true reason of its comparatively worthless character, and also suggests a remedy. The vegetable matter present in this kind of marsh acting on the stagnant sea-water, has decomposed the sulphate of soda, of which a small quantity is present in the tide-water, and has set free its sulphur, in the form of sulphureited hydrogen, which acting on the oxide of iron in the mud. converts it into sulphuret of iron, and changes its colour from red to grey. The sulphuret of iron remains unchanged, while submerged or watersoaked, but when exposed to the air, it passes into sulphate of iron or green vitrol; a substance poisonous to most cultivated crops, except the oat, which can put up with a little of it Hence the bad effects of disjurbing the blue marsh-hence also the rusty colour of its water. Land in this state can be easily tested by drying a small piece of it and making it red hot in the fire ; on taking it out, it will be found to emit a strong sulphurous smell, and on cooling its red colour will be found to be partially restored

The remedy is draining and liming; and such land will usually stand, without injury, a h-avy liming. Draining admits air and takes off the saline water. Lune decomposes the sulphate of iron, and forms sulphate of line and oxide of iron, both useful substances. The cause and cure of the blue marsh thus involves a series of chemical changes; the last of which may be represented as follows:

Sulphurie	1	Sulphurie
Acid and	converted	Acid and
Oxide, of	} {	Lune, with
Iron, with	into	Oxide of
Lune,	)	L Iron.

When the blue marsh is too low to admit of proper dranage, the only mode of improving it is to dig t enches to the tide channels, and thus admit the muddy tide water to deposit over

it a cost of red mud. Both of these m-thods have already been employed with success in some parts of this Province.

Though the blue marsh is by itself so un roductive, yet those varieties of it which contain a good proportion of vegetable matter, when drawn out and composed with lime or mail, form an admirable top dressing for upland grave

3. Intervals or fresh water alluvium occurs along most of our rivers, in variable quantity and quality; but is generally a fine and productive soil. It requires the same management with upland soils, and except where it has a loose gravelly subsoil, would often be improved by draining. It is lancentable to see, in the older settlements, so much of this valuable soil almost ruined by an exhausted system of cropping.

It is worthy of notice that ever since the first cultivation of the alluvial soil of the Euplicates and the Nile, irrigation by running water has been found to be a most efficient means of promoting and restoring the fertility of this kind of land. Many of our intervales are annually overflowed by freshets, and sometimes with very injurious re-But it is a matter deserving of sults. inquiry, whether a regular and systematic admission of the water of the rivers and the tributary brooks, might not repay its expense, by its beneficial Muddy water let effects on the crops. in, in this manner, would not only topdress the soil, but tend to elevate it above the reach of the freshets, and even clear water flowing gently over the surface for a limited tin e, is known to be highly fertilizing, though the theory of its operation is not well un. derstood.

Some useful facts on this subject will be found in Jackson's to at se on Agriculture and Dairy Husbandry.-Times Magazine.

## On Coating Seeds with Manure.

Several letters have lately appeared Ronald, a merchant of that  $\operatorname{city}$ ,  $d^{\theta}$ in a Glasgow paper from a Mr. John tailing the result of several experi-

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