

Individual Terrace



Definition

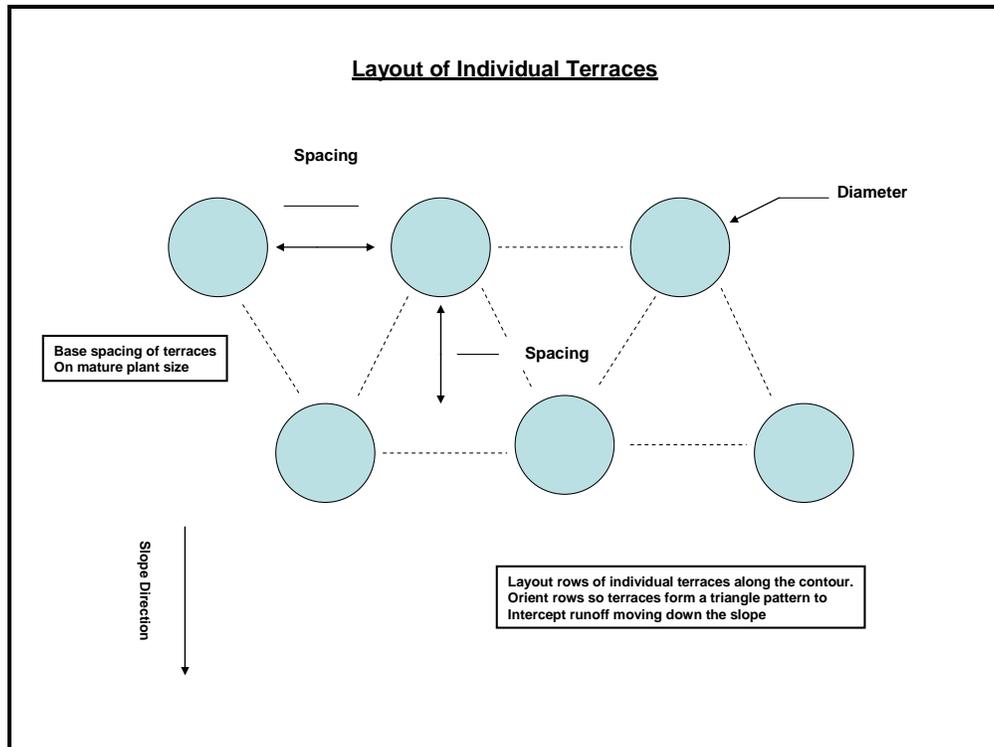
An individual terrace is a planting system used on steep slopes to help in the establishment of plantings by reducing runoff. Each terrace consists of a crescent cut into the hillside. The excavated material is compacted on the downhill side to form a small circular terrace. The terraces vary in size from 2 – 5 feet in diameter and are laid out along the contour.

Purpose

The purpose is to provide a small flat area for planting on an otherwise steep slope. The flat area slows runoff and provides an area for increased infiltration of water, fertilizers, lime, and other inputs. The flat areas provide an area for the accumulation of plant debris and organic matter. On very steep slopes the flat areas provide a standing area for maintenance and harvesting operations, protecting fragile soils from foot traffic. Individual terraces laid on the contour in multiple rows will break up the slope length, reducing runoff and transport of contaminants.

Where used

Use individual terraces on steep slopes (> 15%) with fine texture soils and moderate to strong structure. The soil should be at least 20 inches deep to allow for proper construction. Avoid soils with silty to sandy texture in order to prevent excessive erosion and stability problems. The maximum slope for construction of individual terraces should not be steeper than $\frac{3}{4}$ to 1 (133% or 53°). The diameter of the terraces can vary from 2 – 5 feet depending on the slope. The steeper the slope, the smaller the diameter. Each terrace is used for 1 or 2 long lived plants such as a coffee tree. The spacing of the terraces depends on the mature size of the plant. For larger plants, terraces should be spaced further apart.



Lay out individual terraces along the contour. Determine spacing based on the mature size of the plantings. Determine terrace diameter based on slope. On steeper slopes use a smaller diameter. Use diameters from 2 – 5 feet..

Terrace construction

Start by laying out a contour line for each row of terraces. Determine the spacing of the rows and the spacing of terraces within the rows based on the mature size of the plants. Layout the terraces along the rows so that terraces form a triangular pattern to intercept runoff moving down the slope. Mark the location for the terraces along each row and mark out the diameter of each terrace.

Because of the steep slopes involved construction of individual terraces should be done with hand tools. Start by scraping leaf litter and other organic debris out of the circle of the terrace. Dig into the uphill side and pack excavated material on the downhill side. Continue digging into the hillside and placing the material on the downhill side until the planned diameter is reached with a relatively flat bottom. Shape the terrace so that the downhill edge is relatively flat and the bottom slopes back towards the hillside. Create a small channel at the toe of the uphill slope to allow water to drain off of the back of the terrace. Complete the construction by insuring that all fill material is firmly packed in place. Cover fill areas

and the bottom of the terrace with organic debris removed before construction or by mulching with other organic material.

Planting

Plant desired trees, shrubs or crops in the center of each terrace. Apply nutrients for the plants within the circle of each terrace. Maintain as much residue on the soil surface as possible.

Operation and maintenance

Individual terraces should be checked for erosion damage after significant rainfall events. Any erosion damage should be repaired as soon as possible. Terraces should be maintained at least annually to remove sediment accumulations and to rebuild fill slopes.

Conservation management system

Individual terraces will be most effective if they are installed as part of a conservation system. The conservation system should include installation of individual terraces, promotion of surface residue, nutrient management and pest management



1. Layout terraces along contour.



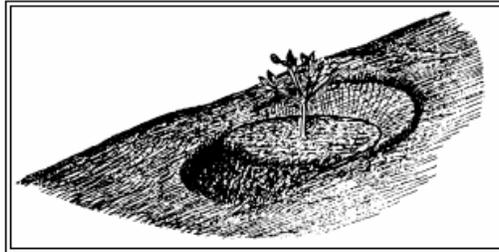
2. Begin excavation on the uphill side.



3. Construct a small channel on uphill side to remove runoff.



4. Compact fill on downhill side.



5. Plant seedling(s) in the center of the terrace

Specifications

Add site specific information and construction details below.

Your local Natural Resources Conservation Service (NRCS) office has experienced conservationists that can help you install an **Individual Terrace Planting Method**. They can also help you develop a Conservation Plan to solve other problems you have identified on your farm.

There is no charge for our assistance. Simply call your local office at the number listed below to set up an appointment and we will come to your farm.

You may also be eligible to receive financial assistance, through a state or federal program. Your NRCS office will explain any programs that are available so you can make the best decision for your operation. All NRCS programs and services are voluntary.

For More Information Contact your local **Natural Resources Conservation Service** Office:

ARECIBO	787-817-2474	MAYAGUEZ	787-831-3454
CAGUAS	787-743-2743	SAN GERMAN	787-892-1480
COROZAL	787-859-2878	SAN SEBASTIAN	787-896-3565
GUAYAMA	787-864-0650	UTUADO	787-894-1480
JUANA DIAZ	787-837-4450	USVI	340-692-9662

Office hours: M-F, 8:00 am to 4:00 pm (closed on federal holidays)

The United States Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs sexual orientation, and marital or familial status. (Not all prohibited bases apply to all programs). Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact the USDA's TARGET Center at 202-720-2600 (voice and TDD). To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326W, Whitten Building, 14th and Independence Ave., SW, Washington, D.C., 20250-9410, or call (202) 720-5964 (voice) or (202) 720-1127 (TDD). USDA is an equal opportunity provider and employer.