

are to-day completely exhausted. We cannot succeed in making our farms give us a better yield except by supplying them with plenty of manure, and of all manures, the best is good farm-yard dung.

I have, therefore, Gentlemen, the right to say that pig-breeding is of great service to agriculture in general, since it increases more than any other the mass of manure, and serves to improve the land.

Almost all of us cultivate fodder-corn for our milch-cows, and we are all agreed that it is one of the best green-crops for the production of milk. These qualities make it valuable to us, especially as regards the dairy-business. Well, Gentlemen, the numerous experiments I have made to find out the best manure for corn have led me to this conclusion: pig-dung is the best manure of all for corn. I am certain that all those who will try it in the way I am about to point out will find an immense advantage in using it for that plant: Into the drills or rows, throw about a quarter of a shovelful of this dung (*that is, I presume, of pig-dung: Trans.*), that is, about one-fourth or, at most, one-third of the quantity of horse-dung, cow-dung, or of these two mixed, which we generally use.

One example in conclusion. I sowed at the same time 2 arpents of corn, on the same piece of land, and under the same conditions. One acre was manured with pig-dung, in the way I have described, and it gave me 16 double loads of ears.

The other arpent, dressed with mixed cow- and horse-dung, received three times as much as the other, and gave me only 9 loads of ears.

I have done, Gentlemen. Some of the details may have seemed rather long to you, but it is very difficult to avoid lengthy details in a description, especially when one heartily wishes to be thoroughly understood. As I said above, a detailed plan accompanies my lecture. This may perhaps assist some of you in erecting his buildings. That is all I can desire. I thank you, Gentlemen, for the kind attention with which you have listened to me.

ANT. CASAVANT.

### DISCUSSION.

M. PAQUET.—Most farmers are exempt from the necessity of building piggeries as large as those described by M. Casavant.

This question is connected with that on which I have spoken: the improvement of rural buildings. It is important that those who are interested in the question of piggeries, should endeavour to combine them with the system of improved buildings, so that these piggeries may be connected with the manure-shed, and with the boiler house in which the food of the stock is cooked.

M. CASAVANT.—The reason that determined me to build my piggery in the form in which I have described it, is the advantage it gives me to be able to fat my hogs in winter, so that I may have bacon in the spring. You know how scarce bacon is in spring. If your piggery is cold, you cannot make cheap pork. Whether it be large or small, it must be warm and airy.

All those who have studied the matter a little know that if your piggery or the stall of any other beast be cold, some of the food will be used as a heating-power, instead of its being converted into fat. I, therefore, preferred building a warm piggery, and I find it cheaper than to burn pease or corn in the bodies of my hogs to warm them.

M. PAQUET.—My remarks are not opposed to your views, M. Casavant; I only wish to instil into the minds of the farmers the idea of warming the piggery by means of the kitchen in which the food of the beasts is cooked.

M. CASAVANT.—My first set of buildings which contained under the same roof 55 head of horned stock and 6 horses, were burnt; so I had to rebuild as well as I could on the ruins. Still, every part is utilised. The dung is all under cover; there only remained the manure of my horses which was out of doors, and for some years, I thought of getting that under cover, for I saw that the most valuable part of it, the urine, was escaping. Now, thanks to the new buildings, and to the shed I mentioned, the stable-dung, which is hot and the only dung that gets fire-fanged in winter, is mixed with the cooler dung of the pigs and cows, and these three improve one another. They are moistened by the pump which I have on my liquid-manure tank.

M. PAQUET.—Can your pigs easily get into your dung-pit?

M. CASAVANT.—I keep my young pigs in my dung-pit, and my fattening-hogs in the piggery.

M. PAQUET.—Very good, as long as there is a certain number of pigs which can get into the dung-pit. Your hogs are, no doubt, in good order, since they do not suffer from cold.

M. CASAVANT.—They grow as fast in winter as in summer. I even think they fatten faster and more cheaply in winter, as there are no flies, and the heat is not too great. The sties too, when the doors are shut, are dark. When they have been fed and have finished their meal, they are in a sort of half-darkness. You would take my four-months old pig to be six months old.

M. CHAPPAIS.—As we are talking of pigs, I have a question to ask you. In our district, below Quebec, we have no grain this year, and corn being the cheapest thing to buy, we buy it for our pigs. What do you think of corn for this purpose, and what is the best way of preparing it?

M. CASAVANT.—I bought two carloads of corn for my pigs this year. I bought a crusher, and I mixed the crushed corn with one-third of barley or other grain. I prefer mixing it to giving it alone.

M. CHAPPAIS.—Why?

M. CASAVANT.—Because the pigs get tired of it; they get disgusted (*se ouillent*) at getting corn alone, and it is a bother. And besides, the more difference there is between the composition of these grains the better; they complete one another.

This is the mode of preparation:

I have a large pot, holding from 50 to 55 pails, in which I warm my water. When it boils, I throw in the crushed corn, and after the mash (*bouette*) has been a couple of hours on the fire, it is drawn off and allowed to steep four 12 to 24 hours. I then serve out this preparation, which in the hot vessel retains its warmth for many hours. It takes at least 12 hours to cool. I have plenty of tubs to hold it, so that we can make it several days in advance.

M. CHAPPAIS.—You recommend, then, crushed corn mixed with barley and boiled: you find that the best?

M. CASAVANT.—Yes; ten pounds of oats are equivalent to 7 lbs. of barley. Oats do not yield so rich a manure as barley. In breeding it is different rather, for oats are of a stimulating character. Up to the age of three months, I consider oats and barley mixed to be the best pig-food. Corn gives young pigs small limbs; and until they are 4 or 5 months old they should have very little corn. Before developing fat, the bony frame, the general structure of the animal must be developed. As soon as that is done, then fattening may be begun; that is the whole secret of successful breeding; I do not give my young pigs grain only; up to 4 months, they get green-meal, mangels, boiled potatoes, mixed with a little meal, and a few pease. A ration of roots is given every day.

An experiment I made this summer: in one sty I put two