

Table S2 - Information regarding the validation sites: Sidedress rates, yield and partial profit. Diff. indicates the difference between Adapt-N and the Grower.

Site	year	state	Sidedress information			Yield information			Partial profit analysis			
			Adapt-N	Grower	Diff.	Adapt-N	Grower	Diff.	Sidedress savings	Partial profit	Partial profit	Profit
									Diff.	Adapt-N	Grower	Diff.
			Kg ha ⁻¹			Mg ha ⁻¹			\$ ha ⁻¹			
1	2014	NY	95	151	-56	12.26	13.08	-0.8	0	2207.49	2304.25	-96.75
2	2014	NY	101	135	-34	10.59	10.69	-0.1	0	1863.15	1846.43	16.72
3	2014	NY	140	174	-34	12.18	12.37	-0.2	0	2186.37	2185.98	0.40
4	2014	NY	126	213	-87	10.06	9.72	0.3	0	1795.05	1633.17	161.88
5	2014	NY	111	179	-68	11.02	11.22	-0.2	0	1996.93	1961.59	35.34
6	2014	NY	123	101	22	14.88	14.44	0.4	0	2671.84	2612.45	59.39
7	2014	NY	123	101	22	11.80	11.74	0.1	0	2075.15	2088.82	-13.67
8	2014	NY	106	168	-62	10.63	11.24	-0.6	0	1916.51	1966.13	-49.62
9	2014	NY	106	168	-62	10.87	11.18	-0.3	0	1962.42	1955.45	6.98
10	2014	IA	146	202	-56	8.13	8.52	-0.4	0	1411.40	1425.96	-14.56
11	2014	IA	0	50	-50	12.09	12.33	-0.2	20	2235.50	2206.74	28.52
12	2014	IA	0	50	-50	10.06	11.02	-1.0	20	1806.21	1916.76	-110.78
13	2014	IA	46	158	-112	11.41	11.44	0.0	0	2106.26	1989.73	116.53
14	2014	IA	78	123	-45	10.44	11.19	-0.7	0	1940.14	2035.81	-95.67
15	2014	IA	67	101	-34	9.13	9.13	0.0	0	1623.48	1587.40	36.08
16	2014	IA	157	196	-39	11.20	11.81	-0.6	0	1993.95	2069.71	-75.77
17	2013	NY	144	123	21	7.54	7.04	0.5	0	1286.49	1211.79	74.70
18	2013	NY	157	224	-67	11.00	11.63	-0.6	0	1931.59	1980.11	-48.52
19	2013	NY	157	112	45	13.94	12.03	1.9	0	2504.58	2183.95	320.63
20	2013	NY	101	67	34	11.59	10.17	1.4	0	2049.51	1810.06	239.44
21	2013	NY	135	112	22	12.19	10.75	1.4	0	2190.02	1935.84	254.18
22	2013	NY	146	179	-34	11.55	10.81	0.7	0	2012.45	1830.45	182.01
23	2013	NY	0	56	-56	11.06	11.57	-0.5	20	2092.80	2109.98	-17.41
24	2013	NY	67	0	67	12.84	10.23	2.6	-20	2199.75	1788.25	411.73
25	2013	NY	67	0	67	14.50	10.86	3.6	-20	2521.22	1908.79	612.66
26	2013	NY	67	0	67	13.28	11.74	1.5	-20	2283.76	2079.28	204.72
27	2013	NY	78	0	78	13.83	11.91	1.9	-20	2534.90	2269.50	265.40
28	2013	IA	67	112	-45	13.44	13.70	-0.3	0	2473.95	2474.32	-0.36
29	2013	IA	78	123	-45	11.61	11.85	-0.2	0	2106.65	2104.29	2.36
30	2013	IA	34	67	-34	13.18	12.99	0.2	0	2520.32	2445.94	74.38
31	2013	IA	67	93	-26	7.27	7.49	-0.2	0	1276.96	1291.52	-14.56
32	2013	IA	106	93	13	8.47	8.47	0.0	0	1467.84	1482.61	-14.77
33	2013	IA	90	56	34	10.38	9.47	0.9	0	1779.45	1640.11	139.34
34	2013	IA	52	91	-39	12.96	12.70	0.3	0	2358.09	2264.73	93.36
35	2012	NY	157	224	-67	12.93	12.60	0.3	0	2309.11	2170.71	138.40
36	2012	NY	185	265	-80	14.25	14.78	-0.5	0	2534.06	2548.95	-14.89
37	2012	NY	146	224	-78	9.55	9.35	0.2	0	1665.06	1539.92	125.14
38	2012	NY	140	168	-28	12.37	12.43	-0.1	0	2208.12	2188.30	19.82
39	2012	NY	137	206	-69	14.05	14.36	-0.3	0	2548.03	2531.37	16.65
40	2012	NY	119	191	-72	10.80	10.21	0.6	0	1938.16	1733.82	204.33
41	2012	NY	132	204	-72	12.74	13.58	-0.8	0	2298.45	2384.06	-85.61
42	2012	NY	56	168	-112	10.11	9.90	0.2	0	1851.00	1687.71	163.29
43	2012	NY	101	168	-67	12.34	12.47	-0.1	0	2235.27	2185.76	49.51
44	2012	NY	50	39	11	8.07	8.53	-0.5	0	1484.91	1586.43	-101.52
45	2012	NY	90	77	12	5.77	6.23	-0.5	0	993.30	1096.06	-102.75
46	2012	NY	0	56	-56	11.19	10.99	0.2	20	2164.96	2043.76	120.97
47	2012	NY	91	123	-33	9.22	9.57	-0.3	0	1670.56	1702.35	-31.44
48	2012	NY	99	123	-25	10.59	10.88	-0.3	0	1928.59	1956.40	-28.52

49	2012	NY	151	224	-73	8.26	9.60	-1.3	0	1407.17	1587.02	-179.85
50	2012	NY	151	224	-73	9.47	10.12	-0.6	0	1641.83	1687.24	-45.41
51	2012	NY	121	143	-22	10.48	10.34	0.1	0	1844.06	1792.65	51.41
52	2012	NY	117	91	26	11.99	11.62	0.4	0	2142.46	2098.92	43.53
53	2012	NY	0	72	-72	14.64	15.00	-0.4	20	2719.43	2691.27	27.93
54	2012	NY	36	72	-36	13.46	12.81	0.7	0	2433.55	2267.51	166.04
55	2012	NY	0	50	-50	9.79	9.16	0.6	20	1835.96	1638.79	196.94
56	2012	NY	73	118	-45	8.79	8.79	0.0	0	1570.65	1521.41	49.24
57	2012	NY	95	168	-73	9.35	9.60	-0.3	0	1685.17	1653.86	31.31
58	2012	NY	0	56	-56	6.23	6.13	0.1	20	1225.62	1124.24	101.14
59	2012	NY	148	216	-68	13.30	13.67	-0.4	0	2390.81	2386.34	4.46
60	2012	NY	182	300	-119	13.33	13.07	0.3	0	2359.97	2179.55	180.42
61	2012	NY	108	186	-78	13.50	13.34	0.2	0	2472.88	2357.48	115.40
62	2012	NY	130	226	-96	12.34	12.45	-0.1	0	2224.19	2139.02	85.17
63	2012	NY	128	179	-52	14.76	13.95	0.8	0	2696.70	2482.98	213.72
64	2012	NY	156	233	-77	15.38	14.88	0.5	0	2785.26	2604.12	181.14
65	2012	NY	119	207	-89	12.96	12.91	0.0	0	2355.84	2250.06	105.78
66	2012	NY	146	256	-110	11.86	11.69	0.2	0	2113.19	1959.67	153.52
67	2012	NY	120	208	-89	12.45	13.09	-0.6	0	2255.97	2282.93	-26.96
68	2012	NY	146	256	-110	12.85	13.06	-0.2	0	2305.59	2225.14	80.46
69	2012	NY	143	256	-112	12.59	13.10	-0.5	0	2258.13	2233.66	24.47
70	2012	NY	120	234	-114	13.97	14.25	-0.3	0	2550.66	2479.90	70.77
71	2012	NY	147	287	-140	14.39	14.40	0.0	0	2602.71	2451.26	151.44
72	2012	NY	146	287	-141	13.67	13.88	-0.2	0	2463.90	2351.41	112.49
73	2012	NY	163	287	-124	13.37	13.75	-0.4	0	2388.20	2325.84	62.36
74	2012	NY	120	217	-98	13.27	13.09	0.2	0	2415.50	2273.08	142.41
75	2012	NY	164	287	-123	12.40	12.60	-0.2	0	2199.44	2101.77	97.66
76	2012	NY	110	265	-155	12.81	14.11	-1.3	0	2336.46	2419.87	-83.41
77	2012	IA	45	90	-45	9.42	9.64	-0.2	0	1777.37	1770.75	6.62
78	2012	IA	0	45	-45	9.16	9.54	-0.4	20	1752.67	1757.71	-5.27
79	2012	IA	34	0	34	12.50	12.25	0.3	-20	2234.92	2241.93	-6.77
80	2012	IA	0	34	-34	13.26	13.41	-0.1	20	2549.99	2521.07	28.69
81	2012	IA	0	22	-22	9.91	10.02	-0.1	20	1868.95	1845.03	23.69
82	2012	IA	0	22	-22	8.83	8.91	-0.1	20	1522.86	1494.07	28.56
83	2012	IA	76	99	-22	10.92	10.86	0.1	0	1968.68	1931.88	36.80
84	2012	IA	76	99	-22	9.90	9.98	-0.1	0	1770.80	1761.09	9.70
85	2012	IA	0	45	-45	10.98	10.86	0.1	20	2052.56	1958.96	93.36
86	2012	IA	78	0	78	6.82	6.69	0.1	-20	1228.89	1309.49	-80.37
87	2012	IA	50	157	-106	9.02	9.08	-0.1	0	1556.62	1450.63	105.99
88	2012	IA	0	50	-50	7.45	7.16	0.3	20	1460.53	1327.90	132.40
89	2012	IA	0	56	-56	10.45	10.49	0.0	20	2043.84	1969.60	74.01
90	2012	IA	163	202	-39	7.98	7.75	0.2	0	1365.55	1277.41	88.14
91	2012	IA	73	84	-11	7.75	7.78	0.0	0	1367.64	1361.05	6.59
92	2012	IA	0	84	-84	9.44	9.98	-0.5	20	1797.31	1789.71	7.37
93	2012	IA	151	184	-33	7.67	7.58	0.1	0	1310.81	1258.06	52.75
94	2011	NY	90	247	-157	10.89	10.93	0.0	0	1987.82	1822.66	165.16
95	2011	NY	78	112	-34	11.30	11.10	0.2	0	2045.18	1968.31	76.87
96	2011	NY	0	56	-56	5.87	6.12	-0.2	20	1117.08	1083.11	33.74
97	2011	NY	95	143	-48	8.54	9.02	-0.5	0	1493.63	1534.46	-40.83
98	2011	NY	50	124	-74	7.04	6.82	0.2	0	1252.07	1128.57	123.50
99	2011	NY	35	69	-35	7.85	8.03	-0.2	0	1348.60	1346.97	1.63
100	2011	NY	50	99	-48	7.83	8.04	-0.2	0	1438.63	1426.00	12.63
101	2011	NY	102	140	-38	5.49	4.69	0.8	0	934.86	736.87	197.99
102	2011	NY	117	140	-24	8.62	7.95	0.7	0	1526.42	1370.01	156.07
103	2011	NY	84	168	-84	8.03	7.97	0.1	0	1435.60	1331.10	104.50
104	2011	NY	84	168	-84	8.54	8.60	-0.1	0	1533.02	1452.87	80.15
105	2011	IA	0	56	-56	13.14	13.42	-0.3	20	2569.25	2542.03	26.98
106	2011	IA	39	0	39	13.99	13.86	0.1	-20	2667.94	2706.55	-38.38

107	2011	IA	0	46	-46	12.51	12.49	0.0	20	2286.67	2211.70	74.75
108	2011	IA	0	67	-67	12.06	12.23	-0.2	20	2359.64	2299.51	59.90
109	2011	IA	0	67	-67	12.41	12.80	-0.4	20	2254.64	2237.37	17.03
110	2011	IA	0	67	-67	12.41	12.80	-0.4	20	2254.64	2237.37	17.03
111	2011	IA	45	67	-22	9.64	10.17	-0.5	0	1769.12	1848.01	-78.89
112	2011	IA	67	34	34	12.49	12.37	0.1	0	2152.47	2165.05	-12.58
113	2011	IA	168	84	84	11.38	8.79	2.6	0	2020.83	1610.84	409.99
