

# Example FENCE PLANNING AND BUDGETING Worksheet



Adapted from British Columbia Ministry of Agriculture,  
Food and Fisheries' Fencing Factsheet July 1998

The purpose of this worksheet is to aid in the planning steps in fence construction.  
It covers site considerations, fence type and design, rights-of-way, and cost estimations for labour and materials.  
Not all points will apply to every fence.

PLANNING		
PASTURE LOCATION	Pasture Name: <i>North Pasture</i> Legal Land Location:	
FENCE PURPOSE	Primary: <i>grazing</i> Secondary: <i>breeding pasture at south end</i>	
TYPE OF ANIMAL(S)	<i>beef cattle - cow/calf</i>	
SITE INFORMATION	Topography: <i>rolling - some steep areas</i> Soil types: <i>firm, compacted - some rock</i> Accessibility: <i>ok</i> Watercourses: <i>none</i> Snow: <i>not a problem</i> Vegetation: <i>lightly forested with open grass areas</i> Wildlife: <i>deer, moose</i> Visual impact: <i>no unusual concerns</i>	
TYPE OF FENCE	<input checked="" type="checkbox"/> Permanent <input type="checkbox"/> Temporary (moveable) <input type="checkbox"/> Boundary (legal) requirements	
	<table border="0"> <tr> <td style="vertical-align: top;"> <input checked="" type="checkbox"/> <b>Non-electric design</b>                      Type of wire: <i>high tensile wire</i>                      Number of wires: <i>5,- 6 in breeding pasture</i>                      Wire spacing: <i>12/8/8/8/8; 12/6/6/6/7/7</i>                      Top wire height: <i>44 inch</i>                      Bottom wire height: <i>12 inch</i>                      Post spacing: <i>30 ft</i>                      Dropper spacing: <i>10 ft</i> </td> <td style="vertical-align: top;"> <input type="checkbox"/> <b>Electric design</b>                      Type of wire:                      Number of wires:                      Wire spacing:                      Wires electrified:                      Wires grounded:                      Type of insulators:                      Post spacing:                      Dropper spacing:                 </td> </tr> </table>	<input checked="" type="checkbox"/> <b>Non-electric design</b> Type of wire: <i>high tensile wire</i> Number of wires: <i>5,- 6 in breeding pasture</i> Wire spacing: <i>12/8/8/8/8; 12/6/6/6/7/7</i> Top wire height: <i>44 inch</i> Bottom wire height: <i>12 inch</i> Post spacing: <i>30 ft</i> Dropper spacing: <i>10 ft</i>
<input checked="" type="checkbox"/> <b>Non-electric design</b> Type of wire: <i>high tensile wire</i> Number of wires: <i>5,- 6 in breeding pasture</i> Wire spacing: <i>12/8/8/8/8; 12/6/6/6/7/7</i> Top wire height: <i>44 inch</i> Bottom wire height: <i>12 inch</i> Post spacing: <i>30 ft</i> Dropper spacing: <i>10 ft</i>	<input type="checkbox"/> <b>Electric design</b> Type of wire: Number of wires: Wire spacing: Wires electrified: Wires grounded: Type of insulators: Post spacing: Dropper spacing:	
COMMENTS		

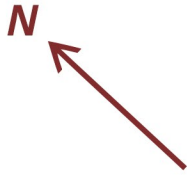
RIGHT-OF-WAY CONSTRUCTION		Important: Make sure to locate any underground utilities before starting construction
METHOD	<input type="checkbox"/> By hand <input checked="" type="checkbox"/> By machine	Size: <u>4600</u> feet long x <u>12-15</u> feet wide  Fence Location:  <u>4</u> feet from either side of right-of-way
WOODWASTE	<input type="checkbox"/> Piled to Burn <input checked="" type="checkbox"/> Cut & left to rot	
DISTURBED GROUND	<input checked="" type="checkbox"/> Seeded <input type="checkbox"/> Left as is	
COMMENTS	<i>Fence line to be as straight as possible</i>	

# SITE SKETCH

Not to Scale

Important: Include location of any underground utilities

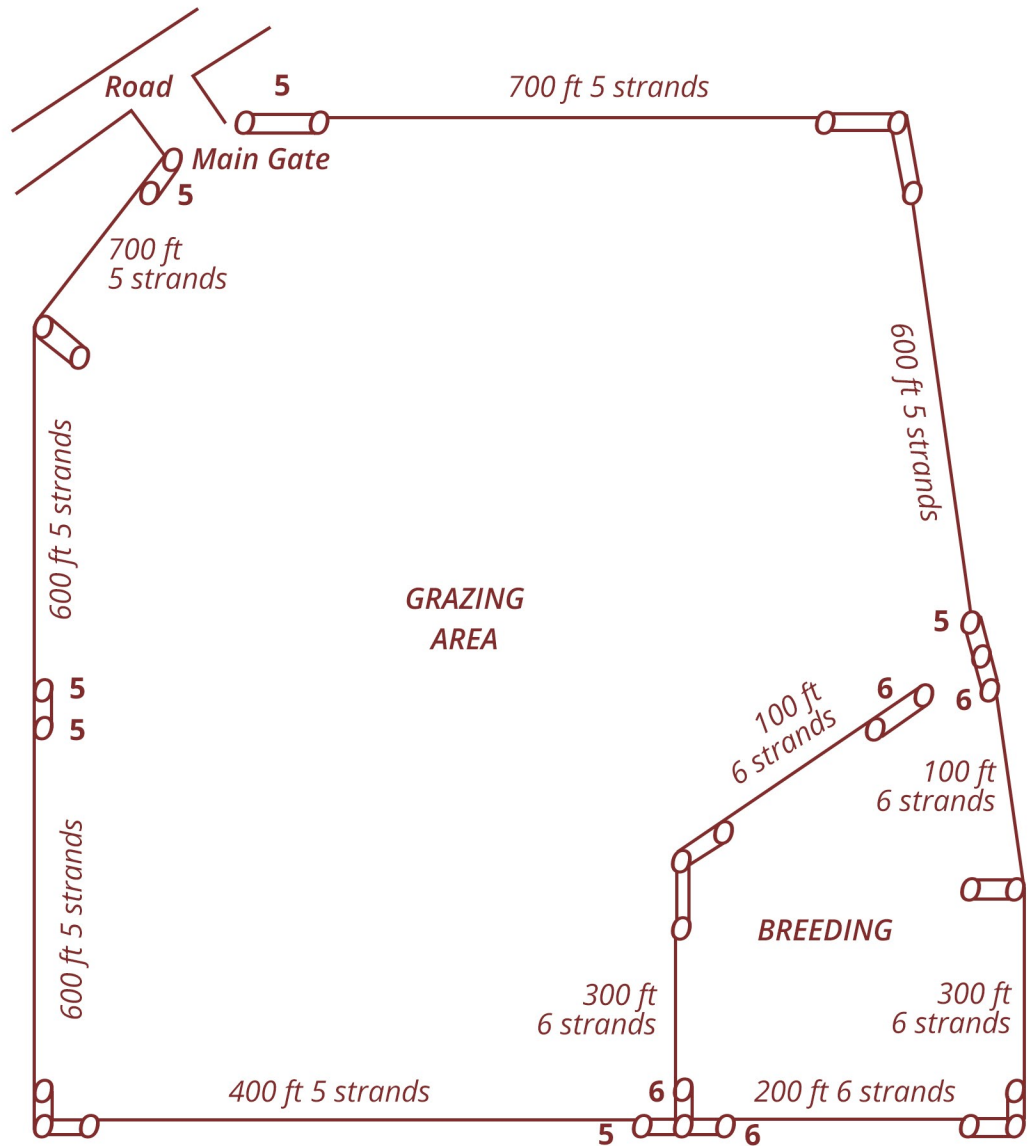
## NOTES



5 = number of wire tie-offs

= brace

Main gate is set back 20 ft from road



## COMMENTS

Length of fence

Total Fence = 3600 ft of 5 strand high tensile wire perimeter fence  
600 ft of 6 strand high tensile wire perimeter fence  
400 ft of 6 strand high tensile wire interior fence

Line posts

Line posts = 4600 ft fence / 30 ft average post spacing = 154 line posts

Wire

High tensile wire = 3600 ft x 5 = 18,000 ft  
1000 ft x 6 = 6000 ft total = 24,000 ft  
# of rolls = 24,000 / 3,750 ft per roll = 6.4 rolls; plus brace wire etc. = 7 rolls

Tie-offs

Tie-offs = 6 for the 5 strands & 4 for the 6 strands  
= 54 tie-offs

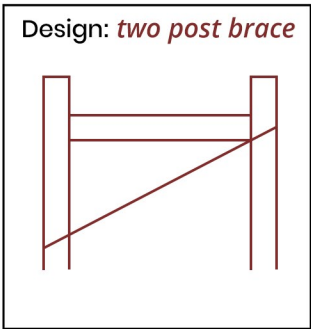
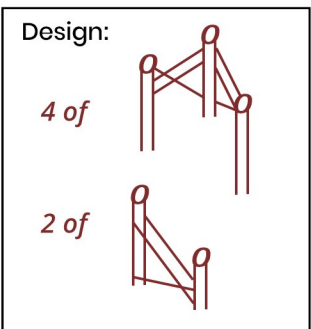
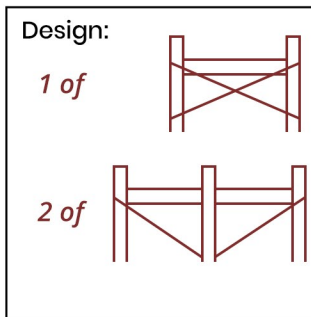
Tensioners

Tensioners = 1 per wire per brace section = 3 for 5 strands and 2 for 6 strands  
= 27 tensioners

Braces

End braces = 3 + 1/2 as south end brace has a "shared post" with an inline brace  
Corner braces = 2 - 2 post and 4 - 3 post corner braces  
Inline braces = 1 - 2 post and 2 - 3 post inline braces  
(one with a "shared post" end brace)

# ESTIMATING MATERIAL COSTS

NON-ELECTRIC FENCE MATERIALS		Size	Quantity	\$ Each	\$ Total		
<b>BRACE ASSEMBLY MATERIALS</b>  Posts & Rails <input checked="" type="checkbox"/> Treated <input checked="" type="checkbox"/> Pointed <input checked="" type="checkbox"/> Domed  Nail Type _____ Pin Type <u>3/8" rebar</u>  Brace Wire Type <u>high tensile wire</u>	<b>END BRACE:</b> how many? $3 + 1/2$ Design: <i>two post brace</i> 	Post	4"-5" x 8'	3 @ 2 post 1 @ 1 post  7 total	\$5.25	\$36.75	
		Rail	4"-5" x 8'	4 @ 1 rail	\$5.25	\$21.00	
		Nail or <u>Pin</u>	3/8" x 6"	4 @ 2 pins	\$0.10	\$0.80	
		<b>CORNER BRACE:</b> how many? 6 Design: 4 of 	Post	4"-5" x 8'	4 @ 3 post 2 @ 2 post  16 total	\$5.25	\$84.00
		Rail	4"-5" x 8'	4 @ 2 ea 2 @ 2 ea 10 total	\$5.25	\$52.50	
		Nail or <u>Pin</u>	3/8" x 6"	4 @ 4 ea 2 @ 2 ea 20 total	\$0.10	\$2.00	
		<b>INLINE BRACE:</b> how many? 3 Design: 1 of 	Post	4"-5" x 8'	1 @ 2 post 2 @ 3 post  8 total	\$5.25	\$42.00
		Rail	4"-5" x 8'	1 @ 1 ea 2 @ 2 ea 5 total	\$5.25	\$26.25	
		Nail or <u>Pin</u>	3/8" x 6"	1 @ 2 ea 2 @ 4 ea 10 total	\$0.10	\$1.00	
	<b>LINE POSTS</b>	Material: <i>wood</i> if wood: <input checked="" type="checkbox"/> Treated <input checked="" type="checkbox"/> Pointed <input checked="" type="checkbox"/> Domed	3"-4" x 7'	154	\$3.25	\$500.50	
	<b>WIRE</b>	Material: <i>high tensile wire</i> (# rolls = ft. fence x # strands ÷ ft. per roll)	12.5 ga.	7 rolls	\$80.00	\$560.00	
	<b>STAPLES</b>	Staples: <i>standard slash point</i> (# staples = # posts x strands ÷ # per box)	2 inch	$\frac{154 \times 5}{2900}$ = 1/3 box	\$48.00	\$16.00	
<b>CONNECTORS</b>	Splices - Mechanical connectors? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N (# connectors = # per splice x # wire rolls x 2)	sleeves	3x7x2=42	\$0.30	\$12.60		
<b>TENSIONERS</b>	Tie-offs - Mechanical connectors? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N (# connectors = # per tie-off x # tie-offs)	sleeves	2x5x6 2x6x4 = 108	\$0.30	\$32.40		
	Tensioners - used? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N (# tensioners = # strands x # braced sections)	slotted drum	5x3+6x2 = 27	\$2.50	\$67.50		

NON-ELECTRIC FENCE MATERIALS (Continued)		Size	Quantity	\$ Each	\$ Total
<b>Droppers</b> used? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N Type: (total droppers = # per panel x # line posts)		1" x 3" x 42" long	2 x 154 = 308	\$1.00	\$308.00
<b>Gates</b> How many: 2 Type of gate: 1 wood & 1 slip wire Size: 12 ft Type of hinge: screw-in pin Type of latch: chain		12' wood	1	\$75.00	\$75.00
		12' wire	1	\$15.00	\$15.00
<b>TOTAL NONELECTRIC FENCE MATERIAL COSTS \$</b>					<b>1853.30</b>
ELECTRIC FENCE MATERIALS					
<b>ENERGIZER</b>	<input type="checkbox"/> <b>Utility power</b> make:                      model:  <input type="checkbox"/> <b>Battery power</b> make:                      model: voltage:  <input type="checkbox"/> <b>Wet cell battery</b> voltage:                      capacity:  <input type="checkbox"/> <b>Solar panel</b> make:                      model: wattage:				
<b>GROUNDING SYSTEM</b>	<input type="checkbox"/> Ground rods material: <input type="checkbox"/> Ground wire material:				
<b>INSULATORS</b>	<b>Line post</b> (# insulators = # hot wires x # line posts) material:                      type:  <b>Tie off</b> (# insulators = # hot wires x # brace sections x2) material:                      type:  <b>Offset</b> (# insulators = # offset wires x # line posts) material:                      type:				
<b>TOTAL ELECTRIC FENCE MATERIALS COSTS \$</b>					
<b>MATERIAL COSTS PER FOOT</b>		Fence Length (feet) <b>4600</b>	Materials cost \$ <b>1853.30</b>	\$/ft. <b>0.41</b>	

ESTIMATING LABOUR COSTS	
Labour costs vary for many reasons (terrain, accessibility, etc.) but they will typically be between one and two times the material costs.	
<b>MATERIALS \$/ft</b> 0.41	<b>ESTIMATED LABOUR \$/ft</b> 0.41 to 0.82

ESTIMATING TOTAL COSTS		
For estimating total costs, a labour cost must be selected from the range above.		
<b>MATERIALS \$/ft</b> 0.41	<b>+ LABOUR \$/ft.</b> 0.64	<b>= TOTAL \$/ft.</b> 1.05
<b>FENCE LENGTH</b> 4600	<b>ft. x TOTAL \$/ft.</b> 1.05	<b>= TOTAL \$</b> 4830