

The pamphlet instructions were created by Dr. Jay Neal from the Univ. Houston. This is guide to build your own salad washer/spinner. We took on the challenge of building a model because a) having a good way to dry off salad greens and lettuce after washing is crucial for improving shelf life and b) building your own is cheaper than buying the commercial model.

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We tried building this unit as part of the post-harvest food safety workshop effort. There were a few problems with our interpretation of the instructions, sizes of several of the pvc pieces, and availability of a couple of the small hardware fasteners. I also decided that instead of going all the way and build the washer aspect of this design, I was only going to focus on the spinner aspect.

After completion, I didn't like the way the spinner operated. It didn't spin easily enough and the 5 gallon bucket purchased came with a lid that was very hard to put on and take off.

We shared the design with one of our small farms in the area, R & M Bischooping Farm in Williamson, NY. Robin and her husband Mathias said they would take a crack at building it. They were successful but Mathias said he made revisions to the instructions that he thought would make this apparatus easier to build and easier to operate. Below are his comments and pictures of the unit.

I decided to take a little different approach and make the bucket completely removable. I used the 1/2" x 3" clevis pin to support the bottom of the bucket (the bolt hole is located high enough to allow the bucket to remain level). This will allow the bucket to be removed to pour out the clean produce and to sit flat on a bench to be refilled. Since the bucket is now removable, the support is not needed.

For the handle bushings, I filed down the centers of the 1.5" to 1" adapters to allow the 3/4" elbow to fit inside. I also purchased a 3/4" repair coupling and sanded the outside of the 1/2" coupler to fit snugly inside it. This completely eliminates the need for the 1/2" PVC and allows the handle to be removed from the bushings for cleaning (when the lid is unscrewed).

Other changes:

-Use a 5/16 x 2-3/4 locking pin and a 1.5" repair coupling to attach the handle assembly. This seemed to make it a little more sturdy and simple to construct than what was in the instructions.

-Use another locking pin and a single hole to hold the bucket in the upright position. This eliminates the need to cut complicated tee slots in rotation piece.

-Replace the bottom 4" PVC sections with 7" sections. This will make the base symmetrical, fixes an OCD issue that both Robin and I had.

-The unused 4" PVC sections can then be used in place of the 1.5" sections to raise the rotation piece a little more. This will allow the rotation arms to be horizontal when the bucket is submerged.

-A cap was added to the top of the rear bucket support to help keep water out.

-The bucket hole spacing was reduced from 22.5 degrees to 15 degrees. The allowed almost 90 additional holes.

The attached pictures show more detail of the changes I made and of the completed washer. It isn't glued at this point, so we haven't tried it out yet. We hope to finish that in the next couple days. If you would like Robin may be able to bring it out for demonstration after it's glued. Please let us know what you think.



Here is the handle assembly in pieces and then put together.



Here is bucket holding arm and bracketing. The bucket mounted onto the brackets and to the stand.



The bucket with holes drilled in.



The finished unit with the holes drilled the bucket to allow water drainage. The idea is to have basins on either side of the unit. Add greens to the bucket. Pulling a pin from the lower frame allows for the bucket to swing into the basin where it would be spun in the water+ sanitizer as a wash. Then the bucket mechanism would be raised and then lowered into the second basing and spun for a rinse. Pulling the mechanism upright and relocked with a pin, the bucket could then be spun to dry the greens.