

METEOROLOGY

Great Dust Storm Formed From Corn Belt Top-Soil

Wind-Erosion Almost as Harmful as Water-Erosion To the Land, But Effects on Health Will be Small

EASTERN and Southern states that gazed astonished—and perhaps a bit scared—at a bleary sun masked by an endless screen of yellow-gray dust, on the second week-end in May, were actually staring through parts of Kansas, Nebraska, the Dakotas and Iowa suddenly gone “on the loose”.

For the great dust storm of mid-May, 1934, which will probably still be talked about when we are all Oldest Inhabitants, was no local affair. The billions of billions of particles that filled the air had travelled far.

A pair of weather maps compiled by H. Lyman of the U. S. Weather Bureau showed a definite eastward migration of the storm area. Stations reporting dust in the air late on Thursday, May 10, were strung along the edge of the Plains region, through central South Dakota down into Oklahoma, and across the Great Lakes region, with the eastern boundary along the coast of the Appalachians. By Friday, May 11, the westernmost stations reporting dust were along the line of the Missouri river; but there had been a great southward extension into Texas, and the eastern boundary had moved from the Appalachians to the sea, as far south as the Carolina capes, thence curving inland to Spartansburg, S. C., and Macon, Ga.

It is worth noting that the westernmost Weather Bureau stations reporting blown dust were about on the line where grazing and small-grain crops give way to corn and cotton—the “clean cultivation” crops, which require constant plowing, keeping the soil always loose. With a series of high winds following a desperately droughty winter, this loose-plowed soil was ripe for just what happened.

The consequences can be exceedingly serious for farming, beyond the widespread destruction of winter wheat. A dust storm requires wind-erosion of the surface of farms supplying the material, and this erosion can be almost as mischievous as the water-erosion that has been causing so much concern of late.

Wide areas of the United States, and even wider areas elsewhere in the world, are buried under great masses of wind-carried soil, deposited many thousands of years ago, probably not long after the end of the Ice Age. This type of soil is called “loess.” Quite typical deposits of loess form the great bluffs extending all along the western boundary of Iowa, and forming the fertile cultivated soil far inland. The recent dust storm was only a feeble sample of the weather that must have been “usual” a hundred thousand years or so ago.

Although the dust that filled the air over the eastern half of the country had a most alarming appearance, there is little danger of widespread injury to health. In the West, where the particles are relatively large and coarse, there may have been a certain amount of nose and throat irritation. But this is only a temporary condition.

Studies by the U. S. Public Health Service indicate that real dust injury results only in such occupations as sand-blasting, where workers are exposed to atmosphere thick with gritty particles of free silica every day for years on end. Injury of this kind can hardly be expected to result from a single dust storm, no matter how extensive.

The same may be said about plant life. Except where the plants are literally blown out of the soil, as winter wheat has been, or buried under it when it comes down again, not much harm is expected by botanists and agricultural scientists.

Oak pollen made up a really respectable percentage of the dust that fell in the Chicago area during the dust storm, O. C. Durham, chief botanist of the Abbott Laboratories at North Chicago, Ill., discovered when he examined collecting slides exposed during the disturbance. Mr. Durham's calculations indicate a fall of some 34.7 tons of dirt per square mile, and during the same time a fall of about 34 lbs. of oak pollen per square mile.

Science News Letter, May 19, 1934



A HAT'S ANCESTRAL TREE

*Most of us think of the Panama hat as being made of palm leaves, but it is no more a palm-leaf hat than it is unique to the Republic of Panama. It is made from the rather palm-like leaves of a distant cousin of the familiar Jack-in-the-Pulpit, calla lily and caladium. It grows throughout Central America and northern South America, especially in Ecuador and Peru, and its botanical name is *Carludovica palmata*. A life-like reproduction of a typical specimen has just been placed on display in the Field Museum.*

MEDICINE

Cod Liver Oil Now Used as Wound Dressing

COD LIVER OIL, best known for its ability to prevent or cure rickets in children and to hasten their slow convalescence from infectious diseases, has found a new use as a dressing for wounds. This new use for the familiar oil was discovered by the German Prof. Löhr as a result of three years of experimenting with thousands of cases at a hospital in Magdeburg.

Combined with other fats to make a semi-solid ointment, cod liver oil speeds up the healing of wounds, apparently giving just that fillip that makes all the difference between sluggish and quick recovery.

Whether or not the speedier healing is a result of the high concentration of vitamin A and D in the oil Prof. Löhr does not know, though he considers it a possibility. He says the new ointment is no panacea and should not be used indiscriminately. He uses it in selected cases, pasting onto wounds, sores and ulcers a layer so thick that the overlying dressings do not come into contact with the raw, tender surfaces of the wound, thus eliminating pain when the dressings are changed.

Science News Letter, May 19, 1934