UNITED STATES DEPARTMENT OF AGRICULTURE
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CHATS WITH THE WEATHER MAN. RELEASE Friday, April 1, 1932.

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ANNOUNCEMENT: Now for another chat about the weather. Today we are going to hear what meterologists of the United States Weather Bureau have to say on the old argument between the older inhabitants and some of the younger folks as to whether our climate is changing. Some say it is, and some say it isn't.

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Every time we have unusual weather for a season or two, somebody digs up some old weather record or some grandfather recalls that the weather was very different when he was a boy. ———

But what are the real facts in the matter? Are the old fellows really right about it? Has our climate changed in the past two or three generations? Is it changing now?

What does Dr. O. L. Fassig say about it? You know, Dr. Fassig is the chief of the climatological division of the United States Weather Bureau. That is the division that keeps the records of our climate. What's more, Dr. Fassig himself has just made a study of this very question based on weather records of over 5,000 stations within the United States, or an average of about 100 stations in each State.

From what he has found it seems that some of those "I-remember-when" boys may be right about it. Their memories may not have just played them a trick as some folks think. The weather may be different from what it was when they were young. They may have their weather facts right. ———
———But wait a moment! Don't jump at the wrong conclusion there. The actual records show some striking things. The climate is changing, but it doesn't keep changing in the same direction. And it may be rainier over a series of years in one state, and drier during that same period in a nearby state. Then may come a series of years when the weather is just the other way. It is the same with hot and cold weather. Dr. Fassig has found that there are periods of several years when it is colder than normal. Others when the weather runs just about average. Others when it is warmer than normal. There is a swing back and forth over a period of years when you consider the weather records in any one state, or in the United States, or if you take in the whole North American continent.

However, Dr. Fassig points out, that the more territory you take in the less noticeable are the variations from the normal. Taken by and large, the climatic changes over one section of country tend to counterbalance changes in the other direction in some other part of the country. Yet even in as vast an area as that of all North America you can still see in the weather records as charted by Dr. Fassig, that such long time swings do occur.

Dr. Fassig made a review of rainfall and temperature conditions over the entire North American continent based on the records extending over fifty years from 1881 to 1931. He wanted as long a period as he could get in which the records were comparable for all the localities, and that was as far back as he could go and get such records. Of course, in some parts of the country weather records go further back than that, but to be of much value the records of different localities to be compared have to be for the same period.

Well, Dr. Fassig figured out the average rainfall for each of the states during that fifty year period, as shown by the records from about 100 stations to the state. With that average or normal rainfall of a state as a base line, he then charted the rainfall of the state during the fifty years in reference to that normal or average rainfall. That brought out in a striking way the long up and down swings of the amount of rainfall.

Take Oregon for instance, Oregon shows decidedly more than normal or average rainfall from 1881 to 1905, during the first 25 years of the period covered by the chart, and a steady decrease in rainfall during the past 25 years.

But when the rainfall in Utah is charted for that same 50 year period, what do we find? Just the reverse of what happened in Oregon. In Utah the trend of rainfall was way below normal during the first 25 years, and has been much above normal during the last 25 years.

In Alabama, you see the same general trend. The first half of the fifty years was drier than normal, the last half was wetter than normal.

The chart of Arkansas rainfall, however, shows a different picture. From 1881 to 85, came five years of heavy rainfall. Again from 1925 to 30 the records agains how heavy rainfall; but all the intervening period from 1885 to 1925, the rainfall was below the normal.

Or take the California chart. During the ten years from 1881 to 1900 the rainfall in California was below the average for the fifty year period. Then from 1901 to 1920 it was above average. Then from 1921 to 1930 the rainfall was again below average.

The Michigan station records for that same period make still a different type of chart. Back in the 80's the records reveal a series of heavy rainfall years, while practically the entire period since that time shows up as below the average.

Throughout the section of country including Virginia, Maryland, and Pennsylvania, there has been a remarkably dry period during the past 20 years preceded by a long period of heavy rains.

Similar changes occur in temperature, Dr. Fassig says, and he is now charting the cold and warm periods in much the same striking fashion as he has used to reveal the long up and down swings of wet years and dry years. -------

But hold on a minute --- You are probably thinking, as I was when Dr. Fassig was telling me about these swings, "When does the next swing start?"

Well, we are both doomed to disappointment there. Dr. Fassig says that so far there is no regular periodical swing visible in the records. Whether there is any definite period or regular periodic cycle to these temporary climatic changes is something nobody can say. This regular systematic weather science of ours is young yet. You must remember, Dr. Fassig tried to get as long a period of comparable records for the whole country as he could, and fifty years was as far back as they go.

And remember, too, that when, instead of taking one State, you take the record for the entire United States, you find the differences between the different period are largely ironed out. The ups and downs become shallower and shorter.

That shows up very impressively on the chart for the whole country for 1930. Although there was intense drought in limited areas in the East the rainfall over the other parts of the eastern half of the country was heavy enough to more than offset the dry spots and give the region as a whole a rainfall-record above the average.

Getting back to our original question, then: Has our climate changed? Is it changing?

The answer, seems to be, yes, temporarily. Permanently, No. When we take in a large territory and a long period of time, we find that the temporary changes from warmer to colder or colder to warmer; From wet to dry or the other way around don't last and tend to even up in the long run.

Our climate, the record shows, has not permanently departed from its ways in our youth. But we may be able to rise and say, "I told you so", because the weather is different from that we used to get. The most usual thing the weather does is to change.

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ANNOUNCEMENT: You have just heard a discussion of our changeable climate, presented by Station -----in cooperation with the United States Department of Agriculture.

# National Oceanic and Atmospheric Administration

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