

things are considered, a crop of Indian corn and pumpkins, planted upon a newly broken up old sward, will pay better than any other crop with which such land can be cultivated; and the following year it may be sown with spring wheat. If spring wheat should be precarious, peas, barley, or flax may be made to succeed the corn, for the purpose of preparing the ground for autumn wheat. The greatest objection to peas on such land is, that in very favorable seasons for vegetation, the growth of straw will be so abundant as to lessen the yield of grain. This, however, may be avoided, by sowing some one of the dwarf varieties, which are only adapted for the richest description of soils, in which case nearly double the quantity of seed will be required, to what is necessary if the long-haulmed varieties are sown. On soils that are too rich for most other crops, the dwarf pea may be grown with the greatest certainty of success. By sowing on such land from three and a half to four bushels of seed per acre, a yield of from forty to sixty bushels may be confidently relied upon. In breaking up stubble land, in the spring, it is well to bring up to the surface some new soil, or, in other words, it may with advantage be ploughed a little deeper than it ever was before. On very adhesive, clay soils, and where the subsoil is composed principally of sand, deep ploughing is not advisable, for it is worse than useless to bring to the surface a soil that contains no fertilising properties, to be mixed with the active soil. Where the subsoil is composed of a permeable clay, and where there is also a large quantity of lime and potash mixed with the subsoil, within reach of the common plough, from two to three inches of the new soil, mixed with the old, worn-out surface-soil, will improve its texture, and impart a degree of fertility that cannot by any other process be so easily obtained. The proper principle to govern the ploughing of most soils is, to yearly deepen them with the plough, until they have reached the greatest depth that can be attained by the common plough, without destroying the appearance and efficiency of the work. This can scarcely be more than ten inches, for the width must always exceed the depth of the furrow at least fifteen per cent. The average

depth of furrow in this country does not exceed six inches, and a very large breadth of land has never been ploughed beyond five inches in depth. Year after year a few inches of surface-soil, being turned up to the parching influence of the sun, and sown broadcast with the cereal grains, without any regard to its fitness or adaptation for the particular crop of grain sown, may satisfy those who know but little of the principles of vegetable physiology and the habits of plants; but those who cultivate old mother earth with a view of obtaining a profitable return for the capital and labour invested, will scarcely be satisfied with the stunted and half-starved crops that such shallow ploughing is calculated to produce. The soil should be deepened, on many accounts, but the principal reasons for doing so are, that it is a means of mixing with the partially exhausted surface-soil a liberal store of food for the plants, thereby bringing within reach of the roots those properties in the subsoil that were previously exhausted from the surface-soil, by frequently cropping it with the cereal grains; that it prevents damage to the crops from draught, in those seasons when rains seldom occur; that it causes a stronger growth of straw, and thus the crops are not so much liable to mildew and rust; and that it imparts a mechanical influence upon soils, through which those that are naturally light and porous, and that are altogether unadapted for the profitable growth of wheat, may be made to yield, in many instances, the heaviest crops, for a succession of years, without any perceptible diminution.

THE PEA CROP.

This may be viewed in many points as a very important crop to the Canadian Farmer. Its main value consists in its being best adapted of any of the coarse grains for making Pork; and, also, as an article of export. It is most productive on rich clay soils, but may be grown with profit on almost every variety of soil, excepting those in which sand forms the principal ingredient. An average crop of Peas may be rated at thirty bushels per acre; but, on rich clay soils forty bushels may with confidence be reckoned upon. To obtain as large a yield as the latter will, of course, require clean cultiva-