

Table A2. Economic analysis: return to cover crop, 2017.

Case	Coefficients (\$/bu)				Yield (bu/a, 15%)			Gross \$/a	Yield Dependant Costs						Constant Costs (cover crop)						Net \$/a	
	Dry (pt.)	Hauling	Removal	Price	Cover	No cover	(+/-)		Drying		Hauling		Nutrient Removal \$/a	Total \$/a	Seed \$/a	Estab. \$/a	Mgt. \$/a	Term. \$/a	Interest \$/a	Total \$/a		
									Moist %	Cost (\$)	wet bu. acre	\$/a										
1	0.047	0.13	0.20	3.35	195.80	185.90	9.90	33.17	19.80	0.23	2.23	13.07	1.70	2.02	5.95	6.00	15.00	0.00	0.00	1.05	22.05	5.16
2	0.047	0.13	0.21	3.71	229.20	223.00	6.20	23.00	19.00	0.19	1.17	7.85	1.02	1.28	3.46	26.50	15.00	0.00	0.00	2.59	44.09	-24.55
3	0.047	0.13	0.21	3.09	207.70	207.90	-0.20	-0.62	19.50	0.00	0.00	0.00	0.00	0.00	0.00	33.60	2.50	13.10	5.42	4.18	58.80	-59.42
4	0.047	0.13	0.20	3.40	176.50	170.60	5.90	20.06	17.60	0.12	0.72	6.92	0.90	1.17	2.80	7.00	15.00	0.00	0.00	1.10	23.10	-5.84
5	0.047	0.13	0.20	3.40	200.50	193.90	6.60	22.44	18.50	0.16	1.09	8.14	1.06	1.31	3.46	7.00	15.00	0.00	0.00	1.10	23.10	-4.12
6	0.047	0.13	0.20	3.40	172.90	173.70	-0.80	-2.72	16.30	0.00	0.00	0.00	0.00	0.00	0.00	7.00	15.00	0.00	0.00	1.10	23.10	-25.82
Mean:																					-19.10	

Drying: S&R (Cold Spring) charge

Hauling: 2017 Iowa State University Custom Rate Guide

Nutrient removal: calculated from individual prices paid for DAP and potash, using UWEX removal constants adjusted to 15% grain moisture

Interest: 5% APR from the time of cover crop planting and other management until corn harvest

Table A3. Economic analysis: breakeven yield and price, 2017.

Case	Coefficients (\$/bu)				Yield (bu/a)			Gross \$/a	Yield Dependant Costs						Constant Costs (cover crop)						Net \$/a	
	Dry (pt.)	Hauling	Removal	Price (\$/bu)	Cover	No cover	Yield (bu/a)		Drying		Hauling		Nutrient Removal \$/a	Total \$/a	Seed \$/a	Estab. \$/a	Mgt. \$/a	Term. \$/a	Interest \$/a	Total \$/a		
									Moist %	Cost (\$)	wet bu. acre	\$/a										
Yield																						
1	0.047	0.13	0.204	3.35	195.80	185.90	8.020	26.87	19.80	0.23	1.81	10.59	1.38	1.64	4.82	6.00	15.00	0.00	0.00	1.05	22.05	0.00
2	0.047	0.13	0.206	3.71	229.20	223.00	13.990	51.90	19.00	0.19	2.63	17.72	2.30	2.88	7.82	26.50	15.00	0.00	0.00	2.59	44.09	0.00
3	0.047	0.13	0.211	3.09	207.70	207.90	23.533	72.72	19.50	0.21	4.98	30.59	3.98	4.97	13.92	33.60	2.50	13.10	5.42	4.18	58.80	0.00
4	0.047	0.13	0.199	3.40	176.50	170.60	7.893	26.84	17.60	0.12	0.96	9.26	1.20	1.57	3.74	7.00	15.00	0.00	0.00	1.10	23.10	0.00
5	0.047	0.13	0.199	3.40	200.50	193.90	8.030	27.30	18.50	0.16	1.32	9.90	1.29	1.60	4.21	7.00	15.00	0.00	0.00	1.10	23.10	0.00
6	0.047	0.13	0.199	3.40	172.90	173.70	7.705	26.20	16.30	0.06	0.47	8.37	1.09	1.53	3.09	7.00	15.00	0.00	0.00	1.10	23.10	0.00
Price																						
1	0.047	0.13	0.204	2.828	195.80	185.90	9.90	28.00	19.80	0.23	2.23	13.07	1.70	2.02	5.95	6.00	15.00	0.00	0.00	1.05	22.05	0.00
2	0.047	0.13	0.206	7.670	229.20	223.00	6.20	47.55	19.00	0.19	1.17	7.85	1.02	1.28	3.46	26.50	15.00	0.00	0.00	2.59	44.09	0.00
3	0.047	0.13	0.211	n/a	207.70	207.90	-0.20	n/a	19.50	0.21	-0.04	-0.26	-0.03	-0.04	-0.12	33.60	2.50	13.10	5.42	4.18	58.80	0.00
4	0.047	0.13	0.199	4.389	176.50	170.60	5.90	25.90	17.60	0.12	0.72	6.92	0.90	1.17	2.80	7.00	15.00	0.00	0.00	1.10	23.10	0.00
5	0.047	0.13	0.199	4.024	200.50	193.90	6.60	26.56	18.50	0.16	1.09	8.14	1.06	1.31	3.46	7.00	15.00	0.00	0.00	1.10	23.10	0.00
6	0.047	0.13	0.199	n/a	172.90	173.70	-0.80	n/a	16.30	0.06	-0.05	-0.87	-0.11	-0.16	-0.32	7.00	15.00	0.00	0.00	1.10	23.10	0.00

n/a, not applicable, unachievable due to yield reduction.