

A photograph of several watermelons in a field, with some showing signs of ripening and yellowing. The watermelons are arranged in a cluster, and the background shows green foliage and dry grass.

Variety Trials in Southwest Indiana–2016

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Weather Conditions

Month	Precipitation (inch)		Max temperature (°F)		Min temperature (°F)		Mean temperature (°F)	
	Average	2016	Average	2016	Average	2016	Average	2016
May	5.93	4.89	76	75	54	54	65	63
Jun	4.19	3.10	84	90	63	67	74	78
Jul	4.64	4.78	88	87	66	69	77	77
Aug	3.41	8.98	87	90	64	69	76	78

Materials and Methods

❖ Varieties

Melon types	Entry number
Triploid watermelon	44, plus 2 grafted
Personal-size triploid watermelon	4
Diploid watermelon	5
Cantaloupe	12

❖ Planting and harvest dates

Melon types	Seedling Dates	Transplanting Dates	Harvest Dates
Triploid watermelon	14 April	16 May	21 July to 11 Aug
Personal size triploid watermelon	18 April	23 May	27 July to 18 Aug
Diploid watermelon	15 April	18 May	18 July to 8 Aug
Pollenizer	12 April	16 May and 23 May	
Cantaloupe	15 April	23 May	11 July to 5 Aug

❖ Fertilizers

Fertilizer	Rate (lb/acre)
Urea (46-0-0)	250
Potash (0-0-60)	150
Diammonium phosphate (18-46-0)	100
Boron 14.3%	7
Dolomite lime	200
K-Mag granular (0-0-22)	100
Zinc 10% LS	20

❖ Spacing

- Triploid watermelon: 4' in-row spacing; 8' bed spacing; pollenizer 1:2 ratio
- Personal-size triploid watermelon: 2' in-row spacing, 6' bed spacing, pollenizers in one row of every three rows of personal-size triploid watermelon
- Diploid watermelon: 4' in-row spacing, 8' bed spacing
- Cantaloupe: 2.5' in-row spacing, 6' bed spacing

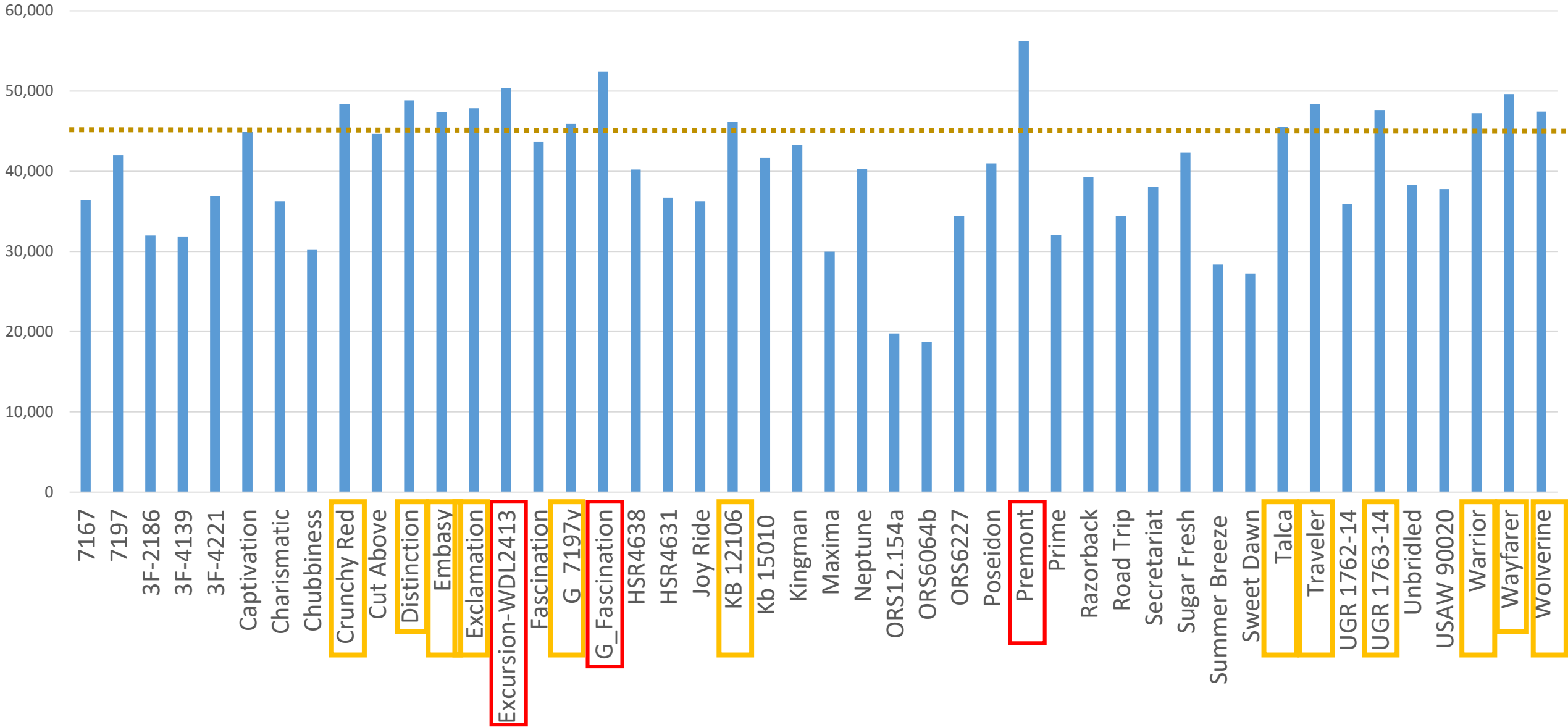
❖ Experimental design

Randomized complete block design, 3 blocks

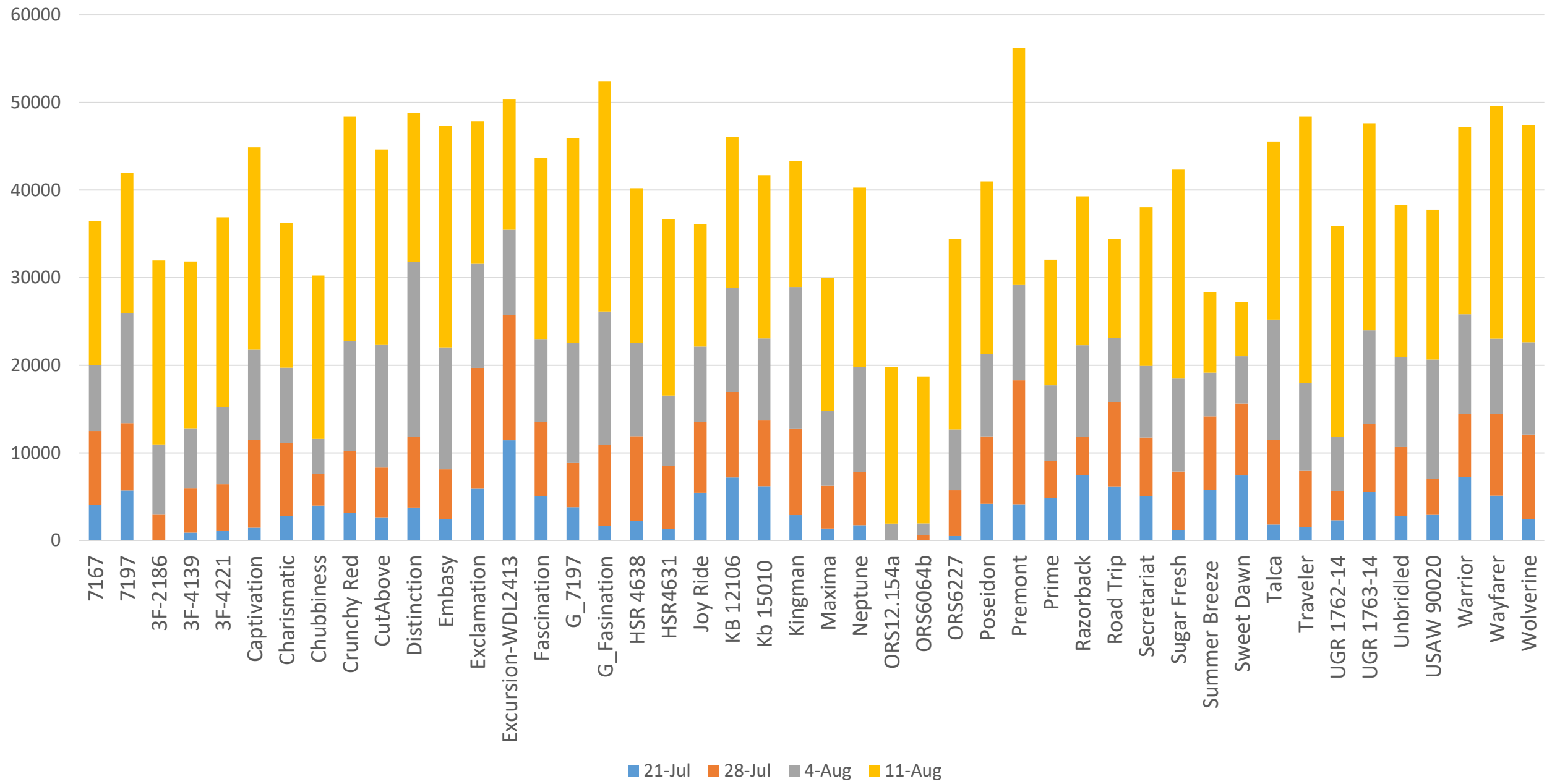
Plant number per variety per rep	
Triploid watermelon	12
Personal-size watermelon	12
Diploid watermelon	12
Cantaloupe	20

Triploid watermelon

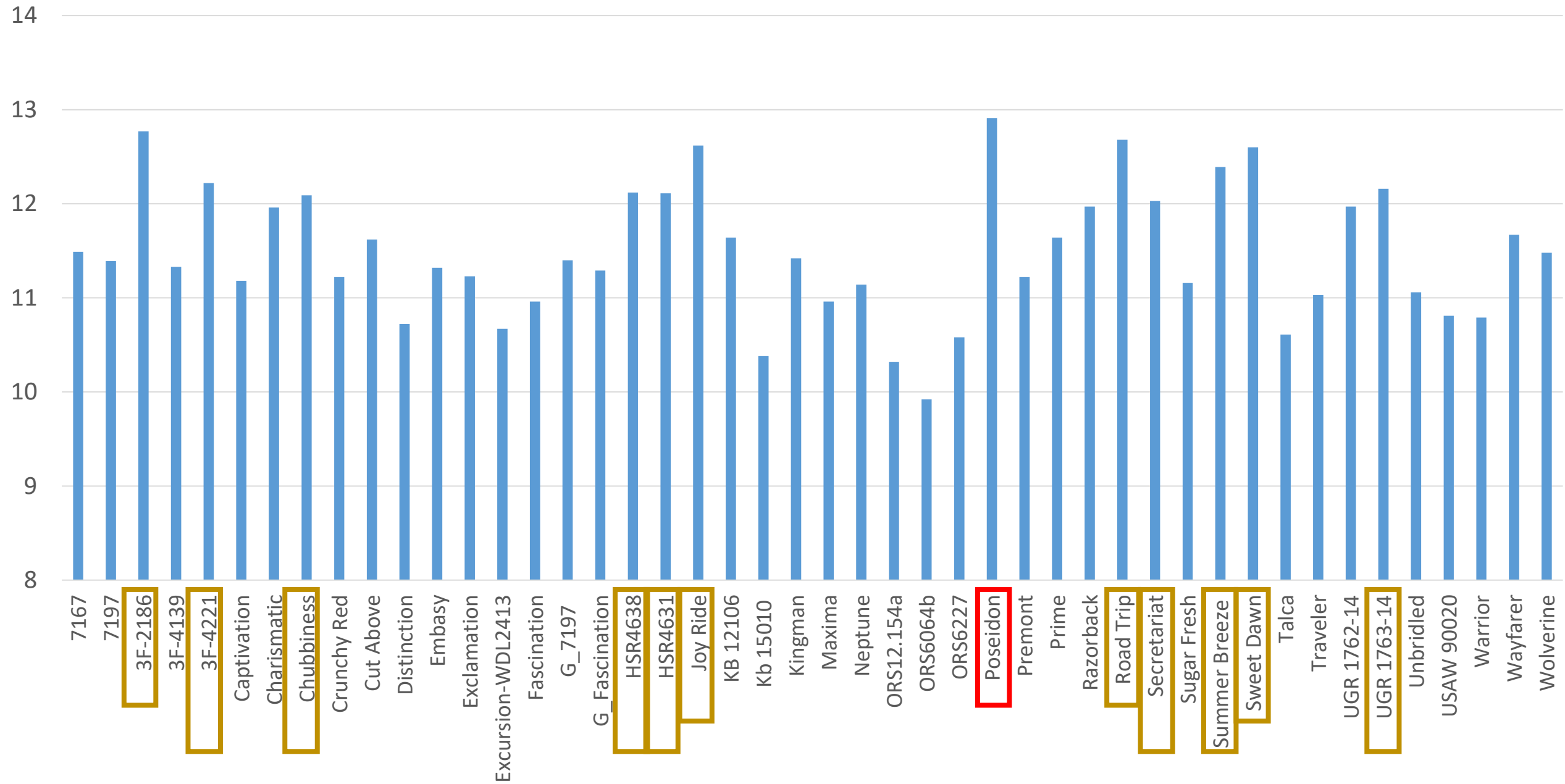
Marketable weight (lb) per acre



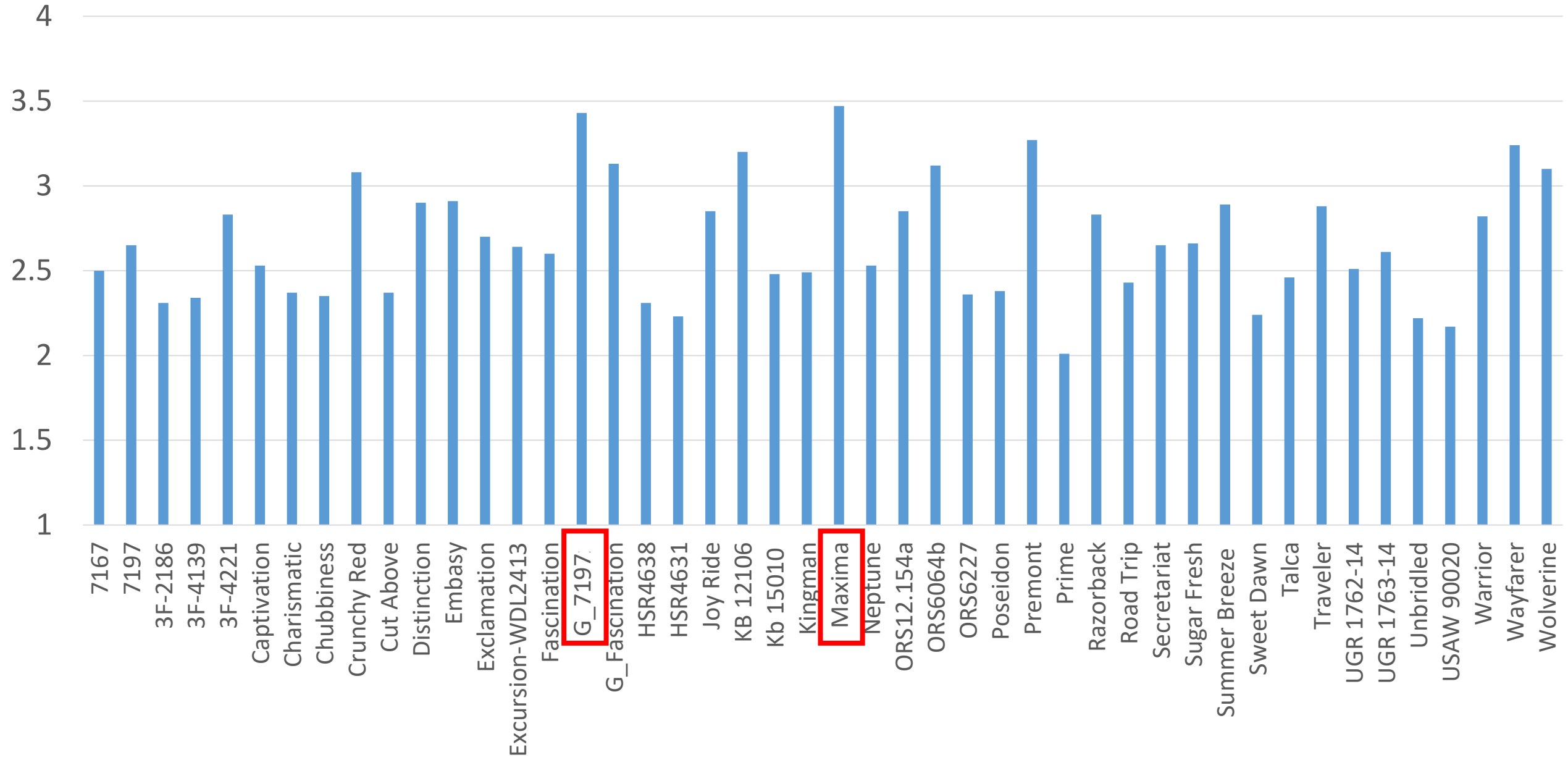
Marketable weight (lb) per acre



Total soluble solids (°Brix)



Flesh firmness (lbs-force)



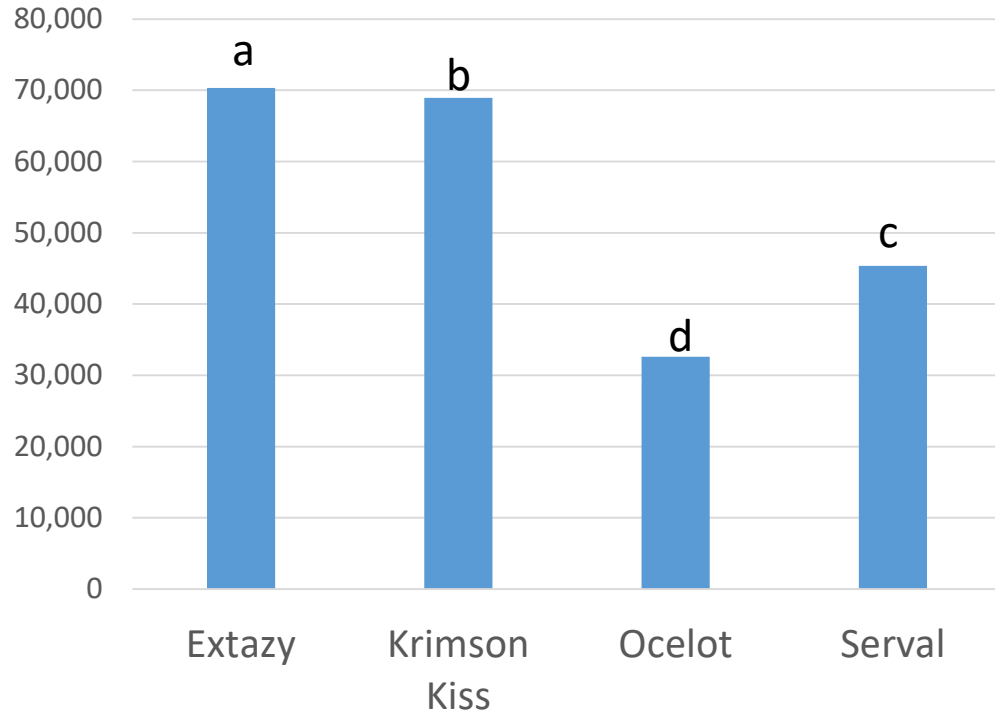


1	7167
2	7197
3	3F-2186
4	3F-4139
5	3F-4221
6	Captivation
7	Charismatic
8	Chubbiness
9	Crunchy Red
10	CutAbove
11	Distinction
12	Embassy
13	Exclamation
14	Excursion-WDL2413
15	Fascination
16	G_7197
17	G_Fascination
18	HSR 4638
19	HSR4631
20	Joy Ride
21	Kb 12106
22	Kb 15010 (spotted type)
23	Kingman

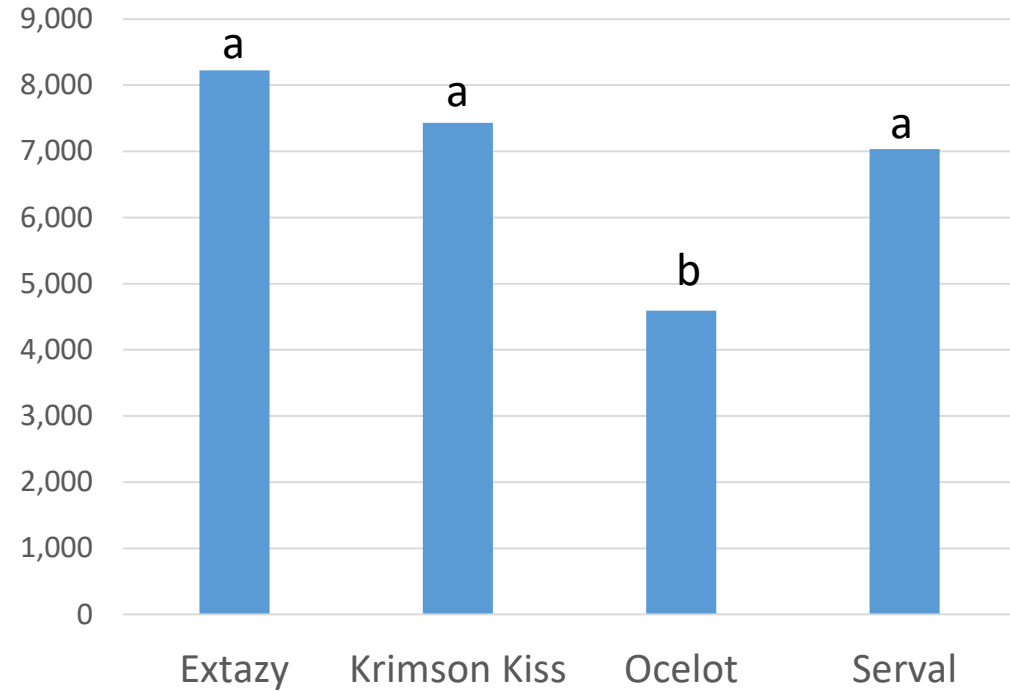
24	Maxima
25	Neptune
26	ORS12.154a
27	ORS6064b
28	ORS6227
29	Poseidon
30	Premont
31	Prime
32	Razorback
33	Road Trip
34	Secretariat
35	Sugar Fresh
36	Summer Breeze
37	Sweet Dawn
38	Talca
39	Traveler
40	UGR 1762-14
41	UGR 1763-14
42	Unbridled
43	USAW 90020
44	Warrior
45	Wayfarer
46	Wolverine

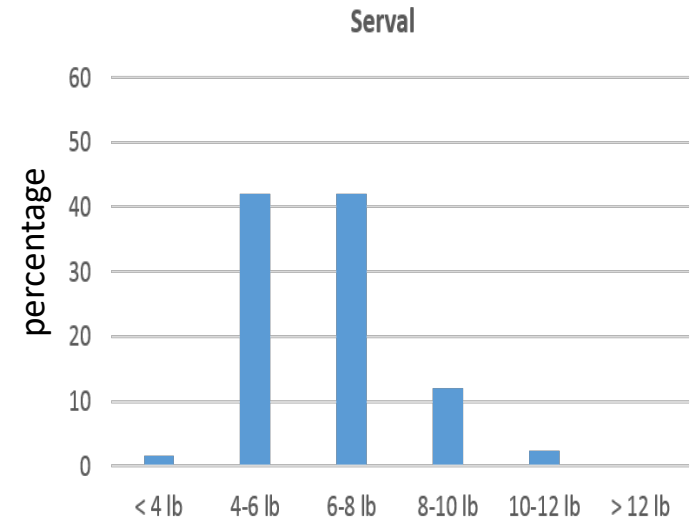
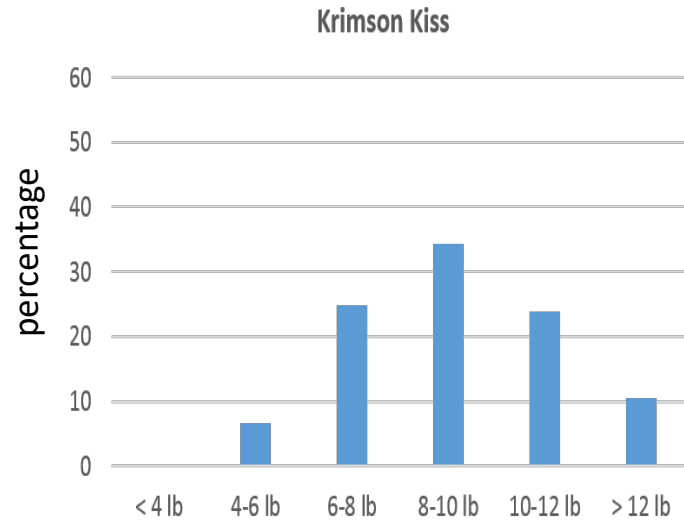
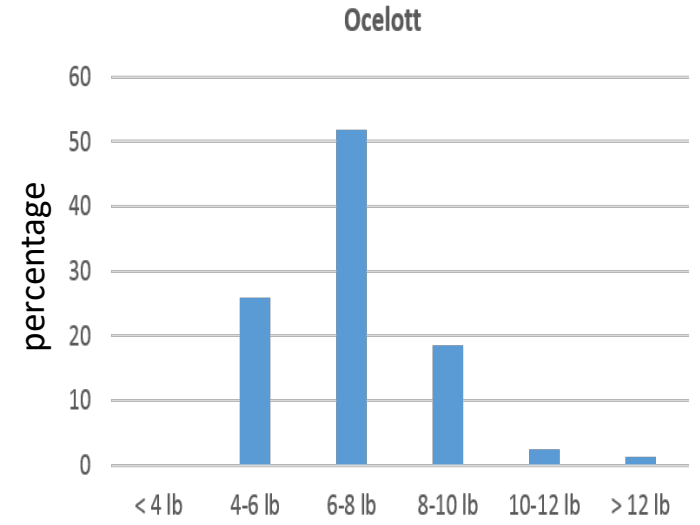
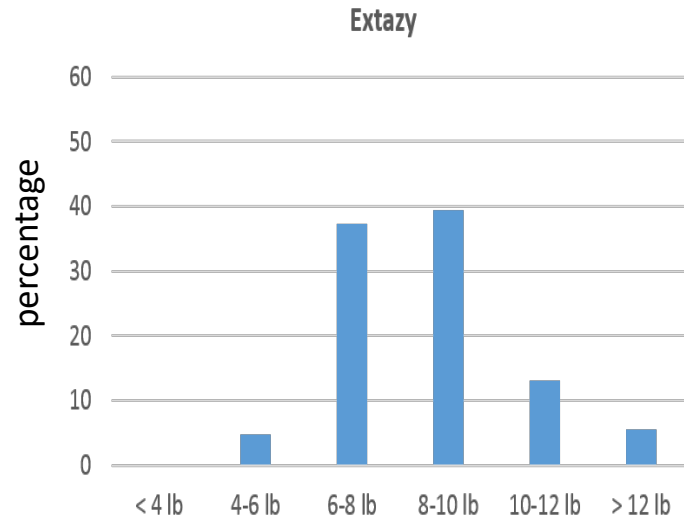
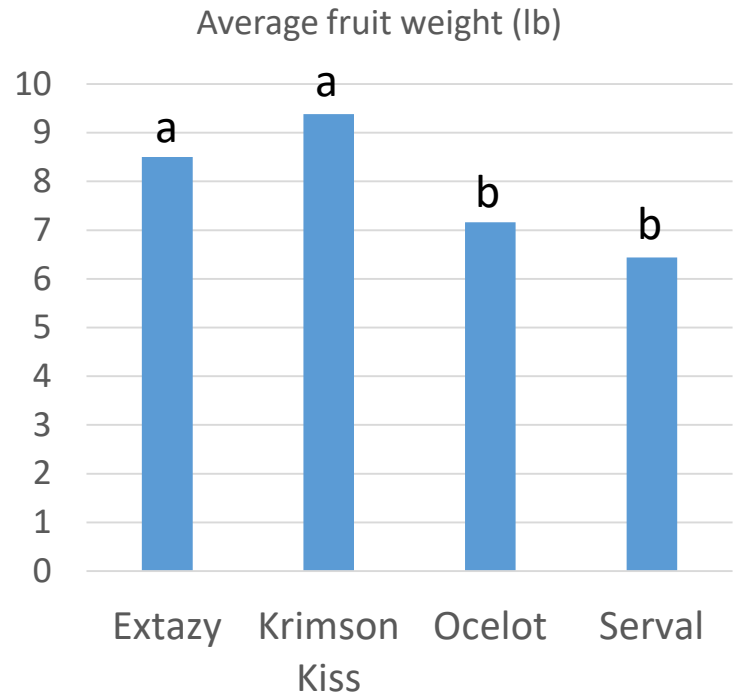
Personal-size triploid watermelon

lb/acre



Number/acre





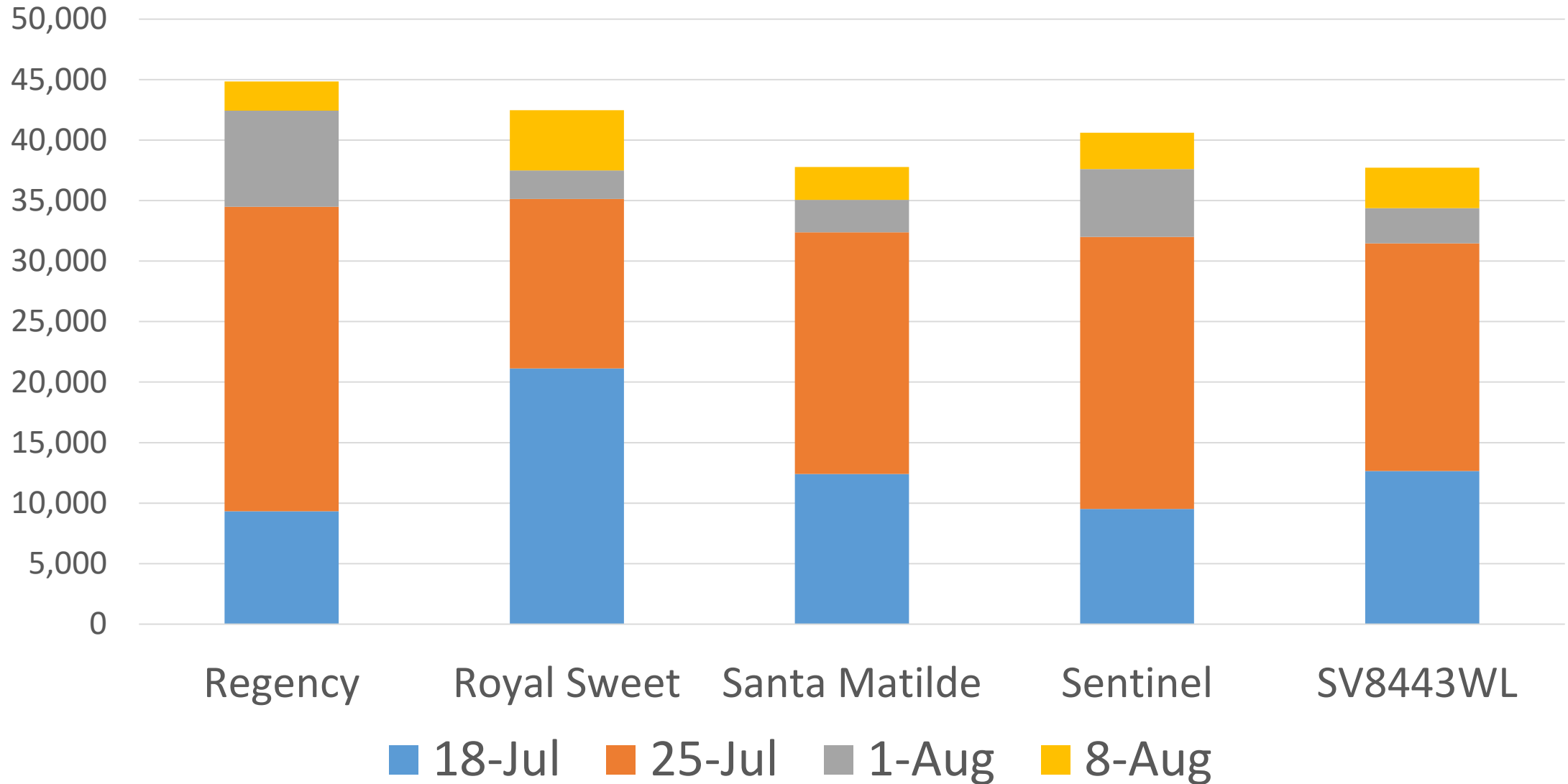
Personal-size triploid watermelon Variety	Total soluble solids (°Brix)	Firmness (lbs-force)	Rind thickness (in)	Length (in)	Width (in)
Extazy	10.63 c ^z	3.82 a	0.65 a	8.20 a	7.72 a
Krimson Kiss	12.43 a	3.02 a	0.55 b	8.33 a	7.48 a
Ocelot	11.04 b	4.01 a	0.54 b	7.69 b	6.87 b
Serval	10.46 c	4.35 a	0.66 a	7.21 c	6.93 b



Diploid Watermelon

Diploid watermelon variety	Weight (lb) per acre	Number of fruit per acre	Average fruit weight (lb)
Regency	44,849	2,420 a ^z	18.47 c
Royal Sweet	42,476	2,080 ab	20.37 bc
Santa Matilde	37,783	1,588 b	23.76 a
Sentinel	40,611	2080 ab	19.47 c
SV8443WL	37,723	1,739 b	21.88 ab

Marketable yield (lb/acre)



Diploid watermelon variety	Total soluble solids (°Brix)	Firmness (lbs-force)	Rind (in)	Fruit length (in)	Fruit width (in)
Regency	11.54 a	2.03 b ^z	0.64 a	13.09 bc	8.73 a
Royal Sweet	11.48 a	2.04 b	0.72 a	12.82 c	8.86 a
Santa Matilde	11.38 a	2.38 ab	0.66 a	14.48 a	9.02 a
Sentinel	11.74 a	2.03 b	0.67 a	13.61 abc	9.01 a
SV8443WL	11.58 a	2.72 a	0.71 a	13.94 ab	9.01 a

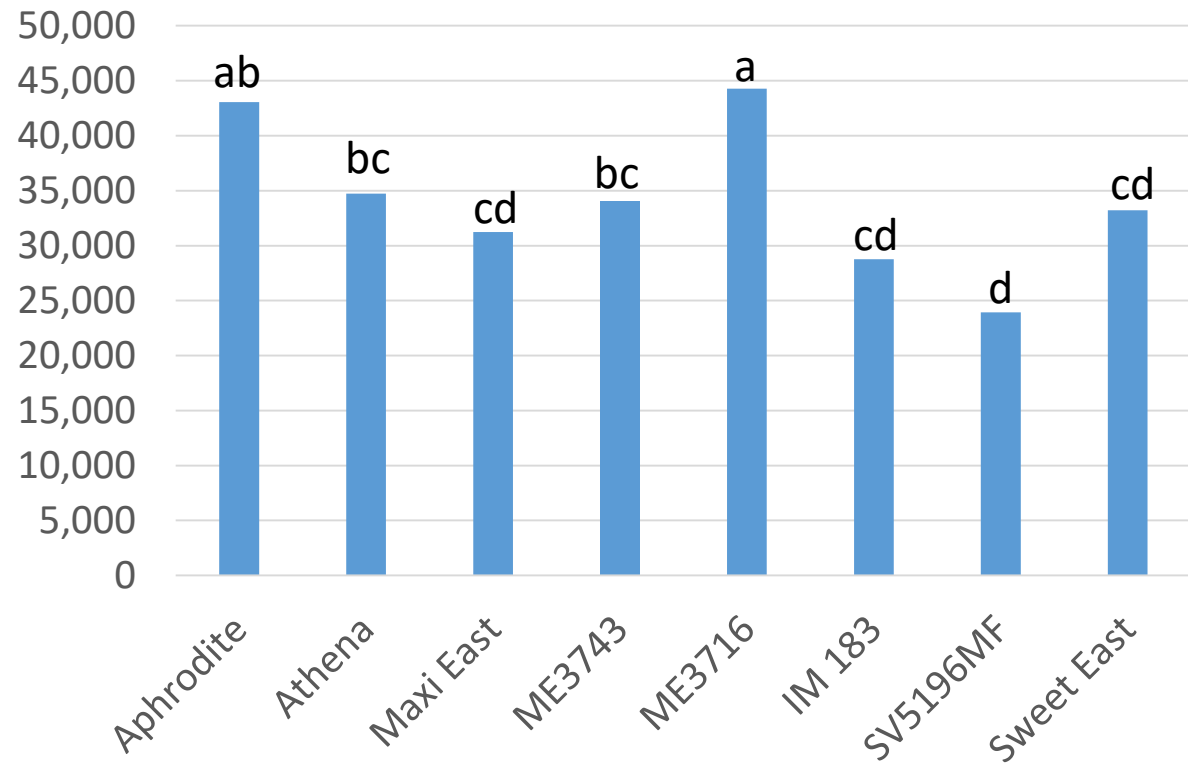


Cantaloupe

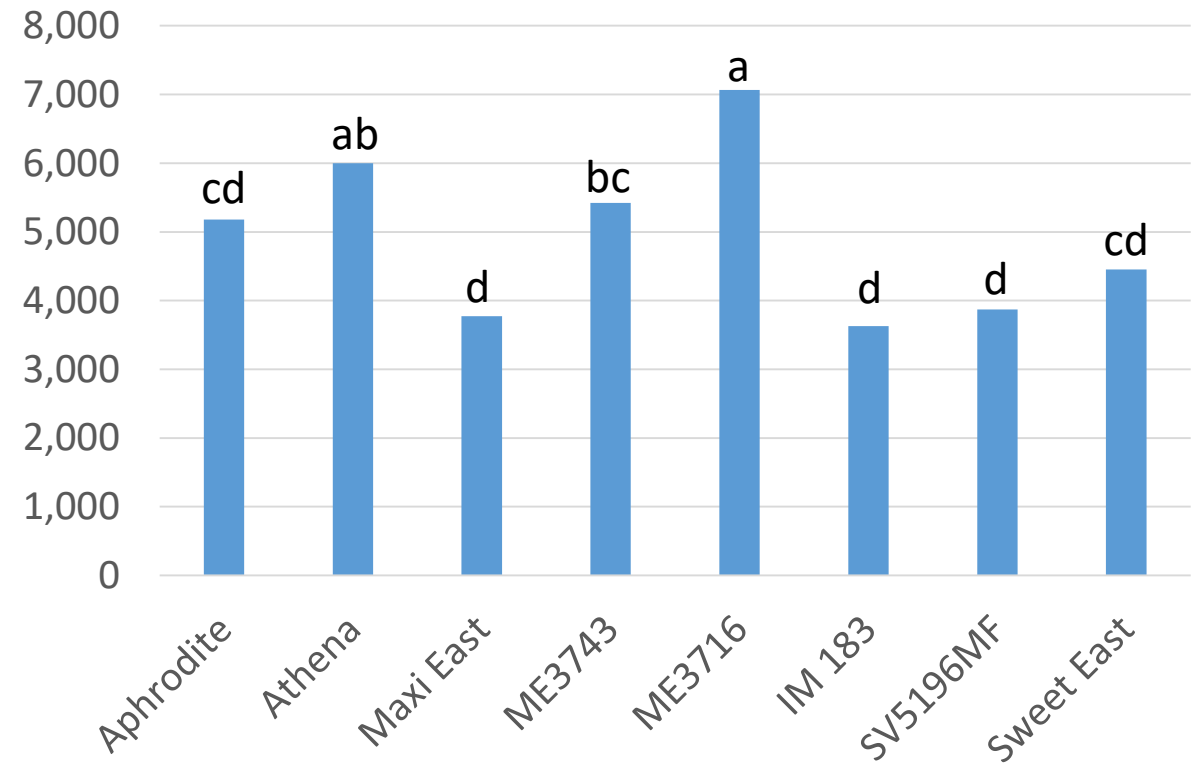
Variety	Seed company	Notes
Aphrodite	Syngenta	
Athena	Syngenta	
Durawest	Nunhems/Bayer	LSL
IM 183	Clifton	
Infinite Gold	Sakata	LSL
Maxi East	Nunhems/Bayer	
ME3716 (Astound)	Syngenta	
ME3743 (Accolate)	Syngenta	
NUN 26181	Nunhems/Bayer	LSL
NUN 26191	Nunhems/Bayer	LSL
SV5196MF	Seminis	
Sweet East	Nunhems/Bayer	

❖ Eastern-type cantaloupe

Weight (lb) per acre

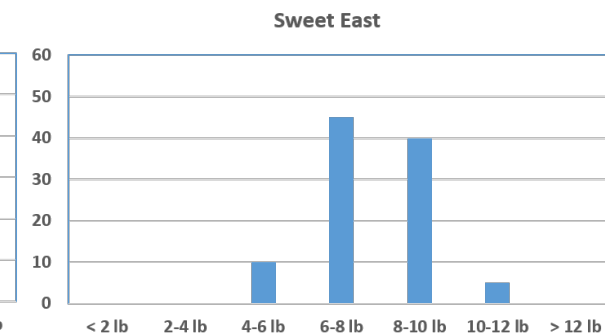
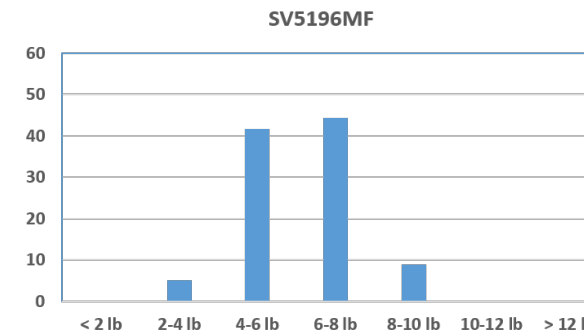
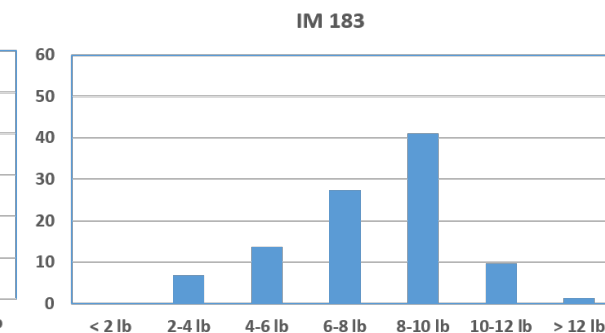
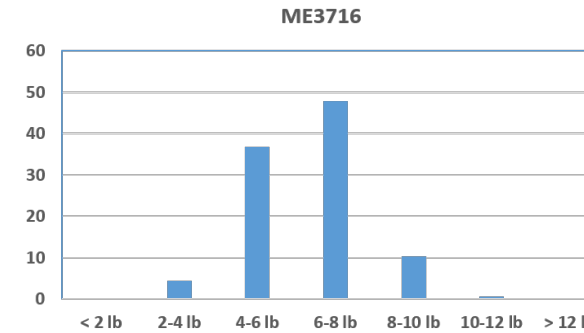
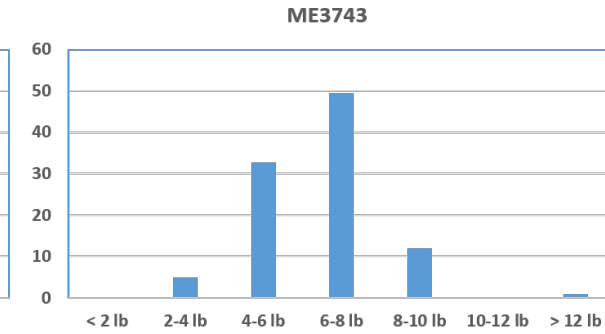
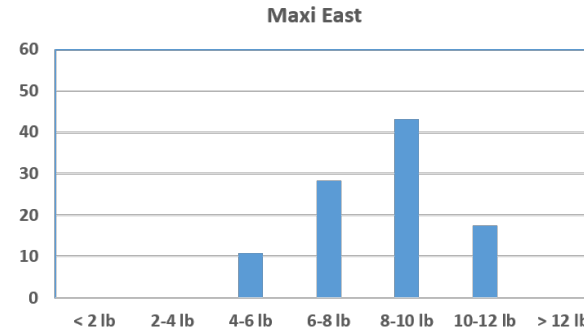
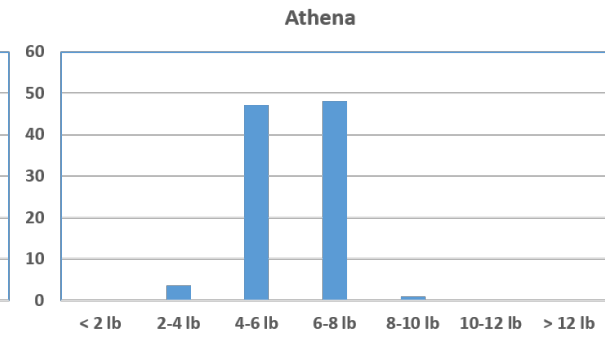
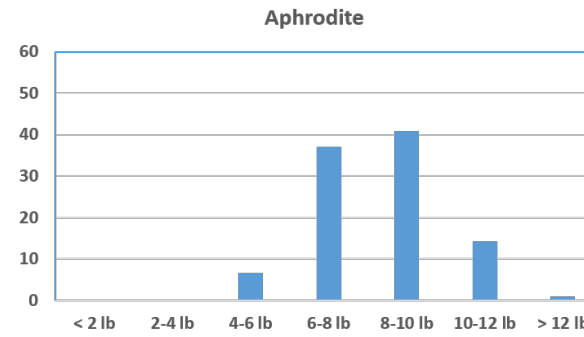


Number of fruit per acre



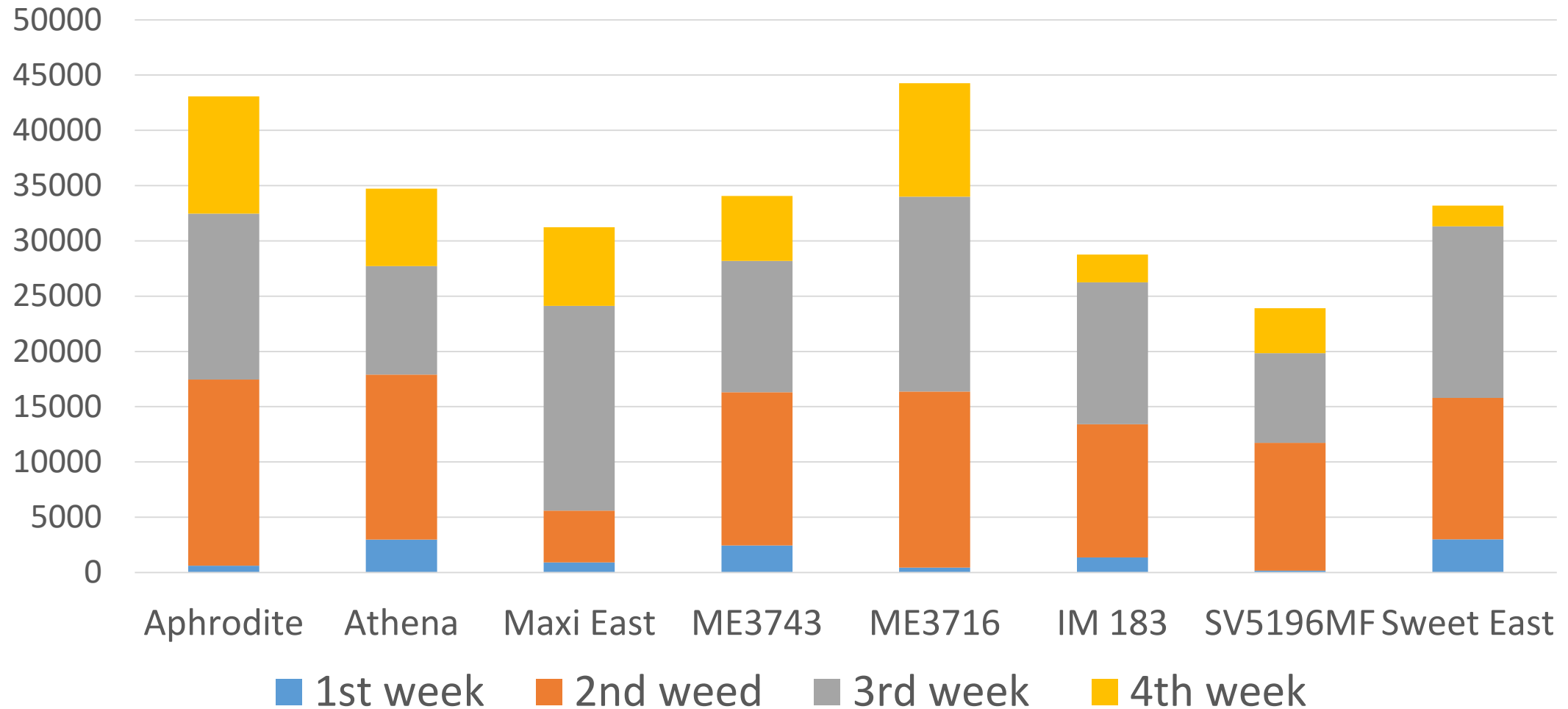
❖ Eastern-type cantaloupe

Variety	Average fruit size (lb)	
Aphrodite	8.34	a
Athena	5.77	c
Maxi East	8.28	a
ME3743	6.27	c
ME3716	6.22	c
IM 183	7.95	ab
SV5196MF	6.17	c
Sweet East	7.44	b



❖ Eastern-type cantaloupe

Marketable yield (lb/acre)

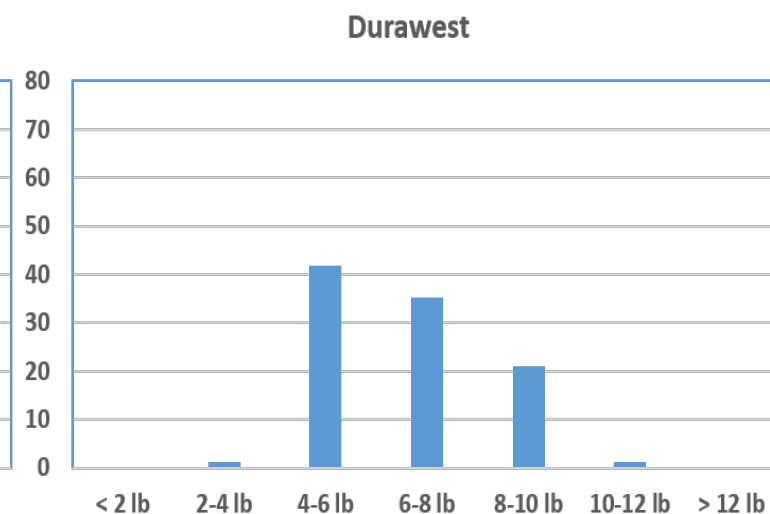
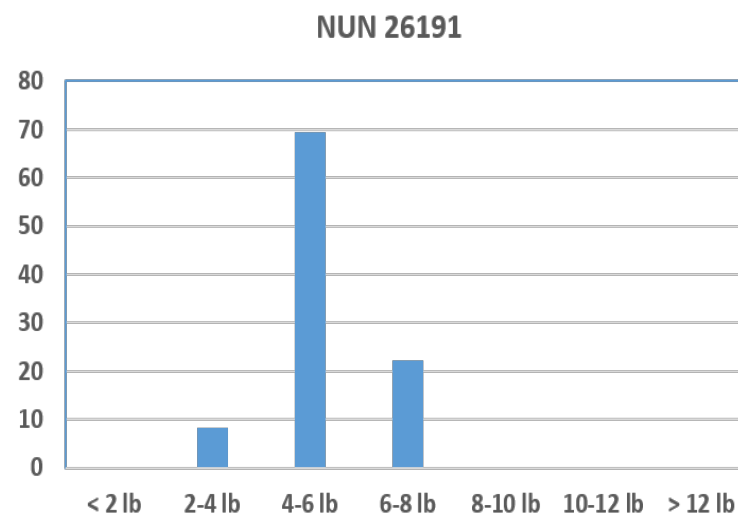
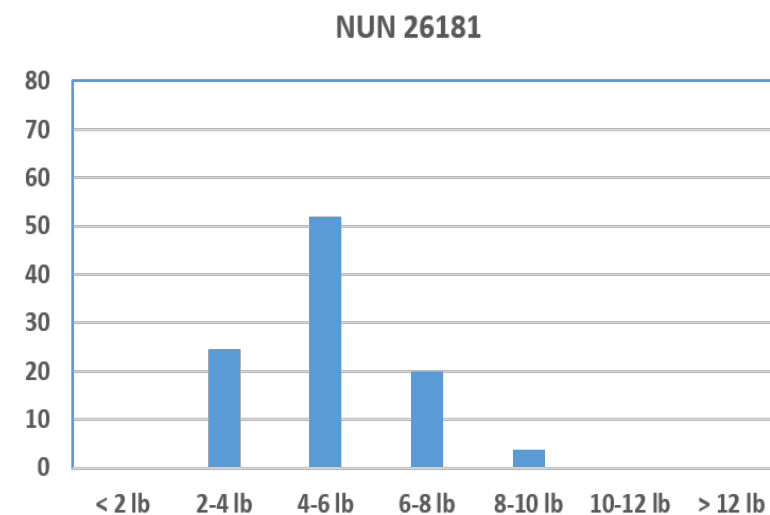
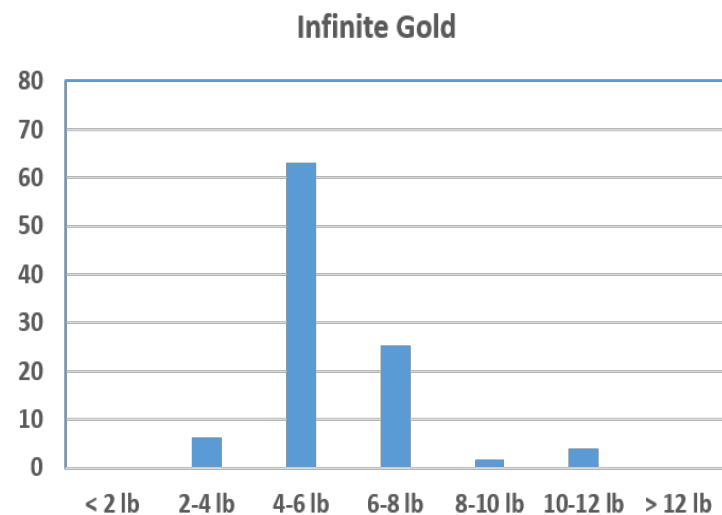


❖ LSL cantaloupe

Variety	Marketable yield	
	Weight (lb) per acre	Number of fruit per acre
Infinite Gold	34,459 a	6,292 b
Nun 26181	33,344 a	8,373 a
Nun 26191	32,217 a	6,147 b
Durawest	29,160 a	4,404 c

❖ LSL cantaloupe

Variety	Average fruit size (lb)	
Infinite Gold	5.52	b ^z
Nun 26181	3.97	c
Nun 26191	5.23	b
Durawest	6.67	a



❖ Fruit quality

Variety	Total soluble solids (°Brix)		Firmness (lbs-force)		Rind (in)		Fruit length (in)		Fruit width (in)		Seed cavity length (in)		Seed cavity width (in)	
Aphrodite	9.82	b	3.39	d	0.36	b	7.93	bc	7.72	ab	5.21	ab	4.14	a
Athena	9.92	b	3.64	cd	0.45	a	7.65	cd	6.88	c	4.72	c	3.03	bc
Maxi East	12.02	a	4.46	bcd	0.35	b	8.41	ab	7.33	bc	5.35	a	3.21	bc
ME3743	10.23	b	4.97	bc	0.49	a	7.63	cd	6.95	c	4.47	c	3.27	bc
ME3716	9.65	b	4.88	bc	0.48	a	7.23	d	6.71	c	4.40	c	2.61	c
IM 183	9.15	b	4.19	bcd	0.38	b	8.44	ab	8.07	a	5.20	ab	3.48	ab
SV5196MF	12.3	a	7.41	a	0.29	c	7.64	cd	6.84	c	4.81	bc	2.64	bc
Sweet East	10.2	b	5.63	b	0.36	b	8.75	a	7.36	abc	5.32	a	2.80	bc

Variety	Total soluble solids (°Brix)		Firmness (lbs-force)		Rind (in)		Fruit length (in)		Fruit width (in)		Seed cavity length (in)		Seed cavity width (in)	
Infinite Gold	12.23	a	8.37	a	0.30	a	7.42	6.43	b	4.82	a	2.80	a	
Nun 26181	11.17	a	5.37	b	0.33	a	8.31	5.68	c	3.96	b	1.94	c	
Nun 26191	11.97	a	5.38	b	0.38	a	6.96	6.36	b	4.26	b	2.14	b	
Durawest	11.90	a	7.54	a	0.19	b	8.12	6.99	a	5.28	a	2.68	a	

