Training Manual for the Bullet Blender[®]





Revision 16B17

Introduction

This manual will guide you through using the Bullet Blender for the first time.

For this training session, we will use a leaf from a houseplant or tree.





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Step 1: Choose Sample



Houseplant leaves like philodendron or spider plant



Tree leaves like

beech or maple



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Step 2 – Prepare sample







Take a piece of leaf that is as long as a microcentrifuge tube, and half as wide. Slice it into strips.

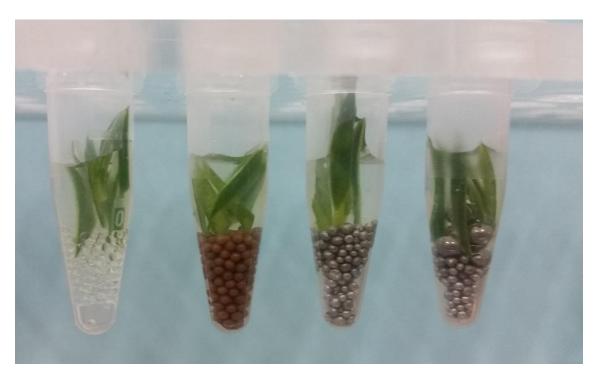


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Step 3 – Load tubes

200 µl of beads or a Red or Navy kit + 500 µl water You can use different kinds of beads to see how bead choice affects homogenization



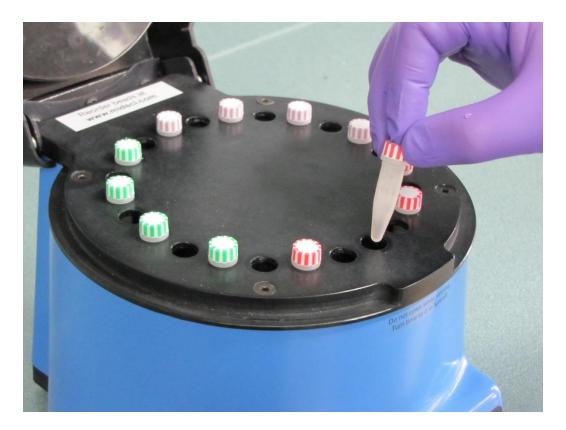




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Step 4 – Load Bullet Blender





Tubes do not have to "balance" but even spacing helps

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Step 5 – Run Bullet Blender





Set time, speed and press "Start" For this session, set time to 3, speed to 10

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Step 6 – Remove tubes

Fully homogenized

Incomplete homogenization

Remove your tubes from the Bullet Blender and confirm the samples are homogenized. There should be no pieces visible.



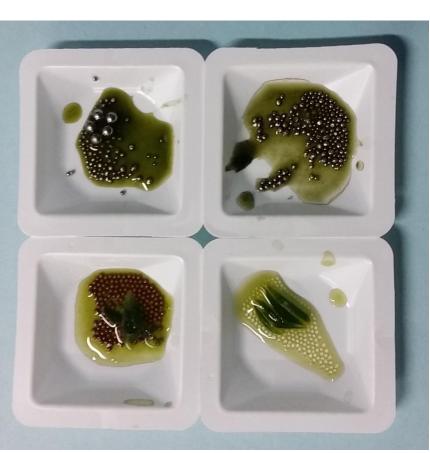
NEXT ADVANCE

Effect of Different Beads

Navy kit

ZrOB10 beads





SSB14B beads

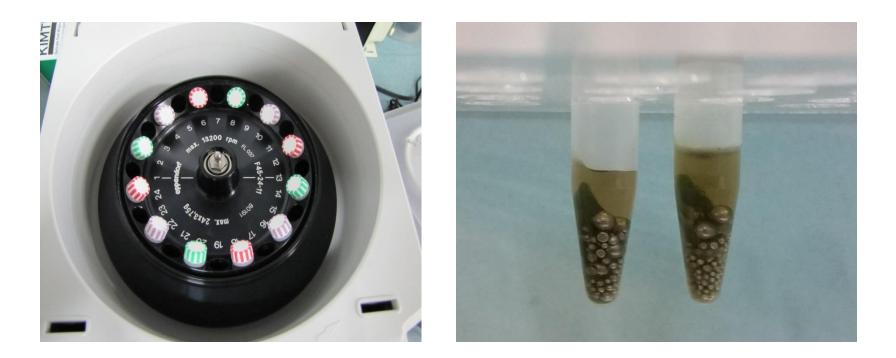
GB10 beads

All samples run 3 minutes speed 10



NEXT ADVANCE

Step 7 – Centrifuge samples (optional)



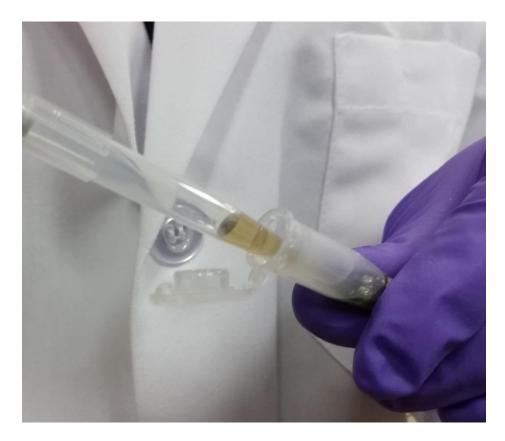


Typical centrifuge settings are 12,000 x g for 8 minutes to clarify homogenate Insoluble material like cellulose will sink

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Step 8 – Remove homogenate



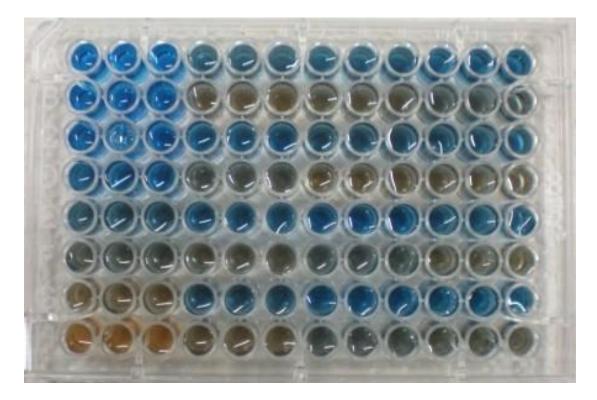


Homogenate can be removed with a pipette and placed in a new tube.



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Step 9 – Use sample in your assay







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