

What of the future? Far more investigation is yet required into the behavior of different crops under different conditions of weather. One of the great organizations undertaking this work is the International Agricultural Institute founded by the King of Italy in 1905. This organization comprises representatives of practically every government on the face of the globe. It was founded primarily to give to farmers throughout the world information concerning supply and demand in various countries.

Some years ago, the institute appointed a permanent committee on agricultural Meteorology whose duties are: (1) Finding the importance of daily records of the weather in determining the statistics of the most favorable conditions. (2) Studying the factors which contribute to the largest yield. (3) Studying the relation that exists between the totality of the crops and the aggregate of the various atmospheric phenomena. (4) Determination of the "good agricultural year" in relation to atmospheric conditions. (5) Studying the different elements necessary for a good harvest, e. g., amount of light, heat, humidity, rain, etc.

How little has been done toward the solution of these problems! Do we know the answer to a single one of these questions? Truly the task involved in these few apparently simple questions is a gigantic one, a task demanding the patient collaboration of a host of enthusiastic workers.

WORLD DEVIATION OF PRESSURE AND TEMPERATURE FROM NORMAL, 1910.

[Reprinted from *Nature* (London), Sept. 15, 1921, p. 97.]

Charts showing the deviation of the pressure and temperature from normal values for each month and for the year 1910, based on observations at land stations—generally two for each 10-degree square of latitude and longitude—have just been published by the Meteorological Office under the title "Reseau Mondial, 1910." The charts have been prepared to illustrate the tables which were issued in 1920, and a similar volume of charts for 1911 was published in 1916.

This world-wide meteorology will add much to our present knowledge of weather changes, which in many respects are exceedingly intricate; it is by such world-wide information that we may eventually hope to forecast for longer periods than is possible at present; and in time, perhaps, we may foresee the character of a coming season. Atmospheric pressure lines of equal deviation from normal are given for each five millibars, and for temperature the individual deviations are plotted for each station.

Among many other questions of interest such charts may render it possible to form some idea as to whether the pressure of the atmosphere is always practically uniform over the world as a whole. The charts in question would seem to suggest that it is, but a more detailed examination must be made to substantiate such a conclusion.

BIBLIOGRAPHY.

RECENT ADDITIONS TO THE WEATHER BUREAU LIBRARY.

C. FITZHUGH TALMAN, Professor in Charge of Library.

The following have been selected from among the titles of books recently received as representing those most likely to be useful to Weather Bureau officials in their meteorological work and studies:

Aichiken. Meteorological observatory.

Result of the meteorological observations made at Aichiken meteorological observatory for the 30 years 1891-1920. Aichiken. 1921. 60 p. 26 cm. [In English and Japanese.]

Birge, Edward A., & Juday, Chancey.

Further limnological observations on the Finger Lakes of New York. Washington. 1921. p. 211-252. 28 cm. (U. S. Bureau of fisheries. Bull., v. 37, 1919/20.)

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Colombia, a commercial and industrial handbook. Washington. 1921. 423 p. 23½ cm. (U. S. Bur. of foreign and domestic commerce. Special agents series, no. 206.) [With description of climate, in general and by districts.]

Davison, Charles.

Manual of seismology. Cambridge. 1921. 256 p. 22 cm. (Cambridge geological series.)

Eriksson, J. V.

Isläggning och islossning i Sveriges insjöar. Uppsala. 1920. 95 p. 32 cm. (Statens met.-hydrogr. anstalt. Meddelanden. Bd. 1, no. 2.) [With résumé in French.]

Gruner, P.

Beiträge zur Kenntnis der Dämmerungs-Erscheinungen und des Alpenglühens. I. Historisch-chronologische Übersicht der schweizerischen Beobachtungen und Veröffentlichungen über Dämmerungsfärbungen und Alpenglühens. Zurich. 1921. 245 p. 29 cm. (Schweiz. naturforsch. Gesellsch. Denkschr. Bd. 57, 1921.)

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Klimavekslinger og deres aarsaker. (Reprint from "Naturen," 1920. p. 12-28; 101-116; 347-361.)

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Die Meteorologie in den deutschen Flugschriften und Flugblättern des XVI. Jahrhunderts. Berlin. 1921. 96 p. 27½ cm. (Preuss. Akad. der Wissensch. Abh. 1921. Phys.-math. Klasse, nr. 1.)

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Beitrag zur der Theorie des Purpurlichts. Bern. 1921. p. 71-77. 23 cm. (Inaug. Diss. [extract], Bern.) (Philosoph. Fakultät II der Univ. Bern. Jahrb., Bd. 1, 1921.)

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Arcachon, ville de santé. Paris. 1919. 798 p. 24 cm.

Lévine, Joseph.

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Prussia. Preussisches meteorologisches Institut.

Klima-Atlas von Deutschland. Berlin. 1921. 40 p. 63 plates. 32 x 36 cm.

Remy, Lieut.

Précis de météorologie pratique à l'usage des aviateurs. 2d ed. Paris. 1919. 95 p. 22 cm.

Schurz, W. L.

Bolivia, a commercial and industrial handbook. Washington. 1921. 260 p. 23½ cm. (U. S. Bur. of foreign and domestic commerce. Special agents series, no. 208.) ["Climate," p. 17-22.]