THE CAGE METHOD FOR DETERMINING CONSUMPTION AND YIELD OF PASTURE HERBAGE

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NUMEROUS investigators in pasture research are using cages as a means of measuring the production of pasture herbage. A few are using the method to determine the consumption of pasture herbage by livestock. Some investigators have considered the method very inadequate and have not adopted it or have discarded it after a short trial. In experiments in Indiana, cages have been used for several years to measure production and consumption of pasture herbage. The data obtained have been very helpful in interpreting the gains in weight made by sheep and beef cattle and the milk production of dairy cows when grazing on various types of pasture.

Variations in the cage method have received considerable study at the Purdue University Agricultural Experiment Station during the past two years.

The purpose of the work reported here was to compare the precision resulting from a random choice with that from a selected choice of the second of the two areas to be clipped for estimating consumption by the difference method. The use of duplicate cages and differences among operators were also investigated.

Vinall states that it is desirable to measure the production of grazed plots by mowing representative areas protected from grazing. He says also, "There are two methods of arriving at yields. One attempts to measure the herbage consumed by the grazing animals; the other measures the annual growth of herbage, or that available for grazing."

The first method assumes that the difference in yield between a protected and a nearby grazed area is equal to the herbage consumed. The protected area is relocated at the beginning of each grazing

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