

FERTILIZING PROPERTIES IN BONES.

The true value of bones, aside from their importance in the arts for handles, rings, paints, clarifying sugar, etc., is fast beginning to be appreciated in this country. People were horrified a few years since by the published account of the tons of human bones transported from the battle-field of Waterloo, to be ground and strewn over the worn-out lands of Europe. From time immemorial it has been known that vegetation, and particularly tree, thrive immensely in grave-yards. Now, it is neither the gelatine nor glue that holds the particles of bone together, nor the lime of which they are composed, which gives activity to vegetable growth alone, but the phosphorus in them, that inflammable material of which matches are manufactured, known in its combination as phosphate of lime, that plants seize upon with avidity as food. Nothing else within the range of agricultural experience so rapidly develops the cellular structure.

To be most useful the bones should be pulverized, and that enables water to make a quicker solution of the phosphate, which the minute rootlets immediately absorb and circulate through the shaft, leaves and fruit. Save the bones, therefore. Let nothing go to waste. There are actual treasures concealed in a dry bone, if the right course is pursued to extract them.

In the skeleton of a horse, an ox, or even a dog or cat, there are about from one to four pounds of phosphorus. The carcass of any of those animals, cut up, and distributed among fruit trees, instead of being buried out of the way as a nuisance, would be to them a rich entertainment of delicious food.—*Colonial Farmer*.

WHAT GREELEY THOUGHT OF PLASTER.

In one of his last agricultural addresses, Horace Greeley gave his testimony in favor of land plaster (gypsum) as follows:

As to a fertilizer, I place gypsum or plaster first on the list, without supposing it to be of equal value everywhere, even of any value under all conceivable circumstances. And yet I doubt that a hill or dry plain can be found inland on which a first application of plaster, to the extent of 200 pounds per acre, would not be repaid in the very next crop, more especially if that crop were clover.

Wherever ground plaster may be had for less than \$20 a ton (as it can be in some parts of the Union) I hold that each farmer who has not yet tried it should buy at least one ton, apply it to ten acres in strips of two rods width, alternating with a like breadth left unown, and carefully watch the result. If no benefit is realized he may safely conclude—not the plaster is a humbug—but that his land does not need it, or that he has not known how and when to apply it. In my own case I judge that I have bought no other fertilizer that paid so amply and speedily as plaster.

IS STRINGHALT HEREDITARY?

The North British *Agriculturalist*, in answer to a question asking if stringhalt is hereditary, states the case thus:—

The precise conditions on which stringhalt consists are yet unknown. Frequently it is traceable to tumors about the brain; sometimes spicule of bone have, after death, been found pressing upon the great nerve going down the hinder extremity. Probably any causes which interfere with the nutrition of the brain, spinal cord, or even of the large nerves, may induce the peculiar catching movement characteristically entitled stringhalt. In many cases it resembles chorea, or St. Vitus's dance. It may, indeed, be fittingly regarded as chorea affecting the extremities.

Although more common in the hind limbs, it occasionally effects one or both fore legs. The nervous way some horses carry their heads; the trembling muscular twitching and other fantastic movements of the head which are often excited while the bridle is being put on, appear to be manifestations of conditions very similar to stringhalt. All these defects are usually particularly apparent when the animal is first brought out of the stable, and when from any cause he is irritated or annoyed.

The slightest cases of stringhalt are readily enough made apparent by causing the animal to move backward, or to take a sharp turn, when for a few steps the natural symmetry of motion is disturbed, and the sudden catching up of the affected limb is particularly noticeable. The great majority of cases of stringhalt appear to be brought on by causes over which we have as yet but little control. Al-

though often born with the colt, or observable very soon after birth, it usually appears to be independent of hereditary transmission. In a few cases in which we have known it to reappear in the progeny of stringhalt parents, it has followed the sire rather than the dam. No treatment, either of pregnant mare or of her foal, can prevent its occurring. Violent exertion, undue excitement, unwanted sights and sounds, as in other animals, tell very prejudicially on the fetus in pregnant mares, and become a source of springhalt. Chorea and other disorders in children are often traceable to frights and violent nervous impressions sustained by the female while the child is *in utero*. In well established cases of stringhalt neither iron, arsenic, strychnia nor electricity are of any permanent value as a cure.

WHEN TO APPLY FERTILIZERS.

Prof. Voelcker, of the English Royal Agricultural Society, reports as follows on recent experiments:

A considerable percentage of the nitrate of soda was parried off in the drainage, when applied at a fertilizer. The soil did not retain the whole of the salt, nor of the assimilable nitrogen. Being readily dissolved in the soil, it should not be applied till late in the spring, according to the climate and season. The sulphate of ammonia lays in the ground better than the nitrate of soda, and should be sown two weeks earlier; potash, salt and soluble phosphates at the same time. All stable and yard manure is best applied in the fall or winter. Lime, marl and gypsum may be applied in January, February and March—the earlier the better.

Mr. J. B. Lawes, of England, has a plot of experimental meadow that has had fourteen tons of stable manure every year since 1843. Plants grown on this surface have absorbed all the rain water so that little or none has been discharged by underdrains. Similar drains under a part of the meadow not manured "have run freely several times a year." An acre of long manured lands holds within thirty-six inches of the surface 1,910 tons of water; while the same area and depth of a similar ground unmanured, holds only 191 tons. These facts show how largely manuring from 1843 to 1871 changes the character and constitution of a soil. An industrious, reading and scientific farmer may make his farm what he pleases.

RURAL AND DOMESTIC.

If worms infest your flower-pots apply water in which a little fresh lime has been dissolved.—A Minnesota dairy produced 27,434 lbs. of cheese last season, without putting itself out of the whey.—A pair of boots in Iowa costs just two loads of potatoes, and to raise the potatoes just wears out a pair of boots. A dairyman at Storrington, Frontenac county, Ont., kept careful accounts last year and found that his average receipts from each of his 56 cows was \$49.57.—There are 57 farmers in the Minnesota legislature, a fact which ought to insure to that State a fair share of attention to the agricultural interest.—When a farmer loses a horse, a sheep, or any other animal, instead of throwing the carcass to the dogs and crows, or burying it, and in this manner losing it, let him throw over it a few handfuls of slaked lime, and then from eight to ten times the bulk of the animal of earth. By this means the fertilizing gases which are thrown off during the decomposition of the animal will be absorbed. He will then have one or two cartloads of manure, which will pay him five times over for his pains.

PRODUCE FOR MARKET. POTATOES

are one of the staples always saleable, because always consumed. We advise shipment in sacks; they are easier handled, have less waste, and can generally be sold to better advantage, whether in car lots or from store. The peach-blow is the popular variety for general use.

The report from the County of Dorset, England, respecting the foot and mouth disease, is again of a favorable character, while pleuro-pneumonia has entirely disappeared from the county. In Somerset, however, the latter disease has broken out very severely. Foot and mouth disease is on the decline. From Cambridgeshire, Huntingdonshire and Norfolk, equally satisfactory accounts are received.

Stock and Dairy.

IMPORTANCE OF FEEDING REGULARLY.

Success in feeding operations does not depend altogether upon feeding liberally. The usual supply of food should be given with regularity; and when the time comes at which the stock should be fed, nothing should serve as an excuse for delay. And whether the practice of feeding two or three times a day is pursued, the farmer should see that the stock is fed promptly when the time comes.

The system becomes accustomed to the times at which food is taken; and if the food is not taken at these times, derangement and injury is sure to result. When the stock is not fed at the proper times, the animals are disappointed and thrown into a state of nervous excitement and anxiety, highly derogatory to their improvement. And any one who has seen a lot of cows lowing up and down the yard, or seen a lot of pigs squealing and rushing from one side of the pen to the other, because the hour at which they had become accustomed to receive their food had been suffered to pass without it, need not be told that such animals are not only not in the way of improvement, but that they are actually losing ground.

But this excitement and worry is not the only evil result which follows the delay in giving food, the appetite and digestive apparatus become deranged, and some animals will gorge themselves to such a degree as to become quite uncomfortable, even if not made actually sick, while others will not take as much as they require. "We know how it is ourselves" is a cant phrase which is often appropriate; and any one of our readers who has been called upon to make extended journeys by rail, has probably experienced the ill effects which result from irregular meals. To ride until ten o'clock in the morning, for instance, before having an opportunity for breakfast, or until three o'clock before arriving at the dinner station, is sure to try the patience and endurance of all. Many a person has become very uneasy from hunger, and when the eating-house was reached has found that his appetite had become so deranged that he scarcely cared to partake of a mouthful; while others, in whom the derangement was of a different character, would gorge themselves to such a degree as to be scarcely able to sit in comfort for hours after. And when men, with their ability to reason and to comprehend the cause and the necessity of the delay, experience these injurious results from this irregularity, the dumb brutes, who cannot comprehend the cause of the delay, and when the hour for feeding arrives are expecting it every minute until it comes, must sustain an injury much more serious. The successful farmer will never allow his stock to become hungry even for the shortest length of time, and finds it to his advantage to keep his stock comfortable, to preserve them from excitement of all descriptions, and to keep their digestive organs in a state of the highest health. To secure success, there should be stated intervals for feeding, and these intervals should be strictly observed.—*National Live Stock Journal*.

SHORT-HORNS IN THE WEST.

In England, this year, 1,882 head of short-horn cattle have been sold for about \$555,000. The average price was not far from \$300, and the highest \$8,250. In the home of the Short-horns we see that the number of sales is large, and the price a fair one; it is rather remarkable that the demand for this class of stock seems to be on the increase even in England; this cannot be accounted for in any other way than that of their superiority over every other strain.

We well recollect, in our boyhood's days hearing the prediction made, that the breeding of "Short-horns" would soon be overdone, yet our early breeders pursued this enterprise with great energy, from time to time importing at almost fabulous prices, animals, for the purpose of getting new blood infused into their herds. Since their day their sons and others have pursued the same course, and prosperity has attended their efforts. It is a remarkable phenomenon that the breeding of Short-horns, has been throughout its history a prosperous business; the exceptions are those few instances in which the parties engaging in it had no talents for the business. The effect of this enterprise on the part of the Short-horn breeders, has been, largely to enhance the value of cattle, wherever this blood has

been infused into our common or native stock. We have in our Western plains almost an empire in territory to populate; in the course of a few years it will be teeming with inhabitants; it is especially the home of the cattle kind; its hills and valleys furnish the succulent grasses upon which the buffalo and other animals fatten kindly; this must be in the nature of things peculiarly a grazing country, furnishing food to millions of our more Eastern people. It is important to these people that they make the right start in cattle raising, having for breeders those whose produce will command the highest price in the markets where they are to be consumed. This insures prosperity to our Short-horn breeders for many years to come.—*Lexington Home Journal*.

AYRSHIRE CATTLE IN COLD CLIMATES.

A farm near the city of Ogdensburg, N. Y., containing 170 acres, has now upon it 40 head of cattle, all either full-blood or high grades of Ayrshires, put into the stables on the 15th Nov. last—since which time we have had frequent snowstorms, with snow at least three feet deep in the woods, and extremely cold weather (down to 30 below, Dec. 26, and to 20 again Jan. 12), freezing the manure in the stable a great portion of the time—now half-wintered on the straw of 7½ acres of oats, barley and peas, with about 200 bushels of mangolds, and the fodder of 1½ acres of Western corn, planted in drills, and put away in the mow with the straw above mentioned, in alternate layers, *without any hay*. In this herd are several cows in milk, making an average of two pounds of butter daily. One dry two-year-old heifer was killed for beef Jan. 4th; and the same week a new milk grade cow was sold for \$75, showing the condition of this straw-fed herd.

If there is any other breed of cattle that can be kept in a thriving condition with the quantity and quality of feed supplied to this herd, it would be of vast importance to farmers and dairymen, particularly those who are located in the northern portions of the United States and Canada, where animals are housed and fed (as all should be) in the manger, say seven months in every twelve. It is to be hoped that such information may be published.—*Com. in Nat. L. S. Journal*.

DIARRHOEA IN CALVES.

A young breeder having had a case he could not control, asks for a remedy. This complaint is often caused by giving a calf too much milk at a time, or cold milk instead of that in the condition in which it would be drawn from the dam. This same correspondent, without stating what his practice has been, asks whether it is best to keep calves separate from their dams, or to let them run together. We think the calves do best when allowed to run with the cows, if the weather is favorable, and especially is this the case where there is any derangement of the bowels, because it is important that the calf should, if ailing in this way, have its food often, and but little at a time. But it is better for the cow to be separated from the calf, and to have it suck at stated periods—say twice a day, or three times for the first week or ten days.

The treatment of diarrhoea may be, three drachms of carbonate of soda in well-boiled wheat-flour gruel, once a day; or give a tablespoonful of common rennet after each meal of milk.

The old practice was, to give first a dose of castor oil say two ounces—or three ounces of salts, and then chalk, catechu and ginger, in the proportion of one ounce of chalk, four drachms of catechu, and two drachms of ginger, to be given in gruel.—*National Live Stock Journal*.

ECONOMIZING FOOD.

Much depends upon the warmth and comfortable accommodation of animals in this respect. It is the food that produces animal heat, or rather that tends to keep it up; and the farmer can economize that food and make one-half of it go about as far as the whole would, by keeping his stock in warm, comfortable winter quarters. The cold winds penetrate through every crevice of the barn. No matter how small that crevice the cold will find its way through. If you would economize your food look thoroughly to the warmth and condition of your barns and stables, for herein lies the great secret of success in saving food. "Stop out the cold and you can keep more stock upon the same amount of food," is the verdict of the past and present age.