**Conservation Practice Effects**

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| **Field Border (Ac) 386****Definition: A stripe of permanent vegetation established at the edge or around the perimeter or a field.****Major Resource Concerns Addressed: Water quality, wildlife habitat.****Benchmark Condition: Cropland field with annually tilled crop.****Date: October, 2016 Developer/Location: Hal Gordon, OR** |
| **Positive Effects** | **Negative Effects** |
| **Soil*** **Reduced sheet, rill, wind and gulley erosion if vegetation is planted across the slope.**
* **Permanent cover and lack of soil disturbance reduces decomposition of soil organic materials.**
* **Compaction is reduced as root penetration and increased organic matter restores soil structure.**

**Water*** **Permanent vegetation will reduce runoff and increase infiltration.**
* **Borders may attract beneficial insects or trap insect pests, reducing the need for pesticide applications.**
* **Nutrients, pesticides, salts, pathogens, manure in surface and ground water will be reduced.**

**Air*** **Permanent vegetation around the field edge reduces particulate emissions from vehicle traffic and tillage in the border area.**
* **Vegetation removes CO2 from the air and stores it as soil carbon.**

**Plants*** **Plants are selected and managed to maintain optimal productivity and health.**
* **Vegetation is installed and managed to control undesired species.**

**Animals*** **Increased quality and quantity of food, cover and shelter for wildlife.**
* **Permanent vegetation may provide added habitat and connectivity for selected wildlife species.**
* **Opportunity for feed and forage for livestock.**

**Energy*** **None**

**Human*** **Historic properties in agricultural context can be protected from erosion by permanent vegetative cover.**
* **Slight decrease in labor turning equipment at ends of fields.**
* **Increase yields/reduce costs as land becomes more productive.**
* **Create sustainability of natural resources that support your business.**
* **Increase the property value (real estate) of your property.**
* **Conserve soil and water for periods of drought and future use.**
* **Prevent off-site negative impacts.**
* **Comply with environmental regulations.**
* **Save time, money and labor.**
* **Promote family health and safety.**
* **Make land more attractive and promote good stewardship.**
* **May be eligible for cost share.**
* **Increased profitability in the long run.**
 | **Land*** **Slight change in land use if cropland converted to border.**
* **Minor amount of land taken out of agricultural production.**

**Capital*** **No additional field equipment required.**
* **Materials & planting costs.**
* **Foregone income with land taken out of production.**
* **Annual operation and maintenance costs to maintain vegetation and manage pests.**

**Labor*** **Slight increase for weed control.**

**Management*** **Increased management of crop production.**

**Risk*** **Reduced operation flexibility and timing with land taken out of production.**
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| **Net Effect: Improves soil productivity and water quality at a low cost.** |

**Commonly Associated Practices:** Conservation Crop Rotation, Dust Control on Unpaved Roads and Surfaces, Early Successional Habitat Development/Mgt., Residue and Tillage Management, Mulch Till, Residue and Tillage Management, No Till/Strip Till/Direct Seed, Residue and Tillage Management, Ridge Till, Residue Management, Seasonal, Upland Wildlife Habitat Management, Wetland Wildlife Habitat Management.

**Note:** This worksheet contains general talking points for the conservation planner to discuss with the land user. It is the first step towards an economic or financial analysis. The second step would include identifying a specific site for analysis at the farm or field level, editing the template for local conditions, adding units and quantities of farm inputs and outputs. The third step in the economic analysis is to place a dollar value on as many variables as possible, put all units in the same time frame, using amortization ($/Acres/Year) or net present value ($/Acre), so benefits and costs can be compared. The fourth and final step would be to combine several conservation practices into a conservation system, which is how most conservation practices are applied at the field level. Data for the worksheet comes from the land user, conservation planner, technical specialist and local agricultural supply vendors and contractors. See Economics Technical Note: TN 200-ECN-1, Basic Economic Analysis Using T-Charts (August 2013) for more information.