

# HEALTHY SOILS ARE: *well-structured.*

*Newsletter article #14*

## How to do the Slake Test

Ray Archuleta, an agronomist with the USDA Natural Resources Conservation Service with a passion for soil health, has done the slake test scores of times. Anyone can do it, he says, and he predicts it will open your eyes.

The slake test compares two chunks of topsoil in water to see how well and how long they will hold together. Here are the steps:

1. Collect a chunk of topsoil—a size that would fit in your hand—from an area where you don't till, like a fencerow, or a field you've no-tilled or had in grass for many years.
2. Get a second spade-full or chunk of soil from a field you've tilled consistently. It should be the same soil type as the first sample.
3. Find two glass jars, yarn jars or some kind of clear glass jars large enough to hold the chunks of soil.
4. Put together some type of wire mesh that you can hook at the top of each jar that will allow the soil to be submerged in the water, yet be held within the top half of the jar.
5. Insert the wire meshes into each jar.
6. Fill the jars with water.
7. At the same time, submerge the tilled sample in one jar, and the untilled sample in the other.
8. Watch to see which soil holds together and which one falls apart. The soil with poor structure is the one that will begin to fall apart.

Watch Ray do the slake test in one minute: [http://www.youtube.com/watch?v=9\\_ItEhCrLoQ&feature=youtu.be](http://www.youtube.com/watch?v=9_ItEhCrLoQ&feature=youtu.be)

Watch Ray do the infiltration test in one minute: [http://www.youtube.com/watch?v=Rpl09XP\\_f-w](http://www.youtube.com/watch?v=Rpl09XP_f-w)

To learn more about soil health, and to meet some of the farmers who are “Unlocking the Secrets in the Soil,” visit [www.nrcs.usda.gov](http://www.nrcs.usda.gov).

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