

# Tips & Tricks for Treating Algae

As the weather warms up and the swim season starts, swimming pool water quality begins to suffer and algae often begins to grow. There are three main types of algae, Green algae, Black algae and Yellow/Mustard algae. Green algae is pretty easy to eradicate, but Yellow/Mustard and Black algae are difficult to kill and can make the job of a pool service professional challenging. Here are a few tips for identifying and eradicating each type.

## Green Algae

Green algae is the type of algae that suspends itself in the water making pool water murky. The growth and spread of green algae is usually due to lack of sanitizer and or circulation in the swimming pool. It will start as a slight cloudiness in the pool and as the algae continues to grow and thrive in the water; the water quality gets worse and eventually deteriorates to where you can't see the bottom of the pool. This type of algae must be dealt with quickly to solve the water clarity issue. Cloudy pool water is very dangerous due to the increased risk of drowning.

Green algae spores are very common and this is usually the form that will be seen when chlorine levels are not maintained during especially warm and sunny times. Green algae can also be introduced as a result of cross contamination when someone brings toys or even swim suits that have been in a river or lake and then are introduced in the pool. Pool Pros who use brushes and poles to clean up algae pools but neglect to clean the brushes before servicing the next pool can also spread the spores.

However green algae is by far the easiest algae to prevent and kill. High doses of chlorine usually quickly kill the algae and the process can be accelerated by the addition of a good algaecide — to make your customer happier, faster. Once you have treated the pool to kill the algae, your pump and filter have the burden of clearing your water. You must continually run your filtration system in order to trap the dead algae and clear the water. You can also use a water clarifier to help expedite the clearing process. If you maintain the proper water balance with chemicals and sanitizers as well as properly maintain the pool's equipment, it's fairly rare to grow green algae.

## Black Algae

Black algae will generally appear as black dots on pool plaster, usually in the pitted area of the pool where the plaster has been etched or maybe where some calcium deposits have developed. These areas act as small fox-holes where the water doesn't circulate well, making them an easy area for Black Algae to grow and thrive. Black Algae is almost exclusively an issue in gunite pools and it is tough to treat this type of algae because it burrows into the plaster and forms a protective layer over itself making the standard chemical treatments ineffective. Black algae tends to be more prevalent in rural, dry regions where there is plenty of agriculture and farm animals. It can be introduced into the pool in the dust that blows about in these regions. However, Black algae needs a place on the pool shell to grab onto and so it becomes a bigger problem in plaster pools where the surface has deteriorated and is rough. Cracks and rough areas around the light or ladder rails are common places to see Black algae begin to appear as well as around broken tile.

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It is important to start treating the Black algae as soon as it appears because the bigger the head of the algae spot, the deeper it is buried into the plaster and the harder it will be to kill. There are several ways to treat Black algae once it appears and all of the treatments include brushing the affected areas with a stainless steel bristle brush for an extended period of time to remove the protective coating Black algae uses as a defense against chemicals. After brushing, you must then continually brush the affected areas daily until you rid your pool of the algae. If it is a severe case, you may only be able to control the spread of the algae, but not totally get rid of it.

After the Black algae has been brushed, the next step is the chemical treatment to eradicate the algae. One of the most effective treatments involves using granular trichlor on the horizontal surfaces and a copper-based broad-spectrum algaecide for the vertical surfaces and throughout the overall pool water. The process involves treating with the trichlor first and once the chlorine level recovers and the water is balanced, applying the copper-based algaecide. The use of a broad-spectrum chelated copper algaecide can also be used as a preventive measure. Some of these copper algaecides are triple chelated and will protect for months at a time, giving the service professional the ability to effectively brush and remove the Black algae, layer by layer. It is always a good idea to have the water tested for metals prior to the addition of any metallic algaecide to be sure there aren't any non-chelated metals from the pool equipment or source water. If you have metals in your pool water prior to the addition of a metallic algaecide you could oversaturate the water and cause problems such as staining and or water discoloration.

In the case of Black algae it is extremely important to always vacuum or brush and backwash/clean any remnants of the Black algae heads that have brushed off in order to remove them from the system. Any remnants of the Black algae that remain in the pool can re-grow into new problem areas. In order to keep the Black algae under control, it's important to maintain a higher ppm of chlorine and keep the phosphates below 200 ppb, along with the addition of a broad spectrum copper based algaecide. Brush, brush and brush the pool and wash those brushes before putting them into a new pool!

### Yellow/Mustard Algae

Mustard algae is the most difficult algae for a number of reasons. The biggest problem with Yellow/Mustard algae is that it is often misdiagnosed. Yellow/Mustard algae is often mistaken as green algae or sometimes as pollen or sometimes it just makes the pool look 'dirty.' If you think about it, yellow algae in a blue pool will make the water look green (yellow + blue = green). So it's important to ask the right questions and be careful about the observations you make when diagnosing the algae.

Asking the correct question is key to proper diagnosis. The question to ask: *Is the pool water cloudy?* If the answer is NO, then it's probably NOT green algae because green algae makes the pool water look cloudy and murky. To determine if what is being observed is pollen or dirt or yellow/mustard algae, the question becomes: *After the walls have been brushed, does the "dirt" come right back?* If the answer is YES, then it's not dirt/ pollen — as dirt/ pollen would simply drop to

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the bottom of the pool and would not cling to the walls. So if the pool water isn't cloudy and the 'dirt' is clinging to the walls after brushing, the problem is likely to be Yellow/Mustard algae.

Yellow/Mustard algae is very resistant to even high chlorine levels and will grow and thrive in a chemically balanced pool. Let's face it, we all associate algae growth with something we have done wrong, like not running the pump, running out of chlorine, clogged baskets, etc., but in the case of Yellow/Mustard algae, the maintenance of the pool could be "by the book" and Yellow/Mustard algae could still grow. Yellow/Mustard algae is often introduced to swimming pools from lakes, ponds, wind, rain and even skimmers/leaf rakes, vacuum hoses & heads from other people's pools.

Yellow/Mustard algae tends to be more prevalent near the warmer waters of the southern United States, but on occasion shows up in the NE and Midwest.

Yellow/Mustard algae tends to brush off easily from the surface, but will show back up in the same place a few days later. This often happens in the shady part of the pool. To treat this type of algae it's important to choose an algaecide or chlorine enhancer that specifically targets the algae. Sodium Bromide has proven to be a way to kill Yellow/Mustard with excellent, fast results, but it is only good for the one time kill. It won't keep you from getting yellow/mustard algae the next time it rains. The best recipe to prevent Yellow/Mustard algae from coming back is to control the phosphate levels in the pool and keep them under 200ppb and use a chelated, broad-spectrum, copper based algaecide for long term protection.

Regular maintenance does help prevent algae growth so it's important to stress that the pools should always be maintained both chemically and physically by brushing, vacuuming, cleaning skimmer/pump baskets etc. to make algae less likely to bloom. Keep chemical levels in balance and always be sure pump and filters are running at least 8-10 hours a day in the summer. Algae treatments are only effective if the swimming pool and spa water are balanced and are being filtered and circulated properly. Always be sure that the pool and spa filters are cleaned JUST PRIOR to fighting an algae problem. Also, older pools with rough plaster should be dealt with by resurfacing or at the least sanding and smoothing rough areas. And always test the phosphate levels in the pool prior to treatment as well. Rather than waiting until later in the summer to test for phosphate levels, after several algae blooms, it's best to test early in the season and be sure the phosphate level never exceeds 200ppb.

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