

VERITABLE VEGETABLE'S PRODUCE NOTES

CALIFORNIA CITRUS FROZEN

Agricultural officials continue to assess the damages to California fruit and vegetable crops caused by four consecutive days of freezing temperatures. The San Joaquin Valley, California's premier citrus growing region, was hit especially hard with total losses nearing \$320 million. Fresno and Tulare counties, which together produce over 50% of the state's fresh market oranges, have been declared "emergency disaster areas". The Sacramento Valley, stretching north above Redding, was devastated, losing nearly 100% of unharvested fruit. Coastal regions such as Ventura County, where most of the state's lemons are grown, were not as severely affected. Long term losses due to tree damage will be further evaluated in all regions as the weather warms.

It is estimated that only 15% of the navel orange crop had been harvested before the start of the freeze on December 20, leaving 85% vulnerable to nearly a week of enduring cold temperatures. Approximately 60-75% of the fruit remaining on the trees was frozen. As the unharmed fruit is harvested, agricultural inspectors are on hand at packinghouses to test for defect. If over 15% of the tested fruit reveals freeze damage, the entire lot will be rejected and destroyed.

The affects of the freeze are felt not only by the farmers, but also by the hundreds of people laid off from their jobs at packing houses and by the consumers paying up to 300% more for their citrus at the retail level. Prices for California citrus have increased for organically and conventionally grown product alike, with the most severe spikes in the orange and lemon markets. Grapefruit and tangerine damage reports have been more moderate, but these prices are expected to increase as well.

Citrus from Arizona, Texas and Mexico is readily available, but organic citrus fruit from Florida is not allowed into California for quarantine reasons. In general, navels from these growing regions will be less expensive, but also lighter in color and less intense in flavor than the California grown fruit.

HOW COLD?

Different types of citrus can withstand varying degrees of cold temperatures.

Acidic limes and lemons are the citrus most vulnerable to freezing while fruits higher in soluble sugars, such as mandarins and navels, are hardier. Dormant trees can withstand low temperatures of 18 degrees Fahrenheit (F), however trees in bloom will crack, wilt or die at sustained temperatures of less than 25F.

For every hour the temperature is 25F or less, a minimum of 5% crop loss can be expected.

For example, the coldest region of the San Joaquin Valley experienced nearly 40 hours at 25F or less, with lows recorded in the teens, and realized a 100% loss on all lemons, limes and unripe oranges.

Freeze prevention measures such as irrigation and wind machines may be able to raise localized temperatures from 1F-4F, but are effective only at temperatures above 25F.

WHAT'S NEXT?

Keep trying to support those California citrus growers while you can! The supply won't last long before we move into imported navels and valencias.

Now is the perfect time to try those lesser known citrus varieties! Easy to peel varieties of mandarins include the DANCY, CLEMENTINE and the PIXIE. Try the ORLANDO and MINNEOLA tangelos for excellent juicing and eating. Upcoming favorites such as the ROYAL tangor and the BLOOD ORANGE are only days away from harvest!

