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A Science Service Feature

? WHY THE WEATHER ?

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ACCURATE MEASUREMENT OF RAINFALL

It is hard to measure rainfall accurately. the amount caught depends partly upon the exposure of the gauge. Rainfall data are obtained from many places other than the regular Weather Bureau stations. The Bureau supplies standard rain gauges to cooperative observers , but occasionally these gauages are placed close to a building or even under a tree, where they catch too little rain.

On the other hand, a more common error is produced by exposing the gauge in an entirely unprotected location, for instance on a high roof. Strong winds rising over the building and eddying over the gauge make the average catch commonly 5 to 8 per cent. less than that of more sheltered gaguos in the same vicinity. In a 4-inch rainstorm attended by a high wind the catch of a roof gauge was found to be 25 per cent. under those of several ground gauges within a radius of five miles. In selecting a sholtered location for a gauge, it is desirable that the trees or buildings which serve as wind breaks should be separated from the gauge by a distance at least equal to their height.

Artificial screens, more or less like a huge morning glory in the center of which sits the rain or snow gauge, have been found to reduce the wind effect on catch, but their use in this country is virtually confined to the large snow-bins of the West.

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