1981 Annual Report of Hardin

Narrow based terraces find increased use

By Steven Manternach, District Conservationist

Narrow base terraces are becoming popular in Hardin County, with an advantage over other terrace types that is particularly appealing to farmers. This advantage is its comparatively lower price tag. Since the first narrow base terraces built in 1980, the number of farmers installing this type of terrace has increased from 6 in 1980 to 16 in 1981.

"Broadbase terraces require considerable earthwork to make both sides of the terrace farmable," says Earnest Hoffa, State Engineering Aide. "Earthwork is less with grass backslope terraces because one side of the terrace is left steep. Narrow base terraces are the least expensive because both sides of the terrace are left steep and seeded to grass," Hoffa reports. He estimates that narrow base terraces cost about 40 percent less than grass backslope terraces.

Narrow base terraces have other advantages, according to Hoffa. Farmers don't have to farm around the terrace intake, so equipment size isn't a limiting factor. In addition, there's no worry about farm equipment tipping over, because the terrace isn't farmed.

"But there are other considerations," Hoffa says. "Narrow base terraces aren't easily compacted, so there is a greater chance of rain or livestock damaging the terraces before the seeding is firmly established. The narrower base also may mean more susceptibility to rodent damage."

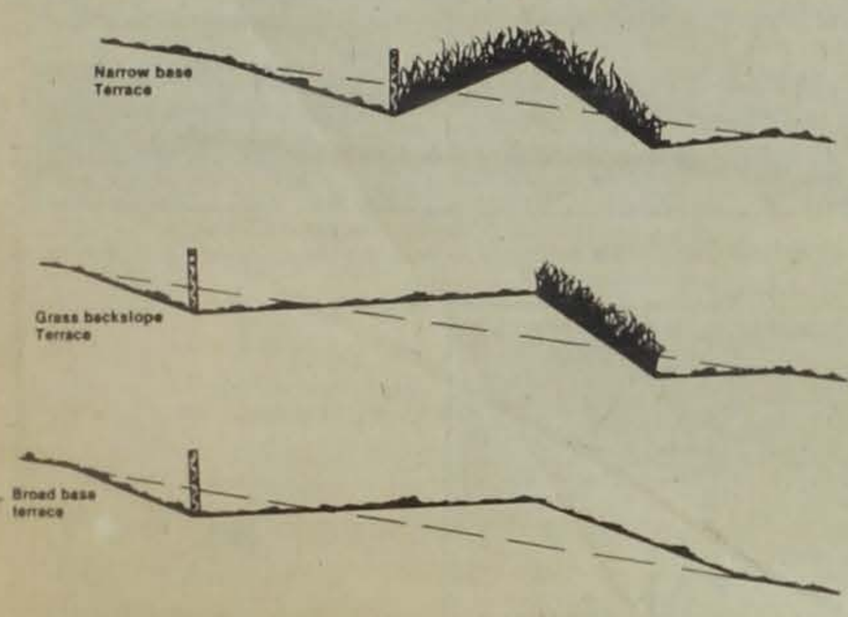
On the other hand, grass backslope terraces have the advantage of flattening out the land and broadbase terraces don't require any seeded slopes.

"There's a place for all three types," says Hoffa. "A farmer must compare construction cost against costs of maintenance and land taken out of production."

According to Hoffa, a grass backslope terrace takes about two rows out of production and a narrow base terrace about four rows. Considering that you eliminate many waterways, the area lost to terraces is very little.

Equipment size and land slope are other considerations, Hoffa notes. SCS suggests terraces not be built on land steeper than 4% slope for broadbase, 14% for narrow base, and 18% for grass backslope design.

"Terraces are a proven soil saving practice and a lot more are needed," says SCS District Conservationist, Steve Manternach. "But what we're really advocating is a resource management system. Conservation practices need to be selected that best fit each farmer's operation and his land. Often a combination of practices are needed to control soil loss. An example of this is using conservation tillage practices with terraces. Many problem areas could be completely taken care of by conservation tillage. Contouring and conservation tillage, and contouring with crop rotations including hay could also be used. As costs increase and prices paid for crops decrease, I think we will see a lot more farmers going to conservation tillage system simply because of the savings on fuel. On areas that need terraces, conservation tillage can help protect the soil now, until terraces can be built later."



Three different terrace types are narrow base, grass backslope, and broad base.

Grassed backslope terraces have grass on the steep backslope. During 1981, 12,510' were built in Hardin County.

Narrow base terraces are grassed on both sides. Of the three types of terraces, the narrow base is the most popular. This year 30,457' were installed.

The entire broadbase terrace can be farmed. Farmers installed 2,100' during 1981.

HARDIN COUNTY SOIL CONSERVATION DISTRICT COMMISSIONERS — Front row, left to right: Gary Walters, chairman, and Jim Tidman, treasurer. Standing, l to r: Carroll Hobson, Harry Lawless and Caleb Knutson. Not present, Martin Broer, vice chairman.

SOIL CONSERVATION SERVICE OFFICE PERSONNEL — Front row, left to right: Valerie Gerdes, soil conservationist; Steve Manternach, district conservationist; and Melinda Schwarck, state clerk. Back row, l to r: Fred Rosenkrans, part-time technician [W.A.E.], and Earnest Hoffa, state engineering aide. Fort Dodge area office personnel include Dennis Pate, area conservationist; Daryl Carpenter, agricultural engineer; Chuck Wright, civil engineering technician; and Barbara Quade, area clerk.

Good soil management is good conservation

By Val Gerdes, Soil Conservationist

Terraces, waterways, windbreaks, contouring and conservation tillage are a few of the management practices that can make up a resource management system. If those words seem to throw you a bit, just think of them as ways to keep your farm productive and your topsoil on your fields.

Many landowners make their first contact with the Soil Conservation Service to get information on a specific problem like cost share to fix a gully. They can fix the gully but if they don't treat the cause of the gully, the gully will come back. The area above the gully in question, may need one or several practices to control and eliminate the problem. Just as it takes a combination of exercise and good nutrition to maintain a healthy body, a combination of practices and good management are needed to keep a farm productive.

Farming today is a lot more complicated than just planting the seed and harvesting the crop. New chemicals, new seed varieties, marketing techniques all need to be evaluated often. Changes in conservation tillage equipment, yield information, as well as soil loss should be evaluated before changing tillage systems. Many times soil loss under fall plowing can actually cause a loss of fertility.

Garry Schwarck had a field that he had considered had a bit too much erosion. With 200' long, 4% slopes, the field when fall plowed with a corn-bean rotation, lost 10.5 tons per acre per year, (5 ton/ac/yr was the maximum allowable soil loss). Garry was using a till plant system which reduced soil loss to an average of 6.6 tons per acre per year. By planting on a contour using his till plant system with 75% residue, the soil loss was only 3.7 tons per acre per year.

"The contours the Hardin SCS laid out for us were easier to work on than I had anticipated they would be. With the gradual curves and few point rows, we picked most of the field with a pull type picker," said Garry.

Many other farmers are finding contouring, conservation tillage or combinations of these, can reduce the need for terracing on some fields. Alternatives that fit each farmer's own individual needs and fields are presented and the farmer makes his own decision. With information from the Soil Conservation Service, each farmer can choose what works best for his farm, his own resource management system.

Victor Schwarck, Eldora, picks corn for son, Garry Schwarck. Garry farms with a combination of till plant on contour rows to reduce soil erosion and maintain soil productivity as part of his resource management system.

Fall plowing making you money?

The following statements are proof that fall tillage is an expensive non-productive practice.

—Tillage is always counter productive in terms of soil and plant nutrient loss.

—Nutrient loss is always increased when nutrients are incorporated in any manner.

—It is totally unnecessary to till the land just to incorporate plant nutrients.

—Can't control soil erosion on soybean stubble unless it is no-tilled.

These statements were made by John Laflen, Agricultural Engineer at Iowa State University, who studied nutrient losses during 1980. Laflen also commented that the average annual nutrient loss on a typical fall plowed field with 11 ton/acre soil loss in Iowa was $30 per acre. The typical soil loss from a fall plowed field in Hardin County is 11 ton/ac./ yr. This means that a typical fall plowed field in Hardin County is losing about $30 per acre worth of plant nutrient every year..

Is fall plowing really worth the cost? Is it really cheaper to fall plow than to spend money on chemicals needed for no-till?

If you haven't decided to give up fall plowing yet, think of soil as money rather than dirt. Then look at the soil that is blown or washed away from your field as $30 per/acre rather than 11 ton/ac/yr.

What is your soil loss? How many dollars per acre are you losing? What can you do about it? See the Soil Conservation District Office in Eldora for further information.

1981 - Banner year for soil conservation

By Gary Walters, Chairman of Hardin SCD

In terms of funds allocated for permanent soil erosion practices, 1981 was a Banner Year. The Hardin Soil Conservation District Commissioner allocated $85,362.12 for construction purposes on terraces, structures and diversions.

Praise needs to be heaped upon the SCD Staff for the technical work in having the projects ready for the supplemental allocation. This readiness brought to Hardin's Soil Conservation District $46,271.12 of supplemental money from the Department of Soil Conservation in addition to the $22,491.00 initial allocation. An additional $16,600.00 was allocated from the special fund for the Pine Lake Watershed.

Many more farmers left their soybean and corn fields undisturbed during the fall of 1981. Much work needs to be done to convince others to do less tillage. The technology and machinery are available.

Much information from the Hardin Soil Conservation District Office and the Extension Office will be helpful to those who desire assistance.