

Fencing Cost Estimator

Objective

This decision aid calculates the investment and annual cost of either a regular or electric fence. The investment or ownership costs are reflected in annual depreciation and capital cost. These costs are determined by useful life and average investment.

The reports provide investment cost and annual cost information for the fence. A listing of the materials required in the cost summary report can serve as a guide to the quality of material to purchase.

Before using the decision aid, a detailed plan must be prepared for the fence to properly specify the physical requirements.

The impact fencing has on care of the livestock and productivity of the land resource is not quantified.

Input

The first section of the decision aid requires the user to provide material price information for the fencing options.

The second section (regular fence) provides the area for users to input the actual physical requirements for the fence.

The third section has the physical requirements for the electric fence.

Output

There are three sections of output for the decision aid:

1. Materials cost
2. Regular fence requirements and costs
3. Electric fence requirements and costs

Operating Procedure

Cells where data must be entered are unprotected and have **blue text** and a border around them. Materials cost must be input before adding specific fence requirements.

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Definitions

Operator Management and Labor Return is an opportunity cost of return for an operator's management and labor.

Estimate Useful Life of Fence is the life of the fence investment in light of its construction material, annual specified maintenance and use

Interest rate on investment is the current nominal rate of interest less the expected rate of inflation. It reflects an opportunity cost for the capital used to build the fence.

Vehicle, machinery and equipment costs are assumed to be custom costs to simplify the analysis. This would be cash payment or an equivalent cost for operator owned vehicles, machinery and equipment used to build the fence.

Depreciation is the procedure by which the purchase cost of an asset with a useful life of more than one year is prorated over time. This program uses a straight-line depreciation method and assumes a zero salvage value.

Key Formulas Used

Number of steel line posts = (((Length of Fence/Spacing between Post + 1) – (Number of Braces)) - (Wood Post in Steel Post Fence))

Number of wooden posts = (((Length of Fence/Spacing between Posts + 1) – (the Number of Braces)) + (Wood Post in Steel Post Fence))

Number of staples = ((Number of Brace Staples + Wood line Post) * (Number of Wires in Fence + 4 if Net Wire))

Number of stays = (Number of Line Posts) * (Stays per Post)

Annual depreciation = (Investments after Government Payment Adjustment)/(Useful life)

Annual investment interest = (Investment after Government Payment Adjustment) * (.5) * (Interest Rate) * (.01)

Pounds of staples = (Staple Requirement)/(72)

Annual operating interest = Materials + hired labor and management * 5 * interest rate on operating capital * .01

Brace material requirements - the table below indicates the material requirements for braces. These can be modified by going to section of the regular fence and section of the electric fence, unprotecting the input values, and putting new values in the appropriate cells.

Brace Requirements

	End Brace	3 Post Corner	'H' Brace	5 Post Corner
Materials	Amount Required for Each			
Post	2	3	2	5
Brace	1	2	1	4
Wire	50 ft.	100 ft.	80 ft.	320 ft.
Deadman	1	2	1	4
Wire Twister	1	2	2	4
Staple/Wire	2	3	2	5