

**A case study:**

**Solar electric fencing on farm in Vidarbha region of Maharashtra, India**

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Accepted : August, 2008

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**ABSTRACT**

A survey was conducted in Vidarbha region to study the present status of Solar Electric Fencing. Five places in Vidarbha were identified for survey where electric fencing is adopted by farmers. It was found that two of them adopted fencing for protecting the crops like cereals, pulses, groundnut and vegetables. One adopted it for sugarcane nursery and remaining two for safety as compound wall in Soybean oil industry. The available initial cost of electric fencing was observed 1.25 lakhs per km. It was felt that the farmers experienced fencing gives very well protection to the farm land, industry compounds and animal yards.

**Key words :** Solar electric, Fencing, Farm, Vidarbha

Need based experimentation and its promising results have given popularity to Solar energy utilization worldwide. "Protection" is the prime necessity of society and to farm. Still the use of solar gadgets is not so popular amongst the farmers. The utilization of such devices needs special attention and trainings. The solar gadgets have very high efficiency (Meveigh, 1995).

Considering the typical requirements, Solar Electric fencing is the most suitable and practicable technology for getting better protection and hence increased financial output. Solar electric fencing is the most practical way of achieving the goal of protected cultivation and storage. The quality produce can fetch foreign exchange. The whole idea of Solar Electric fencing is optimization all the inputs like.

So in present study the effort was made to study the status and acceptance of the Solar electric fencing on fields and other agricultural premises.

**Theoretical consideration:**

Yavatmal and Amravati districts of Vidarbha are more productive and has great agricultural potential. These districts have dense forests and hence wild animals like pigs, wild pigs, deer, wolf etc. cause a great damage to the standing crops. Even the domestic animals *i.e.* Cattle, Cow and goat destroy the farm crops. Superintendent Agricultural Officer (SAO) Amravati, had raised this problem in Zonal research and extension advisory committee (ZREAC, 2002) meeting at Dr. PDKV, Akola.

The solution to this problem seems to be "Fencing" to these farms. People in India are using fencing from

olden days. The fences used earlier were "Kateri" fences which consist of rows of thorny bushes or trees bearing thorns on the borders of farm. This practice was cheap and easy. But the space occupied by these bushes could create trouble sometimes to the main crop. They compete with the farm crops for soil, water and other needs. Also the protection level is limited as the animals can jump above the bush level and also can bear the pain of the thorns.

So, Electric fencing came into existence. This works very well, in nearly 164 countries of world. Electric fencing is being used from last 3 decades. But in energy poor region like Vidarbha it is not feasible to use even a small part of electric energy for this purpose. Where the energy needed for pumping water is short, use of renewable energy has a ray of hope. Solar energy has a great potential and is safer to use as best alternative.

Solar fencing can be a new concept for Indian farmers but many countries in US, UK and Asia are using solar fencing from a very long time.

**METHODOLOGY**

**Working principle:**

A passage of electric pulse flows through the galvanized wire of the fence continuously. When animal touches the fence, it closes electric circuit through ground and impulse of current travels through the body of animal. Shock is very painful but not a life hazard. Once the shock is experienced, the animal will never try to touch the fence again.

Farms and places where solar fences are being used