A Science Service Feature

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? WHY THE WEATHER ? Mailed March 7, 1930

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Authority on Meteorology

THE MONEY VALUE OF A SHOWER

Orange County, California, recently had a five-inch fall of rain, and this event inspired Farm Adviser H. E. Wahlberg to figure up the value of the shower to the farmers and fruit-growers on the basis of the prices paid for irrigation water.

In the citrus groves of the county the average cost of water is 70 cents per acre per inch, plus spreading charges of 90 cents an acre, or a total of $1.60 per acre inch. The area of the county is about 500,000 acres, of which 60 per cent is under cultivation and 40 per cent is in watersheds. An average fall of 5 inches over the 300,000 acres of cultivated land would give the equivalent of irrigation water costing $2,400,000.

As to the remaining area Mr. Wahlberg says: "The watersheds of the county cover about 200,000 acres. A five-inch rain on this area is equal to 1,000,000 acre inches of water. It is difficult to say what this water is worth. We know that we are largely dependent on the seepage and runoff waters to replenish our underground reservoirs. If only 25 per cent of the precipitation finally gets to the underground strata from which we pump and draw our supplies, that will aggregate 250,000 acre inches. It should be worth the 70 cents per acre inch to have it available for irrigation purposes. At that rate we should credit the storm with another $175,000. It is generally known that the precipitation in the higher elevations of the watersheds is almost double that of the valley plain, so that this figure is very conservative. A five-inch rain in Orange County has, therefore, an intrinsic value of $2,575,000."

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