Protocol for Soybean Homogenization in the Bullet Blender®

The protocol described in this document is for the use of the Bullet Blender® for the homogenization of soybean (seeds from *Glycine max*). Note that the time and speed settings may differ due to the variation in consistency/texture of different subspecies. This protocol does not specify a particular buffer - you may choose which is most appropriate for your downstream application (nucleic acid isolation, protein extraction, etc.). **This protocol will not work with dried beans.**
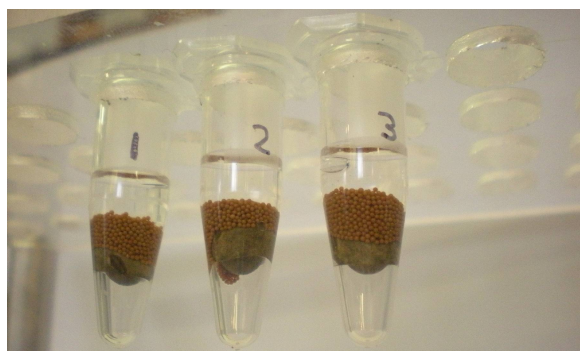
Materials Required: soybean, saline, Bullet Blender®, homogenization buffer, pipetor, microcentrifuge tubes, 0.5mm zirconium oxide beads (part number ZrOB05)
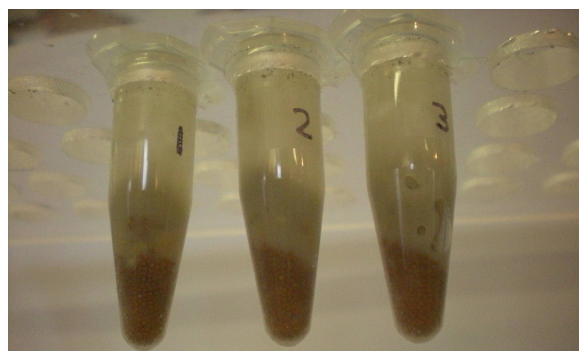
Instructions

1. Place one soybean (100-200mg) into a microcentrifuge tube.
2. Add a volume of beads equal to the mass of sample.
3. Before adding buffer, close the tubes and place them into the Bullet Blender®.
4. Set controls for **SPEED 10** and **TIME 4** minutes. Press **Start**.
5. Remove the tubes from the Bullet Blender and inspect the samples. At this time, the Beans should be pulverized into very small pieces. If any large pieces remain, repeat step 4.
6. Remove the tubes from the Bullet Blender and add 2 volumes of buffer for every volume of sample.
7. Close the microcentrifuge tubes and place them into the Bullet Blender.®
8. Set controls for **SPEED 10** and **TIME 2** minutes. Press **Start**.
9. After the run, remove tubes from the instrument and proceed with your downstream application.

SAFETY NOTE!!!

When using a centrifuge to separate your homogenate from the debris and beads, make sure your tubes are balanced.

before

after