

two classes were in the ratio of 1 to 7; but his conclusions with regard to fat cattle must be taken with some reservation. The most important point which he has brought out, is the very high value of *Rape-cake*; and it is interesting to know that in this respect his results bear out the repeated recommendations which chemists have given of that substance. He has shown that 1 lb. of rape-cake will produce 1 lb. of milk, and, under favorable circumstances, still more; and its effect was better than that of an equal weight of grain. It appears, also, that in feeding it is equivalent to more than twice its own weight of hay. The great difficulty which is encountered in the use of rape-cake is that cattle dislike its taste; and if they are supplied with a full quantity of turnips or straw, they will consume just a sufficient quantity of these foods to maintain an average weight, and reject the rape-cake offered them. The way in which this is to be obviated is said to be quite simple. Of course it will not do to diminish the quantity of other nutriment given to the cattle, for that would defeat the objects of the feeder. But a part of the more bulky food, such as turnips, must be replaced by some substance, such as grain, containing the same amount of nutriment in a smaller bulk; and then the craving for a sufficient quantity to fill the stomach will induce the animals to consume the rape, and after a few days they will become accustomed to the taste. Both rape and flax are readily grown in Canada, and our farmers would do well to avail themselves more largely of these valuable substances for feeding purposes.

The Profit of Feeding.

For the Agriculturist.

It is evident that this consists in a valuable return from the animal of the food consumed. In the horse, this can only be received in labor or breeding; in the ox, from labor and flesh; in the cow, from the milk, the flesh, and her young; in the sheep, it may be returned in its fleece, its carcass, or its progeny, and the swine only by its progeny and flesh. The manure we expect from all, and if this be not secured and judiciously used, few animals about the farm will be found to yield a satisfactory profit for their food and attention, though it is evident it should form but a small part of the return looked for.

Animals are only profitable to the farmer, when they yield a daily income, as in their milk or labor, or annually, by their young or fleeces, unless it be in a course of regular improvement, either in their ordinary growth, or preparation for the butcher. The animal must consume a certain amount of food merely to keep up its stationary condition, and to supply the materials for waste, respiration, perspiration, and the evacuations. These must be provided for in all cases, before the farmer can expect anything for the food.

Frequent observations have shown that an ox will consume about two per cent. of his weight of hay per day to maintain his condition. If put to moderate labor, an increase of this quantity to three per cent. will enable him to perform his work, and still maintain his flesh. If to be fattened, he requires about four and a half per cent. of his weight, daily, in nutritious food. A cow to remain stationary, and give no milk, eats two per cent. of her weight daily; and, if in milk, she will consume three per cent. If these statements are correct, which it is certain they are in principle, though they may not be entirely in degree, it will require the same food to keep three yoke of cattle in idleness, as two at work; and the food of every two that are idle, will nearly support one under the most rapid condition of fattening. Two cows may be kept in milk with the same feed that will keep three without.

No practice is more impolitic, than barely to sustain the stock through the winter, or a part of the year, as is the case in too many instances, and allow them to improve only when turned on grass in summer. Besides subjecting them to the risk of disease, consequent upon this privation of food, nearly half the year is lost in their use, or in maturing them for profitable disposal; when, if one-third of the stock had been sold, the remainder would have been kept in a rapidly improving condition, and at three years of age they would probably be of equal value, as otherwise at five or six. It is true that breed has much to do with this rapid improvement, but breed is useless without food to develop and mature it.

Ancaster, January, 1861.

W. A. C.

An American Farmer's Visit to Canada.

[We copy from the *Rural New Yorker* the following letter from Mr. John Johnston, an extensive farmer near Geneva, who has particularly distinguished himself, by a thorough and efficient system of draining his land, and other agricultural improvements. Such a man's candid opinion of our agricultural doings in Canada is worth a permanent record in our columns, and deserves the best attention of our people. We