

USDA FENCE – BARBED WIRE (CATTLE ONLY)

Conservation Practice Jobsheet

382

Natural Resources Conservation Service (NRCS)

February 2010

Landowner



GENERAL CRITERIA AND CONSIDERATIONS

Fencing materials, type and design of fence installed shall be of a high quality and durability. The fence design and installation should have the life expectancy appropriate for management objectives and shall follow all federal, state and local laws and regulations.

The fence design and location should consider: topography, soil properties, livestock management and safety, livestock trailing, wildlife class and movement, location and

adequacy of water facilities, development of potential grazing systems, human access and safety, landscape aesthetics, erosion problems, moisture conditions, flooding potential, stream crossings, and durability of materials. When appropriate, natural barriers should be utilized instead of fencing.

Inspection of fences after storms and other disturbance events is necessary to insure the continued proper function of fence. Maintenance and repairs will be performed in a timely manner as needed, including tree/limb removal.

POST REQUIREMENTS

1. **Line Post** - Shall have a minimum length of 6 feet; set approx. 15 inches in the ground and spaced not more than 20 ft. apart without stays and 30 ft. apart with 2 or more stays spaced 8 ft. apart.

All stays should swing free of the ground to permit the fence to sway when contacted by animals. Suspension fences shall not be constructed on a curve. Directional changes in the line shall be by definite angles and properly braced. Suspension fences should be constructed with approximately a 3 inch sag in the wire between posts to permit maximum sway of the fence.

- a. Untreated wood (Red cedar, mulberry, boise d 'arc, catalpa or black locust) having a minimum top diameter of 3-1/2 inches.
 - b. Pressure treated wood (Pine most commonly available) with a minimum top diameter of 2-1/2 inches. Wood preservation treatment shall be in accordance with Federal Specifications No. TT-W-5711 (.4 retention).
 - c. Metal - Standard T or U section steel post (1.25 lbs/ft) 6 ft. long or equivalent metal rod or pipe. All metal components must be painted or galvanized.
2. **H-Brace Post** - Minimum of 8 feet in length be set approximately 3 ft. in the ground, spaced a minimum of 6 ft. apart.
 - a. Wood - A minimum of 3 ½ inch (i.e. 4 inch nominal scale) top diameter of treated timber or durable wood listed above for upright post and cross post.
 - b. Metal - Minimum 2-3/8 inch metal pipe or equivalent. At least (1) 80 lbs. bag of concrete should be used in each 12 inch post hole to secure brace assembly. Metal cross post must be a minimum 2 inch diameter. Metal pipes must be permanently capped to exclude rainwater and all metal components used must be painted with a durable permanent rust resistant coating or be galvanized; components will be repainted if rusting occurs.
 - c. All brace post assemblies shall have a minimum of two (2) posts in line to provide a suitable anchor for the fence. They shall be spaced at a maximum of 1320 ft. or at corners and points of extreme changes in slope and at curves.
 3. **Corner and End/Gate Posts**
 - a. Wood - (Pressure treated or durable wood) shall have minimum top diameter of 5 inches, (Posts should be designated as 6" posts when purchased) 8 ft. in length, and be set firmly 3 ft. in the ground. Cross post will be minimum 3 ½ diameter (i.e. 4 inch nominal scale).
 - b. Metal - Minimum 2-3/8 inch steel pipe or equivalent, 8 ft. in length, set 3 ft. in ground. At least 1 80 lbs. bag of concrete should be used in each 12 inch post hole to secure brace assembly. Metal cross post must be a minimum 2 inch diameter. Metal pipes must be permanently capped to exclude rainwater and all metal components used must be painted with a durable permanent rust resistant coating or be galvanized; components will be repainted if rusting occurs.
 - c. All corner and end/gate post assemblies shall have a minimum of two (2) posts in line to provide a suitable anchor for the fence.

WIRE REQUIREMENTS

1. Barbed wire

A minimum of four (4) strands of new galvanized barbed wire is required; Wire must be 13 ½ or 15 ½ gauge high tensile steel wire with Class III galvanized coating and must be 130,000 PSI or greater. 12 ½ gauge may be class 1 galvanized with 950 lbs. force break strength.

2. Wire Spacing

Bottom wire set ≤14 inches above ground with middle two wires set ≤10" intervals, and top wire set at ≥44" above ground.

3. Staples and Fasteners

Staples shall be at least 9 gauge and should be 1-1/2 inch long for soft woods and for 1 inch hardwood posts. Drive staples diagonally, so wire can slip with the wood grain and an angle which allows staple to open. Wire clips or fasteners must be galvanized and similar to strength of fence wire.

GENERAL FENCING SPECIFICATIONS

Boundary and exclusion fences shall be constructed so that wire is on the side of the post facing the animals to be controlled. Wire may be on either side of post when cross fencing.

Allow newly installed braces and assemblies to settle and/or pack dirt sufficiently around all post, do not over-tighten wires.

This handout is for cattle only. See NRCS Technical Guide, Section IV, 382 Fence, for specifications for sheep, horses, goats and deer.

USDA Natural Resources Conservation Service
 Alexandria, Louisiana

LA-GL-3
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FENCE CONSTRUCTION CHECK SHEET (BARBED WIRE)

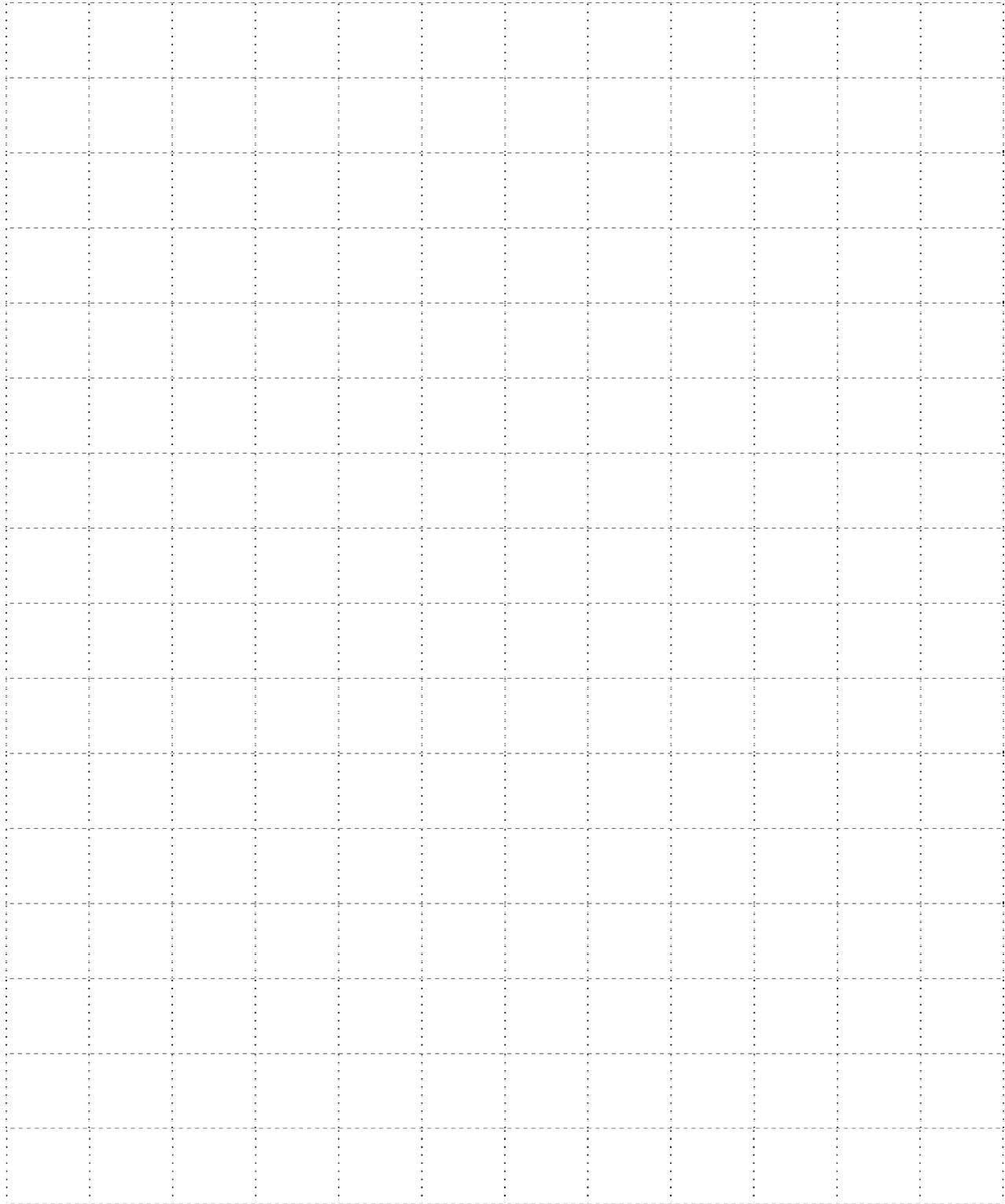
Landowner _____	Tract No. _____	Planned _____	Installed _____
Field No. _____	By _____		
Fence No. _____	Date _____		

	Unit	Minimum	Planned	Installed
I.Wire				
	Total			
A. Barbed Wire	Footage	_____	_____	_____
1. Size	Gauge	_____	_____	_____
2. Strands	Number	4	_____	_____
3. Height of top wire	Inches	≥44 in.	_____	_____
4. Height of bottom wire	Inches	≤14 in.	_____	_____
5. Wire Spacing	Inches	≤10 in.	_____	_____

II. Corner, End/Gate, and H-Brace				
Posts				
Corner and End/Gate Post				
A. Wood				
1. Length	Feet	8 ft.	_____	_____
2. Top Diameter	Inches	6 in.	_____	_____
3. Depth to Set	Feet	3 ft.	_____	_____
4. Amount	Number	_____	_____	_____
B. Steel				
1. Length	Feet	8 ft.	_____	_____
2. Top Diameter	Inches	2 3/8 in.	_____	_____
3. Depth to Set	Feet	3 ft.	_____	_____
4. Amount	Number	_____	_____	_____
H-Brace Post				
A. Wood				
1. Length	Feet	8 ft.	_____	_____
2. Top Diameter	Inches	4 in.	_____	_____
3. Depth to Set	Feet	3 ft.	_____	_____
4. Amount	Number	_____	_____	_____
B. Steel				
1. Length	Feet	8 ft.	_____	_____
2. Top Diameter	Inches	2 3/8 in.	_____	_____
3. Depth to Set	Feet	3 ft.	_____	_____
4. Amount	Number	_____	_____	_____
Cross-member				
C. Wood				
1. Length	Feet	6 ft.	_____	_____
2. Top Diameter	Inches	4 in.	_____	_____
3. Amount	Number	_____	_____	_____
D. Steel				
1. Length	Feet	6 ft.	_____	_____
2. Top Diameter	Inches	2	_____	_____
3. Amount	Number	_____	_____	_____

If applicable, provide a site view of the practice design and application in area below or as an attached diagram. Location of other relevant information and complimentary practices may be included.

Scale 1"= _____ ft. (NA indicates sketch not to scale: grid size=1/2" by 1/2")



Additional Specifications and Notes

Practice Design Certification (To be completed after jobsheet is complete and before practice installation)

By signing below, I certify that:

- the site specific requirements for the installation, operation, and maintenance of the practice on the client's treatment unit, as recorded in this jobsheet, have been prepared in accordance with the 382 Fence Standard and the guidance in the 382 Fence Practice Specification.

Signature

Date

Practice Installation Certification (To be completed after practice installation and check out)

By signing below, I certify that:

- The practice has been installed according to the site specific installation requirements

Signature

Date

This practice requires a current Louisiana One Call Dottie Confirmation Number.

Call before you dig, wait 48 hours for the site to be marked, observe the marks and dig with care. The service is free. It's the law! Civil Penalties range up to \$25,000 for violations of the "Dig" law



Failure to notify Louisiana One Call before installing this practice may delay or terminate NRCS assistance.

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**NRCS, LA
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