

*By Mr. Wilson:*

Q. But that would not be so for horses?—A. Yes, for all feeding purposes. There is a mistaken notion in this country with regard to the relative value of grasses and legumes. The analyses and the results of experience show that the feeding value of clover is very much superior to that of the grasses.

Q. Superior to timothy?—A. Yes.

Q. For horses?—A. Yes. I cannot recall at the moment any instance where grass hay has been entirely replaced by clover hay in the feeding of horses, but undoubtedly the latter affords them, weight for weight, much more nutriment than the hay from grasses.

*By Mr. McMillan:*

Q. I believe that clover is much more nutritious for horses if you get it into the barn without any taste of mould. That is what injures the animal?—A. This erroneous notion with regard to the relative value of timothy and clover (viz., that the former is much more valuable), is very common in this country, but you will not find that it exists in the older countries. Great care, as you have just remarked, as to the proper preservation of the clover, is necessary. It is owing to carelessness in this matter, that makes it possible that any objection can be raised to clover as a nutritious and wholesome feed. It should be free from dust and mould. Our analyses and our feeding experiments combine to show that the clover is much the more valuable of the two.

#### RELATIVE VALUE PLAN FOR THE PURCHASE OF MILK.

I would now speak briefly with regard to the relative value plan for the purchase and sale of milk. On former occasions I have explained to you the principle of the Babcock process, and the composite test, and I have also dwelt at some length on the advantage that would accrue to our farmers and dairymen from the adoption of this plan in the sale of their milk.

In June last, I issued a bulletin (No. 13), which gives full instructions for manipulating the test, in creameries and cheese factories. It also contains an explanation and illustration of the necessary calculations (which are exceedingly simple), to be undertaken in estimating the dividends due to patrons who use this process. Some idea of the interest taken in this matter, by our people, may be obtained from the fact that the first edition of this bulletin was exhausted a few weeks after it was issued. The bulletin has been incorporated in the Dairy Commissioner's Report for 1893, but to meet the special demand for factory purposes, it is proposed to issue a special edition in the course of a few weeks. It is not at all to be wondered at, that such a method as the "Babcock" should appeal to everybody who gives the matter a moment's thought, as being a more equitable and business-like plan to adopt in creameries, than the old pooling plan. Every one must acknowledge that it exactly measures the qualities of the milk for butter making purposes. The superiority of the test over all others, for creameries, is now universally admitted, but it is not as yet acknowledged by all, that it is the best plan to adopt for cheese factories; and that is why I wish to bring the matter before you this morning. From the work carried on by our Dairy Commissioner, Mr. J.W. Robertson, as well as from a large number of experiments conducted by Dr. Van Slyke of Geneva, New York, and Dr. Babcock, Wisconsin, it has been clearly shown that the fat in milk varies with the casein or curd, so that the ratio between the percentage of fat and the percentage of curd is more or less constant for milks of varying proportions of fat. The ordinary impression is therefore erroneous, that a milk rich in butter fat is necessarily poor in curd. A rich milk will make more and better cheese than a poorer milk. The popular idea that one cow is a butter cow, and another is a cheese cow, is not borne out by science or experience. It has been most conclusively shown that the percentage of butter fat in the milk, gives us all that is necessary to arrive at the value of the milk for cheese making purposes. The following are some statistics to corroborate this: they are from the very highest authorities in this matter, and are well worth careful consideration by all interested in cheese making:—