

Malting Barley Budgets, Conventional and Reduced Tillage, New York, 2019

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The 2019 estimates in tables 1 and 2 resulted from working with growers, and Cornell University regional agronomists and faculty. Analysts prepared the estimates for release at the Empire State Barley & Malt Summit, December 12 & 13, 2018, Liverpool, NY. See <nwnyteam.cce.cornell.edu> or <fieldcrops.org> for more on the economics of growing malting barley in NY.

Table 1. Estimated Value of Production, Costs and Returns for Malting Barley by Variety by Management Intensity, Conventional Tillage, NY, 2019.

Item	Spring, Standard Management, 50 bu./acre	Spring, Intensive Management, 60 bu./acre	Winter, Standard Management, 70 bu./acre	Winter, Intensive Management, 80 bu./acre
<u>Value of Production</u>				
	--- \$ per acre ---			
Barley at \$7.00 /bu. (grain only)	350.00	420.00	490.00	560.00
*Est. weighted avg. price				
Total	350.00	420.00	490.00	560.00
<u>Costs of Production</u>				
<u>Variable Inputs</u>				
	--- \$ per acre --			
Fertilizer & Lime	38.53	51.30	78.68	95.65
Seeds	36.64	36.64	36.64	36.64
Sprays & Other Variable Inputs	43.55	73.32	65.55	106.29
Labor	17.25	17.77	17.25	17.77
Repairs & Maintenance				
Tractor	21.29	21.39	21.29	21.39
Equipment	5.08	5.55	5.08	5.55
Fuels & Lubricants	18.17	18.55	18.17	18.55
Interest on Operating Capital	4.51	5.60	10.11	12.56
<u>Total Variable Inputs Costs</u>				
	--- \$ per acre ---			
Total	185.02	230.12	252.77	314.40
	--- \$ per bushel ---			
Total	3.70	3.84	3.61	3.93
<u>Fixed Inputs</u>				
	--- \$ per acre --			
Tractor	44.27	44.93	44.27	44.93
Equipment	27.10	29.34	27.10	29.34
Land charge	101.88	101.88	101.88	101.88
Value of Op. & Family Mgt.				
*Excluded				

Table 1. Estimated Value of Production, Costs and Returns ... Conventional Tillage, NY, 2019 -- continued

Item	Spring, Standard Management, 50 bu./acre	Spring, Intensive Management, 60 bu./acre	Winter, Standard Management, 70 bu./acre	Winter, Intensive Management, 80 bu./acre
<u>Total Fixed Input Costs</u>				
		--- \$ per acre ---		
Total	173.25	176.15	173.25	176.15
		--- \$ per bushel --		
Total	3.47	2.94	2.48	2.20
<u>Total Costs</u>				
		--- \$ per acre ---		
Total	358.27	406.27	426.02	490.55
		--- \$ per bushel ---		
Total	7.17	6.77	6.09	6.13
<u>Returns</u>				
		--- \$ per acre ---		
Return above variable costs	164.98	189.88	237.23	245.60
		--- \$ per bushel ---		
Return above variable costs	3.30	3.16	3.39	3.07
		--- \$ per acre ---		
Return above total costs	-8.27	13.73	63.98	69.45
		--- \$ per bushel ---		
Return above total costs	-0.17	0.23	0.91	0.87

- Costs of production include variable and fixed costs, excluding a charge for operator management, up to the time when grain is in the bin – bin prep, hauling and drying are included, while storage and other marketing costs are excluded.
- Selected differences, spring versus winter barley, include the following: expected yields for spring varieties are typically lower than yields for winter varieties; spring barley receives a single application of fertilizers at planting, while winter varieties receive an application at planting in the fall, and a second at green-up in early spring or split applied between green up and stem elongation for more intensively managed fields.
- Selected differences, standard versus intensive barley, include the following: expected yields for standard management are typically lower than goals for intensively managed barley; intensively managed barley receives on average one fungicide application often in combination with an insecticide.
- Selected characteristics for the conventional tillage system include: a primary tillage pass with a combination chisel plow, disk; a secondary tillage pass with a medium, light disk; planting with a small grains drill; pre-emergence weed control; harvest with a grain combine at low speed.
- Expected weighted average price for barley estimated using price, and percentage marketed by end use data (Newbold and Thayer. 2016. NYS Brewery Supply Chain Analysis. Ithaca, NY: Cornell University Cooperative Extension, Harvest, NY). Expected yields per “Ten Keys to Successful Malting Barley Production in New York.” Cornell Cooperative Extension. May 2018.
- The “Spray & Other Variable Inputs” cost item includes: spray materials; custom operator charges for spraying and other crop management tasks; crop professional fees for soil testing, scouting, consulting etc.; bin prep; drying; and others.
- Acknowledgement of funding sources: NYS Ag & Markets; Genesee Valley Regional Marketing Authority; NY Farm Viability Institute.
- Questions? Comments? Contact John Hanchar, jjh6@cornell.edu, (585) 233-9249

Table 2. Estimated Value of Production, Costs and Returns for Malting Barley by Variety, Reduced Tillage, Intensive Management, NY, 2019.

Item	Spring, Intensive Management, 60 bu./acre	Winter, Intensive Management, 80 bu./acre
<u>Value of Production</u>		
		--- \$ per acre ---
Barley at \$7.00/bu.* (grain only)	420.00	560.00
*Est. weighted avg. price		
Total	420.00	560.00
<u>Costs of Production</u>		
<u>Variable Inputs</u>		
		--- \$ per acre ---
Fertilizers & Lime	51.10	93.45
Seeds	50.69	50.69
Sprays & Other Variable Inputs	82.27	115.20
Labor	14.30	14.30
Repairs & Maintenance		
Tractor	21.03	21.03
Equipment	6.39	6.39
Fuels & Lubricants	16.83	16.83
Interest on Operating Capital	6.05	7.94
<u>Total Variable Inputs Costs</u>		
		--- \$ per acre ---
Total	248.66	325.83
		--- \$ per bushel ---
Total	4.14	4.07
<u>Fixed Inputs</u>		
		--- \$ per acre ---
Tractor	43.58	43.58
Equipment	22.59	22.59
Land charge	101.88	101.87
Value of Op. & Family Mgt.*		
*Excluded		
<u>Total Fixed Input Costs</u>		
		--- per acre ---
Total	168.05	168.04
		--- \$ per bushel ---
Total	2.80	2.10

Table 2. Estimated Value of Production, Costs and Returns ... Reduced Tillage, 2019 -- continued

Item	Spring, Intensive Management, 60 bu./acre	Winter, Intensive Management, 80 bu./acre
Total Costs		
		--- \$ per acre ---
Total	416.71	493.87
		--- \$ per bushel ---
Total	6.95	6.17
Returns		
		--- \$ per acre ---
Return above variable costs	171.34	234.17
		--- \$ per bushel ---
Return above variable costs	2.86	2.93
		--- \$ per acre ---
Return above total costs	3.29	66.13
		--- \$ per bushel ---
Return above total costs	0.05	0.83

- Costs of production include variable and fixed costs, excluding a charge for operator management, up to the time when grain is in the bin – bin prep, hauling and drying are included, while storage and other marketing costs are excluded.
- Selected differences, spring versus winter barley, include the following: expected yields for spring varieties are typically lower than yields for winter varieties; spring barley receives a single application of fertilizers at planting, while winter varieties receive an application at planting in the fall, and a second at green-up in early spring or split applied between green up and stem elongation for more intensively managed fields.
- Selected characteristics, intensive management, include the following: expected yields for intensive management are typically higher than goals for standard management; intensively managed barley receives on average one fungicide application annually often in combination with an insecticide.
- Selected characteristics for the reduced tillage system include: a single tillage pass with a light disk or Aerway type tool; planting with a no till small grains drill; pre-emergence weed control; harvest with a grain combine at low speed.
- Expected weighted average price for barley estimated using price, and percentage marketed by end use data (Newbold and Thayer. 2016. *NYS Brewery Supply Chain Analysis*. Ithaca, NY: Cornell University Cooperative Extension, Harvest, NY). Expected yields per “Ten Keys to Successful Malting Barley Production in New York.” Cornell Cooperative Extension. May 2018.
- The “Spray & Other Variable Inputs” cost item includes: spray materials; custom operator charges for spraying and other crop management tasks; crop professional fees for soil testing, scouting, consulting etc.; bin prep; drying; and others.
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