Quick Reference Guide

Backflush Water Fact Sheet

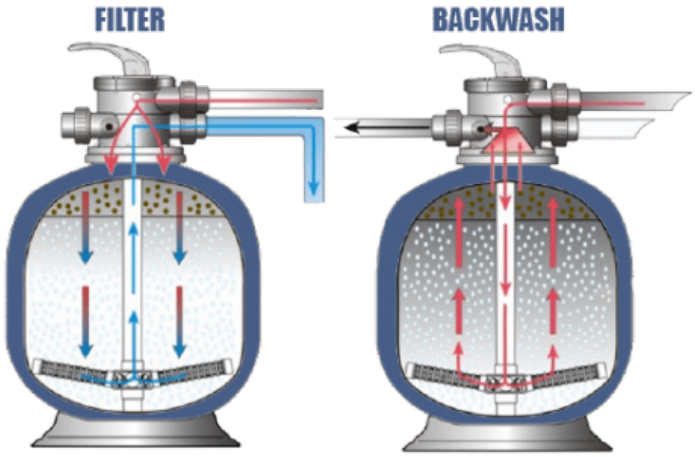
Water filtration systems are widely used on produce farms to remove particulate matter and some dissolved solids from water sources (surface or sometimes ground water) to reduce maintenance concerns with the water system and to provide clearer water for agricultural purposes (irrigation, fertigation, etc.).

However, do you know the filtration system can also yield "dirty" water, called ***backflush water***?

What Is Backflush Water?

Backflush, also known as **backwash**, is water produced in most sand and diatomaceous earth (DE) filtration systems from the **self-cleaning process**. It is a water flow that moves in reverse through the filter at a higher rate to remove the clogged particles from the filter.

Backflush run times depend on the quality of the pre-filtered water and the filter design. It can vary from 5 to 20 minutes when using a backflush flow rate that is generally



2 to 3 times higher than the filtration rate. Typically, backflush rates range from 10 to 25 gallons per minute (gpm) per square foot (ft^2) of the filter area. For example, a 1 ft^2 of filter area would yield a minimum of 50 gallons of backflush water. You can also check with the supplier to know about the backwash requirements of your system.

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ksre.k-state.edu/foodsafety/produce/index.html

Concerns with Backflush Water

As backflush water brings out potentially contaminated particles from the filter surface, the backflush water itself has a higher risk of contamination. If the backflush water is not disposed of safely, it can re-add contamination to the original water source or to other clean water sources on the farm.

How to Manage the Backflush Water on my Farm

Following are two methods to manage your backflush water. It is essential that you consult your local water/environmental protection regulations to ensure that you are following those requirements.

Collect the backflush water from filtration system into a container → **Dispose the collected backflush water into your wastewater treatment system (sewer, septic tank, etc.)**

Option 1: ***If using a sewer:*** Collect the backflush water to a container, or route it directly to the sewer and dispose of it to the sewer system

Option 2: ***If NOT using a sewer:*** Apply the water to a grassy area located downslope from produce growing areas and produce growing areas or apply to an infiltration ditch. Ensure that this water will not contaminate any potential sources of food or water. Avoid disposal to septic system if the system cannot handle the volume.

OR

Dig an infiltration ditch near the filtration system → **Collect the backflush water from the filtration system into the ditch**

Other Resources

https://ag.umass.edu/greenhouse-floriculture/fact-sheets/protecting-your-water-system-with-good-filter

https://www.epa.gov/system/files/documents/2021-11/bmp-infiltration-trench.pdf

https://www.pca.state.mn.us/sites/default/files/wq-wwprm2-02.pdf

https://sonomacounty.ca.gov/Main%20County%20Site/General/Sonoma/Sample%20Dept/Sample%20Dept/Divisions%20and%20Sections/Public%20Health/Sections/Envirnmental%20Health/Services/Service/_Right%20Column%20Content/pool-water-disposal-flyer.pdf

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