

A Science Service Feature

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? WHY THE WEATHER ?

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SOIL COLOR AND TEMPERATURE

By Charles Fitzhugh Talman,
Authority on Meteorology.

The temperature of the soil is an important factor in the growth of plants, and it is therefore interesting to farmers to know that this temperature is affected in a marked degree by the surface color of the soil. A black surface absorbs most of the solar radiation falling upon it, while a white surface reflects a large fraction and is a poor absorber. Some investigations of this effect have lately been made in India by Dr. L. A. Ramdas.

A very thin coating of chalk over the black soil in which cotton is grown there lowers the daily maximum temperature of the soil, at the surface, by about 27 degrees Fahrenheit on an average. At a depth of 2 inches, the maximum is lowered by 9 degrees and at a depth of 4 inches by 5 degrees. At these depths the daily minimum temperature is also lowered, though not to the same extent. The changes, says Dr. Ramdas, take a few days to be fully developed.

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