

A Science Service Feature

? WHY THE WEATHER ?

Dr. Charles F. Brooks,
Secretary, American Meteorological Society
says:

DEW NEVER FALLS

One sometimes reads of "falling dew". But dew never falls, except by dripping off roofs and leaves. It must form at the point where it is found. When night comes the earth loses more heat through radiation into the atmosphere than it gets back from the sky and this net loss is especially great on still and cloudless nights. Under these conditions the temperature of the ground and everything upon it falls sharply, and with it, though to a lesser degree, the temperature of the air above.

Dew begins to form on one object after another as the temperature of each falls below the dewpoint of the air in contact with it, just as a film of moisture forms on the outside of a glass of icewater in summer. Light objects insulated from the ground by a layer of air are the first to reach the dewpoint, especially those like green leaves and blades of grass, which have abundantly supplied the air about them with moisture during the day, raising the dewpoint in their vicinity.

If the night be cloudy, the clouds radiate heat back to the earth and therefore objects seldom become cool enough for the formation of dew. Wind continually blows fresh air against the leaves and other objects, keeping them nearly as warm as the air, at a temperature above the dewpoint.

(Tomorrow: Expanding Air Forms Clouds)

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