

W. Trethewey said bullocks should be tied in to eat their turnips, otherwise the master bullock would deprive the others of their portion. The Chairman said he had had a little experience in box-feeding, and there could be no doubt that bullocks fattened a great deal faster in boxes than when tied by the head.

**MODEL FARM OF NEW JERSEY.**—As the Farm of Professor Mapes is regarded as a pattern, the following account of it, which he has given in the Newark Daily Advertiser, will be read with interest and profit. It shows the advantage of producing a large amount of manure, which may be accomplished by almost every farmer, and mostly with the resources of his own farm.

I would state that my success may be mainly attributed to the use of the subsoil plough and a proper system of manuring.

The land is a very clayey loam, underlaid by clay ten inches thick, on a substratum and decomposed sandstone, and until the clay was cut through by the subsoil plough, the surface was too wet to be productive.

It may not be uninteresting to your correspondent to know the different methods adopted for the manufacture of this manure. The chloride of lime and carbonate of soda is made by slaking three bushels of shell lime, hot from the kiln, with one bushel of common salt dissolved in water. Common salt being composed of chlorine and soda, the lime combines with the chlorine, forming chloride of lime, which, in turn, receives carbonic acid from the atmosphere, and becomes carbonate of soda. This mass should be turned over every other day for ten days, at the end of which time it is ready for use. Four bushels of this mixture, thoroughly diffused through one cord of muck, will decompose it perfectly in ninety days in winter, and in a proportionately less time in summer.

When this muck cannot readily be procured, any other organic matter will answer the same purpose: pond scrapings, river mud, decayed leaves, or even head lands, with one twentieth its bulk of stable manure or weeds, will answer well.

My stables are arranged thus: Under the oxen, cows, &c., the earth is removed to the depth of eighteen inches, making a space capable of holding a half cord of muck for each animal. This muck is covered at night with salt hay for bedding, and the liquid manure voided by the cattle is absorbed by the muck, and rapidly decomposes it. This decomposition is assisted by the warmth of the animal while sleeping upon the bedding. The solid manure is removed from the bedding each morning, and after being mixed with twenty times its bulk of muck, is placed under cover. The muck, containing the fluid portions of the manure, is removed every four days, and is also placed under cover: after ten days the manure heap is turned over, and wetted with a weak solution of nitrate of soda, after which it is permitted to remain until sufficiently decomposed for use—thirty days.

All the weeds of the farm are daily thrown into the hog-pen, and the hogs are induced to root among them, to obtain which they keep the weeds in continuous motion until decomposed. About once in ten days, the pen is emptied; and, after salting the weeds to prevent the possibility of their again germinating, they are mixed with twenty times their bulk of muck, and four bushels to the cord of the salt and lime mixture, and placed under cover, where the mass readily heats, and, after twenty days, is ready for use.

These manures, with the occasional use of special manures for special crops, selected with reference to their chemical components as compared with the requirements of the plant desired to be raised, constitute the manures used.

The amount of manure I am enabled to make by the above methods, and the assistance of six oxen, three cows, three horses, and twenty hogs, is about fifty half cords per week.

The subsoil plough is no less important than a sufficiency of manure, and without its assistance no great results can be obtained.

The capacity of soil to perfect vegetables, is precisely in proportion to the quantity of its particles presented to the action of the atmosphere for oxydation; and not one of the most inconsiderable uses of manure is to leave space by its decay for the admission of the atmosphere.

To bring about these conditions, deep ploughing is necessary; and to avoid bringing subsoil of a sterile quality to the surface, disintegrating to a great depth, the subsoil plough must be used.

My surface plough may be used to turn a furrow of any depth between four, and twenty inches, the depth of action being regulated by the guide-wheel. We always use this plough at one inch greater depth than the thickness of surface soil; thus, if the surface soil be fourteen inches deep, the plough is set fifteen inches. One inch of the subsoil is thus brought to the surface at each ploughing, and by the action of the sun and atmosphere, is gradually converted into loam.

The subsoil plough follows in the bottom of the furrow left by the surface plough, and is usually set at not less than seventeen inches: this plough is so constructed as to throw up nothing, but merely to disintegrate the soil at this great depth, replacing it where taken from without mixing it with surface soil. The advantages beyond the admission of atmosphere, are, that in dry weather the roots can pass down below the sun's more immediate action, and obtain moisture; and in wet weather the excess of moisture can pass down through the subsoil cut. If the land is thus kept free from excess of moisture, it can never become cold or sour. After one thorough subsoil ploughing, the land can be worked for much less expense, and is ready for use at an earlier date in the spring.

My seeds being all planted by a drill-barrow, and the rows of plants consequently equidistant from each other, they can be cultivated and weeded by a horse cultivator, instead of using the slow and expensive hand hoc.

Should your correspondent think proper to visit me, I shall be happy to answer any other question he may wish to propose.

Yours respectfully,  
JAMES J. MAPES.

**ROOKS.**—I have myself little doubt but that there may be a good deal of truth on both sides of the question—(i. e. the utility or inutility of rooks) and the conclusion to which I have arrived is two-fold. 1st, the rook is neither to be preserved nor exterminated, but his numbers kept within proper limits; 2nd, there are circumstances regulated by the nature of the country and its cultivation in the neighbourhood of a rookery, which render such a thing either a nuisance or an advantage. A gentleman, a friend of mine, Thos. Butler, Esq., of Jordanstown, in the county Dublin, informs me that he has shot rooks, and on opening them, for the purpose of pursuing this interesting and important inquiry, has invariably found nothing in the craw but masses of grubs, maggots, and the wireworm.—Richardson.

**FATTENING PORK ON OATMEAL.**—A prime Lancashire porker has been slaughtered at Garstrang, which weighed, when cut up, 671 lbs., and was valued at £15 7s. 6d. It was fed on oatmeal, and is stated to well repay the keeper.