

AGRONOMY

The Impending Desert

Erosion, Attacking Farmlands, Grazing Areas and Forests, Cuts Soil Into Sterile Gullies, Useless for Centuries

By DR. FRANK THONE

GRAY-YELLOW dust, borne on a dry, scornful wind, fogged out the sun over Eastern seaboard cities for a day last spring. People looked and wondered. Housewives were annoyed: more cleaning to do. Airplanes had to stay grounded. Port navigation was doubtful.

Then the sky cleared, and business went briskly forward again. But people remembered. For a long time they will remember. They will tell their children, their grandchildren of the Great Dust Storm of '34.

Bread Upon the Winds

They will have this portentous thing to tell about as long as they live. But only on one condition. That is, that they now take steps to keep others like it from coming again. From coming again so often, and so calamitously, that there will be no thrill in the telling, because such storms shall have become a burdensome commonplace.

An impoverishing commonplace, too. For when the peeved housewife re-vacuumed her rugs and dusted her furniture, after the sifting dust had passed on, she was throwing bread out of the house. Not this year's bread; next year's. Bread that might have grown as wheat on a farm in Kansas or western Iowa, but now can never be harvested or milled or baked. Lost bread.

For that great dust storm, the first of its kind that ever blew so far as the Eastern seaboard, was made of the best topsoil of the Midwestern grainlands. It had the mineral elements in it that are needed by plants, to be added to water and air and sunlight to make food. Lost from the farms, it can never be replaced, at least in humanly calculable time.

Dust storms like that have been fairly frequent things, of late years, but only in the Midwest. They start in Colorado or Nebraska, choke lungs and sting eyes in Iowa and Illinois; not until this year have they ever reached the East.

In ancient times such an unfamiliar

event would have been regarded as a portent and a sign of warning of disaster to follow, as was the Darkness over Egypt in the time of Moses—itself not improbably just such a dust storm. Our dust storm was a portent and a sign of warning, needing no supernatural sanction to make its lesson clear for the eyes and the minds of people who are thinking—as many are thinking hard today. It was a sign of warning that the farm problem of the Midwest is a national problem, not a regional one. It was a warning that the soil there, and elsewhere in our country, too, is in danger of becoming a nomad soil, a gypsy soil, abiding nowhere, profiting nobody, turning from its age-old function of creating wealth to a new racketeering occupation of destroying property and impoverishing the people.

It was a warning that under our planless, systemless, anarchic mode of land use we are about to make a reality out of a myth. We are getting ready to create The Great American Desert.

The Myth of the Desert

When Brain-Truster Thomas Jefferson became President, a century and a third ago, one of the important moves in the New Deal of his day was the purchase of a great chunk of land west of the Mississippi. The opposition newspapers of his time denounced him for "usurping the powers of Congress" when he did so, and Jefferson himself admitted (with a red-headed, freckled grin) that he had "stretched his power till it cracked."

The opposition newspapers also declared that the fifteen million dollars of taxpayers' money which Jefferson had squandered on this 800,000 square miles of territory was just poured into a hole—for was not almost all of that land comprised in The Great American Desert?

But Jefferson only sent out his trusted friends, Lewis and Clarke, to look over the bargain he had bought, and they quickly laid the ghost of the Great American Desert myth. Within a generation after the return of their expedition, the scoffers' sons were getting rich

selling wagons and plows and guns to the pioneers who were going out into this Great American Desert, to break the virgin sod and raise crops such as not even Joseph dreamed of when he was Pharaoh's overseer in the Seven Fat Years of Egypt.

But a Pharaoh has arisen in this land, who knew not our Joseph, and his name is Agricultural Overproduction. The needy years of the World War called for wheat, wheat, wheat, always more wheat; called for meat, meat, meat, always more meat. It was a patriotic duty to produce in excess. Land was plowed beyond the margin of safe grain farming, herds were bred past the capacity of rangelands to support them.

And when the men of Europe stopped killing each other and went back to their own farms, throwing tariff hedges around themselves, down came prices. And American farmers, unorganized, could only meet lower prices by raising more stuff to sell. And the land was plowed to dust, grazed clean as though shaved with a razor.

Then came the drought, and with the drought the wind. And the land, with no more grass-roots in it to hold it in subjection, rose in anarchy and filled the sky, a portent and a sign of warning. And people who had never thought of the farmer's troubles before, wiping a film of his farm out of their eyes and coughing it out of their throats, were perforce made thoughtful of them.

What are we doing with our land? The question is on city tongues as well as country tongues now. It is asked in the East as well as in the West. What are we doing with our land? Are we really making a desert of it?

Man-Made Deserts

The suggestion is not as fantastic as it sounds. There are other man-made deserts in the world, or at least deserts where the recklessness or hunger-drive of men have supplemented the unkind offices of a slowly dessicating climate and brought the region to agricultural suicide. China can tell us, and Africa.

Not long ago, a scholarly Chinese was talking to a well-known, widely traveled American newspaperman. A drought was over China, with famine certain to follow, and a dust storm was raging outside as he spoke. Said this Chinese:

"These droughts, dust-storms and

famines are just what you Americans are in for unless you wake up in time. I can understand them in China because the damage was done centuries, even thousands of years ago—before people knew what deforestation and bad farming could do to a nation. But I cannot understand a country like the United States allowing such a thing to happen."

"To Make Some Forests"

China is not asleep any longer, either. China is out to salvage the fertile lands she has left, and even to redeem the desert, if "domestic fury and fierce civil strife," and the ambitions of imperialistic foreign powers, only give her a chance.

A dozen years ago, a quiet young Chinese was studying in the botany department of the University of Chicago. "When I finish here, I go to Yale, study forestry," he explained to an American fellow-student. The American looked his surprise: he had always understood there were no forests in China. "Oh, yes," the Chinese continued, with a quick smile: "your foresters have as their task to conserve the forests. It will be my job in China to *make* some forests!"

America might do well to follow the good example of this modern Chinese scholar, rather than the ill example of the ancient land-ruining Chinese peasants.

The Burden of Africa

Africa also speaks. For centuries the population of South Africa has been increasing, though even yet it is not overcrowded. The methods of the natives have been astonishingly similar to those of our own Western ranchers: raise little patches of grain and vegetables, graze the land empty, and move on. Winds whip across the denuded soil, scouring its surface away. Sudden heavy rains lash it, furrowing it, cutting cattle and game paths into runnels, and these into crumbling gullies. The good surface soil goes into the streams and chokes them with silt; the new surface is not only cut to pieces physically but is impoverished chemically. European administrators are very much concerned, and discuss means of inducing the population to shift to better lands and cease their ruinous methods of exploitation.

Does it not all have a familiar sound?

Man has been a herdsman for not over ten or twenty thousand years, an agriculturist for perhaps six or seven thousand. But in the older agricultural lands he has already ruined himself, and



AS THE WIND BLOWS

Not snow—just good farm land gone bad. Whirled by the winds into dunes over the farmstead, it ruins the buildings, and of course can grow no corn.

even in our boasted "advanced" America the same unintelligent process is going on at an accelerated pace.

At least, though, there are those among us who have seen the peril and have given us warning, if we will only listen to them. There is still time. We may have bread tomorrow, if we will agree to be less greedy today.

The remedy? Simple—though laborious, and not swift. Just this: fill the soil with roots again. Quite literally, "Go to grass!" And trees.

What is now the rich plowed cornland of Iowa and Illinois and eastern Nebraska was once long-grass prairie. Farther east, in the Ohio valley and the Great Lakes country and the Deep South, there were forests. We cut and burned down the forests, plowed out the deep-rooted prairie sod. In doing so, we destroyed the innumerable tough cords of roots, that held the soil together. The living green lawgivers once held the loose anarchic unalive soil particles together. We destroyed them. If we would end the insubordination of the soil, we must restore them.

Grass for Salvation

That does not mean that we must give the whole country back to the forests, and wait, like Elijah, for ravens to come down out of the treetops and feed us. It does not mean that we must grow only long grass where now the tall corn grows—and turn ourselves out to pasture, like Nebuchadnezzar. We can keep our cornfields. But it does mean that we must set regiments of trees, and phalanxes of stubborn, deep-rooted permanent grasses on sloping lands, to discipline and halt the runaway soil. It

does mean that we must throw zones of permanently-rooted plants around the plowlands, to imprison the truant land.

And in all this, the cow, patient be-reaved foster-mother of our human race, will be our chief ally. Already she is responsible for a quarter of the total farm income; and Secretary Wallace, the farmer-scientist who is now adding statesmanship to his laurels, insists that she needs a lot more work. It is tragically true that the children of the poor do not get enough milk to drink. It is even more shockingly true that the children of the rich do not drink enough milk, either. And there is plenty of room inside the grownups, too, for the products of the cow.

The Cow as Exorcist

The menace of soil waste looms like a genii in an oriental tale. Its possible exorcism reads like a nursery tale of the sunset lands:

The farmer began to plant the seed, the grass began to hold the soil, the cow began to eat the grass, the children began to drink the milk. . . . A whole cycle of beneficence, if it is only inaugurated in time.

A special bureau of the Department of the Interior, known as the Soil Erosion Service, is striving hard to get it inaugurated. With pick and spade they labor, on thousands of wasted acres that may yet be saved; with the spoken and the radioed and the printed word they spread their gospel.

And this is the heart of the gospel they preach:

Get roots back into the soil!

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