STRAW MULCHING

What is it?
The application of straw as a protective cover over seeded areas to reduce erosion and aid in revegetation or over bare soils that will be landscaped later to reduce erosion.

When is it used?
This method is used on slopes which have been seeded and have high potential for erosion. It requires some type of anchoring by matting, crimping or other methods to prevent blowing or washing away.

Straw mulch forms a loose layer when applied over a loose soil surface. To protect the mulch from wind drifting and being moved by water, it must be covered with a netting such as plastic or punched into the soil with a spade or roller, or by spraying it with a tacking agent. The mulch should cover the entire seed or bare area. The mulch should extend into existing vegetation or be stabilized on all sides to prevent wind or water damage which may start at the edges.

Methods and Materials:
On gentle to moderate slopes, straw mulch can be applied by hand broadcasting to a uniform depth of 2 - 3 inches. On steep slopes, the straw should be blown onto the slope to achieve the same degree of cover. When applied properly, approximately 20-40 percent of the original ground surface can be seen. The application rate per acre should be about 2 tons (or one 74 pound bale per 800 square feet). Straw should be clean rice, barley, or wheat straw.

Anchoring of straw mulch can be accomplished using the following methods:

Hand Punching:
A spade or shovel is used to punch straw into the slope until all areas have straw standing perpendicularly to the slope and embedded at least 4 inches into the slope. It should be punched about 12 inches apart.

Roller Punching:
A roller equipped with straight studs not less than 6 inches long, from 4 - 6 inches wide and approximately one inch thick is rolled over the slope.

Crimper Punching:
Like roller punching, the crimper has serrated disk blades about 4 - 8 inches apart which force straw mulch into the soil. Crimping should be done in two directions with the final pass across the slope.

Matting:
Matting is used on large, steep areas which cannot be punched with a roller or by hand. Jute, wood excelsior or plastic netting is applied over unpunched straw.

Where to Get Help:
Technical Assistance is available from your local USDA Natural Resources Conservation Service office or your local Resource Conservation District regarding this practice and other treatments.

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Straw Mulching

SPREAD THE STRAW
MARK OFF 800 SQ FT. PLOTS
20 FT.
40 FT.
PLACE ONE STRAW BALE
PER PLOT (~74 POUNDS)
THIS IS EQUIVALENT
TO 2 TONS PER ACRE.

SPREAD EVENLY
USE A PITCHFORK,
SPADING FORK,
OR BY HAND

ANCHOR THE STRAW
CRIMP BY HAND
OR
USE PLASTIC NETTING
WORK ACROSS THE SLOPE.
PUNCH STRAW 4 INCHES DEEP.
A SQUARE END SPADE WORKS WELL.
MAKE PUNCH EVERY 12 INCHES.

Construction Notes
1. Lay matting in strips down the slope over the straw. Bury upper end in 6-8 inch deep and wide trench. Most netting comes in 14-17 feet wide rolls.
2. Secure the upper end with stakes every 2 feet.
3. Overlap seams on each side 4-5 inches.
4. Secure seams with stakes every 5 feet.
5. Stake down the center every 5 feet.
6. Stake middles to create diamond pattern that provides stakes spaced 4-5 feet apart.
7. Use pointed 1x2 inch stakes 8-9 inches long. Leave 1-2 inch top above netting or use "U" shaped metal pins at least 9 inches long.
8. When joining 2 strips, overlap upper strip 3 feet over lower strip and secure with stakes every 2 feet like in "B" above.