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? WHY THE WEATHER ? Mailed Nov. 9, 1934

RAINFALL AND ATMOSPHERIC MOISTURE

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The atmosphere may contain a large amount of water in gaseous form even at times when severe droughts prevail. J. B. Kincer of the U. S. Weather Bureau writes on this subject:

"The fact that rain does not depend so much on the actual amount of moisture present in the air as on the operation by which the water vapor present is condensed or made available in rain drops is well illustrated by conditions in Arkansas during the 1930 drought. Weather Bureau records for Little Rock show that the amount of moisture in the lower air during May averaged about five and one-half grains per cubic foot, and rainfall for that month totalled more than 11.0 inches, or two and one-third times the normal. In July, the amount present was ten per cent. greater than in May, but rainfall for the entire month was only 0.01 of an inch, or three-tenths of one per cent. of normal. Thus May, with ten per cent. less moisture in the air, at least in the lower strata, had more than 1,100 times the July rainfall. Furthermore, the atmosphere in southern California in July, when practically no rain occurs, has normally as much moisture as that over New England, where rainfall is comparatively heavy."

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