

only prove the efficacy. For they say, "I have always found fresh manure to be attended with little effect the first year, while yet it remains fresh; but afterwards, when fermentation and decay had taken place, the benefit was great and striking." But here is the proof at hand, that not until the rich, soluble and gaseous parts had well penetrated and been absorbed by the soil, was their powerful and invigorating influence exerted upon the growing plants. Fresh manure is generally in a state not readily mixed with soils; it is thrown into large lumps over the surface, some of which are ploughed in and others not, but none of them prove of immediate use to the crops. But on the other hand, fermented manure, from its ready pulverization, admits of an easy admixture. Let fresh manure be thoroughly ground down and worked into the soil by repeated harrowings, and two or three ploughings, and its influence will be like magic.

Swamp mud has often been spoken of as manure. But those who expect great and striking results from its application, will be disappointed, as the writer has been. Even with ashes, it is much less powerful than stable manure, not only because it possesses less inherent richness, but because it has less soluble parts, and consequently imparts its strength more slowly to growing plants. But this quality only makes it the more enduring. By decoction in water, vegetable mould loses a small portion of its weight by solution; but if the remaining insoluble portion is exposed to air and moisture a few months, another part may be again dissolved. Thus, peat, muck, and all decayed vegetable fibre, becomes a slow but lasting source of nourishment for plants.

But it is, when shoveled out and dried, to be mixed with farm-yard manure, as a recipient for its evanescent parts, that peat or muck becomes preeminently valuable. Some parts of the State abound with inexhaustible supplies in almost every neighbourhood; many land owners have from twenty to a hundred thousand cubic yards of their farms, lying untouched, while half-starved crops are growing in the adjacent fields. There are whole counties so well supplied with it, that if judiciously applied, it would doubtless double their aggregate products.

All neat farming, all profitable farming, and all satisfactory farming, must be attended with a careful saving of manures. The people of Flanders have long been distinguished for the neatness and excellence of their farms, which they have studied to make like gardens. The care with which they collect all refuse materials which may be converted into manure and increase their composts, is one of the chief reasons of the cleanliness of their towns and residences. And were this subject fully appreciated and attended with a corresponding practice

generally, it would doubtless soon increase by millions the agricultural products of the State.

But there is another subject of scarcely less magnitude. This is a systematic

ROTATION OF CROPS.

If manuring is the steam engine which propels the vessel, rotation is the rudder which guides it in its progress. Unlike manuring, rotation does not increase the labour of culture; it only directs the labour in the most effective manner, by the exercise of judgment and thought.

The limits of this paper does not admit of many remarks on the principles of rotation. The following course, however, has been found among some of the best adapted to our State:

- I. 1st year—Corn and roots well manured;
2d year—Wheat, sown with clover seed,
15 lbs. per acre;
3d year—Clover, one or more years, according to fertility and amount of manure at hand.
- II. 1st year—Corn and roots, with all the manure;
2d year—Barley and peas;
3d year—Wheat, sown with clover;
4th year—Clover, one or more years.
- III. 1st year—Corn and roots, with all the manure;
2d year—Barley;
3d year—Wheat, sown with clover;
4th year—Pasture;
5th year—Meadow;
6th year—Fallow;
7th year—Wheat;
8th year—Oats, sown with clover;
9th year—Pasture, or meadow.

The number of fields must correspond with the number of the changes in each course; the first needing three fields to carry it out, the second four, the third nine. As each field contains a crop each, in the several successive stages of the course, the whole number of fields collectively comprise the entire series of crops every year. Thus in the last above given, there are two fields of wheat growing at once, three of meadow and pasture, one of corn and roots, one of barley, one of oats, and one in summer fallow.

OPERATIONS IN THE ORDER OF TIME.

The vital consequence of doing everything at the right season, is known to every good farmer. To prevent confusion and embarrassment, and keep all things clearly and plainly before the farmer at the right time, he should have a small book to carry in his pocket, having every item of work for each week, or each half month, laid down before their eyes. This can be done to the best advantage to suit every particular locality and difference of climate, by marking each successive week in the season at the top of its respective page. Then as each operation