

This manure contains, according to an average of several analyses, 80.0 per cent. of organic matters, and 14.1 per cent. of phosphates of lime and magnesia, besides some common salt, a little carbonate of lime, small portions of sulphate and carbonate of ammonia, and only 1.0 per cent. of water. The nitrogen of this manure, which is almost wholly in the form of organic matters, corresponds to 14.5 per cent. of ammonia, and we may estimate the phosphoric acid, which is here present in an insoluble form, at 7.0 per cent. If we calculate the value of this manure according to the rules above laid down, we shall have as follows for 100 pounds:—

Ammonia,— $14\frac{1}{2}$ pounds, at 14 cents,	\$2.03
Phosphoric Acid,—7 pounds, at $4\frac{1}{2}$ cents,	0.31 $\frac{1}{2}$
	\$2.34 $\frac{1}{2}$

This is equal to \$47 the ton of 3000 pounds; the manufactured product of Concarneau, however, according to Payen, is sold in the nearest shipping ports at 20 francs the 100 kilogrammes, (equal to 220 pounds), which, counting the franc at \$0.20, is equivalent only to \$1.81 the 100 pounds, or a little over \$37 the ton. This however was in 1854, since which time the price of manures has probably increased.

Mr. Démolon in company with his brother, has also according to Payen, erected a large establishment for the manufacture of this manure on the coast of Newfoundland, at Kerpon, near the eastern entrance of the Strait of Bellisle, in a harbor which is greatly resorted to by the vessels engaged in the cod-fishery. This manufactory, now in successful operation, is able to produce 8,000 or 10,000 tons of manure annually. Payen estimates the total yearly produce of the cod-fisheries of the North American coast to be equal to about 1,500,000 tons of fresh fish; of this, one-half is refuse, and is thrown into the sea or left to decay on the shore, while if treated by the process of Démolon, it would yield more than 150,000 tons of a manure nearly equal in value to the guano of the Peruvian islands, which now furnish annually from 300,000 to 400,000 tons. If to the manure which might be obtained from the cod-fisheries of the Lower Provinces, we add that of many other great fisheries, we are surprised at the immense resources for agriculture now neglected, which may be drawn at a little expense from the sea, and even from the otherwise worthless refuse of another industry. To this may be added vast quantities of other fish, which at certain seasons and on some coasts are so abundant that they are even taken for the express purpose of spreading upon the adjacent lands, and which would greatly extend the resources of this new manufacture. The oil, whose extractions is made an object of economic importance in the fabrication of manure from sardines in France, exists in but very small quantities in the cod, but in the herring it equals 10 per cent. of the recent fish, and in some other species rises to 3.0 and 4.0 per cent.

Mr. Duncan Bruce of Gaspé has lately been endeavoring to introduce the manufacture of fish-manure into Canada; but he has conceived the idea of combining the fish-offal with a large amount of calcined shale, under the impression that the manure thus prepared will have the effect of driving away insects from the plants to which it is applied. He employs a black bituminous shale from Port Daniel, and distilling this at a red heat, passes the disengaged vapours into a vat containing the fish, which by a gentle and continued heat, have been reduced to a pulpy mass. The calcined shale is then ground to powder and mingled with the fish, and the whole dried. Experiments made with this manure appear to have given very satisfactory results, and it is said to have had the effect of