Wildlife Conservation Officer Guide to:

ELECTRIC BEAR DETERRENT FENCE

INSTRUCTIONS

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Forward

This booklet has been developed to assist the officer in providing help to beekeepers who wish to install an enclosure at active apiaries to provide protection and deterrence from black bears. Most of the materials listed are available at Agway, Tractor Supply, or farm stores locally.

There are other variations of this type of enclosure; however, I believe that this is the most effective and also the safest to the resource.

This fence is recommended by "Bee Culture" Magazine's article 'Bear Fence Rules' by Craig Cella and is used by Penn State University.
MATERIALS

4  16' woven fence panels of ¼” bar stock 34” width.
8  1 ¼” diameter fiberglass 6’ posts.
8  ¼” x 3” stainless bolts.
16  ¼” stainless washers and nuts.
8 to 10 gauge copper wire to join panels.
1   Parmak 12V .5 joule Solar fence.
1   Fence tester

This is a woven wire fence made with hog panels. Drill ¼” hole 12” from top of post. Panels are set by placing the flat bar stock of the panel on a bolt, secured with washers and nuts. The panels are joined by using copper wire, thus completing the electric circuit.

By positioning the panels 4” from ground surface, mammals such as skunks will be excluded from the apiary. The panels are attached to 8 1¼” diameter fiberglass posts, 6’ long, anchored two feet deep.

The copper wire can be removed and one end of the panels bent open when work is to be performed on the colony, thus there is no need for gate hooks.

A charger is attached to the panels and strips of bacon should be attached in several places on each panel to direct the tongue of the bear. 110V, battery or Solar Cell chargers may be used. Solar does not appear to be affected by lightning compared to the others.

Live trees should not be used and weed control must be employed to reduce shorting of the panels. 3’ wide pieces of metal roofing can be used to deter growth under the fence and provide a good ground for the bear to step on.

The most important consideration is that the fence be maintained, it must be working. Wildlife Conservation Officers should test the enclosure by using a fence volt meter to ensure proper current to the fence following construction and at least once a year to monitor the beekeeper’s maintenance.

The cost of this type of deterrent fence is about $150.00 plus the type of charger. In one evening a bear can do thousands of dollars in damage to an apiary. Anyone that has an investment in bees in bear country (which is most of Pennsylvania) should consider insuring his colonies by fencing his yard.
Figure 1 – 16’ x 34” Woven Wire Hog Panel

Figure 2 – Aerial View