

COLOUR IN BUTTER.—Why will our dairymen colour their butter? Does the market really demand such a practice? If so, of course they are in the right, but people should know that in the best restaurants, oyster-shops, &c., in London the butter is very pale in colour, hardly more than very light straw-colour. Hoard's Dairyman says that the cause of high colour in June, when the factors find the greatest difficulty in selling the finest makes, comes from the clover-pasture that are then most fruitful, and that the clover not only over-colours milk but gives it a rank clover flavor. It is for this reason that no English dairyman ever dreams of giving clover, either green or as hay, to his cows, but grazes them on old meadows, and in winter feeds them on early-cut meadow-hay.

STOCK-SALE OF AN OUTGOING TENANT.—The annexed advertisement will give people here some idea of the scale on which what some imagine to be the small farms of England, are carried on:

—“**HAMPNETTS FARM, GLOUCESTERSHIRE.**—Preliminary announcement of an important sale of LIVE and DEAD FARMING STOCK, comprising about 20 useful cart horses, 4 cows and heifers, 1 bull over 100 shorthorn cattle, including about 40 steers (three and four years olds), a valuable flock, consisting of 530 Cotswold ewes, 10 rams, and 550 tegs (1); 23 pigs; a large quantity of clover hay, about 2,000 quarters of grain (various), a large quantity of wheat, barley, and oat straw, about 150 acres of roots, and an extensive assortment of farm implements, including a portable engine.”

The farm is situated on the “foothills” of the Cotswolds, with a good many acres of the low lying grazings of the valleys annexed, which will account for the number of large shorthorn bullocks kept. If some of our readers would consider the acres devoted to the root-crop—probably $\frac{1}{2}$ of the whole farm, and the enormous number of bushels of grain—16,000—grown on this farm, which we believe contains about 900 acres, they would see that farming in that country is really farming and not playing at it. For the “Coteales,” as Shakespeare calls them, are not naturally fertile land, but a poorish light soil on the oolite formation, commonly called stone-brash; they are very much exposed to the wind, and very late in ripening crops, so late that the shocks of wheat are often to be seen standing alongside of the new sown wheat just coming through the ground; and yet, some of the best farming in the world is to be found on these comparatively barren hills.

CANADA has every reason to be proud of the figure she made in the cheese-classes at Chicago. As an exchange says, very honestly, “she took the cake, bakery and all, at the World's Fair, and the United States was not in it.” The judges were two Americans and one Canadian.

“EXPERIMENTS, so far, do not prove conclusively whether fat can or cannot be fed into the milk. One point has been selected, and that is that rich food makes richer milk than poor food.” *Vermont Watchman* This seems to us to give away the question.

(1) A teg is a weaned lamb until it is shorn. The same as hog, hogg, and other.—Ed.

entirely; but in another part of the same paper, Dr Hoskins quotes an extensive experiment with two cows, in which the following changes were wrought in the milk from November, 25th, when the test was begun, till its conclusion a few days after December 14th:

	Fat.	Milk.
1. Hay, 4 quarts cob-meal, 4 quarts shorts.....	3.040	43.20 lbs.
2. Hay silage, cob-meal, 4 quarts shorts.....	4.06	47.50 lbs.
3. Hay, silage, 1 quart corn and cob-meal, 1 quart cotton-seed meal.....	4.236	51.80 lbs.
4. Hay, silage and half a pint of W. I. molasses.....	4.703	

The total solids, at the same time, increased from 12,588 to 14,036. And therefore we see no reason to dissent from Prof. Cooke's assertion that, “by a change of food, the percentage of certain cows was raised from 4.41 to 7.20.”

AGAIN, a dairyman in New-York State grew a mixed crop of oats and pease for his cows. He reports that, in consequence of this food, the milk of his herd decreased 50 lbs. a day, but the butter increased 13 lbs. When the oats and pease were consumed, the cows were fed on corn-fodder, sweet corn with the ears, and pasture, and then gained in milk 30 lbs. a day, but in butter, lost 15 lbs!

GREEN MEAT FOR COWS—At the Connecticut station, they have been trying experiments on various plants used as green meat for the production of milk and butter. The result arrived at were: rations containing large quantities of albuminoids gave more and better yields; clover and pease gave the best results both in quality and quantity. The indications were that rations with a larger proportion of digestible albuminoids than is usually recommended are to be preferred. Large quantities of nitrogenous matter are needed by the cow in the earlier part of her milking season, as a support for the great drain on her general system. The quality and quantity may be improved by exhibiting food rich in nitrogen, and of course the manure is greatly increased in value. In the tests at this station, when green clover was given to the cows, the quantities of milk and butter were considerably increased, “and the percentage of fat was greater than when green Hungarian grass was given.” We have always found Hungarian grass rather poor food for any animals, even when cut very early, though a useful thing to sow where seeds or any other crop has failed.

MANURE-VALUE OF FOODS—As most of our readers know, when an English tenant leaves a farm, a certain allowance is made to him by the landlord or the incoming tenant, for the amount of unexhausted improvements he may have left behind him. The usual allowance for cake, or other purchased food, is one-fourth of the amount expended during the last year of the tenancy, except when cake, &c., have been used in excessive quantities. It is only where sheep are folded in the land that the whole, or nearly the whole, of the manurial benefit of food can be recovered; a great deal of the droppings of cows

and other stock is lost when they are allowed to roam at liberty; for they all have favourite spots for repose, and prefer the shade of trees, fences, &c., to lying and standing about in the open field. The manurial value of food lost in the excrement after it has passed through the digestive organs of a milk-cow in full milk cannot but be comparatively small. We do not believe there is a single land-agent in England who, in valuing the unexhausted improvements of an outgoing tenant, is guided by the theoretical tables of Lawes and others. It is a complete practical business, and, generally speaking, is satisfactory to all parties.

Such being the case, it is clear that the best way to secure the full value of food given to stock is to feed sheep in folds on the land; and we do trust that this summer, 1894, we shall see many acres of that invaluable plant, the rape, sown in this province and fed off by sheep receiving in addition some pint of pease and cake or so. Think what a difference this would make to the fields at the further end of some of our long farms. Five dollars' worth of E. I. bone-dust and 6 lbs. of seed at 15 cents a pound, both sown broadcast, is all the outlay required, and the sowing may be made at fortnightly intervals from May 10th to August 10th with fair prospects of success. If the land is fairly cultivated before sowing and laid up in good form for the winter after feeding off, the following grain-crop will astonish you, as it did astonish the Sorel people in 1885, when Mr. Gustaf Gylling had the Fosbrooke farm from which, after rape fed off by sheep eating a pint each, a day, of pease and oats, he reaped 70 bushels of oats to the imperial acre; an excellent crop anywhere, but on the poor Sorel sand, only 300 lbs. of superphosphate having been used for the rape and no other kind of manure, seemed incredibly large. We, ourselves, sowed the rape and shepherded the sheep, as may be seen in the *Journal of Agriculture* for 188, with an engraving of the field, hurdles, flock, troughs, and farm-r, taken—very badly—from a photograph. The land, as may be seen in the cut, was kept ploughed close up to the fold, and the pease cleaned and the water-furrows carefully drawn out on December 6th. The sheep were all sold FAT, and though small, being little Canadians, were not bad mutton, but only think of the trifling cost of the whole! The oats were sown under our own eye, at the rate of $3\frac{1}{2}$ bushels to the imperial acre, and had they been real “Black Tartars,” our firm conviction is that they would have approached 80 bushels an acre, unfortunately, they were sent from a Toronto house, and were such a mixed lot that any respectable firm should have been ashamed of sending out such rubbish. The straw was stout and averaged four feet in height; in fact, it was too heavy to stand, but, fortunately, there were no heavy rains that year. As to the true “Black Tartars,” we should expect an additional yield of about 16 per cent of these more than any other grown, their quality is excellent, for as we have often mentioned, the great training-stables at Newmarket, White wall, &c., England, will not take any other kind as long as they can get these.

EXPERIMENT-STATIONS.—The well known agricultural chemist, Mr. Warrington, who has just returned to England from a tour in the States, does not seem to have been favourably impressed by the work done by the experiment stations in that coun-

try. He finds the average income of the stations to be about \$20,000 a year, whereas the expenditure at Rothamsted, furnished entirely by Sir John Lawes, is only \$15,000, and it is certainly of more value to the world than all the American stations put together “Judging from the published reports of these stations,” says the editor of the English “Agricultural Gazette,” “we should say that they are very dear at the price, as the whole of them have done but little to advance agricultural science. Yet, Mr. Warrington shows that, for the instruction of the local farmers, a good deal of useful work has been done at the stations, which we in this country can hardly appreciate, if we judge from the reports only, many of which describe experiments conducted on too small a scale to be trustworthy.”

WHEAT.—With wheat at—Just as we are writing, January 4th, a thunder-storm is going on. If Mr. Professor Walter H. Smith can show that he predicted this storm and the storm of the 9th October last, we will acknowledge that there is something in his theory of planetary influences on the weather.—well, with wheat at 60 cts a bushel, there cannot be much profit on its cultivation for ultimate conversion into bread. But why not try other ways of utilising it? We hear that, from experiments tried by the managers of the Ottawa Experiment-Farm, it results that an increase in liveweight of 15 lbs. has been obtained from each bushel of inferior wheat fed to pigs. Now, as pork is worth alive, say, \$6.00 a hundred pounds, it follows that, setting the dung against attendance, &c., the return from a bushel of inferior wheat given to hogs is 90 cents!

SOUTHDOWN AND HAMPSHIRE-DOWNS CROSSES.—Many years ago, in, we think, 1853, we put 80 or 90 of our best Hampshire-down full-mouthed ewes to a ram of the Southdown breed, from Jonas Webb's flock at Babraham, Cambridgeshire. When the wether lambs of the year went to Saffron Walden Fair, the best judges were sorely puzzled as to their breed. However, the upshot was that they fetched by 2 shillings a head the highest price in the fair. This was brought to our remembrance anew by an extract, which is subjoined, from the English *Agricultural Gazette*:

The London Live Stock Journal thinks that an exhibit of Southdown-Hampshire sheep at the Smithfield show proves this cross to be “invaluable” for mutton. “They were 10 cwt. 2 qrs., and weighed 2 cwt. heavier than the big Oxford and other crosses.”

Now, a pen, of three sheep, that weighs 10 cwt. 2 qrs. must be made up of sheep that weigh 392 lbs. a head!

HOPS.—There are positively no old English hops in the London market. What will the porter-brewers do? For mild old hops are peculiarly needed for that beer. One of the reasons why Canadian porter is so nasty is that harsh flavoured new hops are used in its confection. Fortunately for the Londoners, there are still some old hops to be had from America.

BARLEY.—Is it the land, as in England, that makes the Canadian barley so superior to the barley grown in the States? In England, the East Anglian