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Above: Replacement septic system installation in Fish Creek subwatershed in Eaton County

The Watering Hole



Filter strips and waterways

Filter strips and grassed waterways are areas in a farm field that are left in permanent vegetation. The goals of both practices are to slow surface water flow, filter out pollutants being carried in runoff, and mitigate erosion issues.

Filter strips and grassed waterways can reduce operating costs, particularly in the spring, as both of these practices can prevent gully washes, saving a farmer time and effort in fixing them. Also, properly designed waterway will be shallow and stable enough for an operator to drive their equipment across. This means a farmer can work their field in whichever direction is most effective and reduce the time they spend driving around a gully.

Filter strips and grassed waterways improve water quality by stabilizing banks and reducing erosion along stream edges. These practices also positively impact water quality by slowing the flow of runoff, which leads to more water infiltrating into the ground and more soil kept on the field. This keeps sediment, nutrients, and any pathogens like E.coli in the soil and not in our rivers, making both healthier.

Additionally, many waterways and filter strips can incorporate a wide variety of native wildflowers and other pollen-producing powerhouses. They can provide wildlife like pheasants with much-needed food, cover, and shelter for both nesting and safe travel through open fields.

Unfortunately, installing filter strips and waterways does mean taking some ground out of production, this can take a cut out of profit. Also, these practices should be used in combination with cover crops or conservation tillage to achieve the best results. Finally, farmers need to be a little more restrictive on herbicide use and tilling near waterways and filter strips, as getting too close could render the waterways or filter

strips ineffective over time.

The first step in installing filter strips or grassed waterways is weed control through an herbicide or tillage. Then the farmer must grade the land to have a smooth and shallow transition across the waterway with a wide, even bottom. This ensures even flow across all areas of the filter. If there is a low spot, water will flow through that point, causing a premature failure.

Seeding is the last step. Using a no-till drill is ideal for seeding because it disturbs



Grassed waterways have great benefits for the environment and a farm's bottom line.

the soil the least, but unfortunately some operations may not have one in their arsenal of equipment. Luckily, your local Conservation District has a no-till drill for rent to help farmers out. The second method of planting, conventional tillage and planting, will do in a pinch, but really isn't ideal because of the soil disturbance which opens the site up for potential erosion issues until the plants are established.

There are a few different options for what to plant. Warm season grasses, which grow during warm months and go dormant in winter, tend to grow in bunches and include big bluestem, little bluestem, indiangrass, switchgrass, and many others.

Benefits of warm season species include food, nesting cover, and winter cover for wildlife, as well as a great diversity of native species to choose from. Cool season grasses, which grow earlier in spring and later in fall, are typically sod-forming grasses and include timothy, orchard grass, smooth brome and Canada wild rye. Benefits of cool season species are that they, they are easier to establish in cooler weather, they grow and establish quickly, and their generally dense growth means better erosion control and sediment filtration. The main drawback is that most cool season species are not native in this region and can overtake an area, leading to low species diversity. Filter strips can also be planted to native wildflowers such as black-eyed susan, purple coneflower, coreopsis species, and many more. These wildflowers provide a great food and habitat for pollinator species, which are necessary for the pollination of some crops. The drawbacks of pollinator or wildflower-only plantings are that they are not as great cover for grassland-nesting birds and larger mammals or for erosion control.

For the best of both worlds, try a mix of warm season grasses, cool season grasses, and pollinators. The right seed mix can be much more diverse, provide the most all-around benefits, and capitalize on the symbiotic relationships between grasses and wildflowers, to mutually benefit each other.

Filter strips and grassed waterways are a great tool to prevent erosion, keep nutrients and soil on fields, and reduce time in the

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