

of raising neat cattle to a certain age. It now remains for us to show what the same quantity of land might produce, applied to the breeding of sheep. We do not in this estimate include the cost of any food, except hay and grass, which we conceive the land assigned to each species of stock would be able to give. There might be something extra for cows in spring. First year one acre of land might be sufficient to support two sheep at one year old, which would give two fleeces of wool, and perhaps two lambs. The second year these two sheep might be kept, and one of the lambs sold in the fall. They might give two fleeces of wool, and three lambs, selling one of the latter before the end of the second year. The third year there might be five sheep and five lambs, yielding three fleeces of wool. Hence at the end of three years, four acres and a half of land would have maintained the above number of sheep, increasing the stock from two one year old ewes, to five full grown ewes, and five lambs, and also giving seven fleeces of wool and two lambs sold off. We do not estimate for casualties, but we think sheep are not subject to many, if properly kept. The value of this increase of stock and of wool, we think, would bring the profit of sheep to be equal, if not to exceed, that of neat cattle. In all this estimate, we have not attempted to do more than show the quantity of land required to keep animals for a given period. We shall now endeavour to show what an equal quantity of land would produce under arable culture. We must take the produce of the land for three years in one case, and for four crops in another. For three years we shall estimate for one acre and a half of land of good quality. 1st year, ploughed up and sown with oats or peas—yielding 40 bushels of the first or 20 of the last. 2nd year, cleaned and manured, if after peas, for potatoes, and if after oats for beans—or perhaps from the uncertainty of potatoes, beans might be substituted in either case for the present. Twenty large cart loads or more of manure would be required for this crop, and two ploughings and two harrowings, besides the planting and after cultivation, which would be about equal for either crop. The seed for potatoes would, however, be about four times as expensive as the seed of beans, according to the present rate of each. The produce of potatoes we could not estimate now at more than 150 bushels to the acre while subject to disease in the seed and crop—beans at about 20 to 30

bushels to the acre, and we think the latter might easily be obtained, as Canada is most favourable for them. The comparative value of these crops to the farmer, we believe, would be found nearly the same, as the expenses of potatoes are much more than of beans, in seed, in harvesting and in selling. The 3rd year, the land to be in wheat, estimated at 24 bushels to the acre—in this case we shall estimate at the rate of six acres and four crops, as would be necessary should the animal be fattened and kept to the fall of the fourth year; the land would produce a crop of hay as the fourth crop, suppose, 200 bundles to the acre. The following will be the result of the produce of the land in each case:— $6\frac{1}{2}$ acres of land will produce a fat ox $3\frac{1}{2}$ years old, estimated to weigh 800 lbs. beef, hide and tallow. 5 acres would produce a cow 3 years old fit for the dairy and estimated to be of equal value as the fat ox. $1\frac{1}{2}$ acre of land kept in crop, allowing half an acre for waste to make up 5 acres in the 3 years, would produce the first year in oats or peas (estimated at equal value) 40 bushels of the first or 20 bushels of the last, to the acre, that would be 60 bushels of oats or 30 of peas. Second year, the same land in potatoes or beans (considered of equal actual value to the farmer) in potatoes at 150 bushels to the acre, 225 bushels, or in beans at 30 bushels to the acre, 45. Third year, in wheat at 24 bushels to the acre, 36. Fourth year, to make up $6\frac{1}{2}$ acres, 200 bundles of hay to the acre would make 300 bundles. The gain on sheep kept on five acres as above at the end of 3 years would be three sheep, seven lambs and seven fleeces of wool. The cost of tillage, manure, seed, harvesting, thrashing, &c., over the return of straw, we could not estimate at less than from thirty to forty dollars, not including the extra expense of potatoes, as we only value a crop of potatoes to be equal to that of a crop of beans to the farmer, after they are disposed of, and all expenses paid. This estimate may assist to show the comparative produce of land applied to raise animals and grain and green crops. It might be desirable to continue the estimate with regard to dairy produce, but this produce varies so much in value according to the situation where it is made, that it would be impossible to be very accurate. Where butter only is made, the profit cannot be so great as where cheese also is made. In any situation, a suitable cow for the dairy for which we would appropriate from 3 to 4 acres of good land to provide her with grass and hay.