The Wiley Mill Grinders are located in room B0530 Agronomy Hall. They are Agronomy Departmental grinders. There are various screen sizes (0.5, 1, and 2 mm). **These grinders are only available for plant material, no grain or soils**!

# Methods & Requirements for using the grinding room

1. Please bring your samples into the room during the time of use – Do not store your samples in the room!
   1. All samples need to be **dried completely** in the farm dryers or another dryer.
   2. If the samples have been sitting for a long period of time, they need to be **re-dried** to prevent moisture problems in the grinders.
   3. Moisture causes a build-up in the grinders, hot/overheated grinders, and constant shut downs.
2. Required protective gear: **eye and ear protection, work gloves, and a dust mask** (Optional – lab coat)
   1. **No ear-buds/music allowed in the grinding room unless they are approved safety ear protection!**
3. Use the air-flow table when grinding – the switch is located on the side of the unit (green button).
   1. Please remember to turn the air-flow table off when finished (red button).
4. Make sure the grinders and room are clean before beginning – let me know if they are not!
5. **Sample prep** – do not insert whole plant material into the grinders!!
   1. Samples should be shredded, cut apart, sectioned prior to grinding for proper grinding and safety purposes.
   2. Hand cut stalks/stems, break apart cobs (no grain allowed), or if available to group – wood chip prior to grinding.
6. **Turn the grinder on when ready to grind** and then begin feeding your sample through – Do not add the sample and then turn the grinder on!
   1. Feed samples slowly and in small handfuls!
   2. Feed too quickly with too much sample will most likely jam the equipment and cause it to shut down unexpectedly. This is not good on the equipment.
7. How to prevent material dropping into the downdraft table.
   1. Use a container (wash tubs provided in the room) to hold your material next to the grinder.
      1. This also ensures that you don’t have any unnecessary debris in your samples prior to grinding, i.e., rocks.
8. Grinder features
   1. New grinders: Safety switch – grinder does not turn on if door is not properly closed and tightened.
      1. Long entry point to the grinder
         1. Use the lid, the wooden tool, or the sliding door to close the grinder to prevent material being thrown out.
   2. Old grinder: red toggle switch safety cover – use this to turn on and off. Grinder will turn on even if not properly tightened.
      1. Shorter entry point to the grinder
         1. Use the lid or the wooden tool to prevent material from being thrown out.
9. Use shop vacuum and air hose to clean grinders in between samples
10. **Grinder room clean-up** – It is important for the next use!
    1. When finished for the day the entire grinder room needs to be cleaned!
       1. Grinders need to be completely clean inside and closed (lid always on top to keep inside of grinder clean)
       2. All table space needs to be cleaned – including beside grinders and any visible counter space that may accumulate dust/material.
       3. Floors need to be swept: broom, dust pan, and vacuum are all available in the room
          1. Use the hand broom and dust pan to gather the majority off the floor. Large particles will clog the vacuum hose. Use the vacuum to catch the leftover dust at the end.
11. If there are any problems with the grinders, please contact Dani Clark (Office: 1577 or Email: [dwilson@iastate.edu](mailto:dwilson@iastate.edu)) and report it immediately!
12. **Trash should be removed when the trash cans are full!** The garbage needs to be taken to the loading dock dumpster. Extra black garbage bags are available in the room.

# Rules

1. **Only certified users can use the mills. All users must be trained by Dani Clark.**
2. Following proper training, access to the room will be granted via key card.
3. **Please sign-up on the Agronomy Shared Lab** website for usage of each mills (available online).
   1. You must sign up on a daily basis for each mill.
   2. **If you sign up to use the grinder for ‘X’ number of hours, you will be charged for ‘X’ number of hours unless you update Dani for accounting purposes and availability to others to use.**
4. **Worktag and Departmental Detail #’s** must be provided prior to the start of any grinding project. FY2021: $3.00/hour/grinder

FY2022: $6.00/hour/grinder

# User Agreement

I \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_­­­\_\_\_\_\_\_\_\_ (print name) have been certified to use the Wiley Mill Grinders in room B0530. I agree that I have been trained to use these grinders to the standard expected by the Agronomy Department. I also agree to report any grinder problems, misuse observed, or problems from the previous user.

In the event of an accident, please report to Dani Clark. Contact information also located outside of room B530. However, all accidents should be reported to your supervisor and any accident reports filled out through your research group.

If you have any questions or comments while you are grinding, please contact Dani Clark!!

Grinder User: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_­­­­\_\_\_ (Sign) Date: ­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

User Supervisor: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Sign) Date: ­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Dani Clark: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Sign) Date: ­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_