

MANURE COMPOST.

Manure is virtually the farmer's capital, the bank, if we may be indulged in the expression, upon which he can alone draw for these important and essential accommodations, without which his industry and economy in other matters will be of little or no avail. There is not a farmer almost anywhere whose resources in this particular are not amply abundant, and whose farm might not, in a short time, be brought to almost any degree of productiveness the owner could reasonably desire. Nature has provided, by a wise economy, that nothing which has once been inspirited with the energizing, identifying principles of life, shall be worthless in the great work of perpetuating and nourishing its kind. But it is not simply to the animal and vegetable kingdoms, that the farmer is to look for the means of enriching his soil. The various mineral substances embedded in, and constituting to a certain extent, the surface of the soil upon which we tread, are endued with certain distinctive and mandatory properties which render them efficient assistants in the labour of improving and enriching our fields. Even the hard and compact substance of flint, is capable of yielding, upon decomposition, a principle essential to the growth and nutriment of plants; while the various mineral substances of our common fields and gardens, are capable, when combined in proper relative actions, either of weight or measure, of evolving principles not only highly beneficial to the health of plants, but indispensably necessary to their successful development and growth. In the formation of compost manure, one thing, however, is indispensable, and this is, that we attend strictly to the nature and constitutional character of the soil to which it is to be applied. If it be of a clayey or argillaceous texture, the basis of the compost intended for its amelioration, should consist principally of sand. But if, on the contrary, it be of a sandy or cillious character, the compost should be mostly of clay. Soils that are naturally humid, should have such alterants applied, and in such quantities, as will bring them to a proper consistency; while those that are arid and liable to injury from a too rapid descent or evaporation of water, must be modified by the application of such remedial agents, as will tend to confer unctuousity, and prevent the possibility of injury from such a cause.

The most tenacious clays, and the most barren sands, may, by the application of such materials as tend to modify their obvious defects, be made wonderfully productive.—*Maine Cultivator.*

"How seldom it happens," said one friend to another, "that we find editors who are bred to the business." "Very," replied the other, "and have you not remarked how seldom the business is bread to editors."

ON MINERAL AND INORGANIC MANURES.

By Professor Charles Sprengel.

Ashes of Soap-boilers.—Formerly all ashes of soap-boilers consisted of extracted wood-ashes and lime, the latter either caustic or combined with carbonic acid. They were, therefore, a superior manure, as they improved vegetation by the phosphate of lime, magnesia, and gypsum, as well as the limo admixed. Since, however many soap-boilers used soda instead of wood-ashes or common salt, ashes are turned out which consist merely of caustic lime or its carbonate, which have, therefore, not so much value as mere burnt lime. Whoever, therefore, purchases ashes from soap-boilers has to attend to that.

If the ashes of soap-boilers consist of extracted wood-ashes and lime, they are amongst the best mineral manures, still a good marl is always preferable, as any one can see by comparing the chemical constituents of both.

How they act on the ingredients of the soil, does not require to be again referred to in detail. It is also superfluous to speak on the matter in which they nourish plants, as everything just said of extracted ashes applies equally to these. It is the general opinion, that the ashes of soap-boilers act especially by the potash contained in them; but this is a mistake, because, although I have several times subjected them to the chemical analysis, I have always found but small quantities of that substance. 100,000 parts of a sort of soap-boiler's ashes, which experience had proved to be a superior manure, consisted of

35,000	parts of silica.
35,010	“ lime, mostly in a caustic state.
2,530	“ manganese.
1,500	“ alumina.
1,700	“ oxide of iron.
1,840	“ oxide of manganese.
0,500	“ potash, combined with silica into a silicate.
0,180	“ soda, ditto,
0,190	“ sulphuric acid, combined with limo into gypsum.
3,500	“ phosphoric acid combined with lime.
0,090	“ common salt.
18,160	“ carbonic acid, combined with lime and magnesia.

100,000 parts. Of soap-boiler's ashes, 2000 to 3000 lbs. (in a dry state) are generally used on one acre of land. By 3000 lbs. the soil will obtain about 920 lbs. lime, 70 lbs. magnesia, 15 lbs. potash, 5 lbs. soda, 12 lbs. gypsum, 230 lbs. phosphate of lime, and 3 lbs. common salt, by which it is to be seen, that they owe their manuring properties mostly to caustic and the carbonate of lime, to magnesia and phosphate of lime; as their 15 lbs. potash, 12 lbs. gypsum, &c., may produce a very inconsiderable effect, the more so, as the

potash is also combined with the silica into a substance not soluble in water.

After manuring with soap-boiler's ashes, plants of the Clover tribe will grow best, but all other crops will be benefited; and the fresher they are, the more effective, as they then contain much of caustic lime, by which, especially, the carbonic humus, or the organic matter in the soil are affected, and changed into humic acid. Soils which contain very little lime, will be always best improved by them, and in this case they will be very useful, whether employed on fields or meadows. According to the amount used, this effect will last from six to nine years; which, however, will be only the case when the soil is not deficient in humus, and such other substances of which the ashes contain but a small quantity.

Soap-boiler's ashes are strewn (like wood-ashes) either over the crops already growing, for instance Clovers, Lucerne, Grasses, &c., or they are harrowed in with the seed of the winter or summer crops, and they act partly like extracted ashes, and partly like caustic lime; they can be also used to great advantage on new marshes.—*Eng. Ag. Gaz.*

Break your Horses to work without Blinders.—We have always thought the "blinders" or "eye-winkers" on our harnesses which we work our horses in, were not a useless appendage, but oftentimes injurious. We consider them useless, because we cannot think or see any good they do. We never heard but one reason for using them, and that was given by a stage driver, and that was the following: "That off thill horse, you see, is a lazy dog, and needs the string pretty often. His mate is more free—now if he could see me when I go to strike his mate, he would spring and take the whole load, and the off one would shirk out just the same." There is some reason in that, to be sure. We can't always have horses matched equally in teams, either as it regards temper or strength, and, of course, once in awhile, it may work well to hide a free horse's eyes from the evil that is descending in the form of an angry driver's lash; but, as an offset to this, the lazy horse will also see the blow coming, and probably will spring out of the way too, as well as the other, so that the power will be as equally applied by them both. We think that many horses are disposed to shy more, as it is called, when their eyes are partially covered with blinders than when not. Horses may be trained to work without them, and colts should, by all means, be taught to do it. We think horses appear much better without than with them, especially if they have a good eye naturally.—*Maine Farmer.*

Agriculture is the art of raising crops; husbandry, the art of preserving and expending them.