

Released on receipt  
but intended for use  
January 6, 1930.

A Science Service Feature

? WHY THE WEATHER ?

Mailed December 30, 1929

By Charles Fitzhugh Talman,  
Authority on Meteorology

FRUIT-FROST SERVICES

The season of orchard-heating as a protection against frost has now arrived in the citrus-growing regions of the United States. As an adjunct of this means of protection the United States Weather Bureau has maintained for some years in California intensive "fruit-frost" services, and during the present winter one is being organized in the Satsuma orange district of southern Alabama.

The first step in operating a fruit-frost service is to make a detailed temperature survey of the district concerned, by recording the temperatures at a large number of points through one or more seasons and comparing the records with those made at a central point, known as the "key station." While the temperatures occurring at a given time vary widely from place to place, on account of difference in topography and exposure, the relations between them and those observed at the key station are found to be remarkably constant. Hence when a prediction of a certain temperature is made for the key station, each grower knows what temperature to expect in his own locality. Even in a single large grove of diversified topography, widely different temperatures may be expected for the different parts.

With the aid of data obtained from these surveys growers not only know when and where to light their heaters, but also how to distribute heating equipment to the best advantage. In fact, if the survey is made before the planting of the groves the latter can be located in accordance with its results so as to insure minimum danger from frost.

The Weather Bureau assigns a specialist to make the survey and, in subsequent seasons, to issue forecasts at the key station, inspect and test thermometers, give advice to growers, etc.

(All rights reserved by Science Service, Inc.)

-----  
SCIENCE SERVICE  
21st and B Sts.  
Washington, D.C.