

A Science Service Feature

Released on receipt  
but intended for use  
November 21, 1927

? WHY THE WEATHER ? Mailed November 14, 1927

By Charles Fitzhugh Talman,  
Authority on Meteorology

FOG-DRIP

In open country a wet fog may drift across a tract of land and deposit little if any water on the ground. When such a fog drifts against trees or bushes the leaves and twigs catch a large proportion of the fog droplets. These run together into larger drops, which fall to the ground. The process is known as "fog-drip".

A classic example of this process is that described some years ago by Dr. R. Marloth, who made measurements of the abundant moisture captured by the vegetation of Table Mountain, South Africa, from the driving clouds of the southeast trade winds during the dry summer season. Another example is found in the island of Ascension, of which the late Prof. Cleveland Abbe wrote: "The principal water-supply for the garrison of this naval station is gathered several miles away at the summit of Green Mountain, the upper part of which has always been green with verdure since the island was discovered. Almost all of this water comes from slight showers and steady dripping of trees enveloped in cloud-fog on the windward side of the mountain."

Madison Grant, writing of the redwood trees along the northern coast of California, says: "Many natives believe that the redwoods attract fog, but of course it is the moisture of the fog deposited on the tops of the trees that determines their inland distribution. These forests are sometimes so wet that the dripping from the high crowns is like a thin rain, and at Redwood Creek in summer it is hard oftentimes to tell whether it is raining or not, so saturated with moisture are the foliage and the trunks when the fog darkens the forest."

Measurements made by Dr. F. Linke at the Taunus Observatory, in Germany, showed that during continuous fog more than twice as much water was deposited on the ground under trees as in the open. T. H. Means has recently described similar contrasts on the hills back of Berkeley, Calif., where fogs drift in from the Pacific nearly every day in summer. The water forms puddles under the trees while the ground away from the trees is perfectly dry.

(All rights reserved by Science Service, Inc.)

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