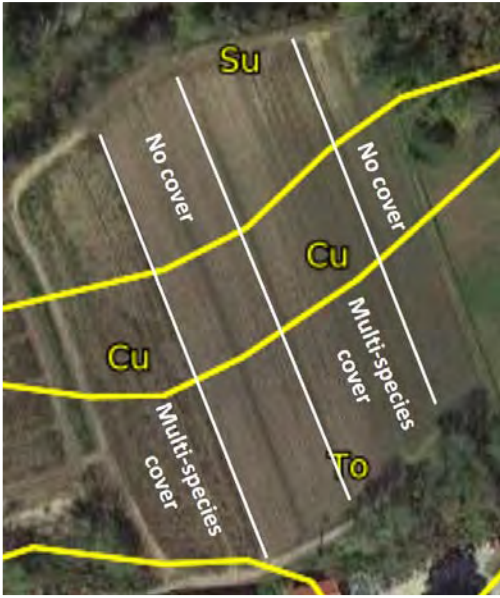


KEEPIN' IT COVERED IN THE CAROLINAS

NC Mountain Demonstration – see ncsoilwater.org for Piedmont & Coastal regions!

Suppressing weeds and building soil fertility are concerns for producers in the Mountain region of North Carolina. Winter cover cropping could help, but what type of cover crop is most suitable? Are mixtures of cover crops beneficial? Could multi-species cover cropping improve soil health?



Replicated strips of multi-species cover crop and no cover crop were arranged on a bottomland field in Henderson County in 2016/17.

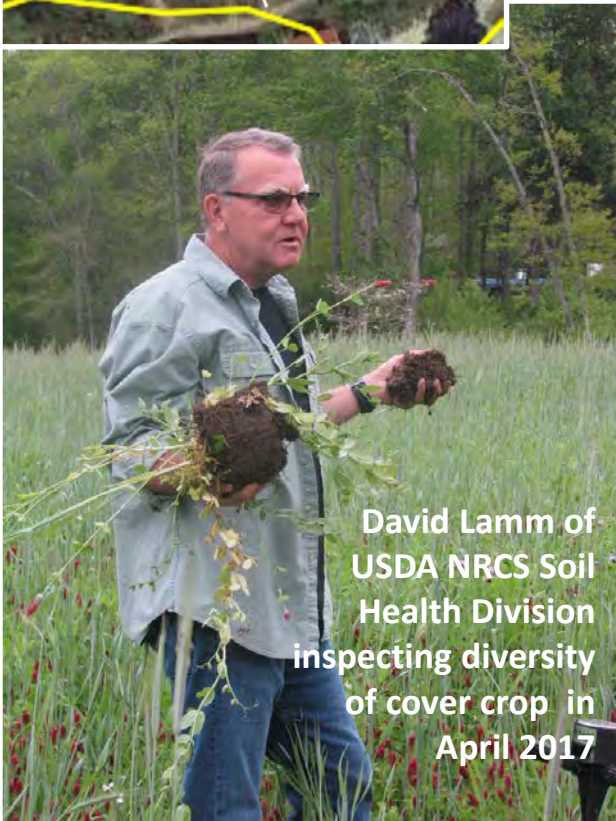
Multi-species cover crop mix in fall 2016:

100 lb/A Rhymin winter rye, 100 lb/A Austrian winter pea, 17 lb/A crimson clover, 7 lb/A Rackmaster trophy radish. No-till planted after sweet corn on Oct 29, 2016. Terminated chemically on May 20, 2017.

Su – Suncook loamy sand (Typic Udipsamments)

Cu – Comus fine sandy loam (Typic Udifluvents)

To – Toxaway silt loam (Cumulic Humaquepts)



David Lamm of
USDA NRCS Soil
Health Division
inspecting diversity
of cover crop in
April 2017



The material is based upon work supported by the Natural Resources Conservation Service, U.S. Department of Agriculture, under number 69-3A75-14-233

Lessons learned

Although only a few soil properties evaluations were available, there was some indication for improvement with multi-species cover cropping in this on-farm demonstration.

Side-by-side strip trials were useful to make evaluations and to demonstrate performance of cover crops in a systematic manner.

“One positive I have noticed is that even without a pre-emergent pesticide, the no-till planting has very few weeds.” – Phillip Whitaker

Soil Biological Activity (mg/kg/3 days)

0-2" depth

No cover	Multi-species cover
187	231

Cover crop production (lb/A) May 20

No cover (weeds) – 2500

Multi-species cover – 9170

Soil bulk density (g/cc)

	<u>0-2"</u>	<u>2-6"</u>
No cover (weeds) –	0.93	1.03
Multi-species cover –	0.97	1.10

Soil sampled on May 16, 2017 at 0-2" and 2-6" depths.



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