

A Science Service Feature

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? WHY THE WEATHER ? Mailed April 22, 1932

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PHENOLOGICAL CHARTS

In Europe some instructive charts have been drawn to show the seasonal variations of weather in certain regions as registered by the leafing, blossoming, etc., of plants. Fine examples of such "phenological charts" have been published by Dr. Egon Ihne, in Germany. One of these, based on the records of a large corps of observers over a period of many years, shows the normal advance of spring in the former Grand Duchy of Hesse. The date adopted to represent the arrival of spring is the average blossoming date of 13 common trees and shrubs and coincides with that of the earlier varieties of apple.

The duchy is divided into eight zones, representing successive periods of four days in the spring calendar. In the zone where spring, as thus defined, comes earliest, its date of arrival, in an average year, is April 21. At the opposite extreme there is a zone, confined to high mountainous districts, where spring does not arrive until May 20. This difference of an entire month in the normal advancement of the season evidently must be taken into account in the selection of crops appropriate for the different parts of the country. A comparison of the phenological chart with charts showing the actual distribution of each important crop in this German state reveals the fact that Hessian farmers have, through centuries of experiment, reached merely a rough adjustment of their undertakings to climatic conditions. Such a chart as Ihne's should enable them to arrive at a more perfect adjustment in connection with the crops already cultivated and also to introduce new species and varieties on the basis of reliable knowledge rather than haphazard experiment.

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