

land of good root crops. The advantage of the drill over broadcasting is not only in the smaller quantity of seed and manure required, or in the power to sow seed and manure together, or in its permitting the use of the horse-shoe, though these effect a saving in money equal to one-fourth of the value of the crop; but its great saving in the moist uncertain climate of England is time.—A day's delay in sowing by hand has lost many a season, whereas one horse-drill does the work of fifteen men. The clod-crusher, again, reduces the lumps to tilth, that no wooden "beetle," no loaded "sledge," no army of clotters could have broken, while on light land it gives consistence to the soil, making thousands of acres of corn stand upright which would otherwise have been rotting on the ground.

Under high farming, the manual labor employed is both increased and concentrated. A greater number of men are required per acre, and a lesser number in proportion to the produce. With mechanical assistance the crops are less dependent on the seasons, and each operation is more quickly performed. With improved breeding the stock is increased in quantity, more early and matured, and bears finer and more profitable meat. Four-year-old horned sheep are replaced by mutton grown in thirteen months. The aged cows or worn-out oxen, which form the staple of the continental meat-markets, lose from fifteen to twenty per cent. more in cooking than our well-fattened oxen and heifers, to say nothing of the difference in the quality of the flesh. At every stage the farmer who farms for money profits—not like the backwoodsman, the metayer, or peasant proprietor, merely to feed his family—loses by rude implements, ignorant cultivation, and coarse-bred live-stock. At every stage of progress the modern English farm becomes more like a manufactory, producing on a limited surface enormous quantities of food for man, turning Peruvian guano into corn, bones from the Pamyras into roots, Russian oil-cake, Egyptian beans, Syrian locust-pods, into beef and mutton. The gain to the farmer and the landlord is, we repeat, the most insignificant part of the benefit. The agriculturist is the manufacturer of food for the nation, and upon his skill, under Providence, it depends whether plenty or scarcity prevails in the land.

To give some idea of the modern system of English agriculture, we subjoin a brief description of three farms in three different districts of England—the first, a light land self-drained; the second, clay, sand, and good pasture; the third, stiff clay; and all cultivated by tenants who have not expended money to purchase glory, but who have invested capital in order to earn a profit.

Mr. John Hudson, whose name is familiar to all English, and many French and German, agriculturists, began farming half a century ago. In 1822 he entered upon his now celebrated farm of Castle Acre, which consists of self-drained land, and is a fair specimen of the Norfolk light soil. At that period the only portable manure was rape-cake, which cost £13 a ton, and did not produce any visible effect upon the crops for a month. The whole live-stock consisted of 200 sheep and 40 cattle of the old Norfolk breed. He adopted what was then the new, now the old, and what is perhaps destined to become the obsolete four-course Norfolk system—that is to say, 250 acres pasture, 300 wheat, 300 barley; or, in dear years, 600 wheat, 300 roots, and 300 seeds, the rest being gardens and coverts. On these 1200 acres he at present maintains 10 dairy cows, 36 cart-horses, a flock of 400 breeding ewes, and fattens and sells 250 Short-horns, Herefords, Devons, or Scots, and 3000 Down sheep. The crops of swedes average from 25 to 30 tons, the mangold-wurzel from 30 to 35 tons per acre. His wheat had, in 1855. averaged, for the previous five years, 48 bushels per acre; the barley 56 bushels. Of the seeds, the clover is mowed for hay, the trefoil and white clover are fed down by sheep, and there are no bare fallows. The purchased food given to the cattle in the straw-yards and