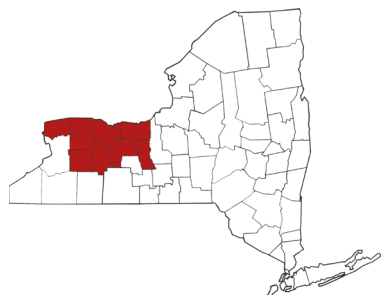


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Achieving Improved Soil Health Outcomes While Maintaining or Improving Economic Viability: Case Study of a Dairy Farm Business in the Genesee River Watershed, New York

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Image 1. Differences, changes in annual profit (\$ per acre and total \$ for the farm), Mulligan Farm (Capture of worksheet table from R-SHEC workbook)

Farmer Name							
Mulligan Farm, Inc. (Forrest Mulligan), Avon, NY							
Watershed Name							
Genesee River - New York							
Table 1. Estimated Change in Profit, Marginal, Before Tax, Annual Analysis, Post Soil Health (SH) Practices/System Adoption Compared to Previous Crop/Soil Management Practices, Mulligan Farm, Inc., NY, Price Indices Adjusted \$'s (2011 = 100).							
Items that Increase Profit				Items that Decrease Profit			
Total Value of Production (TVP), Increases				TVP, Decreases			
Item	Per Acre	Acres	Total	Item	Per Acre	Acres	Total
Value of crop production	\$76.00	2,618	\$198,968				\$0
TVP Increases, Total			\$198,968	TVP Decreases, Total			\$0
Costs, Decreases				Costs, Increases			
Item	Per Acre	Acres	Total	Item	Per Acre	Acres	Total
Fertilizers & lime	\$11.00	2,618	\$28,798	Seeds & plants	\$8.00	2,618	\$20,944
Fuels, oils & greases	\$19.00	2,618	\$49,742	Spray & other crop expenses	\$38.00	2,618	\$99,484
Machinery hire, rent & lease	\$27.00	2,618	\$70,686	Machinery repair & farm vehicle expenses	\$2.00	2,618	\$5,236
				Other machinery expenses	\$10.00	2,618	\$26,180
					\$0.00	0	\$0
Costs, Decreases Total			\$149,226	Costs, Increases Total			\$151,844
Items that Increase Profit, Total			\$348,194	Items that Decrease Profit, Total			\$151,844
Total Acres in this Study Area		2,618		Total Acres in this Study Area		2,618	
Items that Increase Profit, Total per acre			\$133	Items that Decrease Profit, Total per acre			\$58
Estimated Change in Profit, Farm (Annual)				= \$196,350			
Estimated Change in Profit, (\$ per acre, Annual)				= \$75			
Estimated Change in Profit/Profit Decreases Total (%)				= 129%			
<i>Selected assumptions, notes (please see Methods section for greater detail).</i>							
<i>Marginal, before tax, annual analysis estimating the change, difference in profit (tvp - costs), \$/acre and \$ for the farm, associated with the cropping system that incorporates soil health practices, systems compared to the former, conventional cropping system (prior to full range of soil health practice, system adoption).</i>							
<i>Table reflects differences in average value for only those value of production and cost items that differ between the current and former scenarios.</i>							
<i>This table represents costs and benefits over the entire study area (2,618 tillable acres) as reported by the farmer.</i>							
<i>All values expressed in real terms, \$ where 2011 = 100 (Producer Price Index and Prices Received Index from USDA/Ag Statistics Service. Various reports, years). A difference is calculated by subtracting the value for the former scenario from the value for the current scenario, where a former value is the average calculated for the period, 1998 through 2014, and a current value is the average calculated for the period 2015 through 2019.</i>							
<i>Averages for current and former time periods calculated using: 1) historical cropping program analysis data reported annually via farm business summary and analysis work (Cornell University Cooperative Extension's Dairy Farm Business Summary Program, <dfbs.cornell.edu>); and 2) prices received data (USDA/NASS/NYS Agricultural Statistics Service).</i>							
<i>Except for prices paid and received indices, and prices received by crop, data are from the "Cropping Program Analysis" page from the farm's DFBSs over time -- acres harvested, production, yield per acre by crop; and fertilizer & lime, seeds & plants, sprays and other crop expenses, variable and fixed machinery costs per acre.</i>							
<i>Here, per AFT tools, the return on investment value as a percent equals the estimated change in profit associated with soil health system adoption (\$75 per acre) divided by the sum of items that decrease profit (\$58 per acre) times 100.</i>							
<i>For information about: (1) study methodology, see https://farmland.org/soilhealthcasestudies; (2) USDA's Nutrient Tracking Tool, see https://www.oem.usda.gov/nutrient-tracking-tool.ntt; (3) USDA's COMET-Farm Tool, see http://cometfarm.nrel.colostate.edu/.</i>							
<i>This material is based on work supported by American Farmland Trust, and other state and local funding.</i>							