

Lesson 1: Fencing Basics

Fences are used extensively in agriculture. Most fences are designed to contain or restrict the entrance of animals, but they may also be built for appearances. This lesson will introduce some fencing basics, such as legalities, safety, and construction and repair.

A Legal Fence

Because fencing obligations, responsibilities, and boundaries have been and continue to be a source of conflict, laws have been enacted to help define responsibilities and liabilities concerning fences. Although local counties and townships had their own regulations, the state of Missouri was legally an open range until 1969. Property owners had the responsibility of fencing animals out of their property to avoid damage. However, in 1969, Missouri changed the law to a closed range system. This law requires livestock owners to confine their animals and makes them liable for damages caused by unrestricted animals. This law covers horses, cattle, swine, and similar stock.

The changing laws brought about the need for defining what a fence is and the minimum acceptable standards for a fence. Questions, such as who is responsible for the construction, maintenance, or replacement of a shared fence, can be complicated. If disputes cannot be settled by the owners, the local courts may have to determine what should be done. A lawful fence may be defined in one of two ways, depending on the local regulations. Most counties have laws based on either the state's general law or the optional Fence and Enclosure Act of 1963. Adoption of the Fence and Enclosure Act suspends the provisions of the general statute.

Under the general law, a fence is a sufficient enclosure if it meets the following standards.

- Hedges are at least 4 feet high.
- Fences composed of posts and rails, post and palings, posts and wire, posts and boards, or palisades are at least 4½ feet high with posts firmly in the ground not more than 8 feet apart.
- Fences consisting of woven wire, wire netting, or wire mesh are at least 4½ feet

high with posts not more than 16 feet apart.

Other fence structures satisfying the definition of a lawful fence are described as well, including worm (rail) fences, turf fences, and stone or brick fences. The law states that all fences should be constructed to resist horses, cattle, swine, and similar stock.

If a county has adopted the optional provisions of the Fence and Enclosure Act of 1963, a lawful fence is defined as follows:

- A fence not fewer than four boards per 4 feet of height, each board to be spaced no farther apart than twice their width and to be fastened to posts not more than 12 feet apart with one stay. A stay is a vertical member attached to each board or wire forming the horizontal members of the fence.
- A fence of four barbed wires supported by posts not more than 15 feet apart with one stay or 12 feet apart with no stays.
- Any fence that is at least equivalent to the types of fences in the other categories.

Common Fencing Tools and Safety Measures

Fences come in a variety of forms and materials.

Board, rail, panel, woven wire, barbed wire, and smooth wire fences are all common on farms. Most fences can be erected with using a few basic tools: a hand-operated or power-driven post hole digger or auger, a metal rod for packing earth around posts, a metal post driver or a post maul for driving wooden posts, a hand ax or chain saw, fence stretchers, a hammer, a tape measure, fencing pliers, a roll of nylon string to help lay out straight lines, and a level to help assure that posts are set straight. Using these tools safely is important, since fencing can be dangerous work.

Protective clothing, such as steel-toed boots, heavy pants, gloves, and eye protection, is very beneficial when using any of these tools. Gloves are especially useful and should be worn to prevent blisters and other injuries to the hands.

Building fences is usually hot and hard work; heavy clothing and boots are not always

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comfortable under these conditions. However, this clothing can help avoid an injury.

A hand-operated post hole digger consists of two blades, each with a separate handle, that are joined by a hinge. Soil is removed by digging the blades into the earth and then pulling the handles outward and lifting the digger upward. When using this tool, the target area for digging should be clear and free of large rocks that can produce flying chips. Maintaining good posture while operating this tool will help reduce back strain or injury.

Power-driven post hole diggers, which have an auger that bores a hole into the ground, come in a variety of styles, such as one- or two-man gas-powered units or tractor-powered units attached to the front or back of a tractor. To operate these safely, the manufacturer's recommendations should be followed. Keeping any loose clothing away from the auger can prevent serious injury. Augers are powerful and can easily mangle a person's arms or legs if clothing gets caught in the auger as it twists. Hearing and eye protection should be used.

The metal rods used for packing earth around posts are close to 6 feet in length. They may weigh 20 to 40 or more pounds. One end is pointed to chip at or break hard material in a post hole, while the other end is flat for packing earth and rocks. Protective glasses can prevent injury to the eyes from rock chips. Gloves and steel-toed boots can help avoid injury to the hands and feet from the heavy rods.

Metal post drivers are weighted metal tubes with a sealed top and handles on the sides. The open end of the post driver slides over the top of the post and is raised up and slammed down on the post to drive it to the correct depth. Good posture and control while lifting the post driver can help avoid back injury. Gloves will help prevent blisters.

A post maul is a large sledgehammer-type tool for driving sharpened wooden posts. They often weigh 10 or more pounds. Anyone using this tool should make sure that everyone working in the same area is out of striking distance. Gloves should be worn to protect the hands, while eye protection should be worn to prevent injuries from stray flying material.

A hand ax is sometimes needed to clear an area of limbs or brush before building a fence. Safety glasses, gloves, and steel-toed boots are needed for safety.

A chain saw is used to clear areas for fence construction or to cut wooden posts or rails to the desired length. Hearing protection, eye protection, gloves, and steel-toed boots will increase safety when using this tool.

Fence stretchers are a tool that pulls wire taut before it is fastened to the fence posts. While the tool itself may not be dangerous, it should be used with caution, because wire that has been stretched too tightly may break and cause injuries, as discussed in the next section.

Safety Measures for Fence Construction

Certain precautions can be taken to help reduce injuries when building fences. To safely construct a fence, the clothing and safety accessories mentioned above should be used; a hat and a shirt with long sleeves may provide additional protection. If possible, fence construction should not involve working alone in an isolated area, since help may be necessary if an injury occurs. The tools used for construction of the fence should only be used as designed and recommended by the manufacturer. Fence construction may involve heavy lifting, so proper lifting techniques, such as keeping the back straight and using the leg muscles to help move the weight, should be used. Heavy loads should also be held close to the body to help reduce strain. Unexpected hazards such as wasps, bees, snakes, and plants such as poison ivy are also to be considered and avoided if possible. Caution should be used when working with wire, which commonly causes cuts. Barbed wire is particularly hazardous.

Because wire must be stretched before fastening it to the posts to make it rigid, overstretching may occur, causing the wire to break and whip back against or around the person stretching it or someone else. Wearing gloves and eye protection is a must.

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Summary

Fencing is hard but necessary work. A good fence is required for livestock, both to keep the animals safe and to prevent them from damaging other people's property. Any fence built should meet the definition of a legal fence for its owner to avoid liability for damages. When building a fence, caution is necessary for safety. Using basic fencing tools safely, wearing protective clothing, and taking precautions can help make fencing safer.

Credits

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