

2016

South Sacramento Valley

Processing Tomato Production Meeting



UC
CE

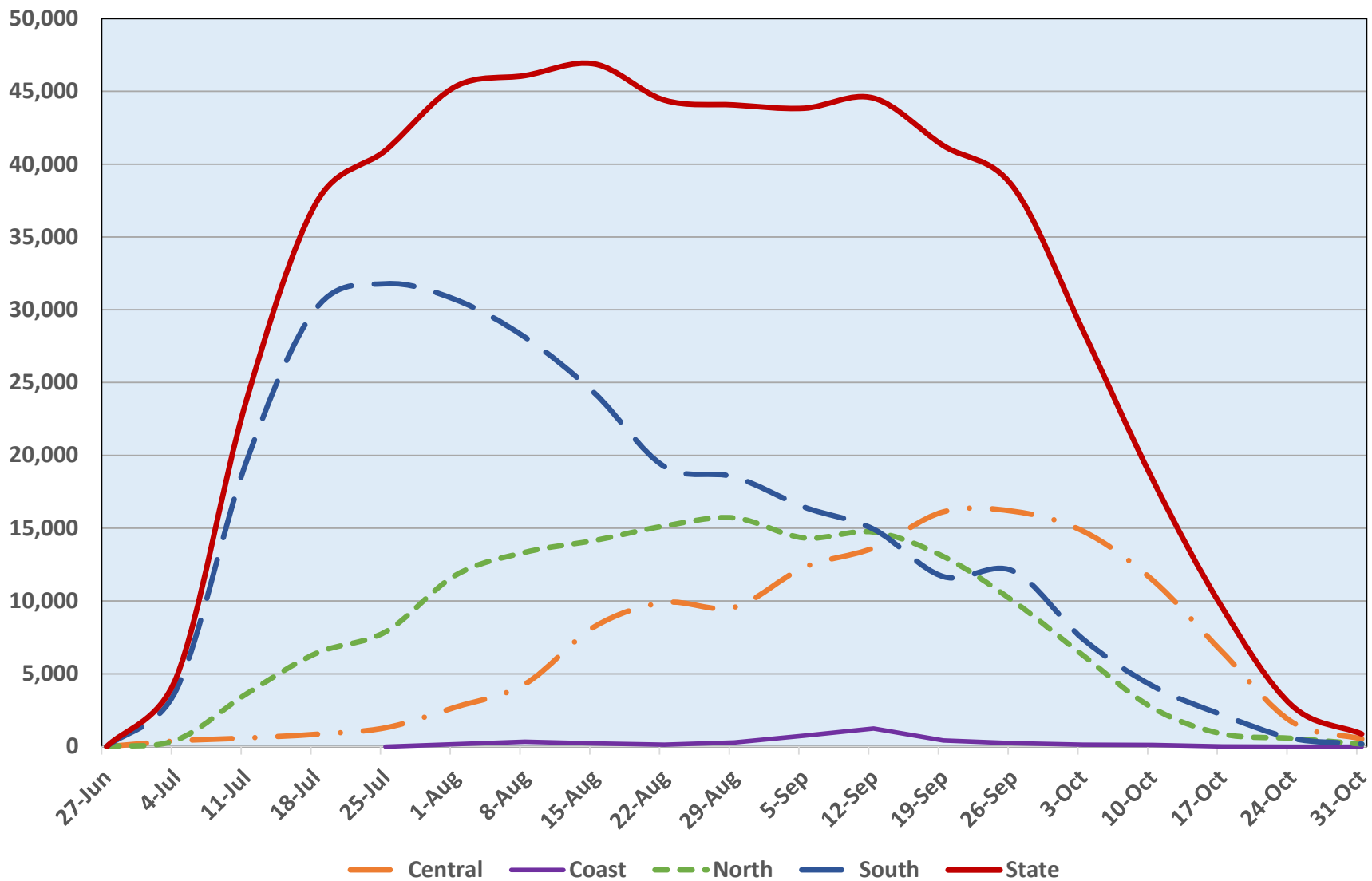
January 7, 2016



This report has been prepared exclusively for the Sacramento Valley Processing Tomato Production Meeting by Ag-Seeds Unlimited

2015 California Processing Tomato Harvest

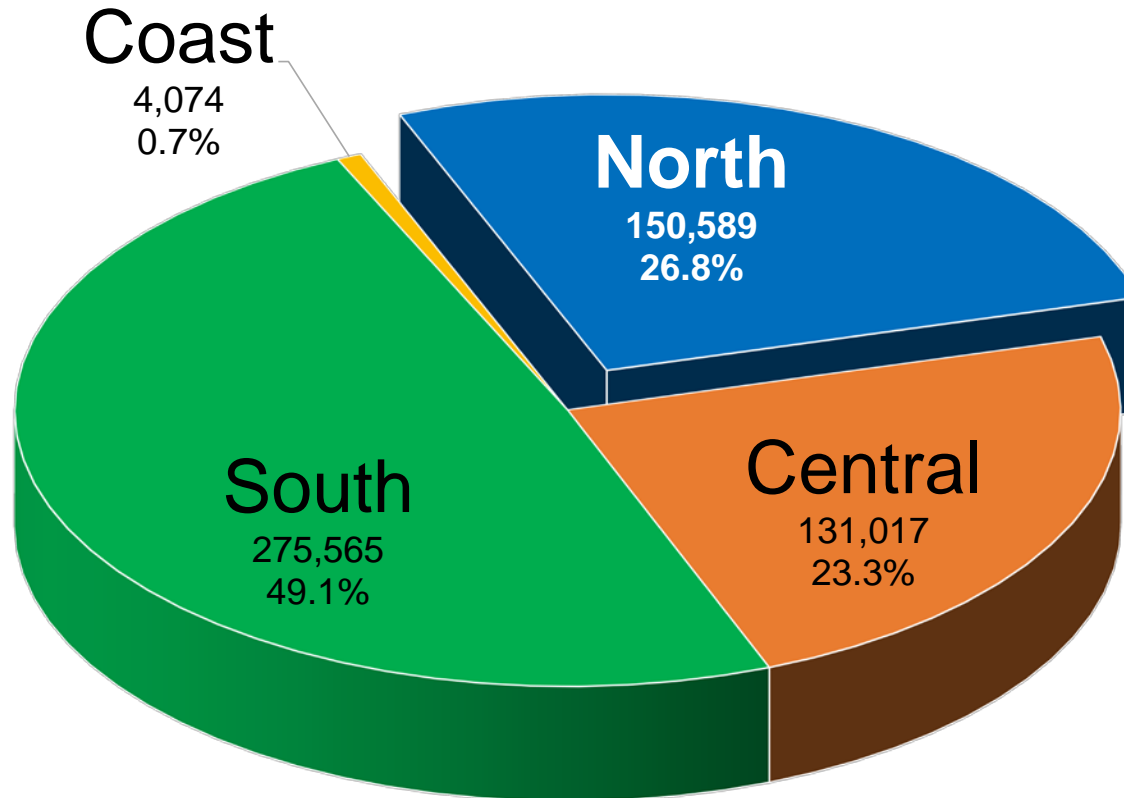
Loads per Week by Region



North Grower Production

2015 California Total Loads

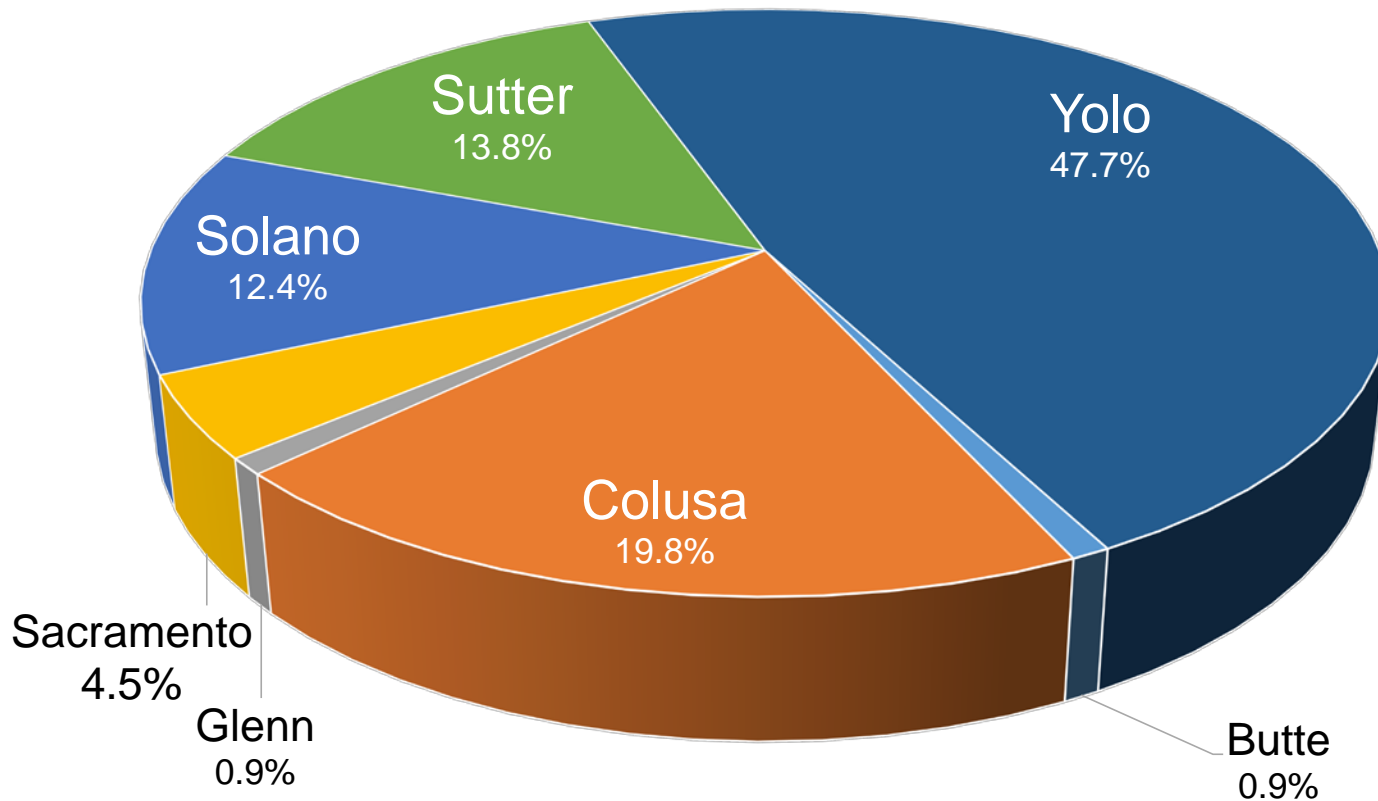
North vs Rest of California



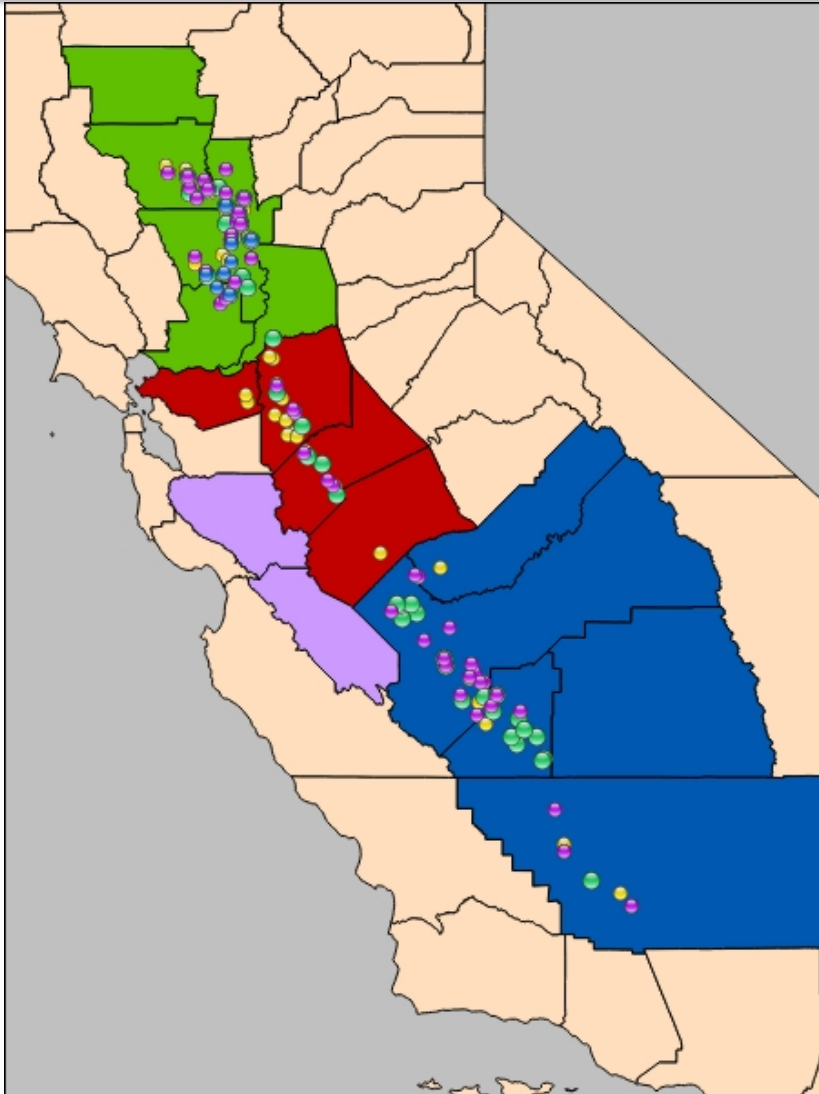
North Grower Production

2015 North Region Loads

North Counties vs Total North Loads



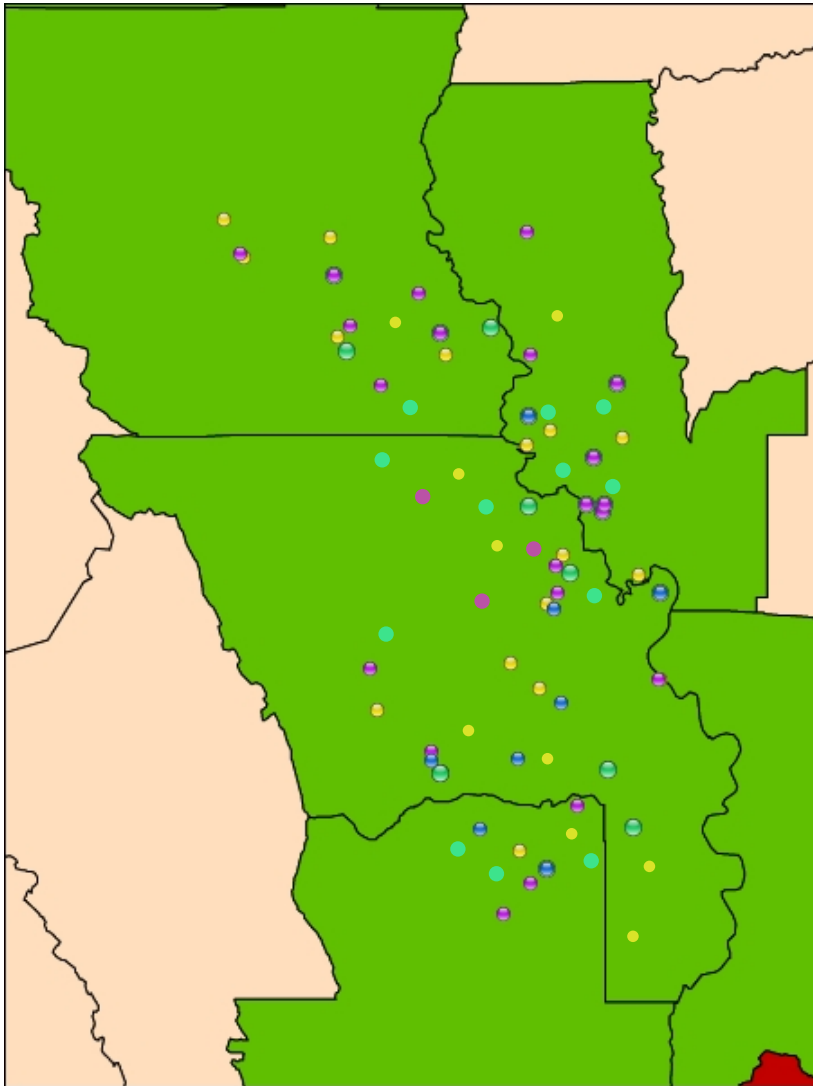
2015 Trial Breakdown



- Plot (76 Locations)
 - ↳ Chemistry & early indications of horticultural performance
- GT (54 Locations)
 - ↳ First test of commercial viability
- Adaptive (61 Locations)
 - ↳ Confirmation of commercial potential
- Specialty (17 Locations)
 - ↳ All other Trials Testing Chemistry, Yield, and Dice Recovery.

208 Total Processing Tomato Trials

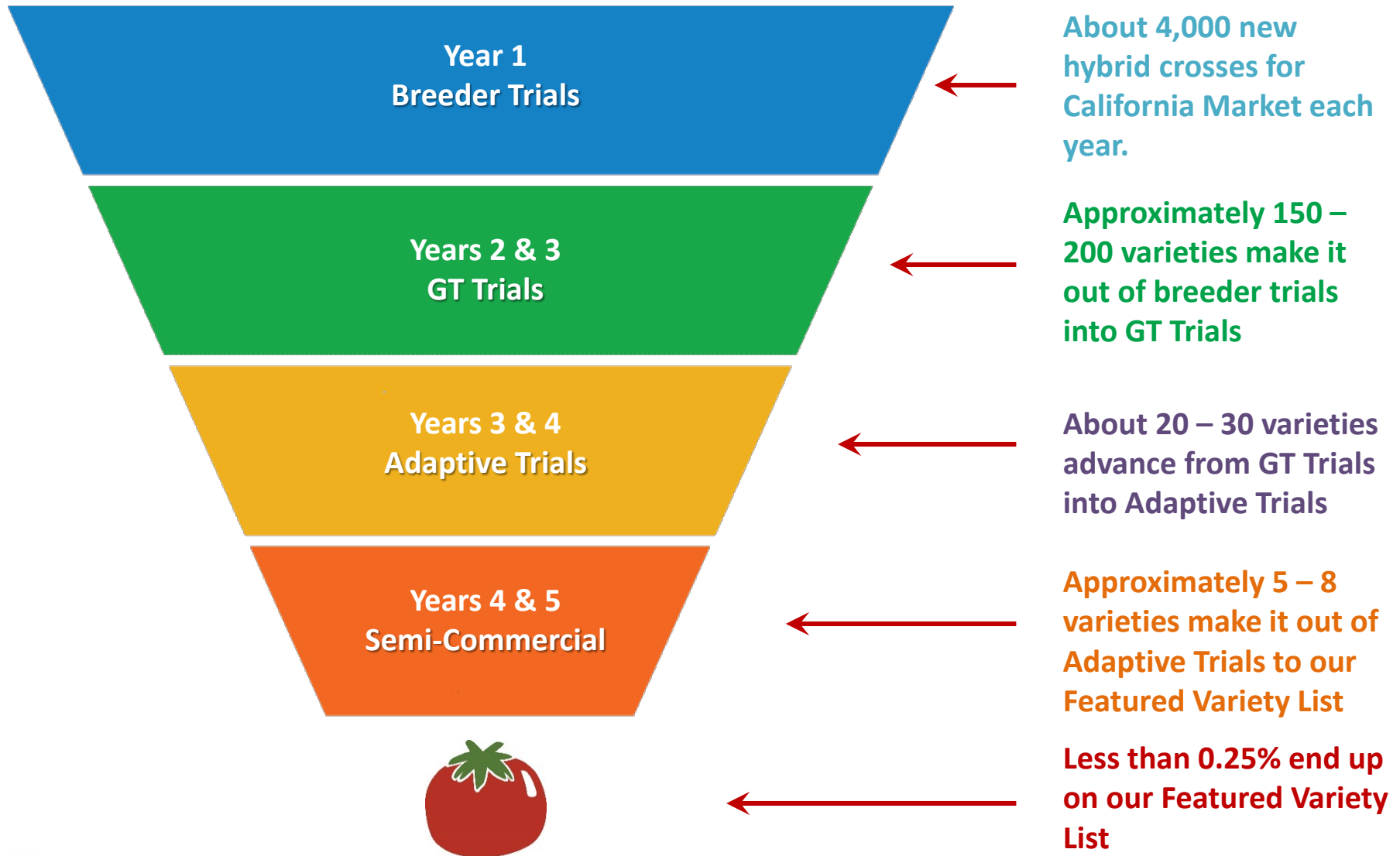
2015 Northern Trial Breakdown



- Plot (26 Locations)
 - ↳ Chemistry & early indications of horticultural performance
- GT (24 Locations)
 - ↳ First test of commercial viability
- Adaptive (25 Locations)
 - ↳ Confirmation of commercial potential
- Specialty (12 Locations)
 - ↳ All other Trials Testing Chemistry, Yield, and Dice Recovery.

87 Total Processing Tomato Trials in North

California Processing Tomato Variety Evolution





Ag-Seeds Unlimited 2015 Featured Varieties

Early Maturity Varieties



N6416

Early, TSW



BQ273

Early, TSW



H1308

Vine, Yield



HM3887

TSW, Yield

Late Season Varieties



N6415

EFS, TSW



HM3888

EFS, TSW



BQ141

Yield, Vine, TSW



BP2

Yield, Vine, TSW



BQ142

Yield, Vine, TSW

F3 Resistant Varieties

Ag-Seeds Unlimited

2016 Featured Varieties

Early Varieties



HMX5900

Brix, Color

F3 Resistant Varieties



BP13

Early, TSW, Yield



H1422

TSW, Yield, EFS

Thick Varieties



SV2756TM

TSW, Yield, EFS



HMX4885

TSW, Yield, EFS

Intermediate Varieties



HMX4909

TSW, FR, Brix

**2016
New Commercial
Varieties**



California Processing Tomato Market

Early Varieties, 11.6% of Total Market

Based on Final PTAB Reports

Variety	Supplier	TSW	F3	EFS	Total Loads	% of Loads	Solids	Color	LU	Mold	pH	Green
N6416	Nunhems	X			15,861	24.37%	4.92	25.5	1.0	0.3	4.31	1.8
N6397	Nunhems				15,225	23.39%	5.17	24.6	1.0	0.5	4.40	1.7
H1015	Heinz			X	10,916	16.77%	5.16	24.8	0.7	0.4	4.41	1.4
CXD187	Harris Moran				6,687	10.27%	4.48	26.0	1.3	0.6	4.39	1.2
APT410	Seminis				3,469	5.33%	4.84	26.9	1.9	0.7	4.34	1.6
BQ273	Woodbridge	X			3,337	5.13%	5.28	25.2	1.1	0.6	4.31	1.8
SV0599TM	Seminis				2,128	3.27%	4.81	28.6	0.9	0.5	4.32	1.3
Shasta	Harris Moran				1,782	2.74%	4.98	27.2	3.1	0.2	4.25	0.9
BOS66509	Orsetti				1,757	2.70%	5.01	24.0	2.5	1.0	4.40	1.9
U373	Nunhems				954	1.47%	5.10	25.1	2.8	0.6	4.38	1.6
H5003	Heinz				715	1.10%	4.94	26.2	1.8	0.9	4.35	2.4
HM1893	Harris Moran	X			673	1.03%	5.30	25.4	1.6	0.4	4.28	0.5
All Others					1,587	2.44%	5.01	25.2	1.9	0.5	4.31	0.9
Early Total					65,091	100.00%	5.00	25.4	1.2	0.5	4.36	1.6

California Processing Tomato Market

Early Varieties, **12.0%** of North Market

Based on Final PTAB Reports

Variety	Supplier	TSW	F3	EFS	Total Loads	% of Loads	Solids	Color	LU	Mold	pH	Green
N6397	Nunhems				4,823	26.74%	5.08	25.3	1.0	0.5	4.39	1.1
H1015	Heinz			X	4,567	25.32%	5.02	25.8	0.6	0.4	4.38	2.0
APT410	Seminis				2,272	12.60%	4.80	27.4	1.7	0.8	4.36	2.0
N6416	Nunhems	X			1,817	10.08%	4.96	26.2	1.0	0.4	4.33	1.0
SV0599TM	Seminis				1,523	8.45%	4.69	29.6	0.9	0.6	4.32	1.6
Shasta	Harris Moran				1,520	8.43%	4.96	27.4	3.2	0.2	4.26	0.9
H5003	Heinz				715	3.96%	4.94	26.2	1.8	0.9	4.35	2.4
N6412	Nunhems		X		493	2.73%	4.99	25.3	2.2	0.5	4.37	1.0
BQ273	Woodbridge	X			259	1.44%	5.20	25.8	1.2	0.9	4.32	1.4
BP1	BHN				33	0.18%	4.54	29.4	0.4	0.2	4.28	1.6
HMX4884	Harris Moran	X			7	0.04%	5.27	26.6	3.7	0.4	4.37	1.7
HMX5900	Harris Moran	X			5	0.03%	4.88	25.4	2.2	0.3	4.25	0.9
BP13	BHN	X	X		4	0.02%	4.73	27.5	1.6	0.6	4.34	1.0
Early Total					18,034	100%	4.97	26.4	1.2	0.5	4.36	1.5



New Commercial Variety

HMX5900

2016

Early | High Brix

TSW | Thin



AgSeeds 2015 Lab Data 34 Sites

Variety	H1015	HMX5900	N6416
Fruit Wt	71	68	66
Brix Raw	5.23	<u>5.45</u>	5.14
JB	14.63	<u>15.38</u>	15.12
PPB	4.36	5.10	4.45
pH Raw	4.43	4.30	4.35
A/B Color	2.31	2.23	2.25
Ostwald	407	<u>465</u>	457



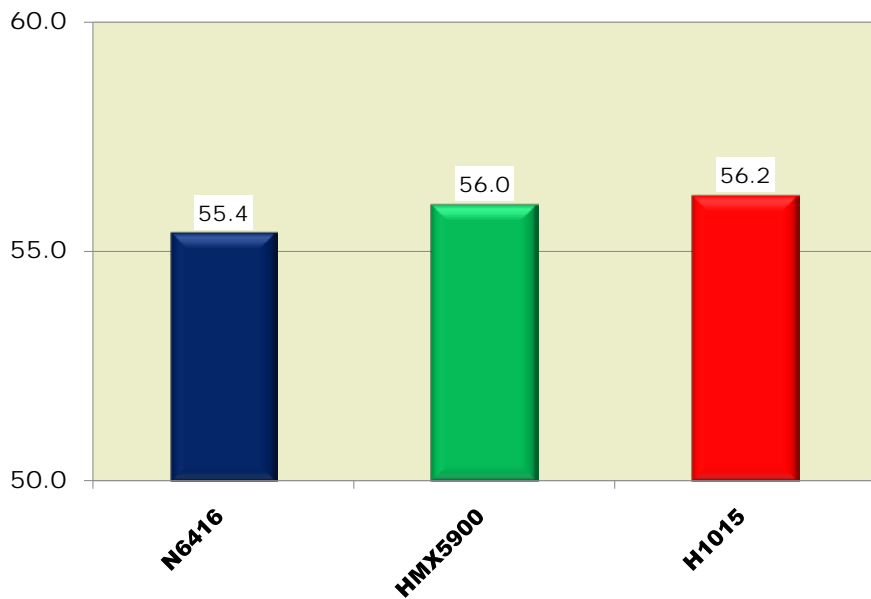


New Commercial Variety

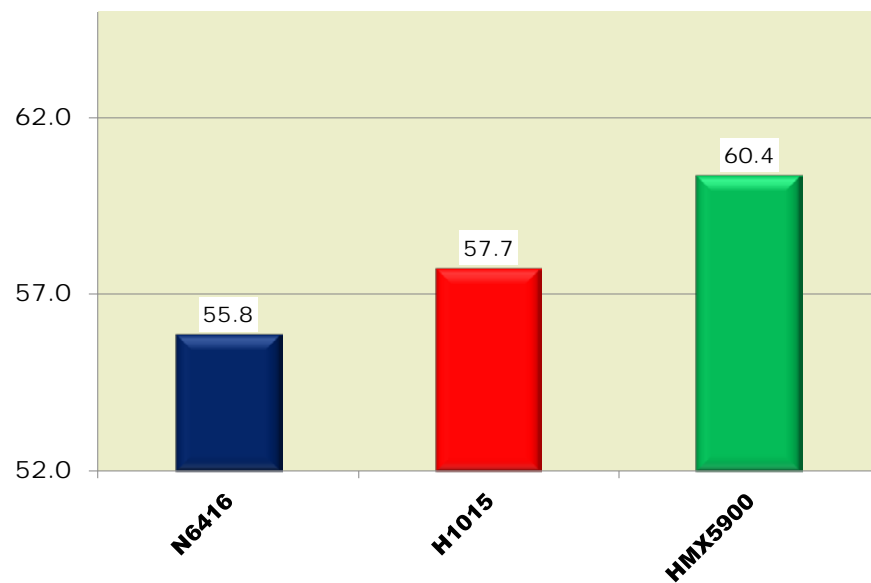
2016

HMX5900

Average Yield of 6 GT Trials in 2014



Average Yield of 5 GT Trials in 2015



Average of 6 Adaptive Trials

Variety	Tons/Ac	Brix	Mold	LU	Color	Green	pH
H1015	63.5	5.15	0.1	0.4	24.5	0.8	4.41
HMX5900	63.3	5.50	0.1	2.9	25.3	1.5	4.28

Average PTAB Grades



New Commercial Variety 2016

HMX4884

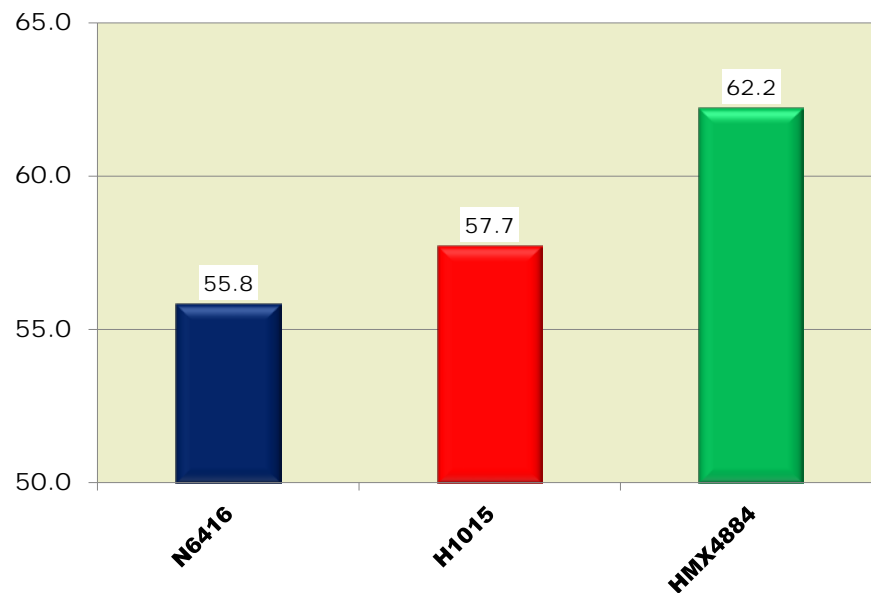
Early | TSW | Intermediate

AgSeeds 2015 Lab Data

34 Sites

Variety	N6416	H1015	HMX4884
Fruit Wt	66	71	68
Brix Raw	5.14	5.23	5.17
JB	15.12	14.63	<u>15.28</u>
PPB	4.45	4.36	4.59
pH Raw	4.35	4.43	4.36
A/B Color	2.25	2.31	2.26
Ostwald	457	407	324

Average Yield of 5 GT Trials in 2015



Average of 3 Adaptive Trials

Average PTAB Grades

Variety	Tons/Ac	Brix	Mold	LU	Color	Green	pH
H1015	60.1	5.08	0.2	0.7	24.7	1.0	4.42
HMX4884	59.0	5.04	0.2	3.6	26.6	2.1	4.36

California Processing Tomato Market

Mid Season – Non EFS Varieties, **43.3%** of Total Market

Based on Final PTAB Reports

Variety	Supplier	TSW	F3	EFS	Total Loads	% of Loads	Solids	Color	LU	Mold	pH	Green
N6366	Nunhems	0	0	0	46,876	19.30%	5.47	24.8	1.8	0.8	4.39	1.3
DRI319	Seminis	X	0	0	37,432	15.41%	5.80	24.7	1.9	1.4	4.35	1.7
AB0311	Seminis	X	0	0	32,307	13.30%	5.72	23.5	1.5	1.8	4.33	2.0
H5608	Heinz	X	0	0	30,278	12.46%	4.97	23.8	1.0	1.9	4.40	2.0
HM3887	Harris Moran	X	0	0	22,778	9.38%	5.29	25.9	1.1	2.2	4.38	3.2
N6404	Nunhems	X	0	0	17,474	7.19%	5.34	24.8	1.7	1.4	4.41	2.2
N6402	Nunhems	X	0	0	12,956	5.33%	5.62	24.3	1.2	0.9	4.40	1.6
H1161	Heinz	0	0	0	7,869	3.24%	5.65	25.2	2.7	1.1	4.34	2.2
CXD255	Harris Moran	0	0	0	4,631	1.91%	5.17	24.8	1.6	1.5	4.37	0.7
N6394	Nunhems	X	0	0	4,408	1.81%	5.43	24.8	2.0	1.1	4.44	1.4
BQ206	Woodbridge	0	0	0	4,228	1.74%	5.41	25.2	1.9	1.2	4.32	0.9
H9663	Heinz	0	0	0	3,977	1.64%	4.87	23.1	2.7	4.2	4.42	2.9
BQ205	Woodbridge	0	0	0	3,043	1.25%	5.59	24.6	1.9	1.5	4.34	1.0
H1308	Heinz	0	0	0	3,011	1.24%	5.40	22.8	2.5	1.3	4.50	2.8
All Others					11,655	4.80%	5.33	24.6	1.7	1.4	4.37	1.1
Mid Season - Non EFS Total					242,923	100.00%	5.45	24.5	1.7	1.5	4.38	1.9

California Processing Tomato Market

Mid Season – Non EFS Varieties, **50.1%** of North Market

Based on Final PTAB Reports

Variety	Supplier	TSW	F3	EFS	Total Loads	% of Loads	Solids	Color	LU	Mold	pH	Green
HM3887	Harris Moran	X			13,245	17.36%	5.07	26.3	0.9	2.2	4.38	3.0
H5608	Heinz	X			11,652	15.27%	4.83	23.7	0.9	1.7	4.39	1.6
DRI319	Seminis	X			9,369	12.28%	5.52	24.8	2.1	1.4	4.34	1.2
AB0311	Seminis	X			8,194	10.74%	5.53	23.7	1.1	1.3	4.31	1.1
N6366	Nunhems				5,991	7.85%	5.20	26.3	1.3	1.0	4.38	1.1
BP2	BHN Seed	X	X		5,138	6.73%	5.03	25.9	1.7	2.1	4.48	3.4
N6402	Nunhems	X			3,117	4.09%	5.21	25.6	1.5	0.9	4.41	1.0
CXD255	Harris Moran				3,094	4.06%	5.14	25.1	1.4	0.9	4.33	0.7
BQ206	Woodbridge				2,573	3.37%	5.25	25.1	2.0	1.0	4.31	0.8
BQ142	Woodbridge	X	X		1,782	2.34%	5.17	24.4	3.4	2.4	4.42	2.2
N6394	Nunhems	X			1,398	1.83%	5.07	26.2	1.0	0.9	4.42	0.9
BQ141	Woodbridge	X	X		1,279	1.68%	4.76	25.2	3.9	2.3	4.39	4.8
BQ205	Woodbridge				1,270	1.66%	5.51	24.7	2.0	1.1	4.33	1.2
N6404	Nunhems	X			1,235	1.62%	4.99	25.9	1.4	1.1	4.39	1.4
All Others					6,958	9.12%	5.01	25.3	1.8	1.8	4.35	2.4
Mid Season - Non EFS Total					76,295	100%	5.16	25.1	1.5	1.6	4.37	1.8



New Commercial Variety

HMX4909

2016

Intermediate | High Brix

TSW | Crown Rot



AgSeeds 2015 Lab Data 34 Sites

Variety	DRI319	HMX4909	H8504
Fruit Wt	76	77	66
Brix Raw	5.68	<u>5.68</u>	4.94
JB	15.62	13.66	12.26
PPB	5.59	4.62	2.70
pH Raw	4.30	<u>4.21</u>	4.24
A/B Color	2.19	2.16	2.18
Ostwald	366	534	<u>724</u>



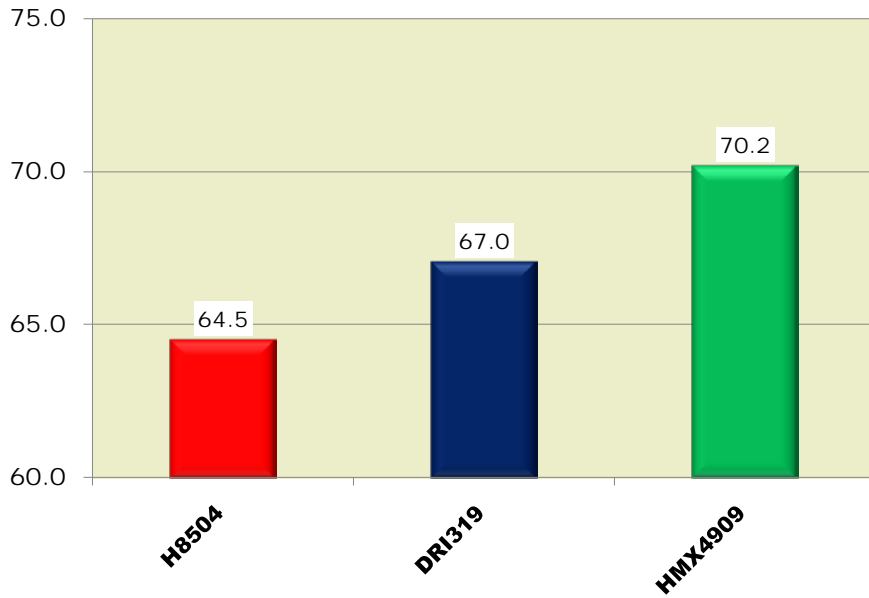


New Commercial Variety

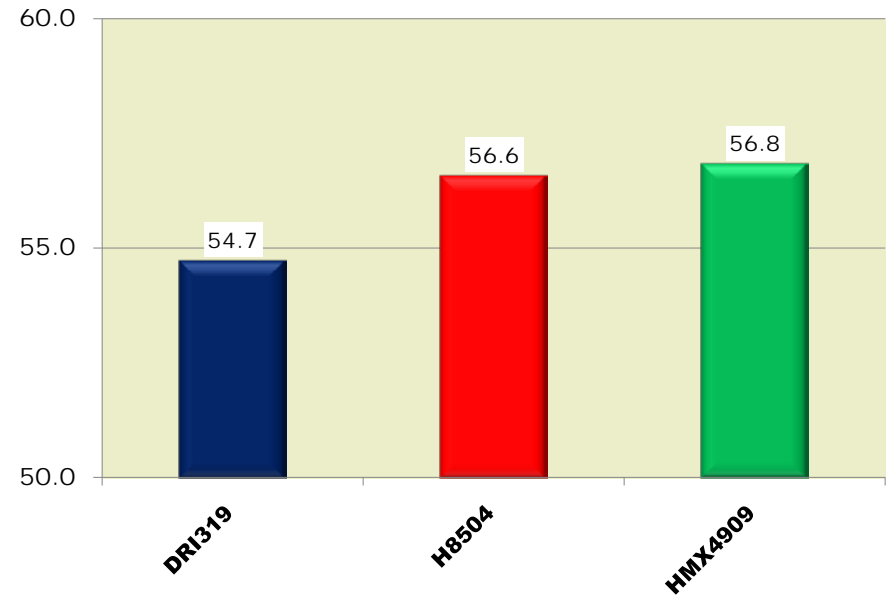
2016

HMX4909

Average Yield of 5 GT Trials in 2014



Average Yield of 10 GT Trials in 2015



Average of 21 Adaptive Trials

Variety	Average PTAB Grades						
	Tons/Ac	Brix	Mold	LU	Color	Green	pH
HMX4909	54.2	5.73	2.4	1.1	25.9	1.1	4.28
DRI319	52.7	5.81	1.7	2.3	24.7	1.6	4.39



New Commercial Variety SV8011TM

2016

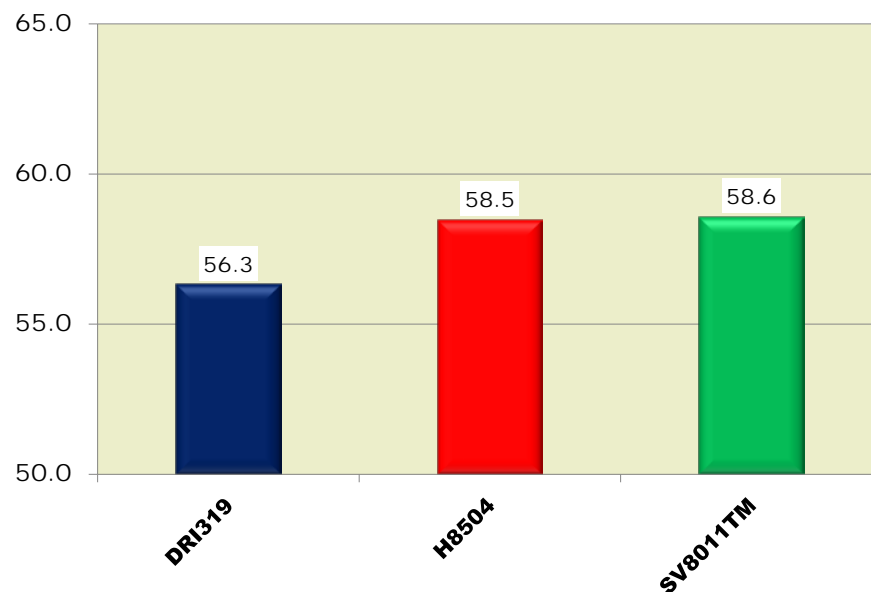
Main Season | TSW | Thick

AgSeeds 2015 Lab Data

34 Sites

Variety	DRI319	H8504	SV8011TM
Fruit Wt	76	66	78
Brix Raw	5.68	4.94	5.28
JB	15.62	12.26	12.71
PPB	5.59	2.70	3.48
pH Raw	4.30	4.24	4.33
A/B Color	2.19	2.18	2.26
Ostwald	366	724	475

Average Yield of 12 GT Trials in 2015





New Commercial Variety

SV6133TM

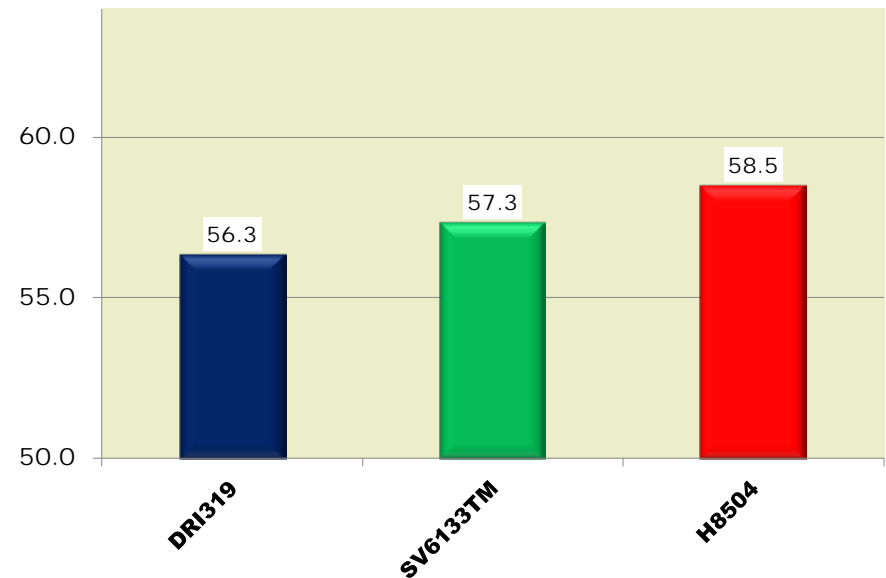
2016

Main Season | TSW | Thick

AgSeeds 2015 Lab Data 34 Sites

Variety	DRI319	SV6133TM	H8504
Fruit Wt	76	<u>82</u>	66
Brix Raw	5.68	5.23	4.94
JB	15.62	12.22	12.26
PPB	5.59	3.16	2.70
pH Raw	4.30	4.36	4.24
AB Color	2.19	2.23	2.18
Ostwald	366	604	724

Average Yield of 12 GT Trials in 2015





New Commercial Variety 2016

HMX4886

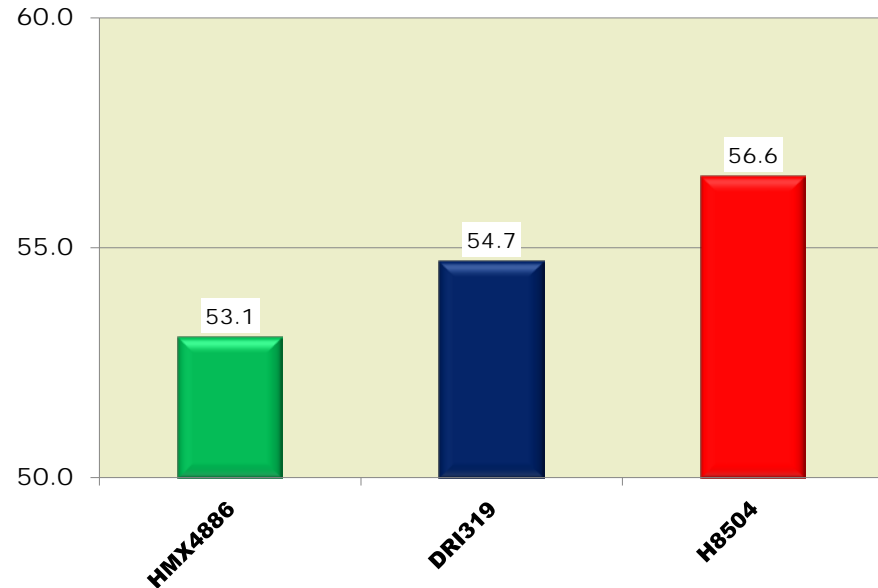
Brix | TSW | Intermediate

AgSeeds 2015 Lab Data

34 Sites

Variety	HMX4886	DRI319	H8504
Fruit Wt	73	76	66
Brix Raw	<u>5.82</u>	5.68	4.94
JB	13.77	15.62	12.26
PPB	4.91	5.59	2.70
pH Raw	4.33	4.30	4.24
A/B Color	2.22	2.19	2.18
Ostwald	509	366	724

Average Yield of 10 GT Trials in 2015



Average of 21 Adaptive Trials

Average PTAB Grades

Variety	Tons/Ac	Brix	Mold	LU	Color	Green	pH
DRI319	52.7	5.81	1.7	2.3	24.7	1.6	4.39
HMX4886	48.1	5.96	1.9	2.0	25.1	1.5	4.39



New Commercial Variety

H1424

2016

Thin | TSW

AgSeeds 2015 Lab Data		34 Sites	
Variety	DRI319	H1424	H8504
Fruit Wt	76	72	66
Brix Raw	5.68	5.39	4.94
JB	15.62	<u>16.58</u>	12.26
PPB	5.59	5.61	2.70
pH Raw	4.30	4.30	4.24
A/B Color	2.19	2.24	2.18
Ostwald	366	322	724

Average Yield of 6 GT Trials in 2015



Average of 21 Adaptive Trials

Variety	Average PTAB Grades						
	Tons/Ac	Brix	Mold	LU	Color	Green	pH
DRI319	52.7	5.81	1.7	2.3	24.7	1.6	4.39
H1424	51.7	5.51	1.8	2.1	24.7	1.3	4.35

California Processing Tomato Market

EFS / EFH Varieties, 39.6% of Total Market

Based on Final PTAB Reports

Variety	Supplier	TSW	F3	EFS	Total Loads	% of Loads	Solids	Color	LU	Mold	pH	Green
H8504	Heinz	0	0	X	54,249	24.42%	5.09	24.9	0.9	1.1	4.31	2.5
UG19406	United Genetics	0	0	X	22,324	10.05%	5.44	24.6	1.0	1.6	4.31	1.7
H2401	Heinz	0	0	X	21,684	9.76%	5.04	24.6	1.1	1.5	4.31	2.4
HM1892	Harris Moran	0	0	X	20,255	9.12%	5.39	24.7	1.2	1.2	4.42	2.0
HM9905	Harris Moran	0	0	X	16,395	7.38%	5.08	25.4	1.1	1.1	4.43	2.2
H4707	Heinz	0	0	X	12,252	5.52%	4.99	25.0	0.8	0.8	4.36	2.5
H5508	Heinz	X	0	X	12,035	5.42%	4.70	24.8	0.5	0.6	4.34	1.4
H1015	Heinz	0	0	X	10,839	4.88%	5.16	24.8	0.7	0.4	4.41	1.4
N6410	Nunhems	0	0	X	9,496	4.27%	5.28	25.5	1.2	1.5	4.37	2.2
H5702	Heinz	0	0	X	6,719	3.02%	4.96	23.8	0.7	1.0	4.38	3.1
N6407	Nunhems	X	0	X	5,774	2.60%	5.26	26.0	1.1	1.0	4.32	1.6
UG18806	United Genetics	0	0	X	5,457	2.46%	5.19	25.7	1.8	1.5	4.37	2.5
H5701	Heinz	0	0	X	4,038	1.82%	4.85	24.4	0.8	0.7	4.32	2.4
H1170	Heinz	0	0	X	3,732	1.68%	5.25	25.9	0.8	1.1	4.37	1.9
All Others					16,886	7.60%	5.18	24.8	0.9	1.2	4.39	1.7
EFS Total					222,135	100.00%	5.14	24.9	1.0	1.2	4.35	2.2

California Processing Tomato Market

EFS / EFH Varieties, 39.5% of North Market

Based on Final PTAB Reports

Variety	Supplier	TSW	F3	EFS	Total Loads	% of Loads	Solids	Color	LU	Mold	pH	Green
HM9905	Harris Moran			X	11,759	19.78%	5.04	25.5	1.0	1.1	4.43	2.1
H8504	Heinz			X	6,833	11.50%	4.88	25.7	0.8	1.0	4.27	2.9
H2401	Heinz			X	4,694	7.90%	4.87	25.5	0.8	1.5	4.29	3.2
H5508	Heinz	X		X	4,576	7.70%	4.50	25.2	0.5	0.8	4.35	1.1
H1015	Heinz			X	4,567	7.68%	5.02	25.8	0.6	0.4	4.38	2.0
H4707	Heinz			X	3,404	5.73%	4.71	25.9	0.7	0.6	4.35	2.5
UG19406	United Genetics			X	3,383	5.69%	5.45	24.5	0.8	1.2	4.28	1.4
H5702	Heinz			X	2,807	4.72%	4.92	23.8	0.7	1.0	4.38	3.7
H3402	Heinz			X	2,359	3.97%	4.90	25.2	0.7	1.1	4.41	3.7
HP849	Seminis			X	2,117	3.56%	4.90	25.8	0.8	1.7	4.34	1.0
N6410	Nunhems			X	2,034	3.42%	5.20	25.4	1.1	1.2	4.36	1.9
H5701	Heinz			X	1,894	3.19%	4.84	24.6	0.8	0.8	4.34	2.2
HM1892	Harris Moran			X	1,704	2.87%	5.17	24.4	1.0	1.2	4.41	1.2
H1170	Heinz			X	1,602	2.70%	5.13	26.3	0.7	1.0	4.33	2.8
All Others				X	5,702	9.59%	5.08	25.4	1.1	1.2	4.41	2.0
EFS Total					59,435	100%	4.96	25.4	0.8	1.0	4.36	2.3



New Commercial Variety

2016

HMX4885

Main Season | Thick

TSW | EFS



AgSeeds 2015 Lab Data 34 Sites

Variety	DRI319	HMX4885	H8504
Fruit Wt	76	70	66
Brix Raw	5.68	4.93	4.94
JB	15.62	<u>11.79</u>	12.26
PPB	5.59	<u>2.45</u>	2.70
pH Raw	4.30	4.27	4.24
AB Color	2.19	2.24	2.18
Ostwald	366	633	724



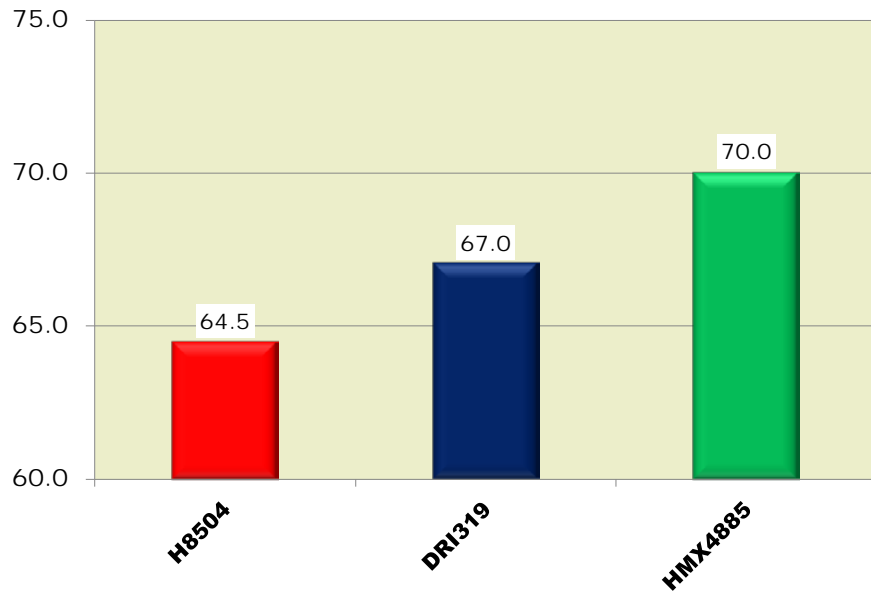


New Commercial Variety

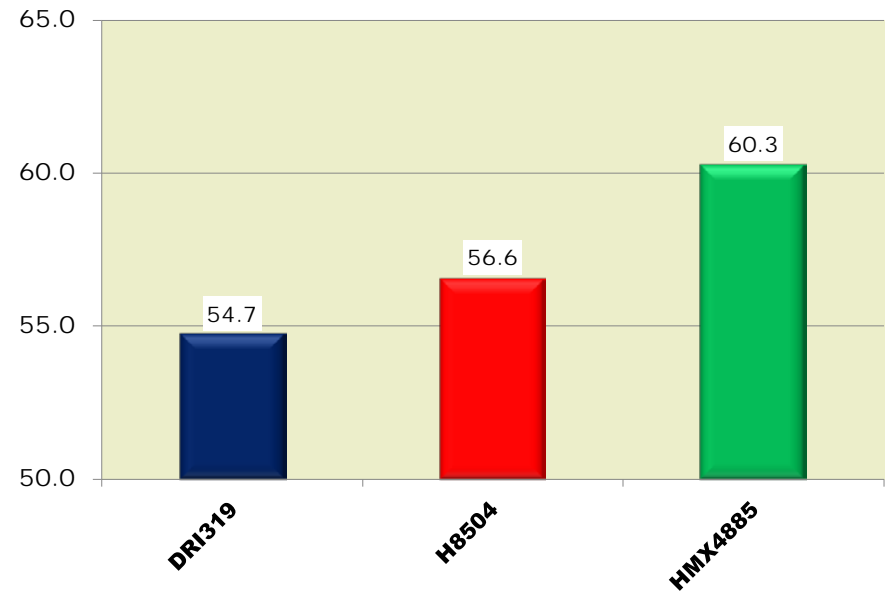
HMX4885

2016

Average Yield of 5 GT Trials in 2014



Average Yield of 10 GT Trials in 2015





New Commercial Variety

SV2756TM

2016

Thick | High Yield

TSW | EFS



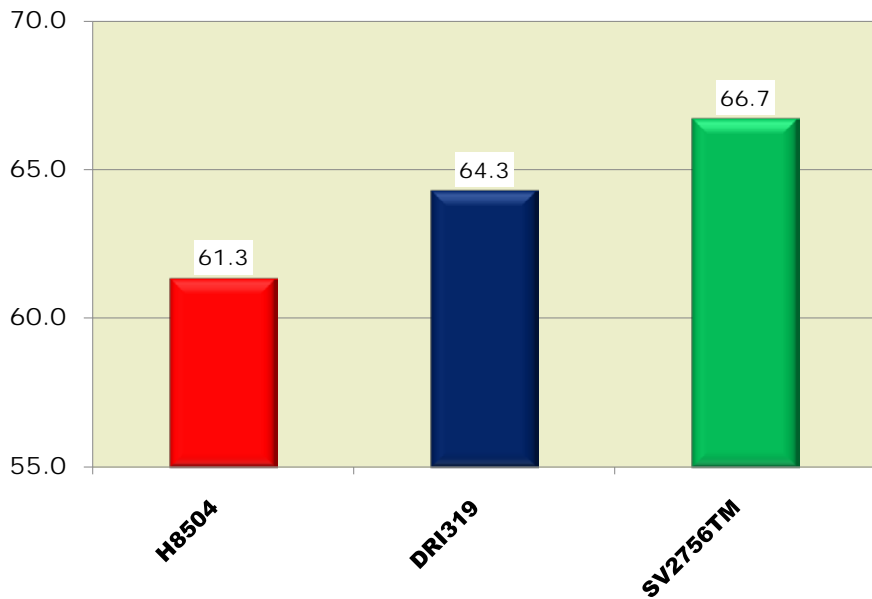
AgSeeds 2015 Lab Data			34 Sites
Variety	DRI319	SV2756TM	H8504
Fruit Wt	76	71	66
Brix Raw	<u>5.68</u>	4.95	4.94
JB	15.62	<u>12.51</u>	12.26
PPB	5.59	<u>2.84</u>	2.70
pH Raw	4.30	4.34	4.24
A/B Color	2.19	2.21	2.18
Ostwald	366	574	<u>724</u>



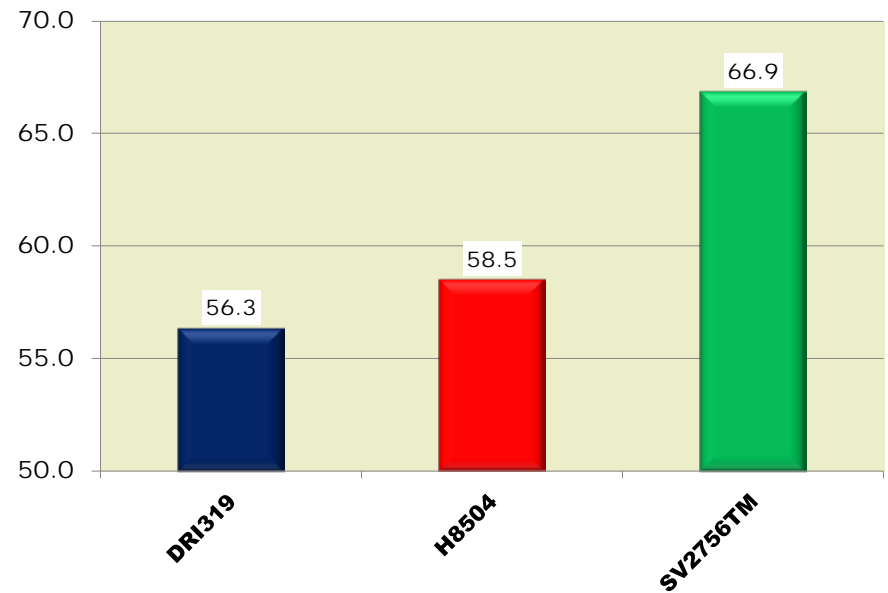


New Commercial Variety SV2756TM

Average Yield of 9 GT Trials in 2014



Average Yield of 12 GT Trials in 2015



California Processing Tomato Market

F3 Varieties, 2.0% of Total Market

Based on Final PTAB Reports

Variety	Supplier	TSW	F3	EFS	Total Loads	% of Loads	Solids	Color	LU	Mold	pH	Green
BP2	BHN Seed	X	X	0	5,138	46.05%	5.03	25.9	1.7	2.1	4.48	3.4
BQ142	Woodbridge	X	X	0	1,782	15.97%	5.17	24.4	3.4	2.4	4.42	2.2
BQ141	Woodbridge	X	X	0	1,280	11.47%	4.76	25.2	3.9	2.3	4.39	4.8
CXD282	Harris Moran	0	X	0	1,120	10.04%	5.10	25.5	1.2	1.4	4.33	3.1
N6412	Nunhems	0	X	0	494	4.43%	4.99	25.3	2.2	0.5	4.37	1.0
HMX4887	Harris Moran	0	X	0	389	3.49%	4.80	24.6	6.1	3.0	4.42	2.1
SV8232TM	Seminis	X	X	0	309	2.77%	5.14	23.6	3.0	1.4	4.37	1.1
H1422	Heinz	0	X	X	233	2.09%	5.17	27.3	0.9	1.8	4.33	5.9
N6424	Nunhems	X	X	0	131	1.17%	4.88	25.5	2.3	1.3	4.41	2.0
SV2493TM	Seminis	X	X	0	96	0.86%	4.91	25.1	1.9	1.5	4.35	1.7
AB0306	Seminis	0	X	0	63	0.56%	5.53	23.7	8.0	1.5	4.48	0.8
H1539	Heinz	X	X	0	53	0.48%	4.69	21.6	0.7	1.5	4.39	1.0
H1310	Heinz	X	X	0	40	0.36%	5.54	26.0	1.6	2.1	4.37	5.1
HMX3907	Harris Moran	0	X	0	16	0.14%	5.33	25.1	0.9	0.4	4.38	2.0
BP16	BHN Seed	X	X	0	9	0.08%	5.02	25.3	0.6	3.0	4.39	1.0
BP13	BHN Seed	X	X	0	4	0.04%	4.73	27.5	1.6	0.6	4.34	1.0
F3 Total					11,157	100.00%	5.03	25.4	2.4	2.0	4.43	3.1

California Processing Tomato Market

F3 Varieties, 7.4% of North Market

Based on Final PTAB Reports

Variety	Supplier	TSW	F3	EFS	Total Loads	% of Loads	Solids	Color	LU	Mold	pH	Green
BP2	BHN Seed	X	X		5,138	46.13%	5.03	25.9	1.7	2.1	4.48	3.4
BQ142	Woodbridge	X	X		1,782	16.00%	5.17	24.4	3.4	2.4	4.42	2.2
BQ141	Woodbridge	X	X		1,279	11.48%	4.76	25.2	3.9	2.3	4.39	4.8
CXD282	Harris Moran		X		1,117	10.03%	5.10	25.5	1.2	1.4	4.33	3.1
N6412	Nunhems		X		493	4.43%	4.99	25.3	2.2	0.5	4.37	1.0
HMX4887	Harris Moran		X		389	3.49%	4.80	24.6	6.1	3.0	4.42	2.1
SV8232TM	Seminis	X	X		309	2.77%	5.14	23.6	3.0	1.4	4.37	1.1
H1422	Heinz		X	X	229	2.06%	5.17	27.3	0.9	1.8	4.33	6.0
N6424	Nunhems	X	X		126	1.13%	4.86	25.5	2.4	1.2	4.41	2.0
SV2493TM	Seminis	X	X		94	0.84%	4.90	25.1	1.9	1.5	4.35	1.7
AB0306	Seminis		X		63	0.57%	5.53	23.7	8.0	1.5	4.48	0.8
H1539	Heinz	X	X		53	0.48%	4.69	21.6	0.7	1.5	4.39	1.0
H1310	Heinz	X	X		40	0.36%	5.54	26.0	1.6	2.1	4.37	5.1
HMX3907	Harris Moran		X		16	0.14%	5.33	25.1	0.9	0.4	4.38	2.0
BP16	BHN Seed	X	X		6	0.05%	4.63	25.3	0.4	2.0	4.37	0.9
BP13	BHN Seed	X	X		4	0.04%	4.73	27.5	1.6	0.6	4.34	1.0
F3 Total					11,138	100%	5.02	25.4	2.4	2.0	4.43	3.1



New Commercial Variety

BP13

2016

Early | FFF

TSW | Intermediate



AgSeeds 2015 Lab Data 34 Sites

Variety	N6416	H1015	BP13
Fruit Wt	66	71	67
Brix Raw	5.14	5.23	4.85
JB	15.12	14.63	15.23
PPB	4.45	4.36	4.03
pH Raw	4.35	4.43	4.35
A/B Color	2.25	2.31	2.23
Ostwald	457	407	339



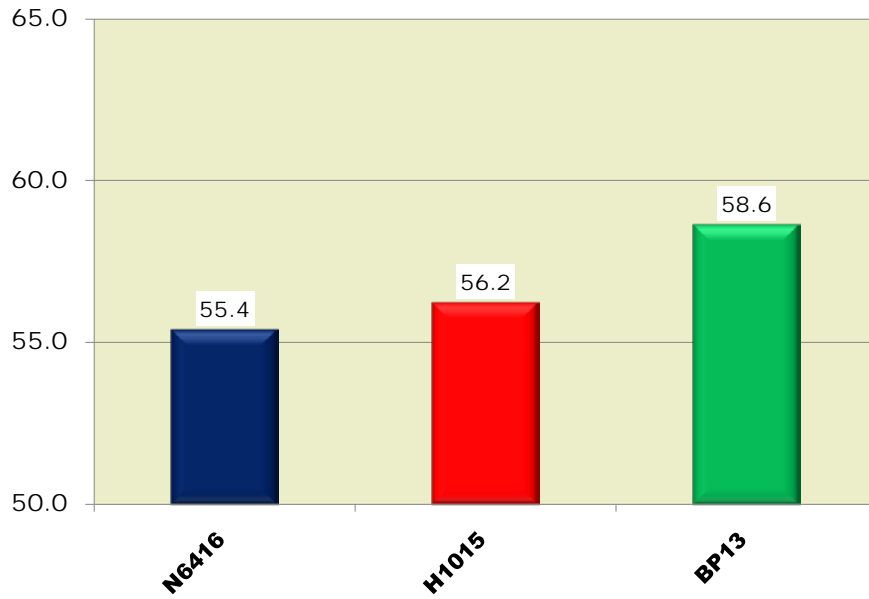


New Commercial Variety

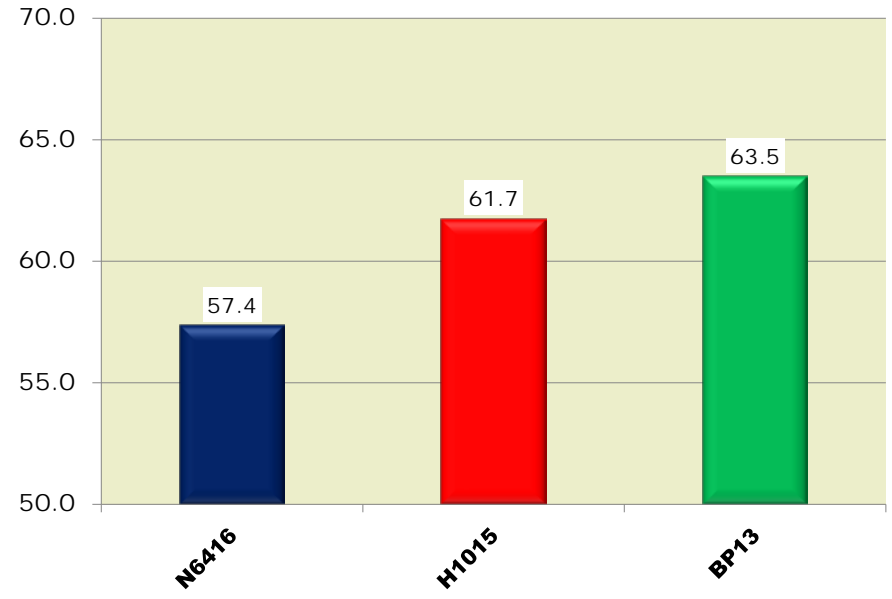
BP13

2016

Average Yield of 6 GT Trials in 2014



Average Yield of 3 GT Trials in 2015



Average of 3 Adaptive Trials

Variety	Tons/Ac	Brix	Mold	LU	Color	Green	pH
BP13	61.1	4.85	0.3	2.2	26.3	1.9	4.36
H1015	60.1	5.08	0.2	0.7	24.7	1.0	4.42
N6416	57.1	4.67	0.5	1.4	25.5	1.0	4.33

Average PTAB Grades



New Commercial Variety H1422

2016

Thick | EFS

FFF | Firm



AgSeeds 2015 Lab Data 34 Sites

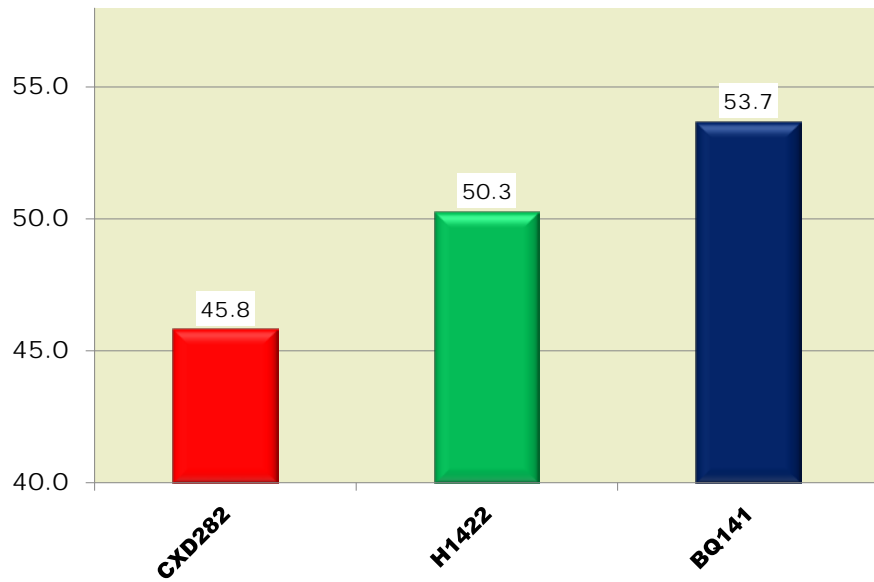
Variety	CXD282	H1422	BQ141
Fruit Wt	73	74	67
Brix Raw	4.89	<u>4.99</u>	4.96
JB	11.93	12.35	13.55
PPB	2.45	2.83	3.38
pH Raw	4.38	4.36	4.39
AB Color	2.33	2.30	2.24
Ostwald	501	<u>573</u>	489



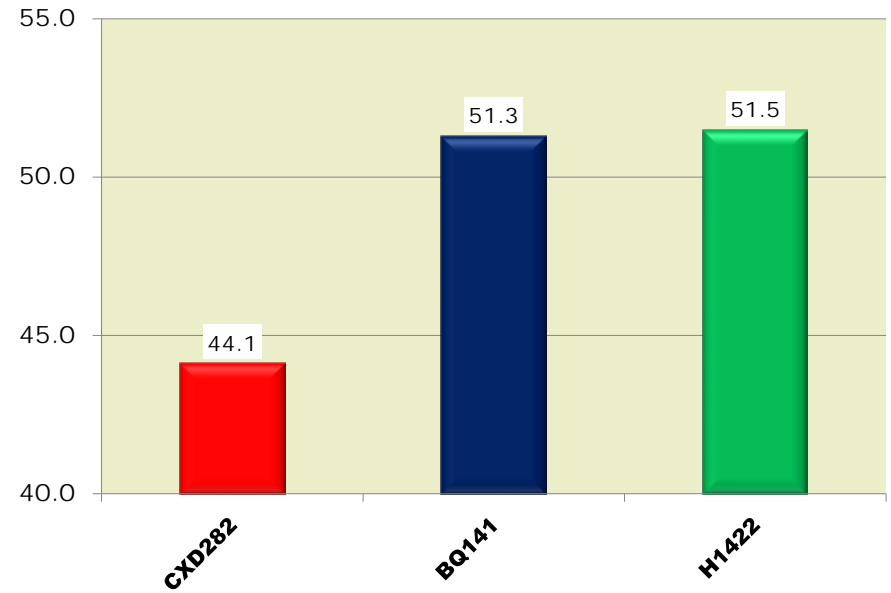


New Commercial Variety H1422 2016

Average Yield of 6 GT Trials in 2014



Average Yield of 5 GT Trials in 2015



Average of 11 Adaptive Trials

Variety	Tons/Ac	Brix	Mold	LU	Average PTAB Grades		
					Color	Green	pH
H1422	52.4	5.26	1.2	1.1	25.5	1.7	4.33
CXD282	48.6	4.79	3.6	1.0	23.9	1.6	4.38



New Commercial Variety

BP16

2016

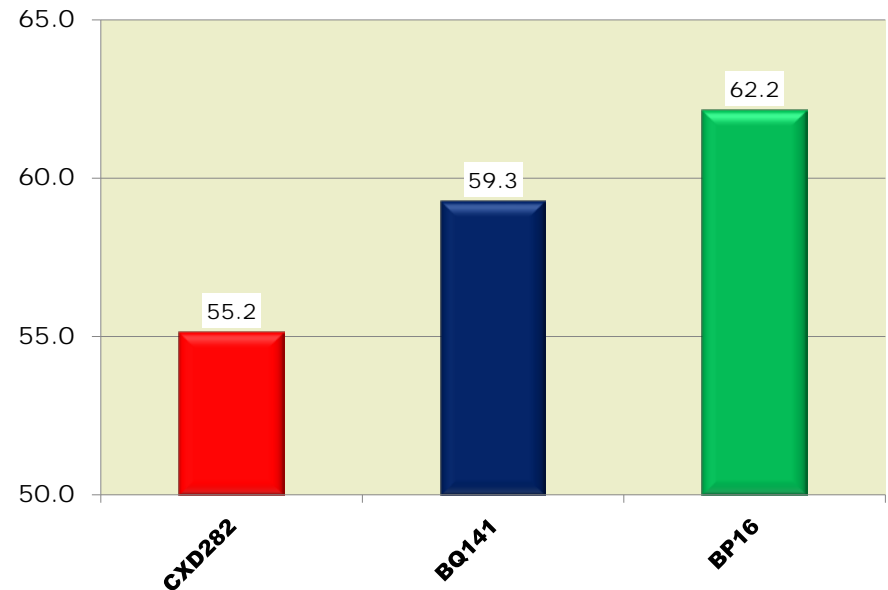
Intermediate | TSW | F3

AgSeeds 2015 Lab Data

34 Sites

Variety	CXD282	BQ141	BP16
Fruit Wt	69	64	<u>74</u>
Brix Raw	4.87	4.99	<u>5.22</u>
JB	11.97	13.53	<u>14.92</u>
PPB	2.45	3.42	<u>4.49</u>
pH Raw	4.33	4.34	4.37
A/B Color	2.33	2.24	2.20
Ostwald	484	457	431

Average Yield of 4 GT Trials in 2015



Average of 11 Adaptive Trials

Average PTAB Grades

Variety	Tons/Ac	Brix	Mold	LU	Color	Green	pH
BP16	53.1	5.27	2.3	0.5	25.2	4.0	4.35
CXD282	48.6	4.79	3.6	1.0	23.9	1.6	4.38



New Commercial Variety SV2493TM

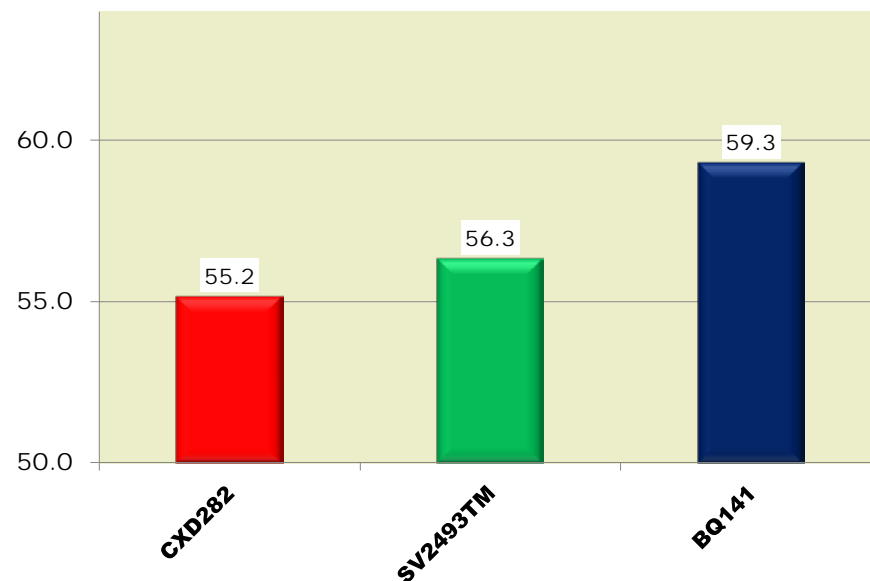
2016

Main Season | TSW | F3

AgSeeds 2015 Lab Data 34 Sites

Variety	CXD282	SV2493TM	BQ141
Fruit Wt	75	70	69
Brix Raw	4.83	<u>5.18</u>	4.90
JB	11.90	13.10	13.54
PPB	2.34	3.51	3.28
pH Raw	4.39	4.37	4.40
A/B Color	2.33	2.24	2.25
Ostwald	510	483	456

Average Yield of 4 GT Trials in 2015



Average of 6 Adaptive Trials

Variety	Tons/Ac	Brix	Mold	LU	Color	Green	pH
CXD282	47.1	5.03	5.5	1.5	23.8	2.1	4.41
SV2493TM	46.2	5.23	4.0	3.0	24.0	2.7	4.40

Average PTAB Grades

California Processing Tomato Market

Pear Varieties, **2.6%** of Total Market

Based on Final PTAB Reports

Variety	Supplier	TSW	F3	EFS	Total Loads	% of Loads	Solids	Color	LU	Mold	pH	Green
H1292	Heinz	X			4,269	28.91%	5.52	23.1	1.9	1.1	4.47	1.4
H1293	Heinz	X			3,676	24.89%	5.51	23.9	1.2	1.3	4.46	1.8
HM7885	Harris Moran			X	3,487	23.61%	4.92	25.5	0.8	0.7	4.52	1.1
N6420	Nunhems	X			1,785	12.09%	4.81	25.2	1.6	2.3	4.46	1.2
BOS67212	Orsetti				648	4.39%	5.20	24.6	3.5	4.1	4.48	0.9
HP108	Seminis				423	2.86%	5.17	25.8	2.8	1.5	4.46	1.3
H2601	Heinz				257	1.74%	5.25	26.8	1.5	0.5	4.40	1.1
1570	Syngenta				196	1.33%	4.67	27.1	3.5	2.7	4.45	1.6
SV2849TM	Seminis	X			19	0.13%	5.01	22.9	3.2	2.2	4.44	0.9
H1421	Heinz	X	X		7	0.05%	5.49	24.6	1.6	1.1	4.40	1.4
Pear Total					14,767	100.00%	5.25	24.4	1.6	1.3	4.47	1.4

California Processing Tomato Market

Pear Varieties, 0.5% of North Market

Based on Final PTAB Reports

Variety	Supplier	TSW	F3	EFS	Total Loads	% of Loads	Solids	Color	LU	Mold	pH	Green
H1292	Heinz	X			441	63.18%	5.16	24.3	1.6	2.3	4.43	1.2
N6420	Heinz	X			250	35.82%	5.37	23.4	1.6	0.7	4.41	0.3
HM7885	Harris Moran			X	7	1.00%	5.49	25.3	0.6	1.0	4.48	1.6
Pear Total					698	100%	5.24	24.0	1.6	1.7	4.43	0.9



New Commercial Variety

SV2849TP

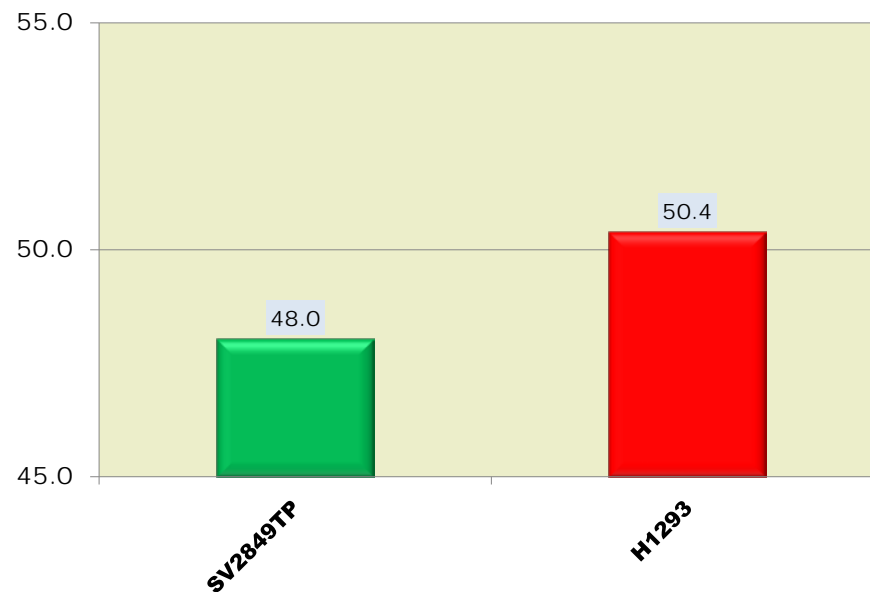
2016

Pear | TSW | Intermediate

AgSeeds 2015 Lab Data 34 Sites

Variety	SV2849TP	H1293
Fruit Wt	65	60
Brix Raw	5.00	5.38
JB	13.90	14.63
PPB	3.62	4.60
pH Raw	<u>4.37</u>	4.45
A/B Color	2.30	2.28
Ostwald	397	419

Average Yield of 4 GT Trials in 2015



Average of 3 Adaptive Trials

Variety	Tons/Ac	Brix	Mold	LU	Average PTAB Grades		
					Color	Green	pH
H1293	55.1	5.44	3.0	1.6	24.7	1.0	-
SV2849TP	49.4	5.38	2.7	3.1	24.1	0.8	-

Ag-Seeds Unlimited

2016 Profiled Varieties

2016 Featured Varieties



HMX5900

Early, Brix



BP13

Early, TSW, FFF



HMX4909

TSW, FR, Brix



H1422

TSW, Yield, EFS



SV2756TM

TSW, Yield, EFS



HMX4885

TSW, Yield, EFS



HMX4884

Early, TSW



H1424

Thin, TSW



HMX4886

Brix, Inter, TSW



SV2849TM

Pear, TSW



SV2493TM

TSW, FFF



SV8011TM

Thick, TSW



SV6133TM

Thick, TSW



**2016
New Adaptive
Varieties**

Ag-Seeds Unlimited

2016 Adaptive Varieties

Early Varieties



HMX58881

VFFNtsw

Woodbridge Seeds



BQ400

VFFNPtsw

Woodbridge Seeds



BQ402

VFFNPtsw

Woodbridge Seeds



BQ403

VFFNPtsw

Mid Season – Non EFS Varieties



HMX58861

VFFNPtsw



HMX4890

VFFNPtsw



SVTM2303

VFFNtsw



SVTM5655

VFFNtsw

Woodbridge Seeds



BQ401

VFFNPtsw

Ag-Seeds Unlimited

2016 Adaptive Varieties

EFS Varieties



HMX58811

VFFNtsw



HMX58841

VFFNtsw



HMX58871

VFFNtsw



N6426

VFFNPtswLv

Pear Varieties



HMX618163

VFFNPtsw



H1538

VFFNP

Ag-Seeds Unlimited

2016 Adaptive Varieties

F3 Varieties



N6428

VFFFNtsw



N6429

VFFFNtswLv



HMX58801

VFFFNtsw



H1539

VFFFNtsw



BP22

VFFFNptsw



BP25

VFFFNptsw



BP28

VFFFNptsw



BP32

VFFFNptsw



New Adaptive Variety 2016

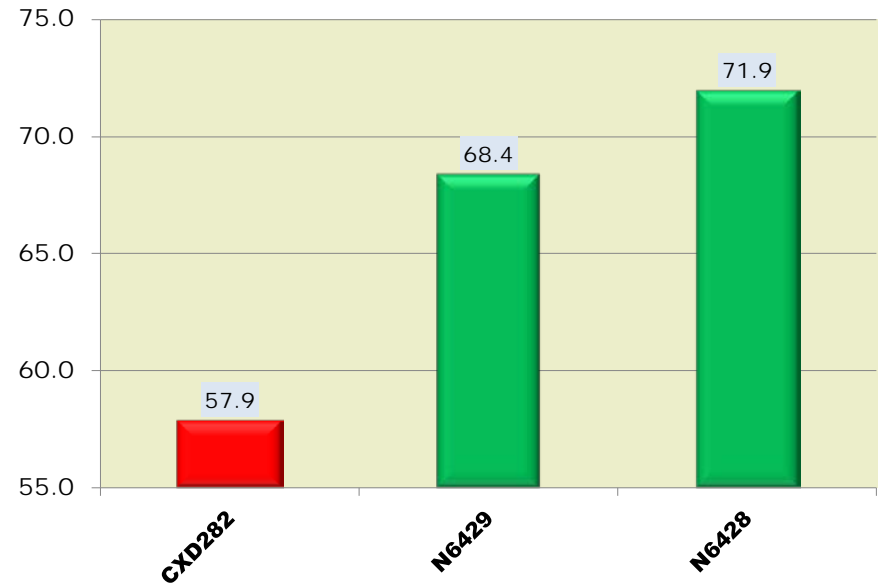
N6428 & N6429

AgSeeds 2015 Lab Data

26 Sites

Variety	CXD282	N6429	N6428	BQ141
Fruit Wt	75	74	75	69
Brix Raw	4.83	5.06	4.96	4.90
JB	11.90	15.09	13.49	13.54
PPB	2.34	4.31	3.34	3.28
pH Raw	4.39	4.42	4.39	4.40
A/B Color	2.33	2.22	2.20	2.25
Ostwald	510	324	461	456

Average Yield of 9 GT Trials in 2015



Thick | TSW | F3 | EFS

An aerial photograph of a large-scale tomato field. The field is organized into long, parallel rows of tomato plants. The plants are green and appear to be in various stages of maturity. Interspersed among the rows are numerous piles of harvested tomatoes, showing a mix of red and yellow-green colors. The soil between the rows is a light, sandy brown. The overall scene depicts a busy agricultural operation.

**Variety
Advancements
In California**

Tomato Spotted Wilt Virus - TSW Timeline

2006

The first outbreak of the Spotted Wilt Virus in the California market. No commercial varieties were available



2008

The first commercial varieties with TSW resistance came to the market: HM4801 and DRI8058.



2010

The number of commercial varieties that carried TSW resistance grew to 8.



2016

There are 44 TSW resistant varieties available commercially. Of the 179 varieties screened in our trials, only 4 did not have TSW resistance.



EFS / EFH Timeline

1996

The first year an EFS / EFH variety is introduced to the California market (H9492). The best holding variety was BOS3155.



2000

The first year EFS / EFH varieties were publicized in our variety guide. There was a total of 4 varieties all from a single supplier.



2010

The industry offers 14 EFS / EFH varieties to the California market, which helped alleviate some fear of harvesting into October.



2016

There are 34 EFS / EFH varieties available commercially in all classes of maturity, and some of those have extreme holding power!



Fusarium Wilt Race 3 – F3 Timeline

1990-1995

The first time Fusarium Race 3 appears in California.



2009

The first year a semi-acceptable F3 resistant variety (CXD282) becomes commercial.



2014

The number of commercial varieties that carried F3 resistance grew to 3.



2016

There are 10 F3 resistant varieties commercially available. The future looks bright.



F3 Variety Development

The Future looks Bright

2015 - F3 GT Data Variety	% of	
	CXD282	BQ141
2018	131.6%	113.1%
2017	121.6%	113.1%
2018	130.8%	112.5%
2017	117.4%	109.2%
2017	116.9%	108.8%
2017	115.0%	107.0%
2019	113.3%	105.4%
BP16	112.7%	104.9%
2019	112.2%	104.4%
2017	111.0%	103.3%
2017	119.9%	103.1%
BP2	110.4%	102.7%
2017	109.9%	102.2%
2018	118.5%	101.9%
2017	109.4%	101.8%
H5608	117.3%	100.8%
H1422	116.7%	100.4%
2019	107.7%	100.2%
BQ141	107.5%	100.0%
CXD282	100.0%	86.0%

Red #: The potential year these varieties may become semi commercial.

Fusarium Crown Rot– Fr Timeline

2011

Fusarium Crown Rot raises issues in California.



2015

The first Fusarium Crown Rot resistant variety becomes commercially available (HM4909).



2016

There are over 10 Fusarium Crown Rot resistant varieties being trialed and evaluated for the California Market.



California Yield History – Timeline

2001

Top three varieties were 3155, H8892 and APT410. Statewide yields were 34.02 tons per acre.



2006

Top three varieties were AB2, H9780 and H9557. N6366 is commercial and Ag Seeds started its GT trial program. Statewide yields were 35.83 tons per acre.



2010

Top three varieties were N6366, H8504 and AB2. New commercial and trial varieties like H5608, N6397, H1015, HM9905 and N6404. Statewide yields were 45.54 tons per acre.



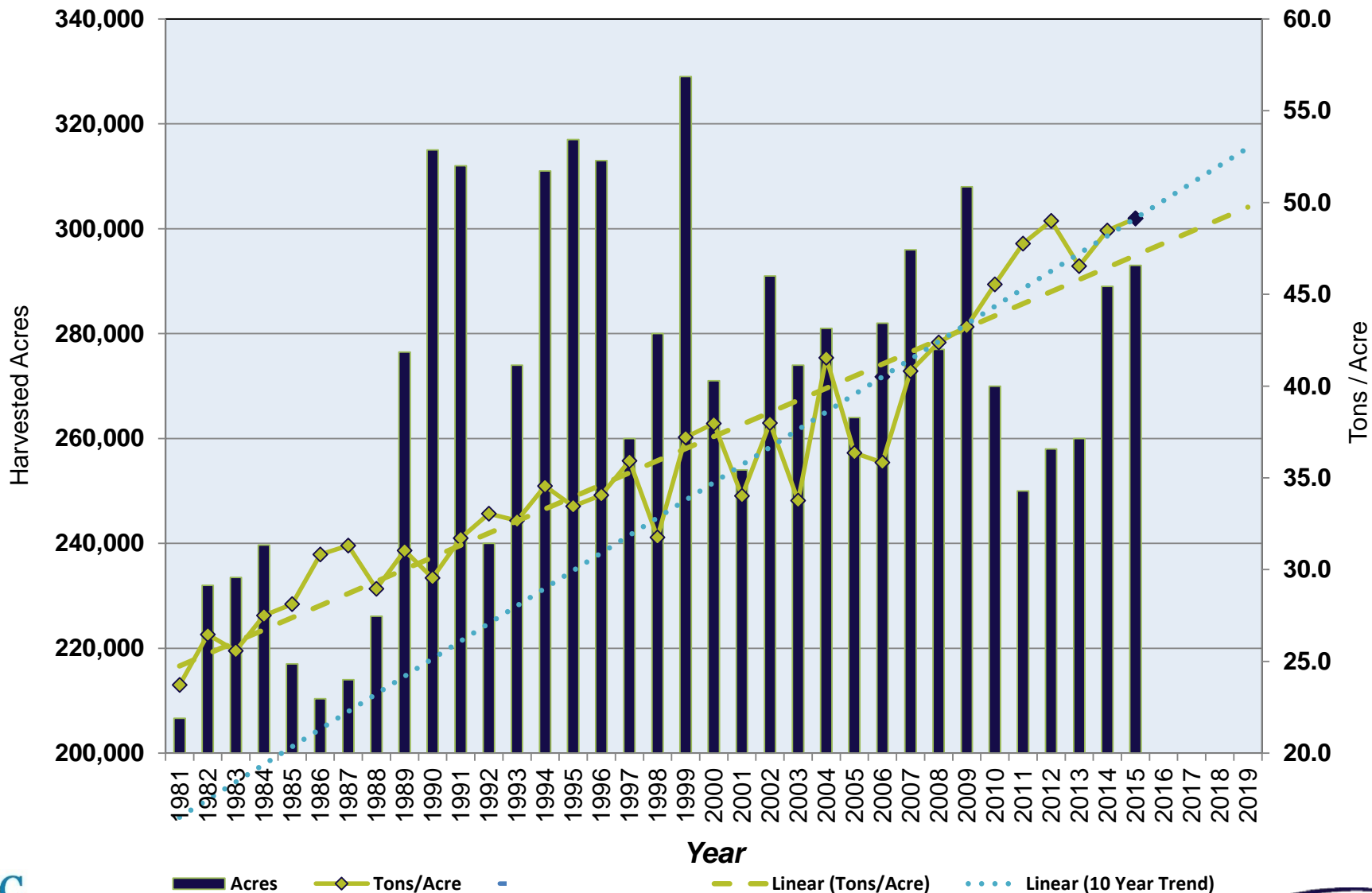
2015

Top three varieties were H8504, N6366 and DRI319. Commercial varieties like DRI319, HM3887 and BQ141 are available. Statewide yields were 49.14 tons per acre.



California Processing Tomato Harvest

Acres Harvested & Yield (Tons/Acre): 1981 - 2015



2015 Northern Trial Cooperators

Thank You

Grower	County	Grower	County
Y. Aoki Farms	Yolo	Mayflower Farms	Colusa
Barsoom Ranch	Yolo	J. H. Meek & Sons	Yolo
Donald Beeman	Yolo	Joe Muller and Sons	Yolo
Dan Best Ranch	Yolo	Park Farming	Sutter
Jason Bryson	Sutter	Payne Brothers Ranches	Yolo
Bullseye Farms	Yolo	Reveille Farms	Solano
Button & Turkovich	Yolo	Sam Reynolds	Colusa
Dougherty Bros.	Sutter	Richter Bros.	Sutter
E & H Farms	Solano	Gene Robben Farms	Solano
Fong Farms, Inc.	Yolo	Schreiner Farms	Sutter
Geer Ranch	Yolo	T & P Farms	Colusa
Harlan Family Ranch	Yolo	Triad Farms	Yolo
Hunn, Merwin & Merwin	Yolo	Vann Bros.	Colusa
Liberty Trust	Yolo	Van Ruiten Bros.	Colusa
Matteoli Bros.	Sutter	Joe Yeung Farms	Yolo