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A Science Service Feature

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? WHY THE WEATHER ?

Dr. Charles F. Brooks,
of Clark University,
discusses:

WATER IN SNOW ACCUMULATIONS

It is often of interest to determine the amount of stored water which a snow accumulation represents. Shall we expect floods or low reservoirs? Particularly on western watersheds, where snow furnishes the water for irrigation, snow surveys are of value.

To find the water content of snow it is not sufficient merely to measure the depth. It may require as much as 17 inches of dry, loosely packed snow from the top of a deep drift to make 1 inch of water, while 4 inches of compact, moist snow at the bottom of the same drift, will give an equal amount. On the average, 10 or 12 inches of newly fallen snow will contain about one inch of water. Old snow found on the ground in the spring may be as much as half water, so that two inches will be the equivalent of a one inch layer of water.

The water content of snow on the ground is usually ascertained by cutting sections out of the snow from top to bottom and weighing the snow thus obtained. Every spring careful weighings of snow sections are made at key stations on most large western watersheds and at some eastern stations. One can then compute the total water supply represented by the snow and the weather and flood forecaster, by watching the temperatures, can tell how fast the water will become available.

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