

TROUBLESHOOTING PROBLEMS WITH ELECTRIC FENCES

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Properly constructed and maintained electric fences are safe and dependable, however, occasionally problems arise. Some causes are rather obvious. Others are more obscure and it may take a little detective work on our part to find the problem.

Troubleshooting is easier with a good voltmeter. A voltmeter enables you to isolate problems by determining if your energizer is charging the fence, if the grounding is adequate and if power is reaching the end of the fence. Digital and dial type voltmeters that can register up to at least 5000 volts and are accurate to +/- 100 volts are ideal. Good voltmeters are available for \$40 to \$100.

Testers are available that show only if a fence is "hot" or "dead." But it's not enough to know that a fence is on.....you also need to know how "hot" it is. If power drops below about 4000 volts, the fence will not be very effective against wildlife. Don't count on sheep respecting the fence if voltage drops below 3500. Cattle and horses are difficult to control at current below 3000 volts.

Fixing electric fences is a process of elimination. Begin the inspection with the energizer and grounding system. Then check the wires connecting the energizer to the hot wires on the fence. Then follow the hot wires to the end of the fence.

Walking the fence line with a battery powered transistor radio can help locate cracking or arcing insulators. Turn the radio between stations. If the insulators are okay there won't be any sound. When the radio gets near a broken or leaking insulator, you'll hear clicking on the radio. As you get closer to the faulty insulator, the clicking will get louder. Mark faulty insulators with non-metallic paint so you can locate and replace them after switching off the current.

ELECTRIC FENCE TROUBLESHOOTING GUIDE

PROBLEM

Energizer not on or no voltmeter reading across energizer output terminals when disconnected from fence.

Energizer on but low voltmeter reading across energizer output terminals when disconnected from fence.

Energizer connected & operating but no voltmeter reading on fence.

Low voltmeter readings at several places on fence.

PROBABLE CAUSES

- Mainline power outage
- Blown fuse on input circuit
- Energizer switched off
- Dry cell batteries dead, wet cell batteries discharged
- Terminals corroded
- Faulty energizer

- Energizer switched to low setting
- Weak batteries
- Terminals corroded

- Ground-return wire disconnected or broken
- Feedwire terminals corroded, disconnected or broken
- Broken live or ground-return wire on fence

- Energizer on low setting
- Energizer inadequate for length of fence
- Weak batteries
- Terminals corroded
- Ground system inadequate
- Soil dried out

No voltmeter reading or low reading at one location on fence.

- Broken wire
- Dead short across wires
- Broken or disconnected jumper wire
- Disconnected or deteriorated ground rod

Voltmeter reading on one wire higher than another or no reading from one live wire to ground-return wire or soil.

- Broken or disconnected fence wire
- Broken or disconnected jumper wire
- Broken or disconnected ground wire
- Broken or faulty insulator
- Ground rod deteriorated

Radio, TV or telephone interference.

- Ground system inadequate
- Antenna too close to fence
- Fence parallel with antenna wires or telephone wires

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