

A Science Service Feature

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? WHY THE WEATHER ?

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HEATING ORCHARDS

Heating orchards as a protection against Jack Frost is much commoner in the United States than in any other part of the world, but even in the United States it is confined to comparatively few regions. It is fairly prevalent in the Florida citrus groves and is practiced to a slight extent in other Gulf states, but by far its most important center is the citrus-growing region of southern California.

"In the deciduous fruit districts of California," says J.R. Magness, of the U.S. Bureau of Plant Industry, "some orchard heating is done, although the spring frost hazard in those districts is in general not high, and only orchards with relatively poor air drainage are likely to require heating. In the pear orchards of the Rogue River Valley, Oregon, heating of the lower-lying orchards is general. In the fruit districts of Washington heating of peach, pear and cherry orchards is quite general. Apple orchards are heated only where the contour of the land prevents really satisfactory air drainage."

Oil is the commonest fuel. In Southern California about 50 large "smokeless" heaters or 100 heaters of the "lard pail" type are required to the acre, and the consumption of oil on a frosty night runs to about 100 gallons an acre. "With favorable atmospheric conditions for heating," says Mr. Magness, "it is usually possible to hold the temperatures in orchards from six to eight degrees above those prevailing outside. This is ample to protect orchards against any but the most severe freezing or frost conditions."

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