

New Varieties for the Desert Citrus Industry

Glenn C. Wright
Extension Citrus Specialist
University of Arizona



Lemons

- Early season sizing
- Precocity
- High yields

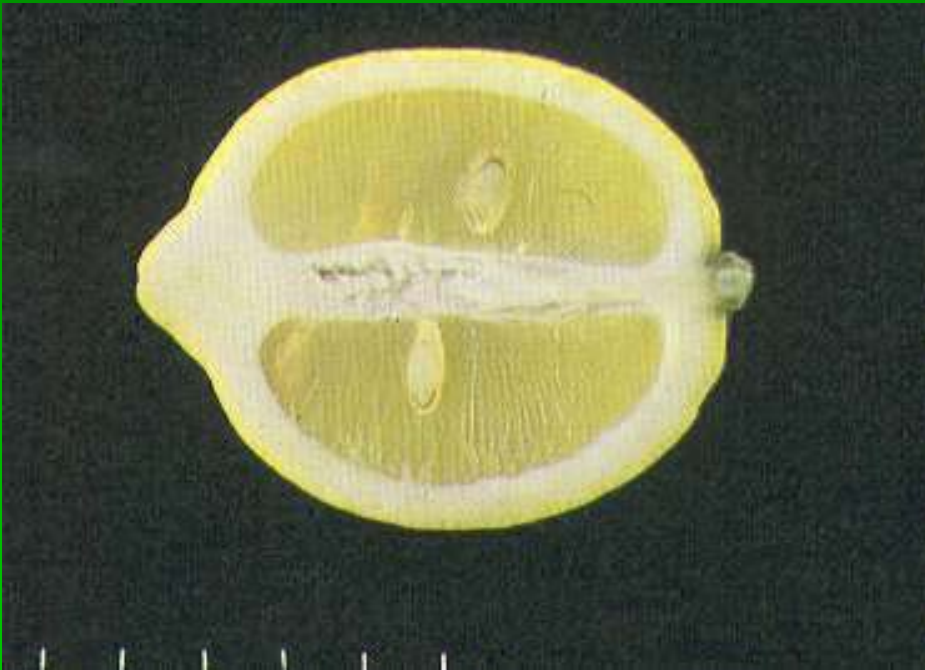


Cavers Lisbon

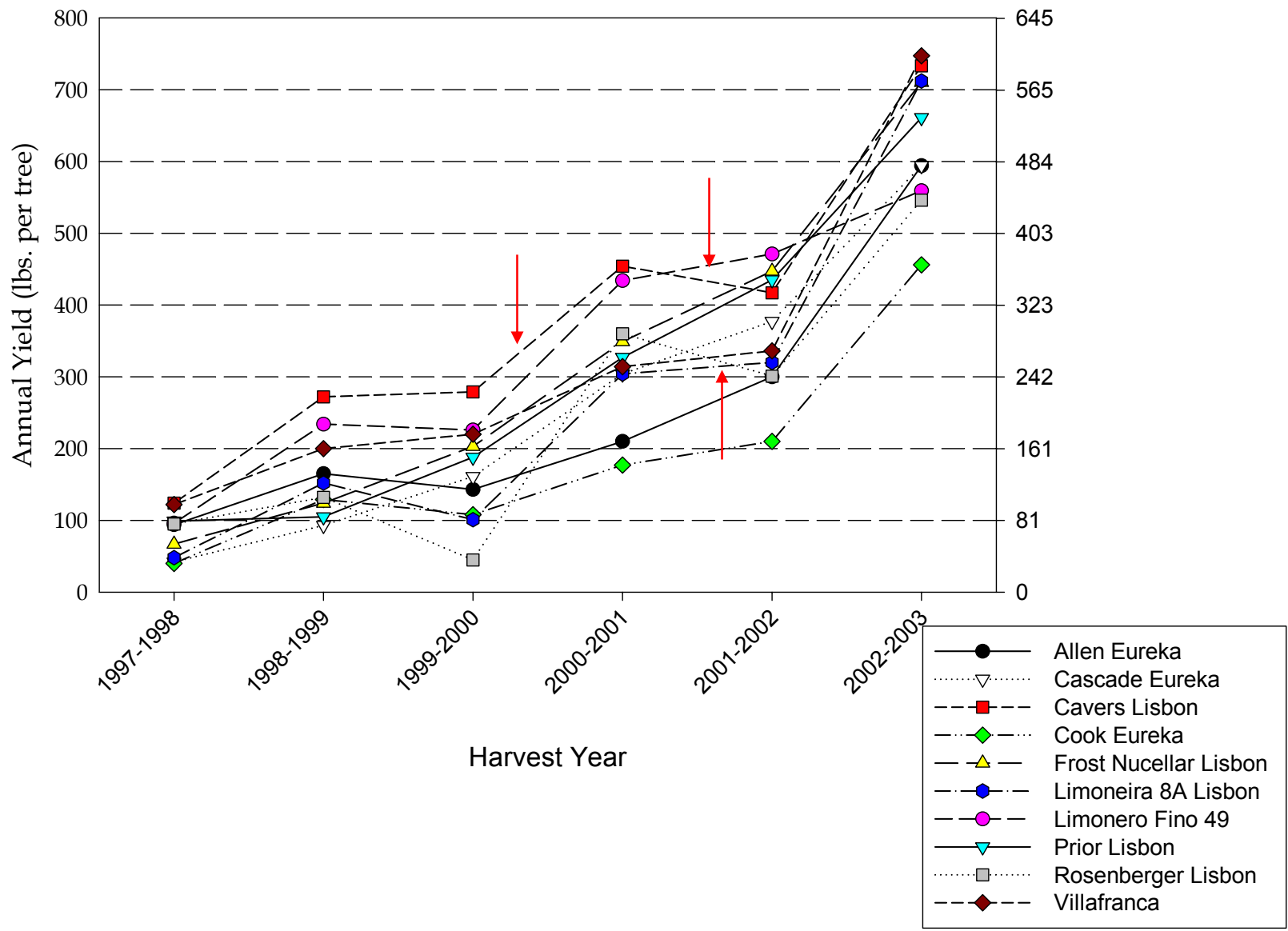


- **Early size**
- Good yield
- Fruits throughout tree
- Vigorous

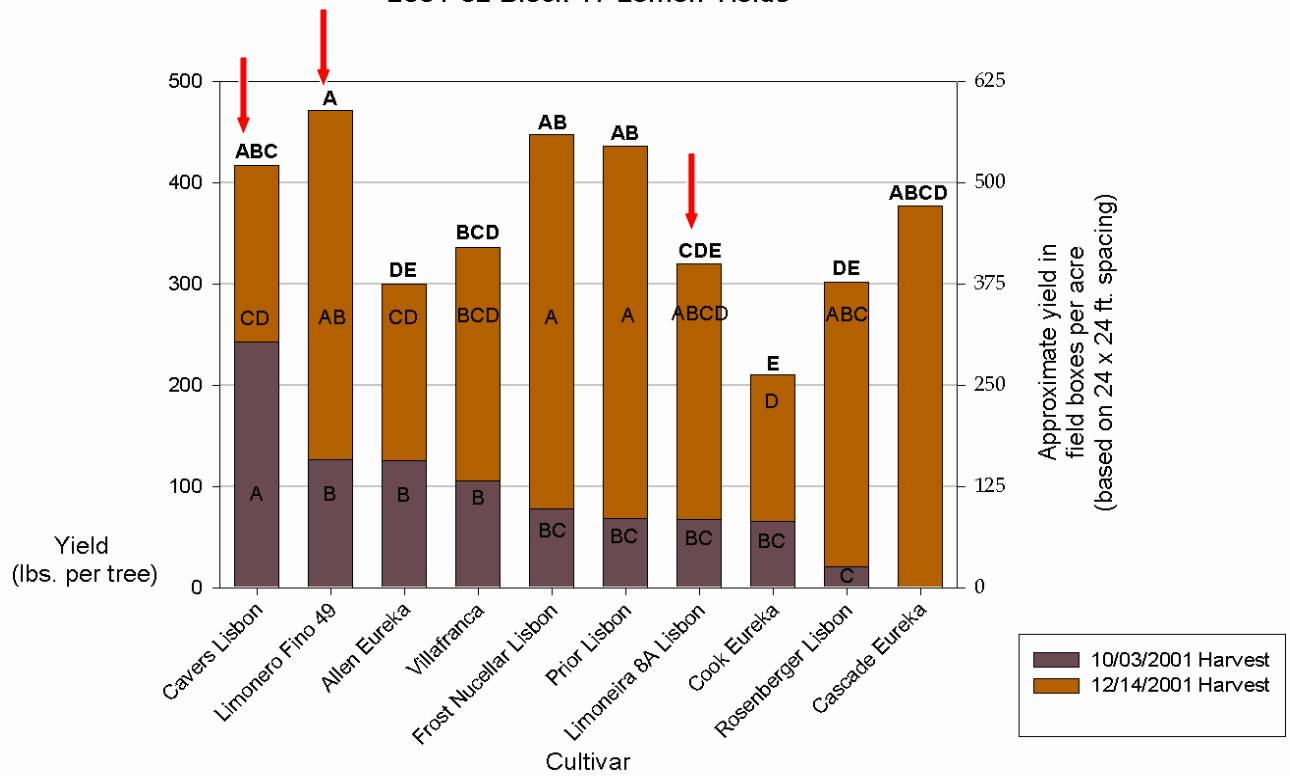
Limoneiro Fino 49



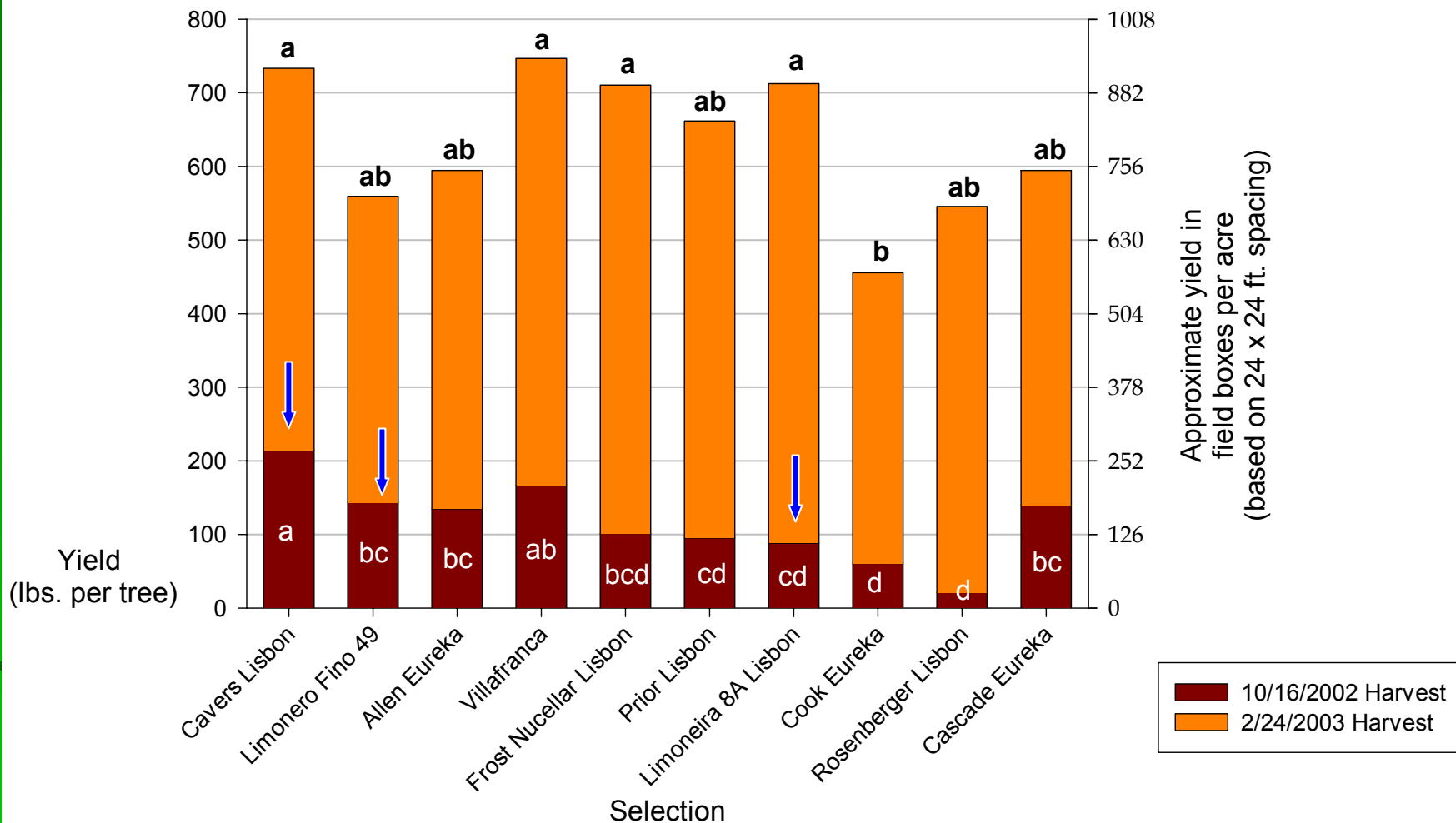
- Winter lemon of Spain
- **Early size**
- Good yield
- Thorny
- Fruits throughout tree
- Vigorous



2001-02 Block 17 Lemon Yields

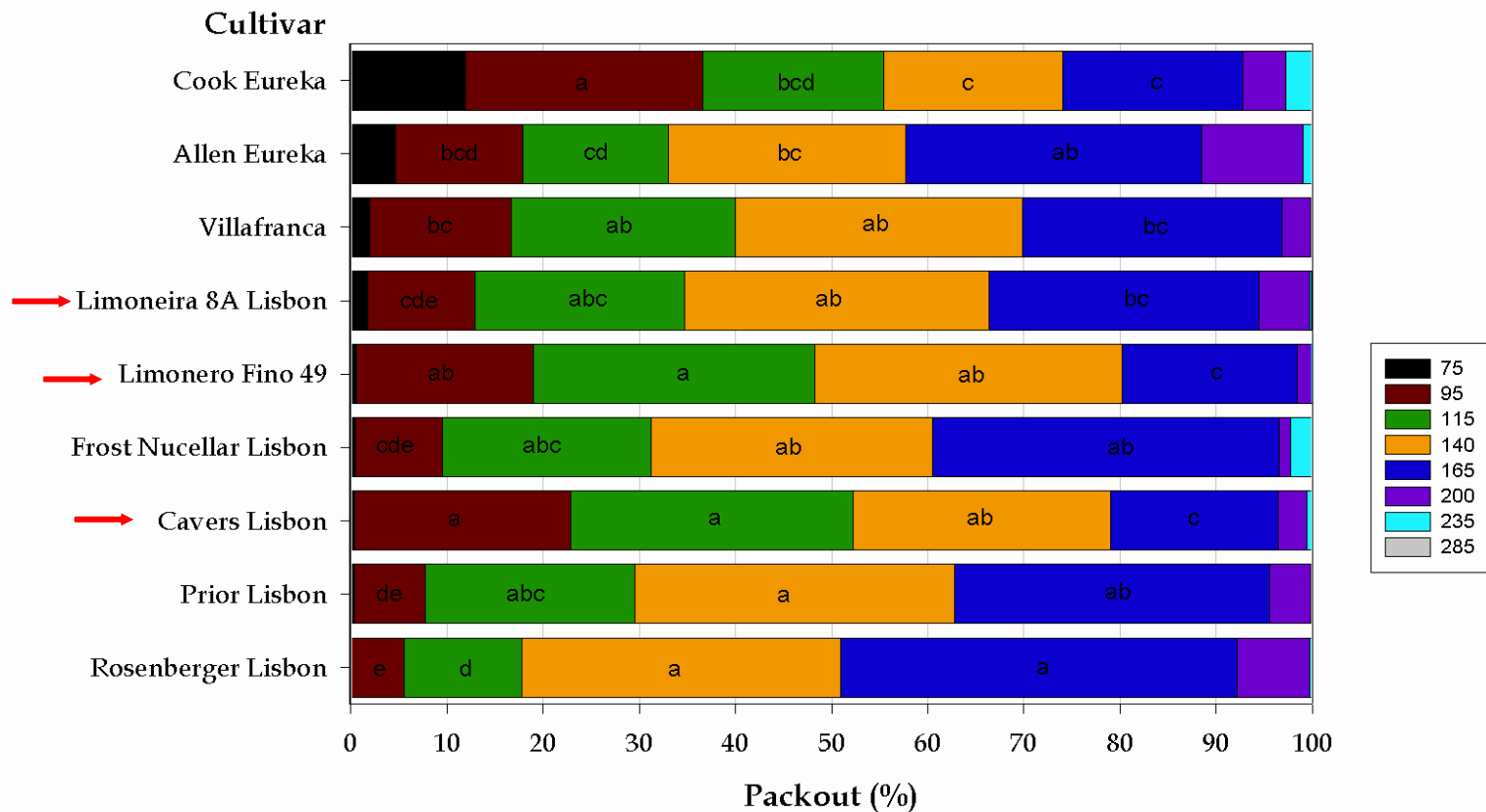


Letters indicate significant differences, within harvest dates or for total yield (bold letters), between cultivars tested.

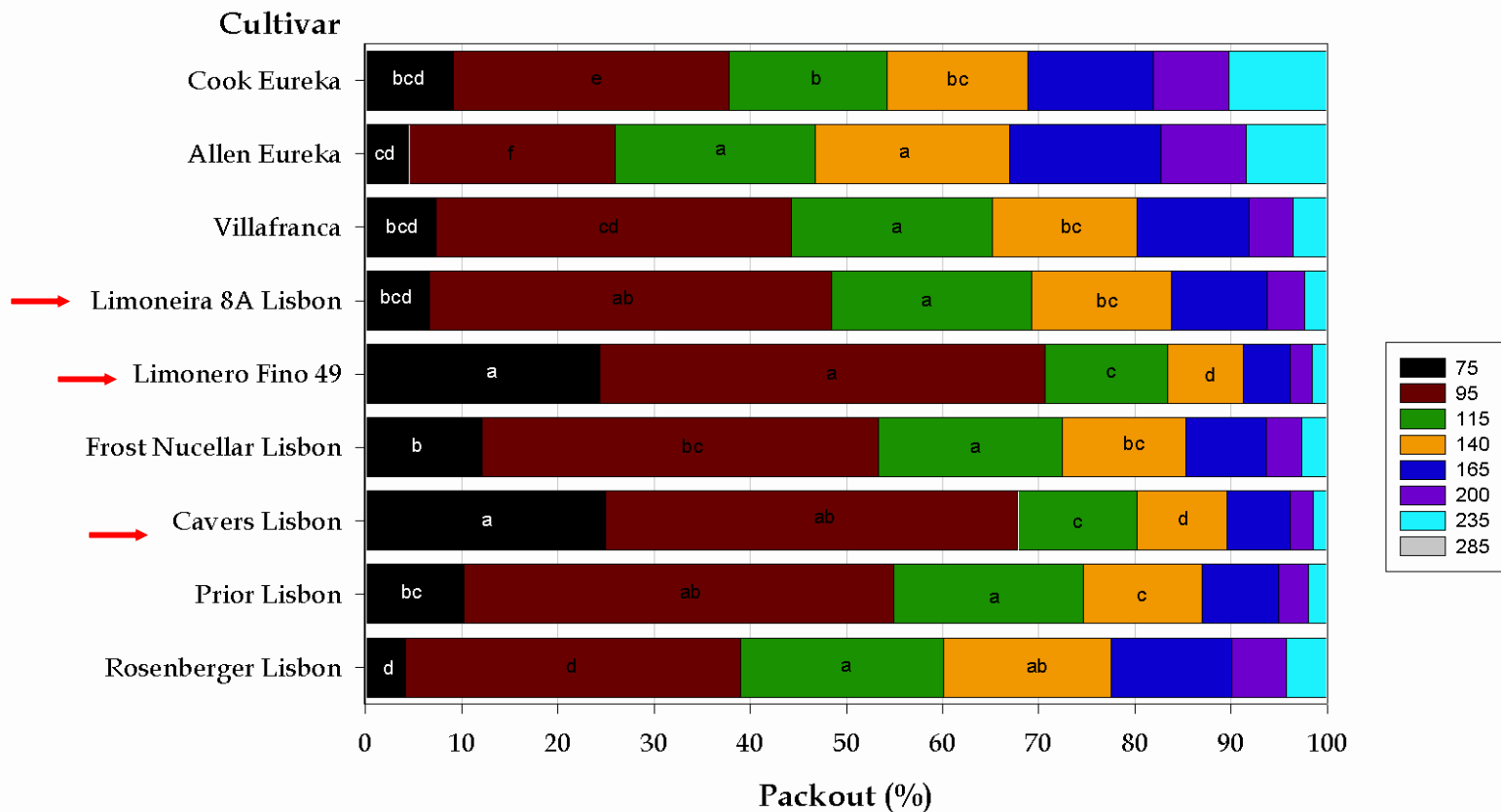


Letters indicate significant differences, within harvest dates or for total yield (bold letters), between selections tested. There was no significant effect of selection upon second harvest yield.

2001-02 Block 17 Lemon Packout - 10/3/01 Harvest

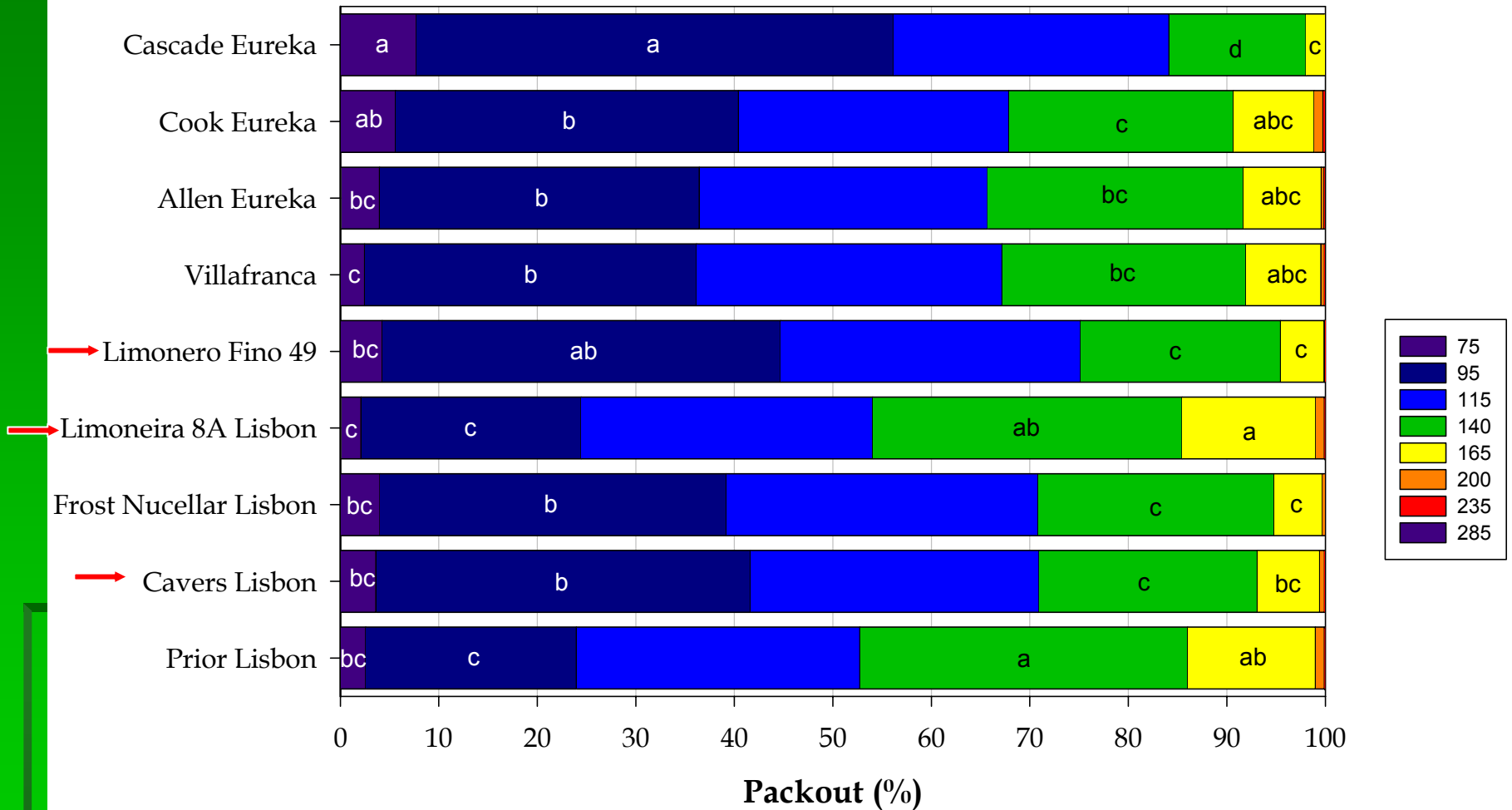


2001-02 Block 17 Lemon Packout - 12/14/01 Harvest



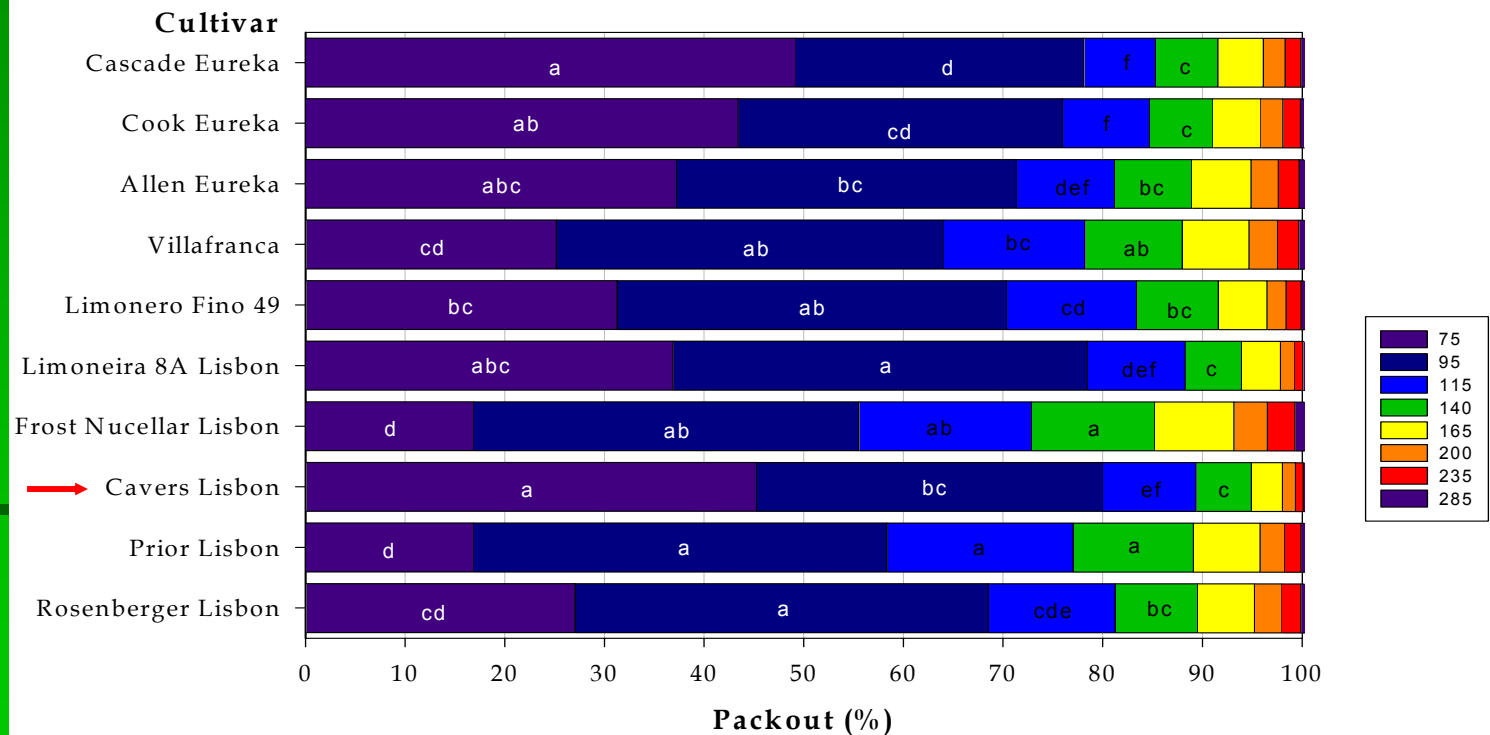
2002-03 Block 17 Lemon Packout - 10/16/02 Harvest

Cultivar

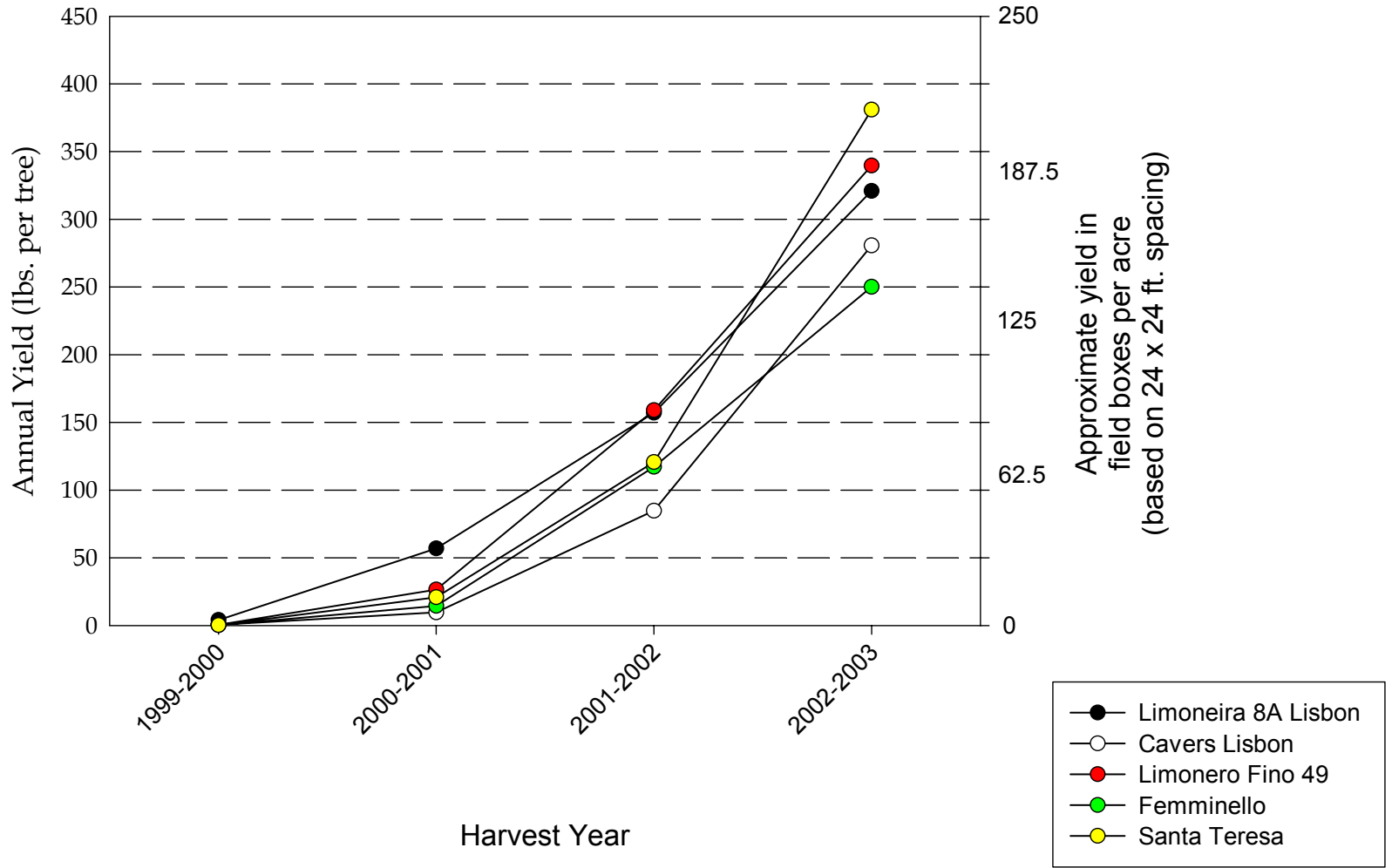


Letters indicate significant differences, within fruit sizes, between cultivars tested.

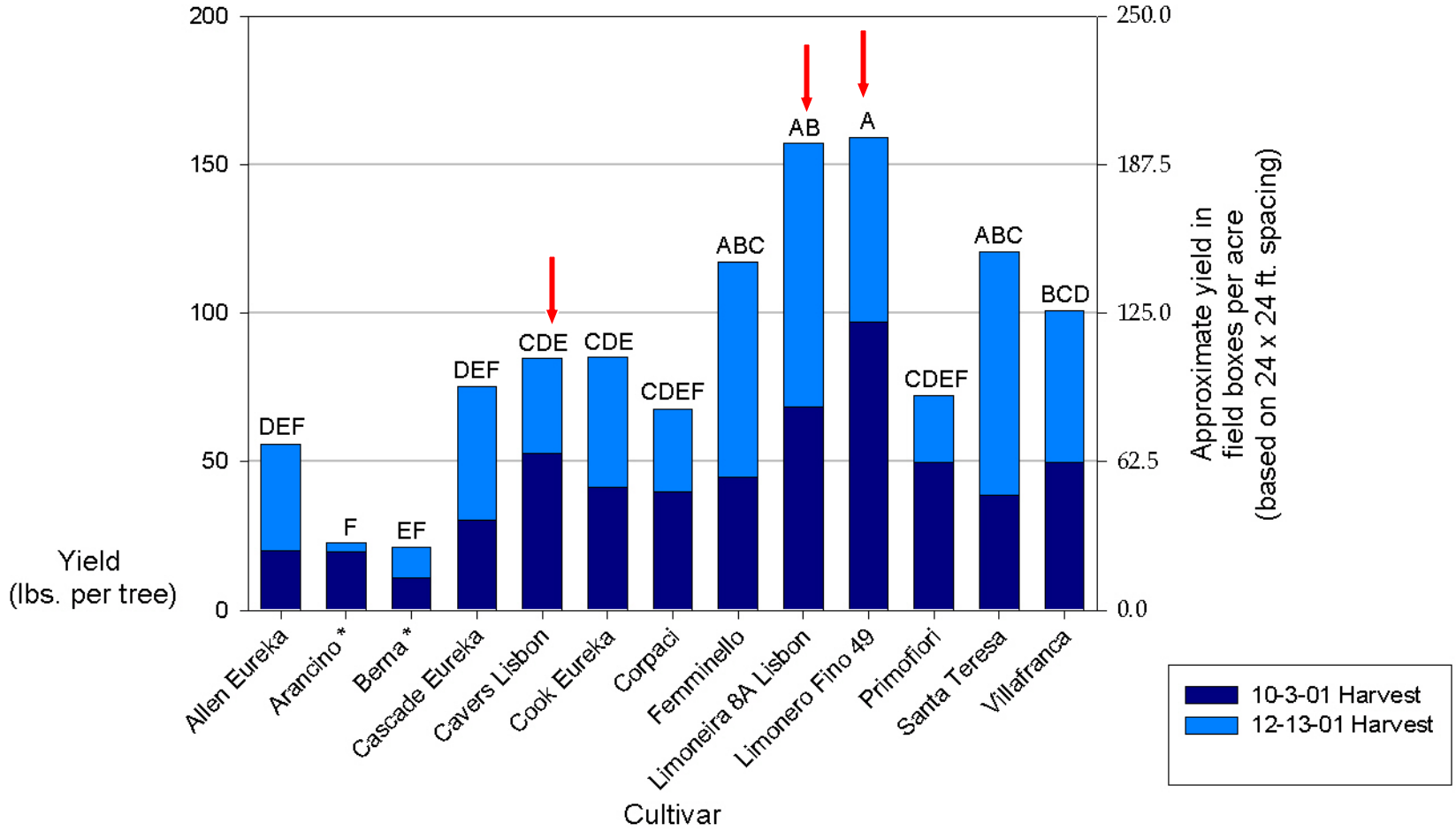
2002-03 Block 17 Lemon Packout - 2/14/03 Harvest



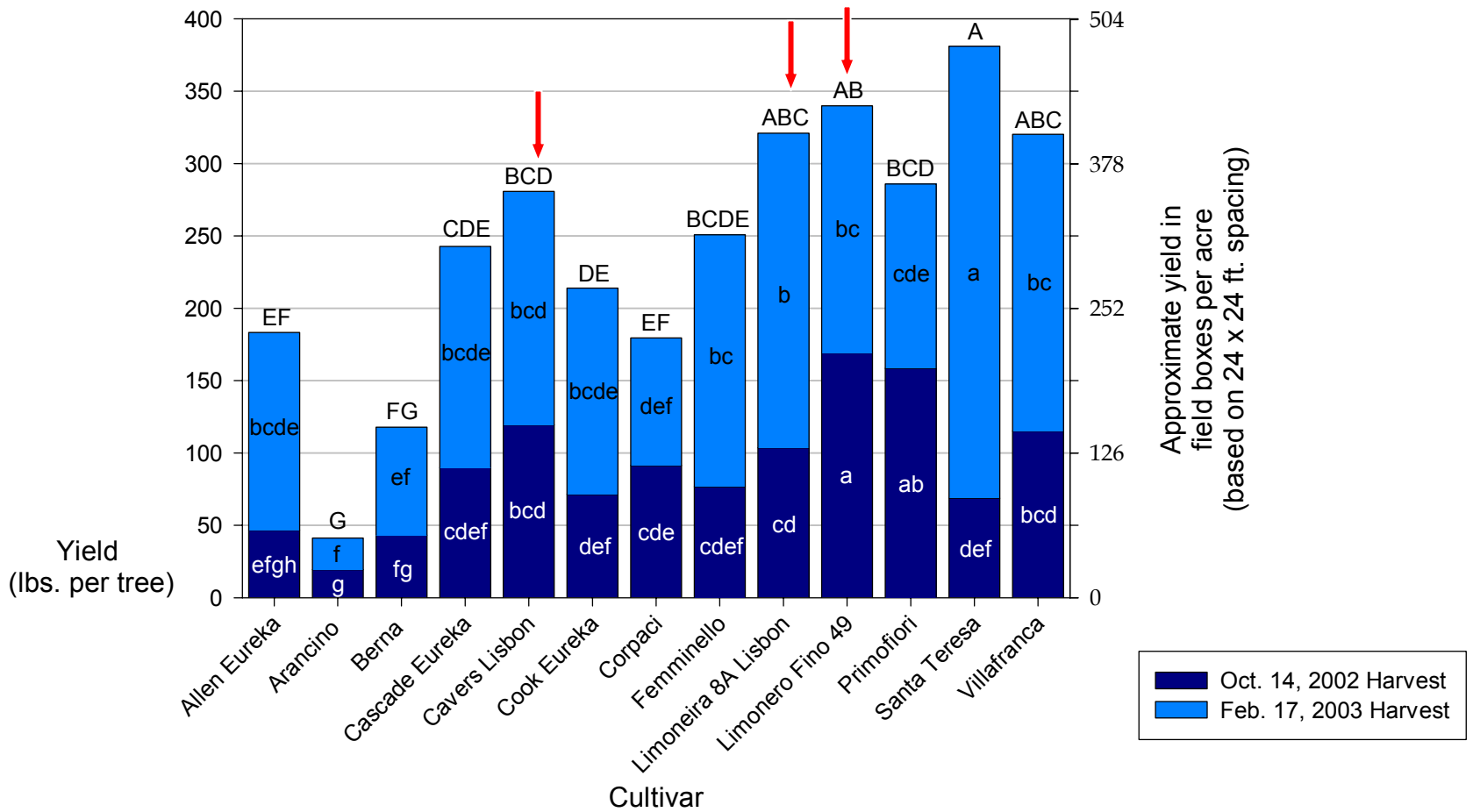
1999 -2003 Block 22 Lemon Yields



2001-02 Block 22 Lemon Yields



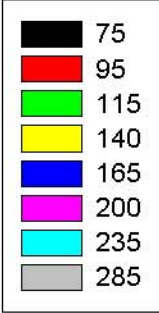
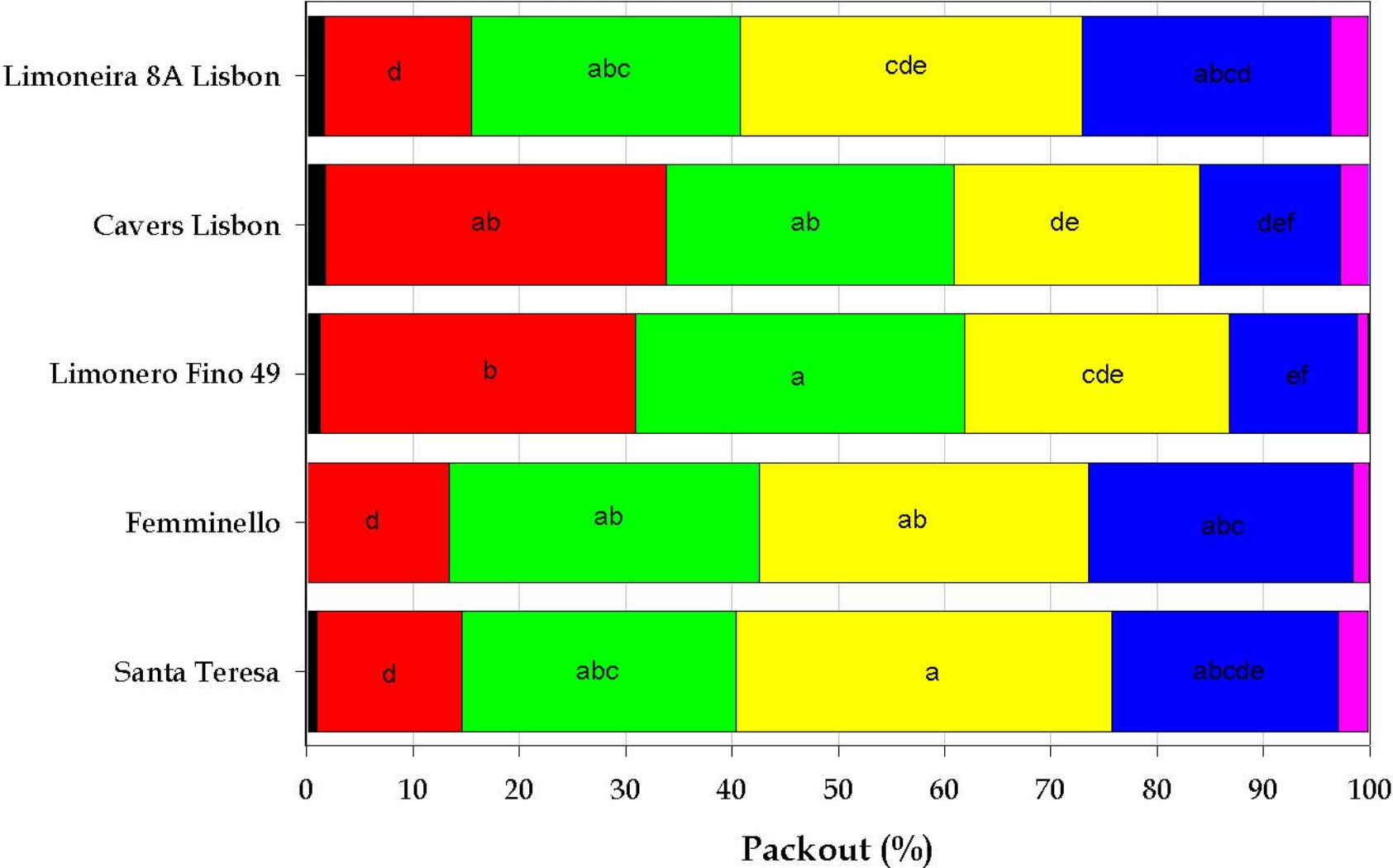
Letters indicate significant differences, within harvest dates or for total yield (bold letters), between cultivars tested.



Letters indicate significant differences, within harvest dates or for total yield (bold letters), between cultivars tested.

2001-02 Block 22 Lemon Packout - 10/3/01 Harvest

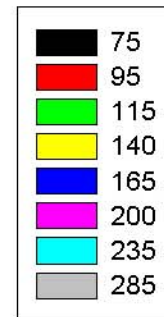
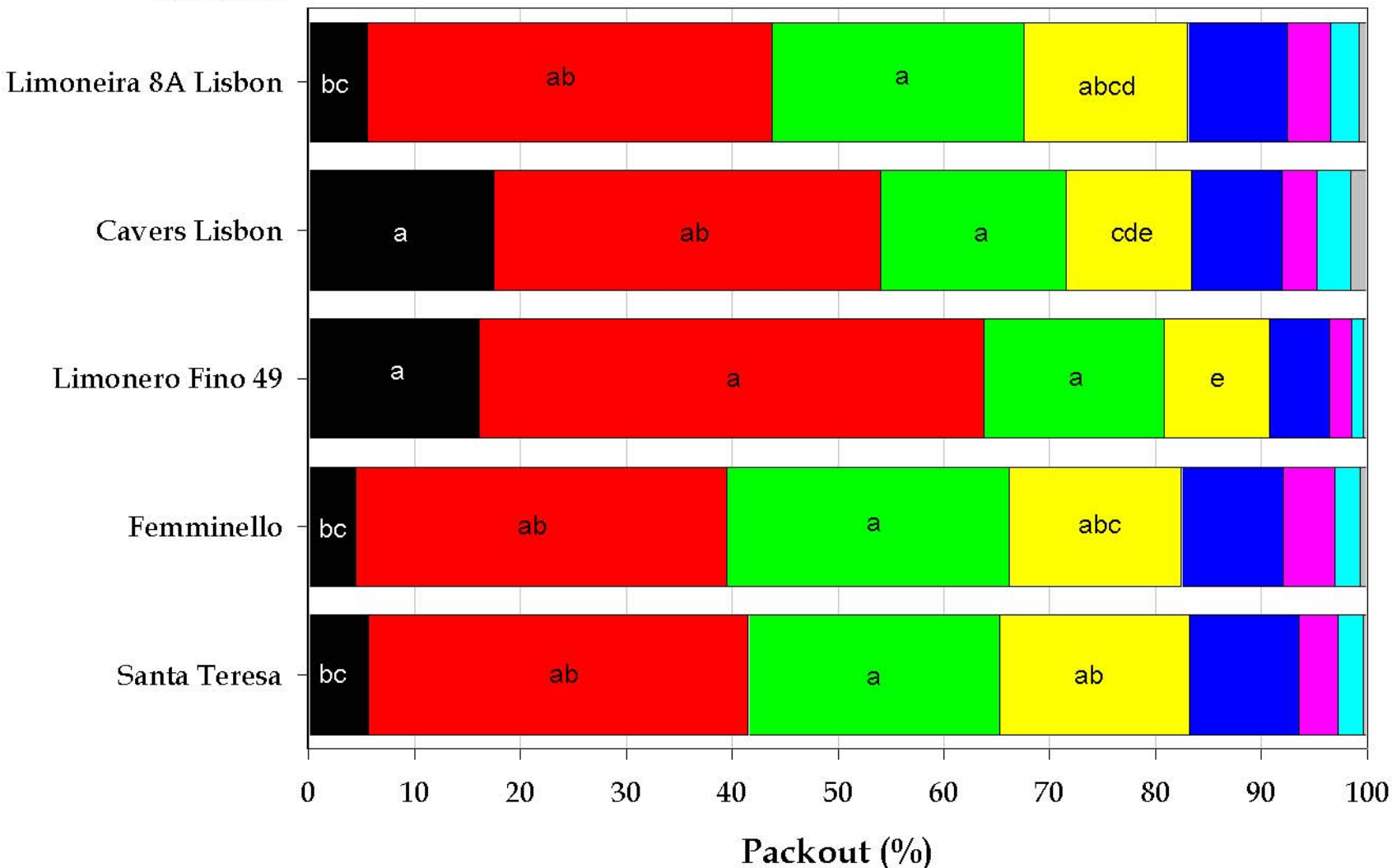
Cultivar



Letters indicate significant differences, within fruit sizes, between cultivars tested.

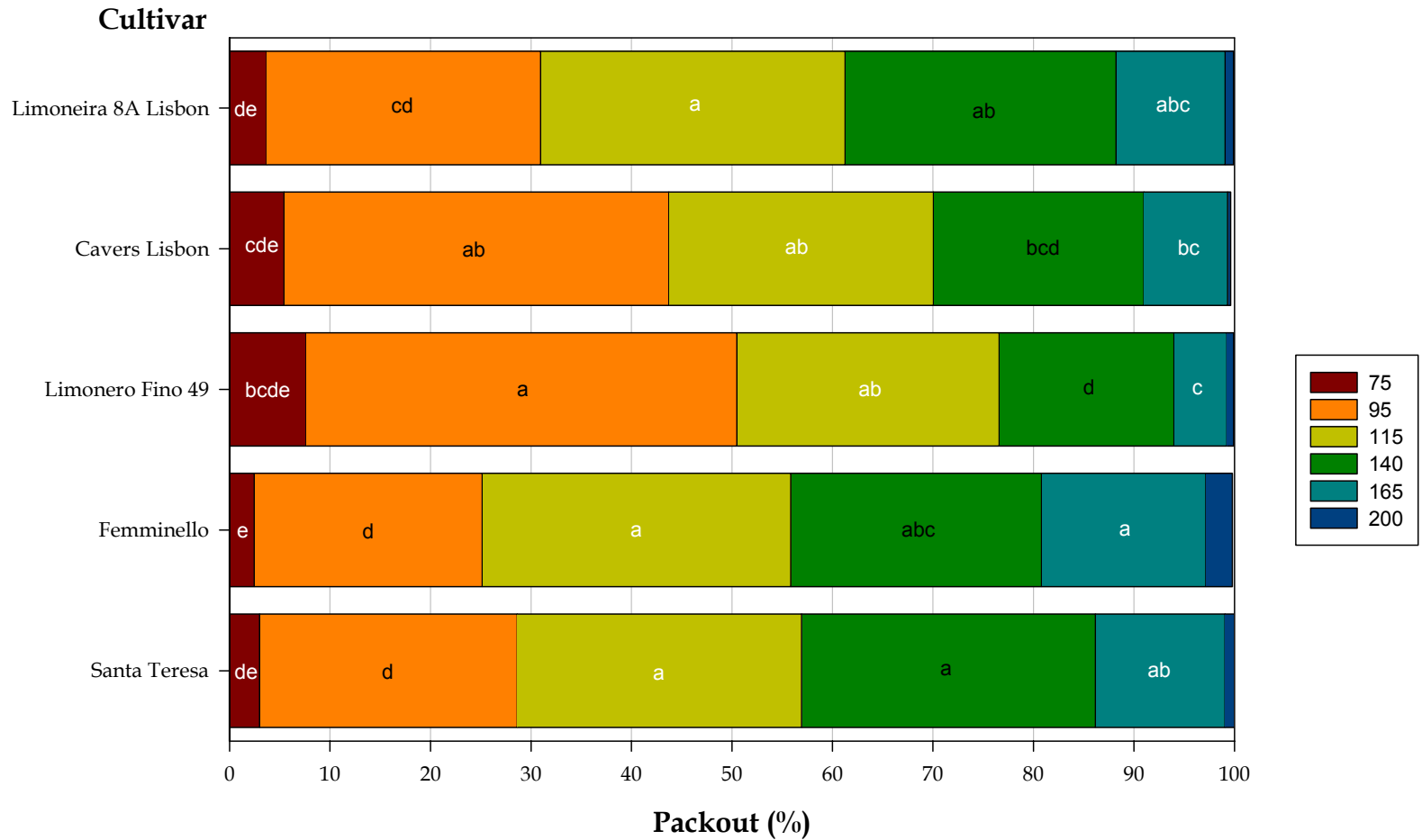
2001-02 Block 22 Lemon Packout - 12/13/01 Harvest

Cultivar



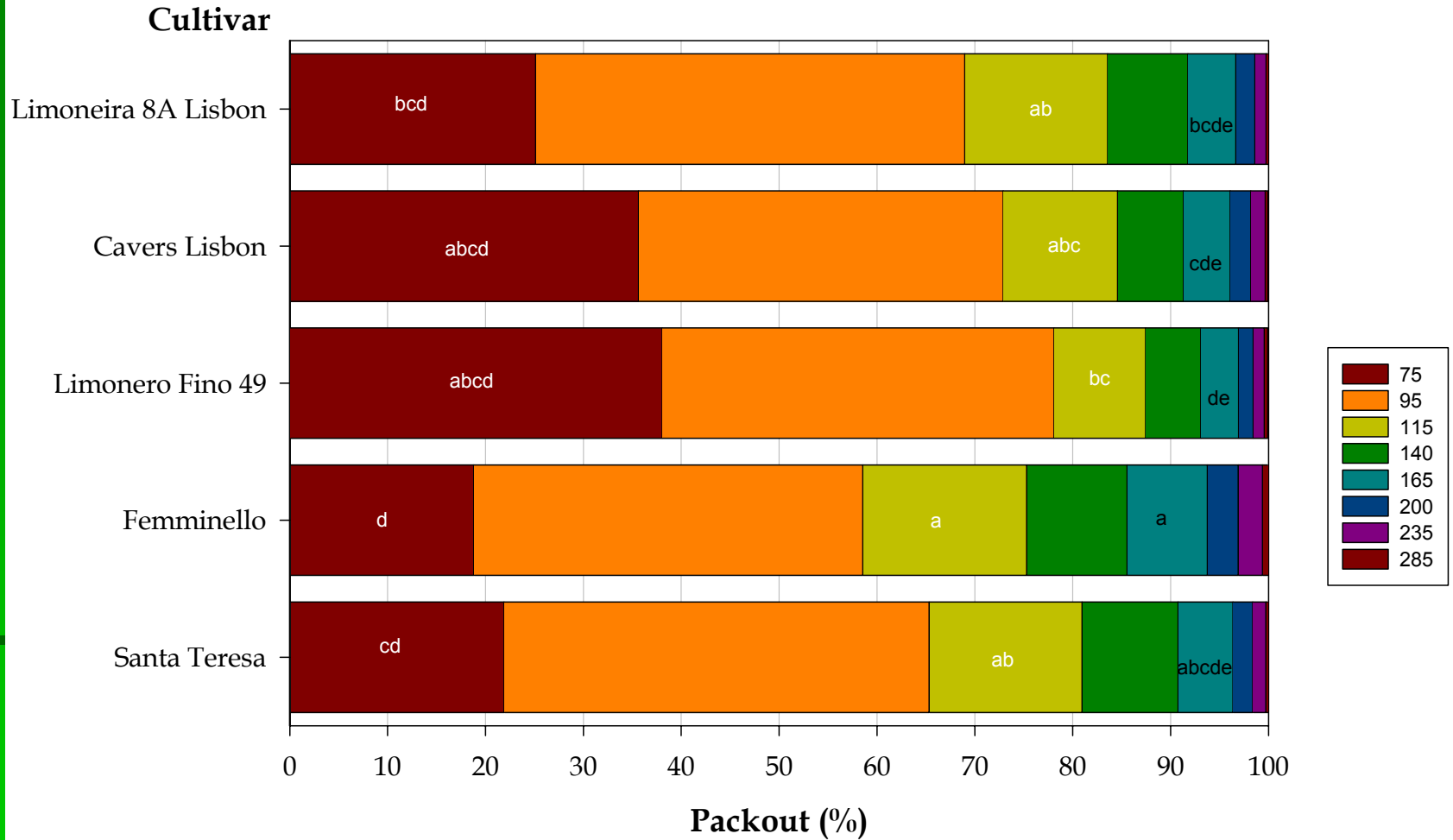
Letters indicate significant differences, within fruit sizes, between cultivars tested.

2002-03 Block 22 Lemon Packout - 10/14/02 Harvest



Letters indicate significant differences, within fruit sizes, between cultivars tested.

2002-03 Block 22 Lemon Packout - 2/17/03 Harvest



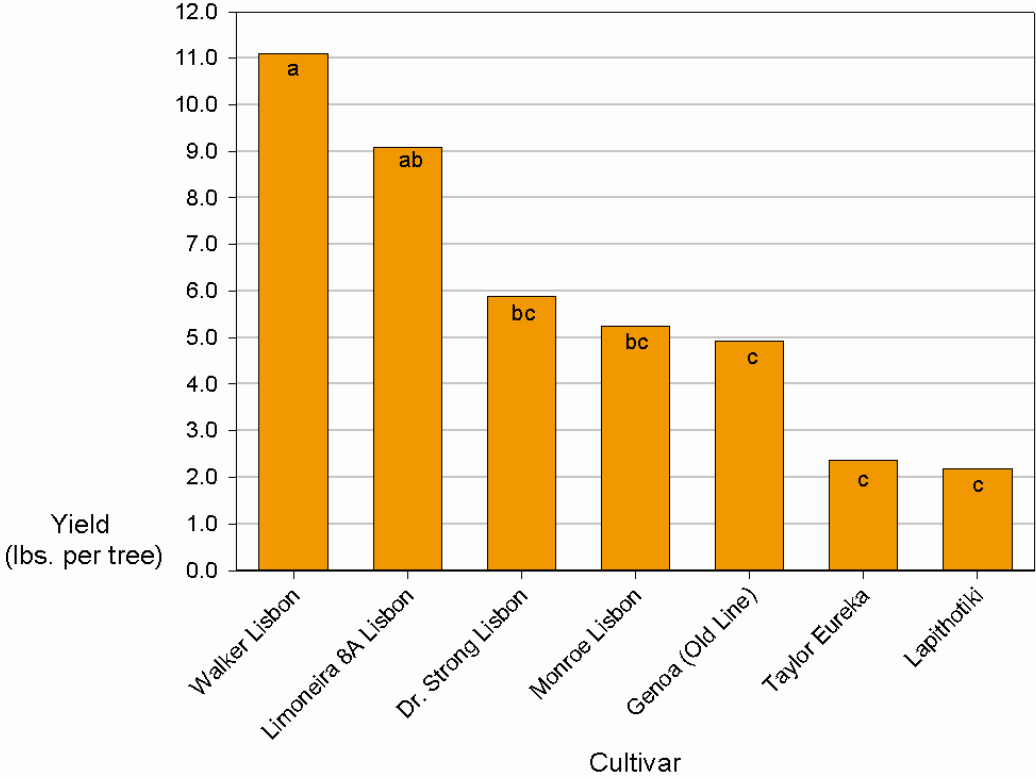
Letters indicate significant differences, within fruit sizes, between cultivars tested.

New Lemon Acquisitions

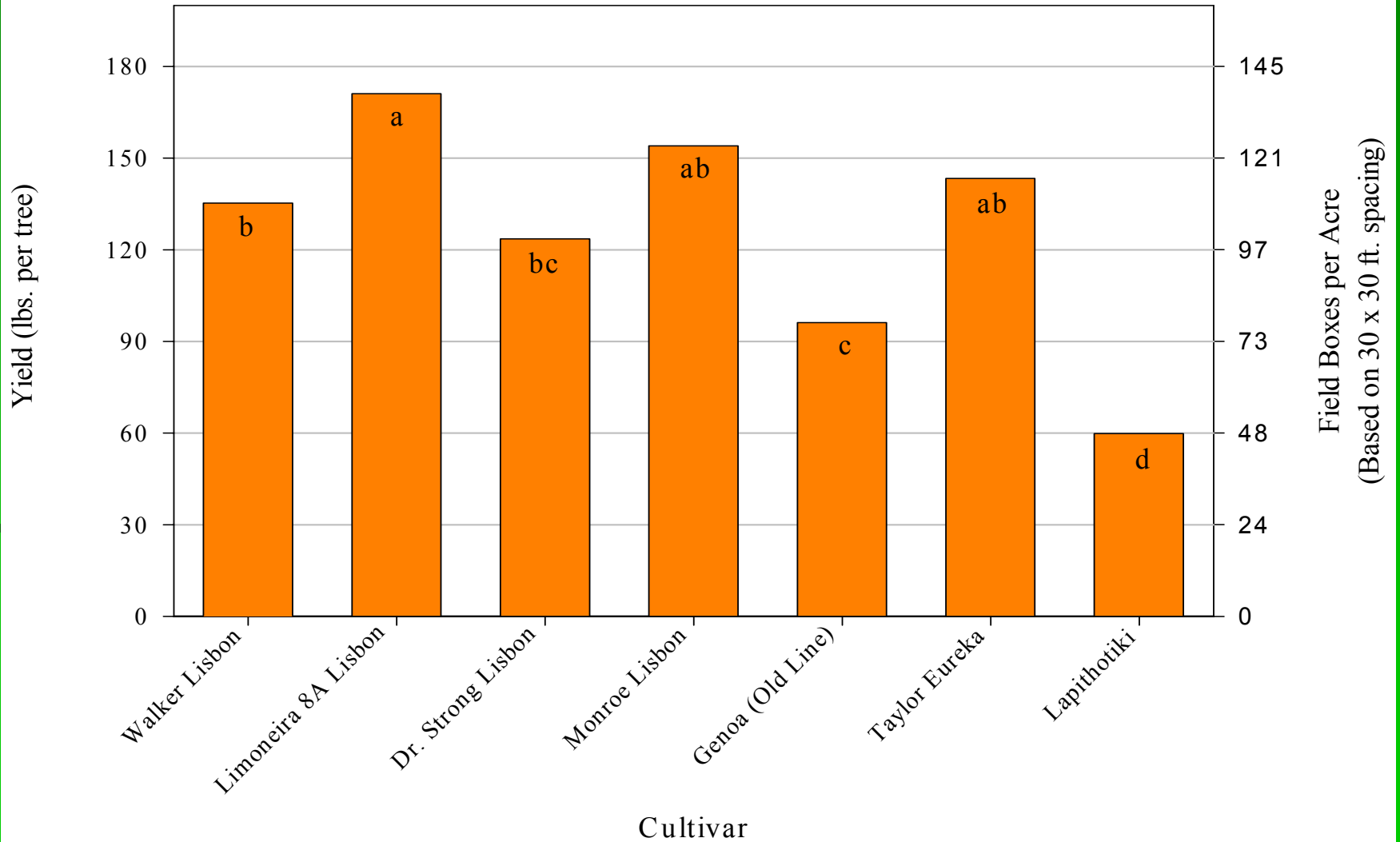
- Limonero Fino 49
- Cavers Lisbon
- Walker Lisbon
- Taylor Eureka
- Lapithotiki
- Genoa Old Line
- Monroe Lisbon
- Dr. Strong



2001-02 Block 14 Lemon Yields



2002-03 Block 14 Lemon Yields

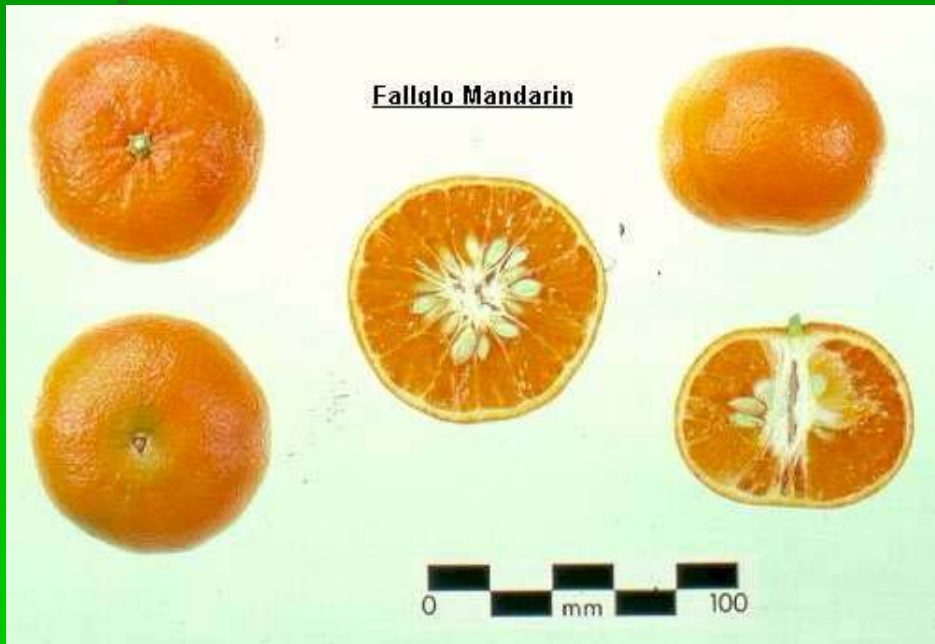


Mandarins

- Precocity
- High yields
- No granulation
- Easy peeling
- Seedless



Fallglo Mandarin



- Excellent size
- Good yield
- Does not typically granulate
- Easy to peel
- Early
- **Seedy!**
- **Seedless budwood available soon**

Fallglo Mandarin



W. Murcott Afourer (Delite)

- Easy to peel
- Does not apparently granulate in the desert
- Late fruit (December - January)
- Not very seedy especially if isolated
- Smaller fruit (Medium and Large)
- Market window?



Table 1. Cultivar Effects on Seediness and Internal Quality

<i>Scion</i>	<i>Seeds (#/fruit)</i>		<i>SSC (%)</i>		<i>Total Acid (%)</i>		<i>SSC/TA</i>	
C. Fina	b	9.67	b	10.88	e	1.06	c	10.33
C. Caffin	d	6.18	c	10.42	d	0.95	b	10.97
Clausellina	f	0.00	e	7.95	f	0.72	b	11.11
C. Aissa	e	8.64	bc	10.68	e	1.04	c	10.26
Fallglo	a	13.08	b	10.89	b	1.17	d	9.31
Kuno Wase	e	1.46	d	8.42	e	0.82	e	10.30
W. Murcott	d	6.07	a	12.87	d	0.94	a	13.80
C. Oroval	d	6.28	b	10.87	a	1.27	e	8.53

11/5/99

2/28/00

Table 2. Cultivar Effects on Yield in Terms of Pounds Per Tree and fruit Number in Each Size Category

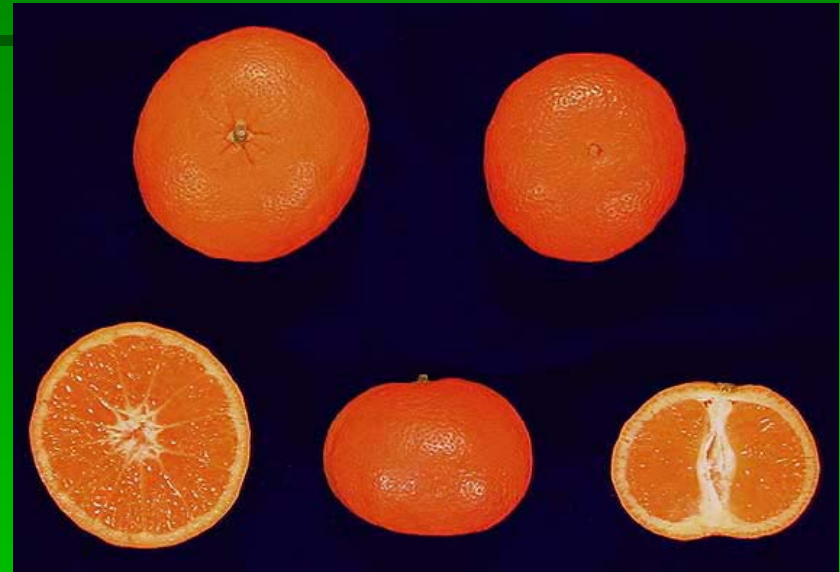
<i>Scion</i>	<i>Yield (lbs.)</i>		<i>Small</i>	<i>Medium</i>	<i>Large</i>	<i>Jumbo</i>	<i>Manumoth</i>	<i>Colossal</i>	<i>Super Colossal</i>							
C. Fina	bc	54.13	a	13.64	a	186.42	b	120.97	c	8.08	d	0.75	b	0.17	b	0.19
C. Caffin	e	15.53	bc	5.61	cd	32.97	e	34.97	e	11.11	d	0.19	b	0.03	b	0.03
Clausellina	e	17.10	cd	0.34	de	2.57	cd	11.71	e	29.17	b	15.37	b	0.46	b	0.00
C. Aissa	cd	49.61	bcd	5.47	b	130.39	ab	142.31	e	11.47	d	0.25	b	0.06	b	0.03
Fallglo	e	24.14	d	0.00	e	0.03	d	0.61	e	17.94	a	46.14	b	0.42	b	0.03
KunoWase	d	37.69	d	0.06	e	0.44	cd	3.08	e	22.89	a	55.78	a	10.64	a	3.86
W. Murcott	a	84.11	b	7.83	c	45.94	a	169.36	a	180.28	bc	12.86	b	0.14	b	0.06
C. Oroval	b	64.10	cd	0.94	c	41.69	a	164.75	b	99.22	cd	4.89	b	0.03	b	0.06

11/5/99

2/28/00

TDE's and Gold Nugget

- Seedless, easy peeling
- Yield?
- Market window?



Mandarin Trials in progress or planned

- Fallglo Trial – Terminated October 2002
- Seedless Fallglo
 - Yuma – Jan. 2004 (bud seedlings)
- Delite
 - Phoenix – April 2002 (planted)
 - Yuma – June 2003 (planted)
 - Yuma – April 2004 (bud seedlings)
- TDE 1-4
 - ┆ Yuma - April 2004 (bud seedlings)
- Gold Nugget
 - ┆ Phoenix – April 2002 (planted)
 - ┆ Yuma – April 2004 (bud seedlings)