



## What is Mulching?

Mulching is the application of a uniform layer of straw, wood fiber, or other acceptable materials over seeded areas or over bare areas if seeding is delayed.

## Purpose

The purpose is to reduce erosion and stabilize areas while the seeding is becoming established.

## Where the practice applies

Mulching is used on newly constructed earth fills, steep slopes of borrow areas, grass waterways and terrace outlets where concentrated flow is expected, diversions, channel side slopes, and any particularly erosive site.

## Methods and Materials

There are numerous commercially prepared erosion control blankets and nets available. For larger areas, it may be more feasible to use unchopped hay, straw or a long-fibered wood cellulose.

Mulch should be applied as soon as possible after seeding is completed. When construction is not completed early enough to permit seeding, a mulch should be applied to control erosion until the seeding is completed.

Straw mulch is the most commonly used type of mulch, is readily available in most areas and is effective when applied properly. It can be applied by hand broadcasting to a uniform depth of 2 – 3 inches. On steep slopes or large areas,

straw can be blown onto the slope with a straw blower to achieve the same degree of cover. When applied properly, approximately 10 to 25 percent of the original ground surface can be seen. Apply at a rate of 1.5 to 2 tons per acre.

Straw mulch must be anchored with a netting, punched into the soil with a spade or crimper, or by spraying it with a tacking agent:

**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. A weighted disk set nearly straight will also work.



Mulch Crimper

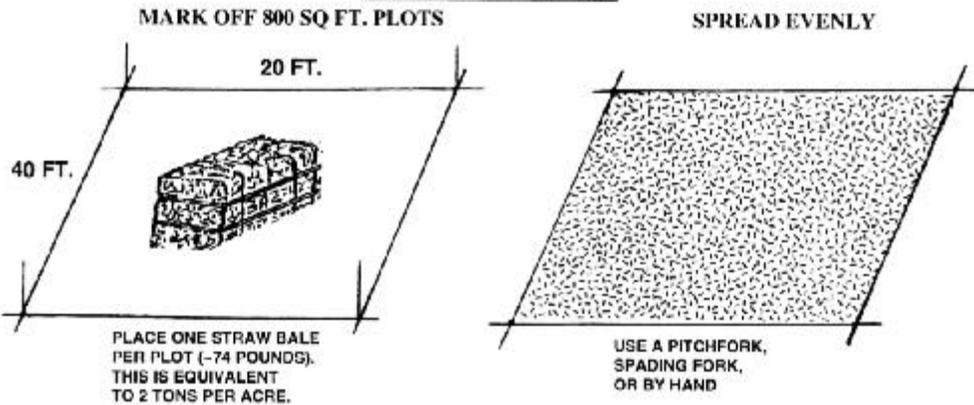
**Matting:** Matting or plastic mulch netting can also be used. This material is stapled with 11 gauge or heavier wire staples. This may be used with straw mulch when concentrated flow velocity is less than 4 feet per second.

Wood Excelsior Fiber Blankets, chopped straw or straw and coconut fiber blankets are also available and are used without additional mulch. They are anchored with wire staples as per manufacturer's specifications. These are effective for erosion control on moderate to steep slopes.

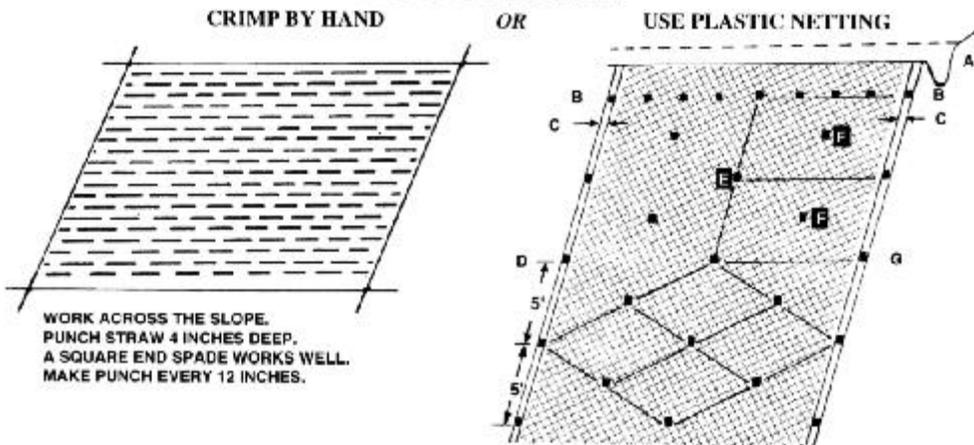
**Asphalt Spray (Emulsion):** Sprayed into mulch as it is applied. Application rate is 0.05

gallons per square yard.

## SPREAD THE STRAW



## ANCHOR THE STRAW



### **CRIMP WITH A MACHINE**



A mulch crimper or a disk set nearly straight will anchor the mulch.

### **Blankets and Netting**

- A. Lay the mat parallel to the direction of water flow. Bury the upgrade end of each blanket at least 6 inches in a vertical slot with the soil pressed firmly against the embedded mat.
- B. Overlap strip ends at least 10 inches – upgrade strip on top. Staple strip ends and end overlaps with not more than 12 inches between staples.
- C. Overlap adjacent strip edges 2 – 4 inches.
- D. Staple all other joints and edges at 4 – 5 foot intervals.
- E. Place additional staples down the center of each blanket every 4 feet.
- F. Stake the middle area in a diamond pattern at 4-5 feet apart. Where velocities exceed 5 cfs, place edge and center staples at 2-foot intervals.
- G. Insert staples flush with the ground.
- H. In areas of broad sheet flow, mats may be placed either parallel or perpendicular to slope direction.

## Mulching – Job Sheet

Landowner \_\_\_\_\_ Field number \_\_\_\_\_

Purpose (check all that apply)	
<input type="checkbox"/> Improve soil condition and increase soil fertility	<input type="checkbox"/> Suppress weed growth
<input type="checkbox"/> Soil erosion control	<input type="checkbox"/> Moderate soil temperature
<input type="checkbox"/> Establish vegetative cover	<input type="checkbox"/> Conserve soil moisture

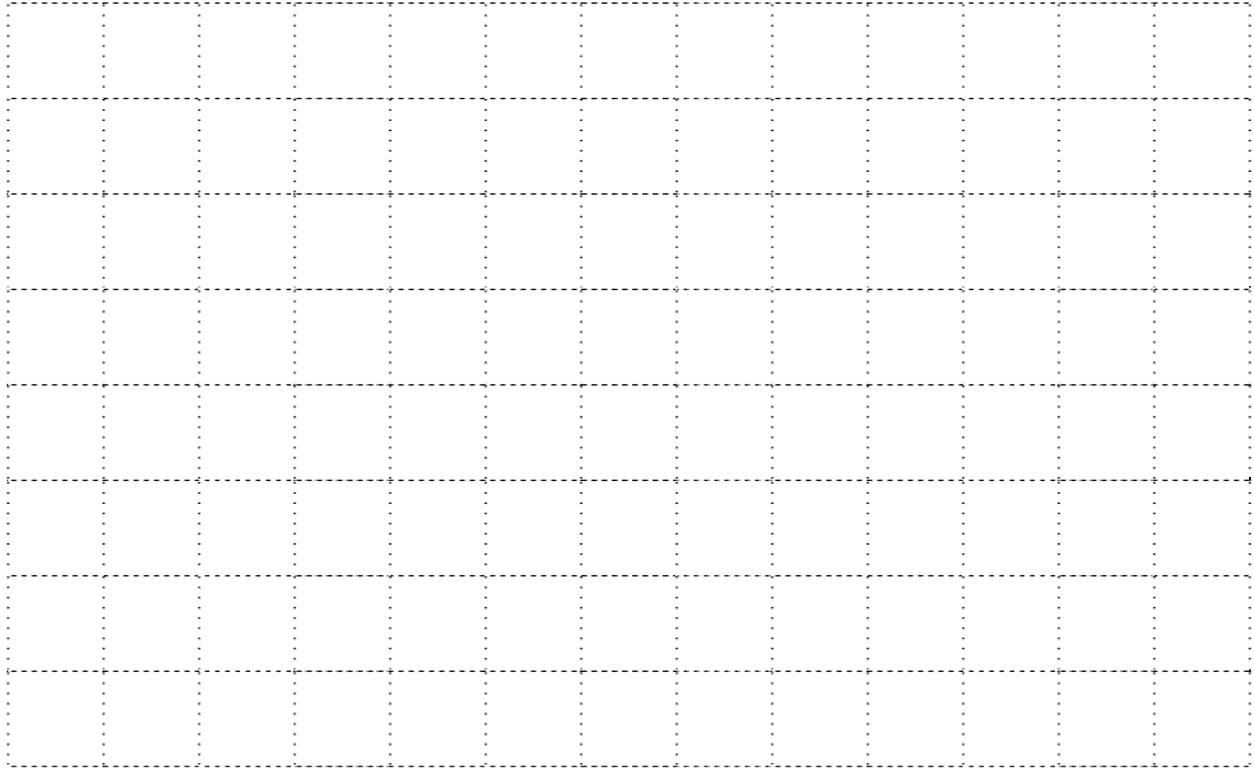
Layout	Field ____	Field ____	Field ____
Total Area to be mulched			
Mulch Type <sup>1</sup>			
Rate (amount per appropriate unit)			
Total amount of mulch needed (area x rate)			
Percent Cover and / or Thickness (% or inches)			
Application Date			
Tackifier Required			
Method / Type of Anchoring <sup>-2</sup>			
Additional Protective Measures (if applicable) <sup>3</sup>			
Livestock Exclusion if required			

<p><b>1 – Mulch type</b></p> <p>List the type of mulch to be utilized. Mulch types include: Hay or Straw, Compost, Manure, Wood chips, Wood Shavings, Sawdust, Peat Moss, Gravel, Crushed Stone, Plastic, Wood fiber Cellulose, Excelsior Fiber Mat or Other. If Other, specify in the "Additional Specifications and Notes" section of this document</p>
<p><b>2 - Anchoring</b></p> <p>List any anchoring necessary to hold the mulch in place, Types include: Peg or Twine, Mulch netting, Asphalt Emulsion, Chemical or Disking.</p>
<p><b>3 - Additional Protective Measures</b></p> <p>List any additional protective measures needed in addition to mulching. Examples include: jute mesh, silt fences, and soil stabilization blankets or erosion mats.</p>

## Mulching – Job Sheet

If needed, an aerial view or a side view of the practice can be shown below. Other relevant information, complementary practices and measures, and additional specifications may be included.

Scale 1"= \_\_\_\_\_ ft. (NA indicates sketch not to scale: grid size=1/2" by 1/2")



Additional Specifications and Notes:

The United States Department of Agriculture (USDA) prohibits discrimination in its programs on the basis of race, color, national origin, sex, religion, age, disability, political beliefs and marital or familial status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication program information (Braille, large print, audiotape, etc.) should contact the USDA Office of Communications (202) 720-2791.

To file a complaint of discrimination write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice or TDD). USDA is an equal opportunity provider and employer.