THE MOISTURE CONTENT OF FORAGE AT DIFFERENT TIMES IN THE DAY

C. J. Willard

There is a rather common opinion that uncut forage has a much lower moisture content during the hot part of the day than in the early morning just after the dew has gone off. The most definite statement to this effect that the writer has seen in agronomic literature is that by Metzger, *et al.*, who recommend very strongly that soybeans should be cut in the hot part of the day because of this difference. Vinall and McKee report preliminary investigations of the question, and do not find important differences at different times of the day. Kiesselbach and Anderson report three days' observations on alfalfa at hourly intervals, in which were recorded a maximum difference of 4.4% in moisture content on any one day, and an average difference of 2.7% in moisture content at 8 a.m. and 5 p.m.

The writer has conducted experiments on this question from time to time for several years. Representative samples of forage, about 1 kilo green weight, have been harvested, placed in cheesecloth sacks, weighed green, then dried in an oven and weighed dry. The oven did not reduce the forage to the moisture-free state, but did very uniformly reduce it to about 2% moisture. The "dry matter" of the tables is this oven-dry material.

---

1. Contribution from the Department of Agronomy, Ohio Agricultural Experiment Station, Wooster, Ohio. Received for publication March 26, 1931.
2. Associate in Agronomy, Ohio Agricultural Experiment Station, and Professor of Farm Crops, Ohio State University, Columbus, Ohio.