

FIGURE 3. Production of weeping lovegrass growing under various percentages of maximum shrub live oak cover.

Grass production increased during the second year on all plots where the oak was reduced. Largest increases were found on plots where more than half of the oak cover was killed. Even though basal cover of the grass increased on some areas between the second and third years, the grass production of 1960 varied little from the grass production of 1959. This small variation may be due to low rainfall in the spring and summer of 1960. Production in pounds per acre on the various areas and total February-through-July rainfall for each year is tabulated below:

Year	Range in Production (lbs./acre)	Rain-fall (inches)
1958	180 to 730	9.61
1959	250 to 1840	4.82
1960	220 to 1660	2.91

Summary and Conclusions

Basal cover and production of weeping lovegrass, under varying amounts of shrub live oak cover, were measured for three consecutive years. Both basal cover and production of the grass tended to be inversely proportional to amount of oak cover. With less than 50 percent reduction of oak cover, basal cover remained about the same during the three years of observation. With more than 50 percent reduction of oak cover, grass cover continued to increase during the second and third year. Grass pro-

duction increased on all treated plots during both the first and second years following treatment and the increases were roughly proportional to oak canopy reduction. Production the third year following treatment closely approximated that of the second year, probably due to low rainfall.

These findings indicate that some grass production may be obtained from seeding weeping lovegrass in areas where reduction of oak cover is slight. However, to obtain good stands and high production, more than half of the oak canopy should be eliminated.

LITERATURE CITED

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A DURABLE, ECONOMICAL CAGE FOR UTILIZATION OR PRODUCTION STUDIES

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Many types of temporary cages are used by field workers to protect small areas from grazing in range utilization and herbage production studies. Some are of a particular design or shape to meet a specific problem or need. Most of the cages in use have several serious limitations. They are fairly expensive, difficult to construct and transport under field conditions, and are subject to damage from grazing animals.

In an attempt to overcome some of these limitations, several types of wire and various shapes of construction were tried and evaluated under field conditions. The relatively, inexpensive, easily constructed, sturdy cage described here proved satisfactory in all trials and is now being used throughout Wyoming by Soil Conservation Service personnel.

This cage is circular, of gal-

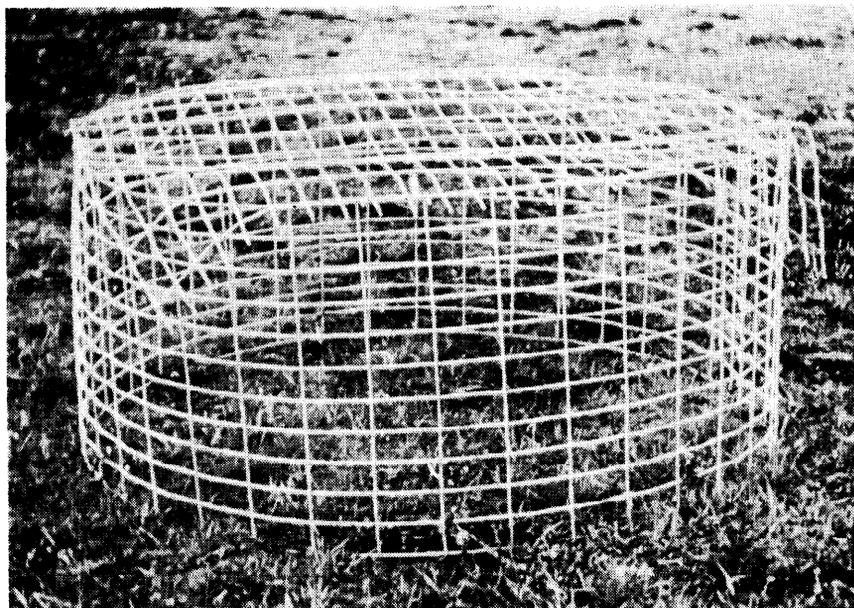


FIGURE 1. The completed enclosure. On this cage, the square corners of the top were simply bent down but can easily be trimmed off.

vanized 2 x 4-inch mesh, No. 9 or No. 11 welded wire, and is 2 feet high by approximately 4 feet in diameter. It can be constructed in 15 to 20 minutes preferably on the site where use is intended.

The type of wire recommended is available in 52-foot and 100-foot rolls, 4 feet wide. A 13-foot strip cut down the middle makes two strips, 2 feet high, enough for 2 cages. The 2 ends of each strip brought together form the circle and are joined with wire or hog rings. A 4-foot square forms the top and is fastened

with wire or, again, hog rings. The four protruding corners can be bent down or trimmed off. This completes the construction of the cage. No welding or reinforcing is needed.

Twelve-inch bridge spikes, 4 to the cage, hold the small enclosure in place. The spikes can be angled toward the center across the bottom welded strand or can be wired to the cage with soft wire.

This cage protects an area of a little over 12½ square feet which is ample for a circular

clip plot of 9.6 square feet except on very tall growing vegetation.

This type of cage has proven very satisfactory from the standpoint of cost and durability. The average cost, including labor, is less than \$4.50. The cage has been in use on some ranges for three full years with negligible damage from grazing animals or from the elements.

The low cost, ease of construction, and durability make this type of temporary or portable enclosure very desirable under open range conditions.