The Maritime Farmer.

AGRICULTURE THE TRUE BASIS OF A NATION'S WEALTH

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Agriculture

Application of Manure.

The old process of applying manure requires changing as much as the old style of treating the heap. It is still the practice of many farmers, regardless of conditions, to haul their manure to the field and throw it into small heaps, waiting for the season in which they spread it and plow it under. It sometimes remains on the field in this shape during the whole winter, and in other instances it so lies during many of the more temperate months. If there were any appreciable substance left in the manure when it reached the field, the farmer will soon experience the error of his ways; for the large quantity of soluble fertilizing material which would be washed into the small area of soil covered by the heaps would, under many conditions, rather retard than assist the growth of the crop, the strength of the soluble salts being greater then the tender plants could bear.

The present tendency of the times is towards top-dressing or speading in place of plowing under. Every method, however, depends upon a great variety of circumstances, so your best plan is to study the principles involved and then use your judgment. It was formerly supposed that a large quantity of material substances was lost by top dressing or spreading for any considerable length of time before plowing the manure under; but experimenters have put this question to rest. At any rate, under the usual method of treating the manure, there is very little substances to lose in the field, no matter what the system of application is. If the manure is turned over or hauled out while fermentation of the heap is going on, a considerable quantity of ammonia escapes into the air; but fresh, even well-rotted manure, contains very little free ammonia, so that it can be applied in these forms without fear of loss by volatilization. But there is also the character of the soil to be taken into consideration, the being a liability to loss by drainage as well as by the evolution of gas into the air, under certain conditions. Clayey soils, or those containing an appreciable proportion of clay, have the power of absorbing and retaining the drainings from the manure spread on the surface or plowed under. The nature of the soil therefore decides when and how the manure should be applid; for if the subsoil is sandy or gravelly, and the application made some time before the crop begins to grow, the liquid fertility will be carried down by the rain beyond the reach of the roots, which calamity could not happen in a retentive soil. So far as loss is concerned, it will now be seen that on clay soils you may haul and spread at any time, and you may safely leave the manure spread on the land any length of time before plowing it under.

But the texture of the soil is another important consideration, as is also the kind of crop to be grown. An undraiped clay soil is apt to be too stiff, so that plowing the manure under will improve its texture; but if it is already in the right mechanical condition—that is, neither too loose nor too firm—top-dressing in the preferable mode of application, especially if the crop is a shallow rooted one. In top-dressing, the drainings uniformly saturate the surface soil, making it rich for early growths and shallow roots; whereas plowing under has a tendency to enrich the subsoil for deeper rooted crops. Of course the quantity of rain also plays an important part in this particular. A heavy dressing of coarse manure is mechanically injurious under any system of application; for as a top-dressing it checks evaporation too effectually, favoring mould, fungus growths, slugs and tender plants, and when plowed under, the manure hinders the free upward movement of moisture from the subsoil in dry weather. Coarse manures can only be applied advantageously in the fall, when it will exercise a beneficial influence on stiff clays, keeping them open for the free admission of frost, which pulverizes the soil, and the manure will be sufficiently decomposed for the ensuing crop.

Under ordinary circumstances, all experiments have proved the economy of using dry earth as absorbents in the stables and of spreading the manure on the fields in winter. It has been objected that the spring rains, will wash away the soluble portions by surface drainage. Although this may take place on steep portions of the field under heavy showers, yet it has been observed that the rain which thaws the manure will also thaw sufficient soil to absorb and retain the fertilizing portion of the drainings under all ordinary circumstances.

Selection of Soil for Potatoes.

If attempting to grow the best possible, we would select a deep, sandy loam, in which water could not remain in excess, for any length of time, and which which would endure a drought fairly well. A heavy loam is far more favorable to potato rot than to a good crop, save in exceptional seasons, and a stiff clay is equally unfavorable, unless there is just the right amount of rainfall during the growing period. We would prefer land that had not been cultivated more than one year, and in which there was a good proportion of vegetable matter in a partially decayed condition. The first great aim is to prepare to overcome the bad effects of dry weather at the time the tubers are making there growth. A deep, sandy loam in which there is an abundance of humus, will endure drought better than any other kind of soil we are acquainted with. A potato soil must be so light that the plants will not exhaust themselves in their mechanical efforts in making a place for the tubers. Many tons of earth are lifted in every acre of potato field while the tubers are forming.

Judicious Mating in Horse Breeding.

While confroming to the elementary principles of all breeding, to correct faults on either side by judicious mating, and that quality should come from the mare's side, and power from the sire, the doctrine so strongly held by the late John Day is well worthy of consideration. In the mating of mares, he always advocated the union of untried, *i. e*, mares who have never bred a winner, or are at the stud for their first season, with horses that had sired winners; and in case a breeder or owner should be anxious to offer an untried horse a chance, the selection for him of tried mares—that is, the dams of winners Particular attention should be directed to the choice of a sire in the case of maidens, for it may very safely be accepted as a general rule, that, in all degrees and conditions of animal life, the first offspring is inferior to those that succeed it, and in no instance is this doctrine mor clearly demonstrated and verified than in the case of the first foal. Many breeders regard the first foal as useless for racing purposes; and, though Albert Victor and Melton figure as exceptions they are far rather isolated instances than proofs of definite fact. In the choice of a sire, breeders are frequently led astray by mere considerations, either of misdirected economy, or by representations relative to the amount won by the progeny of some particular horse during the season. This must often prove a very deceptive guide, for there are very many cases of horses who have produced one or two really good animals, yet fail to perpetuate their successive stock with merit. The sire that best merits the patronage of breeders is the one that, to use a homely phrase, "get all his stock to run a bit," no matter what may be the class of mares who are sent to him. In the matter of "fees," breeders for public sale should take into account popular fancies; a large fee of 50 to 70 guineas—or even, in the case of Hermit, 200 guineas—may be a wise outlay, and yield a fair profit after the deduction of all expenses, such as the fee, the keep of the mare and foal, and the groom, if the cross and the sire selected are popular.—*Gerard Wallop in Baily's Magazine.*

Oats or Barley for Seeding with Grass.

A correspondent in Williamstown, Vt., ask which is the better grain to stock down land with, oats or barley. He finds that seventy bushels of the former can be grown as easily of fifty bushels of the latter on the same amount of land, but nearly all the members of his local club believe that oats draw harder upon the land, and that the hay crop is thereby diminished in after years. There is no doubt that barley is better to seed with than oats, not only because there are usually fewer pounds of grain removed by the barley than by the oats, but because the oats have a much taller and heavier straw, which shades the ground, much to the injury of the young grass plants. Grass will do better sown without any grain, provided the land is free from weed seeds, which is rarely the case. All kinds of grain are injurious to grass, but not more so than crops of weeds of the same weight, and if one must have either, it is better to select the valuable grain than the worthless weeds. Oats are farther more stronger growers than barley, and will make a crop on land that is too coarse or too cold for barley. Oats are said to "draw" the land very hard, which as we understand the term, simply means that oats are hardy, and will do well where more tender forms of vegetation would fail.

Millet is another hardy crop that "draws" the land. We like such crops, because they are tolerably sure, and easy to produce, and the harder the better we like them, for they give us something worth working for, and something to return to the land to keep up its fertility. Four tons of hay would draw twice as much from the land as would two tons, but we would prefer the double quantity every time.

Importation of Eggs.

The importation of eggs is more of a business than many people imagine. They are shipped chiefly from Copenhagen and Hamburg, which are great egg centers, according to the New York *Evening Post*. The eggs are produced largely in Austria, Italy, Denmark and Turkey. They are packed in straw, in cases containing fifty, sixty, or one hundred and twenty dozen. Most of the imported eggs are fresh laid, and, it is said, will keep for a month or six weeks after being landed here. They bring from one to three cents less than the market price of domestic eggs. This last year it is calculated that about 17,000 cases were received in New York. Late shipments have been heavy because the mild weather in England has made London a poor market. The importations have had a tendency to keep the price of eggs down in New York. A large and growing use of eggs has been to make albuminized paper for photographs. It is in consequence of this demand that the price of eggs has been kept up until checked by the importations.

Good and Poor Layers.

The difference between the yield of eggs in the most prolific cases, as compared with poor layers, is as three or four to one. Individual hens have been known to produce 230 eggs a year. Yet 200 is reached so seldom as to be called a remarkable yield. The greatest average yield that we have ever had ourselves, in a flock of twelve hens, was 147 eggs, while the greatest average in twelve flocks, numbering in all 200 layers, of various breeds, was 102 eggs. In the latter case there were eight different breeds, and some were old hens and others were pullets and many of the number were employed a part of the time in hatching and rearing chickens.—*Western Rural.*

FARM NOTES.

A writer in *Vick's Magazine* says that, in raising strawberries for market, the rows should be at least twenty-five rods long, so that horse power may be used in destroying every weed as soon as it sprouts, and the surface of the soil kept constantly clean and mellow. No ridges or furrows are to be formed between the rows.

Young pigs should not be fed much corn, and it is from young pigs that the greatest amount of growth is secured for food consumed. But on a farm where cows are kept and butter made, the corn may be turned into pork by feeding it to the cows. This will pay in milk and butter, and an abundant supply of milk with a little meal is just what is wanted for growing pigs

One of the best manures for the garden is made by mixing two bushels of fine bone with a wagon load of stable manure. The bone makes the manure heat more quickly, and the manure softens or dissolves the particles of bone. If water with which sulphuric acid has been mixed is poured on the heap, it will prevent loss of ammonia. Most stable manures are deficient in phosphate, which the bone supplies.

As the object of root-pruning fruit trees is generally to promote fruitfulness, it is best to do it when the check to growth is greatest, and this is in midsummer or after the trees get its full leaf in the spring. On the other hand, if it is desirable, as it generally is, to cultivate in orchards with the least injury to the trees, it should be early in the spring. New roots put out, and the tree is rather more vigorous than before, especially when it had previously been in sod.

The men who make the most profit from rearing pigs have learned to mature them early. To do this it is necessary to provide good warm quarters for the breeding stock and young pigs, dring the cold weather, and feed as liberally as possible with a variety of nourishing food. It costs costs just as much to sustain the animal life, and the shorter time that life has to be sustained in order to obtain a given result the greater will naturally be the profit.

There is no cure for glanders, and as soon as the case is assured by positive evidence the horse or mule should be destroyed. To kill a horse painlessly and suddenly a ball from a Colt's navy or army revolver should be fired directly into the brain at a point midway between the eye and the base of the ear. This will destroy sensation instantly. Before the horse is killed a deep grave should be dug, and the animal brought to the edge of it and shot there, when it will fall directly into the hole.

We can remember when old apple orchards planted sixty or seventy years previous were quite common, and the trees at that age were vigorous and healthy. Very few such trees are found now. Many of these old trees were seedlings, and this has given rise to the belief that grafted stocks are less hardy. The real cause appears to be that apple-tree borers are more plenty, and as forests are cleared off the winds are fiercer, and the trees gets less protection from snow over the roots.

Owing to the severity of the winter, much of the manure that has been made in the barn-yards is unfit for immediate use. What is scattered cannot easily be got at, and much that is in heaps, unless well protected, is frozen. Stable manure should always heat somewhat before being drawn on the land, to destroy weed seed and to place the elements of plant food in more available form. The extra labor of drawing chunks of ice and snow with loads of manure is no inconsiderable expense, and should be avoided if possible

Good help on the farm is the most profitable in the end. Poor help—cheap help, necessitates a constant superintendence on the part of the employer or some one designated for the purpose. Farm work is of such a kind, and is in such variety, that the system of setting crews of cheap help at work with a boss to stand over and direct them, is not practicable. Hence, for ordinary farm work it is better to employ intelligent help. This of course implies good wages. With faithful and efficient help attending diligently to business, the employer is well suited; good wages serve to keep the help satisfied and contended. Between the two all goes easy and pleasant.

A lamb will live on very little milk, if it is kept in a warm place, and has a warm blanket on it. By the time it is two weeks old, it will begin to pick clover leaves, and when three weeks old, it will lick a little meal or eat oats with its mother. When a ewe loses her lamb, always put her in a close pen or box and use her for a wet nurse to help out the lambs which are short, and if the lamb's own mother happens to be feeble, or to have but little milk, make her the adopted mother and let her rear the lamb. A twin lamb can often be reared in a much better way by causing some ewe to adopt it which may have lost her own.

When calves have the scours the best plan is to give half a pint of linseed oil or olive oil, if the calf is three or four months old, to cleanse the bowels of the irritating cause. If the first does not operate give a second dose. If younger the dose must be smaller. After the operation give a little boiled flaxseed with the food, but don't feed the food that has created the difficulty. Give cooling food, such as wheat middlings, and continue for a few days the boiled flaxseed in small quantity. The calves should be kept in a comfortable stable or sheds. The calf feeder should depend upon prevention of disease, and should not expect much of cure. It requires the presence of the skilled veterinarian in chronic cases.

Miscellaneous.

Among the Persians, if a man is caught is stealing a second time, his hands are cut off.

Victor Hugo defines paradise as "a country where the parties are always young and the children always little."