**Software Release: U-TREAT v2.0.0**

## SEED FLOW CALIBRATION

1. Use the cup, funnel, funnel stand and scale that are supplied with the MPX2500 Automated seed treater to find the cup weight for the seed you are to be treating.
2. Always make sure you put the cup on the stand and **zero out the weight of the cup** before getting the seed weight.
3. While plugging the bottom of the funnel with your hand, fill it with the desired seed. Then remove your hand and let it fill the cup. **(Always use the funnel for getting weight. Scooping the seed by hand will give you inconsistent weights.)**
4. Strike off the excess seed with a flat edge so that it is even with the top of the cup.
5. Weigh the seed on the provided scale. **Ensure the scale is on a level and smooth surface.**
6. On the main screen of the treater, press the "CUP WEIGHT" button and enter in the weight of the seed.
7. To complete the seed flow calibration, you must now enter the rate of seed (lbs/min) that you would like to treat at. Press the "UTILITIES" button on the treater main screen and then select the button on the top left of the utilities screen titled "TARGET TREATING RATE". Enter your desired treating rate and then hit enter.
8. You have now completed your MPX2500 Automated seed flow calibration.

## PUMP CALIBRATION

1. Lock down the pump tubing in the pump head.

2. Premix enough liquid for the amount of seed you are treating and pour into the Pump Stand mix tank. It is always a good practice to mix an extra half gallon of slurry to help fill all the lines.

3. On the automated mix tank control panel, place the mix tank motor to the ON position. This will ensure that the chemical mixture within the mix tank is blended appropriately.

4. From the MAIN screen, select the chemical name box from the desired pump module and a selection window appears. Choose the type of chemical you will be applying. Press the TARGET RATE box below the chemical name on the main screen and you will be taken to the EDIT CHEMICAL NAME screen. Select the RATE box next to the applicable chemical name and use the keypad to enter the value. Select the red X twice to return to the main screen to verify the changes.

5. You have now calibrated your chemical pumps.

- **With the MPX2500 Automated treaters the flow of the seed and chemical pump speed is automatically calibrated and adjusted throughout the day to ensure accurate rates and eliminate over or under application of chemicals.**

- **You may also adjust your rate of seed while the machine is running and the system will automatically recalibrate itself to adjust to match the new chemical flow rate needs during the run.**



*Select Target Rate Box*     *Select chemical name here*
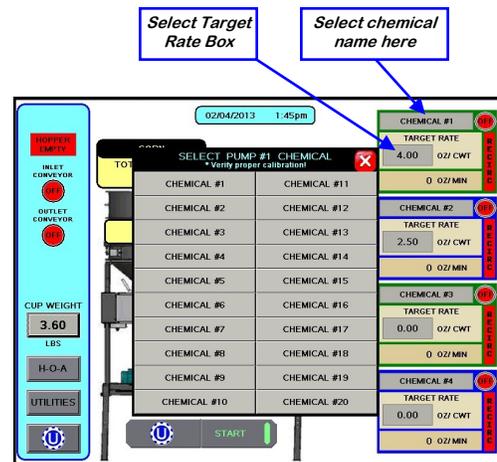
## TREATING SEED

1. Under the H-O-A Screen, place the DRUM, ATOMIZER, SEED WHEEL, INLET CONVEYOR, OUTLET CONVEYOR and desired pumps in AUTO.
2. Next, prime the chemical line to the atomizer. Press and hold the PRIME TO ATOMIZER button. The atomizer will turn on and liquid will begin pumping up to the atomizer. When liquid reaches the atomizer release the PRIME TO ATOMIZER button.
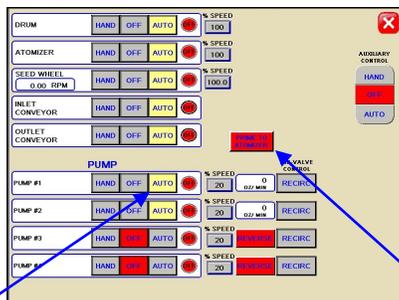


*Auto Buttons*     (**Continued on Back**)     *Prime to Atomizer Button*

## PROXIMITY SWITCH ADJUSTMENT GUIDE

The proximity switches mounted in the extension ring and in the seed wheel on the seed treater detect when seed is present. The extension ring sensor is used to shut off the inlet conveyor when the surge hopper is full. The seed wheel sensors are used to automatically shut off the pump when all seed has left the hopper. Sometimes the sensitivity of these switches needs to be adjusted. Below are instructions on how to adjust the sensitivity of these switches when not working properly.

Using the small screw driver shipped inside the main control panel, you can adjust the proximity switch by turning the adjusting screw.

- Turn Clockwise for more sensitive.
- Turn Counterclockwise for less sensitive.



*Sensitivity Adjustment Screw*

3. Return to the main screen and press the START button. The Customer Information screen appears (right). Either select the customer name from the listing or use the keypad to enter it along with the seed information. Press START to begin the run. The drum, atomizer, inlet conveyor and outlet conveyor will activate. The pump will turn on and re-circulate until it reaches the desired flow rate needed to match the target treating rate that was entered. The inlet conveyor will then begin dumping seed into the seed wheel.

4. When the pumps flow rate has been reached, the air actuated 3-way valve will open and allow liquid to pump up to the atomizer. Simultaneously, the seed wheel will turn on and the seed treating process will begin. **(There must be at least 100 - 110 PSI supplied to the air actuated valve.)**

5. You will notice that the HOPPER EMPTY indicator light will disappear when the proximity switches in the seed wheel are covered. When the hopper is full the HOPPER FULL indicator light will come on and the inlet conveyor will shut off.

6. As the seed is being treated the main screen will display the pounds per minute, total pounds and the liquid flow rate. If the system needs to be stopped for a moment because of a problem the PAUSE button can be pressed to halt the process. When ready to begin again, press the CONTINUE button.

7. When all seed has passed through the seed wheel it will turn off and the pump will switch to re-circulate. When more seed is fed into the treater, the treating process will continue.

8. After all the seed has been treated the SHUTDOWN button can be pressed. A window will appear indicating the system is shutting down and a timer shows how many more seconds until completion (right).

9. After the SHUTDOWN button has been pressed a dialog box will appear (right), notifying the operator that the data from the run is being saved. PLEASE WAIT...SAVING DATA.

10. Once the data has been saved the operator will be brought to a reports screen (bottom left). If a printer is plugged into the USB port on the side of the control panel, the PRINT button can be pressed to print the data for the customer's records.

11. The report can also be downloaded to a Compact Flash device inserted into the same USB port. Insert a compact flash device into the USB port. The flash device must be in fat 32 format. Press the X in the top right corner of the screen to return to the UTILITIES screen. Select the Tools & Options then SEND REPORTS TO USB. Select YES from the confirmation screen to complete the transfer. Refer to the Downloading Reports section of the Operators manual for the further instructions to for converting the report file into EXCEL on your computer.