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Technical Bulletin: No-till management for sustainable and organic systems

Capture the benefits of no-till without the need for herbicides.



No-till practices were first introduced as a soil conservation tool, and to decrease labor requirements and fuel use. Numerous studies have also shown that soil is more protected from erosion and run-off in no-till systems and that no-till yields can be as good as or better than yields with conventional tillage. Plus, soil quality parameters (aggregate stability, microbial activity, earthworm populations) can increase significantly after switching from conventional tillage to no-till.

Unfortunately, in conventional no-till systems, cover crops and weeds are controlled with herbicides rather than by tillage or cultivation. This increased dependence on herbicides is unsustainable, contributing to herbicide resistance in certain weeds and increased leaching of pesticides into groundwater due to higher infiltration rates. Organic farmers are also interested in reducing tillage for the same reasons no-till was originally so popular. But organic farmers are unable to use the most common no-till method to eliminate weeds or get a good kill on the cover crop—herbicides.

Rodale Institute recently developed a technical bulletin with information and resources for implementing an organic no-till system; a system that allows organic farmers to capture the benefits of no-till and conventional farmers to decrease or eliminate the need for herbicides. The technical bulletin is primarily based on past project findings drawn from Rodale Institute research but also includes results from other institutions.

[Click here for the technical bulletin.](#)

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