

How to Use the Best Construction Technique

The Virginia Rail Fence:

1. Lay out the fence with stakes and twine.
2. Set each bottom rail on solid flat rocks or concrete to keep it off the ground so it will not decay as quickly.
3. Lay adjacent rails at a 130-degree angle with an overlap of approximately one-foot.
4. Continue stacking the rails one row at a time.
5. If the fence isn't circular, the rails in the first and last sections can be set on the ground in a fan pattern, set in a mortised end post, or held between a pair of end posts supported on dowels.

The Split Rail Fence:

Splitting the timber: Its usually possible to divide a 15-inch timber into four pieces easily. If then you can divide each of these poles in half again to get a total of eight poles. You can push to get 16 poles, you may end up with stockade fencing instead of split rails.

1. Notch the butt end of the timber with a chainsaw along each of the diagonals that you intend to split. This isn't essential, but it's very helpful.
2. Drive a steel wedge into the notch until splitting starts.
3. Drive additional wedges into the log until it splits. Continue splitting piece to get four or eight rails.
4. Repeat the process with the remaining timbers.



Mortising the posts: Make slots through the posts to accept the rails; this is called mortising. This should be done before setting the posts in the ground. A two-rail fence, with two mortises per pole, is most common.

1. Mark the area of the wood to be removed. Measure down from the tops of the poles.
2. Use a two-inch drill to remove most of the wood, then complete the job with a mallet and a chisel.
3. Taper the ends of the rails so they fit together in the mortise. The can be overlapped either vertically or horizontally.

Setting out the fence:

1. Plan to set the posts two feet closer to together thane the length of the rails- six feet apart if you're using eight-foot rails.

2. Set one post firmly in place. Put the second post in the hold at the proper depth so rails will be parallel to the ground. Put the two rails in position in both posts, get a tight fit of the rails, then tamp the second post into position. Repeat this process, putting rails in the second post before tamping it into position each time.
3. Heavy animals tend to rub against rails, loosening them and eventually knocking them down. To stop this, run a strand of barbed wire across the top rail.

The Board Fence:

1. Plan to set the posts at a distance apart equal to half the length of the boards. This way, three posts support each board.
2. Arrange the boards so that each line post will support the center of some boards and the junctions of others.
3. Mark each post at the points where the top of each board will cross it.
4. As with the split-rail fence, place the first post firmly in position, then put the second in the hole at the proper depth, but don't tamp it into position until you've measured its exact position with the boards that will be nailed to it.
5. Place the boards on the same side of the posts as the livestock. This way the posts as well as the nails will support the fence.
6. Nail the boards in place, being careful not to split the wood by nailing too close to the edge of the board. Also, stagger the pattern of nails so that they are not all in the same vertical line, to avoid splitting the posts.
7. Nail a small batten vertically over the board junctions at each line post for additional support and trim.
8. The top of each board should be beveled to shed water. A small block of wood can be used to cap each post, or an additional board can be run along the top of the beveled post. This creates an excellent "roof" for the posts.

The Barbed Wire Fence:

The main job is to stretch the wire from the first to the last post in a straight line and then staple the wire on the posts in the middle. The posts in the middle don't contribute to the tightness of the wire; they keep it at the right height and provide stability.

1. Set posts eight feet apart and brace the end posts. In some situations where stress on the fence will be slight, posts can be placed as much as 16 feet apart.
2. Wind barbed wire around the first post and then wind it around itself, using the wire splicer.
3. Unroll the wire around the inside of the line posts. This is easier if two people hold the ends of the crowbar, which has been inserted, through the hole of a bale of barbed wire, then walk down the fence line, letting the wire unreel.
4. Go beyond the last post to a dummy post or a tree that is in line with the line posts.
5. Attach the wire stretcher to the dummy post, then attach it to the barbed wire.
6. Stretch the wire cautiously by working the stretcher.

7. The wire has two strands. Cut one of them about two feet past the last post and remove any barbs.
8. Wind that strand around the post and then around itself. This allows the single wire strand on the stretcher to hold the tension of the whole line of the barbed wire while you are securing the other strand to the post.
9. Cut the remaining strand and repeat the wiring process.
10. Staple the wire to the line post. Avoid setting the staple legs in a straight vertical line because the post may split. Don't try to make the staple squish the wire in to the post because this weakens the wire and ruins its protective coating.

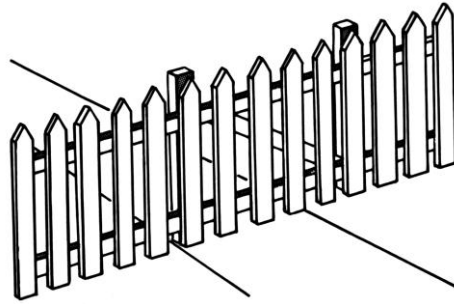
The Woven Wire Fence:

1. Set up a braced end post and line posts set eight feet apart.
2. Unroll the fence along the inside of the posts.
3. Make sure that the narrow grid portion is on the bottom of the fence posts.
4. Wrap each horizontal wire around the post and then around itself.
5. Do the top horizontal wire first, then the bottom horizontal wire, then the middle ones. You may have to cut a few vertical lines in order to get enough wire to work with. When the fence is fastened securely to the initial post, unroll the entire length of the fence.
6. Go beyond the braced end post to a dummy post or a tree and set up your wire stretchers. One way to do this is to bolt wooden slabs together through the fence and pull on the slabs with one or two or more wire stretchers of a come-along. Using the wooden slabs distributes the tension more evenly along the fencing and helps to avoid breaking the wire.
7. Stretch the fence carefully. Most woven fencing has built-in kinks along the horizontal wires. These help to maintain tightness. When you stretch the wire out, don't pull the wire so hard that you straighten out these kinks. Stop at the point where they just start to flatten a little. A few loosely placed staples holding the top wire to the line posts will hold the fence in the right position as you stretch. When the fencing is in place, start connecting it to the end anchor post, the one nearest the stretchers. Free enough of the central horizontal wire so that you can wrap it around the post and then around itself. Next, repeat the procedure with the horizontal wire halfway between the central wire and the top wire. The next wire to attach is the one that is halfway between the central wire and the bottom wire. Then do the remaining horizontal wires, saving the top one for last.
8. Go to each of the line posts and staple in the horizontal wires.

The Picket Fence:

1. Plan the distance and material so npaper as discussed prior.
2. Place stakes in the ground at post sites six feet apart and then dig the holes.
3. Set the posts two feet deep on gravel and surround with concrete.
4. Check all alignments.
5. Wait two or three days before continuing the fence in order to allow the concrete to cure.

6. The wooden posts most commonly used measure four inches by four inches by five feet and have been treated with preservatives.
7. While you wait, cut the rails and the stringers and the pickets. A typical picket is one inch by three inches by three feet. The typical stringer is two inches by four inches. There are several ways to build the framework to hold the pickets. An easy method that avoids the dados and mortise joints calls for butt ending stringers along the tops of the posts with a mitered joint at each corner. Blocks and toenails should support the lower stringer.



8. Attach the pickets to the framework using a spacer bar that is a little narrower than the pickets. If the pickets are three inches wide, the spacer should be approximately two inches wide. Hang the cleated spacer bar from the top stringer to determine the exact place for each picket to be nailed. Use galvanized nails. When nailing the picket, it is helpful to also run a temporary board between the posts at the level of the bottom of the picket. This board keeps the bottom of the pickets on a level and will thus keep the tops aligned. Check the alignment frequently with the bubble level.

The Electric Fence:

1. Establish sturdy corner posts that are braced.
2. Set a fence post every 150 feet if the terrain is level. If the land is uneven, use posts more frequently.
3. Unroll the wire from a flat reel set in the ground to work like a lazy Susan. If you want more than one strand of electric fence, work with one strand at a time to avoid getting tangled up. The thinner the wire you choose, the tougher it is for your animals to see it. Make it noticeable by tying bright plastic ribbons on it.
4. Attach the wire to the corner post with an end insulator.
5. Attach the wire to all the other insulators on the posts or on offset brackets, making sure the wire is allowed to slide freely at all points. If you're using one strand, set it 36 inches above the ground. If you're using two strands, set one at seventeen inches and one at 36 inches.
6. Attach springs to the wire, if desired. Then by winding wire tighteners, the tension from the springs can be brought to about 200 pounds.
7. Use spring-loaded plastic handles at each gate area.
8. Plant the grounding rods properly. Then attach the controller to both the grounding rods and fence wire.