

Gerbera: Lower Leaf Black Spotting

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Received an email from a Midwest sales representative. One of his clients had a gerbera crop with blackish-purple spots on the lower leaves. He had never seen it before and was searching for an answer and wanted to know my opinion.

Nutritionally, gerbera are commonly prone to nitrogen deficiency (low EC) which manifests itself as lower leaves with complete yellowing, excessive EC which appears as a marginal necrosis of the lower leaves, magnesium deficiency which is a lower leaf interveinal chlorosis, lower leaf purpling due to phosphorus deficiency, and finally iron deficiency which is an upper leaf interveinal chlorosis.

In addition, I have seen blackish-purple spots on the lower

leaves. For areas without excessive alkalinity in the water supply, which includes almost all of the Southeast except for the coast, we also commonly

see blackish-purple spots on the lower leaves. This is caused by low substrate pH which allows for enhanced uptake of iron and manganese



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Blackish-purple spots on the lower leaves of gerbera.



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and leads to a toxicity. Because alkalinity levels are high in the Midwest, substrate pH levels are not typically low and this situation is an oddity for them.

Confirmation.

The photographs will give you a better idea about the symptoms. To confirm the diagnosis, sample the substrate pH. Typically the spotting symptoms occur when the pH drops below 4.8. Rarely symptoms have appeared on plants with a pH as high as 5.0. A tissue test can also be used to confirm the diagnosis. Typically leaves will have elevated iron (>~130 to 500 ppm) and manganese (>~260 to 700 ppm) levels.

Correction.

To overcome the situation, the substrate pH has to be increased. To do this, Flowable Lime at the rate of 1 quart per 100 gallons of water will work.

A second application may be needed. So recheck the substrate pH to determine if it has increased to the acceptable range of pH 5.5 to 6.2. If not, a repeat application should be done.

Learn More.

Do you want to learn more about gerbera nutritional problems?



Then view the four FloriCAST videos. There is also one specifically on low pH symptoms of gerbera, number 549. The web address is: <http://www.greenhousegrower.com/video/c:170/fertilizer-nutrition/> (use the scroll bar to move down and find the podcast)

In cooperation with our local and state greenhouse organizations





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Leaf spots on gerberas. These blackish-purple spots typical appear when the substrate pH is below 4.8 and is due to elevated uptake of iron and manganese.
