

A LOW-COST PORTABLE CAGE FOR RANGE AND PASTURE PLOTS

Range and pasture investigators frequently have need to protect sampling areas from grazing, either permanently or temporarily.

Unless the sampling areas harvested are well distributed, moderately large and sufficiently numerous, the sampling error is almost sure to be high. Proper distribution is more easily accomplished if a large number of samples can be taken. Cost considerations usually dictate that sample areas be small if individual protective structures are needed on many plots.

An inexpensive, igloo-shaped wire cage has been used by the writer for the past ten years to protect circular sample plots of the convenient 9.6 square-foot area (Frischknecht and Plummer, 1949). Figure 1.



FIGURE 1. Igloo-shaped wire cage for protecting circular range or pasture sample-plots of 9.6 square feet.

In addition to low cost, this type of cage has the advantages of light weight, quick placement and ready portability. It is relatively free from rubbing and other damage by hornless cattle and sheep but is less satisfactory where horned cattle and horses are grazed.

Cattle that have learned to crowd and reach through wire fences and conventional enclosures of boards, posts and wire do not appear to molest the igloo-shaped cage particularly.

The cages are made in sets of four to be nested for easier hauling. Heavy field fence of 6-inch mesh, 39 inches high is used. Wire lighter than 11½ gage is unsuitable.

To make four cages, lengths of field fence are cut with 23, 24, 25 and 26 meshes intact. Each length is then formed in a cylindrical shape fastened by using the cut ends as ties, except those of the three upper (larger) meshes. Next the horizontal wires of the three upper meshes are cut at intervals of ninety degrees so that four nearly equal flaps are formed. These are bent inward and wired by their cut ends to make the top and complete the cage. A fencing tool and 8-inch lineman's pliers are suitable tools.

In use, four 18-inch stakes of ½-inch reinforcing iron are driven diagonally inward over the bottom wire in such a way that the cage is

held taut and close to the ground. If rabbits are a problem, small-mesh wire netting one foot high is placed around the bottom of the cage as shown in the figure.

As these cages are relatively inconspicuous they are occasionally damaged by horses and vehicles. Such damage is reduced by tying a small white rag or a bright disk to the upper, north side of the cage to make it more conspicuous. In a few instances, itchy cattle have stepped into these cages in an effort to rub on them. If the cattle cannot be sprayed, the cage can be protected by setting a rubbing post 40–50 feet away. A strand of barbed wire looped through the corners and around the top of the cage also affords some protection against rubbing. A roosting post is necessary if burrowing owls reside in the vicinity.

The cost of materials for this type of cage at current prices is about \$1.50.

LITERATURE CITED

FRISCHKNECHT, NEIL C., AND A. PERRY PLUMMER. 1949. A simplified technique for determining herbage production on range and pastureland. *Agron. Jour.* 41: 63–65.

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