

# FILTER STRIP

## PRACTICE INTRODUCTION

USDA, Natural Resources Conservation Service - practice code 393



### FILTER STRIP

A filter strip is an area of vegetation established for the purpose of removing sediment, organic material, and other pollutants from runoff and waste water.

Plant species selected for planting in a filter strip requires careful planning. There may be multiple objectives that can be accomplished by proper plant selection.

### PRACTICE INFORMATION

Filter strips are generally located at the lower edge (s) of a field. This will vary somewhat with land use, topography and objectives.

A filter strip removes pollutants from runoff before the material enters a body of water. It also serves as a buffer between water and the fields above the water so that pesticides and other chemicals are not applied directly adjacent or into the water body.

Filter strips also reduce sedimentation of streams, lakes and other bodies of water.

In addition to the above functions, filter strips can be designed to provide one or more of the following secondary benefits:

1. Improved fish and wildlife habitat.
2. Improved aesthetics
3. Improved equipment operations such as field access and turn rows or head lands.
4. Improved recreation opportunities.
5. Improved livestock forage source.

Specifications for design and installation of this practice are contained in the USDA/NRCS Field Office Technical Guide

The following pages contain the conservation effects expected to occur when this practice is applied. These effects are subjective and somewhat dependent on variables such as climate, terrain, soil, etc. Users are cautioned that these effects are estimates that may or may not apply to a specific site.



## CONSERVATION PRACTICE PHYSICAL EFFECT WORKSHEET

NOTE: recorded in Microsoft word 6.0 - use tabs to change cells/fields

STATE	Iowa	FIELD OFFICE	DATE	12/5/96
<b>PRACTICE:</b> 393 - Filter Strip			NOTES: The following effects apply to the field where the filter strip is located and offsite effects.	
<b>RESOURCE: SOIL</b> <b>RESOURCE CONCERN: EROSION</b>			<b>Help Message: Click on form field for choice lists.</b> <b>Tab key to move around. "N/A" is the default.</b>	
<b>RESOURCE INDICATORS</b>			<b>PHYSICAL EFFECTS</b>	
SHEET AND RILL			insignificant	
WIND			insignificant	
EPHEMERAL GULLY			insignificant	
CLASSIC GULLY			insignificant	
STREAMBANK			moderate reduction in streambank erosion	
IRRIGATION INDUCED			insignificant	
SOIL MASS MOVEMENT			insignificant	
ROADBANK/CONSTRUCTION			insignificant	
OTHER				
<b>RESOURCE CONCERN: SOIL CONDITION</b>				
SOIL TILTH			N/A	
SOIL COMPACTION			N/A	
SOIL CONTAMINATION				
• SALTS			N/A	
• ORGANICS			N/A	
• FERTILIZERS			N/A	
• PESTICIDES			N/A	
• OTHER				
DEPOSITION/DAMAGE				
• ONSITE			moderate reduction/onsite deposition damage	
• OFFSITE			moderate decrease/offsite deposition damage	
DEPOSITION/SAFETY				
• ONSITE			moderately improve onsite safety/deposition	
• OFFSITE			moderately improve offsite safety hazard/depos.	
OTHER				
<b>RESOURCE: WATER</b> <b>RESOURCE CONCERN: WATER QUANTITY</b>				
SEEPS			N/A	
RUNOFF/FLOODING			insignificant	
EXCESS SUBSURFACE WATER			N/A	
INADEQUATE OUTLETS			significant improvement in H2O outlet concern	
WATER MGT. IRRIGATION				
• SURFACE			N/A	
• SPRINKLER			N/A	
WATER MGT. NON-IRRIGATED			N/A	
RESTRICTED FLOW CAPACITY				
• ONSITE			N/A	
• OFFSITE			N/A	
RESTRICTED STORAGE			slight reduction in sedimentation of H2O storage	
OTHER				

<b>RESOURCE: WATER</b>	
<b>RESOURCE CONCERN: WATER QUALITY</b>	
<b>RESOURCE</b>	<b>PHYSICAL EFFECTS</b>
<b>GROUNDWATER CONTAMINANTS</b>	
• PESTICIDES	insignificant
• NUTRIENTS AND ORGANICS	insignificant
• SALINITY	insignificant
• HEAVY METALS	insignificant
• PATHOGENS	moderate poten. decrease/GWater contam./pathegens
• OTHER	
<b>SURFACE WATER CONTAMINANTS</b>	
• PESTICIDES	moderate reduction in SWater contam./pesticides
• NUTRIENTS AND ORGANICS	moderate reduction in SWater contam./nutri.,organ.
• SUSPENDED SEDIMENTS	moderate reduction in SWater contam./susp. sedi.
• LOW DESOLVED OXYGEN	slight reduction in SWater contam./low oxygen
• SALINITY	insignificant
• HEAVY METALS	slight reduction in SWater contam./heavy metals
• WATER TEMPERATURE	insignificant
• PATHOGENS	slight decrease in SWater contam./pathegens
<b>AQUATIC HABITAT SUITABILITY</b>	moderate improvement in Aqua. Hab. Suit.
<b>OTHER</b>	
<b>RESOURCE: AIR</b>	
<b>RESOURCE CONCERN: AIR QUALITY</b>	
<b>AIRBORNE SEDIMENT AND SMOKE PARTICLES</b>	
• ONSITE SAFETY	insignificant
• OFFSITE SAFETY	insignificant
• ONSITE STRUCT. PROBLEMS	insignificant
• OFFSITE STRUCT. PROBLEMS	insignificant
• ONSITE HEALTH	insignificant
• OFFSITE HEALTH	insignificant
<b>AIRBORNE SEDIMENT CAUSING CONVEYANCE PROBLEMS</b>	insignificant
<b>AIRBORNE CHEMICAL DRIFT</b>	insignificant
<b>AIRBORNE ODORS</b>	insignificant
<b>FUNGI, MOLDS, AND POLLEN</b>	insignificant
<b>OTHER</b>	
<b>RESOURCE CONCERN: AIR CONDITION</b>	
<b>AIR TEMPERATURE</b>	insignificant
<b>AIR MOVEMENT (windbreak effect)</b>	insignificant
<b>HUMIDITY</b>	insignificant
<b>OTHER</b>	



<b>RESOURCE: HUMAN</b>	
<b>RESOURCE CONCERN: SOCIAL CONSIDERATIONS</b>	
<b>RESOURCE INDICATORS</b>	<b>PHYSICAL EFFECTS</b>
PUBLIC HEALTH AND SAFETY	slight improvement in public health & safety
PRIVATE/PUBLIC VALUES	slight improvement in private/public values
CLIENT CHARACTERISTICS	insignificant
RISK TOLERANCE	N/A
TENURE	N/A
OTHER	
<b>RESOURCE CONCERN: CULTURAL CONSIDERATIONS</b>	
ABSENCE/PRESENCE OF CULTURAL RESOURCES	insignificant
SIGNIFICANCE OF CULTURAL RESOURCES	insignificant
MITIGATION OF NEGATIVE CULTURAL RES. IMPACTS	insignificant
OTHER	