

UNITED STATES
DEPARTMENT
OF AGRICULTURE

Radio
Service

OFFICE OF
INFORMATION

OUTDOORS WITH THE SCIENTIST

Tuesday, March 5, 1929.

NOT FOR PUBLICATION

SPEAKING TIME: 10 Minutes.

ANNOUNCEMENT: This is the day when the Weather Man gives a talk to Station ^{radio}'s audience. A little ancient history--- A few more weather signs--- And some tips on how to judge the weather for yourself, are played up today. The chat comes as this week's OUTDOORS WITH THE SCIENTIST radio feature, prepared by the United States Department of Agriculture."

---ooOoo---

Pull up your most comfortable chair. Take a seat. Lean 'way back. Relax. Take it easy....

No--- This isn't going to be another of those talks on how to cure lumbago in 10 Easy Exercises!

This is a talk about the weather and we were just trying to get you in a Receptive Frame of Mind. Don't laugh. This is not applesauce. Weather is a very practical thing to talk about. We talk about it every day. We have al-ways talked about it every day.

And that brings us right back to where we were telling you to sit back and take it easy. We wanted you to dream a bit. Think away back. Before Prohibition. Before automobiles. Before Rome clattered with the marching of the home-coming Legions and before Socrates talked to the young men in white and sun-bathed Athens. Think back--- if you can remember it!--- to the time when our ancestors gathered in little shivering groups for protection against the storm. Maybe that half-fear of the weather that still lives in us comes faintly up from the days when we lived in caves, in little huts in the forests, and crouched in fear when the great winds whirred and howled--- when the thunder growled and crashed. Even then, men had their weather signs. Weather meant so much to them that they had to have some way of foretelling--- even a few hours in advance--- what was coming.

TODAY, we have the Weather Bureau!. But that's getting just a little bit ahead of the story....

As we were saying, we gather our own little myths of weather signs. A lady's nose itches--- and she says it'll rain. An aged Indian watches the leaves on the cottonwood tree and claims to read weather tidings there. A man

with rheumatism forecasts his version of the weather--- by the feeling in his bones. The moon lies on her back--- cupped to receive the rain, the old folks say: Red night--- sign of fair weather! Red morning--- sign of foul. And so it goes. Why? some folks can even see weather signs in a cat licking its fur!

Oh, well--- they're pleasant stories, and there are 5 thousand, 10 thousand years of history of mankind behind some of them.

There's the man who swears BY the almanac and the man who swears AT it...

There's the white-haired patriarch who can remember way back when--- And he's listened to with respect when he forecasts his own particular brand of weather, a couple of days in advance. People remember when he's RIGHT--- forget when he's WRONG.

But most of us just go along, taking the weather as it comes, because, really there isn't much else to do! The poet, Riley, said it this way: "WHEN IT RAINS, WHY RAIN'S MY CHOICE." Because we can't do anything with the climate, you know. All we can do is to adapt ourselves to it as best we may. And all this past we've been talking about shows that we have succeeded pretty well in this business of adaptation. There's one thing sure--- So far as human activity is concerned, Seed Time and Harvest Time will keep coming on. The weather may be fickle over a short period. But when it comes to great handfuls of TIME: 100 years... 1,000 years... 100 thousand years, and MORE--- the weather's about the least FICKLE of all things. The seasons keep coming on like clock-work. The same old seasons. The climate isn't changing--- hasn't changed enough to measure in more than 50 years of carefully and accurately kept records and with centuries of history as evidence of the past.

But the old days are gone forever. We live in SKYSCRAPERS now--- not caves. We travel in planes and trains and ships and automobiles--- not in ox-carts. This is all called Progress. And we now have a great scientific bureau to tell us what the weather is going to be tomorrow.

When a farmer or rancher--- who has no official weather report available --- wants to find out for himself what weather change is likely to occur, he climbs a hill and looks into the sky and over the landscape for signs. If he is skilled in reading clouds--- in estimating the speed and the direction of the wind--- he'll probably be able to make a fairly accurate weather prediction for his own locality a few hours in advance. Now, if he could find a hill so high that he would get a bird's-eye view of the whole United States, he might be able to make more accurate forecasts over a longer period of time.

Weather travels across the country with the speed of a passenger train. And weather men employed in the United States Weather Bureau get up in a sort of imaginary observation tower and see what's coming next. About 200 observers in 200 weather stations, in all parts of the United States are doing just that today and every day. After they have made their regular daily observations, they telegraph their findings to Washington, D. C., and to other places, where weather maps are made. Then, after studying all these maps and reports of the

weather
day's findings--- the forecasters are able to foretell the paths of storms across the country. These forecasts usually cover a period from 36 to 48 hours in the future, and are made by experienced and trained scientists. They are based on accurate observations by trained men who are aided with the most accurate instruments science can devise.

It takes the best instruments--- trained experts to use them--- and years of study and experience on the part of those experts, to measure and forecast the weather. There are as many factors making up the weather as there are rainy Sundays. The temperature of the air--- the rain or snow falls--- the direction and speed of the wind--- sunshine--- cloudiness--- the pressure of the air--- all these count and a knowledge of them all contributes to accurate work in weather forecasting. We don't feel the pressure of the air, but it largely controls all the other factors. Soon you'll hear me speak of AREAS OF HIGH PRESSURE AND AREAS OF LOW PRESSURE. Well, these areas of high pressure are places above which there's a greater weight of air. The wind blows OUT of these areas toward areas of LOW pressure. It's like water finding its level. STORM CENTERS are areas of low pressure. They are really great whirls or eddies in the atmosphere. Sometimes they cover several States. The air is generally rising in these areas. Rising air cools, you know, and it may cool until it reaches what the experts call the SATURATION POINT. When the saturation point is reached, CONDENSATION begins and then we get PRECIPITATION. Precipitation is the fall of moisture: rain, snow, or sleet.

The work of the weather forecaster may be compared with that of a physician. The doctor takes the patient's pulse and his temperature--- listens to his breathing and his heart beat--- and, by various other observations, tries to find out what's ailing the chap. Working with the weather--- a very stormy and changeable patient--- the weather man does the same thing.

"The Weather Man said it was going to be fair, and here it's raining pitch forks and hoe handles. Tch. Tch. Tch." That's the way folks complain some times. The folks take accurate predictions for granted, you see. But they remember the failures as the elephant remembers the man who gave him tobacco. I remember that my teacher made me stay in after school once because I misspelled the word "Apple." I put only one "p" in it. I had all the other letters right, but she remembered the wrong one. Even weather men make mistakes. But about 9 times out of 10 they're right. And look what a hard word they have to spell! Understand?

People often misunderstand the terms used by the weather man--- or the period covered by his prediction. A forecast of FAIR WEATHER doesn't necessarily mean that there'll be an absolutely clear sky during the entire period of the prediction, for example.

Meanwhile, the weather man goes on, giving us forecasts 85 to 90 per cent verified, day after day. He goes on, saving crops--- saving ships--- saving lives. And the only cost to you--- for all that work--- is the price of 1 two-cent postage stamp a year. It's worth it, isn't it?

Well, if you don't think so, you might try a little amateur forecasting yourself. Take a typical storm as a starter. The first local sign of an approaching storm is usually a steady fall in the barometer and a rising temperature. Then high CIRRUS clouds appear in the western sky. The wind increases in velocity, becoming east or southeast. The barometer does a few more fancy dives--- the clouds thicken and change to a lower form--- the temperature rises and the HUMIDITY increases. Then comes the rain or snow, with the barometer still falling until it reaches its lowest point.

The beginning of a rise in the barometer is often the first sign that the storm center has passed and that a clear-up is on the way. At about the same time, the wind shifts--- the temperature begins to fall--- and the rain or snow stops falling. Then the canopy of thick clouds breaks, showing patches of blue sky above. Presently, the weather has cleared. In Summer time, the cooler weather following a storm, marks the end of a period of hot, sultry weather.

It's good, you see, to know something about the weather, because, in the words of the poet,

"We are what the suns and winds and waters make us;
The mountains are our sponsors, and the rills
Fashion and win their nurslings with their smiles."

---ooOoo---

ANNOUNCEMENT: That concludes the weather man's chat, and Uncle Sam's OUTDOORS WITH THE SCIENTIST radio talk for today. Station _____ will broadcast another of these talks from the Department of Agriculture next Tuesday.

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National Oceanic and Atmospheric Administration

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