FOR FARMERS AND GARDENERS.

THE INDEPENDENT FARMER.

BY W. W. FOSDICK.

Let sailors sing the windy deep,
Let soldiers praise their armor,
But in my heart this toast I'll keep—
The Independent Farmer.
When first the rose, in robe of green,
Unfolds its crimson lining,
And 'round his cottage porch is seen
The honeysuckle twining,
When banks of bloom their sweetness yield,
To bees that gather honey,
He drives his team across the field,
Where skies are soft and sunny.

The blackbird clucks behind the plow,
The quail pipes loud and clearly;
Yon orchard hides behind its bough
The home he loves so dearly;
The gray old barn, whose doors unfold
His ample store in measure,
More rich than heaps of hoarded gold,
A precious blessed treasure:
But yonder in the porch she stands,
His wife, the lovely charmer,
The sweetest rose of all his lands:
The Independent Farmer.

To him the Spring comes dancing gay,
To him the Summer blushes,
The Autumn shines with mellow ray,
His sleep, old Winter hushes;
He cares not how the world may move,
No doubts or fears confound him,
His little flock are linked in love,
And household angels 'round him;
He trusts in God and loves his wife,
Nor grief, nor ill may harm her,
He's nature's nobleman in life—
The Independent Farmer.

[From the Farmers' Note-Book in the Journal of Agriculture.]

Management of Dairies.

It is thought by some that the dairy business can never be made to "pay" in this arid, mountainous region. That there are obstacles to be overcome that do not exist in countries where "the former and the latter rains" come in their season, where irrigation is unknown and where luxuriant meadows and choice blooded cows abound—we have no doubt; at the same time, we are equally well satisfied that, by judicious management, a profitable dairy might be established here.

The following on the modes of conducting dairies in Scotland and Ireland, contains valuable data for all interested in the profitable management of cows:

Sir John Sinclair has stated that "it is supposed that the same quantity of herbage that would add 224 lbs. to the weight of an ox would produce 9000 English gallons of milk." Now, if we reckon 6 oz. of butter to be the average weight obtained from a gallon of milk, we will get 337 lbs. of butter from the same quantity of herbage as was supposed to produce 224 lbs. of beef. If the hypothesis of Sir J. Sinclair be correct, there can be no doubt that it is the interest of the farmer to adopt the dairy system in preference to the feeding of cattle. But even granting that the difference between the production of beef and butter is not so great as stated by him, yet it is generally admitted that there is a considerable margin in favor of butter, particularly when we take into account the relative price of the two at the present time.

The importance of the subject being admitted, we may inquire shortly as to what kind of feeding is best adapted for producing the largest yield of butter. Aiton, in his *Agriculture of Ayrshire*, published about the beginning of this century, tells us that the winter food of the dairy stock at that time was the straw of oats, or, toward the muirish parts of the country, the hay of bog meadows, frequently but ill preserved. "For a few weeks after they calved, they were allowed some weak corn and chaff, boiled, with infusions of hay; and by way of luxury, a morsel of rye-grass or lea-hay once every day; and of late years, by some farmers, a small quantity of turnips in the early part of the winter, and a few potatoes in the spring, have been added."

The effect of such feeding on the animals is apparent when they are turned out on the grass in summer; "many of them are so dried up and emaciated that they appear like the ghosts of cows, their milk vessels are dried up, and it is not till they have been several weeks on the grass that they give either much milk or that of a rich quality." The summer feeding was generally pasture; and though a much better system of feeding has been practiced throughout the country since the introduction of turnip husbandry, yet an approximation to that described by Mr. Aiton will be found in some of the upland districts.

Farmers have now, however, a great variety of food from which they can make a selection; and the problem to be solved now is not how a sufficiency of one particular kind of food is to be gathered together to keep the cows in life for a considerable period of the year, but rather what variety of food, or, better, what mixture of varieties, how much, and in what state (raw or cooked), will prove most profitable for the production of butter.

The mainstay of the dairy farmer now as formerly in summer is grass; in winter, however, there has been a great improvement in the feeding of the cows, from the use of turnips and other roots, as well as many other substances, such as beans, draff or distillers' and brewers' grains, linseed and rape cake, etc. Even now in summer, in some districts, it is found advisable and profitable, where butter is wanted more than milk, to give the cows some nourishing food, in addition to the pasture, at the very height of the season. Draff and bean meal are the two substances more generally used in such circumstances.

If the production of butter is to be the main object of keeping a dairy, there are two things to which the farmer should pay particular attention: the kind of cows he keeps, and the feeding. When we speak of the feeding, we mean not merely the quality of food the farmer purchases, but of what is grown on his farm. It is well known that the grass and turnips on some farms will produce far more butter from the same quantity of milk than those grown on others. We have known cattle fed on turnips alone from particular farms made fat in the same time as similar animals fed on turnips with the addition of two or three pounds of linseed cake each per day, the treatment and housing of the animals being alike in both cases.

Certain fields will give a larger proportion of butter to the milk than others on the same farm. A farmer, therefore, should be guided, not only by the locality, but by the farm, in determining what department of the dairy he should turn his attention to.

Without referring at all, at present, to the kind of cow most profitable for a butter dairy, we pass on to a consideration of the kinds of food that may be used *most* profitably for the production of butter. The great authority on this subject is Mr. Horsfall, who has laid the public under great obligations to himself for the publication of his experiments and views on this interesting question. His method of feeding is the following:

In May, his cows are turned out on rich pasture near the homestead. Toward evening they are housed for the night, when they are supplied with a mess of a steamed mixture, to be afterward described, and a little hay each morning and evening. During June, mown grass is given to them instead of hay, and they are also allowed two feeds of steamed mixture. This treatment is continued till October, when they are again wholly housed. After this they receive steam food *ad libitum* three times per day. After each meal, cabbages are given, from October till December; kohl-rabi till February; and mangels till grass-time—the supply of each of these varieties of green food being limited to 30 or 35 lbs. per day for each cow. Four lbs. of meadow hay are also allowed after each meal, or 12 lbs. per day for each cow, and water is placed before them twice a day, of which they partake as much as they feel inclined for.

The steamed food spoken of above consists of "5 lbs. of rape cake, 2 lbs. of bran, for each cow, mixed with a sufficient quantity of bean-straw, oat-straw, and shells of oats, in equal proportions, to supply them three times a day with as much as they will eat. The whole of the materials are moistened and blended together, and, after being well steamed, are given to the animals in a warm state. The attendant is allowed 1 lb. to 1 1-2 lbs. of bean-meal per cow, according to circumstances, which he is charged to give to each cow in proportion to the yield of milk, those in full milk getting 2 lbs. each per day, others but little; it is dry, and mixed with the steamed food, on its being dealt out separately." This is certainly high feeding, but it is amply repaid by the results, for, while cows fed in the ordinary way seldom produce milk which yields more than 1 oz. of butter to every quart, Mr. Horsfall's milk gives upward of 1 1-2 oz. for every quart.

It is also an important part of his system never to allow his cows to fall off in condition. He considers the maintenance of the condition essential to a large yield of milk. There can be no doubt of the soundness of this opinion. A cow low in condition can not give the same quantity of milk, as much of the nourishment of the food is drawn off to make up the condition of the animal. And when a very lean cow is put on rich food, it is some weeks before the full benefit of the food can be obtained in milk, for the reason stated above.

Another useful deduction made by Mr. Horsfall from his experiments is, that albuminous matter is the most essential element in the food of the milk cow, and that any deficiency in the supply of this will be attended with loss of condition, and a consequent diminution in the quality of the milk.

In Scotland, bran is not very often used as an ingredient in any mixture of food for milk cows; but it will be seen from the foregoing that it forms an important part of Mr. Horsfall's mixture. Some time ago we came upon the following extract, we believe from the *Irish Farmers' Gazette*, which gives some valuable hints as to the use of different substances in the feeding of milk cows:

"In reading over the experiments on feeding in Stephens, a difference of opinion exists as to the comparative fattening qualities of linseed-cake, bean and other meal; and in the *Report of the Larne National Agricultural School for* 1853, 1 lb. of beans is said to be equal in fattening qualities to 30 lbs. of turnips, and nearly 3 lbs. of oat-meal. I tried the bean-meal one season, at the rate of 3 lbs. a day, boiled, for each milk cow, with mangel, turnip and hay. By February one of them was fat, but I may say dry; and the others with about half the quantity of milk they had when commencing. I tried oatmeal for two winters, the same quantity in the same way, and each cow gave three times the quantity of milk and butter, and turned out full better the following summer. I tried the same quantity of yellow Indian meal last winter, and I think it good for both milk and butter. I tried bran for three winters, at the rate of 4 lbs. every night for each cow. It was equal to the oatmeal, while using, and my cows turned out better the following summer than on any other feeding. The bran not only keeps them healthy, and gives them a greater relish for their food, but there is some combination of qualities in it beyond what any writer I have seen attributes to it."

The state in which the food is given has also a great effect in the production of both milk and butter. We have observed more than once that the yield of butter and milk is never so great when we give cows boiled turnips, with beans boiled quite soft among them, as when they get the boiled turnips and the same weight of beans made into meal and mixed raw with them. Again, there is more milk, and no taste of the turnip in it, when the turnips are pulped and mixed with cut straw or chaff and fermented, than if the same weight of turnips are given whole and raw.

In the *Journal d'Agricultural Pratique* we read a short notice on this subject, by M. Lejeune, a director of the Agricultural School at Thourout, in Belgium. The facts he reports are not to be regarded as experiments instituted to test any theory, but are merely extracted from his accounts, and show the importance of attending to the mode in which food is given to milk cows. In February, 1855, the milk of eight cows was selected for experiment. The cows were fed in the following manner: Each cow got per day 4.4 lbs. of meadow hay, 13.2 lbs. straw, 4.8 lbs. linseed-meal, 11.5 lbs. of beet-root, and a cooked mash consisting of 5.5 lbs. of turnips, 2.7 lbs. of beet-root, 1.2 lbs. linseed-meal, 3-2 lbs. of rape-cake, 1.1 lb. of grain dust, 1.1 lb. of mixed meal, about 1 1-2 oz. of salt, and 6 gallons of water. From this very watery diet a large quantity of milk was obtained, 16 quarts of which gave 1 lb. of butter.

In the month of February, 1856, the calculation was made from the milk of ten cows, eight of which were those with which the observations were made in the previous year. The nutritive value of the food detailed above was calculated to be equivalent to upward of 30 lbs. of good meadow hay per head. The food given in 1856 consisted of oat-straw, beet-root, the meal of rye, oats, and buckwheat, linseed-cake, rape-cape, and the dust of wheat or bran, given in such proportions as to make the equivalent value of the day's feed equal to a little more than 31 lbs. per head of hay. None of it was cooked, and the beet-root was reduced to small pieces and sprinkled over the meal. There was not the same quantity of milk, but the proportion of butter was much larger, being 2 lbs. of butter for every 20 quarts of milk. The cows, with the exception of the food, were managed in the same way in both years, and there were more newly-calved cows in 1855 than in 1856.

Adopt it, Every Farmer!

H. W. Beecher, who, next to the worship of God, (after his hearty but peculiar fashion) delights in the life of a farmer and in the advancement of agriculture as a science, commends the following creed to the consideration of every practical farmer:

"We believe in small farms and thorough cultivation.

We believe that the soil loves to eat as well as its owner, and ought, therefore, to be manured.

We believe in large crops, which leave the land better than they found it—making both the farmer and the farm rich at once.

We believe in going to the bottom of things, and, therefore, in deep plowing and enough of it. All the better with a subsoil plow.

We believe that every farm should own a good farmer.

We believe that the best fertilizer of any soil is a spirit of industry, enterprise and intelligence—without this, lime and gypsum, bones and green manure, marl and guano, will be of little use.

We believe in good fences, good barns, good farm houses, good stock, good orchards and children enough to gather the fruit.

We believe in a clean kitchen, a neat wife in it, a spinning piano, a clean cupboard, a clean dairy and a clean conscience.

We firmly disbelieve in farmers that will not improve; in farms that grow poorer every year; in starveling cattle; in farmers' boys turning into clerks and merchants, in farmers' daughters unwilling to work, and in all farmers ashamed of their vocation, or who drink whisky until honest men are ashamed of them."

Enrich the Soil of your orchards. The late rains have put the ground in good condition for fall plowing, and should there be a week or two of favorable weather, it will pay well to haul out manure, spread it liberally over that portion of the land devoted to fruit trees and plow it under immediately—care being taken to avoid, as much as possible, interfering with the roots.

The soil adjoining the trees may be loosened with a spade-fork and well-rotted manure worked in, with profit, especially to young trees.

Cows have been sold, this fall, in Erie county, Pa., for $10 each. Cause—drouth and scarcity of grass.

The American Agriculturist for October was received per Eastern mail of the 25th of October. The September number did not come to us, nor are we aware that any of the subscribers in Utah have received it.

A farmer who properly values this excellent periodical, wishes to have his volumes complete, and, from the fact that each number of the *Agriculturist* is stereotyped, we presume that, although no such obligation exists, where subscribers at this distance lose a number, it can and will be supplied upon application to Orange Judd, A.M., editor and proprietor of the American *Agriculturist*, New York City. In the June number it is stated that, "Whenever it is desired, we can always send back numbers from the beginning of the present or previous two-volumes, as we keep stereotype plates to print from whenever needed."

We make the above remarks and quotation for the especial benefit of all Utah subscribers to the American *Agriculturist*.

Farmers, and others, who forward money from this isolated locality, for eastern publications, should in the first place select such papers or magazines as are high-toned and from which they will be most likely to derive the information, profit or pleasure desired. The next desideratum is to secure, so far as possible, the regular receipt of the numbers.

We have been informed of many instances where money has been paid here on subscriptions to eastern periodicals, but, those periodicals having never been received, the inference is that, either the money has not been forwarded, or it has not reached its destination.

Should the editor of the American *Agriculturist* signify his willingness to re-furnish his Utah subscribers with such number or numbers as may be lost or miscarried, through the uncertainty which sometimes attends the transmission of mail matter, especially to this locality, the *Agriculturist* will be still more highly prized and, we doubt not, he will receive the thanks of all his present patrons and be at least partially remunerated therefor by an increased subscription list.

Give the Boys a Chance.

The following suggestions, from the American *Agriculturist* for October, are worthy the consideration of all farmers who have sons growing up around them:

"One of the surest methods of attaching a boy to the farm, is to let him have something upon it *for his own*. Give him a small plot of ground to cultivate, allowing him the proceeds for his own use. Let him have his steers to break, or his sheep to care for. The ownership of even a fruit tree, planted, pruned, and brought to bearing by his own hands, will inspire him with an interest that no mere reward or wages can give. In addition to the cultivation of a taste for farm life, which such a course will cultivate, the practical knowledge gained by the boy will be of the highest value. Being interested, he will be more observant, and will thoroughly learn whatever is necessary for his success. Another and equally important advantage will be the accustoming him early to feel responsibility. Many young men, though well acquainted with all the manual operations of the farm, fail utterly when entrusted with the management of an estate, from want of experience in planning for themselves. It is much better that responsibility should be gradually assumed, than that a young man should be first thrown upon himself on attaining his majority."

"Get Ready for the Census Man."

Under the above caption, the editor of the American *Agriculturist* gives a timely warning to farmers throughout the Union, to be prepared to furnish accurate and concise statements of their operations during the past season. He says:

"Next year will occur the great decennial Census of the United States, made by the General Government. Persons will be appointed for every locality in the States and Territories to gather statistics of the inhabitants, and of all the agricultural productions, manufactures, etc. Every cultivator will be asked for a concise, accurate statement of the land occupied by him, the number of acres and the amount of each crop raised during the year ending next June, etc. Those who were called upon in 1850 doubtless remember the difficulty experienced in making up an accurate report of the various crops. As these reports will be called for in June, it will be necessary to give in the crops gathered this year, and the suggestion we would now make is, that cultivators write down, while fresh in mind, the number of acres under cultivation, including the wheat, etc., already gathered. The number of acres of each kind, the amount per acre, and the gross amount, will be required. The milk products also, and the amount of pork, beef, etc., will all be asked for."

By a little calculation, now, our farmers will be prepared to impart the desired information when required and with all necessary acsaraey.