

A Simple Device for Scaring away Wild Boar (*Sus scrofa*) in Newly Planted Oil Palm Fields

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A device consisting of a cracker placed appropriately on a fencing built around the field is described. When activated by the encroaching wild boar, it gave out a gunshot sound and frightened away the animal. The method is, for short term purposes and comparatively low cost, effective and safe.

Wild animals have been a threat to agricultural crops since time immemorial. Most of them were hunted for food or game resulting in near extinction of a number of wild species. Therefore wild life protection received priority attention throughout the world. At the same time, protecting the crop from wild animals continues to be difficult. Electric fencing system is a recommended practice to ward off wild animals involving higher inputs. In annual crops or where protection is required for a short duration, up to three years, a simple, low cost, wild animal scaring device may be useful. Such a device is described in this paper to scare away wild boar (*Sus scrofa*) which is found to damage oil palm seedlings in the plantation.

MATERIALS AND METHODS

The device consists of a cracker and its gunshot sound activated by the encroaching animal, on a fencing system around the field which frightens and drives away the animal automatically. The fencing is made with 18 gauge galvanised iron (g.i) wire, guide hooks, supporting poles and junction boxes having crushing slabs arranged on plays (Figure 1). Two, parallel galvanised iron wire line fencing at 22 cm distance erected on supporting poles of approximately 1 meter high, one above the other at 22 cm high above ground around the field are held

in position by 'U' type hooks. The supporting poles may be given a spacing of 3 to 10 meters depending upon the terrain of the field. At every five to six supporting poles there will be a junction box, 15 to 20 meters apart, depending on the landscape, boundaries, roads etc. The junction boxes are made with four supporting poles of 1 meter high frame, two crushing slabs, three roller plays of approximately 2.5 cm diameter made of wood and the cracker (Figure 2). The two sets of fencing lines arriving at the junction box from opposite directions are joined on to the first two roller plays (30 cm long) and pulled closer and held in position with the help of a crushing slab (20 × 15 × 10 cm) hung from a smaller play (15 cm long) placed on the first two plays. Underneath this crushing slab a 5 g cracker is hung. When the animal dashes on the fencing line, it will cause the first two plays to slip apart and the crushing slab with the cracker will fall on the other crushing slab (25 × 20 × 10 cm) kept directly below, making the cracker burst, emitting a gunshot sound (Figure 3). This unexpected, startling sound makes the animal escape from the site. The crushing slab may be made of reinforced cement concrete blocks or flat stones with appropriate hooks. The supporting poles may be made of wood or metal for the longevity and efficiency. The fencing may consist of two to three or even more parallel

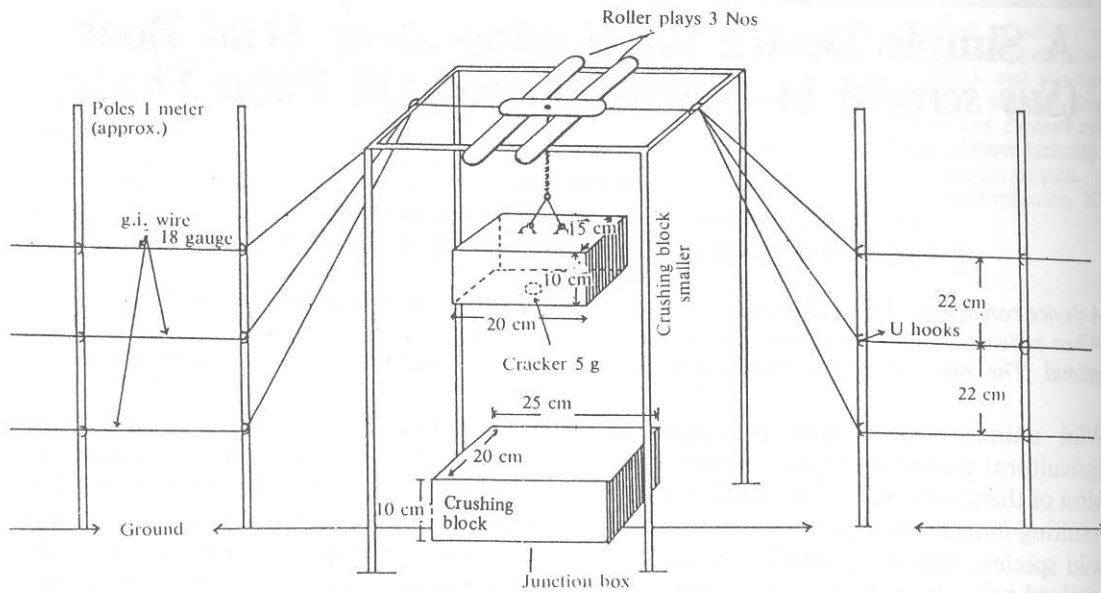


Figure 1. Wild boar scaring device (diagramatic)



Figure 2. Junction box.



Figure 3. Cracker burst emitting gunshot sound and smoke.

lines when used against other animals like, rabbits, porcupines, jackals, deer *etc.* depending on the size of the animal and its jumping capacity. The height between the fencing lines can also be regulated as per requirements.

RESULTS AND DISCUSSIONS

The wild boars damage newly planted oil palm seedlings (Dhileepan & Jacob, 1992), banana and almost all tuber crops. At Palode, in a trial plot, the animal was found to damage 17.5 per cent of the full grown banana and 42 per cent banana suckers. Newly planted oil palm seedlings were found to be dug up and chewed away, which may be due to the sweet taste of the crown, and destroyed resulting in 2 to 5 per cent seedlings loss. Unprotected crops including oil palm, banana, cassava, sweet potato, different yams, *etc.* planted in about 15 × 15 sq. meter area in the CPCRI farm at Palode were completely destroyed within 50 days. In the same area, when a trial was laid out using the above described wild boar scaring device, all the seasonal crops could be harvested in nine months time without any loss. Later this method was extended to all fields in the farm where oil palm seedlings were newly planted (*Figure 3*) and has been successfully used at the farm for over two years now. The local farmers were using a crude version of this method for a long period previously. It may be effective against other wild animals also. However, a word of caution also may be given here that the device works on the fear complex of animals caused by the gunshot sound. Therefore a habituation effect in the animal may be possible after continuous use for longer period resulting in a decline in the efficiency. Such situations may be overcome by reinstating the fear complex applying gunshots intermittently. In any case, as an integrated approach to the problem, this method has a definite value especially when

vertebrate pests are universal problems. The device can also be used as a signal for the presence of the animals.

PREPARATION OF THE CRACKER

The cracker may be made with potassium chlorate and Arsenic orange ($\text{FeS}_2 + \text{FeAs}_2$). These are explosive chemicals obtainable for agricultural purposes to licence holders. Utmost care should be taken for the preparation of the cracker and should be done by a qualified person in a safe open area as per the fire force regulations. The chemicals are carefully and gently powdered separately and sieved to a fine powder. Then they are mixed in the proportion of 49:51. Another ten parts of fine powdered sand is added to this mixture and moistened by adding just sufficient water. From this, 2-3 g balls are made and wrapped in bits of cloth or paper and tied neatly all over with sewing thread enclosing a wire hook. These balls are then sun-dried, waxed and stored safely and indefinitely in steel trunks in an explosive store room as per fire force specifications. Thus the finished cracker may weigh about 4 to 5 g and from 1 kg each of the chemicals about 550 to 600 crackers may be made.

COST OF MAKING THE DEVICE

The total cost of making the wild boar scaring device around 1 hectare land would be approximately Rs. 2000 only which includes cost of materials, such as galvanised iron wire, slabs, hooks *etc.*, labour charges for installing the device, and cost of crackers for one year.

REFERENCE

- DHILEEPAN, K. & JACOB S.A. (1992). Pests in *Oil Palm Production Technology* (ed.) M.K. Nair & K.U.K. Nampoothiri) Central Plantation Crops Research Institute (ICAR), Kasaragod — 671 124, Kerala, India. pp. 49-58.