NOTES

METHODS OF EXPRESSING THE PRODUCTION OF PASTURES

In the October 1932 number of this Journal, Vinall and Semple presented a plea for greater precision in stating the amount of grazing obtained from pastures. Specifically, they favored the term “unit days” over “cow,” “cattle,” or “pasture days” of grazing and included a table giving the part of a “unit” represented by animals varying from 2 to 38 months of age and from 150 to 1,000 pounds in weight. Although no provision is made for animals weighing over 1,000 pounds, this is, indeed, a step in the right direction. However, we believe a move toward greater uniformity and exactness in reporting the results of grazing trials should be carried still further.

There are several criticisms of any method of expressing pasture results in “days of grazing.” The more important objections are that: (1) No idea is given of the amount of supplementary feed supplied. (2) Neither the maintenance nor gains and losses in weight are considered. For example, a pasture may have carried five head with a loss of weight for a given number of days; another may have maintained five head and produced 100 pounds of gain in the same period. How is a unit of measure such as “unit days” going to express adequately the relative productivity of these two pastures? (3) In the case of milking cows, there is no distinction between heavy or light producers.

This opportunity is taken to suggest that such results be given in terms of some feeding standard instead of “unit days.” There are available reasonably reliable standards for the requirements of the different classes of animals and also the nutritional values of practically any feeds with which the pasturage might be supplemented. With such standards, the production of a pasture can be computed into terms of units of feed. Of course, such calculations cannot be made if records are not kept of the weights of the animals at the beginning and end of a grazing period, of the milk produced if lactating animals are used, and feeds consumed if the pastures are supplemented. However, in any test worthy of the name, these data should be procured.

There are several different feeding standards in use at present. Kellner’s “starch equivalents,” Armsby’s net energy values, “therms,” and Henry and Morrison’s “total digestible nutrients” are prominent examples of such standards. By one of these standards both the maintenance and gains, or production, can be accounted for. In the United States, the “total digestible nutrient” standard is widely used by those dealing with the rations of livestock.