THE DRY-MATTER CONTENT OF FIELD-CURED AND GREEN FORAGE

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INTRODUCTION.

Articles by Farrell\(^2\) and McKee\(^3\) on the basing of forage-crop yields on green weights suggest the presentation of data which permit a comparison to be made of the two methods of determining the yields of alfalfa and other forage crops, weighing the field-cured hay and weighing the crop green. These data were obtained under field conditions from a large number of plots.\(^4\)

In the farm-crops work at University Farm during the year 1914 and for several years previously samples for dry-matter determination have been taken at the time the field-cured hay has been weighed. The yields on the different plots have been calculated in pounds of dry matter per acre based on these weights reduced to a uniform moisture content. There are two objections to this method of weighing and sampling: (1) All of the hay on any plot, although sufficiently field cured under canvas cock covers, is not always of uniform dryness throughout. Hence, there is considerable difficulty in securing a representative sample for dry-matter determination. (2) Under ordinary conditions where a considerable number of plots of alfalfa or mixed hay are to be cared for, rains interrupt the work at times and all or a portion of the hay is wet when partially cured. As a result more or less bleaching of the hay occurs and loss of leaves takes place, due to the additional handling necessary in drying. In many in-

\(^1\) Contribution from the Farm-Crops Section, Department of Agronomy and Farm Management, Minnesota College of Agriculture. Received for publication May 31, 1916.


\(^3\) McKee, Roland. Moisture as a Factor of Error in Determining Forage Yields. (Introduction by C. V. Piper.) JOUR. AMER. SOC. AGRON., v. 6, no. 3, pp. 113-117.

\(^4\) Since this article was prepared for publication, a bulletin (U. S. Dept. Agr. Bul. No. 353. 1916) entitled “Moisture Content and Shrinkage of Forage,” by H. N. Vinall and Roland McKee, has also been published.