Case Study - Conservation Effects

Type of Operation and Location: Pasture, Southeast Ohio

Resource Setting:	**Resource Problem(s):**	**Benchmark System:**
Split farm: 140 acres at headquarters, 210 acres 5 miles away; moderately well drained B,C, and D slopes - 120 Confined Dairy Operation	Labor and cost intensive, manure runoff, soil erosion, milkhouse runoff	Conventional till, 2 years corn silage, wheat, 3 years of hay. Manure applied daily, milkhouse water discharges to the ravine.

Client Objective(s):	**Planned Treatment System:**
Reduce labor and costs; reduce erosion; improve income; have more free time; reduce equipment needs and expense.	• Convert to grazing and no confinement (Planned Grazing System); Watering System; Infiltration Area Meets Resource Management System Criteria

Comparison of Effects of Benchmark and Treatment Option

Actions Before Treatment (Kinds, Amounts, Timing of the benchmark system)	**Effects Before Treatment** (Effects of continuing the benchmark system)	**Impacts After Treatment** (Change from the before treatment to the applied treatment)	**Decisionmaker Evaluation** (+) Feels Positive about the change (-) Feels a drawback about change
Corn Silage: - 3 tillage trips to plant 80 acres with plow and 2 diskings - Silage harvest and transport to bunker silo - Filling bunker silo and sealing. - Daily feeding of corn silage - Fertilizer - Herbicides Hay: - 3 harvests and transport to barn - stacking bales in barn - Seeding hay - Fertilizer - Insecticides for alfalfa Cows: - Scrape manure twice per day - Treat sick cows and calves - Load mixer wagon twice per day with silage and haylage - Haul manure daily	• Excessive erosion 5-15 tons/ac/yr. • Hired labor. ($25,000 per year) • Seed and fertilizer $13,000/yr. • Fuel $5,500 per year. • Repairs - $20,000 / yr. • Bedding - $4,300 / yr. • Vet cost - $9,000 / yr. • Feed Mix Ration - $80,000 /yr. • Poor nutrient distribution in fields • Rutted fields from daily hauling • Cull rate 35%	• Erosion reduce 4-14 tons/ac/yr • Hired labor reduced to zero. • No annual seed cost • Fertilizer costs reduced by 90% • Repairs reduced by $18,000 • Bedding reduced $4,000 • Vet cost reduced to $1,000 • Cull rate reduce to 15% • Feed cost reduce to $25,000 • No manure hauling • Milkhouse wash water irrigated into infiltration area. • Intensive grazing and water system applies pasture manure evenly. • Water system cost $7,500 • Fence cost $2,500 • Sell 60 calves per year • Save $5,000 on fuel • No manure storage - save $40,000 • Pasture planting $100/ac over 3 years • Milk production reduced 5-10%	• (+) maintain soil productivity • (+) less stress • (+) • (+) • (+) • (+) • (+) • (+) • (+) • (+) • (+) • (+) • (-) • (-) • (+) • (+) • (+) • (-) • (-)

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