

sure of having a sufficiency of manure for our arable land. In other countries, on the contrary, the farmers never think of manuring their meadow land, and deem it absolute folly to deprive the arable land of any portion of the manure for such a purpose, because meadows always yield some little produce even when left totally to themselves, whereas arable land, under such circumstances, becomes absolutely sterile. Meadows which are irrigated and ameliorated by the overflowing of rivers, the water of which is charged with fertilizing particles, and water, certainly do not require manure. Other meadows, which do not enjoy this natural advantage, should receive some kind of amelioration to compensate for the nutriment annually taken from them when they are mown twice a year especially; if this is not attended to their fertility must annually decrease. It should always be borne in mind that the produce of a fertile meadow may be converted into twice as much, or even more than twice as much manure as the quantity which was applied to it, while arable land bearing corn crops reproduces considerably less manure than that which is required and consumed. There cannot be a doubt that the best way of increasing our stock of disposable manure is to apply it to the meadows, as by so doing we not only augment the fertility of these latter but also obtain the means of manuring our fields and other places which we were previously obliged to leave barren for want of the means of fertilizing them. As this fact is now generally acknowledged by all clever scientific Agriculturists, how comes it, that in most countries the meadows are seldom manured? Because the quantity requisite for the first amelioration is generally raised with such difficulty, for although the manure bestowed on meadow land is sure to be eventually multiplied, yet this does not take place during the first or second year, or, indeed, until after the lapse of six or seven years, the effect of the manure resting through this and even a longer period. It is a capital which, in the time we have mentioned, is tripled, and often quadrupled; but many persons are unable to advance it without impoverishing their arable land. The same manures that may be applied to arable lands may be applied to meadows; there are, however, some that are peculiar to the latter.

"Sometimes, but not often, fresh stable manure is laid on meadows; whenever this is the case, it must be carried to the land and spread over it before the commencement of winter or early in the spring, in order that its soluble parts, being dissolved by the rain, may sink into the soil. This kind of manure is, therefore, only applicable to dry meadows, where it may be carried during those two seasons. When the weather keeps dry, the undecomposed straw may be separated from the rest, gathered together with a rake, and used again as litter. But decomposed dung, such as has been picked up in the farm-yard, or on the roads, is much oftener used on meadows, espe-

cially mixed up with earth. This manure, on account of the seeds of weeds which it contains, would be prejudicial to arable land. The sweepings of houses, saw-dust, hair, woollen rags, and the refuse of the farm-yard, and out-houses, may all be added to it, likewise the sweepings of granaries, barns and haylofts, are set aside as manure for meadows, because they engender too many weeds to admit of their being employed for this purpose on arable land."

The author recommends the application of liquid manure to meadows as very beneficial. He says that one acre of land may be manured completely by putting one hundred sheep upon it for eight nights, and this we believe:—

"Mechanical manures, or those by the means of which the nutritive substances contained in the soil are disposed, as lime, gypsum, marl, turf, ashes, soap-lees, &c., are exceedingly beneficial, especially on very moist or very dry lands. They are not, however, productive of so much benefit on poor, humid soils, as on others. They eradicate moss, and expedite its decomposition; and it is this which renders them so efficacious on meadow land with moss, when applied after the soil has been drained. Gypsum, and the residue of salt works, form very beneficial manure for meadows, and especially for those sown with clover, vetches, or trefoil, as both these substances tend to increase the rapidity and luxuriance of the growth of these plants. An astonishing effect is often produced from earth being carried to the meadow and spread over it. This effect is particularly sensible when the amelioration of earth is of such a nature as to be appropriate to the soil." * * *

We perfectly coincide with Thær on the advantages of manuring meadows. When there is not sufficient hay raised upon the farm to admit of all the straw being converted into manure, the cattle are obliged to subsist upon straw, and the manure made in this way is, by no means, equal to the impoverishment of the soil, in arable culture producing grain crops. The crop of grain tends very much to impoverish the soil, as the grain is generally sold off. The farmer who will make the experiment of providing himself with the due proportion of meadow in good condition, will find it the cheapest and most certain mode of having sufficient manure for his arable land as well as his meadow. Land laid down with red clover, after producing abundant crops for two or three years, will, when ploughed up, yield a better crop of grain than it would the year it was first mown for clover.