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A Science Service Feature

? WHY THE WEATHER ?

Dr. Charles F. Brooks,
of Clark University,
tells how:

VEGETATION AWAKENS NORTHWARD AND UPWARD

Dr. A. D. Hopkins of the U. S. Bureau of Entomology has studied the budding and developing of trees and wild plants and the dates of crop planting from which he has estimated the rate of northward and upward progress of spring. For temperate North America as a whole, he found an average northward advance of one degree of latitude, or about 70 miles, in 4 days, and an upward advance of 400 feet of altitude in the same time. For instance, if, in your locality, pussy willows start blooming today, one degree farther north or at an elevation 400 feet higher in the same latitude the date would be about March 22. Entomologists now have spraying done spirally up the hills to reach all trees at the proper dates for insect control.

This "bioclimatic law of latitude and altitude" is, however, subject to many local variations. Prevailing sunshine, aridity, absence of large bodies of water, warm ocean currents, prevailing warm winds, southward slopes, narrow summits of plateaus, broad valleys, open forests, barren or sandy soils, these all accelerate the arrival of spring, while the opposite conditions are retarding. Latitude for latitude and altitude for altitude, spring begins much earlier on the Great Plains, Plateau, and Pacific valleys than in the East.

Comparing western Europe with eastern North America, "it has been found that spring is, on the average, 44 days earlier in western Europe than at the same latitude in eastern North America."

(Tomorrow: Properties of Air)

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