



## How To: On-farm Handwashing Station

Designed by Todd Eittreim



Worker hygiene is an important factor to ensure that there are less avenues for the spread of disease on your farm. Handwashing is a simple and effective way to increase worker hygiene. The On-Farm Handwashing Station has the potential to increase farm safety in a cost effective way. When coupled with single use hand towels, antimicrobial hand soap and a trash receptacle, this on-farm handwashing station can aid in preventing the spread of disease.

## Brief Overview

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Shopping List

Tools Required

Time Required

Step One: Drill hole into plastic bucket

Step Two: Thread tape the hose bibb

Step Three: Secure hose bib into PVC bushing

Step Four: Cement the adapter to the bushing and hose bibb.

Step Five: Assemble the handwashing station

Step Six: Fill the bucket with water and test it out!

Detailed Shopping List

## Shopping List

See last page for detailed shopping list

- 5 gallon plastic bucket
- Lid for 5 gallon plastic bucket
- ½” Hose bibb, threaded
- 1” x ½” Schedule 40 PVC Bushing (Spigot x Thread)
- 1” Schedule 40 PVC Adapter (Slip x Thread)
- PTFE Thread Seal Tape
- 1” Rigid Steel Locknut
- 1-3/4” O.D. x 1-3/8” I.D. Sink Strainer Washer
- 1-1/4” Drill bit
- PVC Cement
- Towel

## Tools Required

- Drill

## Time Required

Shopping Time = 1 hour + drive time

Assembly time = 45 minutes

## Step One: Drill hole into plastic bucket

Place bit into drill and tighten into place. Mark a hole on your bucket 1- ½” from the bottom (See Figure 1). Align the center of the drill with the hole (See Figure 2). When drilling the hole, allow the drill bit to be spinning before applying pressure to make the cut. This ensures that the bit will not bounce off of the plastic bucket - which may result in uneven or extra holes.



Figure 1 Align the center of the drill bit on your mark the bucket.



Figure 2 Make a mark 1-1/2" above the bottom of the bucket.

## Step Two: Thread tape the hose bibb

Make sure your hose bibb is clean and free of any debris. Using your thread tape, wrap the male threads of the hose bibb. Make sure only the threads are wrapped by beginning at the second thread. Holding the hose bibb in one hand and the thread tape in the other, use one finger to hold the tape into place and wrap the male threads of the hose bibb several times, working towards the end of the threads (See Figure 3). Thread tape allows for a more waterproof connection to be made.



Figure 3 Wrap the male threads of the hose bibb.



Figure 4 Male threads of a hose bibb taped.

### Step Three: Secure hose bib into PVC bushing

Because PVC cement is used to connect the PVC bushing to the adapter, the threads of the bushing are at a risk of becoming blocked - making it difficult to secure the hose bibb. To avoid this issue, we will screw the taped male threads into the PVC bushing prior to cementing the adapter on. Simply twist the hose bib into the bushing. Some resistance will be met due to the thread tape, but twist past this.



*Figure 5 The bushing and the taped hose bibb.*



*Figure 6 The hose bibb screwed into the PVC bushing.*

## Step Four: Cement the adapter to the bushing and hose bibb.

Liberally apply PVC cement to the smooth outside of the bushing (See Figure 7) and the smooth inside of the adapter (See Figure 8). The brush is connected to the top of the can. The PVC cement in these photos is blue, but it can come in a variety of colors. Once the cement is applied slip the bushing into the adapter and press together until tight (See Figure 9). Wipe away the excess cement (See Figure 10) and allow the piece to settle for several minutes before moving forward (see Figure 11).



*Figure 7 Apply cement to inside adapter*



*Figure 8 Apply cement to outside bushing*



*Figure 9 Wipe excess of cement away*



*Figure 10 Insert bushing into adapter*



*Figure 11 Allow PVC to dry*

## Step Five: Assemble the handwashing station

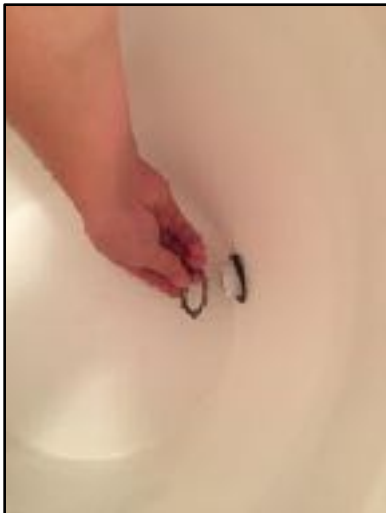
Recollect all supplies. Screw the PVC and hose bib into the hole of the 5-gallon bucket (See Figure 12). On the inside of the bucket, slip the black rubber sink strainer washer over the male threads of the PVC adapter (See Figure 13). The strainer will add another level of waterproofing to the station. Next, screw on the metal washer to hold the black rubber washer in place (See Figure 14).



*Figure 12 Screw the bibb and PVC into bucket inside of bucket.*



*Figure 13 Place black rubber washer on threads*



*Figure 14 Secure the rubber washer into place with the metal washer*

## Step Six: Fill the bucket with water and test it out!

Make sure there are no leaks in your bucket. Fill it with water and turn the handle to try it out prior to putting it into action.

## Detailed Shopping List

Shopping time = 1 hour + drive time

While at the store, ensure that pieces are correct dimensions and fit together.



5 gallon plastic bucket  
Department: Paint  
Price: \$3.98



PVC Cement  
Department: Plumbing  
Price: \$6.48



PTFE Thread Seal  
Tape  
Department:  
Plumbing  
Price: \$1.38



1" x 1/2" Schedule 40 PVC  
Bushing (Spigot x Thread)  
Department: Plumbing  
Price \$0.98



1/2" Hose bibb, threaded  
Department: Copper Plumbing  
Price: \$ 7.76



1" x 1/2" Schedule 40  
PVC Bushing (Spigot  
x Thread)  
Department:  
Plumbing  
Price: \$0.74



Lid for 5 gallon plastic bucket  
Department: Painting  
Price: \$1.68



1-1/4" Drill bit  
Department: Tools  
Price: \$8.98



1" Rigid Steel  
Locknut  
Department:  
Electrical  
Price: \$1.48



2" or more O.D. x 1-3/8" I.D.  
Rubber Washer  
Department: Plumbing  
Price: \$1.79

Prices reflect Lowes hardware store.