However, the recent general turn of prices has been against the farmer, the index of purchasing power of farm products in terms of nonagricultural commodities having dropped two points during July and standing at 85 per cent. of pre-war parity. This means that the purchasing power of farm products is 15 per cent. lower than the average for the five-year pre-war period 1909-1913.

The weather, which always dominates the crop situation, has been remarkably "perverse" this season. Two months ago, when the crops were getting started and rain was badly needed, most of the country was unusually dry. During the three weeks just prior to September 1, with haying and early harvest going forward and sunshine essential, there has been rain most of the time over much of the country.

**Rain Handicaps Harvest**

Considerable hay and some grain have spoiled in the fields, and the harvest has been under a discouraging handicap. Cotton prospects have fallen off and insect enemies have flourished. The rains have helped corn and potatoes and, in some areas, spring wheat.

The winter-wheat crop is made, and no small part of it already marketed. In the wheat belt proper it is a fine crop. The country-wide average yield was 17.1 bushels per acre, the highest since 1914, and the grain is of splendid weight and quality. The winter-wheat belt is blessed with what it appears to regard as a season of prosperity. Spring wheat, on the other hand, is a spotted and generally disappointing crop, due to the earlier drought.

**Corn Looks Below Average**

Corn prospects have improved with the recent rains, but corn will hardly make an average crop even though frost holds off until late. Hay is a short crop, as a whole, and old stocks are light. Oats are about an average crop, but stocks of old oats on farms are unusually large. Fruit is a heavy crop. Cotton condition deteriorated during August; the lateness of the spring, the recent rainy weather, and insect ravages have all worked against the crop, though the forecasts are still for 15,000,000 bales or more.

The land is being fitted now and seeding begun for another crop of winter wheat. The reported intention of farmers is to sow 14 per cent. more acreage to wheat than last fall. If these intentions are carried out it will mean about 45,000,000 acres in winter wheat, which would exceed the annual average during the war or post-war period.—*Excerpts from "The Official Record,"* No. 36, 1926.

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## THE SUMMER OF 1927

June of 1926 did not have the killing frosts or snows of June, 1816, in northeastern North America, neither can this summer, therefore, be like that summer of "Eighteen-hundred-and-froze-to-death." How about next summer? Logically, we turn to past records if we wish to peer into the future. We have learned that in the course of 50 or 100 years about

all the kinds of weather and abnormalities of seasons likely to occur in a region are experienced. Instrumental records go back more than 100 years at several places in the northeastern quarter of North America and for nearly 150 years at some points. Chronicles of the early settlers give us knowledge of the most extreme seasons for 100 to 150 years more at a few places. In all this period of 300 years there has been but one summer, that of 1816, widely snowy or frosty in every month in the region south, roughly, to the Ohio and Potomac rivers. Milham has shown that at Williamstown, Mass., there have been summer months since 1816 as cold as any summer months in that year, but that in none have three such cold months as occurred in 1816 come in the same summer. Our climatological record then would lead us to expect "a year without a summer" in these latitudes not oftener than an average of once in more than 300 years.

The circumstances surrounding the one occurrence of which we know included a cold period of years, a severe volcanic eruption in April of the preceding year throwing a great dust veil around the earth, considerable solar activity as shown by numerous sunspots, and extraordinarily ice-free conditions in the northeastern Atlantic. Apparently a combination of all these was necessary for the production of such an outstanding cold season here.

How about the present? We are in a warm period of years and no great dust eruption has occurred. But sunspots are numerous, and, of course, an ice-free condition far north in the Spitzbergen region may develop. But sunspots become numerous on the average about every eleven years, and the ice about Spitzbergen is always varying. The present situation, therefore, comparing it with that in 1815 makes a "summerless" year in 1927 seem highly improbable.—*C. F. Brooks in "Why the Weather?" Science Service.*

## CO-OPERATIVE OBSERVERS' DEPARTMENT

### Simple Weather Observing

Complex and expensive though the equipment of government weather stations is, one may very simply and inexpensively set up an observatory. Perhaps a thermometer is considered the first essential, but the barometer has some claim to this distinction. One can estimate the temperature fairly well, but it is difficult to get any knowledge of the of the pressure without a barometer. The usual changes in atmospheric pressure are too small for our perception. So perhaps a barometer should be the first purchase for an observatory. A thermometer is the next essential, and can be used for finding both air temperature and humidity. A barometer may be had for $5.00 and a good thermometer for about $1.00. Means for obtaining at least roughly quantitative observations of wind, cloudiness, and rainfall can be devised with practically no expense.