

Vegetable Production Research Report - 2003

Beets, Pickling Cucumber and Peppers



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Introduction

This report summarizes pickling cucumber, pepper and beet trials conducted at the Department of Plant Agriculture, University of Guelph, Simcoe in 2003. Additional copies of this report or more detailed information on any particular experiment can be obtained by contacting the Department of Plant Agriculture at Simcoe.

Note: Yields presented in this report are for comparative purposes only. Small plot yields may not accurately reflect commercial yields.

Acknowledgments

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Cultural Information

Beets

This trial was conducted on loam soil. Beets were seeded with Alrnaco cone seeders attached to a John Deere MaxEmerge precision seeder and hand thinned to give an in-row spacing of 2". Beets were harvested on September 25 and October 24. They were graded by size, counted and weighed for yield results.

Pickling Cucumber

Pickling cucumber cultivar trials were evaluated at the University of Guelph, Simcoe in 2003. Hand-picked trials and the Once-over trials were conducted on loam soil. The Hand-picked cucumbers were seeded with Alrnaco cone seeders attached to a John Deere MaxEmerge precision seeder and hand-thinned to give an in-row spacing of 6". The Once-over trials were seeded using the Alrnaco seeders attached to the John Deere MaxEmerge seeder and then thinned to give an in-row spacing of 4". Cultural practices throughout the season were carried out according to recommended procedures and the cucumber beetles were kept under control with timely sprays of insecticide. Plots were harvested 5 times in the multipick hand harvest trials. The once-over trial was harvested by hand to simulate machine harvest.

Fruit was graded by size, counted, weighed, fresh quality was evaluated and a sample of each cultivar was placed in brine. Brining of fruit was carried out in 225 litre barrels with air purging for 2 weeks. Tanks were topped with brine and sealed until evaluation. A panel of cucumber industry personnel rated the brined cultivars.

Peppers

All trials were conducted on loam soil. Peppers were established in the field from transplants raised in the greenhouse (128 cell). The plants were transplanted 18" apart, using a RJV600 planter, with rows 40" apart. Detailed cultural information on each experiment is presented with the yield data. The plants in all trials were relatively free from insects. Fruit number refers to the average number of fruit per plant.

Beet Cultivar Observation Trial, Early Harvest, Simcoe, 2003

Cultivar	Source	Yield (T/Ac)							
		Grades (cm)							
		Under (< 2.5)	1 (2.5 - 4.1)	2 (4.1 - 6.3)	3 (6.3 - 7.6)	4 (7.6 - 9.5)	OS (9.5 >)	Total*	Defect/ Decay**
Centurian (PS 589)	Serninis	0.0	0.4	6.1	9.8	16.9	3.6	36.8	0.6
Red Ace	Christianson	0.1	1.0	8.0	9.1	9.7	1.2	29.1	0.0
Krestral	Christianson	0.3	2.8	8.9	10.8	5.1	0.0	28.0	0.0
Chariot	Seminis	0.0	0.3	5.3	7.0	13.5	0.0	26.1	0.0
Detroit Dark Red Medium Top	Seminis	0.1	0.9	7.1	8.1	5.1	3.2	24.5	0.0
PS 2189	Seminis	0.0	1.2	13.0	7.7	2.4	0.0	24.3	0.0
Detroit Supreme	Christianson	0.1	1.1	11.3	7.2	4.5	0.0	24.1	0.5
Detroit Dark Red Short Top	Seminis	0.3	1.1	8.2	6.9	5.1	2.5	24.0	0.0
Scarlet Supreme	Seminis	0.1	0.6	8.0	8.5	6.3	0.0	23.3	0.7
Ruby Queen	Harris Moran	0.1	0.3	5.6	7.0	8.4	0.0	21.4	0.7
Soil Type : Loam		Fertilizer		: 34-0-0 @ 130 kg/Ac					
Soil pH : 6.4		Herbicide		: Pyramin 3.6 L/Ac					
Seeding Date : June 6		Harvested		September 25					
Rows : 15"									
In-row Spacing : 2"									
Plant Population : 161,900/Ac									

*Yields are for comparative purposes only. Small plot yields may not accurately reflect commercial yields.

**A percentage of beets in the Defect/Decay category can be used for processing.

Beet Cultivar Observation Trial, Late Harvest, Simcoe, 2003

Cultivar	Source	Yield (T/Ac)							Total*	Defect/ Decay**
		Grades (cm)								
		Under (< 2.5)	1 (2.5 - 4.1)	2 (4.1 - 6.3)	3 (6.3 - 7.6)	4 (7.6 - 9.5)	OS (9.5 >)			
Centurian (PS 589)	Seminis	0.0	0.5	8.5	11.8	10.2	4.4	35.4	1.0	
Krestral	Christianson	0.1	1.1	13.4	7.6	9.7	1.3	33.2	0.3	
Detroit Dark Red Medium Top	Seminis	0.1	0.8	6.6	6.9	11.2	0.0	31.5	0.6	
Detroit Dark Red Short Top	Seminis	0.0	0.7	12.3	10.1	7.1	0.0	30.2	0.0	
Chariot	Seminis	0.0	0.3	6.9	9.1	11.2	1.3	28.8	0.0	
Red Ace	Christianson	0.0	0.6	8.9	9.5	9.7	0.0	28.6	0.0	
PS 2189	Seminis	0.2	1.7	11.9	8.5	5.6	0.0	27.9	0.0	
Detroit Supreme	Christianson	0.1	1.2	9.9	11.9	4.6	0.0	27.6	0.0	
Ruby Queen	Harris Moran	0.0	0.5	6.7	8.0	11.1	0.0	26.2	0.1	
Scarlet Supreme	Seminis	0.0	0.5	7.6	4.9	6.1	0.0	19.2	2.6	
Soil Type : Loam		Fertilizer : 34-0-0 @ 130 kg/Ac								
Soil pH : 6.4		Herbicide : Pyramin 3.6 L/Ac								
Seeding Date : June 6		Harvested : October 24								
Rows : 15"										
In-row Spacing : 2"										
Plant Population : 161,900/Ac										

*Yields are for comparative purposes only. Small plot yields may not accurately reflect commercial yields.

**A percentage of beets in the Defect/Decay category can be used for processing.

Fresh Quality Evaluation of Pickling Cucumbers

External Quality

Blossom End (1-5)	1 = blunt 5 = tapered
Shoulder (1-5) :	1 = blunt 5 = tapered
Ridging & Spines (1-5) :	1 = distinct warts and spines (most acceptable) 2-5 = ridges and spines too prominent or too smooth (less acceptable)
Colour (1-5) :	1 = medium light green (most acceptable) 2-5 = paler or darker green (less acceptable)

Internal Quality

Seed cavity size (1-5) :	1 = small 5 = large
Seed size (1-5) :	1 = small 5 = large
Carpel Separation (0-10) :	0 = no fruit with separation 10 = all fruit with separation

Yields of Cucumbers From Advanced Multipiick Trial, Simcoe, 2003

Cultivar	Source	L:D Ratio 3 A's	Yield	
			T/Ac	\$/Ac
			Total	Total
Pony O	Seminis	2.7	21.2	4,949
Patton S	Sun Seeds	2.9	20.6	4,909
Fancipak M	Seminis	2.8	20.8	4,799
Pik-Rite	Harris Moran	2.7	19.9	4,627
Vlasset B	Seminis	2.8	18.9	4,562
Jackson C	Sun Seeds	2.8	20.8	4,549
Eureka	Seminis	2.8	17.8	4,428
SXQP 2686	Sun Seeds	2.8	18.3	4,330
Picklet	Seminis	2.6	18.3	4,218
Duke F1	Harris Moran	2.7	19.4	4,180
Patton C	Sun Seeds	2.7	17.4	4,109
Eclipse	Harris Moran	2.8	17.2	4,093
Endeavour	Seminis	2.6	18.4	4,081

Soil Type	: Loam	Plant population	: 18,000 plants/Ac
Soil pH	: 6.5	Fertilizer	: 34-0-0 @ 130 kg/Ac
Seeding Date	: May 29	Herbicide	: Roundup Transorb 0.6 L/Ac
Plot Size	: 5' x 30'		: Command 0.4 L/Ac
Rows	: 5'	Harvest Dates	: July 21 - Aug 22
Plants	: 6"		

* Yields are for comparative purposes only. Small plot yields may not accurately reflect commercial yields
 Note: Oversize are not included in yield data.

**Fresh Quality Evaluation of Pickling Cucumber Cultivars
Advanced Multipick Trial - Simcoe, 2003**

Cultivar	Source	Blossom- end (1-5)	Shoulder (1-5)	Ridging & Spines (1-5)	Colour (1-5)	Seed Cavity (1-5)	Seed Size (1-5)
Patton C	Sun Seeds	2.0	2.0	2.0	2.5	3.0	2.0
Patton S	Sun Seeds	3.0	3.0	2.0	2.5	2.0	3.0
Jackson C	Sun Seeds	2.5	2.5	2.0	2.5	2.0	2.0
SXQP 2686	Sun Seeds	3.0	3.0	3.0	2.5	2.0	2.0
Endeavour	Seminis	3.0	3.0	2.0	2.5	1.0	1.0
FanciPak M	Seminis	2.0	2.0	1.5	2.0	2.0	1.0
Picklet	Seminis	2.0	2.0	2.0	2.5	1.0	1.0
Vlasset B	Seminis	2.0	2.5	1.5	3.0	2.0	1.0
Pony O	Seminis	2.5	2.5	2.0	3.0	2.0	2.0
Eureka	Seminis	2.0	2.5	2.0	3.5	2.0	1.0
Eclipse	Harris Moran	3.0	3.0	2.0	3.0	2.0	1.0
Pik-Rite	Harris Moran	2.0	2.5	1.5	3.0	2.0	1.0
Duke F1	Harris Moran	2.0	2.5	2.0	2.5	1.5	1.5

Yields of Cucumbers From Main Multipick Trial, Simcoe, 2003

Cultivar	Source	L:D Ratio 3 A's	Yield*	
			T/Ac	\$/Ac
			Total	Total
SXQP 2391 S	Sun Seeds	2.8	19.9	4,737
SRQP 2391 C	Sun Seeds	2.7	18.7	4,724
SXQP 2627 S	Sun Seeds	2.8	20.6	4,565
SRQP 2608 C	Sun Seeds	2.9	18.7	4,527
SRQP 2982 S	Sun Seeds	2.9	18.3	4,306
HMX 9466	Harris Moran	2.8	17.6	4,256
HMX 0469	Harris Moran	2.8	18.1	4,196
MacArthur C	Sun Seeds	2.9	17.5	4,079
SRQP 3146 C	Sun Seeds	2.7	18.1	4,044
HMX 9465	Harris Moran	3.0	17.4	3,839
SRQP 1864 C	Sun Seeds	3.1	15.8	3,794

Soil Type	: Loam	Plant population	: 18,000 plants/Ac
Soil pH	: 6.5	Fertilizer	: 34-0-0 @ 130 kg/Ac
Seeding Date	: May 29	Herbicide	: Roundup Transorb 0.6 L/Ac
Plot Size	: 5' x 30'		: Command 0.4 L/Ac
Rows	: 5'	Harvest Dates	: July 21 - Aug 22
Plants	: 6"		

* Yields are for comparative purposes only. Small plot yields may not accurately reflect commercial yields.
 Note: Oversize are not included in yield data.

Fresh Quality Evaluation of Pickling Cucumber Cultivars Main Multipick Trial - Simcoe, 2003

Cultivar	Source	Blossom- end (1-5)	Shoulder (1-5)	Ridging & Spines		Colour (1-5)	Seed Cavity (1-5)	Seed Size (1-5)
				(1-5)	(1-5)			
SRQP 1864 C	Sun Seeds	3.0	3.0	2.0	2.5	2.0	2.0	
SRQP 2608 C	Sun Seeds	3.0	3.0	1.5	2.5	2.0	2.0	
SRQP 3146 C	Sun Seeds	3.0	3.0	1.5	2.5	2.0	2.0	
SXQP 2627 S	Sun Seeds	3.0	3.0	2.0	3.0	2.0	2.0	
SXQP 2391 S	Sun Seeds	3.0	3.0	2.0	3.0	3.0	1.5	
SRQP 2982 S	Sun Seeds	3.0	3.0	2.0	2.5	2.0	2.0	
MacArthur C	Sun Seeds	3.0	3.0	1.5	2.0	2.0	2.0	
HMX 0469	Harris Moran	3.0	3.0	2.0	2.0	2.0	2.0	
HMX 9465	Harris Moran	3.0	3.0	2.0	1.5	2.0	2.0	
HMX 9466	Harris Moran	3.0	3.0	3.0	2.5	2.5	2.0	
SRQP 2391 C	Sun Seeds	2.5	2.5	1.5	3.0	3.0	2.0	

Yields of Cucumbers From Simulated Once-over Machine Harvest Trial, Simcoe, 2003

Cultivar	Source	Total Fruit/Plant	Yield*			
			Grades 1 - 3		Grades 1 - 4	
			T/Ac	\$/Ac	T/Ac	\$/Ac
Eclipse	Harris Moran	2.7	8.9	2,066	10.3	2,141
Arabian O	Seminis	2.3	8.4	2,008	9.1	2,049
XP4506116	Seminis	2.1	8.7	1,880	10.1	1,959
SXQP 2686	Sun Seeds	2.4	8.5	1,919	9.1	1,954
Vlaspik M	Seminis	2.0	8.1	1,827	9.5	1,906
HMX 9466	Harris Moran	2.5	6.6	1,791	7.3	1,830
Papillon	Seminis	2.2	7.7	1,790	8.4	1,827
Vlasspear	Seminis	2.3	7.5	1,749	8.9	1,823
HMX 9465	Harris Moran	2.3	6.5	1,744	6.7	1,754
Discover	Seminis	2.0	7.7	1,694	8.7	1,748
SRQP 2608	Sun Seeds	2.1	6.1	1,485	6.6	1,514
Wellington	Seminis	1.9	5.3	1,377	6.1	1,421
Palamino	Seminis	1.8	5.6	1,262	7.3	1,357
SRQP 2391 S	Sun Seeds	1.8	5.3	1,226	6.6	1,300
Lafayette C	Sun Seeds	1.9	4.6	1,205	5.7	1,266
MacArthur C	Sun Seeds	1.6	5.0	1,193	6.0	1,246
Stallion	Seminis	1.5	5.0	1,138	5.8	1,180
XP4504229	Seminis	1.6	4.5	1,116	5.1	1,151
SRQP 2391 C	Sun Seeds	1.5	3.8	955	4.1	971
Colt O	Seminis	1.0	3.3	738	3.5	750

Soil Type	: Loam	Plant population	: 58,000 plants/Ac
Soil pH	: 7.0	Fertilizer	: 34-0-0 @ 130 kg/Ac
Seeding Date	: June 24	Herbicide	: Roundup Transorb 0.6 L/Ac
Plot Size	: 28" x 30'		: Command 0.4 L/Ac
Rows	: 28"	Harvest Date	: August 11
Plants	: 4"		

*Yields are for comparative purposes only. Small plot yields may not accurately reflect commercial yields.

Note: Oversize, nubs and crooks are not included in yield data.

Yields of Cucumbers From Simulated Once-over Machine Harvest Trial , Simcoe, 2003 (Continued)

Cultivar	Source	L:D Ratio 1B's	L:D Ratio 3 A's	% Oversize (by wt.)
Eclipse	Harris Moran	3.1	2.5	6
Arabian O	Seminis	3.2	2.7	15
XP4506116	Serninis	3.1	2.6	7
SXQP 2686	Sun Seeds	2.8	2.5	2
Vlaspik M	Seminis	3.1	2.6	17
HMX 9466	Harris Moran	3.2	2.8	12
Papillon	Serninis	3.2	2.7	7
Vlasspear	Seminis	3.4	2.5	17
HMX 9465	Harris Moran	3.3	2.9	1
Discover	Serninis	3.4	2.6	11
SRQP 2608	Sun Seeds	3.0	2.5	3
Wellington	Seminis	3.2	2.5	23
Palamino	Serninis	3.1	2.6	15
SRQP 2391 S	Sun Seeds	3.1	2.5	11
Lafayette C	Sun Seeds	2.5	2.6	14
MacArthur C	Sun Seeds	3.1	2.4	15
Stallion	Seminis	3.1	2.6	16
XP4504229	Serninis	3.3	2.7	8
SRQP 2391 C	Sun Seeds	3.0	2.1	3
Colt O	Serninis	3.0		5

Soil Type	: Loam	Plant population	: 58,000 plants/Ac
Soil pH	: 7.0	Fertilizer	: 34-0-0 @ 130 kg/Ac
Seeding Date	: June 24	Herbicide	: Roundup Transorb 0.6 L/Ac
Plot Size	: 28" x 30'		: Command 0.4 L/Ac
Rows	: 28"	Harvest Date	: August 11
Plants	: 4"		

Yields of Cucumbers From Once-over Machine Harvest Trial, Vittoria, 2003

Cultivar	Source	Yield*				% Recovery
		T/Ac		\$/Ac		
		Hand	Machine	Hand	Machine	
<i>Harvest Date: August 11, 2003</i>						
SXQP 2686	Sun Seeds	12.3	7.7	2,769	1,677	62
Papillon	Seminis	13.7	7.6	2,684	1,479	56
SXQP 2391 C	Sun Seeds	8.8	7.6	1,847	1,452	87
SXQP 2391 S	Sun Seeds	11.2	6.5	2,270	1,271	58
Lafayette C	Sun Seeds	12.0	6.6	2,409	1,220	55
SRQP 2608 C	Sun Seeds	8.2	5.7	1,850	1,074	69
MacArthur C	Sun Seeds	11.5	5.8	2,292	1,062	51
Vlasspear	Seminis	10.1	5.5	2,162	1,049	55
XP04504229	Seminis	8.2	5.6	1,744	1,016	68
HMX 9465	Harris Moran	8.3	4.5	1,787	916	54
Palomino	Seminis	12.8	4.9	2,498	833	38
Wellington	Seminis	8.7	4.5	1,731	821	52
HMX 0469	Harris Moran	4.7	3.5	1,322	763	74
Discover	Seminis	6.6	3.8	1,262	745	58
Arabian	Seminis	7.1	3.9	1,490	712	54
Eclipse	Harris Moran	6.1	3.5	1,247	709	58
Colt O	Seminis	5.6	3.7	1,135	637	66
Vlaspik M	Seminis	5.0	2.7	1,001	491	53
<i>Harvest Date: August 15, 2003</i>						
Vlaspik M	Seminis	8.8	5.1	2,055	1,062	57
HMX 9464	Harris Moran	4.7	2.0	1,158	440	42
HMX 9466	Harris Moran	4.1	1.8	976	386	45
Harvest Date	: August 11	Harvest Date		: August 15		
Rows	: 27"	Rows		: 27"		
Plants	: 4"	Plants		: 4"		

*Yields are for comparative purposes only. Small plot yields may not accurately reflect commercial yields.

Note: Oversize, grade 4's, nubs and crooks are not included in yield data.

Yields of Cucumbers From Simulated Once Over Machine Harvest Trial - Late Planting, Simcoe, 2003

Cultivar	Source	% Oversize (by wt.)	Yield*			
			Grades 1 - 3		Grades 1 - 4	
			T/Ac	\$/Ac	T/Ac	\$/Ac
Papillon	Seminis	9	6.3	1,405	6.7	1,428
Discover M	Seminis	16	6.0	1,299	7.2	1,361
Colt O	Seminis	19	5.6	1,231	7.1	1,315
Vlaspick M	Seminis	6	5.5	1,249	6.4	1,301
Vlasspear	Seminis	23	5.5	1,212	6.9	1,284
Palamino	Seminis	8	5.5	1,180	6.6	1,239
Wellington	Seminis	11	5.1	1,136	6.7	1,221
Eclipse	Harris Moran	14	4.7	1,084	6.0	1,153
Lafayette C	Sun Seeds	11	4.5	1,045	5.1	1,078
Arabian O	Seminis	24	3.8	863	5.5	958

Soil Type	: Loam	Rows	: 28"
Soil pH	: 6.5	Plants	: 4"
Seeding Date	: July 29	Plant population	: 58,000 plants/Ac
Plot Size	: 28" x 30'	Fertilizer	: 34-0-0 @ 130 kg/Ac
		Harvest Date	: September 17

*Yields are for comparative purposes only. Small plot yields may not accurately reflect commercial yields
 Note: Oversize, nubs and crooks are not included in yield data.

Brine Stock Rating of Cucumbers - Advanced Multipick Trial - Simcoe, 2003

Cultivar	Source	Shape	Ridges & Spines	External Colour	Internal Colour	Firmness	Placenta Size	Seed Size	Overall Quality*	Mean Quality**	% Recovery
Patton C	Sun Seeds	2.6	2.3	2.9	2.6	2.6	2.8	2.0	2.2	2.5	100
Eclipse	Harris Moran	3.1	3.0	3.1	2.9	2.4	2.1	2.0	2.7	2.7	100
SXQP 2686	Sun Seeds	3.5	3.9	3.6	2.5	2.4	2.5	2.6	3.3	3.0	100
Picklet	Seminis	3.0	3.0	3.0	2.9	2.4	2.8	2.3	2.5	2.7	99
FanciPak M	Seminis	3.4	3.0	3.6	2.5	2.8	2.5	2.1	3.0	2.9	99
Duke F1	Harris Moran	3.3	3.1	3.3	2.9	2.8	2.9	3.1	3.0	3.0	97
Pony O	Seminis	3.5	3.3	3.1	3.0	2.6	2.8	2.6	3.2	3.0	90
Pik-Rite	Harris Moran	3.3	3.0	3.3	3.0	2.8	2.6	2.1	3.0	2.9	85
Eureka	Seminis	2.3	2.9	2.6	2.6	2.9	2.8	2.5	2.3	2.6	77
Patton S	Sun Seeds	3.3	2.5	2.9	3.0	3.3	2.6	2.4	2.7	2.8	75
Jackson C	Sun Seeds	3.5	3.3	3.1	2.9	2.8	2.9	3.4	3.3	3.1	70
Endeavour	Seminis	2.9	2.8	3.3	2.9	3.3	2.4	2.1	2.7	2.8	65
Vlasset B	Seminis	2.9	2.9	3.1	3.1	2.8	2.6	2.1	2.5	2.8	47

Ratings: 1 = most acceptable; 5 = least acceptable

*Is a general overall rating.

**Includes shape, ridges & spines, external colour, internal colour, firmness, placenta size and seed size.

Brine Stock Rating of Cucumbers - Main Multipick Trial - Simcoe, 2003

Cultivar	Source	Shape	Ridges & Spines	External Colour	Internal Colour	Firmness	Placenta Size	Seed Size	Overall Quality*	Mean Quality**	% Recovery
SRQP 2391 C	Sun Seeds	2.8	2.4	2.6	3.0	2.6	3.1	2.5	2.7	2.7	100
HMX 0469	Harris Moran	3.5	3.1	3.1	2.9	2.5	2.3	2.5	2.7	2.8	100
SRQP 3146 C	Sun Seeds	3.0	2.6	2.8	3.0	2.9	3.3	2.5	2.8	2.9	100
SRQP 2608 C	Sun Seeds	3.3	3.0	2.4	3.0	2.8	2.9	2.6	3.0	2.9	100
SXQP 2391 S	Sun Seeds	3.0	2.8	2.8	3.1	2.8	3.1	2.6	2.8	2.9	100
SRQP 2982 S	Sun Seeds	3.1	3.1	3	3.0	2.8	3.1	2.6	2.8	3.0	100
HMX 9465	Harris Moran	3.5	3.0	3.3	3.0	2.8	2.8	2.5	3.3	3.0	100
HMX 9466	Harris Moran	3.6	3.0	2.8	3.0	2.8	2.6	3.1	3.3	3.0	100
MacArthur C	Sun Seeds	3.8	3.3	3.8	3.0	2.8	2.8	2.3	3.0	3.1	96
SXQP 2627 S	Sun Seeds	3.1	3.1	3.6	3.0	2.8	2.9	2.6	3.2	3.0	92
SRQP 1864 C	Sun Seeds	3.0	2.5	2.6	2.8	2.6	2.9	2.5	2.7	2.7	90

Ratings: 1 = most acceptable; 5 = least acceptable

*Is a general overall rating.

**Includes shape, ridges & spines, external colour, internal colour, firmness, placenta size and seed size.

Brine Stock Rating of Cucumbers - Once Over Machine Harvest, 2003

Cultivar	Source	Shape	Ridges & Spines	External Colour	Internal Colour	Firmness	Placenta Size	Seed Size	Overall Quality*	Mean Quality**
MacArthur C	Sun Seeds	3.0	3.1	3.3	2.8	3.3	3.0	3.3	3.0	3.1
Wellington	Seminis	3.0	3.4	3.0	3.0	3.3	2.9	3.1	3.2	3.1
Vlaspik M	Seminis	3.1	3.0	3.0	3.0	3.0	3.1	3.6	3.3	3.2
SRQP 2608	Sun Seeds	3.8	3.1	3.3	3.1	3.0	2.9	2.8	3.3	3.2
HMX 9466	Harris Moran	3.8	3.3	3.0	3.0	3.0	3.1	3.3	3.2	3.2
HMX 9465	Harris Moran	3.6	3.1	3.4	3.0	3.0	3.1	3.4	3.2	3.2
Papillon	Seminis	4.0	3.3	3.1	3.0	2.8	2.8	3.4	3.5	3.2
Vlasspear	Seminis	3.3	3.1	3.3	3.3	3.3	2.9	3.6	3.3	3.2
4504229	Seminis	3.6	3.1	3.0	2.8	3.0	3.1	3.6	3.8	3.3
SXQP 2686	Sun Seeds	3.5	3.4	3.1	2.9	3.3	3.3	3.4	3.5	3.3
Eclipse	Harris Moran	3.8	3.1	3.1	2.9	3.0	3.3	3.9	3.7	3.3
Discover	Seminis	3.8	3.1	3.1	3.0	3.0	3.3	3.8	3.8	3.4
Palamino	Seminis	3.9	3.3	3.1	3.1	3.0	3.1	3.8	3.7	3.4
Lafayette C	Sun Seeds	3.6	3.4	3.1	2.9	3.0	3.5	3.8	3.8	3.4
4506116	Seminis	4.1	3.5	3.3	3.1	3.0	3.1	3.3	3.8	3.4
Colt O	Seminis	3.9	3.4	3.1	2.9	3.3	3.1	3.8	3.8	3.4
Arabian O	Seminis	4.0	3.1	3.3	3.0	3.5	3.1	3.8	3.8	3.5
Stallion	Seminis	4.0	3.8	3.1	3.1	3.7	4.0	4.0	4.0	3.7

Ratings 1 = most acceptable. 5 = least acceptable

*Is a general overall rating

** Includes shape, ridges & spines, external colour, internal colour, firmness, placenta size and seed size.

Hot Banana Pepper Cultivar Trial, Simcoe, 2003

Cultivar	Source	Marketable Yield (T/Ac)*							Total
		> 12.5 cm			< 12.5 cm				
		Red	Breaker	Yellow	Red	Breaker	Yellow		
Early Pick (Medium Hot Banana)	Greyco Distributers	3.0	6.2	2.2	0.3	1.0	1.0	13.6	
Golden Dagger (Gourmet Hot Hungarian)	Greyco Distributers	4.0	5.3	1.8	0.0	0.3	0.6	11.9	
Early Pick II (Hot Banana)	Greyco Distributers	2.4	5.1	2.0	0.1	0.6	0.5	10.7	
Hot Spot	Seminis	2.6	3.6	2.1	0.2	0.8	1.3	10.5	
Super Hungarian Hot	Stokes	5.2	3.2	0.6	0.2	0.4	0.6	10.2	
Inferno	Seminis	2.0	5.3	1.9	0.0	0.4	0.2	9.8	
Golden Gourmet (Hot Hungarian)	Greyco Distributers	3.3	4.3	0.7	0.1	0.2	0.3	8.9	
↳ Midas Golden (Gourmet Early Hot Hungarian)	Greyco Distributers	2.8	3.1	1.1	0.3	0.5	0.7	8.5	
Golden Chili (Gourmet Hot Hungarian)	Greyco Distributers	2.9	4.1	1.1	0.0	0.3	0.2	8.5	
Golen Hot Horn (De-stemable Hungarian)	Greyco Distributers	1.2	3.8	2.9	0.0	0.0	0.5	8.4	
Zizzier (Hungarian Hot Banana)	Greyco Distributers	2.5	3.1	0.5	0.2	0.4	0.3	7.1	
Yellow Dagger (Hot Hungarian Banana)	Greyco Distributers	1.5	3.6	1.2	0.1	0.4	0.1	6.9	
Soil Type	: Loam	Fertilizer		: 34-0-0 @ 130 kg/Ac					
pH	: 6.5	Herbicides		: Treflan @ 0.75 L/Ac					
Seeded	: April 16	Harvested		: September 10					
Transplanted	: May 28								
Plant Population	: 8,990/Ac								

*Yields are for comparative purposes only Small plot yields may not accurately reflect commercial yields.

Hot Banana Pepper Cultivar Trial, Simcoe, 2003 (Continued)

Cultivar	Source	Marketable		Yield (T/Ac)*		
		Fruit # Plant	Fruit Wt. (g)	Immature	Crooked	Culls
Early Pick (Medium Hot Banana)	Greyco Distributers	19	74.2	0.2	1.8	1.1
Golden Dagger (Gourmet Hot Hungarian)	Greyco Distributers	13	91.5	0.3	1.2	0.6
Early Pick II (Hot Banana)	Greyco Distributers	15	74.7	0.3	1.0	0.6
Hot Spot	Seminis	26	42.5	0.6	0.4	0.8
Super Hungarian Hot	Stokes	14	75.6	0.2	0.9	1.4
Inferno	Seminis	16	63.2	1.1	0.4	2.2
Golden Gourmet (Hot Hungarian)	Greyco Distributers	12	78.4	0.3	1.4	2.0
Midas Golden (Gourmet Early Hot Hungarian)	Greyco Distributers	14	60.5	0.2	0.5	1.5
Golden Chili (Gourmet Hot Hungarian)	Greyco Distributers	12	70.4	0.2	1.3	1.9
Golen Hot Horn (De-stemable Hungarian)	Greyco Distributers	10	84.5	0.9	2.0	1.0
Zizzler (Hungarian Hot Banana)	Greyco Distributers	11	61.9	0.1	0.7	2.5
Yellow Dagger (Hot Hungarian Banana)	Greyco Distributers	15	45.8	1.0	0.6	1.9
Soil Type		: Loam		Fertilizer	: 34-0-0 @ 130 kg/Ac	
pH		: 6.5		Herbicides	: Treflan @ 0.75L/Ac	
Seeded		: April 16		Harvested	: September 10	
Transplanted		: May 28				
Plant Population		: 8,990/Ac				

*Yields are for comparative purposes only Small plot yields may not accurately reflect commercial yields

Sweet Banana Pepper Cultivar Trial, Simcoe, 2003

Cultivar	Source	Marketable Yield (T/Ac)*							Total
		> 12.5 cm			< 12.5 cm				
		Red	Breaker	Yellow	Red	Breaker	Yellow		
PSR 02774813	Seminis	2.5	6.1	0.9	0.1	1.4	2.1	13.0	
Sweet Savannahl Giant Yellow Banana	Greyco Distributers	2.5	8.1	0.6	0.1	0.8	0.3	12.4	
Golden Savannahl Giant Yellow Banana	Greyco Distributers	2.6	6.0	1.7	0.2	0.4	0.3	11.3	
Sweet Arrow/ Early Banana	Stokes	3.0	6.0	1.3	0.0	0.5	0.3	11.1	
Sweet Spot	Seminis	0.9	5.5	1.6	0.0	0.3	0.2	8.5	
Super Sweet Banana	Stokes	2.9	3.3	0.4	0.0	0.5	0.2	7.4	
Bounty	Seminis	1.1	3.4	2.4	0.0	0.1	0.1	6.9	
Multisweet II/ Long Golden Banana	Greyco Distributers	1.4	3.2	0.4	0.1	0.2	0.0	5.3	
Banana Supreme	Seminis	1.8	2.3	0.2	0.1	0.4	0.2	5.0	
Soil Type	: Loam	Fertilizer		: 34-0-0 @ 130 kg/Ac					
pH	6.5	Herbicides		: Treflan @ 0.75 L/Ac					
Seeded	April 16	Harvested		: September 10					
Transplanted	: May 28								
Plant Population	: 8,990/Ac								

*Yields are for comparative purposes only. Small plot yields may not accurately reflect commercial yields

Sweet Banana Pepper Cultivar Trial, Simcoe, 2003 (Continued)

Cultivar	Source	Marketable		Yield (T/Ac)*		
		Fruit # Plant	Fruit Wt. (g)	Immature	Crooked	Culls
PSR 02774813	Seminis	11	122.67	0.33	0.34	1.41
Sweet Savannah1 Giant Yellow Banana	Greyco Distributers	16	78.98	0.3	0.89	1.5
Golden Savannah1 Giant Yellow Banana	Greyco Distributers	14	83.52	0.56	1.5	1.76
Sweet Arrow/ Early Banana	Stokes	15	78.78	0.79	0.63	1.36
Sweet Spot	Seminis	15	65.31	0.99	0.79	1.34
Super Sweet Banana	Stokes	12	61.01	0.48	0.68	0.72
Bounty	Seminis	8	86.44	2.01	1.27	0.71
Multisweet II/ Long Golden Banana	Greyco Distributers	9	59.75	1.48	0.68	0.97
Banana Supreme	Seminis	9	57.95	0.47	0.45	1.97
Sod Type : Loam		Fertilizer : 34-0-0 @ 130 kg/Ac				
pH : 6.5		Herbicides : Treflan @ 0.75 L/Ac				
Seeded : April 16		Harvested : September 10				
Transplanted : May 28						
Plant Population : 8,990/Ac						

*Yields are for comparative purposes only. Small plot yields may not accurately reflect commercial yields.

Hot Cherry and Jalapeno Pepper Cultivar Trial, Simcoe, 2003

Cultivar	Source	Marketable Yield (T/Ac)*							Total
		10 - 12.5cm			< 10 cm				
		Red	Breaker	Green	Red	Breaker	Green		
Golden Cherry Hot (Apple)	Greyco Distributers	0.0	0.0	0.0	5.6	8.0	2.9	16.4	
Large Red Cherry Hot	Greyco Distributers	0.0	0.0	0.0	3.4	2.4	2.8	8.6	
Grandi Red Cherry Hot	Greyco Distributers	0.0	0.0	0.0	4.5	1.8	2.0	8.4	
Olahrio (Long Jalapeno)	Greyco Distributers	1.8	2.2	0.2	0.8	1.5	1.4	7.9	
Dell-pack Jalapeno (large, mild, de-stemable)	Greyco Distributers	0.1	0.5	0.2	1.1	2.5	3.2	7.6	
Meteor (Long Jalapeno)	Greyco Distributers	1.5	0.9	0.0	1.5	1.4	1.6	6.9	
Cherry Bomb	Seminis	0.0	0.0	0.0	2.2	2.8	0.8	5.8	
Sara (Giant Serrano)	Greyco Distributers	0.0	0.0	0.0	2.5	2.0	4.2	0.1	
Soil Type	: Loam	Fertilizer		: 34-0-0 @ 130 kg/Ac					
pH	: 6.5	Herbicides		: Treflan @ 0.75 L/Ac					
Seeded	: April 16	Harvested		: September 10					
Transplanted	: May 28								
Plant Population	: 8,990/Ac								

*Yields are for comparative purposes only. Small plot yields may not accurately reflect commercial yields

Hot Cherry and Jalapeno Pepper Cultivar Trial, Simcoe, 2003 (Continued)

Cultivar	Source	Marketable		Yield (T/Ac)*		
		Fruit # Plant	Fruit Wt. (g)	Immature	Crooked	Culls
Golden Cherry Hot (Apple)	Greyco Distributers	36.0	46	0.2	0.0	0.2
Large Red Cherry Hot	Greyco Distributers	31.0	28	0.1	0.0	0.6
Grandi Red Cherry Hot	Greyco Distributers	27.0	32	0.1	0.0	1.0
Olahrio (Long Jalapeno)	Greyco Distributers	22.0	36	0.0	0.1	0.5
Deli-pack Jalapeno (large, mild, de-stemable)	Greyco Distributers	20.0	48	0.6	0.1	0.4
Meteor (Long Jalapeno)	Greyco Distributers	22.0	33	0.1	0.1	1.0
Cherry Bomb	Seminis	31.0	19	0.2	0.0	1.1
Sara (Giant Serrano)	Greyco Distributers	66.0	14	0.1	0.1	0.4
Soil Type	: Loam		Fertilizer	: 34-0-0 @ 130 kg/Ac		
pH	: 6.5		Herbicides	: Treflan @ 0.75 L/Ac		
Seeded	: April 16		Harvested	: September 10		
Transplanted	: May 28					
Plant Population	: 8,990/Ac					

*Yields are for comparative purposes only. Small plot yields may not accurately reflect commercial yields.

Cucumber Grades and Dollar Values

Grade	Size in diameter	Price Per	
		Tonne	Ton
1	Up to 2.7 cm (up to 1 1116")	\$844.93	\$768.12
2	2.7 cm to 3.8 cm (1 1116" to 1 112")	\$302.85	\$275.32
3	3.8 cm to 5.1 cm (1 1/2" to 2")	\$208.35	\$189.41
4	5.1 cm to 5.4 cm (2" to 2 118")	\$60.57	\$55.06

*Nubs and crooks were paid at the Grade 4 price.

**Prices obtained from "Agreement and Award for Marketing the 2002 Crop of Cucumbers for Processing" under the Farm Products Marketing Act.

Seed Sources

- Bejo Seeds Inc., P.O. Box 859, Oceano, CA 93445, USA.
- Christianson, P.O. Box 1788, Mount Vernon, WA 98273, USA.
- Greyco Distributers, 17901 Inkster Rd., Romulus, MI 48174, USA.
- Harris Moran Seed Co., P.O. Box 3091, Modesto, CA 95353, USA.
- Syngenta Seeds, P.O. Box 4188, Boise, Idaho 83711-4188, USA.
- Seedway Inc, 1225 Zeagor Road, Elizabethtown, PA 17022, USA.
- Seminis Vegetable Seeds, 107 Highview Ave. West, London, ON N6J 4C6
- Stokes Seeds Ltd., P.O. Box 10, St. Catherines, ON L2R 6R6.
- Sunseeds, 8850 59th Ave. N.E., Brooks, OR 97305-0008, USA.

MONTHLY METEOROLOGICAL SUMMARY

University of Guelph, Simcoe - 2003

Date	April			May			June		
	Temp (°C)		Ppt (mm)	Temp (°C)		Ppt (mm)	Temp (°C)		Ppt (mm)
	Min	Max		Min	Max		Min	Max	
1	-4.9	13.9	9.0	8.4	21.9	20.3	4.6	17.6	0.0
2	0.8	6.8	1.4	8.4	13.3	16.4	6.9	21.5	0.0
3	-2.0	0.8	0.0	4.7	12.6	0.0	9.1	15.5	0.0
4	-4.5	-0.6	0.0	3.5	18.1	0.0	9.9	14.4	15.6
5	-5.5	0.6	7.6	7.5	12.1	25.4	10.0	14.2	0.0
6	-7.2	0.1	13.4	8.6	21.3	0.2	10.1	22.9	0.0
7	-4.4	-2.4	0.0	7.9	16.0	0.4	12.8	21.2	0.0
8	-2.8	-0.6	0.6	8.4	19.2	0.0	11.0	23.3	17.0
9	-2.2	3.5	0.0	8.2	18.0	0.0	6.3	14.8	0.2
10	-3.5	9.0	0.0	8.0	21.6	8.2	9.6	22.1	0.2
11	0.2	14.9	0.0	9.6	20.7	25.8	15.6	24.3	0.0
12	0.6	14.8	0.0	6.4	10.2	2.0	13.5	15.9	12.2
13	-1.2	9.2	0.0	6.2	12.2	1.2	13.2	18.1	1.6
14	0.9	20.4	0.0	6.9	19.2	0.0	15.0	23.9	0.0
15	13.7	25.4	0.0	6.5	15.2	1.2	13.4	25.3	0.0
16	0.2	19.1	0.0	10.3	12.3	5.0	11.0	22.7	0.0
17	-2.2	4.1	0.0	8.3	15.6	0.0	11.4	23.6	0.0
18	1.4	13.0	0.0	8.5	20.1	0.0	15.5	21.9	0.0
19	5.4	19.8	0.0	7.3	23.7	0.0	13.0	21.4	8.8
20	8.1	21.0	9.0	6.3	15.8	7.4	9.9	20.5	0.0
21	8.6	16.0	0.4	4.0	15.2	0.0	14.0	21.8	0.4
22	1.6	8.6	0.4	4.4	15.3	0.0	11.8	29.9	0.0
23	-0.4	9.5	0.0	7.9	17.2	17.6	12.5	31.2	0.0
24	-1.7	14.1	0.0	8.6	16.4	3.4	14.4	32.1	0.0
25	3.2	16.5	0.0	7.7	16.7	0.0	18.9	32.5	0.0
26	3.6	17.0	0.0	6.7	16.9	0.0	17.3	31.6	0.2
27	-0.1	17.0	0.0	7.9	17.3	0.6	16.1	23.0	0.0
28	9.0	22.3	0.0	7.8	19.7	0.2	16.3	27.1	0.0
29	3.8	17.7	0.0	8.0	23.6	0.0	17.9	25.1	1.2
30	6.1	13.3	12.0	10.4	21.4	0.0	13.7	25.1	0.2
31				8.2	13.5	13.4			
Mean/Total	0.8	11.5	53.8	7.5	17.2	149.2	14.5	26.3	76.7
Normal	1.1	11.9	76.0	6.7	18.5	73.6	11.9	23.7	81.6

MONTHLY METEOROLOGICAL SUMMARY

University of Guelph, Simcoe - 2003

Date	July			August			September		
	Temp (°C)		Ppt (mm)	Temp (°C)		Ppt (mm)	Temp (°C)		Ppt (mm)
	Min	Max		Min	Max		Min	Max	
1	14.6	28.0	0.0	17.7	25.9	0.8	13.8	16.7	8.0
2	14.5	28.9	0.0	17.4	25.2	15.2	15.0	21.7	0.2
3	16.9	30.6	0.0	18.4	24.4	0.2	15.2	23.3	0.0
4	20.9	31.1	0.4	18.4	27.0	0.2	13.5	22.8	0.0
5	19.7	29.5	7.2	17.7	25.8	0.2	12.0	21.6	0.0
6	18.7	29.2	0.0	18.0	27.3	0.4	7.2	24.5	0.0
7	19.3	25.5	1.0	16.5	28.4	0.2	14.0	26.4	0.0
8	19.6	30.0	0.4	17.5	27.9	0.0	13.7	22.6	0.0
9	16.0	26.7	3.4	17.5	28.4	0.0	12.0	22.7	0.0
10	16.2	20.3	15.4	17.3	26.6	0.6	13.6	24.3	0.0
11	16.5	22.2	6.4	16.6	24.9	0.2	12.9	26.6	0.0
12	15.4	20.3	0.0	18.4	27.2	5.8	16.2	24.4	0.0
13	13.9	26.2	0.2	17.4	28.3	0.0	13.2	25.5	0.0
14	12.5	28.0	0.0	17.9	30.5	0.0	18.5	24.3	0.0
15	16.0	27.8	15.6	18.8	30.4	0.2	10.9	21.6	20.4
16	13.5	21.2	0.0	18.9	27.1	12.0	10.6	23.0	0.2
17	11.9	27.3	0.0	15.1	24.4	0.0	11.9	24.0	0.0
18	13.1	25.2	2.0	12.0	26.1	0.0	12.6	22.7	1.0
19	10.2	26.0	0.0	13.6	27.3	0.0	15.0	20.3	39.6
20	15.0	23.4	1.2	14.1	28.5	0.0	10.0	19.5	0.0
21	18.3	22.5	5.4	17.8	29.5	0.0	8.7	20.0	0.0
22	14.9	24.4	7.0	16.7	26.4	0.0	11.8	20.6	24.8
23	14.0	24.8	1.4	11.9	25.2	0.0	11.4	18.5	0.0
24	14.7	26.1	17.4	9.8	23.5	0.0	8.0	19.5	2.8
25	13.4	26.9	0.0	18.8	31.0	0.0	8.0	19.0	0.6
26	19.2	25.7	0.0	19.6	26.7	1.8	8.2	18.0	5.0
27	17.6	26.9	0.0	11.5	27.3	0.0	10.0	18.3	22.8
28	13.0	24.5	0.0	8.9	23.5	0.0	8.0	15.0	2.0
29	11.8	26.1	0.0	16.0	26.6	3.2	5.0	13.5	0.2
30	13.2	27.8	0.0	11.8	21.8	0.0	3.8	13.4	1.4
31	18.5	24.7	17.2	10.6	22.1	0			
Mean/Total	15.6	26.1	101.6	16.2	26.9	41.0	11.5	21.1	129.0
Normal	14.5	26.3	76.7	13.8	25.2	80.1	10.0	21.0	88.8