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A Science Service Feature

April 21

? WHY THE WEATHER ?

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SPRING SUNSHINE

It is not only contrast with winter cold which makes spring sunshine feel so warm. If we consider the heat received by a surface perpendicular to the sun's rays, it appears that sunlight is most intense in February, March and April, then the intensity of radiation decreases to a minimum in December. The intensity of sunlight at any particular place depends mainly upon the distance of the earth from the sun, the amount of water vapor or dust in the atmosphere and the distance of the sun from the zenith. In the northern hemisphere, the earth's distance from the sun and the amount of water vapor in the air are both increasing during spring and summer, so that solar radiation is much more intense in early spring than in late fall. If the total amount of sunlight in a day is considered, June has the highest average, because although the light is less intense, the rays are more nearly vertical and there are more hours of sunlight. If 450 represents the average number of the heat units, called gram calories, received on a square centimeter of horizontal surface in the New England states on April 21, the number for June 21 is 550, for August 21, about the same as April, while October 21 gets only 200 or 250.

(Tomorrow: Late Snow Flurries)

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