

Malting Barley Budgets, Conventional and Reduced Tillage, New York, 2018

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The 2018 estimates in tables 1 and 2 resulted from working with growers, and Cornell University regional agronomists and faculty. The estimates were prepared for the Empire State Barley & Malt Summit, December 13 & 14, 2017, Liverpool, NY, and the Empire State Producers Expo, January 16 – 18, 2018, Syracuse, NY. See <nwnyteam.cce.cornell.edu> for more “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, 2018.

Item	Spring, Standard Management, 50 bu./acre	Spring, Intensive Management, 65 bu./acre	Winter, Standard Management, 70 bu./acre	Winter, Intensive Management, 80 bu./acre
<u>Value of Production, Revenue</u>				
		--- \$ per acre ---		
Barley at \$6.63/bu. (grain only)	331.50	430.95	464.10	530.40
*Est. weighted avg. price				
Total	331.50	430.95	464.10	530.40
<u>Costs of Production</u>				
<u>Variable Inputs</u>				
		--- \$ per acre --		
Fertilizer & Lime	32.08	43.43	43.62	52.58
Seeds	33.97	33.97	33.97	33.97
Sprays & Other Variable Inputs	44.81	68.08	66.83	88.63
Labor	16.64	17.15	16.64	17.16
Repairs & Maintenance				
Tractor	20.32	20.42	20.32	20.42
Equipment	4.29	4.76	4.29	4.76
Fuels & Lubricants	13.22	13.49	13.22	13.49
Interest on Operating Capital	4.13	5.03	8.29	9.63
<u>Total Variable Inputs Costs</u>				
		--- \$ per acre ---		
Total	169.46	206.33	207.18	240.64
		--- \$ per bushel ---		
Total	3.39	3.17	2.96	3.01
<u>Fixed Inputs</u>				
		--- \$ per acre --		
Tractor	42.53	43.24	42.53	43.24
Equipment	24.40	26.67	24.40	26.67
Land charge	100.00	100.00	100.00	100.00
Value of Op. & Family Mgt.				
*Excluded				

Table 1. Estimated Value of Production, Costs and Returns ... Conventional Tillage, NY, 2018 -- continued

Item	Spring, Standard Management, 50 bu./acre	Spring, Intensive Management, 65 bu./acre	Winter, Standard Management, 70 bu./acre	Winter, Intensive Management, 80 bu./acre
<u>Total Fixed Input Costs</u>				
		--- \$ per acre ---		
Total	166.93	169.91	166.94	169.91
		--- \$ per bushel --		
Total	3.34	2.61	2.38	2.12
<u>Total Costs</u>				
		--- \$ per acre ---		
Total	336.39	376.24	374.12	410.55
		--- \$ per bushel ---		
Total	6.73	5.79	5.34	5.13
<u>Returns</u>				
		--- \$ per acre ---		
Return above variable costs	162.04	224.62	256.92	289.76
		--- \$ per bushel ---		
Return above variable costs	3.24	3.46	3.67	3.62
		--- \$ per acre ---		
Return above total costs	-4.89	54.71	89.98	119.85
		--- \$ per bushel ---		
Return above total costs	-0.10	0.84	1.29	1.50

- 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.
- 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.
- 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, 2018.

Item	Spring, Intensive Management, 65 bu./acre	Winter, Intensive Management, 80 bu./acre
<u>Value of Production</u>		
		--- \$ per acre ---
Barley at \$6.63/bu.* (grain only)	430.95	530.40
*Est. weighted avg. price		
Total	430.95	530.40
<u>Costs of Production</u>		
<u>Variable Inputs</u>		
		--- \$ per acre ---
Fertilizers & Lime	43.43	52.58
Seeds	47.01	47.01
Sprays & Other Variable Inputs	73.24	94.14
Labor	13.80	13.80
Repairs & Maintenance		
Tractor	20.10	20.10
Equipment	5.73	5.73
Fuels & Lubricants	12.24	12.24
Interest on Operating Capital	5.38	10.23
<u>Total Variable Inputs Costs</u>		
		--- \$ per acre ---
Total	220.93	255.83
		--- \$ per bushel ---
Total	3.40	3.20
<u>Fixed Inputs</u>		
		--- \$ per acre ---
Tractor	42.13	42.13
Equipment	20.50	20.50
Land charge	100.00	100.00
Value of Op. & Family Mgt.*		
*Excluded		
<u>Total Fixed Input Costs</u>		
		--- per acre ---
Total	162.63	162.63
		--- \$ per bushel ---
Total	2.50	2.03

Table 2. Estimated Value of Production, Costs and Returns ... Reduced Tillage, 2018 -- continued

Item	Spring, Intensive Management, 65 bu./acre	Winter, Intensive Management, 80 bu./acre
<u>Total Costs</u>		
		--- \$ per acre ---
Total	383.56	418.46
		--- \$ per bushel ---
Total	5.90	5.23
<u>Returns</u>		
		--- \$ per acre ---
Return above variable costs	210.02	274.57
		--- \$ per bushel ---
Return above variable costs	3.23	3.43
		--- \$ per acre ---
Return above total costs	47.39	111.94
		--- \$ per bushel ---
Return above total costs	0.73	1.40

- 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.
- 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.
- 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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