

PART II.

FEEDING LAMBS ON DIFFERENT RATIONS.

This experiment relates to feeding lambs on three different rations during the winter season. It may be fitly designated an experiment within an experiment, as the lambs used in conducting it were at the same time being fattened for the British market. (See Bulletin LXXVIII.) The 100 lambs used in the experiment were divided into four different groups, with 25 animals in each group. But for reasons to be given below the experiment was confined to three lots.

On December 31st, 1891, they were all weighed and the test commenced the following day. It closed April 30th, thus covering a period of 120 days. The leading object of this sub-experiment was to ascertain the respective values of the various rations used for fattening lambs.

Conditions governing the Experiment. The 100 lambs were so divided that those in each of the four groups were nearly equal in quality. They were then put in the four equal-sized compartments of the same closed shed, the internal divisions of which were made by feeding racks running across the building. The racks were so arranged that the lambs in each compartment could feed on the opposite sides thereof, thus affording them plenty of room for taking their food. The shed is 76 feet long and 28 feet broad outside measure; hence each compartment was virtually 19 feet by 28 feet, from which the room occupied by the feeding racks is to be deducted. The ceiling is 9 feet high, and the food was kept on the loft overhead. Each compartment has a low wide door which was kept open all the time, except in the stormiest weather. The yards in front of the compartments, one for each, extended out about 16 feet from the shed. All the food given them was accurately weighed, and it was given in two feeds daily. They were plentifully supplied with water and salt.

Food and Feeding. The lambs in No. 1 group received a ration consisting of grain, bran, roots and hay. The grain ration consisted of oats, peas and bran fed in the proportions of 2.2 and 1 parts. The roots consisted of turnips and mangels sliced. The hay was principally clover, and it was fed whole. Those in No. 2 group received the same quantity of whole oats by weight as were given in grain and bran to the lambs in group 1, and roots and hay the same in character. The lambs in group 3 were fed mixed grains similar in quantity and quality to those in group 1. In addition they received virtually all the corn ensilage they would eat, and also hay. Those in group 4 were fed grain, bran and roots, the same as the lambs in group 1, and in addition all the pea straw they would take,