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Data sheet:

Water Temperature & Aquatic Chemicals

Application of aquatic chemicals requires consideration of water temperature (not air temperature). Water that is below 60°F is too cold for effective chemical uptake by algae and some plants. When the water reaches 80°F caution must be used because of the low oxygen and the accelerated rate in which water quality changes take place. Regulations and responsible practices dictate that the most effective and safest treatments take place in the 'Goldilocks' zone. Not too hot and not too cold, 60-80°F.

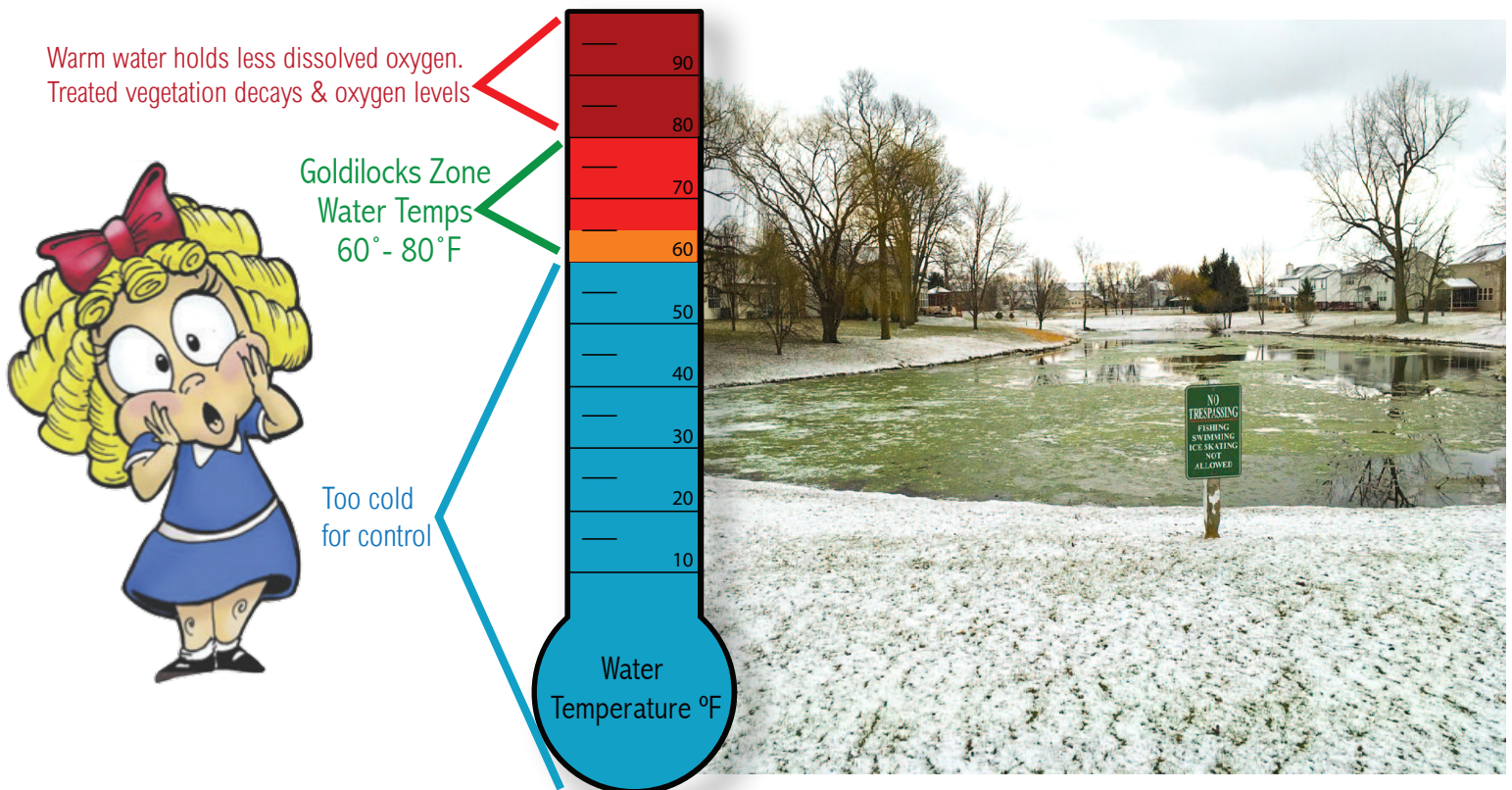
When chemical reactions take place temperature is an important variable. In the same manner that lawn care treatments and even painters are limited by temperature, so too are our aquatic applications.

Aquatic chemicals break down very quickly once in the water. Algicides (algae control) and Herbicides (weed control) are generally at a concentration high enough to achieve control for just minutes to a few hours. This short life is a requirement by the EPA so that they do not persist in the environment. The products must break down quickly.

This quick breakdown is one reason that product labels require a 60°F minimum water temperature. Below this temperature the metabolic activity of the plant cells is so slow that products break down before the cold, sluggish cells can transport enough inside for control.

Aquatic plants require moisture, sunlight and nutrients to grow. Water temperature either slows or accelerates the rate of growth. We monitor temperatures in the Spring so when minimums are met we can treat. On average mid to late April is go time. It is frustrating for everyone to see algae on the water when it is too cold to treat.

Bottom line is that following product labels and understanding the reasoning and science behind them helps insure safe and effective treatments.



What mild Winters mean for the water.

Would you like ice with that? Yes Please!

No Ice

When water does not freeze for extended periods of time, Winter sunlight allows algae and weeds to grow slowly on the bottom - even in cold water.

When Spring rolls around and the water warms, the algae that now carpets the bottom, rises to the top covering the surface in massive blooms with weeds following.

Under these iceless circumstances the race between ASAP and the vegetation begins with plants ready to cross the finish line and ASAP just walking up to the start. To make matters worse, treatments are limited until the starting gun goes off when the water reaches 60° F.

With Ice

Ice and snow coverage blocks Winter sunlight, severely limiting the rate of algae and weed growth during the long Winter months - this is a chance to reset.

Cold water is much clearer than typical green water found in the warmth of Summer, so light penetration is more intense and reaches deeper, something ice prevents.

When this safety blanket of snow and ice melts in the Spring, growth *slowly* begins. This is more typical and preferred. In this scenario we have a headstart on the algae and weeds. The starting gun goes off at 60° F and we can begin treatments as growth starts instead of playing catch up.

