

# Pond Additive

Foliar-Pak Pond Additive is a nanoparticle polymeric silicic acid that is designed specifically to feed the naturally-occurring diatoms in ponds, lakes, and other small bodies of water. These species of microalgae are clear and produce oxygen—meaning the more they grow, the better the body of water looks.



*Before (left) and after (right) 3 high-rate applications of Foliar-Pak Pond Additive.*

## A DISCUSSION ABOUT DIATOMS

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Diatoms are a type of microalgae that have cell walls comprised of silica (SiO<sub>2</sub>). Being comprised of approximately 75% silica by weight, their limiting nutrient for growth is often silicon. Silicon is one of the most prevalent minerals in our soil, but very little of it ends up in the soil solution whereby it can make its way to bodies of water. As such, a silicon additive, like Foliar-Pak Pond Additive, can greatly increase the growth of diatoms. And because diatoms reproduce by breaking themselves apart, they can grow very quickly—doubling every 24 hours

## SAFETY FIRST

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Many pond additive products are focused on killing organisms. This is dangerous, and can have undesirable effects such as killing off-target organisms, like fish, and creating an ecological environment that's out of balance. It can also prevent the use of the surface water as an irrigation source. Foliar-Pak Pond Additive is not designed to kill anything. As such, it's safe to use in all bodies of water.



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## WHAT MAKES FOLIAR-PAK POND ADDITIVE UNIQUE

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There are multiple sources of silicon, but very few that are soluble in water. Foliar-Pak Pond Additive is a colloidal silicon that's grown from a polymerization of silicic acid. This allows the silica to be stabilized, and active at physiological pH's that are found in bodies of water. Once Foliar-Pak Pond Additive is applied to water, it breaks down in silicic acid monomers whereby it is readily available to the diatoms. Other forms of silicon, like calcium silicate, have no path to solubility, and would simply sink to the bottom of the body of water. Still other forms that are soluble, like potassium silicate, are only soluble at extremely high pH levels, and will precipitate out of solution when the pH is lowered.

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## THE PROGRAM

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Getting the diatoms off to a good start and established is the key to success. As such, it is recommended to apply 32 ounces (diluted in 100 gallons of water) per acre of water (that's 6' deep on average). The product should be sprayed evenly over the surface of the water every 10 days until the desired clarity of water is obtained. This usually takes 3 applications every 10 days on average. Some bodies of water may need more than 3 applications at a 10-day interval. Once the desired clarity of water is obtained, monthly applications of 16 ounces (diluted in 100 gallons of water) per acre of water should be applied in order to maintain the increased population of diatoms in the water. Foliar-Pak Pond Additive is designed to be used as a part of an integrated pond management (IPM) program. Reducing nutritional runoff, installing devices that provide aeration, and applying colorants are all examples of pieces that comprise a complete IPM program.