

duced less than the unmanured plots. It is not uncommon to find scarcely any difference; but the reason of less being produced in this case is probably because one of the two plots (all trials were in duplicate) dressed with these mineral manures was inferior in natural character, as it yielded 13 bushels an acre less than its duplicate. The best results have been obtained from the common mixture of nitrate of soda and superphosphates, but in ordinary rotation cropping, smaller quantities suffice.

EXPERIMENTS WITH MANGOLDS AND OATS.

In some experiments carried out by the Essex Agricultural Society, the principal object was to show how far the manures applied to the mangold crop, in 1887, would benefit the oat crop of 1888, which was not manured. In 1887 it was proved that the manures which had produced the greatest weight of roots in the preceding mangold crop, gave the best yield of oats, thus showing that the manure was not all exhausted by the mangold crop. Out of eighteen plots two were unmanured for mangolds in 1887, twelve were dressed with 12 tons per acre of dung, some with and some without artificials, and four with artificials only. The results for mangolds in 1887, and oats in 1888, are shown below:—

Average yield per Acre of	1887.			1888.		
	Tons.	Cwts.	Bushels.	Tons.	Cwts.	Qrs.
Plots unmanured	11	12	69.41	2	1	1
Dung only	12	12	69.52	2	1	1
Dung and artificials, including nitrate of soda	15	12	74.57	2	4	2
Dung and 2 cwt. of nitrate of soda, with or without other artificials	15	17	83.08	2	4	2
Dung and 4 cwt. of nitrate of soda, with or without other artificials	15	8	76.61			

The great yield of oats after nitrate of soda and artificials, applied to the preceding crop, shows that the nitrate had not been all exhausted, or else that benefit resulted from the leaves and rootlets left after the great crop of roots had been cleared off the land. As to profit, there was only one instance of it where dung was used, valuing the roots at 10s. a ton, and oats at market prices; whereas artificial manures paid well. The report states that 4 cwt. of nitrate of soda, costing £2 2s., gave an increase valued at £2 11s. 6d. per acre. Superphosphate, 3 cwt., with 4 cwt. of nitrate of soda, costing £2 11s. 3d., gave an increase valued at £3 19s.; while 6 cwt. of guano with 4 cwt. of nitrate of soda, costing £4 6s. 6d., gave an increase valued at £6 5s. 6d. The most costly artificial dressing where no dung was used was, therefore, the most economical.

GREAT DEMAND FOR SHIRE HORSES AND CLYDESDALES.

I am glad to see that a Shire Horse Association has been formed in Canada. In this country the Shire Horse Society and its Stud Book have proved very beneficial to breeders, and

there is now a great demand at home and abroad for good horses. A successful sale of Shires was held the other day, when the stud of the late Mr. German, of Measham Lodge, Derbyshire, was disposed of. Sixteen mares of various ages averaged £85 13s. 10d., and fourteen stallions, £72 13s. 6d. One of the latter, Measham Pride, realized 225 guineas. Clydesdales are selling equally well, the average for forty sold at the Seaham Harbor sale being £77 9s. 1d., while the top price was no less than £341 5s. At the recent Shire Horse show and sale in London, a few horses sold at still higher prices.

Are Dogs a Necessity?

BY JOHN DRYDEN, M. P. P., BROOKLIN, ONT.

This question will be answered by different persons in accordance with the circumstances in which they are placed, and their early education. To the shepherd, handling large flocks of sheep without any other assistance than his dog or dogs, they are certainly a necessity. But to the ordinary farmer in this country, who has no such work to perform, I unhesitatingly affirm that the presence of a dog on the farm is not at all essential. Nor are dogs generally kept because of their usefulness. The affirmation was made in the legislature, and elsewhere as well, that not one dog in fifty, take them as they come, can be proven to be of any use whatever. They are nearly always pets of the family, as much endeared and doted upon as any member of it. No one may harm it without incurring the ill-will of almost every member. Such persons think they cannot do without their dog, but any outside opinion of the same dog would be of an utterly reverse nature. For at least twenty years in the past, on my farm of four hundred acres and upwards, no dog has been allowed; not because there is no fondness for pets, because that is a characteristic of the family; but because the conviction has been growing that a dog is not needed, and may prove not only useless but destructive and even dangerous. He has, therefore, been discarded, and no inducement could be given, after these years of experience, strong enough to cause one now to be kept.

There are some useful dogs, but they are vastly in the minority. Few people have taken the trouble to inquire what the dogs of our country cost to maintain. Early last winter, from actual returns received from the township municipalities in the south riding of Ontario, I discovered that fully \$1,000 worth of sheep were destroyed annually by dogs. Presuming that the same death rate occurs in the north riding, we have an annual destruction in the county of Ontario of two thousand dollars. This has been going on from year to year for a long time. In 1882 a return was asked for in the legislature, showing the number of sheep killed and injured for the three previous years. Out of four hundred and eighty municipalities only one hundred and thirty were heard from, which is less than one-third of the whole. In these municipalities the return showed that the number destroyed for the three years was 9,943. Total amount paid, \$38,621. But this, it will be remembered, covers only two-thirds of the actual value. If we add one-third, we shall have \$51,494 as showing the actual value of sheep destroyed during the three years covered by the return. But as only one-third of the Province was included in that return, and assuming that the destruction was similar in the portions not reported, we have the astonishing

sum of \$154,476 worth of sheep destroyed in the Province of Ontario during those three years, or an average of \$50,000 each year.

If it be any comfort to know that others are similarly situated—and it is said that misery loves company—perhaps it might be interesting to note how the destruction goes on annually in Ohio, U. S. From returns published through the proper department, we learn that the total number of sheep killed and injured for the year 1888 was 59,560, and the total valuation, \$146,202. The Ohio Farmer of October 27, 1888, published a list for the past eight years. The totals of killed and injured were 432,828, and the total value, \$1,215,747. The number of dogs owned in that State is computed at 300,000. I do not know what it costs to keep each one; but perhaps a fair estimate would be \$5 per year. If that be correct, the total cost for keeping these dogs that worried the sheep during the eight years for which the table is given would be \$12,000,000. Add to this the value of sheep destroyed, and you have a total of \$13,215,747.

The question I ask just here is, are they worth it? I maintain they are not; and if every dog could be banished from this province to-morrow and the destruction of sheep stopped, an immense gain would be made in this branch of agriculture. This province would be just that much richer. This, however, cannot be done; and if dogs must be kept by persons who determine that they cannot get along comfortably without them, what course shall be taken to limit the destruction which is sure to follow? The thought upon which the bill before the legislature during the last session was based, was that, to double the tax on dogs and make it universal, would limit the number kept to those alone which were of practical value, and would prevent large numbers of persons, unable properly to keep themselves, from being the harborers of dogs allowed to prowl about the country at will. Dogs of value are generally cared for and kept under proper control. It is the dog of no merit, except that he is my dog, which most needs extirpation. The second thought was, that persons who insisted on keeping dogs should be compelled to keep them in charge and under control; that if they permitted them to wander about the country at large they did so at their peril,—such dogs being liable to be shot while straying away.

My position is briefly this: First, outside of exceptional cases, dogs are not a necessity, but, at best, an expensive luxury. Second, the vast majority can be shown to be utterly useless except as pets of the household. Third, they are dangerous both to person and property. Besides the destruction to sheep, so constant, how many ghastly wounds are inflicted on children by dogs roaming the streets? How many valuable robes are torn and ruined by the useless road cur grabbing at the sleigh or cutter? How many flower beds are scratched and torn beyond recognition by these night prowlers? How many vegetables are saturated and made unfit for food by these inveterate leg-lifters? How many horses are daily frightened and set to kicking, tossing the occupant of the vehicle headlong in the ditch, at the risk of neck and limb, by these barking whelps, who allow no one in peace to use the Queen's highway? And all this for what? Who can tell?

Mr. George T. Powell mentions that every farmer he has known who has raised trotters as a business, bred a good-sized mortgage at the same time.