

LUDA.FENCEALARM: A SMARTPHONE APPLICATION FOR MONITORING ELECTRIFIED FENCES

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This tool monitors the electrical voltage in electrified fences for the containment of farm animals. A device is connected to the metal wire of the fence and the voltage values are transmitted (via integrated SIM card) from the instrument to an application on the farmer's smartphone that receives an alarm in case of anomalies (voltage change). It can be used where GSM coverage is present, and measures the voltage values, returns graphs, and alerts the farmer of the voltage drop.

The added value of this digital technology is that the system immediately alerts the farmers about the problem. In this way, they can intervene much more quickly, preventing animals from escaping or predators coming into contact with the herd or flock. Economic and management efficiency is also improved, as the risk of problems related to the malfunctioning of the fence is reduced. Maintenance becomes easier, as the farmer does not have to waste time inspecting the fence every day looking for problems that may compromise its effectiveness.

The system is easy to use and costs about €200. The farmer is alerted in case of a low battery (the battery has an autonomy of approximately 2 months and the system works with a constant 220 V or 12 V power supply) and the monitoring is continuous. The alarm system has a cost of €5 per month (the first 12 months are already included in the purchase price).

Application scenario

Agricultural domain: livestock and herd management on the farm.

Digital technologies

App for smartphone connected to a monitoring device on electrified fence.

Socio-economic impact

- Economic: Better management and time-saving.
- Environmental: Less use of vehicles for control, therefore lower emissions.
- Social: Increased efficiency of animal containment (reduction of damage and litigation).

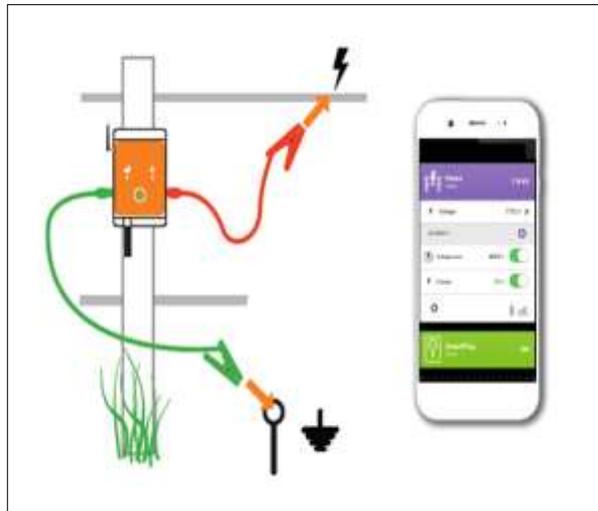
More info:

<https://www.luda.farm/product/luda-fence/>



Purpose of the tool

This instrument is used to automatically monitor the voltage in electrified fences. This type of fence is used to control domestic and wild animals and is equipped with metal wires in which electricity passes. For various reasons (e.g. grass growth, falling trees, rain, contact with animals), there can be a voltage drop (due to current leakage). As a result, the efficiency of the fence can be compromised. The tool, thanks to the connected app, allows the farmer to view this information directly on his or her phone. The app alerts them with a phone alarm in case of a sudden power failure and it can also provide graphs.



Source: [Luda Farm](#)

Description of the tool

The application is included in the monitoring device. It can be used where there is GSM coverage, and it is available for Android, Mac, iOS, and Windows. The monitoring device is equipped with a series of elements that are connected to the fence (battery charger, cable with clamp connectors, and ground terminals). The measured voltage is transmitted from the system to the application via an integrated SIM card. The farmer can check the status of the fence remotely on his or her mobile phone at any time, and thanks to the voltage graph they can also see whether the voltage drop is due to, for example, animals or grass or rain. This allows maintenance to be carried out promptly, without wasting time and avoiding the escape of animals.

Areas of socio-economic impacts

Social	The containment of animals is important to protect the cultivated fields of the farmer's neighbours. The advantage of this system is the timeliness with which a fault can be repaired, avoiding problems/contentious issues.
Economic	It improves the management of the farm and the pasture, through the efficient monitoring of an important farm tool (the electrified fence), allowing timely maintenance and avoiding the escape of animals, an important farm asset
Environmental	Through the notification, the farmer intervenes when it is necessary. They do not have to get around (in car or tractor) to check the fence every day, so emissions are avoided.