

# Improving Soil EC and CEC



with **REDMOND**

*There is so much more to soil than meets the eye. Beneath our feet lies a complex hive of physical, biological, chemical, and even electrical activity. Let's explore the electrical conductivity (EC) of soil, its cation exchange capacity (CEC), and why these 2 factors are so critical for soil and plant health.*

## Electrical Conductivity (EC)

Soil contains positively charged cations and negatively charged anions. The attraction of these oppositely charged particles allows soil to transmit a measurable electrical current. This current is the highway system through which nutrients move through the soil and become available to living things.

EC readings reveal a lot of helpful information about soil:

- Plant nutrient availability
- Salinity of soil
- Soil micro-organism activity
- Soil texture type (and its water permeability)
- Overall soil health

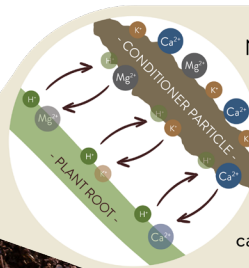
## Measuring EC levels

EC meters are readily available at most garden centers. If you have your soil regularly tested, you can also request an EC measurement for your samples as well. Just remember that EC levels can vary within an expanse of soil. Some crops tolerate a wider range of EC levels, while others prefer a more narrow threshold.

## Cation Exchange Capacity (CEC)

CEC is a measurement of soil's ability to hold positively charged cations, and is a useful gauge for soil fertility. When soil can hold onto essential nutrients and minerals, they are more available to plant roots and other organisms. Cations are held and stored in the soil by negatively charged colloids (like clay or humus particles).

These particles consist of flat, thin plates with a lot of negatively charged surface area to hold and store large quantities of cations. A plant can then trade for the nutrients it can't produce with hydrogen cations it can produce. This exchange is continually taking place between the roots and the negatively charged particles in the soil. (see below)



Negatively charged conditioner particles hold and store positively charged cations.

Plant roots exchange hydrogen cations for essential nutrients it cannot produce for itself.

## Improving Your Soil With Redmond Minerals

Redmond Minerals is founded upon the principle of nourishing the world from the ground up. We know that feeding our soil will create long lasting benefits for the entire food chain. Our soil products contain a mix of rich volcanic conditioner and nourishing mineral salts from our ancient deep sea mineral deposit. With a naturally balanced nutrient profile of over 60 macro and micro minerals and our rich layer of volcanic ash clay, we know we are sharing the best nature has to offer.

### Redmond Mineral Salts

When added in the correct amounts, our full spectrum of sea minerals energize the soil and improve EC levels to stimulate soil microbe activity and help plants thrive.

### Redmond Conditioner

Our volcanic conditioner increases soil CEC levels and provides a more complete nutrient profile for your plants to enjoy.

*Redmond has helped growers improve their soil fertility, increase their crop yields, and grow more delicious and nutrient dense plants. Give us a call to try Redmond Minerals today!*

Contact Us Today



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