

Spanish Clementine Data Report and Analysis
2002-2003 Season

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United States Department of Agriculture
Animal and Plant Health Inspection Service
Plant Protection and Quarantine

Spanish Clementine Data Report and Analysis: 2002-2003 Season

Approximately 20 million boxes of Clementines were imported from Spain in the 2002-2003 season. No live larva were found in any of the imported fruit; however, based on sample data for the season an estimate of 0.00045 (45 in 100,000) fruit contained dead larvae after cold treatment. Weekly average rate of fruit containing dead larvae based on sample data ranged from 0.0 to 0.0026 (or 26 in 10,000).

Pre-clearance inspectors inspected approximately 20 million boxes in Spain. There was a rejection rate of 0.0137. This does not indicate an infestation level because not all fruits in the rejected shipments are infested. The actual infestation level could not be calculated since inspections stopped on rejected shipments once live larvae were found.

Approximately 20 million boxes of Spanish Clementines were imported into the United States. The number of fruit per box ranges from 15 to 52. The fruit come to the US by sea either in refrigerated containers or ship holds where Clementines receive the necessary cold treatment while in transit. All of the fruit had received the necessary cold treatment before being imported and were certified as such. A total of 70,190 clementines were selected, dissected and inspected for Medfly larva. No live larvae were found in any of the fruit sampled. A total of 126 dead larvae were found in 26 of the sampled fruit. The season estimate of 0.00045 fruit infested with dead larvae was calculated by weighting each sample's infestation rate by the number of fruit represented by that sample. The weekly estimated rate of fruit infested with dead larvae was calculated using the same weighting process.

Weekly Summary of Clementine Fruit Cutting Inspection Sampling						
Week Beginning	Total Boxes of Fruit	Number of Fruit Sampled	Number of Fruit with Dead Larvae	Estimate of Rate of Fruit Infested	95% Confidence Interval Lower Limit	95% Confidence Interval Upper Limit
11/11/02	1,208,732	8,690	1	0.000055	0.00000	0.00016
11/18/02	2,448,296	12,580	7	0.000619	0.00004	0.00120
11/25/02	967,928	8,840	9	0.001693	0.00031	0.00307
12/2/02	2,392,620	11,380	3	0.000534	0.00000	0.00125
12/9/02	1,451,946	6,690	5	0.002566	0.00027	0.00486
12/16/02	3,989,560	5,960	0	No Larvae Detected in the Sample -		
12/23/02	807,600	1,900	1	0.000526	0.00000	0.00158
12/30/02	1,491,040	1,900	0	No Larvae Detected in the Sample -		
1/6/03	1,143,400	1,490	0	No Larvae Detected in the Sample -		
1/13/03	738,400	1,490	0	No Larvae Detected in the Sample -		
1/20/03	1,242,000	3,140	0	No Larvae Detected in the Sample -		
1/27/03	901,916	2,090	0	No Larvae Detected in the Sample -		
2/3/03	92,740	1,650	0	No Larvae Detected in the Sample -		
2/10/03	687,940	2,090	0	No Larvae Detected in the Sample -		
2/17/03	17,400	300	0	No Larvae Detected in the Sample -		

In conclusion the 2002-2003 Spanish Clementine season was very successful. There were no live larvae found after the cold treatment was completed. Dead larvae finds were well below the 1.5 infestation levels set in the risk document. In fact live larvae finds in Spain were well below this level also. The Spanish Clementine program has proven to be effective at assuring safe phytosanitary shipment of this commodity into the United States.