**Conservation Practice Effects**

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| **Cover Crop (Ac) 340**  **Definition: Grasses, legumes, and forbs planted for seasonal vegetative cover.**  **Major Resource Concerns Addressed: Soil Erosion, Water Quality, Plant Productivity.**  **Benchmark Condition: Cropland, row crops, non-irrigated.**  **Date: October, 2016 Developer/Location: Hal Gordon, OR** | |
| **Positive Effects** | **Negative Effects** |
| **Soil**   * **Reduce erosion from wind and water and transport of sediment.** * **Maintain or increase soil health and organic matter content.** * **Improve soil moisture use efficiency.** * **Minimize soil compaction.**   **Water**   * **Reduce water quality degradation by utilizing excessive soil nutrients.** * **Reduce drainage, seepage and soil subsidence.** * **Increased organic matter will buffer salts.** * **Reduce runoff and increase infiltration.** * **Improves infiltration, soil structure, and soil water storage.** * **Increase soil biological activity.** * **Reduce runoff and transport of nutrients, pesticides, pathogens and soluble salts.**   **Air**   * **Ground cover helps reduce wind erosion and generation of fugitive dust.** * **Vegetation removes CO2 from the air and stores it in the form of carbon in the plants and soil.**   **Plants**   * **Suppress excessive weed pressures and break pest cycles.** * **Improved plant health, productivity and crop yields.**   **Animals**   * **Increased food and cover for wildlife.** * **Increased space and connectivity for wildlife.** * **Supplemental forage for livestock.**   **Energy**   * **Cover crops can reduce nitrogen inputs.**   **Human**   * **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.** * **Create open space and improve habitat for wildlife.** * **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**   * **No change in landuse** * **Land utilized more intensely**   **Capital**   * **Materials & planting costs.** * **Grass/Legume Seed.** * **Seeding Operation, No Till/Grass Drill.** * **Herbicide, ground application.** * **Mechanical or chemical crop kill.**   **Labor**   * **Increase in labor to plant, manage, eliminate crop.**   **Management**   * **Increase time managing crop production.**   **Risk**   * **Other farm activities delayed while implementing the practice.** * **In dry climates (<20 inches/year) will compete for crop moisture.** * **May recruit unwanted wildlife.** * **May have to convert to shorter season crops in northern latitudes.** |
| **Net Effect: Cover crop improves soil productivity, reduces erosion at a moderate cost.** | |

**Commonly Associated Practices:** Conservation Crop Rotation, Integrated Pest Management, Nutrient Management, 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.

**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.