A Science Service Feature

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August 5, 1933 ? WHY THE WEATHER ? Mailed July 29,1933

LAKES AND RAINFALL

By Charles Fitzhugh Talman,
Authority on Meteorology.

Evaporation from lakes supplies water vapor to the winds blowing over them, but this process alone does not ensure an increased rainfall over the land to the leeward. Before the moisture can fall as rain it must be condensed, and such condensation results as a rule from the ascent of the air and its cooling by expansion.

In summer, when, in the temperate zones, lakes are cooler than the surrounding land, their cooling effect tends to check the rise of air and hence to diminish rainfall in their vicinity, though this effect may be offset by the forced ascent of the moistened air over mountains, or in some other way. Our own Great Lakes, though they materially modify the climate around them in the way of tempering extremes of heat and cold, do not appear to exercise much influence on rainfall. In Germany, as has been shown by Dr. Gustav Hellmann, lakes tend to decrease rainfall by weakening the rising air currents responsible for thunder-showers.

There are other cases in which rainfall over lands adjacent to natural lakes and inland seas is undoubtedly greater than it would be if these bodies of water were not present, and there are some cases, notably in Australia, in which the construction of great water-storage and irrigation systems is believed to have increased rainfall to a beneficial extent over large areas of land.

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21st and Constitution Ave.
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