

No. 671

A Science Service Feature

July 6

? WHY THE WEATHER ?

By Dr. Charles F. Brooks,
of Clark University.

HOT NORTHERS

Everyone has heard of the damage wrought in Florida and California by cold waves, which sometimes raise the price of oranges. Heat waves, in California, may be even more destructive to agriculture. In the east, it gets hot, muggy and uncomfortable, to be sure, but we have little idea of what a real hot wave is like. The hot norther of California is a dry, scorchingly hot wind bringing into the cultivated valleys air descending from intensely heated desert plateaus. The high temperature of the air is the combined result of its great initial heat and heating by compression as it descends to the lowlands. Hot northers may last from 3 to 10 days, giving temperatures generally over 100 degrees. Such extreme temperatures as 118 and 122 have been recorded in June. Almost every season has its hot waves, but they are usually not severe after a winter with heavy snowfall. The hot northers are directly caused by a high pressure over Nevada, Utah, and the North Pacific region, which checks the normal flow of air inland from the ocean and starts a southward flow instead. The wind shifts from west to north or northeast. It is very difficult to save vegetation from the blighting effect of these hot dry winds coming from the interior deserts. Constant spraying, where the expense is justified, seems to be the best protection.

On the Great Plains winds of a similar sort blow down the slope usually from a westerly or southwesterly direction. Sometimes these do not reach the ground everywhere over a region, but descend here and there "blasting" the crops in areas a few miles in diameter.

(Tomorrow: Day and Night Temperatures)
All rights reserved by Science Service, Inc.

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