

## Is Chlorinated Water bad for SP-1™?



First, a background on Chlorine:

Chlorine is a powerful disinfectant popularly used in municipal water treatment plants to eliminate bacteria and other potential harmful microorganisms. Chlorine is widely used across the world as a disinfectant as it is inexpensive, widely accessible while being easy to control and monitor.

Be aware that there are two types of chlorine: Free and Chloramine. Some municipalities use both types – and may switch to Chloramine in the warmer summer months as it does not dissipate as quick as Free chlorine. Chloramine (contains ammonia) and is more difficult to remove from water than chlorine.



The best way to determine if your water source contains Chlorine or Chloramine is to ask your municipality what they use to treat the water supply. If they add ammonia, you have chloramine. Obviously, the blending of a biological product with a chemical designed to kill micro-organisms is not a good mix.

The good news is that chlorine is easily removed from a municipal water source by exposing the chlorinated water to air. This is achieved by simply leaving the lid off the water storage for a few days to allow the chlorine to gas off.

Chloramine treated water is a bit more difficult, but fortunately, its less common than chlorine treated water. To learn if your local municipality is using Chloramine, click [HERE](#).

If it's determined that your municipal water source contains Chloramine you'll need a more aggressive method to remove it. The recommended method is to use a pump to circulate the water... and use a return pipe that allows at least 24" of water exposed to the air as shown at right. To determine when the water aeration process is adequate you can test the water yourself by using test strips available from pet stores that sell fish.



### Response by Tate McPherson:

The chlorinated water situation is not a huge deal but is a fair call out. Basically, the best solution is to apply the product as soon as possible after mixing with water. In a situation where a grower wants to tank mix for a prolonged period, the ideal plan is to let the water sit with the fill lid open on the water tank. 24 to 48 hours is enough in almost all cases, but the longer the better. This allows the levels of chlorine to gas-off.

Depending on the water source and treatment this also affects herbicides and other chemistry and we are not alone in facing this challenge.

With regards to SP-1, in cases where the product is mixed and sits in chlorinated water for a couple of days, you'll still have solid performance. We will lose some of the active biology, about 5% on average, but the secret sauce in SP-1 is not just biology, there are other bio-actives, and amino acid compounds which are stable in almost all environments. (please note there are more than 100 biologic compounds in SP-1, the diversity is the key) This is why I am not worried about this, as I have seen this work very well with many water sources including chlorinated.

The best suggestion I can make to keep people out of the weeds and driving forward is to tank mix and apply within hours. The brief period of 2 hours or so that the chlorinated water is in direct contact with SP-1 will not affect overall performance.