

RESIDUE AND TILLAGE MANAGEMENT, MULCH-TILL

PRACTICE INTRODUCTION

USDA, Natural Resources Conservation Service - practice code 345



RESIDUE AND TILLAGE MANAGEMENT, MULCH TILL

This practice is managing crop residue on a year round basis to provide an acceptable erosion rate, conserve moisture and maintain or improve soil tilth.

PRACTICE INFORMATION

This practice generally applies to cropland but may also be used on other areas where field crops are grown such as wildlife or recreation lands.

Mulch tillage is a term used when referring to non-inversion tillage such as chiseling and disk harrowing to partially incorporate organic material left on the soil surface. Mulch tillage includes at least the following:

1. Uniformly spreading the residue on the soil surface to accommodate planting the following crop.
2. Use non-inversion tillage tools that only partially incorporate surface organic material.
3. Plan the number, sequence, and timing of tillage operations to achieve the prescribed

amount of surface residue needed to accomplish the objectives of the practice.

4. Use planting equipment designed to operate in high residue situations.
5. Minimize removal of organic residue by burning, baling or grazing.
6. Additional criteria are provided in the practice standard and specifications contained in the NRCS Field Office Technical Guide.

The benefits of this practice are significant. Soil slowly but steadily improves when erosion is reduced and organic matter increases. Soil tilth improves and productivity increases as the constant supply of organic material left on the soil surface is decomposed by a healthy population of earth worms and other organisms. Energy use is reduced.

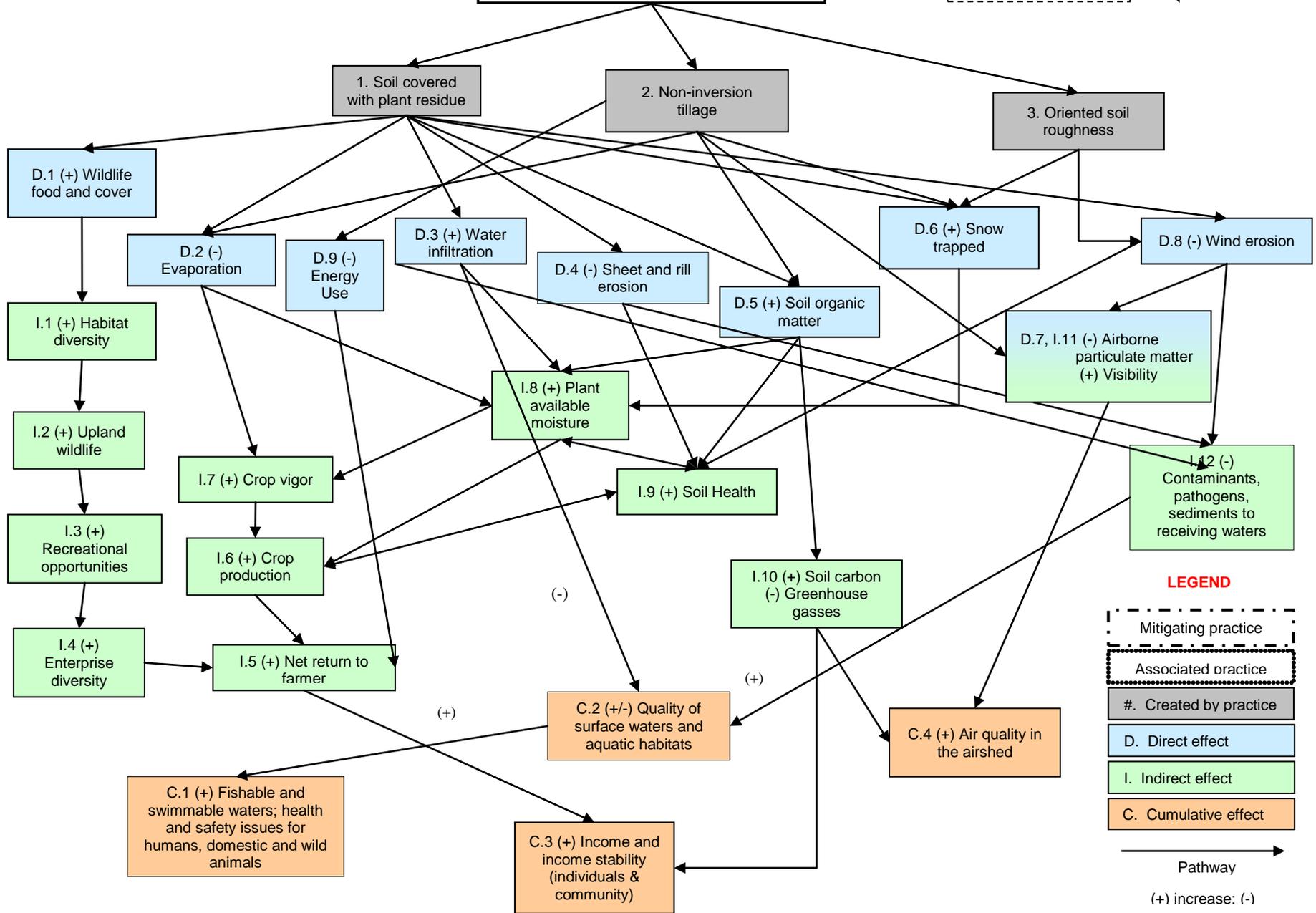
The following page identifies the conservation effects expected to occur when this practice is applied. These effects are subjective and somewhat dependent on variables such as climate, terrain, soil, etc. Users are cautioned that these effects are estimates that may or may not apply to a specific site.

Residue and Tillage Management, Mulch Till

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Initial Setting:
Cropland, subject to erosion



LEGEND

- Mitigating practice
 - Associated practice
 - #. Created by practice
 - D. Direct effect
 - I. Indirect effect
 - C. Cumulative effect
- Pathway
- (+) increase: (-)