How to Use Peat Moss to Lower Water Hardness and pH Levels in Ponds

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Q. Due to extremely hard tap water, my 5000-gallon pond has a pH of 9.2 and an alkalinity (carbonate hardness) of 12 dKH. These conditions are very tough on my pond plants. How can I lower the hardness and pH of my pond water?

A. Hard water is common in many parts of the U.S. Unfortunately, hard water doesn't make good pond water. If your pond is full of hard water (and your plants are suffering as a result), consider installing a water softener in your home to pre-treat the water prior to adding it to your pond. If this isn't a cost-effective solution, try incorporating peat moss into your filtration system.
Peat moss will soften your pond water by binding the calcium and magnesium ions while simultaneously releasing tannic and gallic acids into the water. These acids then attack the bicarbonates in the water, reducing the water's carbonate hardness and pH. To incorporate peat moss into your filtration system, use a media bag large enough to contain a good amount of peat moss and place the bag in a location where water flow is high (typically within your pond's skimmer or within your biological filtration). Please note: adding peat moss to your filtration system will give your pond water a yellow tint which can easily be removed with quality activated carbon.

Determining just how much peat moss and activated carbon you'll need to maintain proper water chemistry and clarity will undoubtedly require some experimentation. Ideally, the pH of the water should range from 6.5 to 7.5, and the carbonate hardness between 2 and 8 dKH. Use a quality test kit to monitor both pH and hardness and adjust the amount of peat moss as necessary to achieve healthy pH and dKH levels.

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