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A Science Service Feature

? WHY THE WEATHER ?

Dr. Charles F. Brooks,
of Clark University,
describes:

FIRE WEATHER

While lightning starts many forest fires, the weatherconditions favoring the rapid growth of fires are generally of more concern to the fire warden. Low relative humidity, or dry air, is essential for the development of a big forest fire. Studies at the Wind River Forest Experiment Station in Idaho have shown that forest fires do not spread if the relative humidity is above 60 per cent, that is, if more than 60 per cent of the possible moisture is present in the air. Humidity between 40 and 50 per cent allows fires to pick up and spread slightly. Humidity below 30 per cent tends to make even small fires spread beyond control.

A dry, descending wind ventilates and fans a fire and helps to spread it. Such winds commonly are present with low humidities. On the Pacific coast northeast and north winds from the interior are the chief fire winds. In the East, westerly or northerly, or even northeasterly winds may cause fire weather. A large fire provides its own wind, as the intense heat causes a strong indraft from all sides. Such local, fire winds have sometimes been heavy enough to overturn wagons and break down tall trees.

(Tomorrow: Forecasting Fire Weather)

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