**Conservation Practice Effects**

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| **Amending Soil Properties with Gypsum Products (Ac) 333**  **Definition: Using gypsum- (calcium sulfate dihydrate) derived products to change the physical and/or chemical properties of soil.**  **Major Resource Concerns Addressed: Soil health and plant productivity.**  **Benchmark Condition: Acidic cropland soil.**  **Date: October, 2016 Developer/Location: Hal Gordon, OR** | |
| **Positive Effects** | **Negative Effects** |
| **Soil**   * **Sheet, rill and wind erosion is reduced by improved soil structure.** * **Organic matter is maintained or increased.** * **Aluminum toxicity is reduced.**   **Water**   * **Runoff, flooding, or ponding is - Improved infiltration.** * **Use of irrigation water will - Improved infiltration.**   **Air**   * **No change.**   **Plants**   * **Plant productivity and health will improve with better Ca:Mg ratio for improved nutrient use efficiency.**   **Animals**   * **Improved Nutrient use efficiency for livestock feed and forage.**   **Energy**   * **No change.**   **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.** * **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.** | **Land**   * **No change to land use**   **Capital**   * **Slight increase in materials and annual operation and maintenance costs** * **No additional equipment required.**   **Labor**   * **Minimal change in labor.**   **Management**   * **Minimal change in management.**   **Risk**   * **No additional risk.** |
| **Net Effect: Adding gypsum improves soil productivity at a minimal cost.** | |

**Commonly Associated Practices:** Agrichemical Handling Facility, Nutrient Management, Waste Utilization.

**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.