Supported through the generosity of the Wrangler® brand, the VF Corporation Foundation, and the Walmart Foundation.
ABOUT THE SOIL HEALTH INSTITUTE

The Soil Health Institute is a non-profit organization that works with its many stakeholders to identify gaps in research and adoption; develop strategies, networks and funding to address those gaps; and ensure beneficial impact of those investments to agriculture, the environment, and society.

OUR MISSION: SAFEGUARD AND ENHANCE THE VITALITY AND PRODUCTIVITY OF SOIL THROUGH SCIENTIFIC RESEARCH AND ADVANCEMENT

To become even more involved in SHI activities, please contact us at soilhealthinstitute.org.
SOIL SURFACE CONDITION

- Well aggregated*
- Crumbles easily
- Darker at the surface
- Signs of soil creatures
- Feels a little spongy when you walk on it

*Well aggregated soil holds together against the force of a hard rain.
RESIDUE

- Covers >70% of field
- Residue looks shredded
- Can see various stages of decay
- Minimal residue from older crops
WATER INFILTRATION

- No ponding 24 hours after a rain
- No evidence of surface crusting
- No run-off channels
- No soil movement
SOIL COMPACTION

(Measure in 8-10 different areas of the field, preferably after a gentle rain so the soil is moist.)

- Can easily push a spade, flag, or soil probe down 8”
- Feels a little spongy when you walk on it
SOIL STABILITY

- About 90% of a golf-ball-sized clod remains after being submerged in water for 60 seconds.
SOIL BIOLOGY

- Millipedes, centipedes, pill bugs, springtails and other soil critters are present.
- Fungal hyphae (cobwebs) present on residue and soil aggregates.
- Earthworms, channels, and huts are easily seen and counted (>5 per foot).
Soil warms up earlier in Spring

Summer soil temperature at 2” deep is <95°
ROOT GROWTH

- Roots are straight, no sign of restricted growth
- Lots of root hairs
- Deep roots
ORGANIC MATTER

- Soil is darker than soil outside the field
- Topsoil is easy to distinguish from subsoil
- Topsoil is deep: >6”
SOIL SMELL

- Earthy
- Sweet
- No metallic odor
- No rotten egg odor