

## Quick Tips for Effective Electric Fencing for Bears

A properly constructed electric fence is safe for people and pets and has proven to be effective at deterring bears from chicken coops, beehives, fruit trees, gardens, livestock pens, compost and more. **Proper design, construction and maintenance** will determine the effectiveness of your fence.

**Before you start:** Is your need for an electric fencing system temporary (seasonal) or permanent (year round)? How big is the area you want to fence? Will you need a gate, on/off throw switch, etc?

### Minimum Requirements for Bears

**Minimum Joule Rating:** 0.7 joules

**Minimum Voltage:** 6,000 volts

**Minimum Number of Wires:** 3

**Minimum Fence Height:** 4 feet

The primary electric fence components are: energizer, grounding system, wire, posts and fence tester.

**ENERGIZERS:** The joule rating is most important when choosing an energizer. Plug-in energizers are recommended over battery operated, where power is available. Pulse rates of modern energizers are so quick that they cannot generate enough heat to start vegetation on fire.

**GROUNDING:** Grounding is the second most important component. Hot-ground systems are best for dry, rocky soil. All-hot is best for damp, or often-watered, soil. You'll need one ground rod, (galvanized steel is recommended), for every joule of energizer output. Ground rods should be driven 6 feet deep.

**WIRE:** Aluminum wire (14Ga or more) is easier to use and more conductive. Steel (12Ga or more) is more durable. (Note that 12 Ga is thicker than 14 Ga). Poly wire should be at least 9-stranded. Cattle or hog panel can be used in addition to, or instead of, traditional wire. Poly tape is not recommended for bears. Wire should be placed so bears cannot go under, through or over wires. A 3-wire system is recommended for existing structures and 5-wire for stand-alone perimeter fences.

**POSTS:** Treated wooden posts are preferred for permanent systems. Common post types available for electric fencing are wooden, T-posts, fiberglass and plastic.

**MAINTENANCE IS KEY:** Use an electric fence voltage meter, (fence tester), weekly to check the amount of current passing through wires, not just if voltage is passing through. Check that hot wires are not grounded out by tall vegetation, fallen branches, or broken insulators, etc. Check for poor wire connections in locations of spliced wire or where wire has become loose.

### In addition:

- Electric fences should be placed away from structures, so bears first encounter the fence.
- For protecting fruit trees, all fruit should fall within the electrical fence instead of outside it.
- Place highly-visible electric fencing signs around the perimeter of your fence as a precaution.
- Bait an electric fence only for an individual bear that has previously accessed attractants.