

live weight, and although I should be glad to see the cental accepted as a uniform weight, so long as our machines weigh by the cwt. we must sell by it or by the stone of 14 lb. which works with it; but the cwt. is better because we avoid halfpence I send you a pocket table, as advertised in your paper; it is on untearable cloth card. I also inclose you specimens of other tables I arranged, but which I do not find I require often. Table 2 enables you to tell the total value of an animal, having weight and price per cwt. Table 3 gives price per cwt. equal to price per stone of 14 lb. This is for those who are in the habit of estimating live weight by 14 lb. stone. Table 4 is for those who are in the habit of guessing the dead weight, to enable a person selling by live weight to tell them what he considers the carcase of dead weight is in lbs., stones of 14 lb. or 8 lb., or cwt., according to the weight they are used to. I have no wish to enter into competition with Sir J. Lawes; my table is quite different. I have no wish to make money by my tables, and shall not push them, as my time is very fully engaged in my land agency and arbitration business.—*T. H. Thursfield.*

We have now got on the subject of rations, and unless we adopt a standard we are again told that we shall be ruined; and a case is given where a gain of £500 a year was effected by its adoption. I can only say there must have been very bad management before. But are we to believe that animals only assimilate a certain proportion of each kind of food? Are we to give to the racehorse in training the proportions of fat-forming food as we would the Clydesdale we are making up for show or for sale? Are we to believe that we cannot make a beast or sheep put on more fat, or more lean, as we may wish? Are we to believe that we cannot alter the "handle" of a beast or a sheep by increasing or diminishing the amount of flesh forming food. If so, well; but I think if Mr. F. J. Lloyd were to ask Mr. Stratton, or Mr. Stephenson, of Benton, or Mr. Handley, or Mr. Teasdale Hutchison [and they are adepts], they would tell him otherwise.

Again, how it is that for a month before killing a pig in the South of England it is usual to give it [the pig] peas, and in the North of England oatmeal, to make the carcase more firm, and have a greater proportion of lean meat [this is only done when the pig is for home consumption]? How did the pig get on without these fleshformers?

And if this standard is infallible, how is it that thousands—aye, tens of thousand—of sheep are fattened every winter between Morecambe Bay and the Solway on turnips alone, the turnips often making £10 per acre? Where is the waste there?

And how is it that you have the finest peasantry in the world in Tipperary, and their diet for six months of the year is potatoes alone? I was told by the late Mr. Benson, of Kilshane, that during the potato famine, when their diet was oatmeal, they were not nearly so strong as before? How does this conform to the standard ration?

The unwritten science of cattle-feeding and of rations is of much greater importance than anything chemistry can suggest, and at this the farmer is an "adept." Now, take your standard ration, 24 lbs of dry matter in food to each 1,000 lbs. live weight of the animal. This dry matter, to put it in plain English, is to consist of "12½ lbs. of heat-formers." It is well known that ruminants require a large amount of bulky food, which in winter will consist of hay or straw. The quality of these differs, as we well know; the hay grown on some land being of twice the feeding value of other hay grown even on the same farm. The value of straw, too, for feeding purposes, varies very much in different districts, and also is dependent on the state of ripeness when cut. Is the farmer, then, to have these bulky foods analysed, that he may know how

much and what kind of concentrated food is required? No! Experience has already taught him that. He is an "adept." The value also of roots is dependent not only upon the soil and climate, but also on the class of manure with which they are grown: those grown with phosphatic manures being much more nutritious than those grown with nitrogenous manures. This is well known by the Northcountry sheep feeders. And I maintain that if the quality of a turnip can be altered by the manure with which it is grown, much more can the quality of beef or mutton by the nature of the food on which the animal is fed, and that animals are amenable to the skill of the feeder. That skill can only be obtained by experience. "The master's eye" still "feedeth the ox."

Farmers would only be too glad of any science which would "benefit their pockets," but that science must be presented to them in a different form to which it is usually presented in the present day, as that must be taken largely *cum grano salis*. The farmer is suffering from too much scientific advice and too little lime. (1) If half the money which has been spent on artificial manures had been spent on lime during the last twenty years, the farmer, the land, and the country would have been all the richer to-day.—*A WESTMORELAND FARMER.*

BATH AND WEST OF ENGLAND SOCIETY.—The show at Newport closed on Monday. Unfavorable weather had militated against the attendance, the total of the five days numbering a few short of 53,500. The working dairy was the centre of attraction again on the closing day. In the afternoon there took place the challenge competition for gold and silver medals by the winners of prizes in the various preceding butter-making competitions. For these there were eleven entries. The points considered by the judges were weight and quality, but weight was not taken into account so much as quality. The work done was better than on any of the other days, and excellence of the samples was so even that it was only after the most severe test that the gold prize was awarded to Miss Hassell, Eaglesbatch. The silver medal went to Miss Keel, Stanton Drew, Bristol; and the certificate of merit to Miss Davey, Cannington, Bridgewater. Two ladies were very highly commended, viz. Mrs. Williams, Windford, Somerset, and Mrs. Lear, Broad Clyst, Exeter. All the other competitors were highly commended. The result of the test of methods for separating cream was also made known on Monday. On the previous Wednesday each of the competitors was served with fourteen gallons of milk. In one case—that of the Victoria Cream Separator, which was worked by steam-power—the cream was separated at once, but in all the others it stood till eight o'clock next evening, and was then removed. From that time until the following Monday it was kept under lock and key in water surrounded by ice, and when taken out was churned for the bestowal of certificates of merit. The test produced the following result, with the weights:—

	Weight of butter.
1. The Victoria Cream Separator.....	41. 13ozs.
2. Jersey Creamer.....	4lb. 12ozs.
3. Rymer Pan.....	4lb. 12ozs.
4. Shallow Pan.....	4lb. 9ozs.
5. Devonshire.....	3lb. 15ozs.
6. Canadian Creamer.....	3lb. 14ozs.
7. Schwartz System.....	3lb. 10ozs.

(1) Right in *weeping* districts, like Westmoreland and Cornwall (Eng.), but in Kent, lime is almost useless. It never pays there, except as a top dressing, in small quantities, on old meadows.

A. R. F.