England these are consumed on the ground. 2. Barley or oats. 3, 4, and 5, grass pastured by sheep. 6. Rye or oats. We have seen excellent crops of wheat and peas upon such sandy lands in many parts of Nova Scotia, when they were strengthened, either by clay or marsh land, and they have yielded luxuriant crops of grass, when the green sward has been top-dressed with such dressings.

In elevated districts, where the soil is dry, and the climate not too severe for wheat, the following rotation has been recommended: 1. Turnips drilled and dunged. 2. Barley, with red clover and rye grass. 3. Grass for soiling, or hay. 4. Wheat. 5. Peas. 6. Barley, with seeds. 7, 8, and 9. Pasture. 10. Oats. The land for wheat to be ploughed by the end of September, and lightly dunged. In elevated and wet situations, the soil must be tilled with a view to convert it into pasturage; as tillage for crops in such places is a doubtful experiment.

The most eligible rotation for every kind of soil must be ascertained by reference to local circumstances, and must be regulated in its duration by the richness of the soil.

The preceding rotations apply to lands already under the plough.

Uncultivated and fern lands must be prepared by breaking up with a deep furrow during the winter or early in the spring, and it must be thoroughly harrowed, and rolled, and grubbed. A dressing of five or six chaldrons of lime should be laid upon the summer fallow, ploughed in as hot as possible, and in the following spring it may be cropped, commencing with a crop of oats, followed by turnips, dunged.

Over-cropped lands are restored to fertility by laying them down to pasturage. This is the true method of effecting its restoration.

Rotations, it will be seen, embrace the alternations of green with grain crops; but as an unvarying routine has been found to fail and injure, the character of the green crops has been changed. This is done, either by changing the green crops in the rotation, or alternating one rotation with another, which is called *shifting* the course, and is practised by many eminent farmers with advantage.

We have given a brief outline of the system of rotation, that has prevailed in England and Scotland, and we now submit them to the attention of our farmers; we know no reason why they might not be adopted in these Provinces. But if they have been tried, and have not answered the condition of the country, we shall feel obliged by communications upon this important subject, founded upon the experience of judicious and observing farmers, and pointing out the defects of the preceding rotations and the advantages of any other which they may have substituted for them.

The great objects in all rotations are food for man, food for animals, and food for the soil; and every farmer who wishes to succeed in his rotations, must observe economy, management, and system, in the collection, composition, and preservation of his manures. Rotations will be failures with those farmers who allow the valuable liquid of their manures to be washed and drained away, and the fertilizing vapours of them to be dissipated in the air. We may venture this general observation, that the advancement of agriculture, and the success of the agriculturist, will be in proportion to the value which he attaches to manure—for "*muck is the mother of the meal chest.*"

AGRICULTURAL CHEMISTRY.

The art of Culture.—Carbonic acid, ammonia, and water yield elements for all the organs of plants. Certain inorganic substances—salts, and metallic oxides serve peculiar functions in their organism, and many of them must be viewed as essential constituents of particular parts.

The atmosphere and the soil offer the same kind of nourishment to the