

the worst years for wheat (in respect to yield) ever known. Where one farmer looked for forty bushels per acre he reaped only 24; when another felt assured of having 32 he found it dwindle to 16. There are exceptions, but so it has been generally. I am cultivating a four acre piece of light land, not manured for the last seven years, and this year's crop of wheat was the fourth in succession. What in my case has this year's produce been? It so happens that two fields to the right and left of mine and of precisely the same character and quality with mine were also in wheat this year. The one crop had followed beans with the richest dressing of oil cake dung, the other crop was part on fallow and part after vetches fed off. The yield of the former is set at sixteen bushels or thereabouts, of the latter at twenty; of mine no one I believe not even the most incredulous scoffer has ever estimated the produce at less than 40 bushels."

This speaks well for the system of summer fallowing and the plan has the merit of novelty—neither has it the great objection of other summer fallows that there are two year's rent, two year's taxes and two year's labor for every crop to liquidate; the naked ground and extra labor on it adding to the extra produce of each crop, in addition to proving a substitute for manure, and on these accounts paying well. Should this new system prove as efficacious as Mr. S. represents it to be, it will furnish a very important fact that one acre of land well labored will produce as much without manure as two acres labored in the ordinary way with abundance of manure. There is no doubt that air and rain made good use of will effect a great deal, but the success of Mr. S's plan would require further confirmation in a wider field. The system is certainly worthy of great attention and a fair trial.

Another laudable exertion to increase the production of breadstuffs and meat was being tried by a first rate farmer on a model farm of his own, of the system of management of which he gave me a description and he appeared to be very sanguine of success. The main plan was to have every alternate crop a grain crop—occasionally stealing an extra crop—i. e., having nine crops off the same land in eight years. Thus, after wheat he would plow down the stubble and sow winter vetches which would be cut off early enough to labor the land and sow turnips. Then he would have barley laid down with clover, and after taking the crop of clover he would plow down the aftermath and sow wheat, then manure for green crop, and so on manuring every fourth year, and occasionally stealing a crop. He had pursued this system on his model farm for some time with entire success—having a crop of grain every second year—and a prodigious supply of green

food for housed cattle and horses, (they were of course never pastured). In fact, very few of the great farmers of Great Britain ever pasture their horses or cattle, and this is one of the great secrets by which they manage to procure such immense manure heaps, and such fat cattle at a very early age—and also such large supplies of milk and butter.

The breed of cattle which appeared to be the most highly approved for this latter purpose, was a cross of the Alderney and Ayrshire, of which I saw some remarkably fine and productive cows in England, and which are very generally as well as very highly esteemed; for Beef the Durham and Hereford, and for draft the Devon appeared to be the most appreciated.

Another so-called improvement was being tried in several places with the confident assertion by some, that it would tend much to hasten the fattening of cattle and hogs. This was solely by means of fermenting the food before giving it to the animal. One eminent implement maker in Belfast showed me a machine of which he said he had sold a great number, used for the purpose of cutting turnips or mangel wurzel very small, indeed in very thin slices from the size of a shilling to that of a penny and not thicker—after which the vegetables so cut were put into a large tub or vat and left in it for some days till they underwent a thorough fermentation, when they were taken out and given to the cattle or hogs.

The upholders of the value of this process do not pretend to say that the fermentation adds to the saccharine properties or any other valuable inherent property, but merely that it is in this state much more easily digested, and leaves the animal more time for sleep by requiring less mastication. I heard it asserted by very respectable authorities that this process amply repaid for the labor by the speed with which the animals that were fed upon it progressed to marketable order.

It was said too by some that fermentation did away with the necessity of "cooking the food." This so-called improvement had been only very lately introduced and its merits had not been fairly, or at all events not generally tested. I may also observe that in the feeding of black cattle wheat chaff and also cut chaff were very much used, being mixed with their cut turnips. In fact one of the great features of improved husbandry appeared to be to hasten forward beef and mutton for market in the speediest possible way,