Oak (mature leaves)

- Extract molecules (DNA, RNA, protein, chemicals)
- Wet final product
- Sample sizes: 100 to 3500 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 50-DX** (BB50-DX)
- **Bullet Blender 50 Gold** (BB50-AU)

Reagents

Homogenization buffer
    2 x volume of sample

Bead choices

- **4.8 mm stainless steel beads** (SSB48) Use a volume of beads equivalent to 1 x the volume of the sample

Procedure
1. Slice the leaves perpendicular to the main stem into strips approx. 1/8 inch wide. Total mass of the plant material should be 1 g. or less.
2. Place the sample in the tube with the beads.
3. Close the tubes tightly and place them in the Bullet Blender.
4. Set the controls for Speed 12 and Time 9. Press Start.
5. After the run, remove the tubes from the instrument and add 5 ml. buffer. Shake the tubes vigorously for 5 seconds.
6. Return the tubes to the Bullet Blender.
7. Set the controls for Speed 12 and Time 6. Press Start.
8. Proceed with your downstream application.