



## Conservation Tillage Enhanced Soil Health



# 15%

**water savings**

Savings are generated by using a cover crop and leaving plant residue in the field which modifies plant rooting structure and physiology to enable more efficient water use by crops, improves the water holding capacity of the soil, increases water infiltration rates and reduces soil temperature, evaporative loss and field run-off. Conservation tillage may reduce water use by up to 15%.

## Conservation Tillage

Conservation tillage refers to using a cover crop and intentionally leaving plant residue from a prior crop in the field and not disturbing the soil. This modifies plant rooting structure and physiology to enable more efficient water use by crops and enhanced water holding capacity in the soil. Water infiltration rates and organic matter levels increase. Soil temperature, evaporative loss, and field runoff decrease.

**The two main types of conservation tillage are no-till and strip-till.** No-till methods plant crops directly into residue that has not been tilled. Strip-till methods plant crops into residue that has been tilled in narrow strips while leaving the rest of the field untilled. Crop residue shields soil from rain and wind, reducing soil erosion by as much as 60-90%. As the crop residue decomposes, the organic matter added to the soil reduces runoff, decreases moisture lost to evaporation, and improves soil quality. In some cases, conservation tillage optimizes soil moisture allowing for enhanced crop growth in dry periods. This enhanced infiltration, soil water retention capacity and the subsequent benefits result in water conservation.



Funds for this project were provided by the USDA Natural Resources Conservation Service and administered by the Flint River Soil and Water Conservation District. The United States Department of Agriculture (USDA) is an equal opportunity provider and employer. For more information, please visit [flintriverswcd.org/usda-nds](http://flintriverswcd.org/usda-nds).

**Conservation Tillage: USDA-NRCS EQIP Practice Code 329 & 345**

For more information, please visit  
[flintriverswcd.org/resources](http://flintriverswcd.org/resources)