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? WHY THE WEATHER ?

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ORCHARD HEATER SMOKE

With the coming of the first severe frost of the cold season in southern California the citrus groves will be lighted up on a vast scale; not to celebrate the event, but to save the fruit from Jack Frost. Of orchard heaters burning oil, the favorite fuel, there are said to be about 3,400,000 in use in the state, and there are many besides that burn solid fuel..

Orchard heating began experimentally in California as early as 1896, and the severe freezes of 1912 led to the practice becoming regarded as essential in all cold locations. In the early days smoke was considered more valuable than heat, and heaters were designed accordingly. The smoke was a nuisance to the community but was tolerated on account of the great economic importance of the industry it was supposed to serve. Some years ago, however, this notion was proved to be a fallacy and since about 1922 much attention has been given to designing heaters that produce much heat with little smoke.

Despite marked improvements in this respect, there were widespread complaints last winter, when the groves were heated on as many as 14 nights in some localities, and the total consumption of oil was 17,000,000 gallons; the greatest on record. Hence the Los Angeles Chamber of Commerce organized a committee to investigate the smoke problem. Researches and tests of heaters were conducted for the committee by specialists of the state college of agriculture, and an ordinance regulating the types of heaters to be employed in the future has been recommended for adoption in the citrus-growing counties of the state. This would prohibit the use of heaters having a smoke output exceeding 20 grams of carbon per pound of fuel burned, and its effect would be, it is said, to abolish altogether the use of the old "open pot" type of heater, as well as to necessitate modifications of some other type.

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