

Pay Dirt: Conserve Money, Energy, and Improve Soil Health with No-Till Farming

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One question remains the same for the future of agriculture: *How do we do more with less?* Building conservation and sustainability practices into farming operations are a positive step in the right direction. In a recent publication, “Save Money on Fuel with No-Till Farming,” by the USDA/NRCS, the effects No-Till has toward high fuel prices and reducing carbon emissions are brought to light.

Conserve Money: Less Passes in the Field = More Time & More Money

Conservation practices utilized by farming operations must make sense in the farm’s budget before they can be put to work. USDA’s Conservation Effects Assessment Project (CEAP) claims 3.6 gallons per acre is a reasonable estimate of fuel savings realized by implementing No-Till. Keeping with CEAP’s report, assume an average price of \$4.75 per gallon for off-road diesel like we are currently seeing across the Midwest ($\$4.75 \text{ per gal. fuel} \times 3.6 \text{ gals. used per acre for tillage} = \$17 \text{ per acre in savings}$). For farmers this means less passes in the field from No-Till farming = \$17 per acre in savings for eliminating tillage. This does not include the savings in labor, investment in implements, and maintenance, which can vary over each operation. Even if fuel is the only consideration to the cost savings of implementing No-Till, a dollar saved is a dollar which can be reinvested back into the farm. Bottom line for farmers: The potential to add \$17 per acre back into the budget is something to be considered.

Conserve Energy: Less Passes in the Field = Less Emissions

Based on CEAP’s findings, fewer trips across the field could influence farm operations’ impact on carbon emissions. Popularity to reduce carbon emission produced by burning fossil fuels has never been more prevalent than today. There are differing views and matters on the topic. But no matter what side of the coin

you fall on, we can all agree it is a topic that is more frequent in recent years. According to CEAP, almost 87% of cropland acres are implementing some form of conservation tillage, whereas tillage is reduced for at least one crop on a given field. Continuous No-Till makes up 33% of cropland under conservation tillage. Reduction in conventional tillage leading to decreased use of fossil fuels may also lead to the reduction of carbon dioxide (CO₂) emissions. Per CEAP's report, farmers who deploy conservation tillage practices over conventional tillage have the potential to reduce diesel fuel usage by 763 million gallons per year nationwide and potential CO₂ emissions associated with fuel usage by 8.5 million tons.

If energy use and emissions are something of concern, what is being done about it? Where does the accountability to change come from? At Peoples Company, our managed acres are held accountable by the Leading Harvest Farmland Management Standard. The Leading Harvest Standard is a third party audited national management standard that identifies sustainable farming practices based on 13 principles and objectives. Peoples Company's Land Management team seeks to promote sustainable agricultural practices and commits to be stewards of the land in a manner that is valuable for generations. This research by CEAP offers the opportunity to highlight principal #5 of the Leading Harvest Standard: Energy Use, Air Quality, And Climate Change. Principal #5 promotes "increased use of energy-efficient agriculture practices and equipment and minimize atmospheric emissions."

Improve Soil Health: Less Passes in the Field = Healthier Soils

It is not surprising that minimizing tillage can help build healthy soil. No-Till minimizes soil disturbance, leaving valuable crop residue intact to act as cover. This residual cover has many benefits that may reduce soil erosion, maximize water infiltration, improve soil nutrient cycling, and build organic matter. Resilient soil has the potential to protect crops against natural disasters and challenging growing conditions. Increased residual cover ensures cropland is less vulnerable to erosion and increases the water-holding capacity in times of drought. Building soil resilience is like cooking with a crockpot; it takes time. Peoples Company Land Managers test soil fertility through sampling every three to four years. Healthy soils will have high organic matter, fertility, and living microorganisms.

No-Till is a win-win way of building conservation and sustainability into farming. Less passes in the field by reducing tillage can save money, decrease carbon emissions, and improve soil health. If you are interested in learning more about No-Till farming or how Peoples Company can manage your land for sustainability and appreciation, please call 855.800.5263 or email LandManagement@PeoplesCompany.com.