

prepared and applied, is found to be extremely beneficial. Strong artificial manures, however, such as guano, bone dust, &c., require much caution and judgment in using them for flax. Indeed, it has been generally found most beneficial where a heavy dressing of manure is applied to land intended for flax, to use it for the previous grain crop, as the flax-plant usually succeeds well immediately after either wheat or oats. Fresh, stimulating manures, are apt to cause the plant to grow too rapidly, therefore producing a weak and coarse fibre; whereas *strength* of fibre is the quality which constitutes its principal value for manufacturing purposes.

The ground properly prepared and clear of weeds, the seed may be sown broadcast, an operation that should be performed with the greatest care with regard to uniform distribution. Sowing should commence as early in spring as the weather and the state of the land will admit, which in this climate will not be the case, in general, before May. The quantity of seed should be varied to suit special purposes and conditions. If the raising of heavy, plump seed be the principal object, then a smaller quantity will suffice—say about 6 pecks per acre; but for ordinary purposes from 2 to 2½ bushels will be required. If particularly fine flax is desired, such as is used in making the best lace and cambrics, 4 bushels, or even more, must be sown. Riga seed is said to produce the finest quality of flax; but the American would answer our purpose generally, at least for the present; but in flax, as in other things, a frequent change of seed is advantageous and necessary. Before sowing the seed, too much pains cannot be taken to free it from all descriptions of weeds, with which it is more or less commonly mixed. Select that which is plump, shining and heavy. The practice of sowing clover and grass seeds with flax cannot be commended, except for special occasions. After the seed is sown, it should be evenly covered, about an inch in depth, by the action of a light harrow, being careful to leave the land in a smooth, firm state, with the roller, with no more open furrows than are absolutely required for the taking away of superfluous water.

We would strongly urge upon the attention of our readers the inexpediency of having more land under flax culture than can be properly prepared and thoroughly managed. This caution is indeed as careful as regards the cultivated plants of the farm generally; but in respect to flax, and the crops especially, the difference between

good and indifferent cultivation, will in the main be found to consist either in an encouraging and remunerative return, or a disheartening and serious loss. Beginners, especially, should commence with a little, and, to conclude this paper, we would say, emphatically, *cultivate that little well.*

IRRIGATION BY LIQUID MANURE IN GREAT BRITAIN.

The February number of the *Farmers' Magazine*, contains an interesting paper from the prolific pen of Mr. Cuthbert Johnson, on the progress making in England as well as Scotland of fertilising whole farms by means of liquid manure;—a substance which till late years was too frequently allowed to run almost entirely to waste. Capacious tanks are made for the reception of the fluid excrements of cattle, which, when properly diluted with water, become a safe and efficient fertiliser, and is distributed over the fields belonging to the farm by means of pipes made of iron and gutta percha, attached to a pump, worked by a steam engine. The outlay in the first instance is of course very considerable, but in all cases, it would appear, when the experiment has been fairly and judiciously tried, the benefit produced has far exceeded the expense.

Myer Mill Farm in Ayrshire, occupied by Mr. James Kennedy, consisting of 400 Scotch acres, is an instance that may be cited for showing the beneficial and economical application of liquid manure on an extensive scale. The whole expense of the apparatus for fertilising this farm is stated as follows:—

Four Tanks complete - - - - -	£300	0	0
Steam Engine (12 Horse-power) - - -	150	0	0
Pumps - - - - -	80	0	0
Iron pipes, laying, and hydrants - - -	1000	0	0
Gutta percha distributing-pipes, &c. - -	56	0	0
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	£1,586	0	0
Annual interest on £1,586, and wear and tear, at 7½ per cent. - - - - -	£118	19	0
Annual wages - - - - -	104	0	0
Fuel - - - - -	58	10	0
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	£281	9	0

This amount, divided by the number of acres, is equal to the annual sum of 14s. per acre.

The results are said to be highly satisfactory. Four or five heavy crops of grass have been cut in one season from the same land, which, by repeated dressings of liquid manure, not only suffers no diminution by the removal of such crops, but its fertility actually increases. The