

Soluble in Hydro- chloric acid.	Carbonate of Lime,	3.60
	Oxide of Iron,	2.74
	Alumina,	1.20
	Magnesia,	.11
	Soda and Potash,	.8
	Phosphoric Acid,	.63
	Silicious sand (very fine)	57.00

It will be observed that, in the above analysis all the substances previously mentioned as contained in fertile soils, are present. This marsh mud is not only a valuable soil, but is carted on upland as an excellent manure. When we take this fact into connection with the circumstance that 87 per cent of the whole is only silicious sand and that only one and a half per cent of organic matter is present, we can appreciate the vast importance of the substances contained in it.

Such soil requires no foreign appliances to render it fertile. It has however one weak point—its small proportion of phosphates; and I suspect, that if there were not occasionally present in it, fragments of fish bones and other similar organic matters which do not appear in an analysis, this deficiency would appear in a somewhat rapid falling off in its productiveness. It is certain, that the best varieties of this kind of soil will bear continued cropping without manure for a very long period. It is however also certain that it gradually runs out, and the owners of the older marshes already have occasion to inquire for the means of restoring its productiveness.

Draining is well known to be essential to the fertility of the marshes, and there are in this Province many valuable tracts of this land in a comparatively useless condition from its neglect. Admitting the sea water to deposit new mud, is also a well known remedy in the case of failing, or naturally poor marsh. It is attended however with the serious disadvantage of causing the loss of several crops.

It seems probable that in the deeper kinds of red marsh, subsoil or trench ploughing might prove very advantageous after the surface has been somewhat run out. There can be no doubt however, that in the heavier kinds of

marsh, it would require to be accompanied by very thorough drainage.

It may also be de-erving of inquiry if the title drains would be more serviceable than the open ditches in common use. Tiles could be very easily and cheaply made of the marsh mud itself, and when once laid, would require far less attention than ditches; and could be laid in any direction, and in any number, without interfering with the working of the soil.

Lastly, the composition of the marsh mud indicates that the application of bone-dust would probably be attended with the most marked results, particularly, in increasing the certainty of grain crops, and in producing the more valuable kind of grasses—Guano would have a similar effect: but a good dressing of bone-dust would be more permanent in its effects. I would recommend to owners of poor or worn out marsh to try the experiment, and calculate from the increase of crops, whether it would not be remunerative.

2. Blue marsh, sometimes called inner marsh, low marsh, corky dyke, grey marsh. This forms the subsoil of the red marsh, and generally occurs in a belt along the inner margin, next the upland, where the surface is lower than the outer edge, in consequence of the tides depositing the coarser mud near the channels, and finer mud in smaller quantity near the upland. In those parts of the Province where the tides are only of ordinary height, all the marsh that exists is either of this kind, or boggy marsh, composed almost entirely of vegetable matter. The blue marsh usually contains more vegetable matter than the red, and assumes the character of a boggy swamp. It emits a fetid smell when recently turned up, and the water oozing from it usually stains the ground with a rusty colour. It has the appearance of being a rich soil, but, though it produces, in its natural state, crops of coarse grass when broken up, it is of little value.

Its chemical composition gives the