Description

There are over 70 million acres of naturally occurring sodic soils in the United States, and over 1.4 billion acres worldwide. Gypsum has been used as an amendment for over 100 years to improve the productivity of sodic soils. Gypsum does two things: 1) provides Ca2+ to displace Na+ from the soil’s exchange sites, and 2) maintains or increases the soil salinity. Applying the correct amount of gypsum requires knowledge of soil parameters as well as the quality of the gypsum. By understanding what is required to calculate Gypsum Requirement will allow one to have the proper soil tests conducted so that the most accurate determination is made.

The Gypsum Requirement app for iPhone and Android can be used to answer the question “how much gypsum should I apply to my sodic soil?” The calculator is based on the equation developed by North Dakota native Dr. James Oster and others. The app is easy to use and allows one to easily determine the Gypsum Requirement for sodic soils.

Gypsum Requirement Main Features

Easily enter values for initial and final ESP or SAR, soil bulk density, depth needed to be treated, efficiency, gypsum purity, and cation exchange capacity.

Gypsum Requirement is reported in units of Mg/ha or tons/acre.