

Economics of Malting Barley Production: Costs and Profit with Sensitivity Analysis

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Summary

- Profit estimates vary -- negative to positive -- depending upon yield and price received by the farmer for barley
- Producers can use estimates to make decisions regarding malting barley production's place in their cropping systems; understanding variability plays an important role
- Understanding yield, quality, price, costs, profit interactions associated with suggested changes in production practices are key moving forward

Research Questions

- What are the costs of production under different scenarios?
- What are profits under different scenarios?
- How sensitive are costs of production and profit to variability in yield and price received by producers for barley?
- What are some implications of the above moving forward?

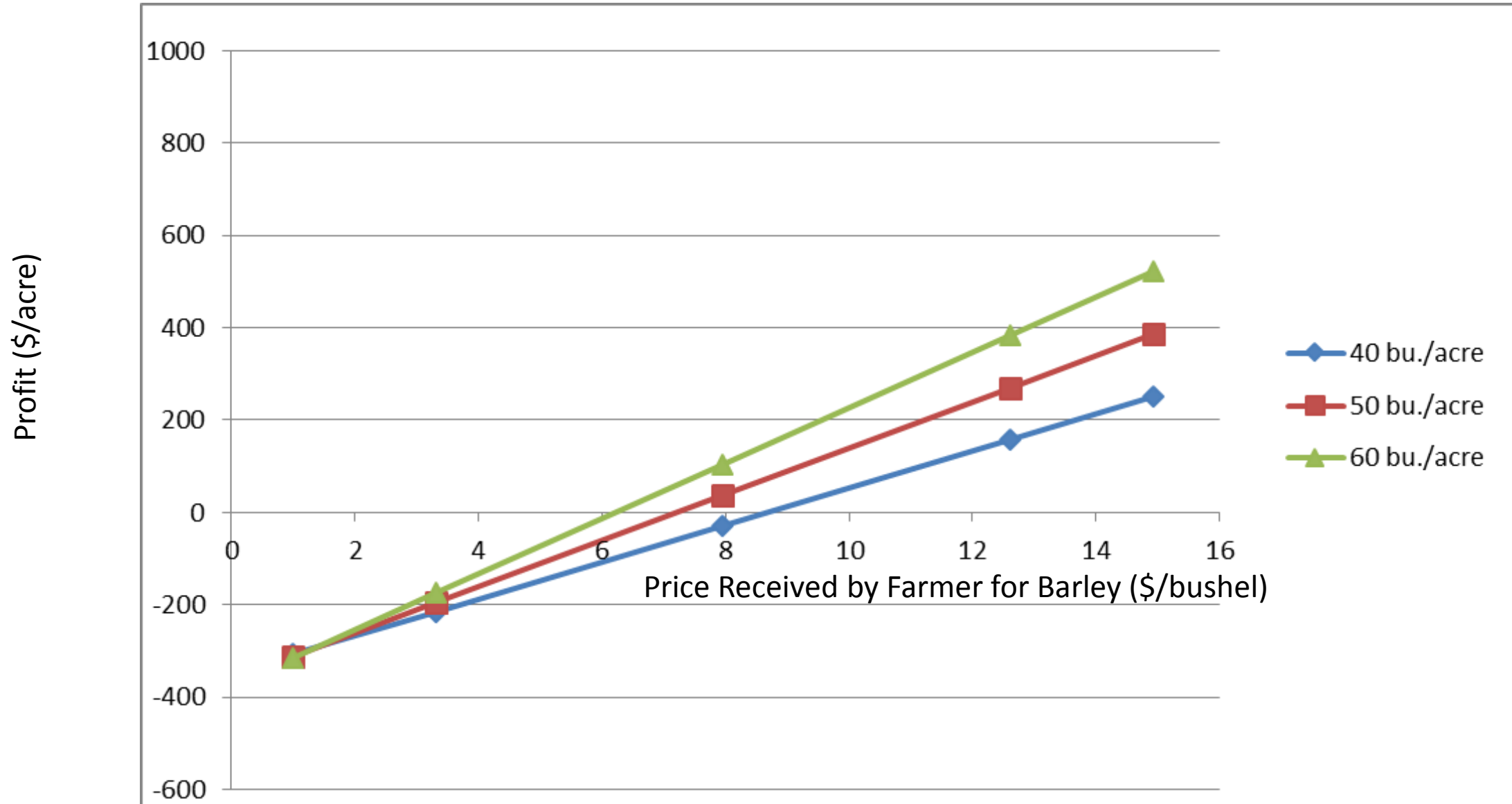
Approach

- Estimate costs of production under varying conditions
- Examine prices received by farmers for barley (Source of barley price data: CCE/Harvest New York. 2016. NYS Brewery: Supply Chain Analysis)
- Estimate value of production, price times yield
- Estimate profit and perform sensitivity analysis with respect to yield and output price

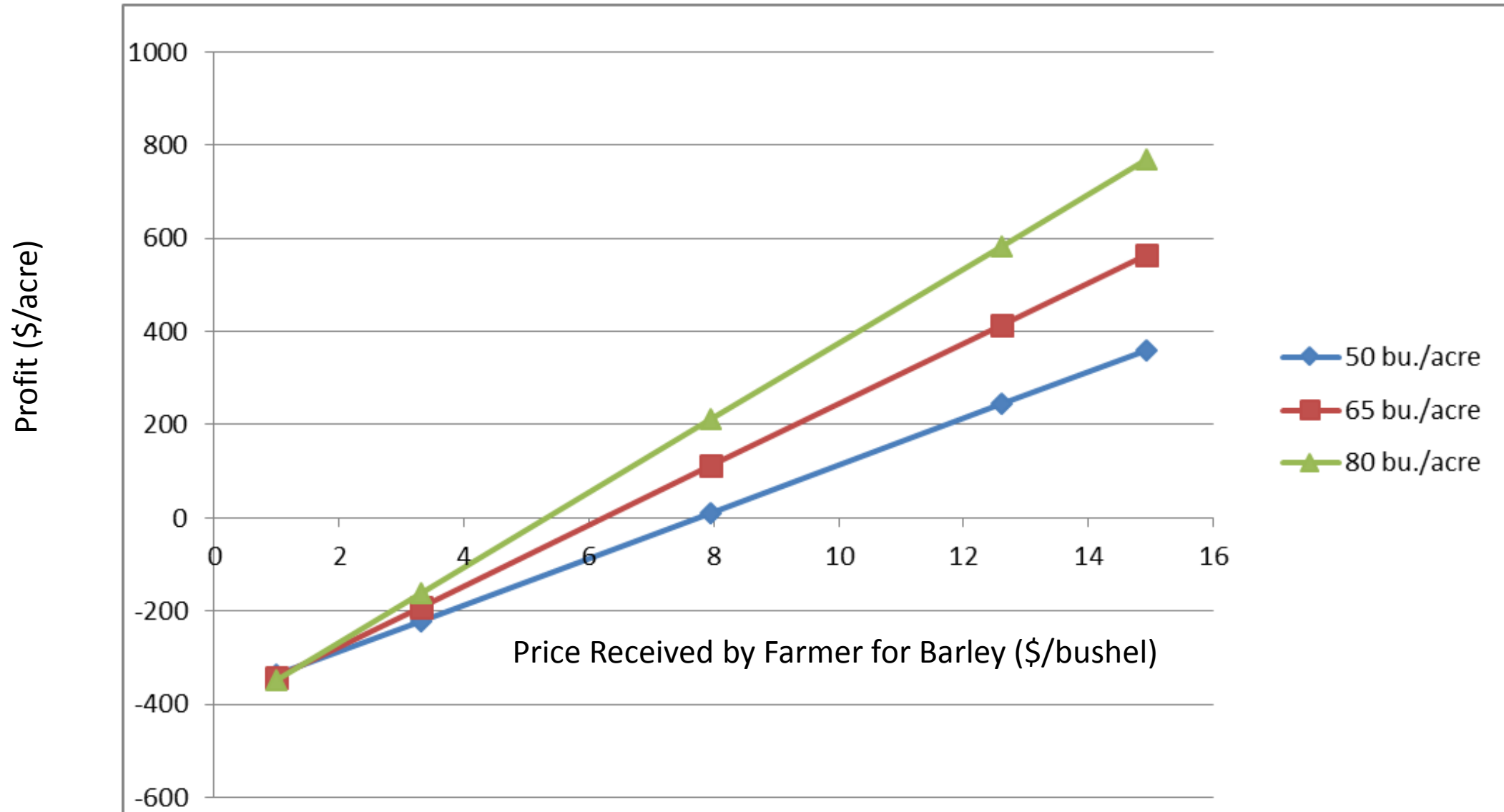
Variable, Fixed and Total Costs by Scenario, NY, 2014 and 2015

Scenario	Cost Category		
	Variable	Fixed	Total
	--- \$ per acre ---		
Spring, Conventional, Standard Management, 2015	194.90	165.06	359.96
Spring, Conventional, Intensive Management, 2015	238.99	167.24	406.23
Winter, Conventional, Standard Management, 2015	222.27	165.06	387.33
Winter, Conventional, Intensive Management, 2015	255.18	167.23	422.41
Spring, Min Till, Intensive Management, 2014	254.37	154.83	409.20
Winter, Min Till, Intensive Management, 2014	268.13	154.83	422.96
Spring, No Till, Intensive Management, 2014	364.35	118.39	482.74
Spring, Conventional, Intensive Management, 2014	320.52	129.82	450.34

Profit, return to management, (\$/acre) by barley price (\$/bushel) by barley yield (bushels/acre), spring variety, conventional tillage, standard management, NY, 2015



Profit, return to management, (\$/acre) by barley price (\$/bushel) by barley yield (bushels/acre), spring variety, conventional tillage, intensive management, NY, 2015



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- Understanding yield, quality, price, costs, profit interactions associated with suggested changes in production practices are key moving forward