

NATURAL RESOURCES CONSERVATION SERVICE

## **FIREBREAK (FEET)**

### **CODE 394A**

**MONTANA CONSERVATION PRACTICE SPECIFICATION**

#### **OPEN AREA**

**DEFINITION:** A strip of bare land or vegetation that retards fire.

**PURPOSE:**

- To prevent the spread of wildfire
- To control prescribed burns (temporary)

**SCOPE:** This practice applies on all land uses where protection from wildfire is needed or prescribed burning is applied.

**FIREBREAK SPECIFICATIONS:** Specifications for applying this practice shall be prepared for each site and recorded using approved specifications sheets, job sheets, and narrative statements in the conservation plan, or other acceptable documentation.

Where wind erosion could be a problem and the "I" factor for the soil is greater than "86," refer to the FOTG, Section IV–Practice Standards and Specifications, 589C–Cross Wind Trap Strips for strip width.

For areas where water erosion could be a problem, dispose of runoff water by rolling the grade, outsloping or contouring the firebreak, or installing water bars based on the slope and rock fragments. Use TABLE 1 and DIAGRAM 4 to determine the spacing and design requirements for water bars.

Vegetated firebreaks may be low-growing and/or fire-retarding annual or perennial vegetation, or managed as such by irrigating, mowing, grazing, burning, or chemically killing the strips annually. Refer to TABLE 2 for species to plant. Keep vegetation five inches or less in height during hazardous conditions. The vegetation is to be removed, or dispersed and laid flat.

**Temporary Firebreaks for Prescribed Burns:**

Refer to FOTG, Section IV–Practice Standards and Specifications, 338–Prescribed Burning.

**Idle Cropland Firebreaks (including other areas of non-use):**

Idle cropland fields need wider than normal firebreaks due to the build up and height of dead matter (fuel).

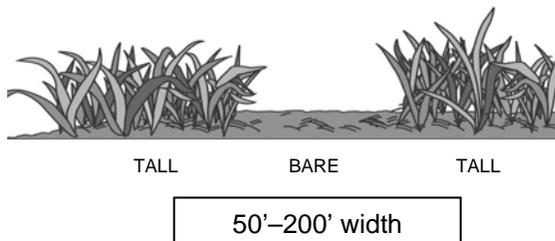
Firebreaks in idle croplands will be:

1. Single bare ground strip (DIAGRAM 1) or...
2. One or two bare ground strips combined with one vegetated strip (DIAGRAMS 2 AND 3). This strip of annual or perennial vegetation could be mowed, burned, or planted to low-growing or fire-retarding vegetation (TABLE 2).

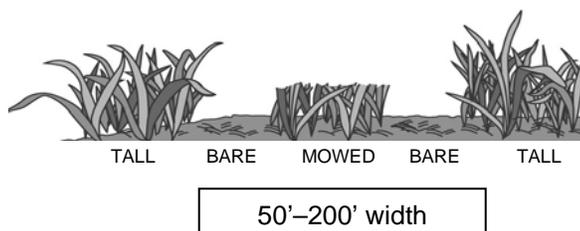
## Specification MT394A-2 Open Area

If two bare ground strips are used, the mowed strip will separate them (DIAGRAM 2). If one bare ground strip is used, it will be located between the mowed strip and the idle cropland field (DIAGRAM 3). Vegetated strips are at least 10 feet wide and no more than 33% of the total firebreak width.

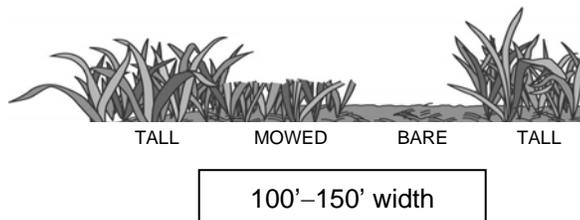
**DIAGRAM 1:  
A single bare ground strip.**



**DIAGRAM 2:  
Two bare ground strips combined  
with a mowed strip.**



**DIAGRAM 3:  
One bare ground strip combined  
with a mowed strip.**



The firebreak width using a single bare ground strip will be a minimum of 50 feet and a maximum of 200 feet.

The firebreak width using two bare ground strips with a mowed strip in between will be a minimum of 50 feet and a maximum of 200 feet.

The firebreak width using one bare ground strip and a mowed strip will be a minimum of 100 feet and a maximum of 150 feet.

To add an extra margin of safety, idle cropland firebreaks immediately adjacent to homes, barns, buildings, etc will be approximately 250 feet wide.

### Open Area Firebreaks:

For open area firebreaks (rangeland, pastureland, cropland) the minimum width for a bare ground firebreak is five feet and the maximum width will not exceed 30 feet. Expose mineral soil for a width of at least five times the height of the uncut vegetation along the windward side of the firebreak. Kill any vegetation growing in the bare ground strips.

For a firebreak with a single bare ground strip and a vegetated strip, the minimum width is 30 feet and the maximum width shall not exceed 100 feet. The vegetated strip is at least 10 feet wide but no more than 33% of the total firebreak width.

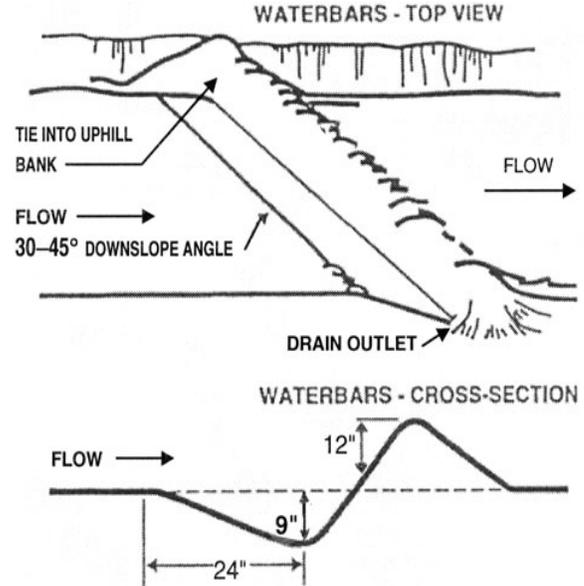
**Specification MT394A-3  
Open Area**

Wider firebreaks can be established by creating two parallel strips of bare soil with a vegetated strip in between, and then each year mowing, grazing or burning the vegetation. The minimum width is 50 feet and the maximum width shall not exceed 100 feet. The vegetated strip is at least 10 feet wide but no more than 33% of the total firebreak width.

**TABLE 1. Water Bars Spacing**

SLOPE	ROCK FRAGMENTS (TOP 12" OF SOIL)		
	<35%	35-60%	>60%
<30%	100'	200'	AS NEEDED
>30%	50'	100'	

**DIAGRAM 4. Water Bars**



**TABLE 2. Selected Species for Establishing Fire-Retarding Vegetative Firebreaks.**

SPECIES <sup>1/</sup>	CULTIVAR	SEEDING RATE <sup>3/</sup> PURE LIVE SEED / ACRE		SEEDS PER POUND	PRECIPITATION REQUIREMENTS (INCHES)
		BROADCAST <sup>4/</sup> (POUNDS)	DRILLED <sup>4/</sup>		
Sheep Fescue	<i>Covar</i>	5	3	680,000	6-14
Hard Fescue	<i>Durar</i>	6	3	565,000	14-20
Canada Bluegrass <sup>2/</sup>	<i>Rueben, Foothills</i>	3	3	1,600,000	12-22
Common White Clover		4	3	800,000	16 +
Red Clover	<i>Kenland, Lakeland</i>	13	6.5	272,000	16 +
Birdsfoot Trefoil	<i>Empire, Leo</i>	8	4	418,000	14 +
Orchardgrass <sup>2/</sup>	<i>Potomac, Latar</i>	7	3.5	464,000	16 +
Alfalfa		10	5	225,000	14 +
Tall Fescue	<i>Alta, Fawn</i>	8	4	242,000	16 +
Forage Kochia <sup>5/</sup>	<i>'Immigrant'</i>	9	4.5	395,000	12 +
Russian Wildrye	<i>'Bozoisky'-Select</i>	10	5	75,000	10 +
Crested Wheatgrass <sup>6/</sup>	<i>'Fairway'</i>	10	5	200,000	10 +
Western Wheatgrass	<i>'Rosana'</i>	16	8	93,000	12 +
Streambank Wheatgrass	<i>'Sodar'</i>	10	5	152,000	10 +
Yarrow		3	3	4,500,000	9 +

<sup>1/</sup> See FOTG 512-Pasture and Hayland Planting standards and specifications for additional information on soil, site, and climatic adaptation for each species, as well as recommended cultivars.

<sup>2/</sup> Recommended for high elevation forest sites only.

<sup>3/</sup> Recommended rate is about 80 seeds/square feet for broadcast-40 seeds/square feet for drilled.

<sup>4/</sup> Minimum rate at 3 lbs. seed/acre due to equipment and seed physics.

<sup>5/</sup> Seed must be planted within 6 months of harvest of annual crop.

<sup>6/</sup> *Fairway* cultivar only because of its unique, low-growing habit—no substitutions.