

A Science Service Feature

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? WHY THE WEATHER ? Mailed January 19, 1932

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DRY WINDS IN THE CITRUS GROVES

In a recent article Floyd D. Young, of the Weather Bureau, describes the remarkable "desert winds" that occasionally invade the citrus belt of southern California, causing much damage to trees and fruit. Their destructive effects are felt mainly in fall and winter. The winds come down through mountain passes from the plateau region of Nevada and northern Arizona and are initially very cold but are warmed by compression in their descent and become so dry that relative humidity as low as three per cent. is sometimes registered at Pomona.

"Damage to crops," says Mr. Young, "especially citrus fruits, due to desert winds, is sometimes enormous. Citrus damage is of two kinds, the mechanical injury to the trees and fruits owing to the high velocity of the wind, and the desiccating effects of the extremely dry air on the foliage. When the wind velocity is high, 30 to 40 miles per hour, much fruit is blown to the ground and a great deal of that left on the trees is badly scarred through limb rubbing. Two desert winds which occurred in Orange County, Calif., during December, 1927, caused an estimated loss of 1,500 carloads of oranges through blowing the fruit from the trees. The manager of the cooperative marketing association in one district estimated that 35 per cent. of the entire orange crop on the trees in his district was blown to the ground. In the most exposed portions of some orange groves, as many as 500 oranges were counted under individual trees after the wind. Fruit scratched or bruised through contact with limbs during a storm is much more subject to decay than sound fruit. If a period of rain or nights with heavy fog follows a strong desert wind within a few days, the injured fruits often decay on the trees. Foliage injury, or 'wind burn,' as it is called locally, is due entirely to excessive dehydration of the leaves and small twigs in the extremely dry atmosphere. It is confined almost entirely to orange trees."

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