



**Science
Societies**

Correction: 'Scrutinizing SLAKES'

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CROP SCIENCE, SOIL SCIENCE, AGRONOMY

csa news

Scrutinizing SLAKES

Testing the Limits
of the Soil
Aggregate App

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The September 2024 issue of *CSA News* included the article “Scrutinizing SLAKES,” (<https://doi.org/10.1002/csan.21380>; p. 4–7), which discussed the Slakes smartphone app equipped to measure soil aggregate stability. The story suggested that the Slakes app is not useful in sandy soils and needs further testing. However, it’s important to point out that the research cited in the article used an older version of app and not the most up-to-date version available. The current version (<https://soilhealthinstitute.org/our-work/initiatives/slakes/>) was released in December 2023 and uses simplified methods that provide more reliable measurements of aggregate stability.

CSA News wishes to clarify this point for the benefit of producers, advisers, and other users of the app. While all methods can be further tested, “the app is ready for prime time,” says Cristine Morgan, Chief Scientific Officer at the Soil Health Institute, which launched the current version of the app in partnership with the University of Sydney.

The new version of the app does not use the Gompertz function as discussed in the September 2024 article. Instead, the area of aggregates before slaking is compared to the area of aggregates after slaking for 10 minutes, which avoids errors produced during continuous fitting of the Gompertz function that impacted the previous app’s performance. The simplified method was tested on 2,012 soil samples from 124 agricultural research sites across North America in the study “Evaluation of aggregate stability methods for soil health,” published in 2022 in the journal *Geoderma* (<https://doi.org/10.1016/j.geoderma.2022.116156>). This method was compared to standard methods including wet aggregate stability using wet sieving and the Cornell wet aggregate stability test, performing as well as or better than these currently used techniques in a range of textures that included sands and loamy sands.

The current version of the Slakes app uses this simplified slaking index approach and is available in the Apple App Store or Google Play store. The original version of the app used in the *Soil Science Society of America Journal* paper “Exploratory Assessment of the SLAKES Method to Characterize Aggregate Stability Across Diverse Soil Types” cited in the September 2024 *CSA News* article is now called Moulder, still uses the Gompertz function, and is only available in the Google Play store.

The September 2024 *CSA News* article also misidentified researcher Kade Flynn’s affiliation when completing the work published in the 2019 *Soil Science Society of America Journal* study “Evaluation of SLAKES, a smartphone application for quantifying aggregate stability, in high clay soils” (<https://doi.org/10.1002/saj2.20012>). Flynn was affiliated with Texas A&M University AgriLife Research at the time of the cited work.

We regret these omissions and errors. Readers interested in the current version of the Slakes app can learn more at <https://soilhealthinstitute.org/our-work/initiatives/slakes>.

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