ANNUAL REPORT TO NC-140

2014 Apple Rootstock Trials – Reporting for 2015 data

November, 2016 – State College, Pennsylvania

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2016 was the third year of the 2014 NC-140 Apple Rootstock Trials. Rootstocks included in this experiment are indicated below. All data presented in this report were collected in 2015 and analyzed by the data coordinator. All cooperators submitted data except two sites (ON-Ridgetown, Indiana).

An Excel data template worksheet was provided to all cooperators to submit data. This generally worked well, however there were some data issues at some sites. Please use the Excel data template when submitting data -- a new worksheet template will be provided each year. Participants are encouraged to review their data and make sure that all measurements are in the units requested. Include only those data requested in the protocol – which is provided in addition to the data template.

Rootstocks, cultivars and locations involved in the 2014 NC-140 Apple Rootstock Trial. Honeycrisp plantings are spaced 4'×12' (1.22m×3.66m) and Aztec Fuji plantings are spaced 5'×13' (1.52m×3.96m). All trees are trained to the tall spindle orchard system.

Rootstocks	Honeycrisp sites	Aztec Fuji sites
B.10	ID	AL
G.11	**IN****	ID
G.202	MA	GA
G.214	ME	NJ
G.30	MEX	ON (Simcoe)
G.41	MI	PA
G.5890	MN	SC
G.935	NJ	UT
G.969	NY	
M.26 EMLA	ON (Simcoe)	
M.7	**ON (Ridgetown)****	
M.9 T337	PA	
MM.106	VA	
V.1	WA	
V.5	WI	
V.6		
V.7		

* No data were submitted for 2014

** No data were submitted for 2014 and 2015.

Summary of Data Submission

1. Review the data protocol located on the nc14o website
2. Be sure to correct any errors in the data structure (treatments, reps) communicated by the data coordinator to you in 2016.
3. Submit only the data requested using the Excel data template worksheet, which can be found on the nc-140 website
4. Submit **only** data collected in **2016** (not prior years) and use the correct units using the data template provided for 2016 (see website).

NC 140 Accomplishments Report Statement

2014 NC-140 Apple Rootstock Planting

The 2014 Apple rootstock planting was established in 15 locations in the United States (AL, ID, IN, MA, ME, MI, MN, GA, NJ, NY, PA, SC, UT, VA, WA, WI), two in Canada, and one in Mexico (http://bit.ly/1zv3wCc). The trial consists of the following rootstocks: B.10, G.11, G.202, G.214, G.30, G.41, G.5890, G.935, G.969, M.26 EMLA, M.9 T337, V.1, V.5, V.6, and V.7. Trial coordination and data analyse are being coordinated by John Cline. This trial has two cultivars: Aztec Fuji (AL, ID, GA, NJ, ON, PA, SC, UT) and Honeycrisp (ID, IN, MA, ME, Mexico, MI, MN, NJ, NY, Ontario, PA, VA, WA, WI), planted to a 'tall spindle' systems at a 5 x 12 ft, and 4 x12 ft spacing, respectively. Trees are planted in a randomized block design with single trees serving as experimental units. There are 10 replicates of each treatment. Each site selected their own pollinizer varieties. The trees were propagated by Willow Drive Nursery, WA and planted in the spring of 2014.

Data protocols have been established for 2014-2017 and are summarized below

Measurement	2014	2015	2016	2017
1) initial trunk diameter measured at planting 30cm above graft union	X			
2) number of side branches >10 cm at planting	X			
3) trunk circumference in the fall	X	X	X	
4) height of the graft union above soil;	X			
5) tree status at the end of the growing season	X	X	X	X
6) date of full bloom		X	X	X
7) date of harvest		X	X	X
8) total yield per tree		X	X	X
9) flower clusters per tree	X			
10) total number of fruit per tree		X	X	X
11) total number of rootstock suckers per tree		X	X	X

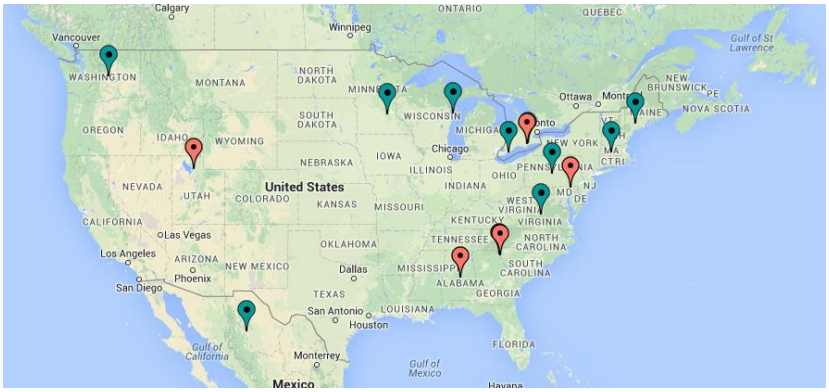

Figure 1. Location of participants of the 2014 NC-140 Apple rootstock planting evaluation of 'Aztec Fuji' (red) and 'Honeycrisp' (teal) in Canada, the United States, and Mexico. Map updated as of Nov 10, 2014 (not all participants provided gps coordinates). For an updated interactive map visit http://bit.ly/1zv3wCc

2015 HONEYCRISP DATA

Table 1. 2015 Fall trunk cross-sectional area (cm^2) of Honeycrisp apple trees at individual planting locations in the 2014 NC-140 Apple Rootstock Trial.

Rootstock	ID	MA	ME	MEX	MI	MN	NJ	NY	ON-S	PA	VA	WA	WI	Means
B.10					3.0		5.6	3.3	4.6		5.0		4.2	4.3
G.11		3.2	2.6	3.7	2.3	3.4	4.1	2.7	3.0		4.1	3.9	4.3	3.4
G.202	5.5	2.8	2.7	2.5	2.3	3.2	4.4	3.2	2.5		4.7	4.5	3.1	3.5
G.214					3.7	3.4	5.7	3.2	4.3		6.0	5.0	5.1	4.6
G.30	11.4	6.9	6.7	6.5	5.4	4.9	8.3	5.7	5.4		7.2	6.6	9.0	7.0
G.41		4.1		3.9	2.7	3.8	4.8	2.8	2.8		4.1	3.9	4.9	3.8
G.5890		8.7				5.2		6.6		9.2		7.2	8.7	7.6
G.935		5.0	3.5		3.0	2.8	5.5	2.4	3.5		4.7	5.1	5.5	4.1
G.969	7.5	5.2	4.1	4.9	3.0	4.2	7.3	3.6	3.8	6.6	6.4	5.3	5.7	5.2
M.26 EMLA	6.2	4.9	3.3	3.7	2.9	3.7	6.2	3.4	3.9	6.1	4.5	4.5	4.6	4.5
M.7									4.1					4.1
M.9 T337		3.8		4.2	2.9	3.1	5.3	2.7	3.2	5.3	4.7	4.0	3.9	3.9
MM.106									4.6					4.6
V.1	8.9	6.4	5.0		4.7	5.0	8.5	4.2		7.9	6.6	6.8	6.7	6.4
V.5		7.5	5.1		6.6	6.4	8.6	5.6	5.9	7.4	7.4	9.0	8.7	7.1
V.6		9.1		4.8	4.2	5.8	8.7	5.0	5.8	9.6	8.0	6.9	8.1	6.9
V.7		7.5	5.0		4.4	4.4	9.2	4.9	6.0	7.5	6.6	7.8	7.8	6.5
Mean	7.9	5.8	4.2	4.3	3.6	4.2	6.6	4.0	4.2	7.4	5.7	5.7	6.0	5.2

Table 2. Relative growth rate of Honeycrisp trees at varous locations in the 2014 NC-140 Apple Rootstock Trial. Data are calculated based on the change in trunk circumference between the fall of 2015 and spring of 2014.

Rootstock	ID	MA	ME	MEX	MI	MN	NJ	NY	ON-S	PA	VA	WA	WI	Means
B.10							2.5		1.3		2.1		2.2	2.0
G.11		2.5	1.7	3.5		2.3	2.9		2.0		3.9	2.2	3.9	2.8
G.202	3.6	3.1	2.6	3.0		1.6	3.4		2.2		3.4	1.9	2.6	2.7
G.214						1.1	2.7		1.7		3.1	1.7	2.2	2.1
G.30	3.6	1.9	2.3	2.8		1.4	2.8		2.7		2.8	1.4	3.0	2.5
G.41		3.4		3.2		2.6	4.3		1.6		3.6	2.3	4.3	3.2
G.5890		2.8				2.1				2.7		2.0	2.6	2.4
G.935		3.9	2.9			2.5	4.6		1.4		3.8	1.7	4.4	3.1
G.969	5.0	3.2	2.6	3.8		2.0	4.4		1.7	2.8	3.8	2.1	2.9	3.1
M.26 EMLA	4.2	3.2	2.0	2.3		1.9	3.5		1.8	3.2	3.2	1.8	3.5	2.8
M.7									1.7					1.7
M.9 T337		2.3		2.8		1.3	3.4		1.4	2.1	3.3	1.6	2.7	2.3
MM.106									2.3					2.3
V.1	4.0	2.3	1.8			1.6	2.8			2.4	2.3	1.7	2.3	2.4
V.5		3.7	1.9			1.4	5.0		1.6	2.9	2.8	1.7	3.1	2.7
V.6		3.5		2.7		2.5	3.2		1.7	2.9	3.3	1.4	3.1	2.7
V.7		4.1	2.3			2.8	4.8		1.9	2.7	2.6	1.9	2.5	2.8
Mean	4.1	3.1	2.2	3.0		1.9	3.6		1.8	2.7	3.1	1.8	3.0	2.8

Table 3. 2015 total yield (kg/tree) of Honeycrisp fruit at varous locations in the 2014 NC-140 Apple Rootstock Trial.

Rootstock	ID	MA	ME	MEX	MI	MN	NJ	NY	ON-S	PA	VA	WA	WI	Mean
B.10					3.6		1.2	3.7					4.6	3.3
G.11		1.9	0.4		2.1		2.0	2.2				0.1	1.9	1.5
G.202	1.9	0.3			0.9		0.6	1.9					1.3	0.9
G.214					3.4		1.0	4.7					5.9	3.0
G.30	2.8	8.7	1.4		4.4		2.5	6.2					6.6	4.1
G.41		2.0			2.1		0.7	3.3					2.9	1.8
G.5890		3.4						8.4		4.4		0.2	6.7	4.6
G.935		2.1	0.3		2.3		1.0	1.2					2.9	1.4
G.969	2.9	3.6	0.6		3.5		1.5	5.5		2.9		0.8	6.0	3.0
M.26 EMLA	5.4	3.0	0.6		2.3		2.2	2.2		1.7		0.1	3.0	2.3
M.7														
M.9 T337		2.2			3.3		1.5	2.3		1.4		0.2	3.5	2.0
MM.106														
V.1	2.7	5.1	1.6		3.4		2.0	5.6		4.1			6.3	3.4
V.5		0.9	1.0		5.5		1.0	3.8		2.0		0.2	2.8	2.2
V.6		2.0			4.3		1.3	3.8		4.1		0.2	4.1	2.8
V.7		1.0	1.3		3.1		0.7	6.1		3.4			5.1	2.6
Mean	3.1	2.8	0.8		3.2		1.4	4.1		3.0		0.1	4.2	2.5

Table 4. 2015 total number of Honeycrisp fruit per tree at varous locations in the 2014 NC-140 Apple Rootstock Trial.

Rootstock	ID	MA	ME	MEX	MI	MN	NJ	NY	ON-S	PA	VA	WA	WI	Mean
B.10					16.4		3.3	12.4					16.1	12.1
G.11		4.8	1.5		8.2		5.9	7.8				0.2	4.8	4.7
G.202	3.6	8.8			3.9		1.7	6.7					3.6	3.5
G.214					14.1		3.0	18.5					20.5	11.2
G.30	6.5	23.6	4.5		18.8		7.8	22.0				0.1	20.1	12.9
G.41		4.7			6.7		2.0	10.6					7.5	5.2
G.5890		8.1						29.7		16.6		0.5	19.7	14.9
G.935		5.7	0.9		8.1		2.9	3.8					8.6	4.3
G.969	6.4	9.1	2.5		16.9		4.5	20.9		11.3		2.8	18.8	10.4
M.26 EMLA	15.2	7.6	2.1		10.9		6.5	7.6		6.4		0.3	8.1	7.2
M.7														
M.9 T337		5.6			12.4		4.5	7.6		5.1		0.7	9.2	6.4
MM.106														
V.1	6.5	14.2	6.7		18.6		5.8	22.8		15.7			20.2	12.3
V.5		2.5	2.8		20.0		2.6	11.3		7.8		0.7	7.5	6.9
V.6		4.8			16.5		3.1	11.7		14.9		1.2	11.2	9.1
V.7		2.4	4.0		13.1		2.0	20.8		12.5		0.4	14.7	8.7
Mean	7.6	7.8	2.8		13.2		4.0	14.3		11.3		0.5	12.7	8.5

Table 5. 2015 total number of Honeycrisp fruit per tree at varous locations in the 2014 NC-140 Apple Rootstock Trial.

Rootstock	ID	MA	ME	MEX	MI	MN	NJ	NY	ON-S	PA	VA	WA	WI	Mean
B.10					5.3		0.6	3.9					3.9	3.4
G.11		1.4	0.6		3.5		1.5	3.8				0.1	1.1	1.7
G.202	0.7	3.2			1.6		0.4	2.1					1.2	1.1
G.214					4.0		0.5	6.1					4.2	3.0
G.30	0.6	3.5	0.7		3.6		0.9	3.9				0.0	2.3	1.9
G.41		1.2			2.5		0.4	3.9					1.6	1.6
G.5890		0.9						4.7		1.8		0.1	2.3	2.0
G.935		1.3	0.3		2.8		0.6	2.0					1.6	1.2
G.969	1.0	1.8	0.6		6.1		0.6	6.1		1.7		0.9	3.3	2.5
M.26 EMLA	2.5	1.6	0.6		4.1		1.0	2.0		1.1		0.1	1.8	1.7
M.7														
M.9 T337		1.4			4.4		0.9	3.1		0.9		0.1	2.4	1.9
MM.106														
V.1	0.8	2.3	1.4		4.0		0.7	5.2		2.0			3.1	2.2
V.5		0.3	0.5		3.1		0.3	2.0		1.1		0.1	0.9	1.0
V.6		0.5			4.0		0.4	2.6		1.5		0.2	1.4	1.5
V.7		0.3	0.8		3.1		0.2	4.3		1.7		0.1	2.0	1.6
Mean	1.1	1.5	0.6	0.0	3.7	0.0	0.6	3.7	0.0	1.5	0.0	0.1	2.2	1.8

Table 6. 2015 fruit weight (g) of Honeycrisp fruit at varous locations in the 2014 NC-140 Apple Rootstock Trial.

Rootstock	ID	MA	ME	MEX	MI	MN	NJ	NY	ON-S	PA	VA	WA	WI	Means
B.10					227		387	299					290	301
G.11		407	257		271		362	531				500	361	384
G.202	371	267			200		310	317					378	307
G.214					257		333	268					264	281
G.30	358	382	346		264		314	303					343	289
G.41		440			404		363	357					405	394
G.5890		422						285		266		400	346	344
G.935		375	393		293		376	322					357	353
G.969	376	397	214		238		248	268		255		286	325	290
M.26 EMLA	364	454	226		266		358	329		263		333	332	325
M.7														
M.9 T337		365			245		265	264		273		333	354	300
MM.106	330	373	237		198		312	256		263			321	286
V.1		304	591		278		427	356		263		167	396	348
V.5		493			263		435	306		254		111	385	321
V.6		361	222		190		342	312		272			353	256
V.7														
Mean	360	388	311		257		345	318		264		237	347	317

Table 7. Fall 2015 survival of Honeycrisp trees at varous locations in the 2014 NC-140 Apple Rootstock Trial.

Rootstock	ID	MA	ME	MEX	MI	MN	NJ	NY	ON-S	PA	VA	WA	WI	Means
B.10					100		100	100	100		90		100	98
G.11		100	100	70	90	100	100	100	100		100	90	100	95
G.202	100	100	100	100	80	90	100	90	100		90	90	100	95
G.214					100	100	100	100	100		100	100	100	100
G.30	100	100	100	60	100	100	100	100	100		100	91	100	96
G.41		90		78	100	100	100	90	80		100	67	100	90
G.5890		100				89		100		100		100	100	98
G.935		100	100		82	100	100	100	90		90	100	100	96
G.969	100	100	80	100	100	100	100	100	100	100	100	50	100	95
M.26 EMLA	90	100	100	80	100	100	100	100	100	100	90	100	100	97
M.7									100					100
M.9 T337		100		80	90	100	100	100	100	100	100	90	100	96
MM.106									100					100
V.1	100	100	100		90	100	100	90		100	100	100	100	98
V.5		100	100		89	100	100	100	100	100	90	100	100	98
V.6		100		75	89	67	78	100	100	100	100	100	100	92
V.7		100	100		100	78	88	100	88	100	89	100	88	94
Mean	98	99	98	80	94	95	98	98	97	100	96	91	99	96

Table 8. Percent of Honeycrisp trees reporting breakage at the graft union in the 2014 NC-140 Apple Rootstock Trial. Data tabulated as of fall, 2015

Rootstock	ID	MA	ME	MEX	MI	MN	NJ	NY	ON-S	PA	VA	WA	WI	Means
B.10					0		0	0	0		0		0	0
G.11		0	0	0	10	0	0	0	0		0	0	0	1
G.202	0	0	0	0	20	0	0	0	0		0	0	0	2
G.214					0	0	0	0	0		0	0	0	0
G.30	0	0	0	0	0	0	0	0	0		0	0	0	0
G.41		0		0	0	0	0	0	0		0	0	0	0
G.5890		0				0		0		0		0	0	0
G.935		0	0		18	0	0	0	0		0	0	0	2
G.969	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.26 EMLA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M.7									0					0
M.9 T337		0		0	10	0	0	0	0	0	0	0	0	1
MM.106									0					0
V.1	0	0	0		10	0	0	0		0	0	0	0	1
V.5		0	0		0	0	0	0	0	0	0	0	0	0
V.6		0		0	0	0	0	0	0	0	0	0	0	0
V.7		0	0		0	0	0	0	0	0	0	0	0	0
Mean	0	0	0	5	0	0	0	0	0	0	0	0	0	0 0

2015 FUJI DATA

Table 1. 2015 Fall trunk cross-sectional area (cm^2) of Aztec Fuji apple trees at individual planting locations in the 2014 NC-140 Apple Rootstock Trial.

Rootstock	AL	GA	NJ	ON	PA	SC	UT	Means
B.10	3.0			5.5		7.8	10.6	6.7
G.11	2.5		5.8	4.7		7.6		5.1
G.202	2.8		5.0	3.1		8.1	12.0	6.2
G.214	2.3		4.9	4.4	6.6	9.0	12.6	6.7
G.30	4.5		9.1	7.3		14.7	15.7	10.3
G.41	2.6			6.1		8.1	12.8	7.4
G.935	4.0		7.1	4.5		10.6	14.9	8.2
G.969	4.5					11.6		8.1
M.26 EMLA	3.0		6.1	4.3	6.7	10.0	10.9	6.8
M.9 T337	3.7		5.2	4.5	6.1	8.9	11.8	6.7
V.1	4.0		7.2		8.0	12.5		7.9
V.5	4.6	10.7	7.8	6.6	9.5	17.5	17.2	10.6
V.6	6.4	14.7	8.6	6.4	10.7	17.3	18.9	11.8
V.7	4.9	12.4	7.9	7.3	10.0	14.7	18.6	10.8
Mean	3.8	12.6	6.8	5.4	8.2	11.3	14.2	8.4

Table 2. Relative growth rate of Aztec Fuji trees at various locations in the 2014 NC-140 Apple Rootstock Trial. Data are calculated based on the change in trunk circumference between the fall of 2015 and spring of 2014.

Rootstock	AL	GA	NJ	ON	PA	SC	Means
B.10	0.5			1.4		3.4	1.8
G.11	0.8		3.3	2.4		4.1	2.7
G.202	0.7		4.8	2.1		4.7	3.0
G.214	0.8		2.7	1.1	2.0	3.4	2.0
G.30	0.6		2.7	2.3		6.7	3.1
G.41	0.3			1.7		3.6	1.9
G.935	0.7		2.8	1.1		4.7	2.4
G.969	1.3		0.0			6.0	3.7
M.26 EMLA	1.2		3.7	2.5	3.5	8.3	3.8
M.9 T337	1.0		3.1	1.9	2.7	6.0	3.0
V.1	0.6		2.5		2.4	5.9	2.8
V.5	0.7	4.2	2.6	1.3	2.1	5.9	2.8
V.6	0.7	5.7	3.3	1.8	2.4	4.9	3.1
V.7	0.8	4.4	3.3	1.6	2.4	6.2	3.1
Mean	0.8	4.8	3.2	1.8	2.5	5.3	2.8

Table 3. 2015 total yield (kg/tree) of Aztec Fuji fruit at various locations in the 2014 NC-140 Apple Rootstock Trial.

Rootstock	AL	GA	NJ	PA	SC	UT	Mean
B.10	1.3				5.1	0.2	2.2
G.11	2.2		0.7		5.1		2.6
G.202	1.1				4.5	0.6	1.6
G.214	1.1		1.5	3.1	7.8	0.4	2.8
G.30	2.9		1.2		8.8	1.1	3.5
G.41	1.6				6.8	0.5	2.9
G.935	3.2		1.6		9.2	0.4	3.6
G.969	3.0				9.6		6.3
M.26 EMLA	1.5		0.3	0.5	3.6	0.4	1.3
M.9 T337	2.3		1.0	1.6	5.9	1.0	2.4
V.1	2.1		2.8	3.2	8.4		4.1
V.5	2.8		1.6	2.8	13.3	0.6	3.5
V.6	3.3		2.4	3.3	12.4	0.2	3.6
V.7	3.1		1.5	3.0	10.9	0.7	3.2
Mean	2.2		1.3	2.5	8.0	0.6	3.0

Table 4. 2015 total number of Aztec Fuji fruit per tree at various locations in the 2014 NC-140 Apple Rootstock Trial.

Rootstock	AL	GA	NJ	PA	SC	UT	Mean
B.10	8.6				27.8	1.3	12.5
G.11	12.1		3.4		25.2		13.6
G.202	6.3				22.5	3.7	8.1
G.214	7.0		7.0	15.3	39.4	2.0	14.1
G.30	19.3		5.8		45.3	5.5	19.0
G.41	9.9				36.9	2.8	16.5
G.935	17.3		8.2		47.7	2.5	18.9
G.969	18.8				47.3		33.1
M.26 EMLA	9.6		1.4	2.9	19.4	2.0	7.1
M.9 T337	14.3		4.2	7.4	29.8	5.0	12.2
V.1	11.8		13.7	17.5	39.8		20.7
V.5	16.8		8.7	16.7	69.4	4.0	19.3
V.6	20.6		12.3	18.6	62.2	2.0	19.3
V.7	19.6		7.6	17.7	55.7	3.0	17.3
Mean	13.7		6.6	13.7	40.6	3.1	16.0

Table 5. 2015 total number of Aztec Fuji fruit per tree at varous locations in the 2014 NC-140 Apple Rootstock Trial.

Rootstock	AL	GA	NJ	PA	SC	UT	Mean
B.10	2.7				3.8	0.1	2.2
G.11	4.8		0.6		3.5		3.0
G.202	2.3				3.0	0.3	1.4
G.214	2.8		1.7	2.4	4.7	0.2	2.3
G.30	4.2		0.7		3.2	0.4	2.1
G.41	3.7				5.0	0.2	3.0
G.935	4.2		1.3		4.9	0.2	2.6
G.969	4.1				4.3		4.2
M.26 EMLA	3.2		0.3	0.3	2.2	0.2	1.2
M.9 T337	4.0		0.9	1.3	4.0	0.4	2.1
V.1	3.1		2.1	2.3	3.4		2.7
V.5	4.0		1.2	1.9	4.3	0.2	1.9
V.6	3.3		1.4	1.9	4.0	0.1	1.8
V.7	4.0		1.0	1.9	4.0	0.2	1.8
Mean	3.6	0.0	1.0	1.7	3.9	0.2	2.2

Table 6. 2015 fruit weight (g) of Aztec Fuji fruit at various locations in the 2014 NC-140 Apple Rootstock Trial.

Rootstock	AL	NJ	PA	SC	UT	Mean
B.10	149			184	167	167
G.11	184	208		201		198
G.202	204			199	160	188
G.214	160	217	201	198	200	195
G.30	151	208		190	193	185
G.41	156			184	169	170
G.935	173	203		193	154	181
G.969	157			203		180
M.26 EMLA	158	204	202	184	200	189
M.9 T337	155	233	207	199	207	200
V.1	169	211	182	210		193
V.5	165	188	167	192	150	173
V.6	156	202	176	198	100	166
V.7	162	197	172	199	213	189
Mean	164	207	187	195	174	184

[y] Rootstock was not included at planting location.

Table 7. Fall 2015 survival of Aztec Fuji trees at varous locations in the 2014 NC-140 Apple Rootstock Trial.

Rootstock	AL	GA	NJ	ON	PA	SC	UT	Mean
B.10	70			100		100	100	93
G.11	100		90	100		100		98
G.202	60		60	70		100	100	78
G.214	80		100	90	100	100	100	95
G.30	100		100	100		100	100	100
G.41	100			100		100	100	100
G.935	90		100	100		100	100	98
G.969	100					90		95
M.26 EMLA	90		100	100	100	100	100	98
M.9 T337	90		90	100	100	100	100	97
V.1	90		100		100	100		98
V.5	100	100	100	100	100	90	100	99
V.6	90	100	100	100	100	100	100	99
V.7	100	100	100	100	100	100	100	100
Mean	90	100	95	97	100	99	100	96

Table 8. Percent of Aztec Fuji trees reporting breakage at the graft union in the 2014 NC-140 Apple Rootstock Trial. Data tabulated as of fall, 2015

Rootstock	AL	GA	NJ	ON	PA	SC	UT	Mean
B.10	0			0		0	0	0
G.11	0		0	0		0		0
G.202	0		0	0		0	0	0
G.214	0		0	0	0	0	0	0
G.30	0		0	0		0	0	0
G.41	0			0		0	0	0
G.935	0		0	0		0	0	0
G.969	0					0		0
M.26 EMLA	0		0	0	0	0	0	0
M.9 T337	0		0	0	0	0	0	0
V.1	0		0		0	0		0
V.5	0	0	0	0	0	0	0	0
V.6	0	0	0	0	0	0	0	0
V.7	0	0	0	0	0	0	0	0
Mean	0	0	0	0	0	0	0	0