A Science Service Feature

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? WHY THE WEATHER ? Mailed June 18, 1928.

By Charles Fitzhugh Talman,
Authority on Meteorology

FOG-DRIP

It is a familiar fact that trees and other vegetation catch much water from drifting fog and often shed it in a good imitation of a rainstorm on the ground below. This form of precipitation is called "fog-drip". The old legend of the "rain tree" of the Island of Ferro is plausibly explained as a case of fog-drip, and the "dew-ponds" of the English downs are not fed by dew but to a large extent by fog drifting in from the adjacent sea and caught by plants growing around the ponds.

The classic experiment in measuring fog-drip is that of Dr. Marloth, who exposed two rain-gauges on Table Mountain, South Africa; one in the ordinary way, and the other with a number of upright plant stems attached to it in such a way as to catch water from the mists and clouds floating over the mountain. During 56 days the first gauge caught about 4 inches of water and the other one nearly 80 inches . Descombes, in France, has written a great deal about the importance of "occult condensations", as he calls moisture caught in this way, as an argument in behalf of afforestation.

One point, however, is commonly overlooked in discussions of this process. The water caught by leaves and branches is water that would settle to the ground farther to the leeward if the vegetation were not there. Hence fog-drip may greatly increase the supply of water to the soil at the windward edge of a forest, but will not generally increase the average supply to the forest area as a whole. In fact, the presence of trees diminishes the amount of water reaching the ground from both fog and rain, because a certain part of the water caught by the leaves and branches evaporates instead of dripping to the ground.

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