

Ag 101: Saline vs. Alkali soil

Your soil has a unique story

Soil is the foundation of everything produced in agriculture. But how well do you know the variable qualities and yield potential held within all those inches of soil across acres of farmland?

Did you know?

Often, saline soils are incorrectly referred to as “alkali” soils.

What are the differences?

Saline soil

Soil containing dissolvable, or soluble, salts at high enough levels to impact crop productivity.

Alkali soil

Soil that contains enough sodium to interfere with crop growth.

Alkaline soil

Soil with a pH > 7. Also referred to as a ‘basic’ soil.

pH influences nutrient availability and can directly impact plant growth while also affecting the breakdown of certain soil residual herbicides.

Soluble salts are a problem because they keep water and dissolved nutrients from entering plant roots



Did you know?

Sodium is not salt

- Sodium is a mineral and one of the chemical elements found in salt
- Salt is known as sodium chloride and is harvested from salt mines or by evaporating ocean water.

Symptoms of saline salt

- ✓ White crust on soil surface
- ✓ Weeds can also be a good indicator of salinity (Kochai and foxtail barley are relatively drought tolerant and can, therefore, survive saline conditions)

3 points to remember:

Saline soil

↑ salts

Alkali soil

↑ sodium

Alkaline soil

↑ pH