UF IFAS
UNIVERSITY of FLORIDA

Estimated Temperatures for Freeze Damage or Death of Tropical Fruit Trees in South Florida[1]

Common name	Temperature ºF (ºC)	Rating[2]
Abiu	Mature ~30-31, young 32 (-0.6 to -1.1)	L
Atemoya*	<32 (0)	L
Avocado	West Indian 25-30 (-4 to -1.1), Guatemalan 25-28 (-4 to -2), Mexican 18-26 (-9 to -3)	L, M, M
Banana	28 injury (-2), <28 death (<-2)	L
Barbados cherry	mature 28 (-2), young 30 (-0.6)	L
Black sapote	mature 28 (-2), young 30 (-0.6)	L
Canistel	mature 23 (-5), young 29 (-1.7)	M
Carambola	mature 26-28 (-3 to -2), young 27-32 (-2.8 to 0)	M
Coconut	<32 (<0)	L
Guava	mature 25-26 (-4 to -3), young 27-28 (-2.8 to -2)	M
Jaboticaba	mature 27-29 (-2.8 to -1.7), young <30	L
Jackfruit*	<32 (<0)	L
Jujube (Indian)	<32 (<0)	L
Key lime	<32 (<0)	L
Kumquat	<18 (-8)	H
Tahiti lime	mature 22-30 (-5.6 to -1.1), fruit 28 (-2), young 25-30 (-4 to -1.1)	M
Longan	mature 24-28 (-4 to -2), young 28-30 (-2 to -1.1)	M
Loquat	dormant 10 (-12), fruit <27-28 (<-2.8 to -2)	H
Lychee	mature 24-25 (-4 to -3), young 28-32 (-2 to 0)	M
Macadamia	mature 25-26 (-4 to -3), young <32 (<0)	M
Mamey sapote	mature 28 (-2), young <32 (<0)	L
Mango	mature 25 (-4), young 29-30 (-1.7 to -0.6), fruit <40 (<4.4)	M
Monstera*	leaves 30-32 (-1.1 to 0), stems 26-28 (-3 to -2)	L
Papaya	<30 (<-0.6)	L
Passion fruit	<32 (<0)	L
Pineapple	<28 (<-2), <40 heart rot (<4.4)	L
Pitaya	<28 (<-2) (not entirely documented)	L-M
Plantain	<28 (<-2)	L
Pummelo	<32 (<0)	L
Sapodilla	mature 26 (-3), young 30-32 (-0.6 to 0)	M
Spanish lime*	mature 27-28 (-2.8 to -2), young <32 (<0)	L
Star apple	mature 26-29 (-3 to -1.7), young 31 (-0.6)	L
Sugar apple	mature 28-29 (-2 to -1.7), young 30 (-0.6)	L
Tamarind	mature 28 (-2), young 32 (0)	L
Wampee*	<32 (<0)	L
White sapote	mature 24 (-4), young 26 (-3)	M

1, Estimated temperatures at which tree damage or death may occur. The actual tree damage or death temperature will depend upon previous growing conditions, tree health, tree growth stage, and depth and duration of freezing temperatures.
2, L, low freeze tolerance; M, moderate freeze tolerance; H, high freeze tolerance; mature, mature/large tree; young, young/small tree.
*, Estimated temperature based on: Campbell, C.W., R.J. Knight, Jr., and N.L. Zareski. 1977. Freeze damage to tropical fruits in southern Florida in 1977. Proc. Fla. State Hort. Soc. 90:254-257; Campbell, C.W. 1964. Two new fruits for cultivation in south Florida. Proc. Fla. State Hort. Soc. 77:356-357; Lynch, S.J. 1940. Observations on the January 1940 cold injury to tropical and subtropical plants. Proc. Fla. State Hort. Soc. 53:192-194; Ledin, R.B. 1958. Cold damage to fruit trees at the subtropical experiment station, Homestead. Proc. Fla. State Hort. Soc. 71:341-244.

Handout compiled by Dr. J.H. Crane, Tropical Fruit Crop Specialist, UF-IFAS-TREC, Homestead. Temperatures estimated from observation and literature. (b:/old As/#17/fruitemp.doc – revised May 1999; reviewed 2011, 2012, 2013, 2014, 2016: c://ext/factsheets/ cold tolerance of tropical-subtropical fruit crops in Florida)