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The Field.

An English "Green Crop" Farm

The *London Agricultural Gazette* gives a very full account, from which we make some extracts, of the Maulden Farm, an area of 487 acres of light, sandy soil, in Bedfordshire, occupied by Mr. George Street. From the prominent place assigned to "green crops, as they are termed, the routine adopted on this farm well deserves careful study. The journal from which we quote, introduces its detail of Maulden Farm practice by remarking very justly,--

"On the successful cultivation of the green crop the status of the farm depends even more than on that of its wheat or barley, whether the interest of the landlord, of the tenant, or the laborer be considered. The permanent fertility of the land, the profit of the field, and the labor in which, according to the wise man, so much profit lies, all hinge more on the extent and excellence of the green crop than on any other single feature of the farm."

In this case, as will be seen from the subjoined quotations, kohl rabi was the chief green crop, and there were of it 70 or 80 acres of a clean and even plant, which will yield over 20 tons per acre. The farm was entered for a prize from the Royal Agricultural Society, and though not rated as the best, received a commendation from the committee.

The *Gazette* says At Maulden about one-fourth of the land is in permanent grass, and the remainder is cultivated mainly on the four-field course of cropping. It is a light and very easily worked soil, for which the past year has been as unfortunate and unfavorable as it has been fortunate and favorable for the clay land farms with which it has competed. The great wheat years of the country generally, 1868 and 1870, yielded here the minimum crops of Mr. Street's past lease, and 1871 and 1873, wet and inferior generally, here produced the maximum crops of his experience—his wheat average, 40 bushels per acre in 1871 and 36 in 1873, having averaged previously from 31 to 34 bushels over the whole wheat area, and being only 32 and 30 respectively in 1868 and 1870. The barley crop averaged only 32 and 29 bushels per acre in the two hot years, having been 40 bushels generally previously, and yielding 6 qr. per acre in 1872 and 1873. It is plain, therefore, that the Maulden Farm has not been able in 1874 fairly to justify and prove the real merit of its management. Official visits at seed time and July cannot in such seasons as the past ascertain the whole truth; and an inspection in the autumn, which this year witnesses the wonderful power of kohl rabi to cope with the difficulties of a drought, would always have the advantage of enabling judges to compare competing farms during two years instead of one, and in all probability of ascertaining how much in the case of each to put down to good management, and how much to good fortune.

The great average crops quoted above must be put down to good management in the case of Maulden, and not to the original fertility of the soil, which is naturally a poor sand and hot gravel. No doubt the question of agricultural merit is difficult to solve when it lies between the skill which by labor and good management makes a difficult but naturally well stored soil produce its utmost, and the enterprise and

confidence which make a poor but easy soil produce far beyond its utmost, and those who undertake the office of judge ought to have every opportunity that can be given them of guiding their decision. Here it is not by artificial manuring so much as by large consumption of purchased food that artificial fertility is best conferred. No artificial manure is so complete as that which is produced by the consumption of farm produce. It is when the storehouse of the soil is already pretty full that a phosphate or a nitrate will make the best return—the added ingredient then bringing into active use fertilizing matter which, without it, would have remained idle and useless. When the other ingredients of a complete plant food are not naturally present, the artificial addition of one or two is insufficient and remains without result. In the case of a poor sandy soil like that of Maulden Farm, it is therefore better policy to enrich the home-made dung by adding cattle food than by a heavy bill for superphosphate or ammonia salts or nitrates. Mr. Street has found this out, and while his annual manure bill does not exceed £50, paid to Messrs. Proctor & Ryland and others for their superphosphates for his green crops, the "artificial" food which he consumes, his cake bill, and the beans and peas of his own growth which he consumes, amount to at least £1000 per annum. The 2,000 loads of farm manure and earth which he annually applies are thus highly enriched, and applied almost wholly to the green crop quarter, they go to maintain the production of that cattle food on the after use of which the fertility of the farm is thus made almost wholly to depend.

Of the green crop quarter after wheat there are a few acres in rye and tares to be ploughed up in May and June for transplanted kohl rabi, and there a few acres in mangol wurzel every year for the latest spring keep before the rye and tares are ready. The kohl rabi, which is the main and almost only green crop is, however, generally sown pretty much as an early Swedo crop would be sown, at intervals, all through the month of May, two or three pounds of seed per acre being drilled in rows 22 inches apart, on land which has received a heavy dressing of well-made manure. The rye and tares, white clover, the pasture fields, with a certain extent of cabbages to eke them out in drought, the clover stubble, a few early turnips, the kohl rabi and the mangol wurzel, are the succession which keep cows and sheep, breeding and fattening stock, throughout the year. About two-thirds of the barley crop—Hallett's pedigree barley the sort adopted—are sown down with broad clover or with Dutch, and one-third of the barley stubble is ploughed up for winter beans or for peas. The whole of this is followed by wheat—Banham's browick red is the only kind sown—a portion of the quarter, whatever needs it most, receiving a half dressing of farm manure. After the wheat again come rye and tares. Tares are preferred, except when very dear, as catch crops, to be followed by kohl rabi, which being the rarity we once knew, for experimental use upon little more than garden scale, here usurps the office of providing the whole winter feed of the flock, and herd justifying the confidence thus placed in it, especially in a dry season such as the past, when Swedes and turnips have generally failed.

The work of the farm is done by six pairs of horses, and very handsome teams they are. The stock includes 16 cows with their produce kept on, and, with others purchased, making the annual sale of beef equal to about 30 fat cattle, at an average price of £25. About 700 sheep are kept, consisting of a flock of 250 ewes (280 this year) and their produce, and other sheep purchased for winter feeding.

The cull ewes are sold fat in their wool in November or December. The ewe tegs are kept for breeding, and the wether tegs (about 300) are clipped and sold early in the spring, weighing from 20 to 25 lbs. a quarter; some tegs that were clipped later last year made 75s. each.

Four or five sows are kept, and twice that number of litters, the greater part of which are fattened. This with a sale of about £150 worth of butter, £350 worth of wool, and one or two horses (as about three foals are bred upon an average), represents the produce of the live stock. To this we must add nearly 500 qrs. of barley, and 400 qrs. of wheat for the corn crop half of the farm—no mean yield of "food and clothing," altogether from less than 500 acres of naturally poor sand.

The land is clean—kept so by hand-forking of weedy patches in their first beginnings—but maintained so also by keeping the land constantly well covered with abundant and well cultivated crops. The laborers are a contented body. No less than £28 was taken by them this year in rewards for long service. They have good tools and good horses to help them, and this is literally true at harvest time when the work of cutting and tying and loading on to carts, and loading thence to ricks, is taken at an average price of 10s. to 12s. per acre—the reaping being done by machine, which, with horses, is let to them for 2s. 6d. an acre. The whole labor bill of the farm has been latterly increasing year by year, from £700 in 1871, up to £839 in 1873.

The farm is well equipped with satisfactory buildings—good homestead and good house—with good roads and fences—and with water power (steam power is only occasionally used), to the credit of both the landlord and the tenant. It is well equipped with agencies of all other kinds—laborers, live stock, manures, industry and skill—all of these to the credit of the tenant. It is in thorough good condition, whether that be indicated by the artificial maintenance of high fertility on a naturally poor soil, its freedom from weeds, or the selection of good and appropriate crops and the abundance of their produce. It is a good example of the power of capital and skill, when encouraged by a lease for a sufficient term of years to make poor land productive. It is doing its duty to the country as a large producer of meat and bread, and beer and butter, and wool all first class agricultural productions.

Early and Late Sowing of Fall Wheat

A Massachusetts Farmer writes very sensibly on the above subject in the *Vermont Farmer*. He says:—

"Those who favor sowing early claim that the plants obtain a firmer hold, tiller out more, and that the grain will be a heavier and larger berry. They claim that less seed is required, because much that is sown very late does not germinate at all, or else only sends up a single stalk, while that which is got into the ground early is surer to grow and more likely to throw up many stalks from a single root. Some who favor sowing in August or the 1st of September, say that winter grain will ripen at a certain time whether it is sown early or late, and consequently the earlier it is sown the more time it will have to grow, and the larger and nicer the crop will be.

Those who favor late sowing say that grain is not so liable to be smothered with snow late as it is, if it is got in early, that in lots where cattle are