

Soil Health Institute (SHI) develops Slakes App to detect soil health indicators

23 January 2024 | News

Soil Health Institute (SHI) has released a free phone application, Slakes, to enable farmers to measure aggregate stability: one of soil health's most important indicators. In addition to being more resistant to wind and water erosion, soils with greater aggregate stability also capture, infiltrate, and store water more effectively, contributing to improved water management and agricultural productivity.



Soil Health Institute (SHI) has released a free phone application, Slakes, to enable farmers to measure aggregate stability: one of soil health's most important indicators. In addition to being more resistant to wind and water erosion, soils with greater aggregate stability also capture, infiltrate, and store water more effectively, contributing to improved water management and agricultural productivity.

The Slakes app uses a smartphone camera to take a picture of three dry soil aggregates before and after exposing them to water for 10 minutes. The app then automatically calculates an aggregate stability value. Weaker aggregates will slake (or break apart) more easily, while stronger aggregates will slake less, indicating better soil aggregation and healthier soil.

SHI envisions that this application will be used by the public, K-12, and college educators in their curricula, as well as conservation professionals, farmers, advisors, and industry/policy stakeholders who are interested in quantifying the impact of management on soil health.

SHI recommends measuring aggregate stability using the Slakes app as part of a minimum suite of measurements to assess management induced changes in soil health. Aggregate stability index values from Slakes can be compared across management practices to measure improvements in soil health.

A partnership with the University of Sydney and generous funding from the Wells Fargo Foundation and The Ida and Robert Gordon Family Foundation enabled Slakes to be available on Google Play and the App Store.

The Soil Health Institute (SHI) is a global non-profit with a mission of safeguarding and enhancing the vitality and productivity of soils through scientific research and advancement. SHI aims to enable farmers and ranchers to grow quality food, fiber, and fuel using soil health systems that sustain farms and rural communities, promote a stable climate and clean environment, and improve human health and well-being. Accordingly, the Institute brings together leaders in soil health science and the industry

to conduct research and empower farmers and other landowners with the knowledge to successfully adopt regenerative soil health systems that contribute economic and environmental benefits to agriculture and society.