Table 1. Filtration options for greenhouses and nurseries. (Ratus Fischer, fischerecoworks.com)

What to filter out		Screen/mesh filtration		Media filtration			Membrane filtration			
		Coarse 4–50 mesh (5,000–300 micron)	**Fine** 50+ mesh (<300 micron)	**Sand**	**Slow sand/ bio-filter**	**Paper/fabric** 5–50 micron	**Micro** 1–0.1 micron	**Ultra** 0.1–0.01 micron	**Nano** 0.01-0.001 micron	**Reverse osmosis** <0.001 micron
Inorganic particle	**Debris**	++	++	++ Small load only	Not intended for large amounts of solids. Excess solids will clog bio-active zone.	++	Particles other than intended for a specific membrane will shorten its life span, or destroy it. Proper pre-treatment of the water is essential.			
	Sand	+	++	++ Small load only		++				
	Silt	-	++	+ Small load only		++				
Organic particle	**Debris**	++	++	++ Small load only		++				
	Soil particles	+	++ Small load only	++ Small load only		++				
	Algae, biofilm	-	++ Small load only	++ Small load only	+ In small amounts	++	Will clog membranes.			
	Pathogens	-	-	Minor effect	++	Minor effect	+ Except viruses	++	++	++
Dissolved inorganics	**Salts, iron**	-	-	-	-	-	-	-	-	++
	Calcium carbonate (hard water)	-	-	-	-	-	-	-	++	++
Dissolved organics	**Humic acids**	-	-	-	-	-	-	-	++	++
	Pesticides, herbicides	-	-	-	-	-	-	-	++	++
Notes		Mainly pre-filtration. Drippers, nozzles need 120+ mesh.	Substantial dirt loads require backflush systems.	Back-flush standard. Not for heavy dirt loads.	Low flow only. Pre-filtration for heavy dirt loads.	Handle heavy dirt loads in 1 step.	Require lower pressure than reverse osmosis. Membranes are tailored to specific applications. Rejection rates (discharged portion of the feed water carrying concentrated waste) generally smaller than reverse osmosis.			Removes everything. Typically back-blended with supply water.

Dimensions: 1 micron = 1 micrometer = 1/1000 millimicron = 0.00004 inches.
Legend for efficacy: ++ indicates good, + fair, and – not effective filtration treatment.