

Ag Day is March 21

Our soil is slowly slipping away from us

Soil erosion is not a new problem to midwest grain farmers. Back in the 1940's and 50's, farmers were encouraged to implement crop rotation methods to help control soil erosion.

By 1960, improved corn varieties and increased use of fertilizers help to more than double the top corn yields of the 1940's. By 1970, bigger farm equipment led to more uphill and downhill farming. Soybeans were catching on as another

major row crop, and the stage was set for increased soil erosion.

Half of Iowa's original topsoil (from 6 to 8 inches) has been lost from Iowa's unprotected sloping soils over the past 100 years. A study by the USDA in 1982 showed that Iowa has the worst soil erosion rate of any other in the Midwest, going as high as twice the national average.

It takes nature from 250 to 1000 years to replace just 1 inch

of this topsoil.

One of the dangers of erosion is that it is not immediately noticed. Landowners who work on and look at their land every day do not often notice little changes in its features. But erosion is continual, unless controlled; and too often, by the time the problem becomes evident, it is too late to fix it.

The problems of soil erosion has been partially masked over the past few years by the use of commercial fertilizers and improved crop varieties. The high tech chemicals and seed have allowed farmers to continue producing high yields with poorer quality soils.

There are several types of erosion going on in Louisa County and across the midwest. These can be seen in the pictured examples below.

Soil erosion is costly to more than just the immediate landowner. A recent study shows that "off-site" costs of soil erosion in Iowa could add up to more than \$32 million per year.

These costs include cleaning sediment out of drainage ways and road ditches, loss of recreation value in streams and lakes, extra costs for treating drinking water, and sediment damage to other areas of the farm, or to neighboring farms.

Four important soil conservation provisions were written into the 1985 Farm Bill and passed into law as part of the Food Security Act of 1985. In summary, the provisions deny most federal farm program payments to landowners who: 1) break out highly erodible grasslands or woodlands for farming; 2) drain wetlands to farm them; or 3) crop highly erodible lands without an active conservation plan after 1990.

And according to Soil Conservation Service spokesman Randy Phelan, it's not any too early to begin planning your conservation program—today!

In the series of meetings being presented by SCS, landowners and farmers are first asked: Do you have highly erodible soil?

Maps of soil types in Louisa County will be printed and locally available in July of this year, says Phelan. At that time, the Louisa County Extension Service will hold a series of meetings explaining how to read the maps.

But for now, SCS has contacted all landowners and farmers who have soils labeled highly erodible. Some amount of erosion is unavoidable. About 5 tons per acre per year of topsoil is considered a tolerable loss.

Through a formula devised by SCS, landowners can estimate what level their current soil loss to erosion is. From that point, a series of options are available to help cut this erosion level.

A conservation plan which will satisfy this tolerable loss level must be finalized with SCS by December 31, 1989, says Phelan. Landowners must then have the plan in action by December 31, 1994. If these deadlines are not met, landowners become ineligible for any of the programs provided in the 1985 Farm Bill.

"We're finding that farmers aren't changing things a lot from what they are doing now," says Phelan.

Don't take chances though, he continues. If a landowner thinks that he owns wetlands, removal of trees or vegetation, or addition of tiling, could make that property ineligible for farm programs. (If tiling or waterways are in place, they may be maintained, and the property will still be eligible for the farm programs.)

Soil maps are coded with a series of number and letters which identify different soil types and land characteristics. The code first tells the soil type, then the slope of the property, and finally, the erosion class that it falls in.

Landowners who disagree with a soil rating may contact the SCS for a re-evaluation, says Phelan.

Conservation plans must be made on an individual basis, says Phelan.

What options are available to landowners in planning their conservation programs?

Terraces are used to cut the length of slopes in some fields, says Phelan. The shorter slope

length reduces the rate of soil erosion.

Contour farming is applicable in some instances. If a contour farming method is used, farmers should be prepared to use grass borders in place of end rows that would run up and down hill. These borders, by the way, if connected together to form at least 5 acres, can be classified as set-aside acres.

Crop rotation, no-till farming methods, water grassways, stripcropping, water and sediment control basins, diversions, and fall and spring tillage practices are also methods of cutting soil loss to erosion.

There is also the option of entering the land in the Conservation Reserve Program, says Phelan. This program, along with reducing soil erosion, will help to increase wildlife habitat and reduce water pollution and sediment.

Phelan urges all landowners to make an appointment with the SCS office in the near future to begin planning a conservation plan. The procedure will take some time, but will produce benefits for everyone in the long run.

Farmers and landowners are also urged to attend the informational meetings hosted by SCS. To find out when your township's meeting is plan, call the SCS office today.

"Your benefits (from the farm programs) are too important to take a chance on losing," says Phelan.

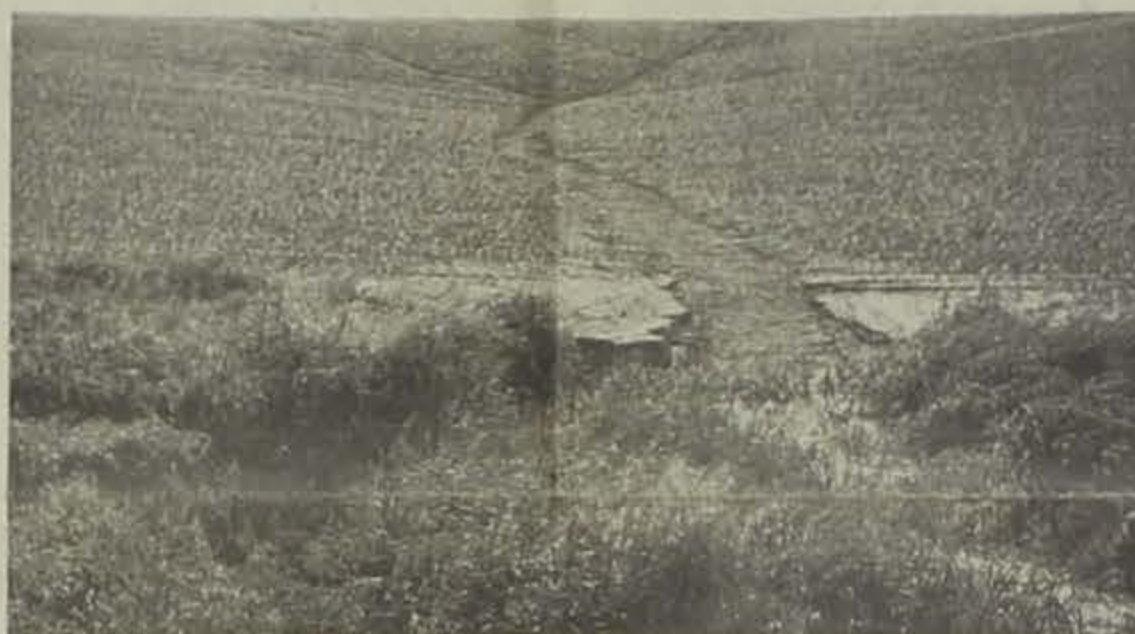
Where is it going?

6"8" topsoil
subsoil
Today

14"16" topsoil
subsoil
100 Years Ago



RILL EROSION: During heavy rains, small rills can form over an entire hillside, making farming difficult.



EPHEMERAL EROSION: Ephemeral erosion occurs in natural depressions, rain after rain. It differs from gully erosion in that the area can be crossed by farm equipment.



WIND EROSION: Wind erosion is highly visible. While it is a problem, in most cases erosion by water is much more severe.



SHEET EROSION: Sheet erosion is almost invisible. Lighter colored soils are a sign that over the years it has taken its toll.



GULLY EROSION: Gullies, some of them huge, are impossible to cross with farm machinery.

Farmers Elevator
& Exchange

Wapello



State Bank of Wapello

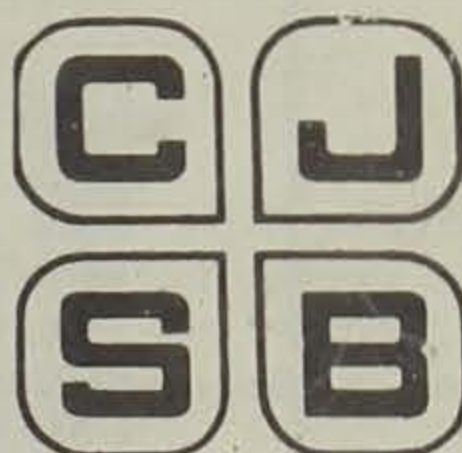
Wapello

Member FDIC

Columbus
Junction
State Bank

Columbus Jct.

Member
FDIC



Peoples National
Bank

Columbus Jct.

Member FDIC

L-W Service Co.

Washington-winfield-Wapello



Winfield Equipment Co.

Winfield



Plank Implement

(Now selling Ford Tractors)

Columbus Junction

Sajak Implement

Columbus City



Iowa National Bank

Morning Sun, Mt. Union,

Wapello

Member FDIC

