

# Buffers/Field Borders and Wildlife



Buffer



Field Border

Buffers and field borders are narrow strips of permanent vegetation. Buffers are usually associated with water: streams, wetlands, or just runoff water. Field borders are along edges of crop fields or pastures.

## Why Plant Buffers and Borders?

What can buffers and field borders do for your farm and the environment:

- Improve income on cropland or pasture
- Reduce risks from damaging insects
- Reduce pollutants in runoff water
- Restore beneficial farmland wildlife and pollinators

## Buffers

Buffers are usually located where they intercept and help clean water. Buffers adjacent to streams or wetlands are called *riparian* buffers. Riparian areas often are more costly to farm because of wet soils or produce lower yields because of droughty soils (sand & gravel subsoil). Buffer vegetation can be grasses, forbs (broad-leaved plants such as legumes), and/or trees & shrubs. Buffer vegetation traps sediment above ground while the root systems remove potential pollutants below ground.

## Field Borders

Borders of permanent vegetation along the edges of crop fields can act as buffers when runoff water flows into them during storms. But even in areas where runoff does not flow into them, field borders reduce soil erosion on steep field edges by replacing erosive end rows. Field borders also replace low yielding crops adjacent to tree lines and woodlots. Low yielding crops waste inputs without providing economic return or environmental benefits.

## Improve Income

Through the USDA-NRCS Environmental Quality Incentives Program (EQIP) you can receive incentive payments for establishing buffers or field borders, and also for managing **both** these areas of permanent vegetation and adjacent cropland or pasture. Incentive payments for establishing field borders are \$165 - \$275 per acre of buffer or field border in the year planted. Management incentive payments are \$35 - \$45 per acre for up to three additional years. However, management incentives are paid on buffers or field borders **plus** adjacent cropland or pasture at a rate of up to five acres of cropland or pasture per acre of buffer or field border.

## Reduce Pest Risks

It is a common misconception that natural vegetation near cropland or pasture harbors potentially damaging insects. When managed properly permanent vegetation actually hosts predators such as beneficial insects and birds. These predators can prevent pest insects from developing large populations that are potentially damaging to crops or forage. Keeping these pest insects in check reduces the need for costly insecticide treatments. Buffers or borders seeded with flowering plants also attract pollinators which can benefit grain and forage crops.

## Reduce Water Pollution

Sediment (eroded soil) and nutrients are the most common pollutants in runoff water from farm fields. Buffers in particular, but also field borders, can reduce both the sediment and nutrients leaving farms or flowing into streams and wetlands. Buffers or field borders close to the sources of sediment and nutrient runoff, such as fields with steep slopes and fields where manure is often spread, can also reduce water pollution.

### EASTERN MEADOWLARK



Pennsylvania Game Commission

## Helping Farmland Wildlife

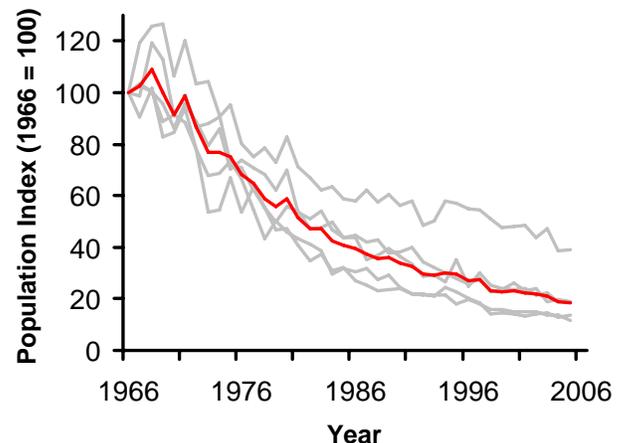
Establishing buffers and borders can restore populations of farmland wildlife and pollinators. The graph below shows the population declines over the past 40 years of a group of grassland birds, including the Eastern meadowlark. The red line indicates the average trend, an 80% decline since 1966. Similar population declines have occurred throughout the Eastern U.S.

Grassland birds are just one group of wildlife traditionally associated with farming that has experienced declines in recent decades. Other groups are songbirds and small game such as rabbits, pheasant, and quail.

Pollinating insects have also experienced serious declines in recent years. Establishing buffers and borders with a variety of flowering plants can restore or maintain pollinators.

**Wider is better** – USDA-NRCS standards require buffers or field borders to be at least 30 feet wide. Significantly wider buffers or field borders (60 - 120 feet) are much better for both farmland wildlife, pollinators, and cleaning runoff water. Contact your local USDA-NRCS office for additional details.

### PA GRASSLAND BIRD POPULATION INDICATOR



Source: Pennsylvania Breeding Bird Surveys, 1966-2006. USGS, Patuxent Wildlife Research Center, Laurel, MD.