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Marl as a Manure.

In most parts of Canada, marl is to be found, being considerably in its composition, and especially in its manuring power. Shell marl is exceedingly rich both in the phosphate and carbonate of lime, and constitutes a mine of wealth to the farmer where it is found in sufficient quantity, especially for soils that have been exhausted from over-cropping. On light soils, any marl, consisting of a large proportion of shell, and but a moderate amount of lime, is found beneficial. As our soils have their degree of productiveness gradually lowered by over-cropping, marl will be found in many places a valuable acquisition, and will improve the soil to which it is applied, through a long series of crops, both mechanically and chemi-

cal. Marls are well suited as a top-dressing to grass-lands, as the substance crumbles by exposure, and the particles become minutely divided. The most profitable application, observes the *Lane Express*, consists in laying it on in layers in the end of autumn, or beginning of winter, when the herbage will be of little value, and when the changes of weather will accelerate the decomposition of the marl by the action of the grass shoots in the spring. It will thus be an even spreading over the surface; and after being harrowed, and the roller being afterwards used, the particles will be well reduced, and pressed into the soil. The crop of grass is

greatly improved; and the land is ploughed for a grain crop in the following years. The marl will be thoroughly matted in the turf, and the vegetable sward which it has raised will most materially promote, by its decomposition, the subsequent fertility of the land. This mode affords time for the crumbling of the marl, and it raises a close vegetable growth, on the decay of which the future crops of grass or grain depend for nutriment. The substance that is used for top-dressing cannot be incorporated with the soil from want of arable culture, and consequently the effects depend on the influence which it is able to exert on the materials with which it comes into contact. By raising a large quantity of grassy herbage in the shape of roots, leaves and culms, it affords, by the decomposition of these substances, when the land is ploughed, a vegetable "pabulum" to the growing crop, to which no manure yet known is superior, if any be equal to it, either in power or durability. Consequently all top-dressing of an earthy nature should be used with the view of producing this growth for the benefit of future crops. The quantity of marls used in this way on grass lands may be stated at an average of forty to sixty two-horse cart loads per acre.

The use of marls on fallows for barley and turnips in the spring, admits of the better mixing with the soil, provided the suitable reduction of the marl be accomplished; which may be done by exposure, if the weather be favourable, before the last ploughing of the land, and when