

**NATURAL RESOURCES CONSERVATION SERVICE
CONSTRUCTION SPECIFICATION**

**BARBED WIRE FENCE (BWF)
(Feet)**

CODE 382

I. MATERIALS

A. Wire

Use only new wire of two, twisted strands that are either class 3 galvanized, 12.5 gauge (minimum) standard steel, or class 3 galvanized, 15.5 gauge (minimum) high-tensile steel. If wire only has 2-point barbs, then barbs should be no farther than 4-inches apart, and if wire has 4-point barbs, then barbs should be no farther than 5-inches apart.

For sheep and goats use at least five strands of barbed wire for boundary fence.

B. Line Posts

1. Steel

- Only new "T" or "U" posts, constructed of high carbon steel, weighing a minimum of 1.25 lb/ft exclusive of anchor plate.
- Minimum 6-feet long, studded, notched, or punched for wire attachment.

2. Wood

- Wood posts must be treated with a minimum of 0.4 lbs/ft³ of chromate copper arsenate (CCA-Type A, B or C), or equivalent.
- Minimum 6^{1/2}-feet long, and 3-inch diameter.

C. Corner, Brace, and Gate Posts

1. Steel

- Minimum 3-inch diameter high-carbon steel pipe weighing at least 7 lb/foot and is class 3 galvanized or coated with a rust-resistant metal paint. Pipe ends must have a water-tight cap.
- Horizontal brace pipe needs to be 2-inch diameter (minimum), high carbon steel that weighs at least 3.6 lb/foot and is class 3 galvanized or

coated with a rust-resistant metal paint.

2. Wood

- Wood posts must be treated with a minimum of 0.4 lb/ft³ of chromate copper arsenate (CCA-Type A, B or C), or equivalent.
- Corner, brace, and gate posts must be at least 8' X 5^{1/2"}.
- Horizontal brace members must be at least 6-^{1/2}' X 3".
- Landscape timbers cannot be used for posts or brace members.

D. Fasteners

1. For wood posts, use staples that are at least 9 gauge, class 3 galvanized. Minimum length for softwoods is 1^{1/2}-inch, and for hardwoods is 1-inch.
2. Use manufactured clips or minimum 14-gauge wire for steel line posts.

II. CONSTRUCTION

(See Florida Fence Drawings)

A. Corners, Braces, Ends, and Gates

1. Posts (See Specification Table 3)

- Set posts for all fence assemblies at least 42-inches deep, in holes with a diameter at least 2.5X the post diameter. The top of posts should be at least 2-inches above the top wire.
- Backfill wooden posts by thoroughly tamping soil around the post after every 4 inches of depth.
- Set steel pipe in concrete that extends 1-inch below the bottom of the pipe, and slightly above the soil surface.

2. Braces (See Specification Table 6 or FL Fence Drawing or Photos)

- H-braces are required for all corner, pull, end, and gate assemblies.
- Notch brace posts ½- to 1½-inches deep to provide a flat surface for placement of the center line of all horizontal brace members in the upper 1/3 of the post height.
- Anchor horizontal brace members to brace posts with a minimum 3/8-inch galvanized pin or spike driven through the post that penetrates the horizontal member at least 4 inches.
- H-braces must have a tension member consisting of two complete loops of 9-gauge smooth single strand, 12-gauge double strand, or 12.5-gauge high-tensile wire. One end of the loop is attached to the anchor (corner, end, or gate) post 4-inches above the soil surface, and the other end is attached to the brace post at the same height as the top of the horizontal brace member. Twist the loops to provide rigidity to the brace assembly, or use in-line strainers on high-tensile wire.
- Tighten tension member with a tensioner made of permanent material such as rebar, pipe or pressure treated wood.

3. Corner and in-line pull assemblies (See Specification table 6)

- Use a corner post assembly for any angle in an otherwise straight fence line.
- Use an H-brace assembly with two crossed tension members at intervals not to exceed 660-feet and double H-brace >660-feet in straight line fence sections.

B. Line Posts

1. Steel

- The maximum distance between steel line posts is 16-feet without the use of stays or 30-feet with stays between the posts.
- Drive posts at least 20-inches into the ground. The top of the post must be at least 1-inch above the top wire.

2. Wood

- The maximum distance between wood line posts is 16-feet without the use of stays, or 30-feet with stays between the posts.
- Drive or bury wood posts at least 24 inches into the ground. The top of the post must be at least 2-inches above the top wire. If post holes are dug, backfill by tamping the soil around the post at every 4-inch depth.

3. Other

- If trees are used instead of line posts, they should be closely aligned with the fence and be spaced at distances no greater than the line posts.

C. Wire for Cattle (see Specification Tables for more information for cattle and for other classes of livestock)

1. Wire Spacing

- For cattle, use a minimum of three strands with the top wire at least 38-inches above the soil surface.
- Equally space the wires with the bottom 16-inches above the soil surface and the top wire at least 2-inches below the top of wooden posts or at least 1-inch below the top of steel posts. When more than four wires are used, it is not necessary to maintain equal spacing as long as top and bottom wire positions are as above and no spacing is > 12-inches.

2. Fastening

- On boundary fence, attach wires to the side of the post closest to the livestock.
- Avoid driving staples in-line with the wood grain. Place the staple parallel to the grain then rotate in the direction away from the cut face.
- Pull tension on wire per manufacturer's specification and firmly attach to corner, end, gate, or pull posts.
- Wires may be attached to steel posts by use of manufacturer's clips or by two turns of 14 gauge galvanized smooth wire.

- Wire should be able to move freely between the fastener and the line posts.