

Online Extras

Hydroponic H₂O: Water Quality and Treatment

by Dr. Lynette Morgan

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Providing good quality water for healthy, hydroponically-grown plants may mean taking certain actions to cleanse your water supply of chemicals, unwanted minerals or pathogens. Follow this quick guide of simple removal techniques for a variety of common contaminants.

Chloramines

- Specifically designed activated carbon filters remove most chloramines in a domestic water supply. Filters must be of the correct type with a high quality granular activated carbon.
- Dechloraminating chemical or water conditioners work well and are available in pet shops.
- Ascorbic acid (vitamin C) is used by laboratories to remove chloramines from water after they have done their disinfecting job.

Alkalinity

- Will need considerable amounts of acid to keep pH down.
- Acidify the water first before making up a nutrient solution or adding to the reservoir.

Excess minerals and unwanted elements (i.e. sodium)

- Reverse osmosis or distillation can be used to remove these.
- Frequent changing and replacement of nutrient in the system keeps things in balance.
- Drain-to-waste media systems
- Adjust nutrient formulation to suit the natural mineral content in the water supply.

Organic matter

- Can be removed with settling and filtration and treatment with H₂O₂.

Chemical contamination

- Easily treated with the correct type of activated carbon filter.
- Organic material such as coconut fiber gives a greater buffering capacity.

Pathogens

- UV filters used for aquariums
- Heat
- Distillation
- Reverse osmosis
- Chemical disinfection (hydrogen peroxide, chlorine, etc.)

Hard Water (due to high levels of calcium and magnesium)

- Frequent changing and replacement of nutrient in the system keeps things in balance.
- Use hard water supplies and adjust nutrient formulation to take into account the Ca and Mg naturally occurring in the water and also adjust for any alkalinity problems.
- Smaller growers can use many excellent hard water nutrient products on the market.

