



**SUMMARY:** A laboratory study showed that soil treated with Calcine® generated soil samples that retained 40% more water than untreated soil. The same study showed that Calcine® -treated soil released up to 45% more salts than untreated soil when flushed with water.

Soils, whether dryland or irrigated, accumulate salts from various sources, such as manure, fertilizers, ponding, and evaporation, which reduces waterholding capacity and creates run-off of needed moisture and nutrients. On affected farms plant performance declines and bottom-line margins tighten. Calcine® improves soil structure, which increases soil water-holding capacity and permeability. This study showed soil treated with Calcine® retained 40 percent more water than untreated soil. That additional water can mean the difference between a crop failure and a harvest.

## **HOW IT WORKS: CALCINE® MOBILIZES SALT OUT OF ROOT ZONE**

2016 laboratory studies showed Calcine® reduced soil salt levels by as much as 45% over the untreated control. In the study, cylinders were filled with sodic soil collected from Arizona. They were then fully wetted using three treatments: untreated control (water), the equivalent of 1/4 gallon per acre of Calcine® and the equivalent of 1/2 gallon per acre of Calcine® . Soil in the cylinders was kept moist for 28 days and later flushed with 200 ml of water. Flow-through was then collected for analysis. Flow-through water from the untreated control contained 960 ppm of total salts. In comparison, flow-through from the treated cylinders was as high as 1400 ppm. This means 25% to 50% of the salts were leached out by the flush-through of water in the treated samples.



## SOIL CYLINDER TESTS RESULTS

	Control	1/4 Gal/Acre	1/2 Gal/Acre
<b>Flush Total</b>	200 ml	200 ml	200 ml
<b>Flushed-Out Water</b>	198 ml	123 ml	101 ml
<b>Water Retained</b>	2 ml	77 ml	99 ml
<b>Total Salts Removed</b>	960 ppm	1200 ppm	1400 ppm

*Soil treated with Calcine® retained more water in the soil, while at the same time removed more salts from the root zone.*

### **CALCINE® IMPROVES WATER-HOLDING CAPACITY**

This same study supports our finding that Calcine® application improves soil water-holding capacity. Of the 200 ml of water used to flush each cylinder, over 40% less water was collected from the treated cylinders.

***Calcine® -treated soils held water better than the control in all treatments, suggesting less runoff during rain events and reduced irrigation needs following Calcine® application.***



**For more information visit [www.calcine.us](http://www.calcine.us)**