

Public Abstract

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Title:LOW TEMPERATURE SURVIVAL OF REDHAVEN PEACH FLORAL BUDS ON SELECTED ROOTSTOCKS

The relative cold tolerance of 'Redhaven' peach floral buds grafted onto various rootstocks was evaluated from November 2011 to March 2013. Budwood was collected from coordinated rootstock trials in Missouri and South Carolina for artificial freezing tests in late fall, mid-winter, and early spring. At each collection date, samples were exposed to 2 °C for 14 hr, -2 °C for 1 hr, cooled at a rate of 3 °C/hr, and removed at 3°C intervals. The number of dead buds per test temperature was recorded and T50 values were calculated. Although minimum temperatures were unseasonably warm during this study, rootstocks influenced cold tolerance of floral buds in Missouri in February 2012 and March 2013 and in South Carolina in January 2012. Lovell and Guardian rootstocks conferred floral cold hardiness, while Mirobac adversely affected hardiness when data were pooled from both locations.