

Bureau of Citrus Budwood Registration

July 1, 2013 – June 30, 2014

Bureau of Citrus Budwood Registration

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Bureau Chief

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Adam H. Putnam
Commissioner

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Our Vision

The Bureau of Citrus Budwood Registration will be diligent in providing high yielding, pathogen tested, quality budlines that will positively impact the productivity and prosperity of our citrus industry.

Our Mission

The Bureau of Citrus Budwood Registration administers a program to assist growers and nurserymen in producing citrus nursery trees that are believed to be horticulturally true to varietal type, productive, and free from certain recognizable bud-transmissible diseases detrimental to fruit production and tree longevity.

Annual Report 2014
July 1, 2013 – June 30, 2014

Bureau of Citrus Budwood Registration
Michael Kesinger, Chief

This has been a significant year in the Bureau of Citrus Budwood Registration. The Citrus Germplasm Introduction Program (CGIP) based out of Gainesville officially merged into the bureau on June 6th, 2014. Dr. Peggy Sieburth took over the supervision of this program at the beginning of 2014. The CGIP program began moving equipment into their new facilities at LaCrosse, Florida in June 2014 and the certificate of permanent occupancy was issued on July 16, 2014. The new laboratory and greenhouse complex at LaCrosse was dedicated by Florida Agricultural Commissioner Adam Putnam on June 16th. The facility consists of 20,000 square feet of greenhouse and a 5,000 square foot office/laboratory building.

This year, the Florida Legislature allocated \$2 million to build phase two at LaCrosse. Phase two will consist of additional laboratory and greenhouse space for the bureau to back up part of the Chiefland Foundation collection, grow off clean shoot-tip grafted material, rootstock micro propagation and multiply new introductions for industry release.

The Chiefland Citrus Budwood Foundation facility had a major expansion this year as a new free-standing 36,000 square foot greenhouse was built near the main greenhouse range. The greenhouse was completed for \$509,403 in early January, 2014. The focus of the new greenhouse will be to multiply the highest in demand commercial varieties for the citrus industry. Two hundred fifty-three new trees were planted this year, representing 68 cultivars. Budwood was cut on 127 days for 241 separate customer orders.

The Chiefland Foundation distributed 477,055 bud eyes this fiscal year and has distributed over 2 million bud eyes in its six years of operation. The greenhouse ranges now are approximately 3 acres and contain 1,559 citrus trees. The trees planted represent 525 different clonal selections or 390 different varieties. One hundred eighty-three varieties from Chiefland were utilized for nursery propagation. Two hundred ninety-four budwood orders were filled, budwood was cut on 137 days and 51 different customers received propagating material this year. The customer base includes 43 commercial citrus nurseries which represent 81 percent of the Florida citrus nurseries. Six customers were Florida researchers who frequently order budwood for various trials or experiments. Four shipments were made to 3 out-of-state customers. Budwood sales returned \$135,199 to the division and sales were only limited by the amount of available budwood this year.

Earlier in the year the bureau's old Dundee facility (Dundee Biological Control Laboratory) renovation ceremony was attended by Commissioner Adam Putnam. The Dundee facility is now rearing *Tamarixia radiata* wasps that feed on Asian Citrus psyllids. The budwood bureau pulled out of Dundee in 2006 after citrus canker and greening were encroaching in the area.

The Florida Citrus Arboretum which is close to 100% infected with citrus greening has been treated with several antibiotic materials along with some other products. This valuable collection of citrus germplasm is worthy of all restoration attempts to keep the planting viable. We are encouraged to be able to take steps not only to preserve this important resource, but also to help test methods that maybe of use to others.

The citrus industry, reeling from the effects of citrus greening, had its smallest orange crop in 29 years. Citrus nursery production after several years of increase also saw a leveling off of production in the 2013-14 fiscal year. Fifty-two citrus nurseries propagated 4,712,439 trees which is a very slight increase (.25%) over last year

The top varieties propagated are Valencia, Hamlin, Vernia and Glen Navel in that order. The top grapefruit propagated is Ray Ruby followed by Ruby Red and Flame. The top used mandarins were US Early Pride, Orri and Tango.

Swingle, Kuharske, Sour Orange, and X-639 are the top used rootstocks. Swingle remained the top stock although its percentage of use dropped to the lowest level in over 25 years. Nontraditional and newer rootstocks created the most excitement this year and were widely sought after. The newer experimental rootstock seed was non-existent or in short supply. To help remedy the supply issue the department took the unprecedented step of allowing Florida rootstock material to be micro propagated out of state and brought back to Florida under permit. Micro propagation of rootstocks (on a non-commercial scale) is also a goal of the bureau's LaCrosse phase two project.

Notably a high number of new Florida parent candidate trees were entered into the budwood program this year. Citrus breeding programs are desperately searching for germplasm that will have increased tolerance to citrus greening.

Because germplasm that enters the program is usually infected while undergoing field trials, shoot-tip grafting is required to remove the pathogens, followed by complete testing for endemic graft-transmissible diseases. A 162 percent increase in parent entries occurred this year as 110 new candidates were entered. Sixty-nine parents completed shoot-tip grafting/testing and were released this year. The bureau laboratory in Winter Haven ran 44,877 qPCR tests this year. This is a 30 percent increase in tests completed.

Bureau of Citrus Budwood Registration Staff Members

Name	Years	(22 Full time, 4 OPS positions) Position Title
WINTER HAVEN BUDWOOD OFFICE STAFF		
Griffith, Julianne	1 st year	Administrative Secretary 001355
Kesinger, Michael	35	Bureau Chief 001347
Ouellette, Karen	1	Management Analyst II 001353
GREENHOUSE		
Dekkers, Alexander	1	Environmental Specialist I 001371
Jusino, Mercedes	16	Laboratory Technician II 001350
Roth, Meta	13	Agricultural Technician III 001414
GROVE STAFF		
Bouie, James	10	Groundskeeping Supervisor II 001948
Mathis, Robert	14	OPS Agricultural Technician II
Potts, Melvin	13	Plant Protection Specialist 001346
INSPECTION		
Lebron-Rivera, Ana	5	Environmental Specialist I 001435
LABORATORY		
Boles, Sandra	2	Biological Scientist IV 001389
Jackson, Marlene	0	OPS Laboratory Technician I
Litten, Louisa	9	Biological Scientist III 001252
Zipprer, David	1 st year	Biological Scientist III 001244
Sieburth, Peggy	18	Biological Administrator III 001348
Thoresen, David	4	Laboratory Technician IV 001386
LA CROSSE CITRUS GERMLASM INTRODUCTION PROGRAM		
Vacant	*	Biological Scientist III
Jeyaprakash, Ayyamperumal	*	Biological Scientist IV
McElroy, Bryan	*	Laboratory Technician IV
Williams, Lisa	*	Biological Scientist IV
CHIEFLAND CITRUS BUDWOOD FOUNDATION		
Flecker, Rosanna	2	Secretary Specialist 001352
Connolly, Dennis	5	Plant Protection Specialist 001351
McCaskill, Marc	5	Environmental Specialist I 001275
Miller, George	2	OPS Agricultural Technician II
Pittman, Jeremy	1	OPS Agricultural Technician II
Rosson, Ben	8	Operations & Mgmt Consultant Mgr 004313

* Previous DPI service, start budwood 6/6/2014

Citrus Budwood Technical Advisory Committee Members Representative

Grower	Nursery	Regulatory	Research
Peter Chaires	Jim Brewer	Susan Halbert	Kim Bowman
Nick Faryna	John Gose	Michael Kesinger	Fred Gmitter
Tom Hammond	Nate Jameson	Peggy Sieburth	Mark Hilf
Peter McClure	Phillip Rucks	Lisa Williams	Richard Lee
Michael Stewart	Tommy Thayer		

Committee met 12/12/2013

A change in how propagations are counted is incorporated into this year's report. The amount reported is now the amount budded and if the amount budded is not indicated, then the amount cut figure is used.

Only commercial propagations are counted. Budding done at research agencies are not counted, however research propagations made at commercial nurseries are counted.

Participants

Fifty-two active Florida citrus nurseries reported making propagations in the 2013–2014 fiscal year.

Agri-Starts, Inc
AVA Citrus Nursery, LLC
Blue Heron Nurseries, LLC
Brewer Citrus Nursery
Brite Leaf Citrus Nursery, LLC
CitriSun Nurseries, LLC
CW Willis Citrus Nursery, LLC
Darryl's Family Citrus Nursery
Dilley Citrus Nursery, Inc
Drymon's Citrus Nursery
Farkas & Fussell Citrus Nursery
Farkas Citrus Nursery II, LLC
Farmer's Citrus Budding & Nursery
Fiddler's Ridge Farms, Inc
Flood Clinch Lake Nursery
Floyd & Associates, Inc
Franklin D. Fender Citrus Nursery
Gose Growers
Harris Citrus Nursery
Henry Crutchfield, Inc
Himrod Citrus Nursery
Holmberg Farms, Inc
James H. Albritton
Jerry B. McGill
Just Fruits
K & C Farmer Citrus Nursery
Lora & Carl Simmons Citrus Nursery
Lykes Citrus Management Division
M & M Nurseries, Inc
Melton Family Groves, LLC
Murphy Citrus Nursery, Inc
Navum Valley Farms, Inc
Orange-Co of Florida, Inc
Petteway Growers
Phillip Rucks Citrus Nursery, Inc
Philmon Citrus Nursery
Rasnake Citrus Nursery
Reclamation Trees
Record Buck Farms
Richard Wright Citrus Nursery
Robert J. Barben, Inc
Sawmill Citrus Nursery, LLC
South Ridge Citrus Nursery, Inc
Southern Citrus Nurseries, LLC
Southern Gardens Citrus Nursery, LLC
Stinson Citrus
Sun Ag, Inc
Tiger Creek Citrus Nursery
Timmermann's Citrus Nursery
W. E. Green & Sons Citrus Nursery
W.W. Citrus Nursery
Wards Nursery, Inc

Citrus Nursery Activity

Nursery propagations starting this fiscal year are counted by amount budded instead of amount cut. When the amount budded is unknown the amount cut figure is used. The database field is labeled amount reported.

4,712,439
Nursery
Propagations
made in
2013-2014

52 Active
Nurseries

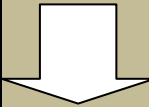
Nursery Size	Number of Nurseries				
# of Propagations	2014	2013	2012	2011	2010
<1,000	3	3	2	4	2
1,000-10,000	9	7	7	5	9
10,000-25,000	9	8	8	7	9
25,000-50,000	8	7	10	8	11
50,000-75,000	5	5	8	6	1
75,000-100,000	5	5	1	3	2
100,000-200,000	6	6	3	3	8
200,000-400,000	5	4	7	5	2
400,000-600,000	2	3	1	1	1
>600,000	0	0	0	0	0
	52	48	47	42	45

	2014	2013	2012	2011	2010
Propagations Change by	11,711	759,679	805,723	134,140	(763,073)
Percent Change (increase or decrease)	.3%	19.3%	25.7%	4.5%	(20.3)%
Nurseries Increasing Production	25	18	26	22	18
Nurseries Decreasing Production	21	24	14	17	24
New or Resumed Production	5	6	7	3	3
Nurseries Not Propagating	1	4	2	6	2
Average # of Propagations per Nursery	90,624	97,932	83,672	74,517	66,520

Propagations by County		Propagations	%
1	Polk	2,164,435	45.93
2	Hillsborough	634,970	13.47
3	Highlands	574,222	12.19
4	Gilchrist	252,901	5.37
5	Sumter	222,065	4.71
6	Hardee	204,999	4.35
7	Orange	185,076	3.93
8	Lake	106,485	2.26
9	Charlotte	104,372	2.21
10	Pasco	93,883	1.99
11	Desoto	77,377	1.64
12	Taylor	46,077	0.98
13	St. Lucie	32,636	0.69
14	Indian River	8,666	0.18
15	Wakulla	2,110	0.04
16	Hernando	1,920	0.04
17	Sarasota	245	0.01
Total		4,712,439	
Propagations made by research agencies are no longer counted in this report. However, propagations made by commercial nurseries for research trial plantings are reported.			

Florida Citrus Nurseries
4th straight year of increased nursery production
Propagations are essentially identical to last year
Nursery propagations increase by only .3%
201 different varieties were propagated
255 different clones were propagated
204,889 propagations were proprietary
86 propagated selections were proprietary
5 Nurseries propagated 44% of the trees
10 Nurseries propagated 66% of the trees
15 Nurseries propagated 77% of the trees
Homeowner market is usually between 3 to 12 % of nursery production

Program Facts
Voluntary Registration since 1953
Mandatory Registration since 1997
Mandatory Greenhouse Production 2007
969 budwood participants 1953-2014
183,146,053 registered propagations since 1953

Nursery Activity by Year					 Years	Most important		Foundation	
Registered Nursery Propagations	# Active Nurseries	New Participants ²	Registration Fees			Top Variety	Top Rootstock	Bud Cutting	Budwood Revenue ¹
932,754		180	\$3,120.00		1953-1959	Hamlin	Rough Lemon	1st	
18,024,485		344	\$36,415.00	1 st Foundation at Haines City	1959-1969	Valencia	Rough Lemon	Foundation between 1959-1974 1,062,455	
1,160,310	25	1	\$1,904.00		1969-1970	Valencia	Rough Lemon		
1,659,983	28	2	\$701.00		1970-1971	Valencia	Rough Lemon		
1,679,599	30	3	\$386.00		1971-1972	Marsh	Sour Orange		
1,519,508	27	4	\$252.00	Foundation moves to Dundee	1972-1973	Valencia	Sour Orange	0	\$7,038.29
1,261,532	20	1	\$625.00		1973-1974	Valencia	Sour Orange	0	\$72.70
1,333,611	21	2	\$1,019.00		1974-1975	Valencia	Carrizo	0	0
1,314,201	19	2	\$1,278.00		1975-1976	Valencia	Carrizo	35,553	\$263.75
1,462,676	22	3	\$707.00	Start Shoot-tip Grafting	1976-1977	Valencia	Carrizo	102,711	\$147.50
1,685,646	20	3	\$489.00		1977-1978	Hamlin	Carrizo	249,304	\$6,695.35
2,090,481	23	6	\$341.00		1978-1979	Valencia	Carrizo	354,677	\$4,262.85
2,130,978	28	8	\$610.00		1979-1980	Hamlin	Carrizo	715,069	\$16,212.90
2,963,288	26	18	\$1,172.00		1980-1981	Hamlin	Carrizo	1,359,612	\$40,488.38
3,659,115	36	18	\$621.00		1981-1982	Hamlin	Carrizo	1,586,208	\$77,777.67
5,066,071	43	20	\$2,309.00		1982-1983	Hamlin	Sour Orange	1,340,557	\$86,037.89
3,465,164	51	13	\$5,916.00		1983-1984	Hamlin	Carrizo	502,642	\$36,221.46
4,068,128	49	33	\$3,106.00		1984-1985	Hamlin	Carrizo	298,294	\$11,189.92
4,039,643	61	42	\$4,778.00		1985-1986	Hamlin	Sour Orange	357,850	\$23,527.68
6,192,521	93	30	\$10,972.00		1986-1987	Hamlin	Carrizo	450,769	\$93,555.15
5,454,524	94	18	\$5,488.00	Start Immokalee	1987-1988	Valencia	Carrizo	360,854	\$42,575.31
7,239,731	80	14	\$8,788.00		1988-1989	Valencia	Swingle	187,535	\$15,981.95
5,040,416	68	4	\$6,034.00		1989-1990	Valencia	Swingle	80,871	\$5,516.98
6,879,429	78	16	\$9,747.00		1990-1991	Valencia	Swingle	169,134	\$28,929.90
4,609,293	60	9	\$10,467.00		1991-1992	Valencia	Swingle	206,738	\$43,110.87
2,781,569	44	3	\$14,119.00		1992-1993	Valencia	Swingle	221,645	\$18,196.83
3,078,358	39	0	\$8,310.00		1993-1994	Valencia	Swingle	223,357	\$13,941.30
2,143,943	30	0	\$3,064.00		1994-1995	Valencia	Swingle	145,807	\$10,102.10
3,824,008	51	9	\$17,880.00	Mandatory Program	1995-1996	Valencia	Swingle	364,985	\$11,971.00
5,521,998	65	44	\$29,898.04		1996-1997	Valencia	Swingle	359,088	\$24,179.27
5,831,473	76	29	\$29,390.92		1997-1998	Valencia	Swingle	379,867	\$18,539.74
5,940,162	73	11	\$21,224.82		1998-1999	Valencia	Swingle	369,314	\$29,809.15
5,846,446	75	21	\$24,143.60		1999-2000	Valencia	Swingle	217,974	\$28,718.40
5,575,773	74	12	\$27,509.60		2000-2001	Hamlin	Swingle	159,346	\$21,423.55
5,846,373	71	8	\$25,455.80		2001-2002	Hamlin	Swingle	231,598	\$28,649.88
BCRs 4,898,157	60	8	\$22,204.60		2002-2003	Hamlin	Swingle	219,362	\$18,584.65
696 3,971,782	53	8	\$20,825.40		2003-2004	Hamlin	Swingle	161,899	\$16,746.06
414 2,145,259	46	4	\$9,082.40		2004-2005	Hamlin	Swingle	145,025	\$15,647.00
249 1,413,316	35	3	\$13,116.00		2005-2006	Hamlin	Swingle	47,248	\$5,383.05
418 2,592,466	41	1	\$34,587.00	Greenhouse Production	2006-2007	Valencia	Swingle	183,531	\$2,449.76
795 3,546,896	42	1	\$39,580.00		2007-2008	Hamlin	Swingle	41,221	\$5,017.65
766 3,764,259	44	4	\$41,285.75		2008-2009	Hamlin	Swingle	132,989	\$28,290.27
776 3,001,186	45	2	\$38,985.00		2009-2010	Valencia	Swingle	241,650	\$55,395.71
784 3,135,326	42	0	\$51,402.00		2010-2011	Valencia	Swingle	385,330	\$96,053.00
937 3,941,049	47	1	\$61,015.00		2011-2012	Hamlin	Swingle	515,007	\$119,926.40
938 4,700,728	48	5	\$69,135.00		2012-2013	Hamlin	Swingle	528,763	\$135,199.47
997 4,712,439	52	1	\$62,217.00		2013-2014	Valencia	Swingle	477,055	\$114,382.10
183,146,053		969	\$781,675.93		Totals			15,172,894	\$1,358,212.84

Revenue from budwood sales does not include Immokalee Foundation.

¹ Figures from original receipt ledger books

Total budwood cut from original Foundation Grove north of Haines City (1959–1974) 1,062,455 bud eyes.

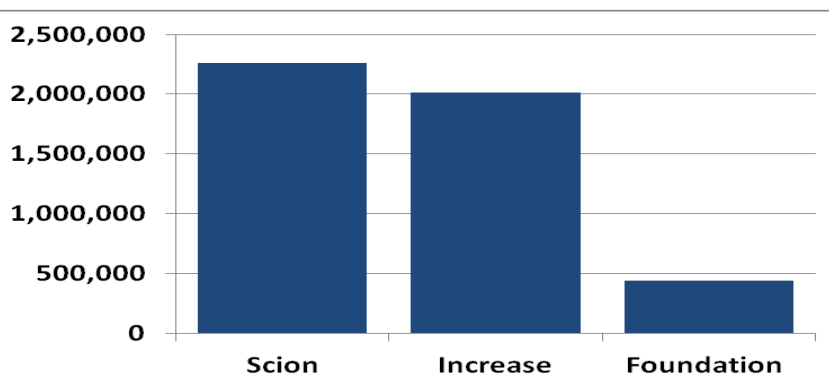
1986-7 Revenue includes 60,000 Ray Ruby eyes distributed at \$1 per bud eye.

Since 2013-14 the figures in the remainder of this report only reflect commercial participants, does not count research or extension.

15,172,894 Bud Eyes Distributed from Foundation Trees (1959 – 2014)

Budwood Source Trees

Increase
& Scion



Increase Trees 42.7% of propagating material

	2014	2013	2012	2011	Each BCR that establishes an IB is considered a separate IB. There were 298 IBs used with an average of 6,757 eyes cut per block. The life span of an increase block is a maximum of 36 months.
Bud eyes cut from Increase Blocks (IB)	2,013,617	1,710,631	1,431,356	1,200,813	
% of all B/W originating from IB	42.7%	36.4%	36.3%	38.3%	
# Nurseries using Increase Blocks	34	28	33	30	

Increase trees can originate from scion trees or Chiefland foundation budwood

Scion Trees 47.9% of propagating material

Category		# Trees	Bud Eyes Cut	Trees Cut	Average Buds Cut	Facts	
Seed Source		5,461				Participants with Scion Blocks	34
Budwood Scion		3,786				% of Nurseries with Scion Blocks	65
Sweet Orange		2,801	1,950,265	1,587	1,229	Number of Scion Blocks (Budwood)	39
Grapefruit		271	64,383	105	613	Number of Scion Blocks (Seed)	32
Mandarin		469	160,672	148	1,086	Number of nurseries using Scion B/W	38
Lemon/Lime		127	40,067	44	911	Average B/W Scion Trees per Participant (28)	135
Pummelo		37	1,3943	11	1,268	Average Seed Trees per Participant (19)	287
Kumquat		32	5,034	9	559	Overall Budwood Scion Cultivars	189
Other		49	23,547	28	841	Overall Seed Source Varieties	47
Total		9,247	2,257,911	1,932	1,169	Number of scion trees witnessed (STM) (785 R/S, 35 B/W)	820
						Inspector days STM	16

Bud Yield - Scion Trees

New Scion trees must originate from Chiefland foundation budwood

Sweet Orange		Grapefruit		Mandarin		Average (all types)	
Average	Maximum	Average	Maximum	Average	Maximum	Average	Maximum
1,229	22,920	613	3,080	1,086	6,342	1,169	22,920

Tree Age Scion Trees (budwood & seed source) Number of trees

	1 year	2 years old	3 years old	4 years old	5 years old	6 Plus	Total
Seed	785	1,538	296	317	582	1,943	5,461
B/W	35	17	470	278	703	2,283	3,786
Total	820	1,555	766	595	1,285	4,226	9,247

Category Source trees (Bud eyes cut by year) (Percent of budwood)

Category	2014	%	2013	%	2012	%	2011	%	2010	%
Foundation	440,911	9.4	519,431	11.1	507,843	12.9	379,989	12.1	241,650	8.1
Scion	2,257,911	47.9	2,470,666	52.6	2,001,850	50.8	1,554,524	49.6	1,502,939	50.1
Increase	2,013,617	42.7	1,710,631	36.4	1,431,356	36.3	1,200,813	38.3	1,256,597	41.9

* The figures from the database may be lower or higher than the figure actually cut from Chiefland. If the budwood is going for research, the reports are not entered into the propagation database; therefore, the figures may appear lower. Some years' Bud Cutting Reports from the previous fiscal year were received after the cutoff date and entered into the next year's database. This is why the figure may be slightly higher than the actual number cut. Bud Cutting Reports are normally accepted until July 15, after which the database is closed and any straggler reports are entered into the following year's database.

Budwood Source Trees in Scion Plantings

3,786 Trees

Cultivars and number of trees available for cutting budwood

Ambersweet 14	1	Key Lime	15	Pineapple 27	9	Var Pink Lemon	9
Ambersweet 65	2	Key Lime Giant	2	Pineapple 53-10-10	14	Verna Le 203-13 ®	6
Ann Sat ®	1	Key Lime Thornless	4	Pineapple 60	8	Verna Le 203-9 ®	3
Baboon Le	6	Kimbrough Sat	6	Pineapple Sdless	4	Vernia 15	14
Bearss Le	9	King	4	Pink Sensation Pum	3	Vernia 16	2
Blue Lake Orange	3	Kishu Sdless	1	Ponderosa Le	7	W Murcott	12
Brown Select Sat	12	Lakeland Lqt	6	Ponkan	18	Wash Navel 18	12
Budd Blood DPI-82	4	Lane Navel	8	Queen 25	4	Wash Navel 19	4
Buddhas Hand	1	Lee	2	Rasnake Tangelo ®	1	Wash Navel F-60-13	1
C latipes 203-10 ®	3	Lemonquat	2	Ray Ruby Gft	63	Wekiwa	1
C latipes 203-14 ®	6	Liang Ping Pum	1	Red Lime	4	Westin 13	1
Calamondin	8	Lisbon Le	2	Red Shaddock	1	Westin 2	1
Cara Cara Navel	33	Long Ft Kum	5	Rio Red Gft	43	WG Mandarin 02 ®	6
Centennial Kum	2	M-7 Early Navel ®	5	Robinson	5	WG Mandarin 03 ®	3
Chinotto S/O	2	Marisol Clem	3	Roble	7	WG Mandarin 05 ®	1
Clementine	1	Marsh Gft 57-4	21	Rohde Red 472	50	WG Mandarin 14 ®	1
Daisy	1	Marsh Gft F-58-6	10	Round Lime	1	WG Mandarin 17 ®	1
Dancy 59-8	15	Marumi Kum	3	Royal Gft	3	WG Mandarin 19 ®	1
Dream Navel	3	Meiwa Kum 27-29	16	Ruby Red Gft	73	WG Mandarin 32 ®	2
Duncan Gft 228 ®	6	Melogold	1	Ruby Sweet 10	2	WG Mandarin B-22 ®	1
Duncan Gft 56-33	2	Merav ®(ISR)	5	Ruby Sweet 24	1	WG Mandarin B-23 ®	2
Duncan Gft 57-19	7	Meyer Le	25	Sanboka	6	WG Mandarin B-24 ®	3
Early Pride ®(NV)	10	Midknight	2	Sanguinelli B/O	7	WG Mandarin B-26 ®	1
Earlygold	16	Midsweet	148	Shasta Gold ®(NV)	1	WG Mandarin B-27 ®	2
Eureka Le	8	Minneola	42	Shiranui (FL)	10	WG Mandarin B-31 ®	2
Eureka Le 404	3	Moria ®(ISR)	1	Siamese Swt Pum	4	WG Mandarin B-37 ®	1
Fallglo	15	Moro B/O 3	2	Star Ruby Gft	6	WG Mandarin B-42 ®	1
Fertic Te	4	Moro B/O 50	4	Sugar Belle ®(NV)	1	WG Mandarin C-01 ®	1
Fina Sodea Clem	1	Murcott	44	Summerfield Navel	6	WG Mandarin C-04 ®	2
Finger Lime	3	Nagami Kum	6	Sunburst	57	WG Mandarin C-25 ®	1
Finger Lime Giant	6	Nakon Pum	1	Tahoe Gold ®(NV)	1	WG Mandarin C-26 ®	1
Finger Lime Red	1	Navel Gft	1	Tami ®(ISR)	3	WG Mandarin C-34 ®	2
Flame Gft	33	Nectar ®(ISR)	5	Tango ®(NV)	14	WG Mandarin C-35 ®	2
Fremont	1	Nova	6	Tarocco B/O 18	3	WG Mandarin C-37 ®	1
Glen Navel 11	119	Nules Clem	8	Temple	11	WG Mandarin C-42 ®	1
Glen Navel 12	1	Orlando	20	Temple Sdless	1	WG Mandarin C-43 ®	2
Gold Nugget ®(NV)	2	Oroblanco	9	Thompson Gft	9	WG Mandarin C-44 ®	1
Hamlin 4-1	1149	Orri ®(ISR)	16	Triumph Gft	1	WG Mandarin E-22 ®	1
Hamlin 8-4	54	Ortanique	7	Ugli	1	WG Mandarin E-26 ®	1
Hamlin 8-5	27	Osceola	3	Valencia 14-19	748	WG Mandarin E-28 ®	1
Harvey Le	3	Owari Sat 25	5	Valencia 14-31	72	White Tangelo	1
Hirado Pum	16	Owari Sat 874	7	Valencia 55-23	4	Wild Turkey Navel	3
Hirado Pum 939	1	Owari Sat F-60-23	7	Valencia 55-4	222	Winola ®(ISR)	2
Itaborai 5	1	Page	9	Valencia CREC-1465 ®	2	Xie Shan Sat	2
Itaborai 6	2	Parson Brown 56	2	Valencia Navel 522	13	Yellow Gft ®	1
Kaffir Lime	15	Persian Lime	27	Valquarius CREC-1462	2	Yosemite Gold ®(NV)	1
Kedem ®(ISR)	5	Pineapple 150	2	Var Minneola	5	Yuzu	3

Seed Source Trees

5,461 Trees

Cultivars and number of trees available for extracting seed

Abers S/O	4	Citr C-35 9	3	P Tri Rubidoux	13	Swingle 227	113
Benton 424	40	Citrum 80-9	29	P Tri Wacissa	171	Swingle 55	889
Bittersweet 14	19	Cleopatra F-1-7	88	Rangpur Li	1	Troyer	6
Bittersweet 400	18	Cleopatra F-47-2	47	Ridge Pi	10	US-802	267
C-146	5	Dickinson	2	Rough Lemon 199	27	US-812	92
C-22 Bitters	4	Flying Dragon	52	Rough Lemon Red	34	US-852	8
C-54 Carpenter	6	Furr	42	Smooth Flat Sev	47	US-897	464
C-57 Furr	4	Goutou 3	20	Sour Orange -	5	US-942	97
Carrizo 16	97	Kinkoi	260	Sour Orange 49-7	522	Volkamer Le	71
Carrizo 330	189	Kuharske 10	653	Sour Orange 50	6	Willits	43
Citr C-32	40	Kuharske 18	90	Sun Chu Sha	75	X-639	508
Citr C-35	241	Morton	37	Sweet Lime	2		

The age and condition of the trees will determine amount of seed or budwood available.

Chiefland Foundation

2.9 acres

Budwood Foundation Trees

9.4% of propagating material

Statistics	2014	2013	2012	2011	2010
# Total Trees	1,559	1,322	1,105	1,160	1,091
# Varieties	390	379	309	316	299
# Clones	525	476	390	370	338
# Customers	51	41	37	31	36
FL Nurseries customers	43	36	34	26	29
# Days B/W cut	137	127	121	96	78
# B/W cuttings	294	241	238	176	185
# Trees Planted	253	250	54	105	120

Budwood Cut by Quarter					
	1 st	2 nd	3 rd	4 th	Total
2007-08	0	0	6,183	35,038	41,221
2008-09	18,685	27,764	32,287	54,253	132,989
2009-10	36,778	40,530	51,742	112,600	241,650
2010-11	140,914	45,101	84,119	115,196	385,330
2011-12	184,772	69,430	96,519	164,286	515,007
2012-13	168,972	105,599	102,533	151,659	528,763
2013-14	158,717	109,876	112,155	96,307	477,055

First budwood cutting 1/10/2008

2,322,015 Total buds cut 2008 – 2014

Bud Cutting	2014	2013	2012	2011	2010	2009	2008
# Bud eyes cut	477,055	528,763	515,007	385,330	241,650	132,989	41,221
# Varieties cut	186	139	130	114	125	139	78
# Clones cut	230	157	150	124	135	145	84
# Trees cut	538	451	460	441			
% of all budwood originating from CH	9.4	11.1	12.9	12.1	8.1	3.7	1.2
% increase/decrease of B/W cut from previous year	(9.8)	2.7	34	59	82	223	

The bud cut figures from the database may be lower or higher than the figure actually cut from Chiefland. On page 7 the figures are used from the database so that the percentages relate to what was actually reported during the fiscal year. Some years' Bud Cutting Reports from the previous fiscal year were received after the cutoff date and entered into the next year's database. The Chiefland figures used on this page are the actual number of bud eyes cut from Chiefland during that fiscal year. This is why the figure is slightly higher than the number in the database and that is reported on page seven. Bud Cutting Reports are normally accepted until July 15, after which the database is closed and any straggler reports are entered into the following year's database.

Citrus Types represented	# Trees	# of different selections	Percent of the Repository	Bud Eyes Cut	% Cut of total
Sweet Orange	647	124	41.5%	302,498	63.4%
Mandarin	402	146	25.8%	79,744	16.7%
Grapefruit	121	34	7.8%	64,892	13.6%
Lemon & Lime	88	48	5.6%	7,698	1.6%
Rootstocks	113	68	7.2%	8,670	1.8%
Pummelo	107	53	6.9%	6,257	1.3%
Others	81	52	5.2%	7,296	1.5%

Origin of Chiefland Sources	Total Trees	# Varieties	# Restricted Cultivars	205 of the cultivars at Chiefland have propagation restrictions. All varieties are restricted until released.
USDA origin	345	147	46	
University of Florida origin	351	166	140	
CGIP origin	206	45	18	
Other sources	657	32	1	

Chiefland budwood qualifies for use as increase budwood for up to 36 months. These trees can become qualifying scion trees if witnessed by DPI inspectors into an approved structure and tested.

Revenue collected from foundation budwood sales (does not include Immokalee)									
2014	2013	2012	2011	2010	2009	2008	2007	2006	2005
\$114,382.10	\$135,199.47	\$119,926.40	\$96,052.62	\$55,395.71	\$28,290.27	\$5,017.65	\$2,449.76	\$5,383.05	\$15,647.00

Cultivars at Chiefland: Number of Trees and Budwood Cut 2013-2014

Budwood can only be sold to registered Florida citrus nurseries or citrus research agencies.

Some varieties are unavailable as they are not yet released and others may only be available to nurseries with license agreements.

Cultivar # Trees Amount Cut

Cultivar	#	Eyes
Abers S/O	1	
Acid Fruit Hyb CREC-520 ®	1	60
Acid Fruit Hyb CREC-840 ®	2	24
Akca Sek	1	
Ambersweet 65	3	2030
Atalantia	1	
Baboon Le	1	50
Bahianinha Navel	11	
Barao CREC ®	1	
Bearss Le	7	210
Benton 424	1	148
Bergamot	1	70
Bigaradier Apepu S/O	1	
Bittersweet 400	1	
Bloomsweet Gft	1	
Blue Lake Orange ®	1	
Bouquet	1	30
Brazilian Le	1	50
Brown Select Sat	3	250
Budd Blood DPI-82	3	159
Buddhas Hand	2	40
Burgundy Gft	1	
C excelsa	1	
C macrophylla 226	1	
C micrantha	1	
C neoaurantium	1	
C tachibana	1	
C-146 CREC-0026	2	150
C-22 Bitters CREC-0023	2	122
C5282 ®	2	
C-54 Carpenter CREC 0024	2	115
C-57 Furr CREC-0025 ®	2	
Cadenera	1	
Calamandarin	1	15
Calamondin	4	1110
Cameron Le	1	50
Cara Cara Navel	16	13103
Carrizo 16	3	170
Carvalho	1	
Centennial Kum	2	75
Changsha	1	65
Chang + Ben CREC -0034 ®	2	
Chinese Pum	1	50
Chinotto S/O	1	
Cipo	1	
Citr C-32	1	
Citr C-35	1	262
Citrangelquat Hyb	1	
Citron	2	100
Citrum 80-6	1	
Citrum 80-8	1	
Citrum W-4	1	
Clem X Yuzu 2	1	60
Clementine	1	190
Cleopatra F-1-7	2	232
Cocktail Gft	1	

Crassifolia Kum	1	
Crisafulli Navel 6	1	39
Daisy	5	120
Dancy 59-8	3	395
Dancy CREC-32 ®	3	
Delta	2	150
Dickinson	1	
Disticha	1	
Dobashi Sat	1	
Dream Navel	5	1450
Duncan Gft 56-33	3	88
Duncan Gft 57-19	2	164
Dweet Tangor	1	
Early Pride ®(NV)	6	8557
Earlygold	2	520
Ellendale	1	
Eloise ®	1	
Enterprise	1	
Erem X Shek	1	
Eremocitrus	1	
Escondido Le	1	50
Etrog Citron	1	690
Eureka Le	2	660
Eureka Le 404	1	475
Eustis Lqt	1	
Everbearing Le	1	50
Fairchild	4	12
Fallglo	3	3790
Fastrimedin	1	
Fertic Te	3	90
Fina Sodea Clem	5	3895
Finger Lime	1	
Finger Lime Giant	3	345
Finger Lime Red	3	250
Fisher Navel	2	
Flame Gft	7	8815
Flying Dragon	3	
Folha Murcha CREC ®	1	
Fortune	1	12
Foster Gft	1	
Fremont	1	
Fukumoto Navel	2	
Furr	9	30
Gardner	3	
Gillets	1	
Glen Navel 11	36	12156
Gold Nugget ®(NV)	4	
Goutou 3	1	48
Grapefruit CREC-0003 ®	2	
Grapefruit Hyb CREC-1 ®	3	
Gft HYB USDA-3227 ®	2	
Grapefruit IFAS-0002 ®	2	
Gft Pink USDA-2651 ®	2	
Hamlin 4-1	55	60,567
Hamlin 8-4	34	8709
Hamlin 8-5	22	16031
Hamlin CREC-32 ®	4	4476

Hamlin USDA-1262 ®	1	
Hamlin USDA-1266 ®	1	
Hamlin USDA-1612 ®	1	
Harvey Le	3	1190
Hesperethusa	1	
Hirado Pum	5	3990
Hirado Pum 939	1	
Homosassa	1	60
Hong Kong Kum	4	
Hudson Gft	1	
Hyuganatsu	1	
Iapar 73 CREC ®	1	
Ice Tea Lemon CREC-6-49	2	50
Ichang Le	1	65
Imperial Gft	1	
Isle O Pine Gft	1	60
Itaborai 6	2	
Iyo Tangor	1	
Jackson Gft	5	3010
Jaffa	1	
Jincheng CREC-175 ®	1	
K X R	1	
Kaffir Lime	2	1265
Kao Phuang Pum	1	
Kara	1	
Karna	1	
Kedem ®(ISR)	5	
Keraji	1	
Key Lime	4	520
Key Lime Giant	2	
Key Lime Thornless	1	45
Khalily	1	
Kimbrough Sat	2	20
King	3	
Kinkoji	2	205
Kinnow	2	
Kinokuni	1	
Kishu Sdless	11	735
Kiyomi Tangor	1	
Kuharske 10	3	40
Lakeland Lqt	3	350
Lane Navel	6	275
Large Pink Pum	1	600
Le Pum 29	2	
Le Pum 32	1	
Lee	3	1280
Lee X 6-8-7	2	
Lemon CREC-0043 ®	1	
Lemon CREC-0044 ®	1	
Lemon CREC-0045 ®	1	
Lemon CREC-0046 ®	1	
Lemon CREC-0047 ®	1	
Lemon CREC-0048 ®	1	
Lemon CREC-0049 ®	2	
Lemon CREC-0051 ®	1	
Lemon CREC-0052 ®	2	
Lemon CREC-0053 ®	1	

Lemon CREC-0054 *	1	
Lemon CREC-0055 *	1	
Lemon CREC-0056 *	1	
Lemon CREC-0058 *	1	
Lemon Hyb CREC-0030 *	2	24
Lemon Hyb CREC-416 *	1	24
Lemonquat	1	
Lemorlime CREC *	2	99
Leo X Te *	1	
Liang Ping Pum	3	20
Lime Hyb CREC-0027 *	2	24
Lime Hyb CREC-0031 *	1	24
Lime Hyb CREC-0061 *	1	
Lime Hyb CREC-10-8 *	2	66
Lime Hyb CREC-33 *	2	36
Lime Sdless Hyb CREC-	2	36
Lime Sdless Hyb CREC-	2	36
Limeberry	1	
Limonia	1	
Lisbon Le	2	135
Long Ft Kum	2	50
Loretto Lime	2	
Lue Gim Gong	1	
M-7 Early Navel *	2	
Madam Vinous	1	
Malayan Kum	1	
Man X Org CREC-0022 *FT	2	
Man X Org CREC-104 *	2	
Mandalate *(NV)	1	
Mandarange CREC-17 *	2	
Mandarange CREC-71 *	4	
Mandared *	3	
Mandarin 50-34	1	
Mandarin CREC-0013 *	2	
Mandarin CREC-0014 *	2	20
Mandarin CREC-0019 *	2	
Mandarin CREC-0064 *	1	
Mandarin CREC-950 *FT	4	1050
Mandarin Hyb CREC-0028	2	
Mandarin Hyb CREC-0029	2	
Mandarin Hyb CREC-1543	2	
Mandarin Hyb CREC-17-25	2	
Mandarin Hyb CREC-18-2	2	
Mandarin Hyb CREC-411	4	570
Mandarin Hyb CREC-4213	2	
Mandarin Hyb CREC-45 *	2	
Mandarin Hyb CREC-48 *	2	
Mandarin Hyb CREC-51 *	2	
Mandarin Hyb CREC-8 *	2	
Mandarin Hyb CREC-86 *	2	
Mandarin Hyb CREC-900	4	652
Mandarin Hyb CREC-916 *	2	
Mandarin Hyb IFAS-0902	1	
Mandarin Hyb IFAS-0904	1	
Mandarin Hyb IFAS-0905	1	
Mandarin Hyb IFAS-0907	1	
Mandarin Hyb IFAS-0908	1	
Mandarin Hyb IFAS-0913	1	
Mandarin Hyb IFAS-1002	1	
Mandarin Hyb IFAS-1004	1	
Mandarin Hyb USDA-2448	2	
Mandarin Hyb USDA-3243	2	
Mandarin Hyb USDA-3267	2	
Mandarin Hyb USDA-544	2	

Mandarin Hyb USDA-	2	
Mandarin Hyb USDA-6377	2	
Mandarin Hyb USDA-6385	2	
Mandarin Hyb USDA-842	2	
Mandarin LS CREC-0068 *	2	
Mandarin Mid CREC-711	2	
Mandarin Sdless CREC-	3	227
Marisol Clem	3	90
Marsh Gft 57-4	5	3355
Marsh Gft 74	5	1350
Marumi Kum	2	65
Mayaca Navel	3	
McCarty Gft	1	
Med Sweet	1	
Meiwa Kum 27-29	6	3280
Melogold	4	50
Merav *(ISR)	5	
Meyer Le	3	780
Micro Inodor	1	
Micro Papu	1	
Midknight	4	
Midsweet	30	15440
Midsweet LS CREC-124 *	4	163
Midsweet LS CREC-23 *	4	
Midsweet LS CREC-231 *	4	
Midsweet LS CREC-33 *	2	
Milam	1	
Miller Blood *	2	
Minneola	5	3415
Moi	1	
Monreal Clem	1	
Moria *(ISR)	4	
Moro B/O 3	3	1235
Moro X TAR	1	
Morton	1	48
Mott Gft	1	
Murcott	5	9975
Murcott LS CREC-19 *	2	
Nagami Kum	5	361
Nakon Pum	3	
Nansho Daidai	1	5
Nasnaran	1	
Natsumikan	1	
Naugle Le	1	50
Navel Gft	2	
Navelo	1	
Nectar *(ISR)	4	
Nine Pound Le	3	
Nippon Oqt	1	
Nocatee	1	
Nordmann Kum	1	
Norton	1	
Nour	4	
Nova	3	77
Nules Clem	3	215
Orange Hyb USDA-4996 *	2	10
Orange Hyb USDA-5113 *	2	
Orange Hyb USDA-6555 *	2	
Orange Hyb USDA-7555 *	1	
Orange Hyb USDA-7650 *	2	
Orange Hyb USDA-7652 *	2	
Orange Jasmine F	1	
Orangequat Hyb	1	
Orlando	3	660

Oroblanco	4	30
Orri *(ISR)	9	3500
Ortanique	5	1255
Ortanique LS USDA-1589	2	30
Osceola	2	
Oval Pink Pum	1	
Owari Sat 25	1	15
Owari Sat 874	5	2330
P Tri	2	
P Tri Rubidoux	1	
P Tri Wacissa	1	
Page	3	1010
Pandan Wangi Pum	1	
Parana Gft	1	15
Parson Brown 56	3	5
Parson Special	1	
Pera 3	1	
Pera 800	1	
Pera 833	1	
Persian Lime	5	1550
Pineapple 53-10-10	5	1500
Pineapple 60	3	150
Pineapple Sdless	5	475
Pink Pum Hyb	1	
Pink Sensation Pum	1	
Pixie Mandarin	3	305
Ponderosa Le	3	115
Ponkan	5	2105
Pope	1	
Procimequat	1	
Pum X Gft CREC-4-1 *	2	
Pummelette CREC-99 *FT	2	195
Pummelo 145	3	
Pummelo 2	1	
Pummelo 3	2	
Pummelo 4	2	
Pummelo 61	1	
Pummelo 837	3	
Pummelo CREC-0002 *PR	2	
Pummelo Hyb CREC-0001	2	
Pummelo Hyb CREC-0004	2	
Pummelo Hyb CREC-0015	2	
Pummelo Hyb CREC-0016	2	
Pummelo Hyb CREC-0017	2	
Pummelo Hyb CREC-0018	2	
Pummelo Hyb CREC-0020	2	
Pummelo Hyb CREC-0021	2	
Pummelo Hyb CREC-1-2 *	2	
Pummelo Hyb CREC-914	4	373
Pummelo Hyb USDA-1629	1	
Pummelo Hyb USDA-1643	1	
Pummelo Hyb USDA-168	1	
Pummelo Hyb USDA-1716	2	
Pummelo Hyb USDA-1728	2	
Pummelo Hyb USDA-1748	2	
Pummelo Hyb USDA-21 *	3	
Pummelo Hyb USDA-6172	2	
Queen 25	3	
Rangpur Li	1	170
Ray Ruby Gft	26	27285
Red Grapefruit CREC-0040	2	
Red Grapefruit CREC-0041	2	
Red Java Pum	1	
Red Lime	1	55

Red Pummelo CREC-1119	2	
Red Pummelo CREC-512	2	160
Red Pummelo CREC-5995	3	194
Red Shaddock	1	
Ridge Pi	1	
Rio Red Gft	12	8305
Robinson	4	410
Roble	6	1600
Rohde Red 10	1	
Rohde Red 101	1	
Rohde Red 109	1	
Rohde Red 11	1	
Rohde Red 472	10	15160
Rohde Red CREC-42 ®	2	20
Rosa CREC ®	1	
Rough Lemon Red	2	80
Round Lime	1	
Royal Gft	1	30
Ruby Red Gft	10	4300
Ruby Sweet 10	2	
Salustiana	1	
Sampson	1	
Sanboka	1	150
Sanguinelli B/O	4	235
Sanguinello Riccio CREC ®	1	
Santa Cat Navel	1	
Seedless Snack CREC ®FT	4	231
Seedless Surprise Gft Hyb	6	1175
Seleta Agrocitros CREC ®	1	
Seleta Branca CREC ®	1	
Seminole	1	
Serra D Agua CREC ®	1	
Sexton	1	
Sha Tian You Pum	3	
Shambar Gft	1	
Shasta Gold ®(NV)	4	
Shekwasha	1	
Shiranui (FL)	4	635
Siamese Pink Pum	3	
Siamese Pum	1	
Siamese Swt Pum	3	595
Silver Hill Sat	3	50
Sinton Citrquat	1	
Smooth Flat Sev	1	108
Sour Orange 49-7	2	900
Star Ruby Gft	4	6300
Succari	1	
Sugar Belle ®(NV)	11	3220
Sugar Belle LS CREC-13 ®	2	
Summer Gold Gft CREC-	2	60
Summerfield Navel	2	2250
Sun Chu Sha	1	80
Sun Hing Pum	3	
Sunburst	5	9255
Sundiatgo	1	
Sunki	1	
Sunquat	1	70
Sunshine	1	
Sunstar	5	
Sweet Lime	1	
Sweet Orange CREC-0037	2	14
Sweet Orange CREC-0038	2	161
Sweet Orange CREC-0066	2	75
Sweet Orange CREC-0067	2	

Sweet Orange CREC-61 ®	6	5325
Sweet Orange IFAS-9901 ®	4	
Sweet Orange Sdless	2	320
Swingle 55	3	5
Sydney Hyb	2	
Tahoe Gold ®(NV)	3	
Tami ®(ISR)	6	
Tango ®(NV)	11	13000
Tarocco B/O 37	1	155
Tavares Lqt	3	95
TDE-1 ®	3	
Te X Or ®	1	
Temple	3	1792
Temple Sdless	3	100
Tetrazyg RS CREC-0009 ®	2	
Tetrazyg RS CREC-0011 ®	2	
Tetrazyg RS CREC-0035 ®	4	2
Tetrazyg RS CREC-0036 ®	1	
Thomasville Citrquat	1	5
Thompson Gft	4	550
Thomson Navel USDA-6 ®	1	135
Thong Dee Pum	1	
Tresca USDA ®	5	
Triumph Gft	1	30
UFR-01 CREC-0033 ®	1	
UFR-02 CREC-0032 ®	1	54
UFR-03 CREC-0060 ®	2	49
UFR-04 CREC-0012 ®	2	108
UFR-05 CREC-0010 ®	1	30
UFR-06 CREC ®	1	30
UFR-17 CREC-0065 ®PR	2	30
Ugli	1	340
Umatilla	1	400
US-119	1	15
US-801	2	
US-802	5	897
US-812	1	847
US-852	3	371
US-896	1	10
US-897	5	526
US-942	5	1125
USDA 105 ®	5	30
USDA 106 ®	8	80
USDA 1344 ®	2	25
USDA 150 ®	2	
USDA 251 ®	4	
USDA 253 ®	4	
USDA 3712 ®	2	20
USDA 4265 ®	2	
USDA 4270 ®	2	
USDA 4321 ®	2	
USDA 4630 ®	4	30
USDA 512 ®	6	537
Valencia 10-12-7	1	
Valencia 12-7	3	2350
Valencia 14-19	12	59534
Valencia 14-31	9	9590
Valencia 51-3	1	
Valencia 55-1	1	1200
Valencia 55-23	1	3000
Valencia 55-28	1	2900
Valencia 55-4	33	20919
Valencia Appleby CREC ®	1	30
Valencia CREC-0062 ®	2	

Valencia CREC-0063 ®	2	20
Valencia CREC-123 ®	2	10
Valencia CREC-1-62 ®	5	
Valencia CREC-65 ®	5	3303
Valencia CREC-7-10 ®	2	20
Valencia Jenner CREC-	2	30
Valencia Late CREC-1013 ®	3	600
Valencia Late CREC-7-2 ®	5	20
Valencia Mid CREC-20 ®	5	3727
Valencia Sdless CREC-221	4	163
Valenfresh CREC ®	4	151
Valquarius CREC-0059 ®	2	10
Valquarius CREC-1462	8	6055
Vangasay Le	1	
Var Minneola	1	10
Var Pink Lemon	5	1160
Var Rough Lemon	1	50
Var Sour Orange	1	
Varn Navel	2	
Vernia 15	9	13973
Vernia CREC-110 ®	4	2085
Volkamer Le	3	200
W Murcott	5	1277
Wash Navel 18	2	3090
Wash Navel 19	5	550
Wekiwa	3	5
Westin 2	2	5000
White Tangelo	1	
Wild Turkey Navel	1	
Willits	1	
Willowleaf Man	1	
Willowleaf S/O	1	
Winola ®(ISR)	1	
X-639	3	1318
Xie Shan Sat	4	235
Yosemite Gold ®(NV)	3	
Yuzu	1	10
		47705

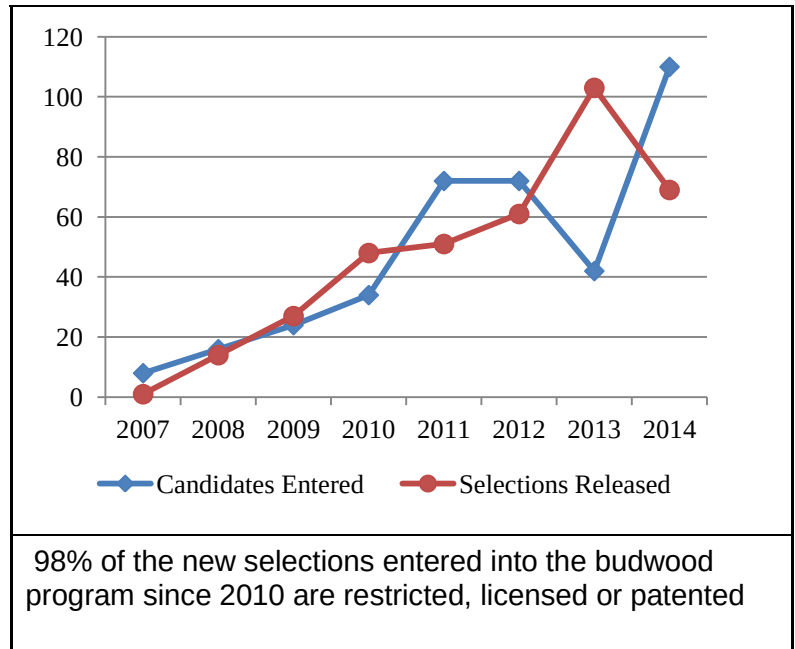
New Florida Parent Candidates

Parents Selected or Bred in Florida

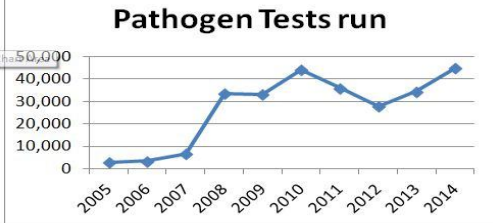
Year	Candidates Entered	Parents Released	Cultivars being Shoot-tip Grafted*
2014	110	69	121
2013	42	103	81
2012	72	61	138
2011	72	51	119
2010	34	48	107
2009	24	27	99
2008	16	14	111

*Number includes some DPI selections also being shoot-tip grafted to remove tristeza virus (not considered new entries).

Entries by Agency	2014	2013	2012	2011
IFAS CREC	48	26	30	32
IFAS Gainesville	9	0	4	10
USDA	51	13	24	0
Bureau / Participant	1	0	3	2
Private / Proprietary	1	3	11	28

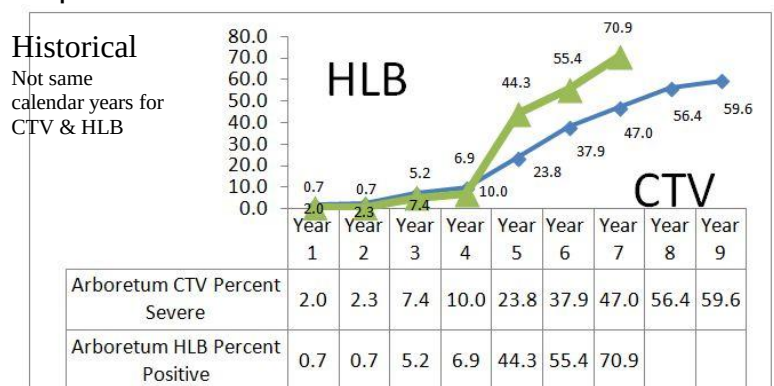


Pathogen Testing (Florida's Budwood Program)

Scion/Foundation/Parent Source Tree testing							Winter Haven Laboratory	
		Tests run						
Pathogen	Test Type	2014	2013	2012	2011	2010		
HLB	qPCR	8,410	7,307	6,481	7,348	8,558		
Tristeza	qPCR	7,657	7,727	7,554	7,744	8,821		
Psorosis	Biological	104	122	58	126	48		
Psorosis	qPCR	2,281	1,523	1,589	1,713	2,468		
Tatter Leaf*	qPCR	6,599	1,501	1,970	4,546	7,583		
Leaf Blotch*	qPCR	6,690	1,523	1,970	4,546	2,601		
Viroid	CEVd, CVd I, III, IV, V (Biological)	159	87	83	89	87		
Viroid	CVd I – V, CEVd (qPCR)	12,977	14,755	8,255	9,953	14,133		
Total		44,877	34,545	27,960	36,065	44,299		
Testing Frequency	HLB & CTV – PCR Annual; * Seed Source every 3 years Psorosis/Viroids/Leaf Blotch – every six years (PCR).							

Citrus Greening in the Florida Citrus Arboretum		
Fiscal Year	# of HLB positive trees	Percent Positive
2014	202	70.9
2013	154	55.4
2012	128	44.3
2011	20	6.9
2010	15	5.2
2009	2	0.7
2008	2	0.7

Comparison of CTV and HLB Infection Rates in the Florida Citrus Arboretum



Florida Parent Tree Introductions			® = Restricted
2014 New Florida Parent Candidates Entries (110)			(Can only distribute to nurseries with license agreements)
These selections began the shoot-tip grafting clean-up process this year and must be fully tested before being released.			

Cultivars			
Grapefruit IFAS-12-04 *	UFR-09 CREC-0093 *	US-1130*	US-1319 *
Mandarin Hyb IFAS-12-01 *	UFR-12 CREC-0094 *	US-1137*	US-1321 *
Mandarin Hyb IFAS-12-02 *	Furr LS CREC-0087 *	US-1271*	US-1481 *
Mandarin Hyb IFAS-12-03 *	UFR-16 CREC-0085 *	US-1280*	White Orange
Mandarin Hyb IFAS-12-06 *	Pummelette CREC-86 *	US-1460*	Furr LS Cybrid CREC-0113 *
Mandarin Hyb IFAS-12-07 *	Rootstock CREC-0088 *	US-2111*	Murcott LS Cybrid CREC-0114 *
Mandarin Hyb IFAS-12-08 *	Acid Fruit Hyb CREC-0095 *	US-1473*	Red Pummelo CREC-0112 *
Sweet Orange IFAS-12-05 *	Lemon Hyb CREC-0096 *	US-1649*	Valencia CREC-0111 *
Mandarin Hyb CREC-0069 *	Lemon Hyb CREC-0097 *	US-1671*	US-2101 *
Mandarin Hyb CREC-0070 *	Acid Fruit Hyb CREC-0098 *	US-1690*	US-2102 *
Mandarange CREC-0071 *	Grapefruit HYB USDA-83179 *	US-1695*	US-2103 *
Mandarange CREC-0072 *	Orange Hyb USDA-4615 *	US-1645*	US-2104 *
Mandarin Hyb CREC-0073 *	Orange Hyb USDA-7651 *	Mandarin Hyb CREC-0103 *	US-2105 *
Mandarin Hyb CREC-0074 *	Orange Hyb USDA-7652LT *	Mandarin Hyb CREC-0104 *	US-2106 *
Grapefruit CREC-0075 *	Mandarin Hyb CREC-0099 *	Mandarin Hyb CREC-0105 *	US-2107 *
Mandarin Hyb CREC-0076 *	Mini-Mandarin CREC-0100 *	Mandarin Hyb CREC-0106 *	US-2108 *
Mandarin Hyb CREC-0077 *	UFR-15 CREC-0101 *	Valencia CREC-0107 *	Rootstock CREC-0115 *
Mandarin Hyb CREC-0078 *	Red Grapefruit CREC-0102 *	Valencia CREC-0108 *	Rootstock CREC-0116 *
Mandarin Hyb CREC-0079 *	US-1279 *	Mandarin Hyb CREC-0109 *	US-2109*
White Mandarin CREC-0080 *	US-1281 *	Mandarin Hyb CREC-0110 *	US-2110*
Mandarin Hyb CREC-0082 *	US-1282 *	WG Mandarin E-27 *	US-1664*
Mandarin Hyb CREC-0083 *	US-1283 *	US-1102 *	US-1673*
Murcott Hyb CREC-0081 *	US-1284 *	US-1103 *	US-1692*
Murcott Hyb CREC-0084 *	US-1287 *	US-1104 *	US-1730*
UFR-07 CREC-0089 *	US-1297 *	US-1105 *	US-1740*
UFR-11 CREC-0090 *	US-1305 *	US-1111 *	US-1741*
UFR-10 CREC-0091 *	US-1516 *	US-1293 *	
UFR-08 CREC-0092 *	Mandarin Hyb IFAS-13-08 *	US-1317 *	

2014 Parent Candidate Selections Released (69)

Completed Shoot-tip Grafting and/or Pathogen Testing

Cultivars			
Acid Fruit Hyb CREC-520 *	Lemon CREC-0051 *	Mandarin Hyb USDA-842 *	UF-01 CREC-0033 *
Assam Lemon *	Lemon CREC-0052 *	Mandarin LS CREC-0068 *	UFR-03 CREC-0060 *
Callie Orange *	Lemon CREC-0053 *	Navel USDA- 3-S*	UFR17 CREC-0065 *FT
Cara Blush Var *	Lemon CREC-0054 *	Orange Hyb USDA-4996 *	Valencia CREC-0062 *
Changsha + Benton CREC-0034 *	Lemon CREC-0055 *	Orange Hyb USDA-6555 *	Valencia CREC-0063 *
Dickinson	Lemon CREC-0056 *	Orange Hyb USDA-7555 *	Valencia Jenner CREC-0042 *
Finger Lime	Lemon CREC-0057 *	Orange Hyb USDA-7650 *	Valquarius CREC-0059 *
Garrett B/O 1 *	Lemon CREC-0058 *	Orange Hyb USDA-7652 *	WG Mandarin B-37 A *
Garrett B/O 3 *	Lime Hyb CREC-0061 *	Pummelo Hyb CREC-0021 *	WG Mandarin C-06 *
Grapefruit Pink USDA-2651 *	Mandarin CREC-0064 *	Pummelo Hyb USDA-1643 *	WG Mandarin C-18 *
Lemon CREC-0043 *	Mandarin Hyb IFAS-11-01 *	Pummelo Hyb USDA-168 *	WG Mandarin C-28 *
Lemon CREC-0044 *	Mandarin Hyb IFAS-11-02 *	Pummelo Hyb USDA-1728 *	WG Mandarin C-31 *
Lemon CREC-0045 *	Mandarin Hyb IFAS-11-08 *	Red Grapefruit CREC-0040 *	WG Mandarin D-04 *
Lemon CREC-0046 *	Mandarin Hyb IFAS-11-10 *	Red Grapefruit CREC-0041 *	WG Mandarin E-22 *
Lemon CREC-0047 *	Mandarin Hyb USDA-2448 *	Summer Gold Gft CREC-0039 *FT	WG Mandarin E-25 *
Lemon CREC-0048 *	Mandarin Hyb USDA-3445 *	Sweet Orange CREC-0066 *	
Lemon CREC-0049 *	Mandarin Hyb USDA-544 *	Sweet Orange CREC-0067 *	
Lemon CREC-0050 *	Mandarin Hyb USDA-57105 *	Tetrazyg RS CREC-0035 *	

These varieties have all been cleaned up and have been released from pathogen testing. They are approved for propagation and planting in Florida, however most of the selections are restricted, patented and/or have license agreements and are not available to propagate without permission of the owner. These selections usually go into a research field testing trial before broader industry release.

Introductions from Outside Florida

Citrus Germplasm Introduction Program (CGIP)

Varieties undergoing pathogen indexing at Gainesville/LaCrosse

Atwood Navel CGIP-201	Daisy SL Mandarin CGIP-191	Nova Mandarin IR CGIP-200	Sukega Grapefruit CGIP-182
Cambria Navel CGIP-179 ^{NV} (ZA)	Hadas CGIP-221	Odem CGIP-219	Taylor Lee LS CGIP-185 (AUS)
Chislett Late Navel CGIP-190 (CA)	Kinnow CGIP-193, LS Mandarin (CA)	Ruby Valencia CGIP-195 (ZA)	Texas Transgenic CGIP-204 thru 218
C latipes CGIP-184	Meravit CGIP-220	Ryan Navel CGIP-186 (AUS)	Wheeny Grapefruit CGIP-183
Clementine Haploid CGIP-180 ^{BP}	Natal Sweet Orange CGIP-138 (BRA)	Setoka Man CGIP-187 ^{NV} (JPN)	

Varieties on list to introduce (Approved by the Citrus Budwood Technical Advisory Committee for introduction)

Alcantara Mandarin CGIP-188 (CA)	Beck Navel CGIP-202	Kankitsu Chukanbohon Nou 5 Gou	Ruby Valencia LS CGIP-203
Amigo Mandarin (Unavailable)	Byron Sunrise Finger Lime CGIP-198	Kankitsu Chukanbohon Nou 6 Gou	Sunset Man CGIP-157 (Unavailable)
Avana 4N CGIP-189 (Sicily)	Imperial 4N Grapefruit CGIP-192 (CA)	Rainforest Pearl Finger Lime CGIP-199	

Historical list of varieties released thru CGIP (1978-2014)

Variety	Release	Status	Variety	Release	Status	Status	Release	Status
Cara Cara Navel CGIP-104	6/1/87	NR	Kishu Seedless CGIP-137	3/1/09	NR	Pummelo A 4N CGIP-169* (AUS)	8/2012	BP
C5282 Mandarin CGIP-153 (Sicily)	7/1/10	R	Kiyomi Tangor CGIP-136	Unrelease	NR, CH	Pummelo B4N CGIP-170* (AUS)	8/2012	BP
Citrus sp. to USDA CGIP-131*	4/10/03	BP	Lane Late Navel CGIP-121	2/12/01	NR	Ray Ruby Gft CGIP-103	6/13/86	NR
Clementine Fina Sodea CGIP-123	9/20/99	NR	M-7 Early Navel CGIP-194	5/15/14	R	Rio Red Grapefruit CGIP-110	3/6/91	NR
Clementine Marisol CGIP-124	11/18/03	NR	Mandalate Tango CGIP-154	4/19/11	R, NV	Sha Tian You CGIP-126	2003	NR
Clementine Monreal CGIP-109	3/27/86	BP	Mandared Mandarin CGIP-166	9/24/13	R	Shaddette CGIP-114,115,117*	1999	BP
Clementine Nules CGIP-125	11/18/03	NR	Melogold Pummelo CGIP-112	5/18/92	NR	Shasta Gold CGIP-159 (CA)	8/14/09	R, NV
Daisy Mandarin CGIP-120	8/25/97	NR	Merav CGIP-146 (Israel)	1/12/09	R, Z	Shiranui Hybrid CGIP-132	5/29/09	FL, Trial
Delta Valencia CGIP-118	5/14/96	NR	Midnight Valencia CGIP-119	8/25/97	NR	Tahoe Gold CGIP-140 (CA)	8/14/09	R, NV
Ellendale Tangor CGIP-84	1986	NR	Moria Murcott CGIP-164	8/11/11	R, Z	Tami CGIP-145 (Israel)	8/18/08	R, Z
Eloise Murcott CGIP-155 (AUS)	9/24/13	R	Murcott 4N CGIP-161 *	2010	BP	Tango CGIP-168 (CA)	8/14/09	R, NV
Etrog Citron CGIP-102	1979	NR	Nectar CGIP-148 (Israel)	1/12/09	R, Z	TDE 1 CGIP-158 (CA)	2008	R
Fisher Navel CGIP-135	1/27/11	NR	Nepal Lemons CGIP-127 thru 130	2003	BP	Tetraploid Clementine CGIP-	2009	BP
Fortunella Crassifolia CGIP-105	1987	NR	Nour Mandarin CGIP-149	Unrelease	NR, CH	Texas Transgenic CGIP -171 thru	9/2012	Part
Fukumoto Navel CGIP-133	1/24/11	NR	Oroblanco CGIP-111	5/18/92	NR	W Murcott CGIP-122	9/20/99	NR
Gold Nugget Man CGIP-139 (CA)	8/14/09	R, NV	Orri Mandarin CGIP-134	4/21/06	R, Z	Winola Mandarin CGIP-165	12/26/10	R, Z
Hudson Grapefruit CGIP-150 4N *	2010	BP	Ota CGIP-160 *	7/1/10	R, BP	Xie Shan Satsuma CGIP-163	2/5/08	NR
Imperial Grapefruit CGIP-151 (CA)	2008	NR	Parana Gft CGIP-167	11/2/12	NR	Yosemite Gold CGIP-141 (CA)	8/14/09	R, NV
Kedem CGIP-147 (Israel)	1/12/09	R, Z	Parsons Special CGIP-101	11/15/78	NR	Moria Murcott CGIP-164	8/11/11	R, Z
Kimbrough Satsuma CGIP-108	4/90	NR	Pixie Mandarin CGIP-181	11/2/12	NR			

Release Date = Date released, 1st B/W cut or sent to Chiefland

CGIP = Citrus Germplasm Introduction Program

BP = Breeding Parents exclusively for breeding

NR= Not Restricted

NV = New Varieties Development & Management Corp.

* = Not maintained at the Chiefland Foundation

Florida Breeding Program Introductions

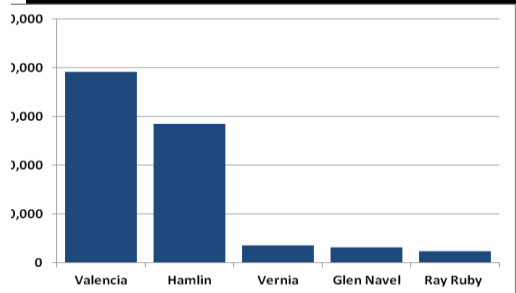
University of Florida Varietal Releases			
Earlygold DPI-441	1999	Sugar Belle DPI-434	2009
Rough Lemon Estes SPB-602-1	1997	Valquarius DPI-435-1462	2009
Itaborai DPI-441	1999	Vernia DPI-441	1999
Milam SPB-402	1964	Westin DPI-441	1999
Ridge Pi SPB-602	1964		
Ruby Sweet (35) DPI-441	1999		

IFA S / NVDMC – Fast Track Evaluation Program		IFAS Pending Release
RBB 7-34	5-1-99-2	C4-6-49
950	914	N7-4
411	C2-5-12	C4-11-19
900	5-1-99-5	C4-16-12
711	N40W-6-3	UFR-17
C4-15-21	N2-28	

USDA Varietal Releases

Ambersweet DPI-817	1/26/1989	Nova SPB-800-41	10/26/1964	Sunstar DPI-800	9/18/1987
Centennial Kumquat DPI-833-3	1993	Osceola SPB-800-58	1959	Swingle DPI-814-55	4/01/1974
Early Pride DPI-846-122 NV	9/24/2009	Page SPB-800-2	1963	US-119	1989
Fallglo DPI-817	5/20/1987	Pineapple Seedless DPI-842-30	1/27/2009	US-802 Rootstock	2007
Flame Grapefruit DPI-800	7/13/1987	Pummelo DPI-839-145	1994	US-812 Rootstock	2001
Gardner DPI-800	9/18/1987	Robinson SPB-800-3	1959	US-852 Rootstock	1999
Giant Key Lime DPI-839-1	1994	Seedless Surprise DPI-842-2	2009	US-897 Rootstock	2007
Lee SPB-800-56	1959	Sun Chu Sha DPI-814	12/13/1988	US-942 Rootstock	2010
Midsweet DPI-800	9/18/1987	Sunburst DPI-800-5	1979		

(Varieties released since the inception of the budwood program in 1953. Other varieties such as Carrizo, Fortune, Fremont, Lakeland Limequat, Minneola, Orlando, Sampson Tangelo, Seminole, Silverhill Satsuma, Tavares Limequat, and Wekiwa were released prior to 1953.)



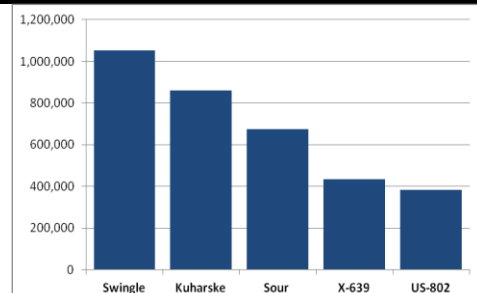
Top 20 Varieties

1	Valencia	1,957,583
2	Hamlin	1,422,838
3	Vernia	173,188
4	Glen Navel	153,274
5	Ray Ruby Grapefruit	117,717
6	Midsweet	90,322
7	Cara Cara Navel	62,304
8	Ruby Red Grapefruit	56,957
9	US Early Pride	56,676
10	Orri Mandarin	49,147
11	Tango	43,345
12	Minneola Tangelo	42,780
13	Sunburst	38,850
14	Murcott	35,482
15	Persian Lime	27,244
16	Meyer Lemon	27,218
17	Valencia Rohde Red	23,972
18	Flame Grapefruit	18,870
19	Hirado Buntan	18,375
20	Summerfield Navel	16,201

2014 Most Popular Cultivars

Top 20 Clones

1	Hamlin 4-1	1,253,755
2	Valencia 14-19	1,244,849
3	Valencia 55-4	367,592
4	Valencia 14-31	313,702
5	Vernia 15	169,164
6	Glen Navel 11	152,459
7	Ray Ruby Gft	117,717
8	Hamlin 8-5	95,191
9	Midsweet	90,302
10	Hamlin 8-4	69,286
11	Cara Cara Navel	62,304
12	Ruby Red Gft	56,957
13	Early Pride ®(NV)	56,676
14	Orri ®(ISR)	49,147
15	Tango ®(NV)	43,345
16	Minneola	42,780
17	Sunburst	38,850
18	Murcott	35,482
19	Persian Lime	27,244
20	Meyer Le	27,218



Top 20 Rootstocks

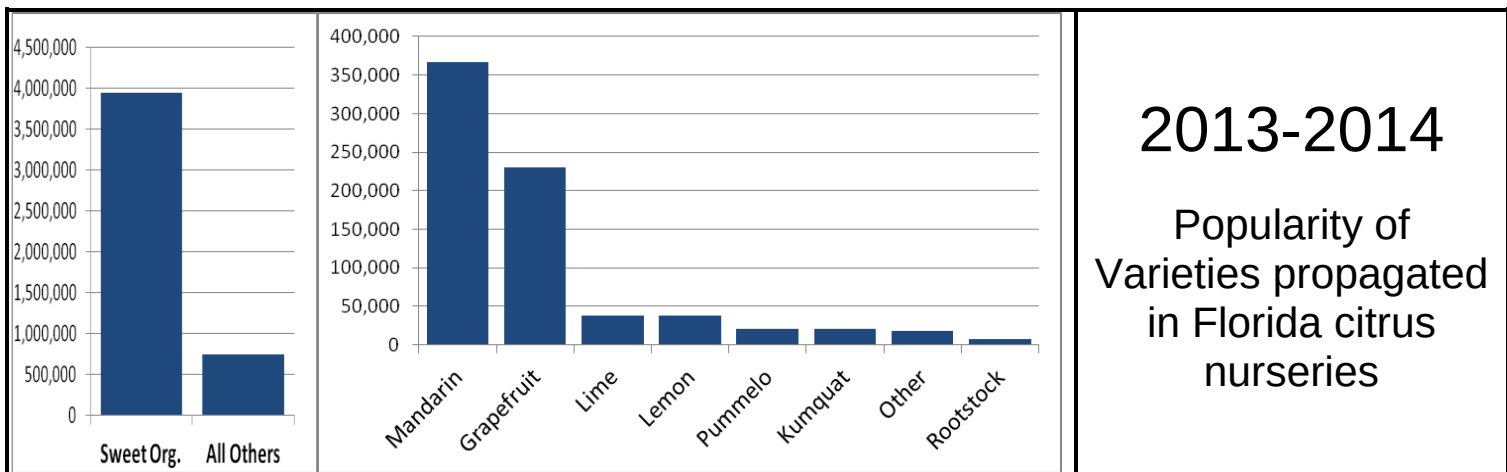
1	Swingle	1,052,152
2	Kuharske	860,228
3	Sour Orange	675,928
4	X-639	434,530
5	US-802	384,342
6	US-812	289,234
7	US-897	263,589
8	Cleopatra	177,742
9	Carrizo	171,593
10	Volkamer	81,646
11	US-942	74,516
12	C-35 Citrange	61,867
13	Research Stock	30,670
14	Unknown	29,436
15	Rough Lemon	27,553
16	Kinkoji	22,701
17	Flying Dragon	19,159
18	Pon trifoliata	12,769
19	Sun Chu Sha	10,110
20	UF-2	3,899

Dooryard Citrus Varieties

4 nurseries reported making dooryard propagations

The 124,157 dooryard propagations reported represent 2.6% of total nursery propagations. Other nurseries are propagating obvious dooryard varieties, but reporting the propagations as commercial. In those cases the propagations are not listed below, but they are tallied as commercial.

Salad Tree	15,920	Calamondin	2,268	Valencia Rohde	200	Earlygold	30
Summerfield	13,944	Dancy Tangerine	1,722	Finger Lime Giant	200	Nules Clementine	24
Meyer Lemon	9,942	Ponkan	1,606	Xie Shan Satsuma	150	Nova	24
Minneola	7,303	Red Lime	1,557	Changsha	122	Yuzu	18
Cara Cara	6,178	Sanguinelli Sweet	1,522	Hirado Buntan	110	Kishu Seedless	12
Ray Ruby	5,440	Ponderosa Lemon	1,512	Lee	100	Ichang Lemon	11
Meiwa	5,143	Eureka Lemon	1,512	Wekiwa Tangelo	54	Bud Blood Orange	10
Persian Lime	4,956	Ortanique	1,512	Sugar Belle	50	Tarocco Blood Orange	10
Hamlin	4,904	Centennial Var	1,512	Rangpur Lime	49	Marsh Grapefruit	10
Valencia	4,776	W Murcott	1,512	Robinson	44	Duncan Grapefruit	10
Sunburst	4,656	Long Fruit	1,512	Page	42	Thomasville	6
Owari Satsuma	4,656	Temple	856	Orlando Tangelo	42	Marumi Kumquat	6
Ruby Red	3,944	Ambersweet	846	Harvey Lemon	38	Nansho Daidai Orange	5
Lakeland	3,900	Glen Owari	704	Parson Brown	36	Sour Orange	5
Kaffir Lime	3,279	Glen Navel	355	Flame Grapefruit	36	Total 124,127	
Key Lime	3,024	Marisol	200	Ugli Tangelo	30		



All Varieties propagated

Valencia	1,957,583	Orlando Tangelo	4,199	US-802	586	C-146	12	Rohde Red	40
Hamlin	1,422,838	Nagami Kumquat	3,709	US-852	576	Sweet Org -#7	12	Crisafulli Navel	36
Vernia	173,188	Shiranui	3,544	Siamese Sweet	542	Daisy Mandarin	12	Ruby Red Gft	30
Glen Navel	153,274	Browns Select Sat	3,475	Large Pink Pum	541	Lime Hyb	12	Triumph Grapefruit	30
Ray Ruby Gft	117,717	Calamondin	3,363	Finger Lime Giant	524	UFR-04	10	Valencia Jenner	30
Midsweet	90,322	Sugar Belle	3,290	Pineapple Seedless	462	Lisbon Lemon	10	Valencia Appleby	30
Cara Cara Navel	62,304	Moro Blood Orange	3,275	Ugli Tangelo	447	Temple	10	Royal Grapefruit	30
Ruby Red	56,957	W Murcott	3,198	P Tri Wacissa	426	Tavares	95	Bouquet De Fleurs	30
US Early Pride	56,676	Nectar	3,081	Robinson	404	C-22 Bitters	95	Nova	29
Orri Mandarin	49,147	Glen Owari	3,066	Duncan Grapefruit	402	Fertic Temple	90	Yuzu	28
Tango	43,345	Ambersweet	2,876	Xie Shan Satsuma	387	Lemorlime	87	UFR-05	24
Minneola Tangelo	42,780	Earlygold	2,766	Finger Lime	362	Smooth Flat Sev	84	UFR-17	24
Sunburst	38,850	Kimbrough	2,740	Pixie	347	Marrs	84	UFR-06	24
Murcott	35,482	Ortanique	2,687	US-897	329	C-54 Carpenter	80	Oroblanco	24
Persian Lime	27,244	Pink Var Lemon	2,637	Ann Satsuma	300	USDA 512	78	Mandarin X Orange Hyb	20
Meyer Lemon	27,218	Eureka Lemon	2,622	Sweet O. Sdless	299	Ichang Lemon	76	Mandarin Orange Hyb	20
Valencia Rohde	23,972	Jackson Grapefruit	2,216	Red Pummelo	298	Lime Sdless Hyb	72	Brazilian Lemon	18
Flame Grapefruit	18,870	Dream Navel	2,160	Key Lime Thornless	296	Marumi Kumquat	71	Todo Del Ano	18
Hirado Buntan	18,375	Pineapple	2,028	Umatilla Tangor	288	Bergamot	70	Baboon Lemon	18
Summerfield	16,201	Roble	1,984	Lane Late Navel	285	Sunquat	70	Escondido Lemon	18
Salad Tree	15,920	Sanguinelli Sweet	1,744	Marisol Clementine	275	Thomson Navel	69	Naugle Lemon	18
Rio Red	15,915	Ponderosa Lemon	1,620	Rasnake Tangelo	250	Sun Chu Sha	68	Variegated Rough Lemon	18
Meiwa Kumquat	13,927	Red Lime	1,612	Cleopatra Mandarin	232	Citrango C-35	64	Cameron Highlands	18
Fallglo	13,821	Centennial Var	1,587	Rangpur Lime	229	Acid Fruit Hyb	63	Parana	15
WG Mandarin	12,240	Lee	1,572	Mandarin Sdless	229	Clem X Yuzu	60	Calamandarin	15
Marsh Grapefruit	9,398	Long Fruit	1,563	Lemon	225	Summer Gold	60	US-119	15
Key Lime	9,050	Page	1,516	Pummelette	206	Homosassa	60	Thomasville Citrangequat	11
Owari Satsuma	7,943	X-639	1,453	Bud Blood Orange	203	Melogold	60	Nansho Daidai Orange	10
Star Ruby	7,745	US-942	1,399	Folha Murcha	200	Isle Of Pines Gft	60	Variegated Minneola	10
Kaffir Lime	7,611	Harvey Lemon	1,336	Volkamer Lemon	200	Wekiwa Tangelo	59	Carrizo Citrange	10
Valquarius	7,249	Seedless Snack	1,093	Kinkoji	199	Red Rough	57	Seleta Branca	10
Temple	6,934	Mandarin Hyb	1,086	M-7 Early Navel	194	Ice Tea Le	50	Serra D Agua	10
Sweet Orange	6,355	Pummelo Hyb	1,068	Aziza	192	Morton Citrange	48	Seleta Agrocitros	10
Port Mayaca Nav	5,909	Thompson Pink Gft	1,066	Changsha	187	Lemon Hyb	48	Orange Hyb	9
Ponkan	5,722	Bearss Lemon	964	US-812	173	Chinese	48	Rosa	5
Dancy Tangerine	5,352	Verna Lemon	834	Tarocco Blood	165	Gou Tou	48	Salustiana	5
Fina Sodea	5,170	Nules Clementine	827	Midsweet Sdless	163	UFR-02	47	Sanguinelli	5
Westin	5,150	Kishu Seedless	744	Valencia Delta	150	Kuharske	46	Swingle Citrumelo	5
Washington Navel	4,830	Mandarin	743	Valenfresh	150	UFR-03	46	Jin Cheng	5
Citrus latipes	4,371	Sour Orange	734	Seedless Surprise	150	Parson Brown	41	C-57 Furr	4
Valencia	4,305	Etrog Citron	681	Sanbokan	150	Silver Hill	41		
Lakeland	4,250	Valencia Late	643	Benton Citrange	148	Buddhas Hand	40		

SWEET ORANGES		2014	% of Type	% Sweet Oranges	% Total Nursery	
Early	Hamlin 4-1	1,253,755	87.34	31.71	26.61	Early 1,435,507 36.3% of Oranges
	Hamlin 8-5	95,191	6.63	2.41	2.02	
	Hamlin 8-4	69,286	4.83	1.75	1.47	
	Westin 2	5,150	0.36	0.13	0.11	
	Hamlin CREC-32 ®	4,499	0.31	0.11	0.10	
	Ambersweet	2,876	0.20	0.07	0.06	
	Earlygold	2,766	0.19	0.07	0.06	
	Roble	1,984	0.14	0.05	0.04	
	Early Season Totals	1,435,507	100.00	36.31	30.46	
Navel	Glen Navel 11	152,459	62.19	3.86	3.24	Navels 245,157 6.2% of Oranges
	Cara Cara Navel	62,304	25.41	1.58	1.32	
	Summerfield Navel	16,201	6.61	0.41	0.34	
	Mayaca Navel	5,909	2.41	0.15	0.13	
	Wash Navel 18	3,190	1.30	0.08	0.07	
	Dream Navel	2,160	0.88	0.05	0.05	
	Wash Navel 19	1,640	0.67	0.04	0.03	
	Glen Navel 12	815	0.33	0.02	0.02	
	Lane Navel	285	0.12	0.01	0.01	
	M-7 Early Navel ®	194	0.08	0.00	0.00	
	Navel Totals	245,157	100.00	6.20	5.20	
Midseason	Vernia 15	169,164	60.78	4.28	3.59	Midseason 278,310 7.0% of Oranges
	Midsweet	90,302	32.45	2.28	1.92	
	Valquarius CREC-1462 ®(NV)	7,249	2.60	0.18	0.15	
	Valencia Mid CREC-20 ®	4,305	1.55	0.11	0.09	
	Vernia CREC-110 ®	2,164	0.78	0.05	0.05	
	Vernia 16	1,860	0.67	0.05	0.04	
	Pineapple 53-10-10	1,596	0.57	0.04	0.03	
	Pineapple Sdless	462	0.17	0.01	0.01	
	Pineapple 60	432	0.16	0.01	0.01	
	Sweet O. Sdless CREC-0007®	299	0.11	0.01	0.01	
	Aziza	192	0.07	0.00	0.00	
	Midsweet LS CREC-124 ®	163	0.06	0.00	0.00	
	Sweet Orange CREC-0038 ®	122	0.04	0.00	0.00	
	Midseason Totals	278,310	100.00	7.04	5.91	
Blood	Moro B/O 3	3,275	60.79	0.08	0.07	Blood Oranges 5,387 .1% of Oranges
	Sanguinelli B/O	1,744	32.37	0.04	0.04	
	Budd Blood DPI-82	203	3.77	0.01	0.00	
	Tarocco B/O 37	165	3.06	0.00	0.00	
	Blood Orange Totals	5,387	100.00	0.14	0.11	
Late	Valencia 14-19	1,244,849	62.59	31.48	26.42	Late-Season 1,988,928 50.3% of Oranges
	Valencia 55-4	367,592	18.48	9.30	7.80	
	Valencia 14-31	313,702	15.77	7.93	6.66	
	Rohde Red 472	23,952	1.20	0.61	0.51	
	Valencia 55-23	14,417	0.72	0.36	0.31	
	Valencia 12-7	6,389	0.32	0.16	0.14	
	Sweet Orange CREC-61 ®	6,066	0.30	0.15	0.13	
	Valencia 55-28	5,272	0.27	0.13	0.11	
	Valencia CREC-65 ®	3,879	0.20	0.10	0.08	
	Valencia 55-1	898	0.05	0.02	0.02	
	Valencia Late CREC-1013 ®	623	0.03	0.02	0.01	
	Valencia CREC-123 ®	325	0.02	0.01	0.01	
	Sweet Orange CREC-0066 ®	289	0.01	0.01	0.01	
	Folha Murcha CREC ®	200	0.01	0.01	0.00	
	Valencia Sdless CREC-221 ®	175	0.01	0.00	0.00	
	Delta	150	0.01	0.00	0.00	
	Valenfresh CREC ®	150	0.01	0.00	0.00	
	Late Season Totals	1,988,928	100.00	50.30	42.21	
	34 Selections propagated <100	716	0.00	0.02	0.02	
Total Sweet Oranges		3,954,005		100.00	83.91	

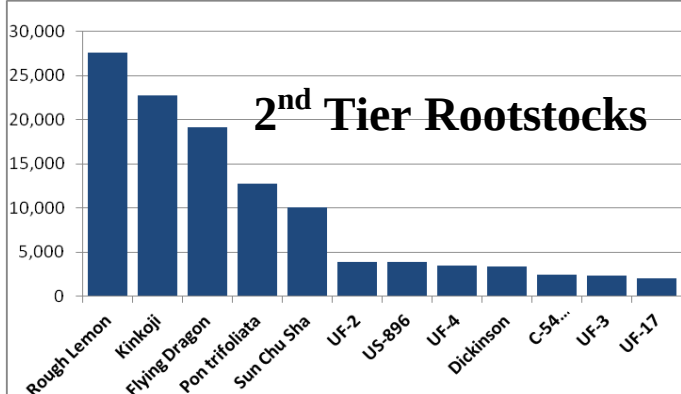
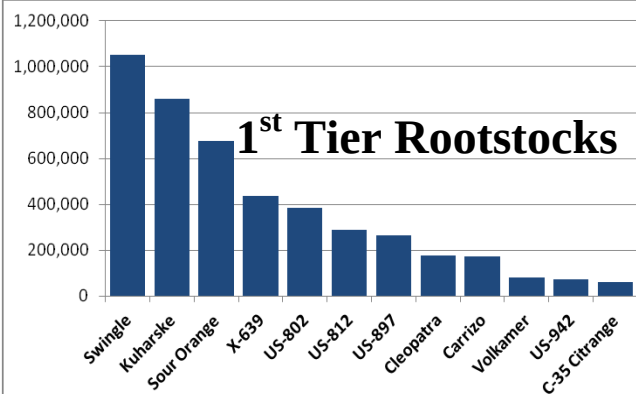
Citrus Nursery Propagations 2014

(by usage)

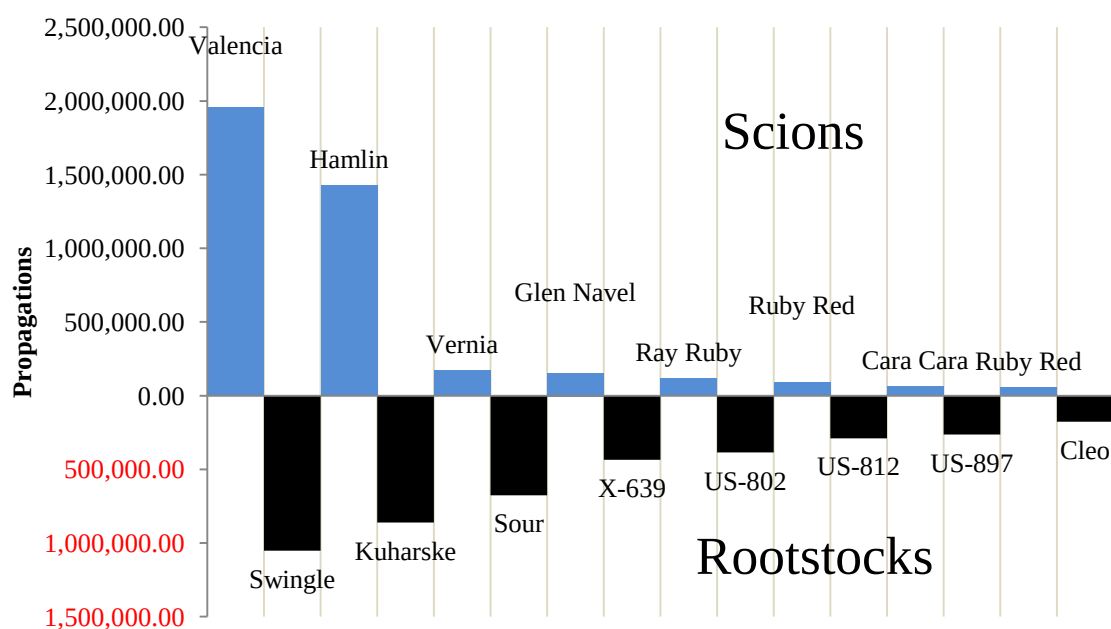
Mandarin		#	% Mandarin	% Total Nursery
1	US Early Pride	56,676	15.43	1.20
2	Orri Mandarin	49,147	13.38	1.04
3	Tango	43,345	11.80	0.92
4	Minneola Tangelo	42,780	11.65	0.91
5	Sunburst	38,850	10.58	0.82
6	Murcott	35,482	9.66	0.75
7	Fallglo	13,821	3.76	0.29
8	WG Mandarin	12,240	3.33	0.26
9	Owari Satsuma	7,943	2.2	0.17
10	Temple	6,934	1.9	0.15
11	Ponkan	5,722	1.6	0.12
12	Dancy Tangerine	5,352	1.5	0.11
13	Fina Sodea	5,170	1.4	0.11
14	Orlando Tangelo	4,199	1.1	0.09
15	Shiranui	3,544	1.0	0.08
16	Browns Select	3,475	0.9	0.07
17	Calamondin	3,363	0.9	0.07
18	Sugar Belle	3,290	0.9	0.07
19	W Murcott	3,198	0.9	0.07
20	Nectar	3,081	0.8	0.07
21	Glen Owari	3,066	0.8	0.07
22	Kimbrough	2,740	0.7	0.06
23	Ortanique	2,687	0.7	0.06
24	Lee	1,572	0.4	0.03
25	Page	1,516	0.4	0.03
26	Seedless Snack	1,093	0.3	0.02
27	Mandarin Hyb	1,086	0.3	0.02
28	Nules Clementine	827	0.2	0.02
29	Kishu Seedless	744	0.2	0.02
30	Mandarin	743	0.2	0.02
31	Ugli Tangelo	447	0.1	0.01
32	Robinson	404	0.1	0.01
33	Xie Shan Satsuma	387	0.1	0.01
34	Pixie	347	0.09	0.01
35	Ann Satsuma	300	0.08	0.01
36	Umatilla Tangor	288	0.08	0.01
37	Marisol	275	0.07	0.01
38	Rasnake Tangelo	250	0.07	0.01
39	Mandarin Sdless	229	0.06	0.005
40	Daisy Mandarin	120	0.03	0.003
41	Temple Seedless	100	0.03	0.002
42	Fertic Temple	90	0.02	0.002
43	USDA 512	78	0.02	0.002
44	Clem X Yuzu	60	0.02	0.001
45	Wekiwa Tangelo	59	0.02	0.001
46	Silver Hill Satsuma	41	0.01	0.001
47	Nova	29	0.01	0.001
48	Mandarin Orange	20	0.01	0.000
49	Mandarin X Orange	20	0.01	0.000
50	Calamandarin	15	0.004	0.000
51	Variegated Minneola	10	0.003	0.000
Total Mandarins		367,255	100.00	7.79

Grapefruit		#	% Grapefruit	% Total Nursery
1	Ray Ruby Grapefruit	117,717	51.0	2.5
2	Ruby Red Grapefruit	56,957	24.7	1.2
3	Flame Grapefruit	18,870	8.2	0.4
4	Rio Red Grapefruit	15,915	6.9	0.3
5	Marsh Grapefruit	9,398	4.1	0.2
6	Star Ruby Grapefruit	7,745	3.4	0.2
7	Jackson Grapefruit	2,216	1.0	0.05
8	Thompson Pink Gft	1,066	0.5	0.02
9	Duncan Grapefruit	402	0.2	0.01
10	Seedless Surprise	150	0.1	0.003
11	Summer Gold Gft	60	0.03	0.001
12	Isle O Pine Gft	60	0.03	0.001
13	Ruby Red Gft	30	0.01	0.001
14	Triumph Grapefruit	30	0.01	0.001
15	Royal Grapefruit	30	0.01	0.001
16	Parana Gft	15	0.01	0.0003
Total Grapefruits		230,661	100.0	4.9
Kumquat		#	% Kumquat	% Total Nursery
1	Meiwa Kumquat	13,927	66.77	0.30
2	Nagami Kumquat	3,709	17.78	0.08
3	Centennial Var	1,587	7.61	0.03
4	Long Fruit Kumquat	1,563	7.49	0.03
5	Marumi Kumquat	71	0.34	0.002
Total Kumquats		20,857	100.00	0.44
Lemon & Lime		#	% Le / Li	% Total Nursery
1	Persian Lime	27,244	35.70	0.58
2	Meyer Lemon	27,218	35.67	0.58
3	Key Lime	9,050	11.86	0.19
4	Pink Var Lemon	2,637	3.46	0.06
5	Eureka Lemon	2,622	3.44	0.06
6	Ponderosa Lemon	1,620	2.12	0.03
7	Red Lime	1,612	2.11	0.03
8	Harvey Lemon	1,336	1.75	0.03
9	Bearss Lemon	964	1.26	0.02
10	Verna Lemon	834	1.09	0.02
11	Key Lime Thornless	296	0.39	0.01
12	Lemon	225	0.29	0.005
13	Lime Hyb	120	0.16	0.003
14	Lisbon Lemon	103	0.13	0.002
15	15 other lemons	428	0.56	0.009
Total Lemons & Limes		76,309	100.00	0.001
Pummelo & Pummelo Hybrids		#	% Pummelo	% Total Nursery
1	Hirado Buntan	18,375	86.83	0.39
2	Pummelo Hyb	1,068	5.05	0.02
3	Siamese Sweet	542	2.56	0.01
4	Large Pink	541	2.56	0.01
5	Red Pummelo	298	1.41	0.01
6	Pummelette	206	0.97	0.004
7	Melogold	60	0.28	0.001
8	Chinese Pummelo	48	0.23	0.001
9	Oroblanco	24	0.11	0.001
Total Pummelos Types		21,162	100.00	0.45

Rootstocks				# Scion Seed Trees	Previous Years			
2014		#	%			2013	2012	2011
1	Swingle	1,052,152	22.33	1,002	1	Swingle	Swingle	Swingle
2	Kuharske	860,228	18.25	743	2	Sour Orange	Kuharske	Kuharske
3	Sour Orange	675,928	14.34	533	3	Kuharske	Sour Orange	Carrizo
4	X-639	434,530	9.22	508	4	Carrizo	Carrizo	Volkamer
5	US-802	384,342	8.16	267	5	US-812	X-639	Sour Orange
6	US-812	289,234	6.14	92	6	X-639	Volkamer	X-639
7	US-897	263,589	5.59	464	7	US-897	Cleopatra	Kinkoji
8	Cleopatra	177,742	3.77	135	8	Cleopatra	US-802	US-812
9	Carrizo	171,593	3.64	286	9	US-802	US-812	Cleopatra
10	Volkamer	81,646	1.73	71	10	Volkamer	Kinkoji	C-35 Citrange
11	US-942	74,516	1.58	97	11	Kinkoji	US-897	US-897
12	C-35 Citrange	61,867	1.31	241	12	Flying Dragon	US-942	US-802
13	Research Stock	30,670	0.65		13	Sun Chu Sha	Sun Chu Sha	Flying Dragon
14	Unknown	29,436	0.62		14	C-35 Citrange	Rough Lemon	Rough Lemon
15	Rough Lemon	27,553	0.58	61	15	Rough Lemon	Research	Research Stock
16	Kinkoji	22,701	0.48	260	16	US-942	Smooth Flat	Sun Chu Sha
17	Flying Dragon	19,159	0.41	52	17	Research	C-35 Citrange	Benton
18	Pon trifoliata	12,769	0.27	184	18	Smooth Flat Sev	Flying Dragon	US-942
19	Sun Chu Sha	10,110	0.21	75	19	Pon trifoliata .	Pon trifoliata	Pon trifoliata
20	UF-2	3,899	0.08		20	Benton	Murcott	Smooth Flat Sev
21	US-896	3,891	0.08		21	Unknown*	Ridge	Ridge Pineapple
22	UF-4	3,528	0.07		22	Bittersweet	Orlando	US-892
23	Dickinson	3,407	0.07	2	23	Macrophylla		Bittersweet
24	C-54 Carpenter	2,406	0.05	6	24	Changsha		
25	UF-3	2,359	0.05		25	C-22 Bitters		
26	UF-17	1,991	0.04		26	C-54 Carpenter		
27	Own Root	1,989	0.04		27	Willits Citrange		
28	Benton	1,520	0.03	40	28	C-57 Furr		
29	Smooth Flat	1,354	0.03	47	29	C-146		
30	C-22 Bitters	1,210	0.03	4	30	Own Root		
31	C-146	1,184	0.03		31	Orlando		
32	UF-15	1,100	0.02					
33	UF-16	800	0.02					
34	Goutou	562	0.01	20				
35	RI/PI	500	0.01	10				
36	Morton	493	0.01	37				
37	C-57 Furr	288	0.01	42				
38	US-852	121	0.003	8				
39	Hamlin	72	0.002					
		4,712,439	100.0					



Top Scions and Rootstocks



Rootstock Use Percent by Citrus Type

	Grapefruit	Kumquat	Lemon	Lime	Mandarin	Pummelo	Sweet	Other
Carrizo	1.5	0.0	0.0	0.0	0.1	0.2	4.2	3.6
C-35	0.0	0.0	0.0	0.0	1.1	0.0	1.4	3.9
Cleopatra	0.1	3.8	0.6	0.1	14.3	0.2	3.1	0.1
Kinkoji	0.0	6.6	0.0	0.0	1.8	19.4	0.1	10.9
Kuharske	1.6	31.3	24.4	37.0	6.7	4.8	20.2	8.6
Rough Lemon	0.1	0.0	0.7	1.0	0.2	1.2	0.6	0.0
Sour Orange	83.2	8.1	12.9	17.4	25.2	12.8	9.0	42.2
Sun Chu Sha	0.0	0.0	0.0	0.0	0.3	0.0	0.2	0.0
Swingle	5.6	0.4	18.6	32.5	14.6	13.3	24.3	6.7
US-802	2.4	0.0	0.0	0.0	8.5	0.2	8.8	0.2
US-812	2.0	0.0	0.8	0.0	2.3	0.0	7.0	0.1
US-852	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
US-897	0.7	0.0	3.6	2.9	6.9	28.8	5.7	2.2
US-942	0.2	0.2	0.4	0.1	0.9	0.4	1.8	0.8
Volkamer	0.0	46.0	33.9	6.0	1.4	10.5	1.1	10.8
X-639	0.3	0.0	0.0	0.0	6.3	2.2	10.4	2.6
Other Stocks	2.4	3.6	4.2	3.0	9.4	5.8	1.9	7.0

%	Historically used Rootstocks for Registered Trees										
Year	Carrizo	Cleopatra	Kuharske	Rough Lemon	Sun Chu Sha	Smooth Flat Seville	Sour Orange	Swingle	Volkamer	Misc	Total Trees
1953-60	0.0	7.7	Prior to 1997-98 Kuharske propagations are included with Carrizo	44.7	0.0	0.0	36.3	0.0	0.0	11.2	2,272,229
1960-61	0.0	8.2		29.3	0.0	0.0	52.2	0.0	0.0	10.4	1,117,433
1961-62	0.7	7.0		39.8	0.0	0.0	38.2	0.0	0.0	14.3	2,046,252
1962-63	0.7	7.7		45.1	0.0	0.0	25.4	0.0	0.0	23.3	1,597,821
1963-64	0.7	12.5		34.8	0.0	0.0	31.1	0.0	0.0	20.9	3,324,012
1964-65	0.4	12.2		37.0	0.0	0.0	30.3	0.0	0.0	20.2	3,445,980
1965-66	1.9	10.4		25.5	0.0	0.0	40.3	0.0	0.0	21.9	2,399,916
1966-67	1.0	7.6		37.5	0.0	0.0	43.8	0.0	0.0	10.1	1,325,650
1967-68	6.3	3.4		48.7	0.0	0.0	35.2	0.0	0.0	6.5	780,069
1968-69	6.5	6.0		38.9	0.0	0.0	33.2	0.0	0.0	5.3	647,828
1969-70	23.1	8.3		38.7	0.0	0.0	26.9	0.0	0.0	2.9	1,160,310
1970-71	23.0	7.1		35.9	0.0	0.0	29.4	0.0	0.0	4.6	1,659,983
1971-72	16.6	19.4		12.9	0.0	0.0	41.9	0.0	0.0	9.2	1,679,599
1972-73	29.1	11.9		1.5	0.0	0.0	41.9	0.0	0.0	15.6	1,519,508
1973-74	34.6	11.8		0.4	0.0	0.0	39.0	0.0	0.0	14.2	1,261,532
1974-75	46.2	9.5		0.6	0.0	0.0	32.1	1.6	0.03	10.0	1,333,611
1975-76	38.0	7.9		2.1	0.0	0.0	27.0	6.9	1.5	16.8	1,314,201
1976-77	51.5	8.0		1.9	0.0	0.0	18.9	3.5	1.2	15.0	1,462,676
1977-78	40.2	13.1		1.0	0.0	0.0	21.4	6.9	2.4	14.9	1,685,646
1978-79	40.1	10.0		1.7	0.0	0.0	25.2	5.8	3.3	13.9	2,090,481
1979-80	41.1	13.1		0.0	0.0	0.0	20.1	12.4	0.1	13.1	2,130,978
1980-81	45.4	6.2		0.3	0.0	0.3	28.2	11.4	2.3	2.4	2,964,085
1981-82	40.6	6.9		0.0	0.0	0.0	31.4	10.2	1.8	9.1	3,657,916
1982-83	33.8	10.0		0.0	0.0	0.1	38.0	11.8	2.5	3.8	5,049,889
1983-84	38.0	8.3		0.0	0.0	0.4	32.6	15.2	1.0	4.5	3,465,164
1984-85	28.6	8.3		0.0	0.0	0.0	28.5	30.1	1.5	3.1	4,068,128
1985-86	25.5	18.2		0.0	0.0	0.0	33.0	18.6	1.1	3.5	4,039,643
1986-87	35.2	19.9		0.0	0.0	0.0	31.0	6.7	3.1	4.1	6,181,653
1987-88	34.4	22.9		0.0	0.0	0.1	6.0	31.1	0.8	4.7	5,446,604
1988-89	19.4	18.8		0.1	0.0	0.1	3.5	50.2	1.2	6.7	7,239,744
1989-90	20.2	17.5		2.0	0.0	0.0	1.8	47.9	3.0	7.6	5,040,416
1990-91	18.8	16.2		1.6	0.2	0.0	1.9	58.6	0.9	1.8	6,879,429
1991-92	27.9	14.8		1.2	0.4	0.2	3.2	45.8	1.9	4.5	4,609,293
1992-93	17.8	16.6		3.1	3.4	0.2	3.0	51.3	1.1	3.4	2,781,569
1993-94	20.6	9.1		2.0	1.8	6.7	3.2	51.6	1.1	3.8	3,078,358
1994-95	23.2	7.8		1.3	2.9	10.2	0.4	45.2	2.9	6.2	2,143,943
1995-96	20.7	6.3		1.6	2.8	9.2	0.7	41.3	3.5	13.9	3,824,008
1996-97	25.9	4.3		1.6	2.4	6.1	0.2	46.2	5.5	7.8	5,521,998
1997-98	21.2	4.5		0.8	3.3	8.2	0.6	48.4	5.1	7.9	5,831,473
1998-99	22.9	5.4	0.5	1.1	2.1	5.2	0.5	46.2	7.7	8.4	5,940,162
1999-00	22.2	5.9	2.5	3.3	3.3	5.4	0.4	44.0	7.6	5.3	5,846,446
2000-01	24.3	5.1	2.9	0.3	2.5	6.6	.03	44.3	7.9	6.1	5,575,773
2001-02	19.7	3.4	3.8	0.3	1.2	10.1	.007	44.3	6.2	10.9	5,846,373
2002-03	20.7	4.5	8.8	1.1	1.6	5.1	0.01	45.6	4.5	8.1	4,898,157
2003-04	20.1	6.7	10.1	1.1	2.2	2.5	0.24	45.3	2.9	8.9	3,971,782
2004-05	15.1	7.6	18.6	0.2	1.8	0.5	0.5	37.8	4.9	13.0	2,145,259
2005-06	22.6	2.8	13.2	0.4	2.3	0.9	0.32	46.4	1.7	9.4	1,413,316
2006-07	16.1	2.1	11.9	0.2	1.1	0.7	1.4	58.4	1.6	6.5	2,592,466
2007-08	13.4	1.9	21.4	0.5	0.3	0.3	0.9	51.9	2.1	7.4	3,546,896
2008-09	17.8	2.9	24.0	0.6	.05	0.3	1.5	40.2	1.3	11.4	3,763,259
2009-10	14.0	3.5	16.5	0.3	1.0	0.2	7.5	44.9	2.2	9.9	3,001,186
2010-11	12.4	2.8	15.7	0.5	0.1	0.03	5.7	39.7	7.3	15.76	3,135,326
2011-12	7.9	3.3	17.3	0.5	0.8	0.3	8.1	37.0	4.5	20.3	3,941,049
2012-13	9.7	3.0	17.3	0.2	0.5	0.07	18.7	27.6	2.2	20.7	4,700,728
2013-14	3.6	3.8	18.3	0.6	0.2	0.03	14.3	22.3	1.7	35.2	4,712,439

