

A Science Service Feature

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? WHY THE WEATHER ?

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WHEN CALIFORNIA LIGHTS UP

Now is the season when an occasional visit from Jack Frost, or the expectation of one, causes a spectacular illumination of the citrus groves in southern California. Last winter the total area of groves protected by orchard-heating in that region amounted to 215,325 acres. The equipment includes something like 3,000,000 oil-burning heaters, which require, for one filling, nearly 18,000,000 gallons of oil. Each heater burns about a gallon an hour. There are also a considerable number of heaters that burn briquets in place of oil. On an average the groves are lighted up about three times each winter, but the heating does not always last all night.

While most of the oil-burning heaters now used in the state are of the newer patterns that eliminate the smoke nuisance, a good many of the old-fashioned open-pan type are still spreading grime over the landscape. The smoke and oily soot given off by these pans, says Floyd D. Young, of the Weather Bureau, "throws a black pall over the districts in which the heaters are burned, and as it drifts slowly away it passes over other communities, scattering soot and dirt as it travels. The use of this type of heater often proves to be expensive to the grower in the long run. A heavy coating of greasy soot on oranges or lemons is difficult or impossible to remove entirely, and the increased washing and scrubbing at the packing house often results in heavy decay."

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