



**CITRUS** FREEZE DAMAGE REPORT AND  
MATURITY TEST RESULTS



Cooperating with the Florida Department of Agriculture & Consumer Services  
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The results of the special survey conducted on February 15-16, 2010 to assess fruit and leaf damage caused by the 8 days of sub-freezing temperatures that occurred between January 5-13, 2010 in the citrus producing region of Florida are below. Fruit and trees in unharvested sample groves across the State's production areas were checked. Using the Federal-State Inspection Service standards, fruit was cut and scored for damage at depths of ¼-inch, ½-inch, and at the center, recording the point of greatest severity of damage. The tables show the distribution and severity of fruit damage. Except for the early-mid season oranges, the majority of samples observed fell into the "no damage apparent" category.

**Florida Citrus — Condition of fruit on trees by variety**

Fruit type (Number of groves)	No damage apparent		Damage at ¼-inch cut		Damage at ½-inch cut		Damage at center cut			
	Jan 27-28	Feb 15-16	Jan 27-28	Feb 15-16	Jan 27-28	Feb 15-16	Minor		Major	
							Jan 27-28	Feb 15-16	Jan 27-28	Feb 15-16
	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
<b>Oranges:</b>										
Early-Midseason (53-14)	59.2	36.6	13.5	15.2	8.7	11.6	16.5	14.3	2.1	22.3
Late (150-150)	89.9	79.7	5.3	9.6	3.2	4.1	1.5	5.8	0.1	0.8
<b>Grapefruit:</b>										
White (37-32)	97.0	92.2	2.0	2.4	1.0	3.1	0.0	2.3	0.0	0.0
Colored (28-21)	99.1	98.2	0.9	0.6	0.0	0.0	0.0	1.2	0.0	0.0

**Florida Citrus — Condition of fruit on trees by production area**

Fruit type and production area (Number of groves)	No damage apparent		Damage at ¼-inch cut		Damage at ½-inch cut		Damage at center cut			
	Jan 27-28	Feb 15-16	Jan 27-28	Feb 15-16	Jan 27-28	Feb 15-16	Minor		Major	
							Jan 27-28	Feb 15-16	Jan 27-28	Feb 15-16
	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)	(percent)
<b>Late Oranges (150)</b>										
Indian River	94.4	91.7	3.2	5.1	1.4	2.8	1.0	0.4	0.0	0.0
Northern	67.5	52.5	7.5	12.5	17.5	7.5	5.0	27.5	2.5	0.0
Central	91.2	88.1	4.1	4.4	2.5	4.7	2.2	2.8	0.0	0.0
Western	82.0	68.0	11.8	15.8	4.0	8.5	2.2	7.7	0.0	0.0
Southern	94.6	77.0	2.5	11.9	2.6	0.6	0.3	8.0	0.0	2.5
Total	89.9	79.7	5.3	9.6	3.2	4.1	1.5	5.8	0.1	0.8

Valencia samples collected February 15-16, 2010 were tested February 17, 2010 at the USDA, NASS, Florida Field Office laboratory. Test results show a decrease in acid percent from the February 1, 2010 survey. Survey summary indications show that the solids to acid ratio is higher, unfinished juice per box is lower, and the solids per box is higher. No FCOJ projections were made from these results. The next FCOJ forecast will be included in the March 10, 2010 forecast available at 8:30 a.m.

**Citrus Unadjusted Maturity Tests — Florida: 2008-2009 and 2009-2010**

[Averages of regular bloom fruit from sample groves. Juice and solids per box are unadjusted and not comparable to juice processing plant test results. All samples were run through an FMC 091 machine using mechanical pressure only. This machine utilizes a .040 short strainer and standard 5/8 inch orifice tube. The beam settings are also identical to past tests and no restrictors are used]

Fruit type (number of groves) test date	Acid		Solids (Brix)		Ratio		Unfinished juice per box		Solids per box	
	2008-2009	2009-2010	2008-2009	2009-2010	2008-2009	2009-2010	2008-2009	2009-2010	2008-2009	2009-2010
	(percent)	(percent)	(percent)	(percent)	(number)	(number)	(pounds)	(pounds)	(pounds)	(pounds)
<b>Late (150-150)</b>										
Oct 1 .....	2.49	2.41	8.86	8.86	3.61	3.73	47.30	43.46	4.19	3.85
Nov 1 .....	1.87	1.86	9.30	9.32	5.05	5.07	51.84	48.08	4.82	4.48
Dec 1 .....	1.62	1.52	10.20	10.22	6.39	6.83	54.03	50.91	5.51	5.20
Jan 1 .....	1.39	1.30	11.15	10.89	8.11	8.50	55.71	53.03	6.21	5.77
Feb 1 .....	1.34	1.23	11.77	11.67	8.85	9.59	55.49	52.18	6.53	6.09
Feb 15 .....	1.30	1.14	12.07	12.09	9.37	10.77	56.53	52.00	6.82	6.29

The tables below show the distribution and severity of leaf damage. For all varieties, the majority of samples observed fell into the “no damage apparent” category.

### Florida Citrus — Leaf damage by variety

Fruit type (Number of groves)	No damage		Minor		Major		Serious	
	Jan 27-28 (percent)	Feb 15-16 (percent)	Jan 27-28 (percent)	Feb 15-16 (percent)	Jan 27-28 (percent)	Feb 15-16 (percent)	Jan 27-28 (percent)	Feb 15-16 (percent)
<b>Oranges:</b>								
Early-Midseason (53-14)	80.7	100.0	12.3	0.0	5.6	0.0	1.4	0.0
Late (150-150)	90.0	87.7	10.0	12.3	0.0	0.0	0.0	0.0
<b>Grapefruit:</b>								
White (37-32)	91.2	93.8	5.4	0.8	0.7	3.1	2.7	2.3
Colored (28-21)	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0

### Florida Citrus — Leaf damage by production area

Fruit type and production area (Number of groves)	No damage		Minor		Major		Serious	
	Jan 27-28 (percent)	Feb 15-16 (percent)	Jan 27-28 (percent)	Feb 15-16 (percent)	Jan 27-28 (percent)	Feb 15-16 (percent)	Jan 27-28 (percent)	Feb 15-16 (percent)
<b>Late Oranges (150-150)</b>								
Indian River	100.0	81.5	0.0	18.5	0.0	0.0	0.0	0.0
Northern	80.0	100.0	20.0	0.0	0.0	0.0	0.0	0.0
Central	81.9	95.0	18.1	5.0	0.0	0.0	0.0	0.0
Western	85.3	86.0	14.7	14.0	0.0	0.0	0.0	0.0
Southern	96.0	84.7	4.0	15.3	0.0	0.0	0.0	0.0
Total	90.0	87.7	10.0	12.3	0.0	0.0	0.0	0.0