

# Grass Filter Strips



Corn fields, each with 25 foot grassed buffers, to allow for proper filtration of applied nutrients, field runoff and other potential surface water contaminants.

## What

**Grass Filter Strips are areas of perennial vegetation adjacent to cropland or agricultural production areas that protect waterways or wetlands.**

They are designed to filter and remove nutrients, sediment, organic matter, pesticides, and other pollutants from surface runoff and subsurface flow by deposition, absorption, plant uptake and other processes.

## Why

**Grass filter strips are a low cost and effective method of filtering agricultural field and production area runoff.**

They function to capture and filter sediment, pesticides and fertilizers, as well as to provide feeding and nesting habitat for wildlife. Practically, they provide an alternative for marginal, floodprone cropland, and can be used for haying or grazing. They can also provide access for agricultural operations and turn areas for equipment.

## How

**Grass filter strips should be located immediately down-slope from the source area of contaminants,** typically on the contour of a slope along a stream or other waterway. Minimum width should be 25 feet, but wider

strips are appropriate adjacent to nutrient rich cropland or adjacent to a stream noted as impaired or contaminated. Uniform sheet flow through the filter strip should be ensured by building on slopes with a grade of at least 1% and of no more than 5%, and dispersing concentrated flows before they reach the filter strip. Using filter strips as a travel lane for equipment or livestock should be avoided.

Site preparation and seeding or planting is typically done in the spring or fall to best ensure plant growth and survival, when soil moisture is most adequate for germination and/or establishment. Species selected for seeding or planting should be suited to site conditions and intended uses, and have the capacity to achieve adequate

density and vigor within an appropriate period to stabilize the site. Only viable, high quality, native seed or planting stock should be used such as Kentucky bluegrass. Vermont State-listed noxious plants are not allowed. Filter strips should be maintained as necessary to ensure dense and vigorous growth.

## Costs

Establishment of a filter strip typically involves a minimum of site preparation such as applying lime and fertilizer if necessary, and then the broadcast or incorporation of a seeding mix. Costs can vary depending on the grade, location and condition of the site, the density of vegetation that already exists and soil conditions. The average cost to establish a 1-acre area (or a filter strip of 25' by 1,745') in a grass hay mix with minimal site prep is about \$500. Costs can be higher if the site is heavily eroded or needs additional preparation such as bank grading and shaping before establishment.

### Associated and Complimentary Practices

- Riparian Forest and Herbaceous Buffers
- Conservation Tillage
- Integrated Pest Management

### Benefits

