

position of materials to form humus in the earth drive off the air to a considerable extent, a thorough loosening of the soil is advisable. If it were not for this pressure of the air upon the earth the water would not percolate down through the soil, as it is the air pressure which forces it down. This can be easily understood by withdrawing the air from the cylinder of a pump and note that the water then rushes upwards instead of downwards when the air pressure is lifted from it. The soil then gets its air mostly by the air following and occupying the spaces from which it ousts the water, and it then forms pockets, or rather bubbles, in the soil. Each of these bubbles, or pockets, is surrounded by a film of water. Minute bubbles constantly detach from the storage pockets and pass to the roots of the growing plant by the water which carries the other food materials.

Now we see throughout this whole operation of farming there is a

STEADY DEPLETION OF PHOSPHORIC ACID,

and when we consider the axiom "a good phosphatic heart is the basis of all successful agriculture," it presents to us a very serious problem. After a careful practical study of the manuring question, I am of the opinion that our best lands can be brought to produce double and treble the feeding value of the crops usually obtained from them. I also feel assured from successes which I have observed that our seemingly worn-out lands can, under rational methods of cultivation and manuring, be profitably brought to the highest condition of agriculture. I will even go so far as to say that the richest wheat lands of Manitoba are only half producing. The qualities of our

ONTARIO GRAINS

can be materially improved. Our fodders and roots can be doubled and trebled in their feeding value. Our fruits can be improved, both in keeping and nourishing qualities. Grapes can be increased in quantity of yield and improved in the quality of the wine they produce. The attacks of fungoid diseases can be lessened and even the ravages of insects withstood by properly grown crops.

The tendency of the age has been either to manure blindly or else to manure too accurately, by which I mean a hand-to-mouth plan of attempting to suit just what we consider the requirements of the plant's existence. Indeed if it were not possible to greatly increase the productivity of the land, there would be a poor outlook for the continuation of the human race for another century. I am, however, no pessimist, but rather an optimist. I have faith in Mother Earth, and I want to see Canada take the lead in showing the world that the path to health, wealth and contentment lies through the meadows and the grain fields and beneath the orchards and the vineyards. But this path must be hewn out by the Axe of Industry, turnpiked by the Plow of good Husbandry, and kept in condition by the Cultivator's Art, under the administration of True Economy.

Would Not Lose a Copy

HAMILTON, P.E.I., March 20th, 1899.

GENTLEMEN,—Please find enclosed \$1 for which send FARMING for one year from March, 1899. Have taken FARMING from the start. Occasionally I lend the paper, but would not lose one on any account.

Yours,

A. E. SIMPSON,
Hamilton, P.E.I.

A Dollar Well Spent

CLINTON, ONT., March 23rd, 1899.

GENTLEMEN,—Enclosed you will please find cash \$1 to pay my subscription for FARMING for the year ending 31st December, 1899. I like your paper very well and consider it a dollar well spent to any one interested in farming.

Yours truly,

HENRY PLUMSTEEL.

CORRESPONDENCE

The Kind of Cattle for Export

To the Editor of FARMING:

I read with much interest Mr. Bowman's letter in FARMING of January 17th on "Breeding Cattle for the British Market," and the idea struck me that while Mr. Bowman claims so much for the Angus or the Angus grades he forgot to tell the public that there were other breeds. I have been a breeder of Devons for the past thirty-five years, and they are my favorites, and at the present time I do not know of any breed that I could invest in that would please me as well or pay me better to keep; but I do not think that they are the only good breed. Every man to his own fancy, however. While the "Rubies" are holding their own in the controversy going on in the Chicago *Breeder's Gazette* during the past year in reference to the dual purpose cow, I think they can also hold their own as an export cattle, being such easy feeders and coming early to maturity. I at one time raised a steer from a scrub of a cow crossed with a Devon bull. It never tasted meal until two years old. I sold it when two years and ten months old for export, and it weighed 1,500 lbs., and the price paid was 7c. per lb., and it was pronounced to be the best carcass killed in the Glasgow market that season. I have a few grade Devons at present that I think would be no disgrace to any yard; some of them I hope you will hear from in the near future.

Mr. Bowman seems to be very proud of his four-year-old grade Angus heifer, and I think he has every reason to be. She was as fine a specimen of the breed as I ever saw, but it is a good animal that cannot find its equal. I fed last year a Devon cow seven-year-old that had raised two calves. She met Mr. Bowman's heifer four times in the show ring. Twice the Devon came out ahead, with butchers for judges, and twice the Grade Angus with breeders for judges. I think this very good, considering that one was a cow and the other a heifer.

Yours respectfully,

Eden Mills, Ont., April 5th, 1899.

W. J. RUDD.

The Dog Nuisance

To the Editor of FARMING:

I am very pleased indeed to notice a number of your correspondents discussing the dog sheep question. I think we fail to have anything like a true conception of the importance of this question—of its vital importance to our agricultural interests. There is no question but that if it were not for dogs there would be thousands more sheep kept in this country. Now, how are we to overcome this difficulty? We must devise some method that will rid the country of a great horde of the miserable curs that infest our land. I feel certain that at least four-fifths of the dogs in this country ought to have their tails cut off close behind the ears, and top-dressed with a little earth, as it would increase their usefulness very materially. As far as I am concerned, I cannot find room on my farm for a dog of any sort. They do more harm than good in nine cases out of ten.

It is, however, time this matter was taken up seriously, and means devised whereby we shall be relieved of a great deal of worry and loss as sheep-raisers. It does appear to me that the license fee ought to be raised. The sum of \$1, which appears to be the universal fee, is certainly too small. It should certainly not be less than \$3, or better still, \$5. There is another thing which ought to be remedied. As it is now, it is almost impossible for a farmer living in the immediate vicinity of a town or city to keep sheep on account of the dogs in the town. There ought to be some arrangement whereby the dog tax in the town, would go to pay the damage done by the town dogs in the country.

We could give instance after instance where sheep were worried by dogs from the town, but the country mu-