

# Juice Imports, Market Prices, and Cost of Production

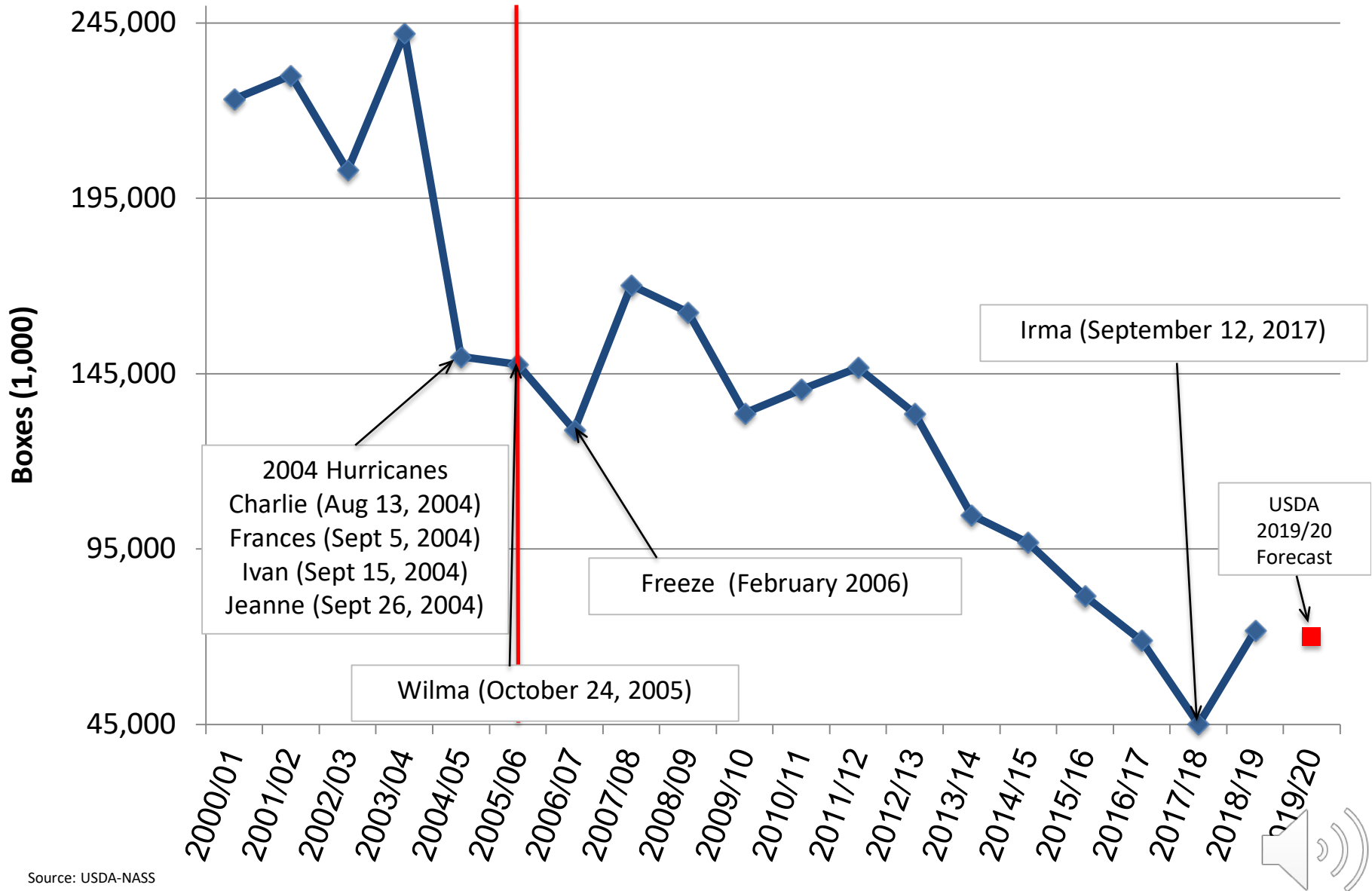
2020 Florida Growers' Institute

Ariel Singerman

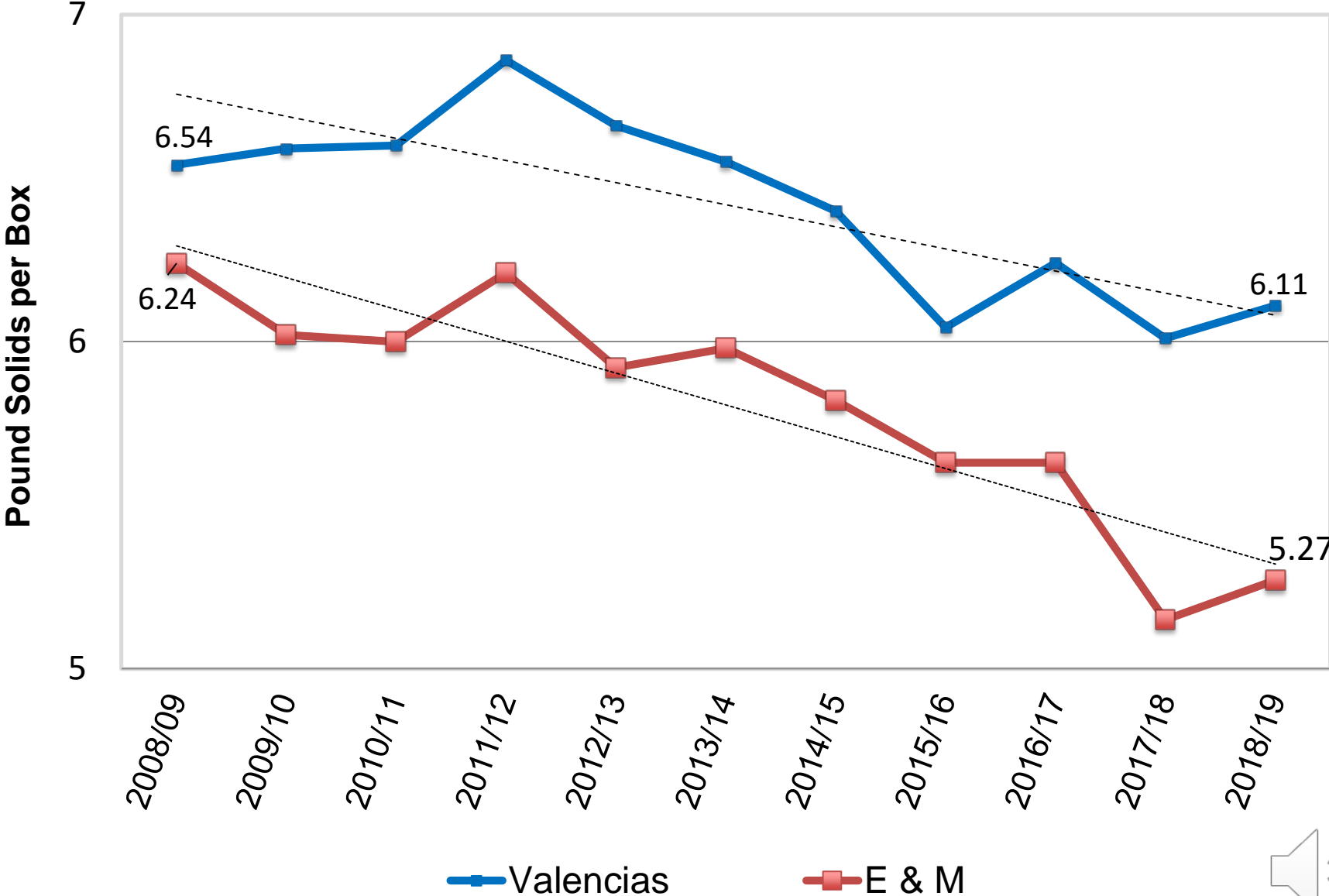
Assistant Professor

Citrus Research and Education Center

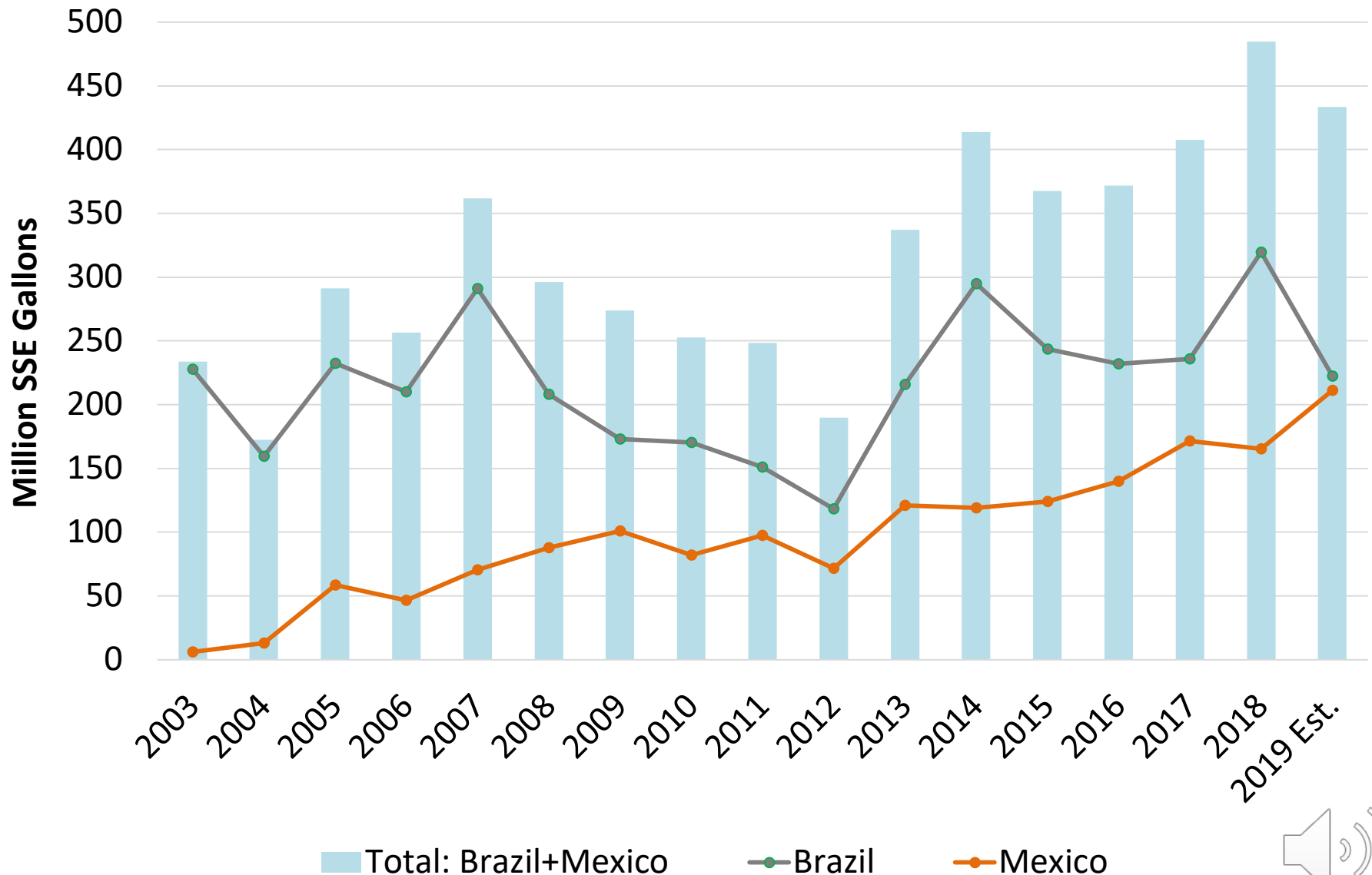
# Orange Production in Florida



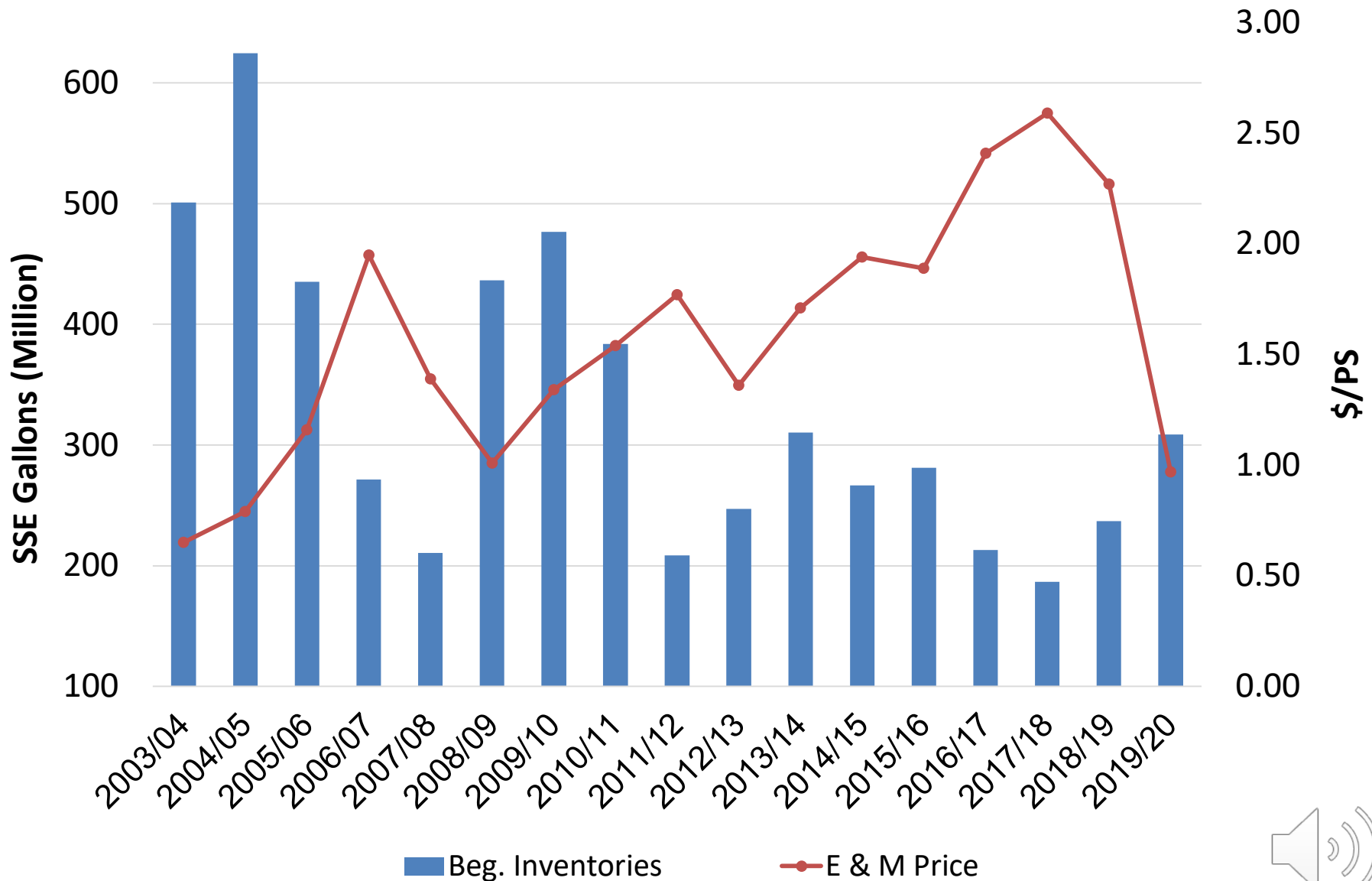
# Florida Oranges Pound Solids per Box



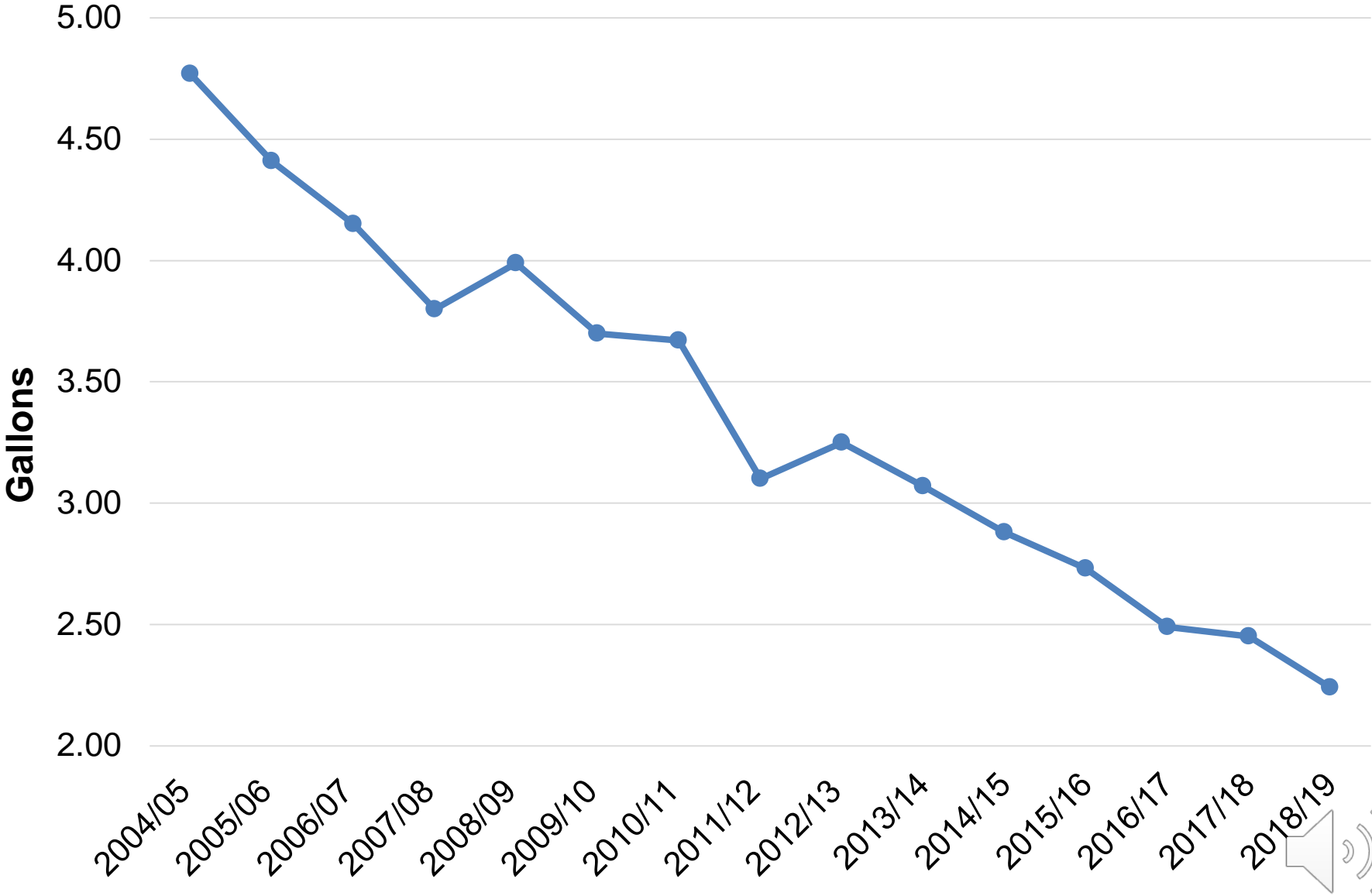
# Orange Juice Imports from Brazil and Mexico into U.S.



# FCOJ Beginning Inventories and Oranges Delivered-in Price

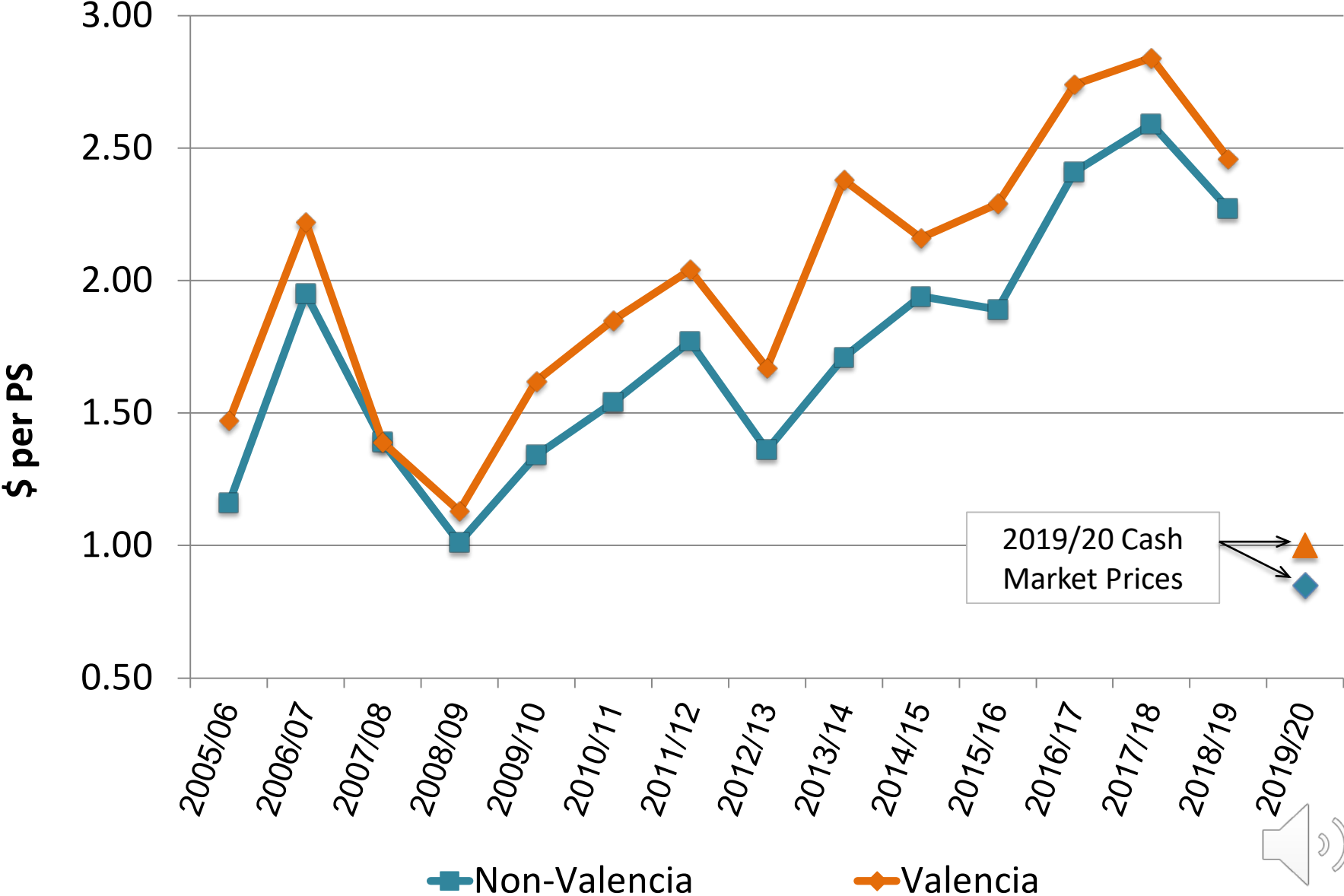


# Orange Juice: Per Capita Consumption in the U.S.



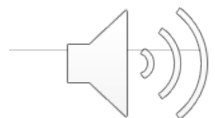
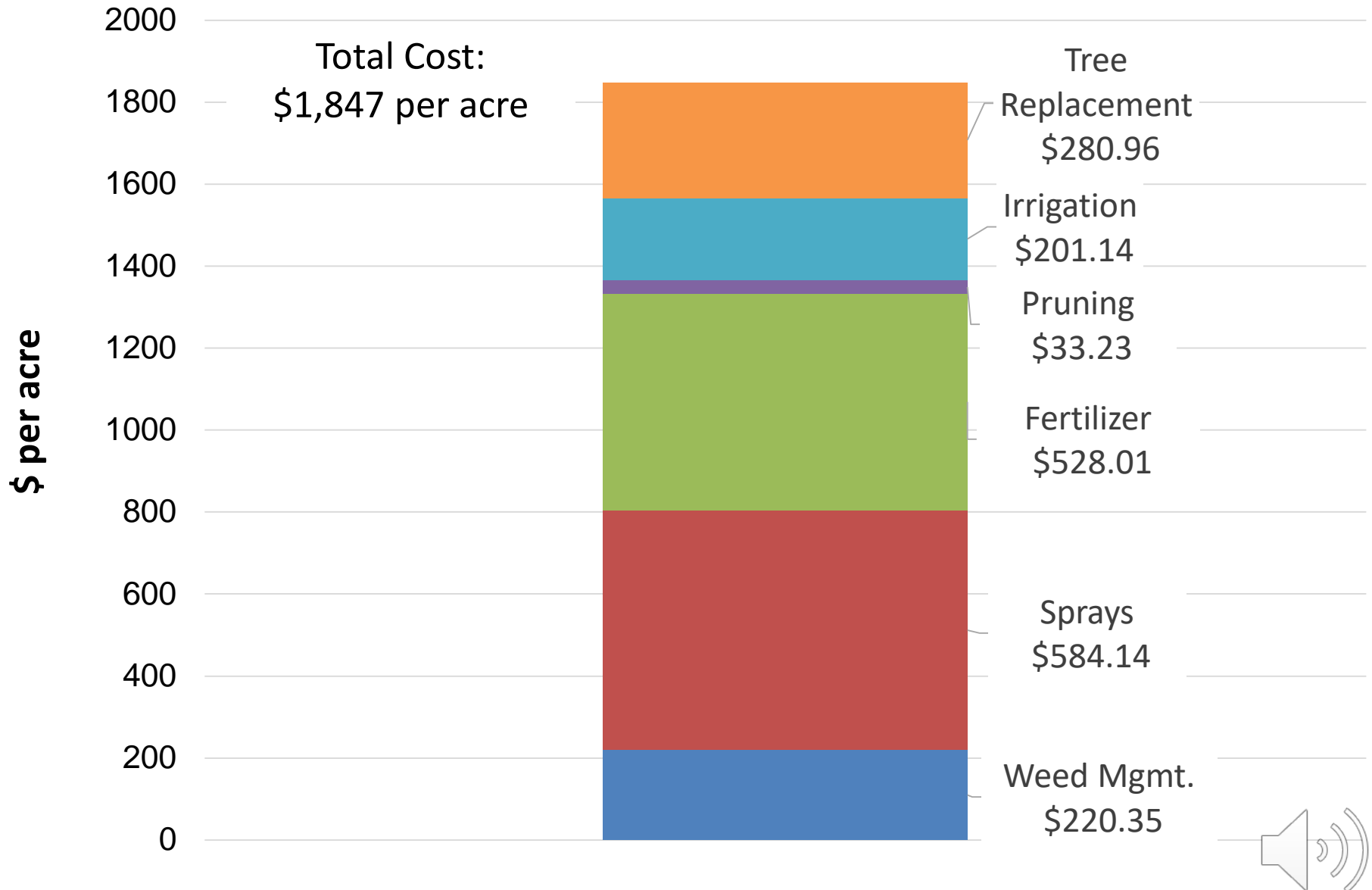
Source: USDA-NASS

# Delivered-in Prices for Processed Oranges in Florida



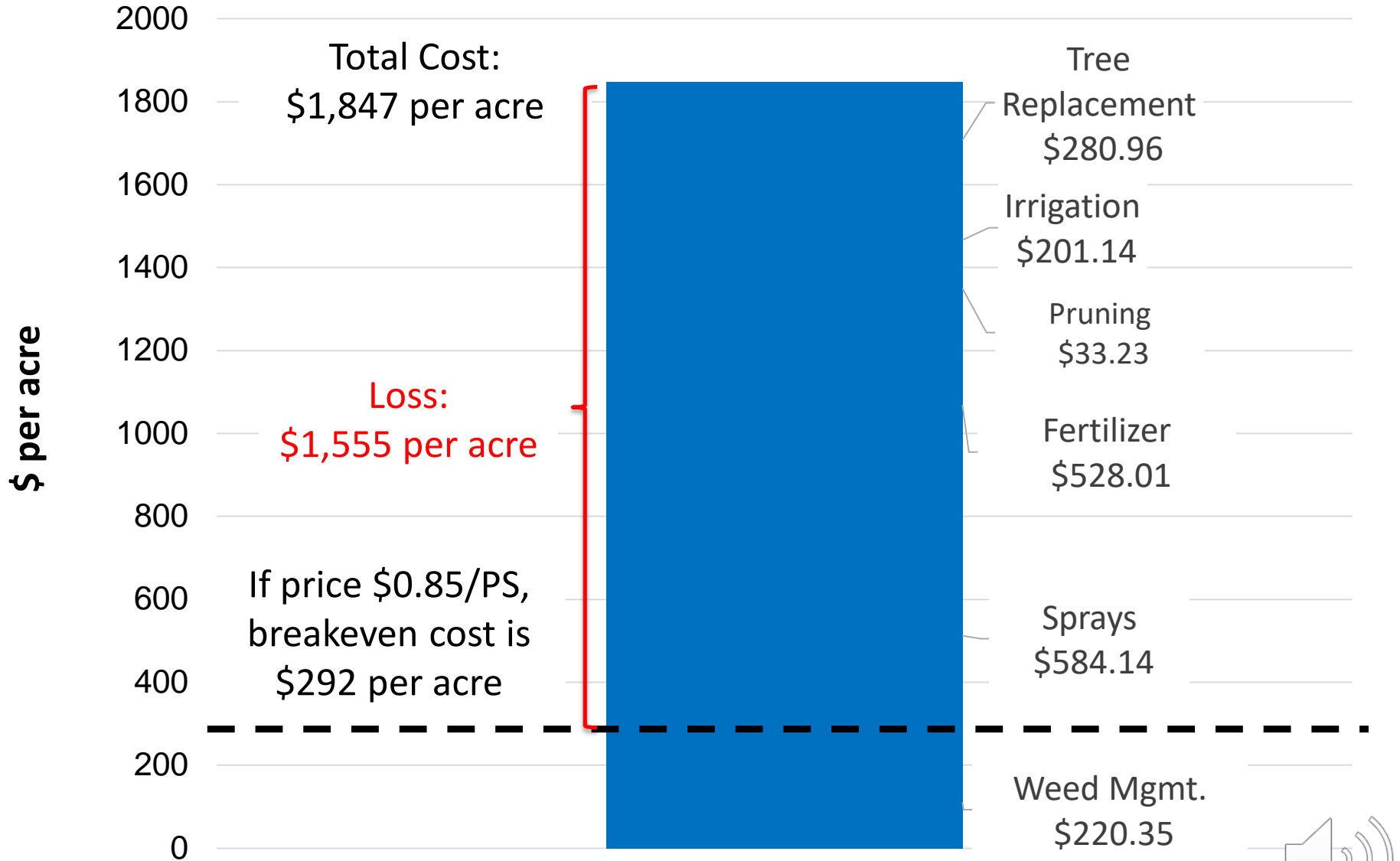
Source: USDA-NASS

# Cultural Cost of Production per Acre for Processed Oranges in Southwest Florida by Program





# Cultural Cost of Production per Acre for Processed Oranges in Southwest Florida by Program



Assuming 5.27 pounds solids per box; harvesting \$2.97 per box; FDOC assessment \$0.07 per box

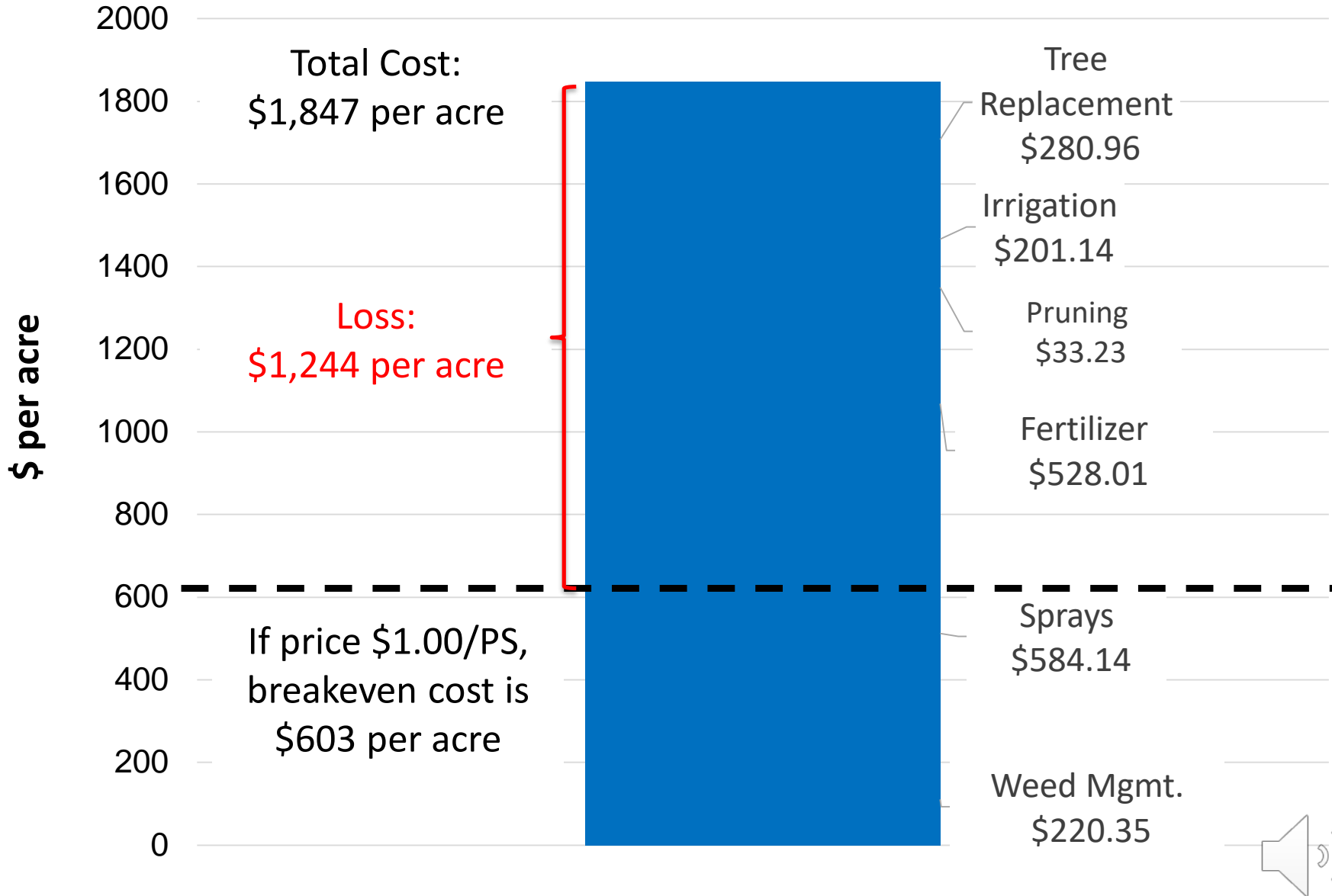


# Breakeven Yield for Early and Mids

Cost per acre (in dollars)	Price per pound solids delivered-in (in dollars)								
	0.85	1.10	1.35	1.60	1.85	2.10	2.31	2.60	2.70
	Yield per acre (in boxes) needed for breakeven								
292	203	106	72	54	44	36	32	27	26
600	417	218	147	111	89	75	66	56	54
700	486	254	172	130	104	87	77	66	63
800	556	290	196	148	119	100	88	75	72
900	625	326	221	167	134	112	99	84	81
1000	695	363	245	185	149	125	110	94	90
1100	764	399	270	204	164	137	121	103	99
1200	834	435	295	223	179	149	132	113	108
1300	903	472	319	241	194	162	143	122	116
1400	973	508	344	260	209	174	154	131	125
1500	1042	544	368	278	224	187	165	141	134
1600	1111	580	393	297	238	199	176	150	143
1700	1181	617	417	315	253	212	187	159	152
1847	1283	670	453	343	275	230	203	173	165
2264	1573	821	556	420	337	282	249	212	203

Assuming 5.27 pounds solids per box; harvesting \$2.97 per box; FDOC assessment \$0.07 per box

# Cultural Cost of Production per Acre for Processed Oranges in Southwest Florida by Program



Assuming 6.11 pounds solids per box; harvesting \$3.05 per box; FDOC assessment \$0.07 per box

# Breakeven Yield for Valencias

Cost per acre (in dollars)	Price per pound solids delivered-in (in dollars)								
	1.00	1.15	1.30	1.45	1.50	1.75	2.01	2.20	2.35
	Yield per acre (in boxes) needed for breakeven								
500	167	128	104	87	83	66	55	48	45
603	202	154	125	105	100	80	66	58	54
700	234	179	145	122	116	92	76	68	62
800	268	205	166	139	132	106	87	78	71
900	301	230	187	157	149	119	98	87	80
1000	334	256	207	174	165	132	109	97	89
1100	368	282	228	192	182	145	120	107	98
1200	401	307	249	209	199	158	131	116	107
1300	435	333	270	227	215	172	142	126	116
1400	468	358	290	244	232	185	153	136	125
1500	502	384	311	261	248	198	164	145	134
1600	535	410	332	279	265	211	175	155	143
1700	569	435	352	296	281	224	186	165	152
1847	618	473	383	322	306	244	202	179	165
2264	757	580	469	394	375	299	247	219	202



Assuming 6.11 pounds solids per box; harvesting \$3.05 per box; FDOC assessment \$0.07 per box

Source: CREC, UF/IFAS

# Management Decisions: Caretaking Spending

- Decrease in prices presents challenging management decisions
- Lag in mgmt. decisions -> effect in 2020/21?
- Using assumptions for yield and quality, found:
  - Average cultural cost of production of \$1,847 requires prices for E&M and Valencias to be \$2.31 and \$2.01 per PS, respectively, just to breakeven
  - Average total cost of production of \$2,264 requires prices for E&M and Valencias to be \$2.70 and \$2.35 per PS, respectively, just to breakeven
- Significantly reducing cost of production to adjust to lower prices will have long-run consequences on grove productivity



# Considerations for 2020/21

- A high percentage of fruit will be out of contract in 2020/21
- Production is down in Brazil and in Mexico
- Processors that were not in the market this season likely to come back (due to their contracts with suppliers abroad expiring)
- Contract prices: What cost of production do they cover? Any margin left?
- Would an industry-wide advertising program stimulate demand?
- How to increase brix to compete with Mexico?
- Impact of Covid-19 on supply and demand



Thank you for attention

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