

Vegetated Filter Strips

This factsheet is one of a series developed for livestock owners with small farms. Each factsheet focuses on an area of management that will benefit the health of your animals, as well as the health of your property's natural resources.



BMP Factsheet

Winter 2015

What is a filter strip?

A vegetative filter strip is a defined area of vegetation next to a waterway designed to remove pollutants and sediment from runoff water via particle settling, water infiltration, and nutrient uptake.

A filter strip's purpose is to filter and capture nutrients, sediment and pathogens in surface runoff coming from grazing areas (manure, cropland, etc.) before the contaminated runoff reaches any surface water. A filter strip's most important function is to help keep fecal coliform bacteria and other pathogens contained in livestock manure out of streams, ditches and seasonal drainages. Filter strips can be managed to produce feed and reduce pollution. Pastures and haylands that are already established next to sensitive areas can make excellent filter strips.

Filter strips work best when they are actively managed for near optimum production. The filter strips need to be actively growing, grass height of at least 3 inches in order to continue capturing nutrients and pathogens. Prescribed grazing and harvesting of the forage crops within the buffer will maximize environmental benefit.

Q. How are filter strips managed differently from other field areas?

Filter strips can be thought of as "farm with caution zones", with caution being required when the seasonal potential for runoff is highest (September through March). Filter strip areas are farmed essentially the same way as other areas, but with more careful attention paid to managing grazing

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Reducing Mud
Filter Strips

Small Farm Resources
Composting
Pasture Management
Wetlands

and manure application so that the filter strip's capacity to filter bacteria-laden runoff is maximized. Farming practices in filter strip areas must be adjusted in advance of and during periods of the year when the runoff potential is highest (September through March).



Compared to bare land, a dense vegetative buffer has the capacity to reduce runoff to surface waters by 60 to 80% .

Q. How wide do filter strips need to be?

As a general rule buffers need to be 50 feet wide in pastures and hay fields. A 100 foot wide buffer is needed between feeding and calving areas and sensitive areas. For small seasonal confinement areas (e.g. pens, corrals, sacrifice areas, etc.) the minimum buffer width is 50 feet, but large confinement area need even wider buffers. The width of the buffer should be at least the width of the confinement area itself.

Q. How high should forages be maintained in filter strips?

Forages should be no shorter than 3 inches between Oct 1 and March 15. They may be grazed somewhat shorter than that during the rest of the year, but should then be given time to regrow several inches before they are grazed or mowed again.

Q. Can manure be applied to filter strips?

From October 1st through March 15th manure should not be applied to filter strips. From March 16th through August 31st manure should not be applied within 40 feet of water courses.

Q. How do filter strips reduce fecal coliform and other pathogens?

Harmful pathogens contained in manure can not survive dry surfaces and warm temperatures. When exposed to these conditions, fecal coliform bacteria take only a day or so to die. Maintaining healthy filter strips between manure application areas and streams and ditches provides conditions necessary to reduce sediment and excess nutrients from entering the water.

