

Gas Lime as a Manure.

Mr. N.B., London Township, sends us the following extract from an English authority:—Gas Lime is a compound of sulphate of lime which becomes sulphate of lime on exposure to the air. It has been found very beneficial to all the clovers, turnips and all the members of the cabbage family. Thirty bushels per acre is sufficient.

On the same subject, J.C. Cooley writes as follows to N.Y. Tribune:—

Experience with Gas Lime.—In answer to inquiry, I will give my experience with gas lime on potatoes. Last Spring I concluded to sow wheat on a field, and seed it down. Before doing so I spread a light coating of gas lime on the poorest part of it, to test its value as a fertilizer for wheat. After plowing the field I changed my mind and planted potatoes. The potatoes on this part of the field were large and very nice, free from all defects. I weighed one Early Rose that weighed 1½ pounds, and there were many nearly if not quite as large as this. I took the large one home and had it cooked whole, and I never ate a better potato. The portion of the field not limed did very poorly—small, worm-eaten, rough and shaggy. My garden in the city, which had not been manured for three years previous, produced very poor potatoes—being small, worm-eaten, rough and shaggy. Last Spring I gave it a coat of gas lime, and planted Early Rose. Result—Splendid potatoes, free from all defects, foliage perfect. I am certain the gas lime did no damage if no good. I am so well pleased with its effects that I have taken two car-loads and several sleigh-loads to my farm, to experiment with next season.

—J.C. Cooley, Oswego Co. N.Y.

British Agricultural Returns.

The facts and figures relating to the agriculture of Great Britain for the year 1874, compiled by the statistical and commercial department of the Board of Trade, have recently been issued, and give a fair index of the production of that year. The past year compares favorably with preceding ones, and the increased acreage under cultivation affords strong grounds for the belief that a reclamation of waste lands is strongly going on. The land under cultivation in the year was 140,000 acres more than in 1873, although 9,000 acres below 1872 for the whole of the United Kingdom. Oats show considerable falling off, and chiefly in England, where 186,000 acres less were sown in 1874 than in 1873. But these fluctuations may be taken as merely indications of the variability of the season. A dry year may cause a failure in the root crops and often therefore decreased returns; land which may be entered in the end of the season as fallow, has been sown in the spring.

Very little wheat is grown in Scotland—hardly more than in Wales; but almost as large an acreage of oats is sown there as in England, and the barley crop is also large, as well as those of potatoes and turnips. Scotland, again, on account of the predominant pastoral nature of her agriculture, grows very large clover crops, but, on the other hand, the proportion of her arable land left either as fallow or in natural grass is very much less than in England.

The returns contain statistics of the yield in foreign countries, but the dates are too wide apart to permit of comparison. France, for instance, returns 17,000,000 acres as under wheat, or about 8,000,000 more than Great Britain under corn of all kinds; but that vast total is beaten by the United States, which had over 22,000,000 acres under wheat in 1873, besides 39,000,000 under maize. The wheat yield of France, however, appears to be greater than that of the States, in spite of the advantage of the later in acres, while Russia comes third in yield. Russia and Prussia, at long intervals, take the lead in the production of barley, and rye is a grain which finds favor in all European countries. Rye-bread must form the staple food of the Germans, if we may judge by the fact that Prussia alone reared 150,000,000 bushels of that grain in 1871.

The wealth of the United Kingdom in live stock is steadily increasing, although the ratio is not an extraordinary one.

Management of Pastures.

No part of the operation of the farm is more important than the treatment of pasture lands, and nothing is more totally neglected as a general rule. We hope the time will come, as it certainly will sometime, when this will be different. We wish every farmer in New England could see how they do things in Holland so far as the management of pasture land is concerned.

The pastures there are what may be called natural, which in Europe means pasture stocked with natural grasses, or grasses proper instead of the artificial grasses such as clover, sainfoin, lucern, etc. The turf or sod is closely set with the finest and choicest herbage, while the soil and climate and the constant attention on the part of the dairy-men secure to them the greatest and most vigorous growth, uniform and luxuriant throughout.

The cattle and sheep are turned out as early as the 1st of May, and the pasture is divided by hurdles into two parts, one devoted to the growth of grass to cut for hay, and the other for pasture. For every five or six acres you will see five cows and sheep. By the middle of August, after the hay crop is all off the ground, the hurdles are taken away and the cattle have the run of the whole for the rest of the season. The size of the pastures and the system of small holdings which prevail in that country makes it impossible to adopt the alternative system or the plan of frequent change of pastures which is advocated by many dairymen in this country.

You see everywhere running with the cows about an equal number of sheep. The price or the profit of raising meat is such that it is for the interest of the farmer there to make the most of everything, and to adopt the motto so popular here and "push things." The sheep eat down the hard wiry grasses which the cows reject and so contribute very materially to keep the turf close and fine. But they are cautious not to overstock in this way, not to stint the cows so as to lead them to fall off in milk, and the number of sheep is usually limited to the number of cows. In winter the pastures are given up wholly to the sheep at the rate of about one to two or three acres. If the surface is so deeply covered with snow that the sheep cannot dig through it so as to get a living, they are fed in racks morning and evening near the farm buildings.

By the middle of November the cows are put up, and now begins the active preparation for manuring the pastures. Our readers are probably aware that the fields and pastures of Holland are all surrounded and intersected by ditches. These are regularly cleaned out and they yield a large crop of mud, while through the summer they grow a splendid covering of green weeds and water plants. These are carefully collected and laid along the banks of the ditches in heaps, and so is the mud. You will see long heaps in the form of a rectangular prism, about thirty feet long and a yard wide at the base, and perhaps six or eight inches deep. The heaps are perhaps sixty or sixty-five feet apart. These heaps lie till the cows go into the barn at the beginning of winter and the air and frosts melt them down so to speak into a fine, mealy mass.

Now when the cows are stabled at the middle of November, every day, till the ice covers the ditches the semi-liquid manure of these animals is boated along the sluggish streams and spread over the surface of these heaps and the whole is immediately turned over and mixed with the fork and made up in the form of a triangular prism. This brings the bulk of the cow manure into the centre of the heap. After a time these heaps are again turned until the whole mass becomes light and mealy, a splendid compost, which in January or February is evenly spread over the surface of the pastures, or if the weather does not admit of it then, it lies over till spring. This takes place on the small ditches running through every farm.

But the mud dug out of the larger canals and the numerous branches of the Rhine, is piled in heaps and left exposed to the air much longer, often two or three years, when it is mixed with the semi-liquid manure. Of course the manure value of the mud of the ditches, canals, and rivers, differs considerably according to the location. That taken out near large towns and villages which receive large accessions from the waste of houses is much richer than that farther away. When the compost is completed it consists of about two parts of manure without straw to three or four parts of mud.—Mass. Ploughman.

How to Make a Farm Pay.

The following essay on the above subject was delivered by Mr. Appleton Elcoat, at a late meeting of the Tuckersmith Farmers' Club.

In order to create a starting point, we must have a farm of, say, 90 acres of clearing. To stock this, the farmer should have five cows and their offspring, which will give him five head of cattle to sell at three-years-old every year, bringing say \$30 each. He will also require two mares, and one

colt one year old, and another two year old, and by raising a colt every year he will always have one three year old for disposal, which should be worth \$100. He can also fat half a dozen hogs till they weigh about 250 pounds each, two of which it will be necessary to keep for his own use, while the other four can be sold at \$7 per cwt. In addition to this, it is also desirable to have some poultry. The butter and eggs will keep the house in groceries, and the children in clothes. To keep this stock will require 30 acres, part for hay and the rest for pasture. This will leave 60 acres for crop.

The farmer must seed 10 acres down every year, and then he will have 10 acres of sod to plough. He should put the sod in with peas, the pea stubble in with wheat, the wheat stubble with oats, which should be well manured and afterwards put in with wheat, the stubble of which will require the rest of his manure. He must also put in at least two acres of potatoes, which will be worth \$50 per acre, beside turnips, carrots and other green crops, for the use of the cattle. This field can afterwards be planted with barley and seeded down. This will give a regular rotation of crops. There will be 10 acres of peas, 20 acres of wheat, and of oats, 10 of barley, and 10 of roots, &c. I will now endeavor to give you an estimate of the yield and value of these crops. Peas, at 30 bushels to the acre, would aggregate 300 bushels, 100 to be used for seed and to fat the hogs on, leaving 200 bushels to sell at 60 cents; 20 acres of wheat at 25 bushels per acre would give 100 bushels for seed and bread, and 400 bushels to sell at \$1 per bushel; 10 acres of oats, at 40 bushels per acre, would produce 400 bushels, of which, after allowing 200 bushels for the horses and for seed, 200 could be sold at 35 cents; 300 bushels of barley, the product of 10 acres, at 30 bushels per acre, would give 20 bushels for seed, and leave 280 bushels to sell at 75 cents. Then we have two acres of potatoes worth \$50 per acre. Now let us see how much we have made from the farm:—

Five head of cattle, at \$30 per head.....	\$150
One horse at \$100.....	100
Four hogs, weight 250 lbs. each, at \$7 per cwt. 70	
200 bushels of peas at 60 cents.....	120
400 bushels of wheat, at \$1 per bushel.....	400
200 bushels of oats, at 35c per bushel.....	70
280 bushels of barley, at 75c per bushel.....	200
Two acres of potatoes, at \$50 per acre.....	100
	\$1,210

I will now give you my way of cultivating the land. For peas, plow about seven inches deep in spring; for wheat, plow in the fall ten inches deep, and then cultivate in the spring. The land used for the root crop should be ploughed 12 inches deep in the fall, and after the turnips are taken up, plow ten inches deep, and again in the spring, and seed down with barley.

Common Sense in Plowing.

Teams drawing loads on the road get a breathing spell on the descending ground, while in plowing the draft is the same from morning till night.—There is a certain number of pounds that a team can draw day after day, and not worry them, but if more be added, even as little as fifteen or twenty pounds, they walk unsteadily, fret and soon tire. No amount of feeding will keep them in condition. I have many plows in use on which it has been an easy matter to decrease the draft twenty-five lbs., and if men had been drawing them instead of horses it would have been done. It must be plain to the farmer that every pound taken off from the draft of his plow is so much gained for his horses.

It may be done in this way:—For any soil except sand or gravel, use a steel plow. Their cost is but little more, and the draft enough less to pay the difference in plowing twenty acres. In plowing sod the coulter does a great deal of the work, and should be kept sharp by forging at the blacksmith's, and grinding every day if necessary. Of course it will wear out sooner, but new coulters are cheaper than new teams. Set the coulter in line with the plow, the edge square in front, with an angle of forty-five degrees from the point to which it is attached to the beam.—When the share gets worn it is poor economy to use it any longer, but replace it with a new one. Let the traces be as short as will allow the horses to walk without hitting their heels against the whiffle-trees, and have just pressure enough of the wheels on the ground to make the plow run steady. If the handles crowd continually one way, the draft is not right, and if the plow is a good one it can be easily remedied at the clevis. To prevent

the horses step fasten a weight on the outside of the right end when Every observing ceptible to kind I have seen ho made reckless sharp word or do their work ble, and be as you would the

Horses and weather from s get "calked." brocation for su rubbed in when rheumatism if hot fire:

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Prof

There can b under ordinary ing and raising Good horses a tly pay for the breeder's effor horses adapted draft, it pays t the farm be p cost of raising little if any gr the same age, no greater tha

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