



Experts talk soil health—Newsletter article #4

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For maximum benefit, mix it up, cover crop expert recommends

There's a reason most farmers who start with single species cover crops eventually move to mixes.

“Some of the most innovative cover crop users have continued to experiment with as many as 8 - 15 different cover crops in mixtures on their farms, to see what each contributes to their system,” says David Lamm of the USDA Natural Resources Conservation Service (NRCS). “These farmers are breathing new life into their soils, with no-till and cover crop mixes, and they're telling us they're getting all kinds of benefits. A universal result is increased nutrient cycling, and in many cases a reduction in supplemental fertility is achievable.”

Lamm, the leader for the NRCS National Soil Health and Sustainability Team in Greensboro, North Carolina, points to three of the top advantages to using mixtures:

1. No one species can deliver all the advantages multiple cover crops deliver in combination. Some fix nitrogen, some are very good at scavenging leftover nitrogen in the soil, and some have deep roots that extend benefits deeper into the soil profile. Still others help control specific weeds or attract beneficial insects, etc.
2. Each plant species offers a different chemical signature to the soil through the rhizosphere, which provides a different food source for bacteria and fungi in the soil. More variety in the food source creates the habitat for a greater variety of soil organisms—most of which have a positive impact within the soil.
3. Organic matter production is put on the fast track. A diversity of plants above ground creates underground habitat with a healthy balance of predator and prey organisms in the soil. The balance results in improved nutrient cycling.

“We need to think about the organisms in the soil that cycle nutrients,” Lamm says. “Adding a diversity of roots to a soil that has seen only monoculture crops can awaken and ignite those organisms.”

For more information on how to “Unlock the Secrets in Your Soil,” call or visit your local USDA Natural Resources Conservation Service office or visit www.nrcs.usda.gov.

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