the tubes (RINO/EPPENDORF) used.
- 4. Set the speed and time on the Bullet Blender (Table 1). Press "Start", and wait for the run to complete.

Bullet Blender Model	Settings
BB5E-Pro	Speed 12; Time 5

- 5. Remove the tubes and visually inspect the samples to confirm complete homogenization (Figure 2). **Note:** Foaming in the sample tubes may be observed after homogenization.
- 6. If homogenization is satisfactory, proceed with the downstream steps.

Figure 1: Pre-homogenization



Figure 2: Post-homogenization



Homogenization verification

