

Landowner _____



WHAT ARE FILTER STRIPS

Filter strips are areas of herbaceous vegetation situated between cropland, grazing land, forest land, or disturbed land and environmentally sensitive areas. Sensitive areas include streams, lakes, wetlands, and other water bodies and areas susceptible to damage by water-borne pollutants, including sediment, particulate organics, sediment-adsorbed contaminants, and dissolved contaminants.

PURPOSE

Filter strips are used to:

- Reduce suspended solids and associated contaminants in runoff
- Reduce dissolved contaminant loadings in runoff
- Reduce suspended solids and associated contaminants in irrigation tailwater

HOW IT HELPS THE LAND

Filter strips can be strategically located in a watershed to reduce and slow runoff and increase infiltration and groundwater recharge. They should be installed only below areas where sheet and rill erosion have been reduced to an acceptable level and where other practices are in place that slow runoff and contaminant delivery.

WHERE THE PRACTICE APPLIES

Filter strips are used on cropland, grazing land, forest land, or disturbed land. A filter strip is typically positioned at the down-slope edge of a field or disturbed area. Filter strips are normally used when adjacent areas have slopes gradients greater than 1 percent. They should not be part of the cropland rotation.

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WHERE TO GET HELP

For assistance in planning filter strips, contact your local Natural Resources Conservation Service or Conservation District office.

APPLYING THE PRACTICE

Filter strips need to be established to permanent herbaceous vegetation consisting of a single species or a mixture of grasses, legumes and/or other forbs adapted to the soil, climate, nutrients, chemicals, and practices used in the current management system. Species of grass that have stiff stems and a high stem density near the ground surface work better in filter strips.

Filter strip widths are determined based on field slope percent and length, filter strip slope percent, erosion rate, amount and particle size distribution of sediment delivered to the filter strip, density and height of the filter strip vegetation, and runoff volume associated with erosion producing events. Contact your local conservation office for help in designing filter strip widths.

The filter strip should be placed on the approximate contour, with its upper edge ideally not exceeding a 5% gradient.

Concentrated flows of water entering the strip need to be dispersed so that sheet flow is achieved through the strip.

The benefits of filter strips can be enhanced for wildlife and pollinator habitat by adding beneficial plant species and increasing the width beyond the minimum required.

OPERATION AND MAINTENANCE

Mow filter strips (and harvest forage for hay when possible) as necessary to encourage dense vegetative growth. If established to enhance wildlife habitat, avoid mowing during the nesting period of ground-nesting wildlife (April 1 – July 1). Control undesirable weed species. Inspect and repair strips after storm events to fill in gullies, remove flow-disrupting sediment accumulation, reseed disturbed areas, and take other measures to prevent concentrated flow into and across the filter strip. Lime and fertilize according to soil test recommendations to maintain a vigorous stand of vegetation. Exclude livestock and vehicular traffic from filter strips during wet periods of the year to reduce compaction that will limit infiltration. This type of traffic should be excluded at all times. Restoration is required if the filter strip has accumulated sediment to a point that it no longer functions effectively.

SPECIFICATIONS

Specifications are prepared in accordance with the NRCS Field Office Technical Guide. See Oklahoma NRCS practice standard Filter Strip (393).

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Filter Strip – Job Sheet

Landowner _____ Field number _____

Purpose (check all that apply)	
<input type="checkbox"/> Reduce suspended solids and associated contaminants in runoff	<input type="checkbox"/> Reduce suspended solids and associated contaminants in surface irrigation tailwater
<input type="checkbox"/> Reduce dissolved contaminant loadings in runoff	

Layout	Strip 1	Strip 2	Strip 3
Strip width (feet)			
Strip length (feet)			
Area in strip (acres)			
Field slope (%)			

Plant Materials (species/cultivars)	Planting Rate (lbs or bu./acre of pure live seed)	Planting Date
Strip 1:		
Strip 2:		
Strip 3:		

Soil Amend. and Fertilization	Strip 1	Strip 2	Strip 3
Lime per Soil Test (tons/acre)			
N Fertilizer per Soil Test – (lbs/acre)			
P ₂ O Fertilizer per Soil Test – (lbs/acre)			
K ₂ O Fertilizer per Soil Test – (lbs/acre)			

Site Preparation
<i>Prepare a firm seedbed. Apply lime and fertilizer as indicated by soil testing. Additional requirements:</i>
Planting Methods
<i>Drill grass and legume seed _____ inches deep uniformly over area. Establish vegetation according to the specified seeding rate. If necessary, mulch newly seeded area with _____ tons per acre of mulch material. A small grain crop may be needed as a companion crop at the rate of _____ pounds per acre (clip or harvest before it heads out). Additional requirements:</i>
Operation and Maintenance
<i>Maintain original width and length of the filter strip. Harvest, mow, reseed, and fertilize as necessary to maintain plant density and vigorous plant growth. Inspect after major storms, remove trapped sediment, and repair eroding areas. Shut off pesticide sprayers when turning on a filter strip. Additional requirements:</i>