



ONE12-156 – Integrating ground cover crops and new herbicide strategies (conventional and organic) for tree growth and soil health -- Part II.

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Lamont Fruit Farm, Mason Farms, Fowler Farms

These Figures 1-4 compare the potential crop load assuming the optimum of 4 apples per cm² trunk cross sectional area (TCSA) for each tree, Tables x-x are economic impact adjusted for trees per acre.

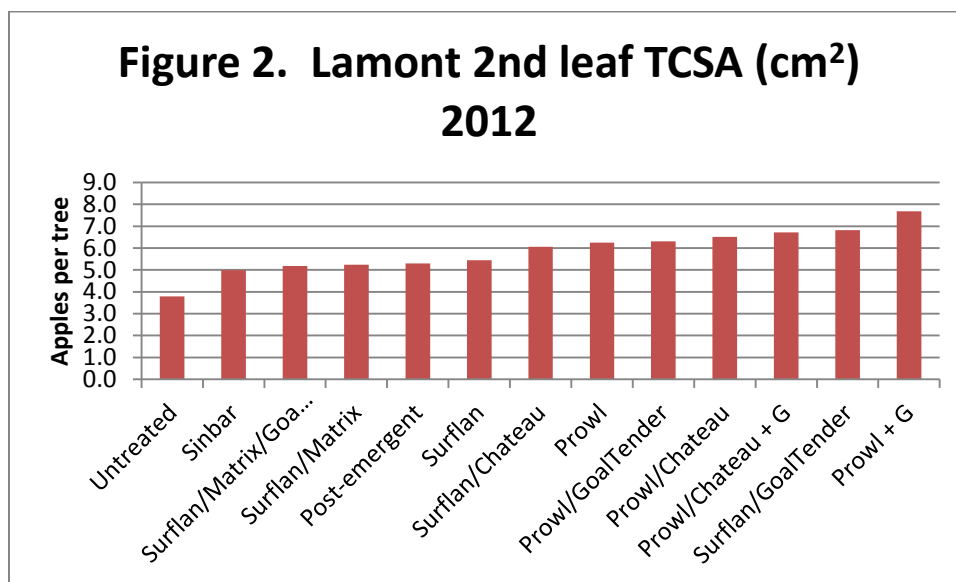
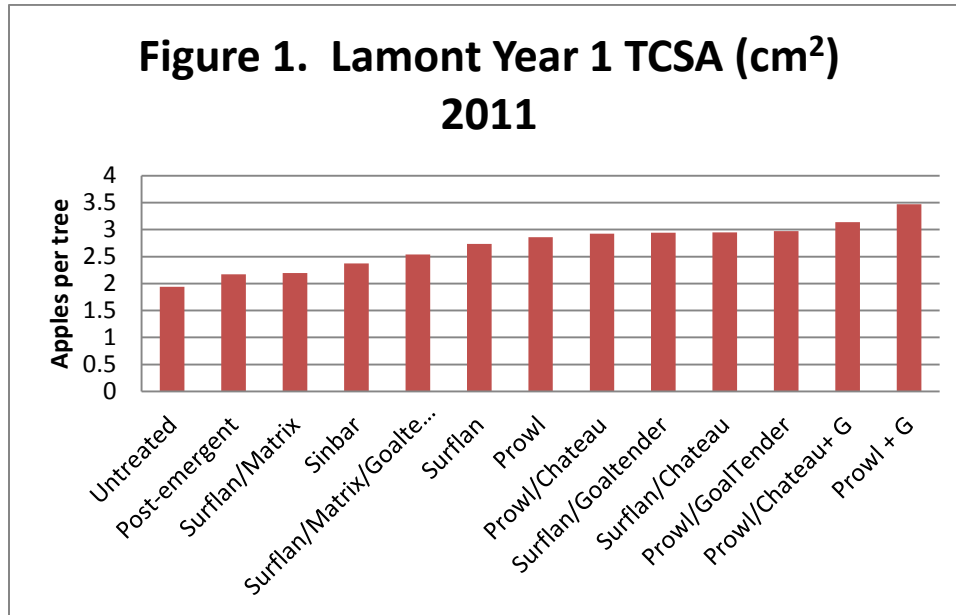


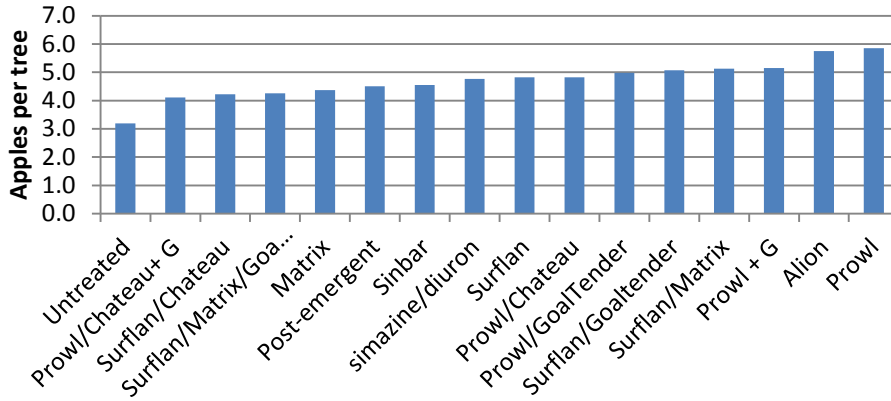
Table 12. 2011 Lamont 1584 trees/acre, 4 fruit per cm², \$7/bu, 88 count/bu

TRT	Mean TCSA		# apples/ tree	bu/a	\$/acre
Prowl +G	3.5	A	14	250	1750
Prowl/Chateau+G	3.1	AB	13	226	1581
Prowl/GoalTender + P	3.0	ABC	12	214	1498
Surflan/ Chateau + P	3.0	ABC	12	212	1487
Surflan/GoalTender + P	2.9	ABC	12	212	1482
Prowl/Chateau +P	2.9	ABC	12	211	1474
Prowl + P	2.9	BC	11	206	1440
Surflan + P	2.7	BCD	11	197	1378
Surflan/Matrix/GoalTender + P	2.5	BCDE	10	183	1281
Sinbar + P	2.4	CDE	9	171	1197
Surflan/Matrix + P	2.2	DE	9	158	1107
P/Rely POST	2.2	DE	9	156	1094
Untreated	1.9	E	8	140	978

Table 13. 2012 Lamont

TRT	Mean TCSA		#apples/ tree	bu/a	\$/acre
Prowl + G	7.7	A	31	553	3874
Surflan/GoalTender + P, R	6.8	AB	27	491	3436
Prowl/Chateau + G	6.7	ABC	27	483	3381
Prowl/Chateau + P, R	6.5	ABCD	26	468	3279
Prowl/GoalTender + P, R	6.3	BCDE	25	454	3180
Prowl + P, R	6.2	BCDEF	25	449	3146
Surflan/Chateau + P, R	6.1	BCDEF	24	436	3055
Surflan + P, R	5.4	CDEF	22	392	2744
P/Rely Post	5.3	DEF	21	381	2669
Surflan/Matrix + P	5.2	DEF	21	378	2643
Surflan/Matrix/GoalTender + P	5.2	EF	21	373	2613
Sinbar + P, R	5.0	FG	20	359	2515
Untreated	3.8	G	15	273	1914

**Figure 3. Mason 2nd leaf TCSA (cm²)
2011**



**Figure 4. Mason 3rd leaf TCSA (cm²)
2012**

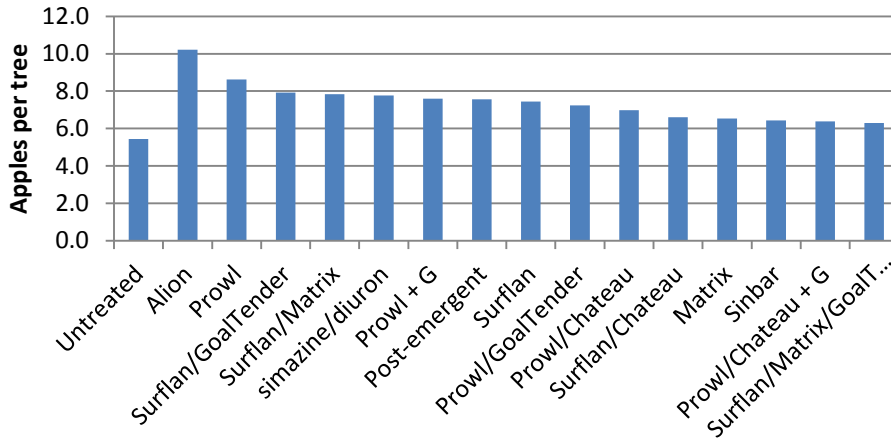


Table 14. 2011 Mason 889 trees/acre 4 fruit per cm², \$7/bu, 88 count/bu

TRT	Mean TCSA		#apples/ tree	bu/a	\$/acre
Prowl + P	5.9	A	23	237	1656
Alion + P	5.7	AB	23	232	1626
Prowl +G	5.2	ABC	21	208	1458
Surflan/Matrix + P	5.1	ABC	21	207	1452
Surflan/GoalTender +P	5.1	ABC	20	205	1435
Prowl/GoalTender + P	5.0	ABC	20	201	1409
Prowl/Chateau +P	4.8	ABC	19	195	1365
Surflan + P	4.8	ABC	19	195	1363
Diuron + Simazine + P	4.8	ABC	19	193	1348
Sinbar + P	4.6	ABC	18	184	1288
P/Rely POST	4.5	BC	18	182	1275
Matrix + P	4.4	CD	17	176	1235
Surflan/ Matrix/GoalTender +P	4.3	CD	17	172	1203
Surflan/Chateau +P	4.2	CD	17	171	1196
Prowl/Chateau + G	4.1	CD	16	166	1164
Untreated	3.2	D	13	129	901

Table 15. 2012 Mason 889 trees/acre 4 fruit per cm², \$7/bu, 88 count/bu

TRT	Mean TCSA		#apples/ tree	bu/a	\$/acre
Alion + P, R	10.2	A	41	412	2887
Prowl + P	8.6	AB	35	349	2440
Surflan/GoalTender + P	7.9	ABC	32	320	2241
Surflan/Matrix + P	7.8	ABC	31	317	2218
simazine/diuron + P	7.8	ABC	31	314	2198
Prowl + G	7.6	BC	30	307	2151
Post-emergent	7.6	BC	30	306	2139
Surflan + P	7.4	BC	30	301	2106
Prowl/GoalTender + P	7.2	BC	29	292	2046
Prowl/Chateau + P	7.0	BC	28	282	1976
Surflan/Chateau + P, R	6.6	BC	26	267	1867
Matrix + P, R	6.5	BC	26	264	1847
Sinbar + P	6.4	BC	26	260	1821
Prowl/Chateau + G	6.4	BC	26	258	1804
Surflan/Matrix/GoalTender + P	6.3	BC	25	254	1781
Untreated	5.4	C	22	220	1537