ence of animals upon each other for their share of freedom from disease is also a subject that must claim greater attention than it has yet done. In both these departments there is a call for the exercise of skill and judgment. There is need for the adoption of principles which shall especially apply to the preservation of the health of our live stock, and thus secure sound flesh as human food; and the necessity for these once rightly understood by the farmer, he will find his profits much larger and more permanent than by attempting to make marketable the disreputable carcases which find their way to the tables of the poor. Let him study the position which he occupies in relation to the public good. Like his corn and other farm produce, his cattle should be grown and sold in good condition. There is no reason why the losses on a farm should not be reduced to the smallest minimum and this may be done by taking advantage of the assistance which veterinary science can offer.

Our flocks of sheep are capable of being produced to an enormous extent, and to afford a corresponding yield of profit; and, as their carcases form such a large proportion of human food, we have an additional reason that care should be exercised to insure the flesh being all that is desired in point of purity and excellence. There should be a closer union between agriculture and veterinary science. The wealth of a nation largely depends upon the health of its cattle and sheep. There are numerous diseases capable of being transmitted to man from both. Such diseases cannot be understood in their nature, origin, cause, cure, or prevention, by any but those who have had special training in medical science. The health of our flocks and herds means so much of health in the human population. Let the farmer grow rich by his success in breeding and rearing, for his riches bear a corresponding ratio to the comfort and satisfaction of the people who desire a wholesome food at a fair price.

J. LAURIE.

CONSERVATION OF SOIL-MOISTURE.

Of all the problems that the farmer has to consider, this one forces itself to the front. There is no subject so important in agriculture and none which has received so much attention of late years as the one which touches the conservation of soil-moisture. We know that a certain quantity of water in the soil is necessary to render its fertile constituents available, and that a deficiency in this required amount makes a difference between a good crop and a poor one. A few figures will help us to understand the importance of this fact: 60 to 98% of water enters into the composition of plants, and this amount, large as it is, is but a fraction of the total sum required during the growth of the plant. It has been calculated, from reliable experiments, that in raising oats every ton of dry matter represents an expenditure of 522 tons; potatoes use 422 tons for the same amount and corn require 309 tons.

Great as these requirements are, the annual fall of water in our country would be quite sufficient to meet them, but owing to its unequal distribution and the irregularity of the rain-fall, our crops are liable to suffer severely from droughts, unless proper methods are employed to retain in the soil, at the disposition of the plant-roots, the water which it has received from previous rains. Too often, unnecessary loss of moisture is going on in our cultivated fields, during the summer days, till the quantity left is insufficient for the requirements of the plant. Then, no matter how good the soil may be in other respects, the growth of the plant is checked and the crop is reduced in yield.

The different methods recommended to prevent the evaporation of soil-moisture have been the cause of many discussions. Interesting experiments were conducted during last season at the Ontario Agricultural College, and in co-operation on a certain number of farms throughout the province, in order to determine which of these methods was the most efficient. At the O. A. C. 3 plots, situated on a gentle slope, were selected, each 1 square rod in superficies. On the first, the surface soil was kept lo se by means of the harrow; on the second, the roller was used to keep it compact; on the third, oats were grown. Samples of earth were taken every day, at different depths, for 3 months, and the quantity of water contained in each determined. The results were as follows:

	1st foot	2nd foot	3rd foot
From loose surface:	17.7	19.6	18.7
" compact surface:	17.1	17.6	17.9
" plot growing oats:	17.2	18.9	16.6

Other tests were made on the following grounds:

1. Field growing turnips, clay soil, well cultivated during the period of growth.
2. Field growing wheat; clay soil.
3. Field growing barley; sandy soil.