

Iron Deficiency Chlorosis in Turfgrass

WHAT IS IRON DEFICIENCY CHLOROSIS?

Iron deficiency chlorosis (IDC) is a condition caused by lack of iron. The disorder can be found in various species of turfgrass, but commonly in St. Augustinegrass. Yellow, blotchy patches form in a lawn after blades turn pale green and eventually bright yellow. These symptoms are common in the summer, especially during periods of heavy rainfall. Lawns may thin out and be overtaken by weeds if left untreated.

WHAT CAUSES IRON DEFICIENCY CHLOROSIS?

IDC appears in alkaline soils with excessive pH levels. Iron becomes unavailable to the roots, resulting in the deficiency and color transformation. Other common factors that can exacerbate IDC include:

- Excessive irrigation
- Soil compaction
- Excessive shade

HOW DO YOU TREAT IRON DEFICIENCY CHLOROSIS?

It is important to properly diagnose turf with IDC before treating. St. Augustinegrass decline (SAD) can also show common symptoms and may also affect turfgrass species in Texas, Louisiana and Arkansas. Once properly diagnosed, the long-term solution is to gradually apply elemental sulfur or sulfur-containing fertilizers to correct the soil's alkaline levels and decrease the pH. This should be repeated regularly and may take a few years to return to normal. Foliar applications of liquid iron or micronutrients may also help temporarily green-up turf for a few weeks at a time. Consult your local landscape professional to find out if your lawn is suffering from IDC and what services are best for your lawn.



FIGURE A. SYMPTOMS OF DISTINCT DISCOLORATION IN ST. AUGUSTINEGRASS

*The scientists at **The Davey Institute** laboratory and research facility support our arborists and technicians in diagnosing and prescribing based on the latest arboricultural science. For specific treatment and application details, your arborist may consult *The Davey Institute's Plant Health Care Book*.*

