

SCHEDULING COTTON IRRIGATION

60% PET

2013 AGRI-SEARCH FARM

www.tawcsolutions.org

BOB GLODT

AGRI-SEARCH, INC.

PLAINVIEW, TEXAS

CALCULATING YOUR PET CAPACITY TO IRRIGATE

- Assume that you can apply 1.4" of irrigation per week.
- Assume the peak water demand for cotton is 0.32" per day
- $.32" \times 7 \text{ days per week} = 2.24" \text{ per week}$ is 100% of PET.
- $1.4" \text{ divided by } 2.24" = 0.625\% \text{ of PET}$
- Or 62.5% of PET

Crop Summary

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Site	Weather Station	Acreage	Type	Last Et	Moisture Balance	Growth Stage	Total Irrigation	Total Rain
AgriSearch-1	Hart	50	Cotton	0.00	0.97	Strip	12.00	10.61

Daily Measurements

Date	Effective Irrigation	Effective Rain	Percent Et	Irrigation	Rain	Balance	Growth Days	Growth Stage
0 2013-05-15	1.00	1.00	1.00	0.00	0.00	0.97	0	Planting Day
1 2013-05-16	0.80	1.00	1.00	3.00	0.00	0.02	1	-----
2 2013-05-17	0.80	1.00	1.00	0.00	0.00	0.02	2	-----
3 2013-05-18	0.80	1.00	1.00	0.00	0.00	0.03	3	-----
4 2013-05-19	0.80	1.00	1.00	0.00	0.00	0.03	4	-----
5 2013-05-20	0.80	1.00	1.00	0.75	0.00	0.03	5	-----
6 2013-05-21	0.80	1.00	1.00	0.00	0.00	0.02	6	-----
7 2013-05-22	0.80	1.00	1.00	0.00	0.00	0.02	7	-----
8 2013-05-23	0.80	1.00	1.00	0.00	0.00	0.02	8	-----
9 2013-05-24	0.80	1.00	1.00	0.00	0.00	0.02	9	-----
10 2013-05-25	0.80	1.00	1.00	0.00	0.00	0.02	10	Emerge
11 2013-05-26	0.80	1.00	1.00	0.00	0.00	0.02	11	-----
12 2013-05-27	0.80	1.00	1.00	0.00	0.00	0.03	12	-----
13 2013-05-28	0.80	1.00	1.00	0.00	0.00	0.03	13	-----
14 2013-05-29	0.80	1.00	1.00	0.00	0.00	0.04	14	-----
15 2013-05-30	0.80	1.00	1.00	0.00	0.00	0.03	15	-----
16 2013-05-31	0.80	1.00	1.00	0.00	0.00	0.04	16	-----
17 2013-06-01	0.80	1.00	1.00	0.00	0.00	0.03	17	-----
18 2013-06-02	0.80	1.00	1.00	0.00	0.00	0.03	18	-----
19 2013-06-03	0.80	1.00	1.00	0.00	0.00	0.05	19	-----
20 2013-06-04	0.80	1.00	1.00	0.00	0.00	0.04	20	-----
21 2013-06-05	0.80	1.00	1.00	0.00	0.00	0.04	21	-----
22 2013-06-06	0.80	1.00	1.00	0.00	0.39	0.02	22	-----
23 2013-06-07	0.80	1.00	1.00	0.00	0.21	0.03	23	-----
24 2013-06-08	0.80	1.00	1.00	0.00	0.31	0.03	24	-----

TWO 1.5" PRE-PLANT IRRIGATIONS
APPLIED IN APRIL 2013

BROADCAST SPRAY TO
INCORPORATE CAPAROL
AND DUAL

RAIN

Crop Summary

Site	Weather Station	Acreage	Type	Last Et	Moisture Balance	Growth Stage	Total Irrigation	Total Rain
AgriSearch-1	Hart	50	Cotton	0.00	2.97	Strip	12.00	10.61

Daily Measurements

Date	Effective Irrigation	Effective Rain	Percent Et	Irrigation	Rain	Daily Et	Moisture Balance	Growth Days	Growth Stage
25 2013-06-09	0.80	1.00	1.00	0.00	0.00	0.03	5.19	25	-----
26 2013-06-10	0.80	1.00	1.00	0.00	0.00	0.05	5.14	26	-----
27 2013-06-11	0.80	1.00	1.00	0.00	0.00	0.06	5.08	27	-----
28 2013-06-12	0.80	1.00	1.00	0.00	0.00	0.05	5.03	28	-----
29 2013-06-13	0.80	1.00	1.00	0.00	0.00	0.05	4.98	29	-----
30 2013-06-14	0.80	1.00	1.00	0.00	0.00	0.03	4.95	30	-----
31 2013-06-15	0.80	1.00	1.00	0.00	0.07	0.05	4.97	31	-----
32 2013-06-16	0.80	1.00	1.00	0.00	0.18	0.06	5.09	32	-----
33 2013-06-17	0.80	1.00	1.00	0.00	0.93	0.05	5.97	33	-----
34 2013-06-18	0.80	1.00	1.00	0.00	0.00	0.04	5.93	34	-----
35 2013-06-19	0.80	1.00	1.00	0.00	0.02	0.05	5.9	35	-----
36 2013-06-20	0.80	1.00	1.00	0.00	0.25	0.06	6.09	36	-----
37 2013-06-21	0.80	1.00	1.00	0.00	0.00	0.07	6.02	37	-----
38 2013-06-22	0.80	1.00	1.00	0.00	0.00	0.07	5.95	38	-----
39 2013-06-23	0.80	1.00	1.00	0.00	0.00	0.08	5.87	39	-----
40 2013-06-24	0.80	1.00	1.00	0.00	0.00	0.07	5.8	40	1st Sqr
41 2013-06-25	0.80	1.00	1.00	0.00	0.00	0.09	5.71	41	-----
42 2013-06-26	0.80	1.00	1.00	0.00	0.00	0.09	5.62	42	-----
43 2013-06-27	0.80	1.00	1.00	0.00	0.00	0.08	5.54	43	-----
44 2013-06-28	0.80	1.00	1.00	0.00	0.00	0.09	5.45	44	-----
45 2013-06-29	0.80	1.00	1.00	0.00	0.61	0.08	5.98	45	-----
46 2013-06-30	0.80	1.00	1.00	0.00	0.07	0.07	5.98	46	-----
47 2013-07-01	0.80	1.00	1.00	0.00	0.00	0.06	5.92	47	-----
48 2013-07-02	0.80	1.00	1.00	0.00	0.00	0.06	5.86	48	-----
49 2013-07-03	0.80	1.00	1.00	0.00	0.00	0.06	5.8	49	-----

RAIN

Crop Summary

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Site	Weather Station	Acreage	Type	Last Et	Moisture Balance	Growth Stage	Total Irrigation	Total Rain
AgriSearch-1	Hart	50	Cotton	0.00	2.97	Strip	12.00	10.61

Daily Measurements

Date	Effective Irrigation	Effective Rain	Percent Et	Irrigation	Rain	Daily Et	Moisture Balance	Growth Days	Growth Stage
50 2013-07-04	0.80	1.00	1.00	0.00	0.00	0.09	5.71	50	-----
51 2013-07-05	0.80	1.00	1.00	0.00	0.00	0.11	5.6	51	-----
52 2013-07-06	0.80	1.00	1.00	0.00	0.00	0.11	5.49	52	-----
53 2013-07-07	0.80	1.00	1.00	0.00	0.00	0.11	5.38	53	-----
54 2013-07-08	0.80	1.00	1.00	0.00	0.00	0.1	5.28	54	-----
55 2013-07-09	0.80	1.00	1.00	0.00	0.00	0.12	5.16	55	-----
56 2013-07-10	0.80	1.00	1.00	1.50	0.00	0.11	6.25	56	-----
57 2013-07-11	0.80	1.00	1.00	0.00	0.00	0.12	6.13	57	-----
58 2013-07-12	0.80	1.00	1.00	0.00	0.00	0.13	6	58	-----
59 2013-07-13	0.80	1.00	1.00	0.00	0.00	0.13	5.87	59	-----
60 2013-07-14	0.80	1.00	1.00	0.00	0.46	0.15	6.18	60	1st Bloom
61 2013-07-15	0.80	1.00	1.00	0.00	0.00	0.04	6.14	61	-----
62 2013-07-16	0.80	1.00	1.00	0.00	0.00	0.06	6.08	62	-----
63 2013-07-17	0.80	1.00	1.00	0.00	2.55	0.05	8.58	63	-----
64 2013-07-18	0.80	1.00	1.00	0.00	0.45	0.09	8.94	64	-----
65 2013-07-19	0.80	1.00	1.00	0.00	0.00	0.12	8.82	65	-----
66 2013-07-20	0.80	1.00	1.00	0.00	0.00	0.13	8.69	66	-----
67 2013-07-21	0.80	1.00	1.00	0.00	0.00	0.16	8.53	67	-----
68 2013-07-22	0.80	1.00	1.00	0.00	0.00	0.16	8.37	68	-----
69 2013-07-23	0.80	1.00	1.00	0.00	0.00	0.16	8.21	69	-----
70 2013-07-24	0.80	1.00	1.00	0.00	0.00	0.18	8.03	70	-----
71 2013-07-25	0.80	1.00	1.00	0.00	0.00	0.11	7.92	71	-----
72 2013-07-26	0.80	1.00	1.00	0.00	0.00	0.15	7.77	72	-----
73 2013-07-27	0.80	1.00	1.00	0.75	0.00	0.17	8.2	73	-----
74 2013-07-28	0.80	1.00	1.00	0.00	0.00	0.2	8	74	-----

4.96" PROFILE
SOIL IS FULL

BEGIN 60% PET
CALCULATIONS

9 DAYS
1.32" X .60 = 0.80"

Crop Summary

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Site	Weather Station	Acreage	Type	Last Et	Moisture Balance	Growth Stage	Total Irrigation	Total Rain
AgriSearch-1	Hart	50	Cotton	0.00	2.97	Strip	12.00	10.61

Daily Measurements

Date	Effective Irrigation	Effective Rain	Per	Et	Irrigation	Rain	Daily Et	Moisture Bal	Growth Days	Growth Stage
75 2013-07-29	0.80	1.00	1.00	0.00	0.00	0.00	0.2	7.8	75	-----
76 2013-07-30	0.80	1.00	1.00	0.00	0.00	0.00	0.21	7.59	76	-----
77 2013-07-31	0.80	1.00	1.00	0.00	0.00	0.00	0.19	7.4	77	-----
78 2013-08-01	0.80	1.00	1.00	0.00	0.00	0.06	0.18	7.28	78	-----
79 2013-08-02	0.80	1.00	1.00	1.25	0.00	0.00	0.26	8.02	79	-----
80 2013-08-03	0.80	1.00	1.00	0.00	0.00	0.00	0.26		80	-----
81 2013-08-04	0.80	1.00	1.00	0.00	0.00	0.00	0.23		81	-----
82 2013-08-05	0.80	1.00	1.00	0.00	0.00	0.00	0.25		82	-----
83 2013-08-06	0.80	1.00	1.00	0.00	0.00	0.00	0.28		83	-----
84 2013-08-07	0.80	1.00	1.00	0.00	0.00	0.00	0.23		84	-----
85 2013-08-08	0.80	1.00	1.00	0.00	0.00	0.00	0.24		85	-----
86 2013-08-09	0.80	1.00	1.00	0.75	0.00	0.00	0.2		86	-----
87 2013-08-10	0.80	1.00	1.00	0.00	0.00	0.00	0.21	6.72	87	-----
88 2013-08-11	0.80	1.00	1.00	0.00	0.00	0.00	0.2	6.52	88	-----
89 2013-08-12	0.80	1.00	1.00	0.00	0.00	0.60	0.26	6.86	89	-----
90 2013-08-13	0.80	1.00	1.00	0.00	0.00	0.00	0.23	6.63	90	-----
91 2013-08-14	0.80	1.00	1.00	0.00	0.00	1.71	0.2	8.14	91	-----
92 2013-08-15	0.80	1.00	1.00	0.00	0.00	0.00	0.22	7.92	92	-----
93 2013-08-16	0.80	1.00	1.00	0.00	0.00	0.00	0.22	7.7	93	-----
94 2013-08-17	0.80	1.00	1.00	0.00	0.00	0.00	0.25	7.45	94	-----
95 2013-08-18	0.80	1.00	1.00	0.00	0.00	0.00	0.24	7.21	95	-----
96 2013-08-19	0.80	1.00	1.00	0.00	0.00	0.00	0.28	6.93	96	-----
97 2013-08-20	0.80	1.00	1.00	0.00	0.00	0.00	0.28	6.65	97	-----
98 2013-08-21	0.80	1.00	1.00	1.00	0.00	0.00	0.26	7.19	98	-----
99 2013-08-22	0.80	1.00	1.00	0.00	0.00	0.00	0.24	6.95	99	-----

DID NOT COUNT

7/28 = 0.20

6 DAYS
1.16 X .60 = 0.70"

7 DAYS
1.73 X .60 = 1.0"

12 DAYS
2.87" X .60 = 1.72"
1.72" - 1.16" RAIN = 0.56"

COUNTED 50%
RAIN - HIGH
RUNOFF (= 1.16")

Max Bloom

Crop Summary

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Site	Weather Station	Acreage	Type	Last Et	Moisture Balance	Growth Stage	Total Irrigation	Total Rain
AgriSearch-1	Hart	50	Cotton	0.00	2.97	Strip	12.00	10.61

Daily Measurements

Date	Effective Irrigation	Effective Rain	Percent Et	Irrigation	Rain	Daily Et	Moisture Bal	Growth Days	Growth Stage
100 2013-08-23	0.80	1.00	1.00	0.00	0.00	0.23	6.72	100	-----
101 2013-08-24	0.80	1.00	1.00	0.00	0.00	0.23	6.49	101	-----
102 2013-08-25	0.80	1.00	1.00	0.00	0.00	0.24	6.25	102	-----
103 2013-08-26	0.80	1.00	1.00	0.00	0.00	0.23	6.02	103	-----
104 2013-08-27	0.80	1.00	1.00	1.00	0.00	0.22	6.6	104	-----
105 2013-08-28	0.80	1.00	1.00	0.00	0.00	0.23		105	-----
106 2013-08-29	0.80	1.00	1.00	0.00	0.00	0.23		106	-----
107 2013-08-30	0.80	1.00	1.00	0.00	0.00	0.26		107	-----
108 2013-08-31	0.80	1.00	1.00	0.00	0.00	0.26		108	-----
109 2013-09-01	0.80	1.00	1.00	0.00	0.00	0.22		109	-----
110 2013-09-02	0.80	1.00	1.00	0.00	0.00	0.24		110	-----
111 2013-09-03	0.80	1.00	1.00	0.00	0.00	0.23		111	-----
112 2013-09-04	0.80	1.00	1.00	1.00	0.00	0.22		112	-----
113 2013-09-05	0.80	1.00	1.00	0.00	0.00	0.21	5.3	113	-----
114 2013-09-06	0.80	1.00	1.00	0.00	0.00	0.22	5.08	114	-----
115 2013-09-07	0.80	1.00	1.00	0.00	0.00	0.22	4.86	115	-----
116 2013-09-08	0.80	1.00	1.00	0.00	0.00	0.22	4.64	116	-----
117 2013-09-09	0.80	1.00	1.00	0.00	0.00	0.21	4.43	117	-----
118 2013-09-10	0.80	1.00	1.00	1.00	0.00	0.19	5.04	118	-----
119 2013-09-11	0.80	1.00	1.00	0.00	0.00	0.12	4.92	119	-----
120 2013-09-12	0.80	1.00	1.00	0.00	0.00	0.16	4.76	120	-----
121 2013-09-13	0.80	1.00	1.00	0.00	0.00	0.17		121	-----
122 2013-09-14	0.80	1.00	1.00	0.00	0.01	0.17		122	-----
123 2013-09-15	0.80	1.00	1.00	0.00	0.00	0.15	4.28	123	-----
124 2013-09-16	0.80	1.00	1.00	0.00	0.26	0.13	4.41	124	-----

8/22 = 0.24

6 DAYS
1.40" X .60 = 0.84"

8 DAYS
1.9" X .60 = 1.14"

6 DAYS
1.29" X .60 = 0.77"

NOTE HIGH PET NUMBERS!



PET NUMBERS
VERY LOW

Crop Summary

PAGE 6

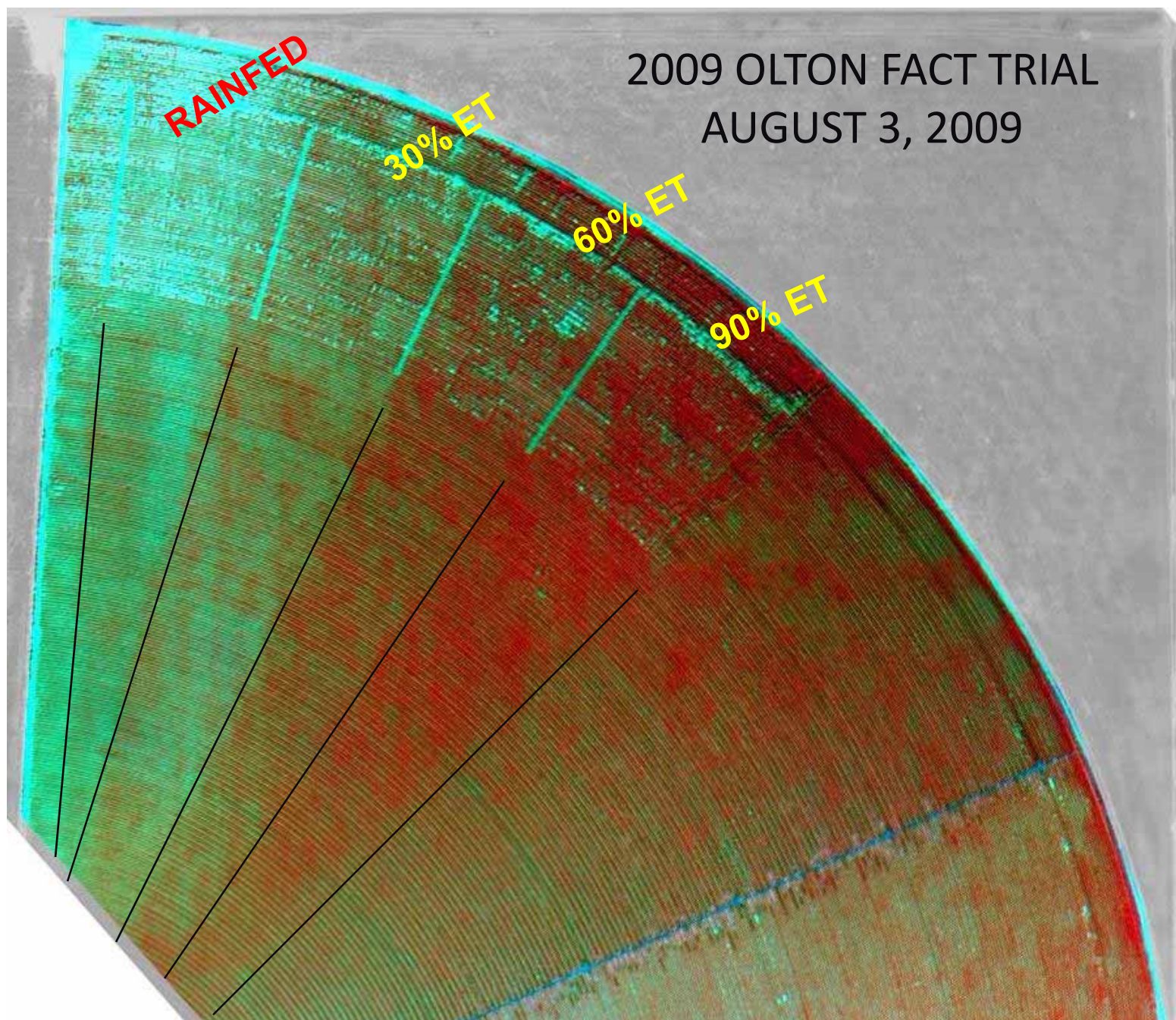
Site	Weather Station	Acreage	Type	Last Et	Moisture Balance	Growth Stage	Total Irrigation	Total Rain
AgriSearch-1	Hart	50	Cotton	0.00			2.00	10.61

Daily Measurements

Date	Effective Irrigation	Effective Rain	Percent Et	Irrigation	Rain	Daily Et	Moisture Balance	Growth Days	Growth Stage
125 2013-09-17	0.80	1.00	1.00	0.00	0.00	0.13	4.28	125	25% open
126 2013-09-18	0.80	1.00	1.00	0.00	0.00	0.18	4.1	126	
127 2013-09-19	0.80	1.00	1.00	0.00	0.03	0.1	4.03		
128 2013-09-20	0.80	1.00	1.00	0.00	0.00	0.05	3.98		
129 2013-09-21	0.80	1.00	1.00	0.00	0.00	0.11	3.87		
130 2013-09-22	0.80	1.00	1.00	0.00	0.00	0.16	3.71		
131 2013-09-23	0.80	1.00	1.00	0.00	0.00	0.16	3.55		
132 2013-09-24	0.80	1.00	1.00	0.00	0.00	0.12	3.43		
133 2013-09-25	0.80	1.00	1.00	0.00	0.00	0.16	3.27		
134 2013-09-26	0.80	1.00	1.00	0.00	0.00	0.2	3.07		
135 2013-09-27	0.80	1.00	1.00	0.00	0.00	0.12	2.95	135	
136 2013-09-28	0.80	1.00	1.00	0.00	0.93	0.09	3.79	136	
137 2013-09-29	0.80	1.00	1.00	0.00	0.00	0.11	3.68	137	
138 2013-09-30	0.80	1.00	1.00	0.00	0.00	0.1	3.58	138	
139 2013-10-01	0.80	1.00	1.00	0.00	0.00	0.11	3.47	139	
140 2013-10-02	0.80	1.00	1.00	0.00	0.00	0.11	3.36	140	50% open
141 2013-10-03	0.80	1.00	1.00	0.00	0.00	0.14	3.22	141	
142 2013-10-04	0.80	1.00	1.00	0.00	0.00	0.12	3.1	142	
143 2013-10-05	0.80	1.00	1.00	0.00	0.00	0.09	3.01	143	
144 2013-10-06	0.80	1.00	1.00	0.00	0.00	0.08	2.93	144	
145 2013-10-07	0.80	1.00	1.00	0.00	0.00	0.07	2.86	145	95% open
146 2013-10-08	0.80	1.00	1.00	0.00	0.00	0.08	2.78	146	
147 2013-10-09	0.80	1.00	1.00	0.00	0.00	0.06	2.72	147	
148 2013-10-10	0.80	1.00	1.00	0.00	0.00	0.05	2.67	148	
149 2013-10-11	0.80	1.00	1.00	0.00	0.00	0.04	2.63	149	

9/11 to 9/17 = 1.03" x .60 = 0.62"
0.62" - 0.26" R = 0.36"

1.45" x .60 = 0.87"
0.87" + 0.36" = 1.23"
1.23" - 0.96" R = 0.27"
DONE!



2008 OLTON FACT TRIAL - 60% PET DP121



2009 OLTON FACT TRIAL - 30% PET FM 9160



2009 OLTON FACT TRIAL – 30% PET DP 0924



2009 AGRI-SEARCH FARM - 60% PET DP 0924



2010 AGRI-SEARCH FARM – 60% PET DP 0924



2010 AGRI-SEARCH FARM 60% PET – DP 0924

THANK YOU FOR YOUR ATTENTION!

