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PROTECT

Terrace Outlets with Grass for FOOD PRODUCTION



ARK. 10333

AWI-79



November 1943

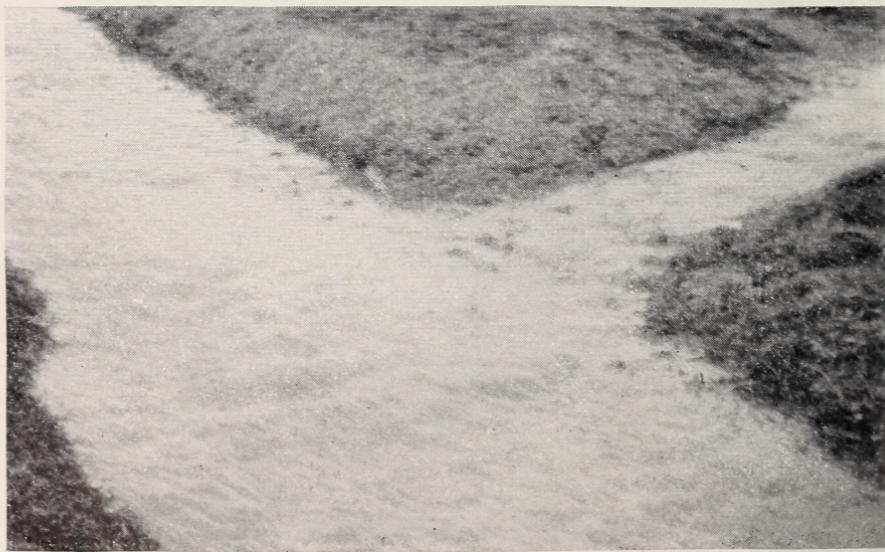
U. S. DEPARTMENT OF AGRICULTURE
Soil Conservation Service

Which Is Better?



TEX. 40255

Raw terrace outlet—land and crops being wasted.



TEX. 70044

Grass-covered terrace outlet—running water causes no damage.

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Which Produces More Forage?



L.A. 40071

Unprotected terrace outlets ruined this land. War crops cannot be grown here.



OKLA. 5495

No erosion here. Extra water from terraces makes more forage in this pasture—to produce more meat and milk.

A Terrace System Is Incomplete—

Unless terrace outlets are protected from washing. Raw, untreated outlets mean soil and water wastage and decreased production.

If your farm has a good grass cover on which to empty the terraces, you may safely start terrace construction as soon as lines are run. Make the individual terrace outlet on the grassed area level and at least 6 feet across. Don't leave anything (fence posts, stakes, brush) in the outlets to fill the channel or encourage cutting.

But if your farm doesn't have meadow or pasture on which to release terrace water, the first step in establishing a terrace system is to develop soil-holding grass cover where the water is to be spilled. Don't build the terraces until the grass is well established; otherwise erosion damage is likely to be severe where water is emptied. The grassed area should be at least 100 feet wide.



This photograph shows how a grassed drainageway fits into and completes the soil conservation treatment of a field. Each terrace spills water directly onto the thick grass carpet. There is no erosion in terrace outlets. Much terrace water soaks into the soil, and the remainder flows slowly and without damage to the natural drain at the lower end of the drainageway.

If the drainageway is situated so that it can be connected conveniently with a pasture, it may be fenced for grazing. If it is not easily reached by livestock, or is not needed for pasture, the drainageway may be used as a meadow for hay.

Good management practices that are used in the maintenance of any pasture or meadow should be followed. Handled in this manner, the drainageway will provide hay or forage vitally needed in the production of more food.

Farmers who have grassed drainageways value them highly. Extra water from terraces helps to produce hay or grazing during the drought years.

Bermuda Grass For Terrace Outlets.



TEX. 50249

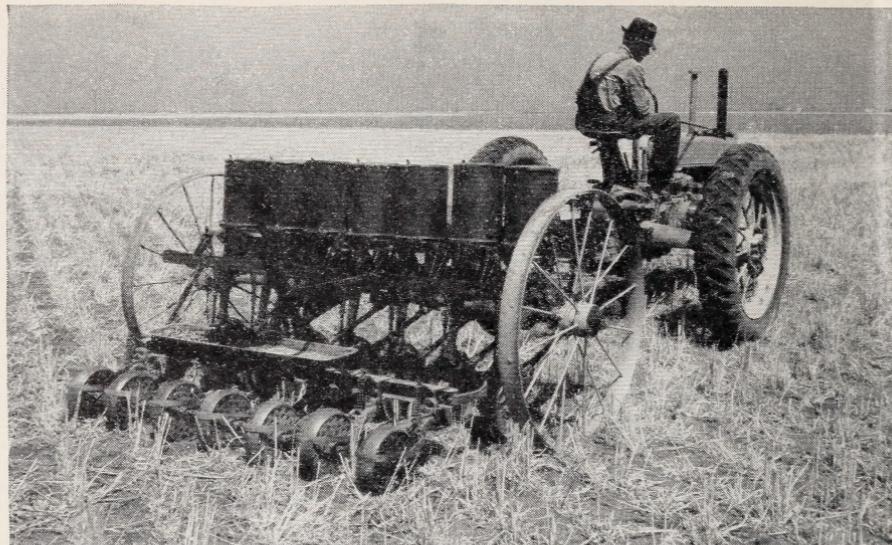
Valuable for erosion control and forage production, Bermuda grass is widely used in terrace outlets and in meadow and pasture drainageways. Individual terrace outlets should be solid-sodded.

Bermuda grass is easily and quickly established. In developing a grassed drainageway, the land may be prepared and sodded in one operation. After the area has been cleared and small gullies plowed in, the land may be flat-broken. Chunks of Bermuda grass sod are dropped 3 feet apart in each furrow and are covered as the next furrow is opened. Or the sod may be dropped at intervals of 3 feet in furrows 3 feet apart.

Cultivation and fertilization the first year with either animal manures or with a complete chemical fertilizer are essential to the quick, vigorous growth of newly planted Bermuda grass. Weeds must be controlled. Mowing or light disking will do this job.

A drainageway sodded in the early spring usually is ready to receive terrace water the next fall or winter.

Native Grasses For Terrace Outlets.



TEX. 1368

Native grasses may be established easily under normal conditions in the low-rainfall areas.

First step in planting native grasses for meadow drainageways or pasture is to place a temporary cover on the land, that will not compete with seedling grasses for light and moisture. Sudan grass and grain sorghums may be used for this purpose. After preparing the land in the usual way for these crops, drill or broadcast sudan or sorghum. Mow the crop just before seed are matured. Unless the growth is heavy, leave the hay where it falls. Next spring, the native grass seed may be drilled into this stubble as shown in the illustration.

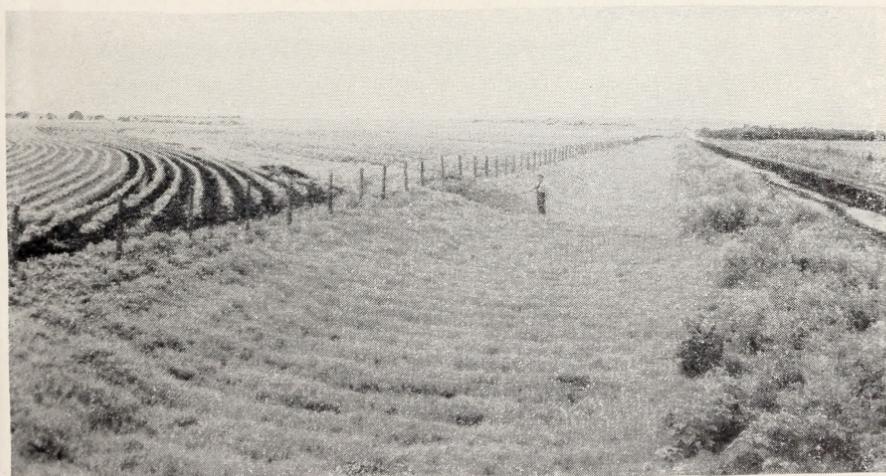
During the first and second years after the seeding, weeds should be controlled by mowing.

If Terraces MUST Be Emptied Into A Road Ditch—



L.A. 10378-A

Don't let this happen. Public and private property are being damaged.



TEX. 40272

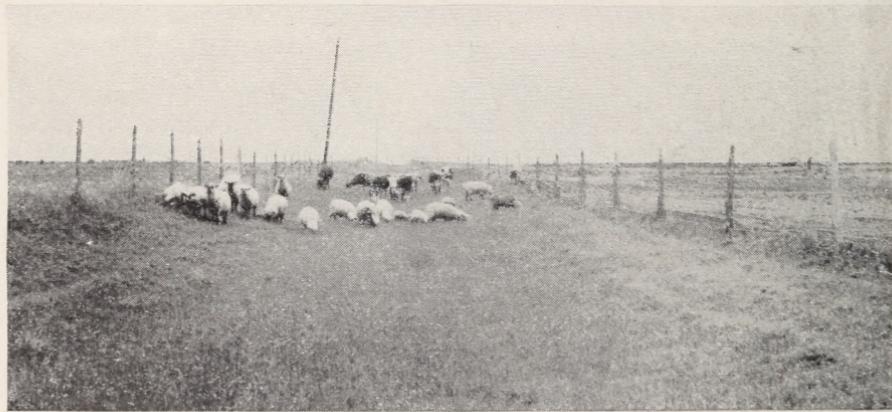
Farmers and road officials worked together here. Grass helped them solve a common problem.

Grassed Drainageways Increase Forage Production.



OKLA. 8287

This 4-acre native-grass meadow is producing heavy yields of good hay. Extra water stored in the soil from the last rain keeps the grasses growing. Terraces on a 60-acre field are emptied into this meadow.



TEX. 40760

Meat, milk, and wool are being produced on this Bermuda grass pasture drainage-way, which receives terrace water from an 80-acre field.