



## Soybean stems (fresh)

- Extract molecules (DNA, RNA, protein, chemicals)
- Wet final product
- Sample sizes: 100 to 750 mg.

**Notes on the protocol:** 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.).

### Materials Required

One of these Bullet Blenders

- **Bullet Blender 5E** (BBY5E)
- **Bullet Blender 5 Gold** (BB5E-AU)

Reagents

#### Homogenization buffer

2 x volume of sample

Bead choices

- **5.6 mm stainless steel UFO beads** (SSUFO56) use 6 beads

### Procedure

1. Select a 3-4 cm. long section of stem. Cross-cut into pieces approx. 1 cm. long
2. Place the sample in the tube with the beads.
3. Add a volume of buffer that is twice the volume of the sample. Sample volume may be approximated by sample weight. E.g., for a 100 mg. sample, add 0.2 ml. buffer.
4. Close the tubes tightly and place them in the Bullet Blender.
5. Set the controls for Speed 12 and Time 5. Press Start.
6. After the machine completes the first 5 minutes run, press the start button again to repeat the step.
7. After the run, remove the tubes from the instrument and visually inspect the samples. If homogenization is incomplete, homogenize for another 5 minutes.
8. Proceed with your downstream application.