

they might possess. I believe the "Pinguedo" to be a compost the most exempt from what has just been stated, for I have seen its virtues tried, and know, by analysis, that its intrinsic value nearly equals its price.

To return to the objects of this paper, I would urge all those who call themselves agriculturists to penetrate, by observation and research, into the mysteries of nature, not with the idea of diving into the obscurities of metaphysical questions, but in order to obtain clear views in tracing natural results to natural causes; for we are assured that agriculture, conducted on scientific principles, will not only be more sure in its results, but more economical in its details.

That farmer who knows and properly understands the application of chemistry to the improvement of soils, will gain credit as a man of science, and save money by the purchase of such articles as can be turned to the best account.

Thus, the unscientific farmer might mix together lime and guano (which I have often known to be done), whereas the chemical agriculturist well knows that he would lose, in the ammonia set free, what he had hoped to gain.

I have little doubt that, from the rapid strides by which chemical knowledge is gaining upon the darkness of old established custom—I have little doubt, I would repeat, that, at no very distant period from the present time, England will see the sons of her soil sowing and reaping under the guidance of those immutable laws which have ever been found to preside over all natural operations.

Litchford Hall, Oct. 22, 1845

MAKING CHEESE.

AS PRACTISED IN ONE OF THE MOST EXMINENT DAIRIES IN NEW ENGLAND.

Add the night's milk with the morning's, and heat it gently over a fire until well warm, then put in a tub or vat with sufficient prepared annatto to give it a handsome yellow colour. Put rennet sufficient to make it curd in twenty-five minutes: when curded take a wooden knife or sword and chequer it all into squares to the bottom; let it stand from fifteen to twenty minutes, or until the whey appears above the curd; break it up carefully with the hands in such a manner as not to bruise or break the pieces of curd; next put a clean strainer on top of the curd so as the whey may arise on top, and ladle it off with a dish or dipper; then put a cheese strainer in a cheese basket over a tub, and carefully remove the curd and remaining whey into it, and cut it into slices with a thin skimmer until the whey has mostly drained out; then bring the corners of the strainer together and twist them, so as to bring the curd in a solid mass, and put the twisted corners down in the basket, and a clean board about one foot square on the top of it, on which put a sufficient weight, in order to press out the whey. After remaining about fifteen minutes, the curd is to be cut in pieces about one inch square, and put back again with the weight on, and remain from ten to fifteen minutes, and then cut as last stated, and put back again, and so repeated from six to ten times, or until the whey has entirely done dripping from it; after which take it out and cut in pieces of about two inches square, put in a wooden bowl and chop with a chopping knife until the pieces are the size of Indian corn. The next is scalding the curd, which is done by putting it in the strainer and putting in the kettle of whey heated to blood warmth, for if the whey is too hot it will ruin the cheese, and make it dry and hard; while in the whey it must be stirred with the hand until the whole is equally heated; then it is taken out and put in a cheese basket over a tub and clean fine salt thoroughly mixed, to give it a high salt flavour, and let it stand until hardly blood-warm, then the corners of the strainer are twisted together as before, and put in the hoop and pressed, in this instance, with a weight of one hundred lbs. to every ten of cheese, to remain about half an hour, taken out and turned and re-placed in the press and add about one-third to the weight—then let it remain three hours. Then take it out and put it in a fine

clean linen cloth perfectly smooth, and no wrinkles in it; put again in the press and press forty-eight hours, being taken out and turned once during the time. At this pressing about one third additional weight must be added. It must then be taken out, oiled, and put on the shelf, where it must be turned, rubbed and oiled at least every twenty-four hours. From long experience, I have found it the best method of making cheese.—*Tennes. Farmer.*

SIZE OF FARMS.

Farming, when it is carried on merely as a money making business, to be most profitable, requires farms of such size as to furnish regular employment to the head farmer and all the hands in such a way as to make the greatest return of their labour at the least expense. This can only be effected on farms of considerable size. The immense advantage of a regular division of labour is shown in all extensive manufactories, where extraordinary expedition in the various operations is attained, by allotting each department to separate individuals. For division of labour to be effected in farming, farms of considerable size are required, or where several hands can be constantly employed to advantage. Where farms are very small, and one man does the whole labour, it cannot be executed at so small an expense as when the work is divided.

The productions of a farm should not be confined to one or two articles; the farmer should not be principally a wheat grower, nor a drover, nor a shepherd, but should attend nearly equally to all these different branches. When the business is thus varied, too much work does not occur at one time, nor too little for the employment of the hands at another. This variety of business is also necessary to the improvement and enriching of the soil—to the production and application of manure, and to maintaining the benefits of rotation in crops. But it cannot be advantageously adopted on very small farms, as there would be a great waste of ground, and a great expense of material, for partition fences, and a loss of time by attention to a great number of small crops.

Another disadvantage of small farms is, that labour-saving machinery, cannot be so profitably used on them; for where these are expensive, and the quantity of work they perform is small, the interest on them is a heavy drawback on the profits of the farm.

Notwithstanding all these disadvantages, there is not one farmer in a hundred who has not more land than he can cultivate in the best possible manner; or, to speak more correctly, there is not one in a hundred who has sufficient additional capital to carry on profitably all the operations of the farm. A farmer must be able to expend a large sum in addition to what he does in paying for his land, if he expects to make money by the business. But instead of this, the common practice is, to expend all the additional capital which is realized by farming, in purchasing more land. Instead of doing this, it would be much better for the farmer to sell a part of what he first had, if this is the only way for obtaining additional capital for carrying on his operations.

We will suppose the case of a farmer commencing business with five thousand dollars; if, with one half this sum he buys a farm of fifty acres, and with the other half he improves it to a high state of fertility, he will do far better than if he should purchase a hundred acres, and have no further means of improving it or of performing the work upon it in the most advantageous manner. Most land, by a judicious expenditure to the amount of its cost upon it, may have its productiveness increased four fold, and its profits to an almost incalculable amount; if, therefore, a farmer can raise from fifty acres, twice the amount of produce that he does from a hundred acres, he will not only receive twice as much for it, but he will be able to raise this amount with even less than one half the labour that he does from the hundred acres, because land in good condition is much more easily tilled than that in poor condition. Thus, with only fifty acres, he would, in fact, experience the advantages of large farms to a far greater extent than if he should purchase a hundred acres.