

? WHY THE WEATHER ?

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

AIR DRIES BY HEATING

To emphasize the meaning of dewpoint let us consider what happens in a furnace heated house on a foggy day in spring. The moisture-laden air is sucked into the furnace from out-of-doors, and is heated and delivered to the rooms above. It has become dry air. It has not left its moisture in the furnace chamber, but because of the high temperature the moisture can now exist as an invisible part of the air. On the other hand, were this same air returned immediately through a window to the out-of-doors the moisture would again condense in much the same form as it existed before it entered the house. In the furnace the temperature had risen above the dewpoint, but were the warmed air returned to the open it would quickly fall again below the dewpoint.

Another illustration is what takes place when filling a bathtub on a cool night. The air in the room is clear and warm, the window panes are free of moisture. Hot water flowing into the tub releases additional moisture into the air, thus raising the dewpoint, until at the temperature of the window glass condensation begins to take place and the window "sweats".

Still another illustration is that of a room which has remained unheated in cold weather. Everything is damp. The air has been cooled below its dewpoint and its moisture has condensed on furniture and walls and fabrics. With windows and doors closed to prevent the escape of air a radiator is turned on, and presently the room is warm. Dampness disappears. We say we have dried out the room. Yet all of the moisture which had been felt as dampness is still present. It exists as a part of the heated air because the temperature is above the dewpoint.

(Tomorrow: Dew Never Falls.)

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