

A Science Service Feature

Released upon receipt  
but intended for use  
July 24, 1933

? WHY THE WEATHER ?

Mailed July 17, 1933

IMITATION WEATHER

By Charles Fitzhugh Talman,  
Authority on Meteorology.

Many weather manifestations have been imitated for scientific purposes, in laboratories and out of doors. Spectacular imitations of lightning provide engineers with knowledge concerning the effects of real lightning and methods of protection therefrom. Clouds and fogs are made to order for such purposes as measuring the visibility of lights through them. Artificial rainstorms are utilized in studying the effects <sup>of</sup> rain erosion on slopes. Artificial winds, produced in wind-tunnels, aid in the design of aircraft and in the planning of buildings, bridges and the like with a view to withstanding wind pressure. The natural deposit of the ice storm has been imitated for the sake of determining the proper design of the poles and wires of the electric industries in regions subject to these visitations.

The effects of hail on corn have been observed at the Illinois Agricultural Experiment Station by the method of striking the plants with a long wire brush, which produced on blades, partially developed ears and stalks similar wounds, combining a bruise and a tear, to those made by hailstones. A light whipping inflicted at the time the tassels were just emerging reduced the yield of grain only 2.7 bushels an acre. A week later, when the plants were in tassel and ear-shoots, but no silks were showing, an artificial hail treatment of the same severity reduced the yield 9.9 bushels an acre. A severe hailstorm, simulated in these experiments by jerking off the blades, was very destructive to corn yields, especially when it occurred at the early silk stage of the plant. The reduction of yield was progressively less as the treatment was administered later in the plant's development.

(All rights reserved by Science Service, Inc.)

-----  
SCIENCE SERVICE  
21st and Constitution Ave.  
Washington, D.C.