Application of gypsum in the following situations increases plant calcium and improves turf growth:

- When a soil’s pH is above 6.7 and calcium (Ca) is deficient, gypsum (CaCO₃) should be used to supply Ca instead of lime. Lime applied to an already high pH further increases pH, and may lead to iron deficiency.

- Water supplies are often high in sodium (Na⁺). Sand based systems irrigated with high Na⁺ water may have excessive Na⁺ on the exchange complex. Since sands do not deflocculate, the high Na⁺ will not result in reduced drainage.

Gypsum supplies Ca without increasing pH. A suggested target range for Ca in a turf plant is 0.4 to 1.2%.

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