

GLOSSARY OF COMMONLY USED CONSERVATION TILLAGE TERMS

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Abstract

To help understand conservation tillage, a glossary has been compiled to help define certain terms associated with it. A list of 12 terms are presented.

Introduction

If all the soil conservation acronyms, scientific jargon, no-tills, zone-tills, ridge-tills, and mulch-tills have you confused, don't feel bad. People who study these things for a living aren't in much better shape. Keeping this in mind, a glossary of definitions is presented to clarify misunderstandings and make the overall concept easier to understand and implement.

Terminology

RUSLE - (Revised Universal Soil Loss Equation) estimates annual soil erosion and how various tillage systems will affect it.

T-Value - The annual rate of soil loss (usually in tons per acre) at which new soil can be formed indefinitely.

Residue - any remaining dead plant material.

Conservation Tillage - Tillage that tends to reduce soil erosion as compared to the older methods of seedbed preparation, usually consisting of moldboard plowing, disk harrowing or chisel plowing, all of which left the soil surface in an erodible condition.

Mulch Till - A conservation tillage system utilizing many of the same tillage tools of conventional tillage but keeping soil erosion at less than the T-value, by operating the implements in such a manner so as not to bury significant amounts of plant residue.

No-Till - No tillage other than cutting a narrow seed furrow through untouched soil, plant residue, and any vegetation present at planting.

Strip-Till (also known as zone-till) - Clearing and tilling a strip of soil usually 4 to 8 inches wide ahead of the seed furrow openers on planters.

Ridge Till - A system of planting seedling rows on ridges. The ridges are formed at layby or immediately after harvest. The ridges may be barred-off or not be barred-off at planting time.

Stale Seedbed - A seedbed prepared well in advance of planting, allowed to settle and may even have a cover crop planted on it to stabilize it. Normally, it is treated with a burn down just prior to planting.

Cover Crop - Crop planted in off season to protect the soil surface, produce organic residue and/or fix atmospheric nitrogen for use by subsequent crops.

Burn Down - Application of non-selective herbicide to kill all growing plants.

High Residue Tillage Equipment - Tillage implements that have high ground clearance, widely spaced plow shanks, and/or cutting coulters in front of its plow shanks. The function of the design being such that plant residue is passed in a steady stream through the implement rather than collecting in wads and lumps or even clogging the implement.

References

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