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MORE ABOUT SOIL EROSION

A radio talk by H. H. Bennett, Bureau of Chemistry and Soils, delivered in the Department of Agriculture period of the National Farm and Home Hour Wednesday, September 28, 1932, broadcast by a network of 47 associate NBC radio stations.

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Hello, farm folks; I'm glad to be with you again.

Six weeks ago we were discussing methods for combatting soil erosion. Since that time I have been making an erosion survey over the Atlantic states from east-central New York, southward through Alabama. We found serious conditions over a great part of this vast area. I came to one locality in the Gulf coastal plain where approximately five hundred thousand acres of formerly tilled land, most of it originally high-grade soils, have been largely ruined by rain-wash. Here and there through this devastated area patches of plow land remain. But the greater part has been gullied beyond any hope of repair and practically all of it has lost its fertile topsoil. In a single county one hundred and ninety thousand acres thus affected have been very largely abandoned. Even the bottom lands have been buried with from one to ten feet or more of sand and clay washed out of the uplands, and countless stream channels have filled up. Fortunately, pine trees are taking over this area. No particular wisdom is necessary to understand that trees are the best crop for such land. The people of the region have recognized this. They have quit the land and moved away, except for an occasional patch farmer. Buildings are tumbling down; even the roads for the most part have grown up with trees.

In Georgia I saw in one county gullies which have cut to pieces a measured area of thirty-seven thousand acres of formerly tilled land. This was the best type of farm land in the entire southeastern coastal plain. I think the world affords no better example of man-induced gullies, although Wisconsin and California probably hold the record for speedy development of land destruction by gullies. Just two weeks ago I talked to a farmer who once attended school in a schoolhouse that has tumbled into one of those yawning Georgia gullies. If that schoolhouse were there today it would be suspended one hundred and fifty feet in the air, the very ground washed from beneath it. It is not there, of course. Long ago it was engulfed by this chasm, along with a barn from whose roof flowed the rainwater that started this huge gully, some fifty years ago. Gone also is a tenant house and a graveyard with fifty graves -- all tumbled into this rapidly expanding ravine, to join the debris of thirty-seven thousand acres of destroyed farm land, choking stream channels and contributing sediments to the hidden caverns of the Gulf of Mexico.

I came to another county of the central Piedmont region where ninety thousand acres of formerly cultivated land have been mapped as rough gullied land without agricultural value, save for isolated patches. Amidst this maze of ravines I followed a winding roadway and finally reached an old farmstead. Here a magnificent old mansion was tumbling to ruin. From about its foundations three feet of soil have washed away. Of one thousand and four acres comprised in this erstwhile farmstead, not one field remains in cultivation, although the entire area once was farmed. Not so much as a single acre of all its extent is worth plowing now. The soil washed away long ago, and after that most of the

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subsoil, on down to bedrock. Gullies wind through the whole of this farmstead, as well as all of the surrounding country. Pine trees are growing there. The land fortunately has value for trees and to some extent for grazing, but it is no longer useful for crops and cannot be made so. It is destroyed, ruined by neglect.

On still another farm in the limestone region of southeastern Pennsylvania not a single spot of any size could be found where the original topsoil, consisting of eight inches of mellow loam, remains. It has all washed off, down to clay subsoil. Asked why there was no topsoil on this farm, such as that found in a neighboring piece of virgin woods, the owner replied that he didn't know. But he added that he had told his wife a few days before that one field which used to give fifteen hundred bushels of corn now never produces more than eight hundred bushels.

This is enough of these distressing examples of land impairment and absolute land destruction. You probably are thinking by now that here is a fellow overdosed with gloom. Now, I don't like gloom any more than the rest of you. I like hunting and fishing and going on picnics as well as you do. But we have this enormously costly problem of erosion throughout the United States; some one must at least try to awaken the nation to its immensity and seriousness. It is a distressing subject, and it is growing worse.

Part of the nation's crop land is stolen by every heavy rain. In some parts of the Corn Belt land sloping eight feet in a hundred is losing one inch of soil a year by erosion, where the fields are kept continuously in corn; and this where the topsoil is only seven inches deep. This gradual washing off of the topsoil concerns us most. Gullies, such as I have told you about, already have destroyed some twenty million acres of crop land in this country; but it's the slower type of washing, sheet washing, that is doing the greatest damage. Sheet washing takes away a thin layer of soil over entire fields with every rain. It affects in some degree, usually in a much too costly degree, fully three-fourths of all the cultivated land of the nation.

At the soil erosion experiment stations we are trying to find ways and means of stopping this soil thievery. I want every one of you to feel free to visit the soil erosion station nearest you and to ask the men there for full information on the best methods of erosion control for your locality. The stations are located at: Guthrie, Oklahoma; Temple, Tyler and Spur, Texas; Hays, Kansas; Bethany and Columbia, Missouri; Statesville, North Carolina; Pullman, Washington; Clarinda, Iowa; LaCrosse, Wisconsin; and Zanesville, Ohio.