the land from the effects of a former. In another respect, rotation of crops is useful in destroying *insects*, those which feed on one plant not being able to exist on another, and they therefore disappear for want of nourishment for the larvæ.—The principle first mentioned, however, is the most important, and if this be true, namely, that each kind of crop requires chiefly for its support a particular portion of the soil, and another a *different portion, then the soil will grow to the* best advantage, and be least injured by that kind of crop for which it contains, in the greatest quantities, the proper nutriment; still this portion of the soil will become exhausted, and it is found necessary to have recourse to a crop which will be fed by other ingredients. And as a necessary, consequence the same crop should not be repeated until the soil has had time to become in a manner reformed by the addition of decomposed animal or vegetable matter, so as to renew the substance whence the crop to be repeated was supported.*

Keeping up the rotation will of course not be sufficient to prevent exhaustion of the soil; it must be assisted by fresh material,—and this leads to the consideration of manures.

It is well known that animal and vegetable substances subjected to the process of decay, form food for the growth of plants; in other words, the process of vegetation goes to consume the animal and vegetable matter existing in the soil. The best soils by repeated cropping become to a degree exhausted of this nutritious substance, and require renovating. Some soils will bear cropping for many years without being sensibly impoverished; but by allowing them to remain too long without the assistance of artificial fertilizing, they become so reduced as to require a great length of time to bring them again into a fit state for culture. If the soil were originally ever so fertile, that course of husbandry must certainly be the best, by means of which it is kept so. It is too late to begin good farming after the land has become completely impoverished.

Manures may be divided into two classes: first, animal and vegetable matter, such as farm-yard dung, which is composed of both these; and fossil or mineral manures, which serve rather to decompose some substances, and modify the effects of others, than to contribute of themselves *to the supply of vegetable matter and support of* vegetation.

Before vegetable and animal matter can be rendered serviceable as manure, it is necessary that putrefaction should take place. To accomplish this, the substance must be sufficiently exposed to receive the action of the air, but not so as to allow too great a quantity of the moisture to evaporate, it should therefore be placed some little depth below the surface of the soil, for if left for a length of time unburied, it loses greatly by evaporation without enriching the soil. The most hungry soil is capable of being enriched by the mixture with it of the putrefying substances and by the gases which these substances emit in the process of decay. The covering of earth promotes decay and absorbs these gases, causing them to contribute to vegetation, while, if exposed to the air and heat, the enriching juices of the manure are wasted, and only that part of the soil benefitted on which the heap rests. Manure (we are now speaking more particularly of farm-yard manure) should be ploughed in as soon after it is laid on the field as possible, for while exposed it is constantly losing its value.

Salt, in its various forms, is an useful manure, possessing qualities favorable to vegetable as well as to animal life; it renders the soil more fertile, and cleanses it as well as the seed grain from noxious infirmities; and by its action on the roots of plants it causes them more readiily to absorb the nutriment from the soil. The fertility of land near the sea coast is known to be much enhanced by the vapour of the sea, hence one cause of the fertility of the soil of Great Britain, and a strong argument in favor of manuring in inland situations such as this Province; for not having the benefit of the salt vapor, the want may in some measure be supplied by the portions of saline matter contained in the farm-yard manure.

Of earths the most important assistant to the soil is lime, principally from its power of decomposing

* To discover what each crop actually requires, so as to render the land again capable of bearing it, by adding the substance, has as yet proved beyond the power of the learned. Even Johnston says, "if we knew exactly *what to add to each* crop" Experience, however, amply supports the theory. For a detailed account of the approved rotations on clay, loam, and sand, the reader is referred to "Jackson's Agriculture." It will be at once seen how far they are applicable to the climate, soil, and price of labour in this province In the main it is submitted they might be beneficially adopted.