

JOB Terrace

SHEET

USDA Natural Resources Conservation Service
Stillwater, OK

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WHAT IS A TERRACE?

A terrace is an earthen ridge and channel constructed across the slope to intercept runoff.

HOW IT HELPS THE LAND

Terraces are used to reduce sheet and rill erosion and prevent ephemeral gully erosion. Terraces also reduce sediment content in runoff water. Terraces may also be used to retain runoff for moisture conservation.

WHERE THE PRACTICE APPLIES

Terraces can be used on fields where sheet and rill erosion or ephemeral gullies are a problem. They can be used where runoff or sediment could impair water quality or cause damage downstream. They can also be used to retain water for moisture conservation.

WHERE TO GET HELP

For assistance in planning, designing and establishing a terrace system on your farm contact your local Natural Resources Conservation Service or Conservation District office.

REQUIREMENTS FOR TERRACING

There are two types of terraces, gradient and level terraces. Gradient terraces are designed to collect runoff water and to carry it to a stable outlet such as a grassed waterway, lined waterway, grade stabilization structure or other suitable outlet.

Level terraces are designed to collect runoff water and store it until it can infiltrate into the ground or can be released through a stable outlet.

Terraces are designed to control runoff from the 10 year frequency, 24 hour duration storm. For terraces with underground outlets, the capacity is increased to store the estimated 10-year sediment unless provisions are made to maintain the design capacity through maintenance.

A terrace system is multiple terraces spaced to control sheet and rill erosion and to prevent ephemeral gully erosion. Terrace spacing is determined by several factors including soil type, slope, cropping system and management practices.

Terraces should be parallel if feasible. Curves should be long and gentle to accommodate farm equipment.

The terrace cross section is proportioned to fit the land slope, the crops grown and the farm machinery used.

APPLYING THE PRACTICE

The practice is considered applied when adequate outlets have been established and the terrace system has been constructed.

OUTLETS

All terraces require adequate outlets. Gradient terraces and other open-ended terraces are designed

to outlet upon well protected pastures, meadows, or wooded areas, or into a grassed waterway or other suitable outlet.

Level or closed end terraces do not require a vegetated outlet but an emergency spill area is required so that end closures can be readily opened if necessary.

Underground outlets may be used for gradient or level terraces.

MAINTAINING THE PRACTICE

Maintain terrace height to prevent over topping and breaks during heavy rains. Repair any breaks promptly.

Remove silt blocks in the channel of gradient terraces to avoid ponding and to maintain channel capacity.

Remove sediment build-up in level terraces to maintain the required storage. Maintain end blocks on level terraces.

Control rodents or burrowing animals. Keep outlet ends of graded terraces open. If excessive grades or overfalls develop at the outlet, repair by shaping, vegetating, or use other stabilization measures.

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