PROCEDURE FOR FLUSHING & EVACUATING VIALS (adapted from USDA Parkin Lab protocol)

1. Make sure Helium tank is on. Three-way switch should be in off position.

2. Remove needle guards from needles to be used (replace needles if necessary-Dani replaces often).

a. Check to make sure needles aren't plugged (1/day).

b. After one cycle check pressure to ensure no loose caps or leaky septa.

3. Put vials on the needles.

4. Plug in air pump. Flip up all the switches above the needles.

5. Turn switch to vacuum (left). This will evacuate the vials. The gauge will show a negative pressure. Complete evacuation will be in approximately 15-20 seconds.

6. Then turn switch to point Helium (right). This will flush the vials with Helium gas. The gauge will rise and show a positive pressure. This will take approximately 15-20 seconds. Then switch it back to the left to evacuate.

7. Evacuate and fill until the vials have been evacuated 5 times. On the final evacuation, use the timer and evacuate for a full one minute.

8. Then, after the time is up, flip all the switches down. The main switch should still be pointed to the left to evacuate. Remove all vials and put on next set.

9. Then repeat steps 4 thru 8 for subsequent sets.

10. After the last set is done and removed from the needles, turn main switch to off, turn off pump and cap all needles.