

Table 2. Treatment specific costs for equipment, labor, and materials per acre.

<b><u>Input</u></b>	<b><u>Descriptions</u></b>	<b><u>Treatment Cost per Acre (\$)</u></b>				
		<i>NCE/NCN</i>	<i>CS</i>	<i>CD</i>	<i>WS</i>	<i>WD</i>
Equipment	Low Tunnel Machine	0	7.00	7.00	7.00	7.00
Labor	Tunnel Installation	0	63.00	63.00	63.00	63.00
	Tunnel Removal	0	75.00	75.00	75.00	75.00
	Wire Installation	0	75.00	75.00	75.00	75.00
	Wire Removal	0	25.00	25.00	25.00	25.00
Wire Hoop		0	6.50	6.50	6.50	6.50
Plastic Cover		0	298.00	298.00	305.00	305.00
Row Cover		0	0.00	138.00	0.00	138.00
<b>Total Input Costs</b>		<b>0</b>	<b>549.50</b>	<b>687.50</b>	<b>556.50</b>	<b>694.50</b>

Table 3. Weekly yield, weekly price (\$) and weekly gross revenue (\$) for cucumbers grown using various low tunnel systems.

Year/Week	Cucumber Treatment																	
	Control Early			Control Normal			Clear single layer			Clear dual layer			White single layer			White dual layer		
2011	Yield	Price	Rev.	Yield	Price	Rev.	Yield	Price	Rev.	Yield	Price	Rev.	Yield	Price	Rev.	Yield	Price	Rev.
1	0.06	24.50	1.52	0.00	24.50	0.00	0.37	24.50	9.17	0.42	24.50	10.22	0.04	24.50	0.91	0.17	24.50	4.23
2	1.21	24.00	29.06	0.00	24.00	0.00	2.07	24.00	49.63	2.17	24.00	52.14	1.18	24.00	28.36	1.75	24.00	41.93
3	1.52	19.25	29.25	0.40	19.25	7.61	2.30	19.25	44.29	2.20	19.25	42.28	1.86	19.25	35.73	1.68	19.25	32.29
4	2.75	18.75	51.55	2.96	18.75	55.51	3.47	18.75	65.11	3.86	18.75	72.39	3.32	18.75	62.21	2.90	18.75	54.38
5	1.86	18.62	34.57	2.89	18.62	53.85	1.77	18.62	32.93	1.94	18.62	36.11	1.83	18.62	34.01	1.56	18.62	28.97
6	1.44	18.50	26.55	2.54	18.50	47.05	1.28	18.50	23.68	1.53	18.50	28.39	1.88	18.50	34.70	1.33	18.50	24.64
7	0.91	18.50	16.88	1.46	18.50	26.92	1.01	18.50	18.69	1.04	18.50	19.26	1.01	18.50	18.68	0.92	18.50	17.02
Total	9.75		189.38	10.25		190.95	12.27		243.49	13.16		260.79	11.10		214.60	10.31		203.46
2012																		
1	0.22	17.00	3.69	0.00	17.00	0.00	0.42	17.00	7.12	0.42	17.00	7.18	0.25	17.00	4.23	0.26	17.00	4.37
2	1.05	17.00	17.77	0.00	17.00	0.00	0.60	17.00	10.24	0.39	17.00	6.64	0.78	17.00	13.22	0.48	17.00	8.12
3	0.71	17.13	12.16	0.61	17.13	10.43	0.49	17.13	8.47	0.52	17.13	8.92	0.72	17.13	12.40	0.75	17.13	12.78
4	1.69	17.25	29.10	1.93	17.25	33.36	1.18	17.25	20.42	1.24	17.25	21.45	2.15	17.25	37.16	1.86	17.25	32.08
5	0.82	16.50	13.49	1.27	16.50	20.92	0.76	16.50	12.61	0.61	16.50	10.11	0.93	16.50	15.29	0.69	16.50	11.45
6	0.98	13.38	13.07	1.68	13.38	22.49	0.89	13.38	11.86	0.75	13.38	10.06	0.88	13.38	11.80	1.03	13.38	13.84
7	1.28	11.75	15.07	1.95	11.75	22.93	1.11	11.75	13.07	0.91	11.75	10.73	1.21	11.75	14.26	1.21	11.75	14.27
Total	6.74		104.35	7.44		110.14	5.46		83.80	4.86		75.11	6.93		108.37	6.28		96.91

Table 4. Weekly yield, weekly price (\$) and weekly gross revenue (\$) for tomatoes grown using various low tunnel systems.

Year/Week	Tomato Treatment																		
	Control Early			Control Normal			Clear single layer			Clear dual layer			White single layer			White dual layer			
	Yield	Price	Rev.	Yield	Price	Rev.	Yield	Price	Rev.	Yield	Price	Rev.	Yield	Price	Rev.	Yield	Price	Rev.	
2011																			
1	0.00	15.50	0.07	0.00	15.50	0.00	0.25	15.50	3.81	0.17	15.50	2.61	0.29	15.50	4.53	0.23	15.50	3.55	
2	0.03	16.75	0.54	0.00	16.75	0.00	0.87	16.75	14.64	0.57	16.75	9.52	0.89	16.75	14.85	0.81	16.75	13.49	
3	0.90	14.25	12.77	0.00	14.25	0.00	2.95	14.25	41.97	2.17	14.25	30.98	2.21	14.25	31.50	1.58	14.25	22.53	
4	0.48	14.50	6.92	0.08	14.50	1.10	0.71	14.50	10.36	0.99	14.50	14.39	0.56	14.50	8.18	0.56	14.50	8.08	
5	0.88	13.25	11.62	0.19	13.25	2.49	0.72	13.25	9.60	0.94	13.25	12.40	0.91	13.25	12.02	0.50	13.25	6.67	
6	0.63	13.25	8.38	0.58	13.25	7.64	0.39	13.25	5.15	0.29	13.25	3.87	0.35	13.25	4.57	0.22	13.25	2.96	
7	0.46	13.25	6.05	0.76	13.25	10.04	0.20	13.25	2.63	0.12	13.25	1.64	0.17	13.25	2.27	0.14	13.25	1.90	
8	0.00	15.75	0.00	0.29	15.75	4.59	0.00	15.75	0.00	0.00	15.75	0.00	0.00	15.75	0.00	0.00	15.75	0.00	
Total	3.38		46.35	1.89		25.85	6.09		88.16	5.25		75.41	5.38		77.91	4.04		59.18	
2012																			
1	0.05	14.50	0.79	0.00	14.50	0.00	0.06	14.50	0.92	0.01	14.50	0.21	0.15	14.50	2.16	0.20	14.50	2.94	
2	0.32	14.50	4.57	0.00	14.50	0.00	0.17	14.50	2.44	0.00	14.50	0.00	0.24	14.50	3.44	0.14	14.50	1.99	
3	0.12	14.50	1.78	0.00	14.50	0.00	0.21	14.50	3.11	0.18	14.50	2.54	0.45	14.50	6.51	0.21	14.50	3.03	
4	0.29	14.50	4.20	0.11	14.50	1.60	0.55	14.50	7.93	0.21	14.50	3.09	0.39	14.50	5.69	0.44	14.50	6.34	
5	0.37	12.50	4.57	0.15	12.50	1.83	0.37	12.50	4.61	0.23	12.50	2.90	0.29	12.50	3.57	0.16	12.50	1.96	
6	0.02	15.50	0.36	0.38	15.50	5.91	0.06	15.50	0.99	0.04	15.50	0.60	0.09	15.50	1.38	0.02	15.50	0.26	
7	0.00	15.25	0.00	0.59	15.25	8.95	0.07	15.25	1.04	0.04	15.25	0.54	0.02	15.25	0.28	0.01	15.25	0.16	
8	0.13	14.75	1.91	0.27	14.75	3.96	0.06	14.75	0.94	0.17	14.75	2.45	0.07	14.75	1.03	0.12	14.75	1.83	
Total	1.30		18.18	1.49		22.25	1.56		21.98	0.87		12.33	1.69		24.06	1.29		18.52	

Table 5. Impact of low tunnels on gross revenue in production of slicing cucumbers and fresh market tomatoes in Southwest Michigan in 2011 and 2012

Low tunnel treatment	Cucumbers			Tomatoes		
	Revenue <sup>1</sup>	Cost <sup>2</sup>	Difference <sup>3</sup>	Revenue	Cost	Difference <sup>3</sup>
	2011					
Control Early	189.38	0.00	189.38	46.35	0.00	46.35
Control Normal	190.95	0.00	190.95	25.85	0.00	25.85
Clear single layer	243.49	3.14	240.35	88.16	3.14	85.02
Clear dual layer	260.79	3.93	256.86	75.41	3.93	71.48
White single layer	214.60	3.18	211.42	77.91	3.18	74.73
White dual layer	203.46	3.97	199.49	59.18	3.97	55.21
	2012					
Control Early	104.35	0.00	104.35	18.18	0.00	18.18
Control Normal	110.14	0.00	110.14	22.25	0.00	22.25
Clear single layer	83.80	3.14	80.66	21.98	3.14	18.84
Clear dual layer	75.11	3.93	71.18	12.33	3.93	8.40
White single layer	108.37	3.18	105.19	24.06	3.18	20.88
White dual layer	96.91	3.97	92.94	18.52	3.97	14.55

<sup>1</sup> Gross revenue calculated as the sum of weekly revenues. Weekly revenue was obtained by multiplying the weekly yield by the weekly average price.

<sup>2</sup> Total variable cost associated with the low tunnels as shown in Table xxx above divided by 175.

<sup>3</sup> Difference between gross revenue and total variable cost

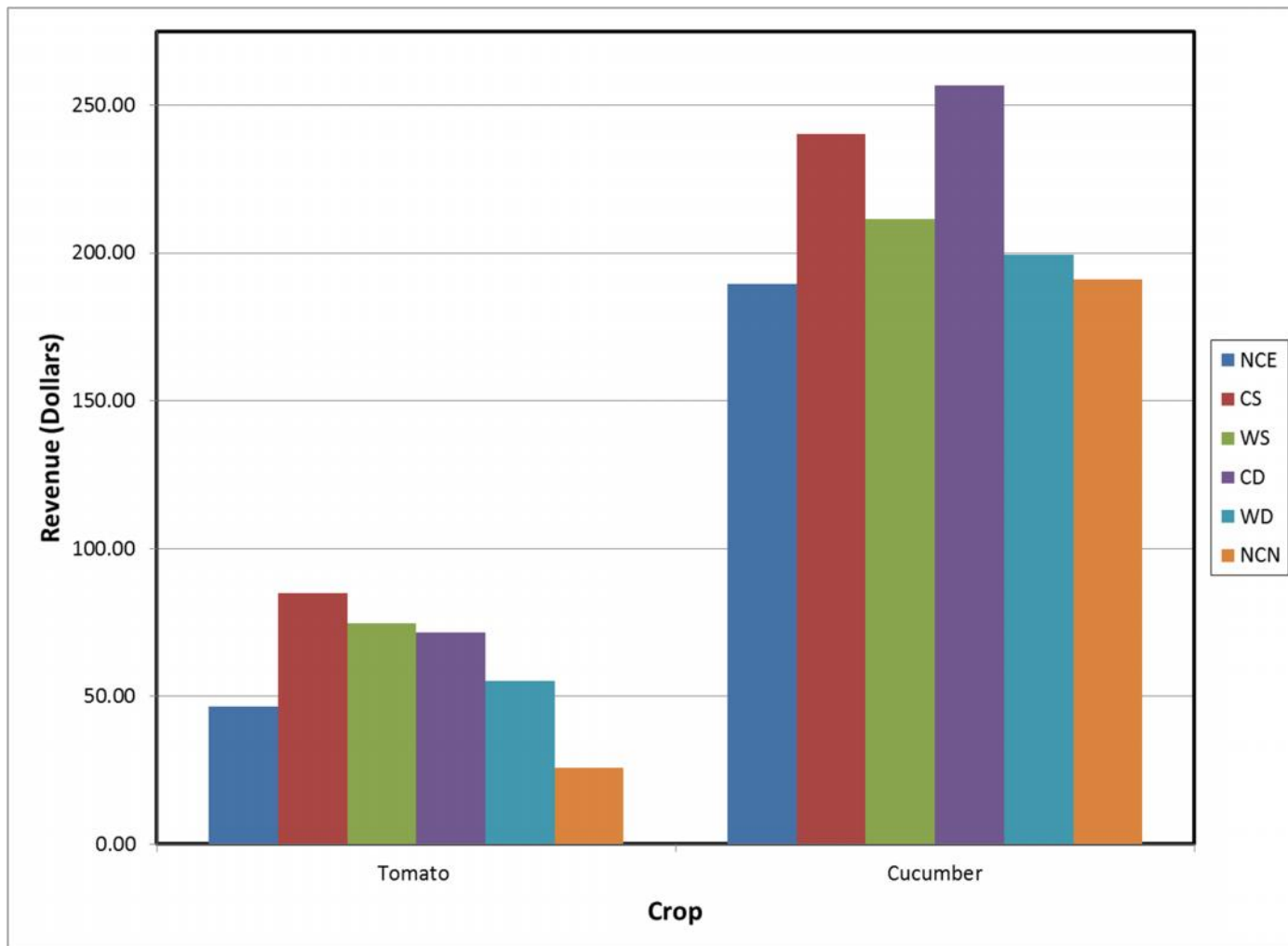


Figure 12. Net revenue calculated by taking daily market prices multiplied by marketable yield for that day subtracted from low tunnel input costs for a 50 ft row with 5 ft centers.