

incredible to see how densely the water is sometimes peopled by these creatures, how rapidly they multiply, in what countless numbers they die. Their skeletons and envelopes, consisting of silicious and calcareous matters extracted from the matter, are almost imperishable. They commix with the mud of the river and come with it to form the deposits of slime that fill up the fertile land, which increases seaward where the waters are still. As the tide advances up its channel, the waters of the river spread and flow over the surface, so that far up the stream, where the upper waters are still sweet, the salt or blackish under current carries the living things which float in it to certain death, and leaves their bodies behind it to add to the accumulating mud. The extensive mutual surface of river and sea waters, which in this way are made to meet, involves a more rapid destruction of infusorial life than could in almost any other way be brought about. Experiment has shown that, as far up as the tide reaches, the so-called alluvial deposit, in and along the channel of the river, abounds with the remains of these marine animalcules; while above the reach of the tide none of them are to be found. In the Elbe they are seen as far as eighty miles above its mouth; about Cuxhaven and Gluckstadt, which are nearly forty miles from the open sea, these siliceous and calcareous skeletons form from one-fourth to one-third of the mass of the fresh mud, exclusive of the sand, while farther up the river they amount to about half of this quantity. In the Rhine, the Scheldt, the Mersey, the Liffey, the Thames, the Forth, the Humber, and the Wash, the same form of deposit goes on. So that in the mouths of the stated rivers there are to be superadded to the mechanical debris brought by the upper waters the more rich and fertilising animal spoils which the sea thus wonderfully incorporates with the growing deltas, and the banks of rising mud. And thus it is seen, that our islands generate upon the sea, not merely in proportion to the quantity of solid matter held in suspension by the descending waters, but in proportion also to the richness of the sea in microscopic forms of life, and to the volume of fresh water which the river can bring to mingle with it. Such is the origin of the alluvial soils of this country—properly so called—and of the sea bordering clays formed of mixed mineral and animal matters, the almost fabulous fertility of which tempts men every to brave disease and rapid death, and to expend unwearied toil in snatching them from their watery dominions, and defending them by hugh dykes.”

Frequent analysis of alluvial soils has sufficiently proved the extremely compound nature which the mode of their formation necessarily confers upon them. The various minerals, too, present in them, are accompanied in very con-

siderable proportion by the organic matter of animal, as well as vegetable origin, which the statements in the above quotations would lead us to expect. To this they owe much of their fertility.

As to the produce of these lands, about one half their extent in this country may be arable; the remainder being meadow and pasture land. They yield larger crops of grain, grass, and green crops, than any other soil in the kingdom. They may average in rental from £3 up to £5 per acre, and often let for sums still larger. The crops on them may, in ordinary seasons, vary from 30 to 50 bushels of wheat; from 40 to 70 bushels of beans; and from 70 to 80, upwards of oats. The grass crop, on the pastures may produce, on an average, upwards of 30 cwt. of hay. We know of districts on this soil, which, in the course of a summer, will graze a 100 stone ox, turning him out well fattened, besides three or four sheep per acre in addition.—*Cyclopedia of Agriculture.*

ECONOMY OF FODDER.

Every farmer should be careful of his fodder, and economise its use; during the winter, especially, very much is usually wasted; in straw more particularly is the extravagance observable. It will hereafter be wanted either as bedding for cattle, or, if other provender runs short, for cutting into chaff to mix with hay and other materials, in forming compounds in spring. Farm horses may be fed with straw cut fine and immersed in boiling linseed meal and water till all is absorbed, when it should be well mixed up. The straw thus becomes a good medium for conveying the linseed meal, the most fattening of all substances, into the stomach of the animal, and the effect produced is of the greatest advantage. The importance of a judicious mode of feeding is forcing itself upon the attention of farmers.

AUCTION SALE OF FRUIT TREES, &c.

THE undersigned is authorised by the Proprietor of ROSEBANK NURSERY to state, that, as early after the opening of the navigation in spring as possible, there will be a Sale by Auction, in this City, (similar to that which took place this fall) of Apple Trees, a fine assortment of suitable named sorts.

Pear,	do	do	do
Plum,	do	do	do
Cherry,	do	do	do

TOGETHER WITH

Raspberry Bushes, Strawberry Plants of fine named sorts, Roses, and various Ornamental Trees and Shrubs.

The healthy condition of these Trees and Plants, and the accuracy of their names, may be depended upon, and the sale will take place in good time for subsequent spring planting, which is the safest, at any rate, in all northern climates.

JOHN DOUGALL,
Montreal Witness Office,
Agent for Rosebank Nursery.