

Basics for Livestock Fencing

Introduction:

The most effective and long lasting fences are planned with correct layout and built with appropriate material and construction. The cost of a properly built fence often returns its value in a short time. It is most important to be aware of any regulations and zoning ordinances that pertain to the type of fence being built. When fences are built near property borders it is essential to know the exact location of the boundary lines.

Types of Fencing:

Physical Barriers

Physical fencing is typically for long term use, so plan the location carefully before building. It consists of enough material, which is sufficiently strong enough to prevent and discourage animals from breaking through. This type of fencing is recommended in areas where animals will be crowded, easily excited, or in areas where you expect to introduce animals not accustomed to being fenced.

Advantages

- If properly constructed, a physical fence requires low maintenance, has a long life span, and is able to withstand severe weather and seasonal conditions.
- Physical barriers can be aesthetic in appearance while providing protection to the animal and holding up against possible damage by the animal. These fences will also reduce the potential liability of property damage or personal injury caused by animals.

Disadvantages

- Physical fencing can be more expensive than other types of fencing and often require more labor for construction. They are difficult to relocate, and when damaged they take more time to repair.

Recommendations

There is a vast flexibility of materials for physical fences such as: mesh wire, with many different designs, knots and tensile strength; boards, which can be made from many materials in addition to wood for strength, visibility and appearance; barbed (not for equine) or smooth wire, also with many tensile strengths, durability and visibility and can be electrified or not; treated or untreated posts of various materials and strength; and a variety of accessories. Fencing supplies are continuously improving as new technologies arise. These materials are often less expensive and have more durability and longevity compared to conventional materials. A fence supplier can often offer valuable information regarding the material best suited for the particular fence. Particular materials of fencing may be more suitable to certain species of animals. For example, barbed wire is never recommended for equine. Instead, smooth, such as an electric fence.

Psychological Barriers

Psychological fencing, which is most often an electric fence, is effective by causing a degree of pain to the animal creating reluctance in the animal to approach the fence in the future. The animal is trained to be aware of boundaries in the confined area. Unlike physical fences, psychological fences do require a certain amount of training for the animal, but once an animal has become “fence wise” they are often set for life.

Use durable materials to build a fence. The cost of the fence will often return its value in a short period of time.

Electric fencing can be used as a permanent fence but is often used for temporary fencing such as when the fence needs to be relocated from leased property or for rotational grazing management.

Advantages

- Electric fences can be considerably less expensive than physical fences, are easier to construct, and relocate.
- Electric fencing is more adaptable to rugged terrain. It can further provide effectiveness when used in combination with physical fences acting as a further barrier from impacts from the animals. Electric fencing is also highly advantageous in prohibiting predators.

Disadvantages

- Electric fencing usually requires more maintenance than physical fences. However, with a proper gauge of hi-tensile wire, the use of compression springs allowing the fence to endure impacts, and well constructed corners and supports; an electric fence can be as low maintenance and last as long as a physical fence.

Recommendations

- Every electric fence needs an energizer. Seek assistance from a fence supplier or fence owner when selecting for a proper energizer. Energizers vary greatly in quality, electrical output, and expense. An inexpensive energizer may incur more cost from the added expenses resulting from failures.
- Energizers require: a suitable electrical output (known as joules), low-resistance or low-impedance, proper electrical grounding, and some form of a lightning diverter. A poorly grounded energizer is the most likely reason for electric output failure.
- Solar and battery powered energizers are available when an electrical power source is not. These alternative systems can be limited in relation to electrical output, so it is very important to take into consideration the size of the fence when using these energizers.
- Such as with physical fences, there are lots of different materials which fit the specific use of the fence. This is especially true with temporary fences. Due to the large variety of products available it is highly recommended to speak with an experienced fence supplier in order to determine the appropriate type of fencing.

Best Management Practices:

No two situations are the same when choosing the most suitable type of fence. To prevent damage or loss of animals related to fence failure, plan and build for the worst situation, keeping in mind that animals that are panicked, breeding, or newly weaned are apt to pressure a fence. Hungry animals are likely to confront the effectiveness of a fence. This is especially true with thirsty animals.

Sheep and goats – A good perimeter fence is recommended, especially with sheep, primarily to prevent problems with predators. It is most important to maintain a good electric charge in the system. This is particularly true with sheep because they have heavy wool which insulates them from electrical shock. Because sheep and goats are short in stature, wires must be close to the ground and need to be cleared of vegetation so as to reduce grounding and maintain a good electric charge in the system. Sheep and goats are also of lighter weight than other livestock and do not have as good a contact to the ground so the electrical shock can be limited. Specialized electrified netting materials have been proven very effective for sheep and goats.

Cattle – These larger animals adjust easily to electric fencing and do not need as many wires or wires low to the ground as smaller animals. The age of the animal dictates the number of wires that is best for the fence. It should be noted that when bulls are present the fence should be in good condition. A single wire can be suitable with well trained animals. An electric conducted plastic twine, commonly known as polywire, is easy to erect and remove and is excellent for rotational grazing.

Horses – Are fast moving animals and need a more visible fence than other animals. Electrified tape is more visible than polywire. Horses are also very sensitive to electric shock and can be unpredictable. It is important, therefore, when selecting a fence to take into account that horses can become entangled in the wire and become injured. Speak with a fence expert, particularly one who is familiar with horses.

Others-There are many fencing products specifically designed for animals such as alpaca, llama, and rabbits. Check with your local 4-H club or farmer's supply about fencing for these animals.

Resources:

For all livestock

Forage Utilization for Pasture-Based Livestock Production - Natural Resource, Agricultural, and Engineering Service (Check the NRAES Web Site, WWW.NRAES.ORG, for availability.)

Virginia State University Extension Cooperative has several publications. They can be accessed at:

<http://www.ext.vt.edu/pubs/bse/442-132/442-132.html>

<http://www.ext.vt.edu/pubs/bse/442-131/442-131.html>

<http://esc.rutgers.edu/>

<http://pubs.cas.psu.edu/freepubs/pdfs/ub037.pdf>

<http://www.livestocktrail.uiuc.edu/horsenet/paperDisplay.cfm?ContentID=6727>

For more information visit www.umass.edu/cdl

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For sheep and goats

<http://www.sheep101.info/201/fencing.html>

<http://www.sheepandgoat.com>

For horses

Information is available through links and articles at: