Before you buy or build a fence…

Portable fences are quick and easy to install. Essential for rotational grazing.

Semi-permanent fences are usually taller and require stronger, heavier posts than temporary fences.

Permanent fences use bigger/stronger materials than other fences and take more time to install.

Will the fence be moved? If so, how often?

1. Moved daily or weekly
(temporary/portable)

Temporary or portable fences are quick to install and remove.

To eliminate the need for large end and corner posts, the fence strands (whether single, multiple or a mesh/netting) must be only hand-tensioned. And they must be electrified properly.

2. Moved each season or less
(semi-permanent)

Can be an interim barrier until a more permanent fence is installed. This allows folks to field-test fence and gate locations to see what works best.

Usually consists of electrified net or multiple electrified strands under low tension—supported by stronger/thicker posts than temporary fences.

Will need more maintenance attention than permanent fences.

3. Never moved
(permanent)

For boundary and subdivision fences for land that's owned by the user—and whose usage is not likely to change!

Requires strong wood, steel or fiberglass posts that support high-tensile wires, woven wire, rope or wide tape—of which one or more strands are electrified.

More reliable than other options but more expensive to install. May require a professional installer.

Don't assume a fence will do something for which it was not designed

There are 3 basic fence designs. Be aware of the capabilities and limitations of each:

1. **Fences that stop animals by pain (energized strands).**
   If you or dogs crowd animals against these fences the animals ***will*** break through. The result is damaged fences, escaped animals and animals that have learned not to fear (and thus avoid) a pain-barrier fence.
2. **Fences that stop animals solely by physical strength.**
   We build these around corrals, handling yards and laneways. They work well for this but are often too expensive for field situations.
3. **Fences that stop animals by a combination of physical strength and pain (energized strands). We prefer this for most permanent fences.**
   Energized wires are important:
   a. To discourage animals (rams, bulls, stallions, billies) during breeding season.
   b. To hold back mothers and their progeny desperate for each other during the days of weaning.
   c. To prevent animals from damaging posts and wires via scratching and rubbing (hair removal or general itches).

Before you buy or build a fence…

Some common key fence questions—

Q. Should you energize the fence?

A. Absolutely. Why?

- An electrified strand has a *zone of pain*. Fewer strands are needed if one is energized. Both material and the labor to install is reduced.
- Energized fences last longer and require less maintenance—because animals do not crowd, rub or scratch on them. So the fence wires (including wires that are not energized) require less tension to do their job. And braces and corner posts will last longer.
- Animals are more surely contained or excluded during breeding and weaning.

Q. Do the animals know the fence?

A. Local animals and wildlife get to know a fence by appearance, location and pain memory. If it's a strong or painful fence, they avoid it.

On the other hand, new animals just off a truck often charge into permanent fences and straight through temporary or semi-permanent fences. That's why strong, tall, visible permanent fences are essential for corrals and feedlots. Temporary fences that are not physically strong pose the greatest risk of escape to newly acquired animals. It pays to train them to it ***inside of a permanent fence***.

Q. What specific animals need to be fenced in or out?

A. Always design and build for ***the most difficult*** species. Rules of thumb:

- Most sheep and goat fences will stop cattle and horses. The inverse is not always true.
- Fencing adult males (bulls, rams, stallions, billies) in/out during breeding season requires taller fences with closer wire/strand spacing and more powerful electric pulses (in joules, not volts).
- Fences for mixed sizes (ewes with lambs, etc.) need more strands than uniform groups.
- Certain breeds need better fences (e.g. flighty Romanov sheep, tall Columbia sheep, Chianina cattle).

Q. Where will the fence be located?

A. The best design hinges on the following:

- **Is the terrain flat?**
- **Will the fence go over hills, across ditches, or around curves?**
- **Is fence line brushy or with trees?**
- **Are the soils rocky, very soft, sandy or firm?**

Q. How keen will animals be to breach the fence line?

A. Build for the worst-case situation (if you can afford to do so).

Some situations that require more secure fences:

- **Hunger.** Starved animals will eventually challenge most fences.
- **Weaning.** Strong physical barriers are essential to success.
- **Breeding.** Libido induces all creatures to challenge rules and fences.
- **Boredom.** Animals in corrals, stalls and feedlots often crave any entertainment or activity.
- **Gateways and handling yards.** Animals often push each other into fences when being moved.
- **Goats.** Without a doubt, they are escape artists.
- **Fear and fright.** Predators or loud noises can cause prey species (e.g. horses, goats, turkeys) to run in terror straight into, under, over or through any fence, no matter what fence design (netting, hi-tensile or woven wire).

Hi-Tensile Wire Fence vs Rope Fence

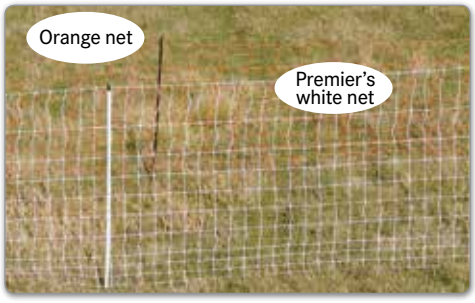
HT wire fences (above left) like these are not easily seen and therefore not advised for horses. By comparison the rope fence (above right) is visible and critical for animals that move at high speed (e.g. horses, deer) and/or have poor depth perception.

Q. How visible should a fence be?

A. It depends upon the species. Horses, deer and antelope move at high speed and have restricted color perception (compared to humans). They often fail to see small or dark fence wires like HT wire, MaxiShock and some polywires and charge through them.

That's why it's wise to include one or more strands of bicolored rope or tape (both highly visible) in fences.

Q. How visible is Premier's white/black net (and now also yellow) compared to orange or red nets?



We cannot stress visibility enough. Even in daylight a black/white net color is significantly more visible than orange or red against most backgrounds.

A. White/black provides contrast against all backgrounds 24/7 and is therefore more visible to humans and animals.

Orange/red is visible to humans in daylight but not at night. To most animals these colors appear gray in daylight and are nearly invisible at night.

Yellow, like white, is visible to both animals and humans—but less attractive.

Q. Why are lane and corral fences considered special situations?

A. Animals are often forced into contact with these fences. Therefore, they need better visibility, more strength and, if possible, no energized wires.

Heavy ice/snow can weigh down electroplastic conductors. When this occurs, turn off the energizer and break ice off the conductor. Sagging stretches and wears the plastic and metal filaments.

Q. Will heavy snow or ice occur?

A. Ice can bring down the strongest power lines so all fences are vulnerable to it. Some cope better than others.

The question is—are your animals likely to challenge the fence before the ice melts?

Q. Are dry periods common?

A. Electric fences typically rely on soil moisture as a conductor. When the soil is dry or covered in dry snow, normal electric fences and low-impedance energizers may not work effectively to keep animals in/out.

Solutions for this are:

1. Use a wide-impedance energizer. They're less affected by dry soil.
2. Integrate ground-return wires (connected to energizer's negative terminal) into the fence. Animals must touch 2 strands (a negative and a positive) but it works well.

Q. What's the cost if the fence fails?

A. The higher the potential cost (in time and money) of a failure, the more reliable the fence design should be.

Examples:

- **Along public highways**. In some states the landowner is liable for damages to vehicles and humans.
- **Around stored feed.** If animals gorge on grain, death may occur.
- **High-value protection,** e.g. gardens, evergreens; or livestock from predators.
- **Fences with animals on both sides.** Mix-ups are time-consuming and costly. Neighborhood relations can be strained. Unpleasant lawsuits (aren't they all?) may occur.

Some advice for folks new to farming and fencing—

Fences…

- All fences, no matter the design, will need maintenance and repairs.
- Electrified fences should never touch metal. If they do, fence voltage will be sharply reduced.
- Animals and poultry will peck or chew on nonelectrified string fences.
- When the soil is dry, fences that rely on the soil to carry the pulse to ground rods do not work as well.

Energizers, batteries & accessories…

- Repeatedly going below a 40% charge on a lead-acid battery will reduce its ability to hold a charge.
- You need special insulated wire to carry power to a fence, not just any insulated wire from the store.
- You need a ground rod to connect to the negative terminal of the energizer. (Don't connect the energizer's negative terminal to the other end of the netting.)
- No electric fence should be plugged directly into an AC outlet. An electric fence must be connected to an energizer, not an outlet.

Posts…

- You will need a strong, stable post to support netting at each corner and/or major change of direction.
- Never use a hammer to drive *normal* netting posts into the hard soil. Instead drill pilot holes.
- Our *new drivable* posts are superior to both double and single spike posts—because you can tap them into hard soil with a hammer (preferably a dead-blow hammer).

Animals…

- Will at some time get sick or hurt.
- You cannot save every animal that gets sick or injured.
- If you own animals you will need a veterinarian at some point. So establish that relationship before an emergency occurs.
- You must train animals to know and respect electrified fences.
- Animals can get caught in nearly any type of fence and may become injured when they do.
- If you do not keep a fence energized at all times your animals will lose fear of it. Then they will go over or through it. Retraining is difficult.