

fools in England, and I think our average wheat crop, which is more than double that of the States—in fact, it is more than three times this year—shows that we know something about farming; so, when people talk about growing great crops with less than half the quantity of seed we use, an Englishman naturally gets rather irritable. As for illustrative reasoning about such points, that serves no purpose: the practical results of the different quantities per acre is what we want. Fall wheat has plenty of time to tiller—spring-grain must grow up to ear at once.

Vegetable flavours in milk.—I have often mentioned in this Journal that one of the ways of getting rid of the turnip-taste in butter is to give the turnips to the cows immediately after milking, that the process of digestion may carry off the food-flavour during the twelve hours that intervene between the two milkings. A writer in one of my exchanges impugns my reasoning on physiological grounds, asserting that the digestive process has no such power as I attribute to it. I have no doubt about the point, as innumerable trials have convinced me that the flavour is dissipated, and if any one has a more hatefully susceptible nose and palate than I have, all I can say is, I do not envy him their possession. And now a Chester-county dairy-farmer writes to say that not only turnip- but garlic-flavour disappears after twelve hours.

"In this county, where butter and milk are the staple articles of sale, garlic abounds; scarcely a farm but has one or more of its fields set with it to some extent. It is the rule, when such a field has to be pastured in the early spring, to take the herd from it at noon, having been turned on it after milking in the morning. Though they are then so charged with it that their breath betrays them almost before one can see them, by sundown they will have passed it off through the lungs, and the milk when drawn is almost free. The next morning, if kept from fresh garlic at night, it is entirely so. If by some carelessness the herd is allowed to have a feed of it immediately before milking, the product is quite unsalable, either as milk or butter.

"Our butchers have a similar experience. They buy cattle fed for weeks where garlic abounds, keep them a few days on clean grass, and find the meat untainted; whereas a clean fed animal, allowed a night's feed containing garlic, and killed in the morning, will be thoroughly contaminated.

"Now certainly, garlic and turnips are different plants, but I would say to your correspondent that he can feed turnips in moderation immediately after milking without injuring his milk. It is done frequently."

J. L. B.

"Chester County, Pa."

Mangels.—It seems that the Messrs. Dawes have lost their mangels for the last two years from the attacks of some grub or other which their foreman does not appear to be able to identify with either the wire-or the cut-worm. As I hope to be here all this summer I will try to discover the beast, and find a cure for its ravages. Some two or three years ago, the mangel-crop of the county of Lancaster, E.g., was destroyed in like manner by a grub. This pest has disappeared from the district, and the roots are as productive as ever—the wurzel grows to a great size in the mild, damp climate of the North West of England. Whereas the average rainfall of the S. E. is 24 inches, that of Lancashire is 36 inches. If my advice is listened to—and I believe it will be—after the dung is ploughed in, 1 cwt. of sulphate of ammonia and 3 cwt. of salt will be sown broadcast, and harrowed in, the seed—at least 8 lbs. to the acre—sown on the flat at 24 inches, and a weighty roller will finish the job. And the following reasons guide me for this mode of treatment: the cut-worm does not like salt; the wire-worm does not care two straws for salt or

anything of the sort, but he likes an easy road to travel, and the roller will hinder his passing from plant to plant along the rows; thick sowing will afford plenty of plants for the pests to eat, and still some will be left for the crop; and, lastly, the sulphate of ammonia will push the young mangels on rapidly out of the reach of their enemies. (1)

If the damage is done by slugs, or any other leaf-eaters with a tender skin, quick-lime rapidly slaked and powdered over the rows during a still night will stop it. Caterpillars may be treated with Paris-green. In fact there is no beast that shall not suffer for his audacity if I can by searching find out his weak place. For this is an important matter, now that the Berthier beet sugar factory is at work again. If the vermin destroy mangels, sugar-beets cannot hope to escape, and it would be a pitiful look out for a farmer, after he had autumn-dunged a good bit of land for beets and gone to great expense in its preparation, to see the whole of the young plants destroyed in a week or ten days. A. R. J. F.

Experiments on Ensilage.—The experiments at Crawley Mill Farm, under the superintendence of Dr. Augustus Voelcker, of which we have already taken some notice,—see pp. 186, vol. IX, and 20, vol. X—were continued during the winter of 1886, '87. Whereas, in the previous experiments, the special object had been to determine the value of grass-silage as compared with a mixed food of roots and hay, in the present instance an endeavour was made to arrive at the value of the grass made into hay as against the same grass out green and converted into silage. Five and a-half acres of fair though not first-rate grass land were carefully measured off, and the grass was only cut as it was wanted for carting, none of it being allowed to remain on the ground for any length of time. Two carts, going side by side, were filled simultaneously, whereof one went to the silo and the other to a meadow where the grass was spread and made into hay. I may remark here that in a stack made from so small a bulk of hay as that yielded by 2½ acres of fair meadow—probably about 3½ tons—the quantity of side, top, and bottom-hay would bear a very large proportion to the interior hay, and in that proportion the experiment would be favourable to the silage as against the hay. In England, 20 tons would be considered only a small stack—they run in general from 40 tons to 120 tons, and in such bulky masses the proportion of waste is very small.

The weather for haymaking was all that could be desired, the hay cut on the 2nd of July having been carried and stacked on the 5th. The highest temperature of the silage was 94° F., and there was, with the exception of the first four inches, hardly any waste. Experts, having examined it, declared that it was the best yet made.

Twelve Hereford bullocks, 2½ years old, were selected for the trial and divided into two lots. Cost a head, £16 2 6 = \$78.30. Each beast received, as additional food, daily:

3 lbs. decorticated cotton-cake.
5 lbs. corn-meal.

Both lots had water *ad libitum*, and one lot hay and the other silage, also *ad libitum*, and it is hardly necessary to say that the experiment was carried out with every possible care and attention to the most trivial detail.

The weight of the respective lots were almost identical: silage lot = 6768 lbs., an average of 1128 lbs.; the hay lot = 6759 lbs., an average of 1126½ lbs. They took at once to their respective foods, and, to use the technical phrase, were

(1) The sulph. am. has been used, but the land, dunged last fall, was drilled as usual, is now drying up as fast as possible, and the plants are dead!

A. R. J. F.