

them to avoid food that would injure their health. Gibson relates that a troop under his care, had for several years had their horses grazed upon the aftergrass of a farm near London, from which they had always returned in good condition—though the grass was but short, the farm having been much neglected by the tenant. In a following season another tenant hired the farm, and spread a great quantity of manure upon the grass land, and there was of course a very rank growth of aftergrass. The horses were sent to the farm at the usual season, but soon became unhealthy, and in the course of a few weeks forty were sick, he went to examine the pasture, and upon observing its dark green color, was immediately convinced that the cause of the sickness was to be traced to the unwholesome quality of this over-manured grass.—He accordingly ordered the horses back to their stables, and put them upon dry food, which soon restored their health.

Our best hay is that which grows upon dry land which has been often manured. It is generally a mixture of Couch Grass, Timothy, Red and White Clovers, Foxtail, and Sweetscented Grass. When the land has been topdressed with compost formed the preceding summer, the hay will always be good if it does not give more than two and a half tons to the acre, but if it much exceed this quantity the quality will be inferior. But should this land receive no manure for three or four years or until the crop is reduced to one ton to the acre, the hay will be of superior quality, provided the grasses are not changed, being at least one fifth more valuable than that which yielded two and a half tons, five times as valuable as the Timothy above described, which gave five tons to the acre. (On moist land, if there is but one ton to the acre, a considerable part of it will be the small browntop, *Agrostis Vulgaris*; always a grass of inferior quality.) In a dry season the hay is of the best quality generally; holding more mucilaginous and saccharine matter, and less wood in the stem and less siliceous matter in the epidormis or outer bark, than it does in a wet season. The first crop of timothy raised on new hardwood land is of inferior quality to the same grass grown on old cultivated ground. It should, if designed for feeding cows, be cut as soon as all the heads are out, and before it has acquired its full height. For Horses it may be allowed to stand till it begins to blossom. On old land Timothy for cows may be permitted to stand till it is in flower, and for Horses till out of blossom.

A very rank crop of Clover will be found of most value, both for Cows and Horses, if cut just before the flowers open.

Among the grasses, as well as other vegetables there are some gross feeders which can draw wholesome nutriment from soils too rich for others. The native variety of Couch grass will give a great crop of excellent hay upon a soil too rich for Timothy.

A large quantity of coarse manure may be applied to Indian Corn, Beets, Carrots, and Swedish Turnips, they are all gross feeders, and I have seen potatoes of a good (though not the best) quality which yielded at the rate of five hundred bushels to the acre, but care had been used to make the ground very mellow to a considerable depth, and their ripening was favored by a severe drought, previous to which the stems had grown to such an enormous length that the crop was expected to fail:

As the value of every kind of grass is so greatly affected by differences of soil, manure, and seasons, it is certain that very little confidence can be placed in Tables which pretend to give the proportions of Nutriment contained in different species, notwithstanding the high character of those by whom they were formed. The Chemist is here out of his element, he has not yet learned the *modus operandi* in that animated Laboratory, the stomach of an

animal. The Moose will live upon young maple wood—the Beaver fattens upon Bark which contain large proportions of the tanning principle—the Cariboo thrives upon the juiceless lichens, the white moss, and the paper—like mosses attached to the Rocks. Swire will live upon dock and comfrey, but the Cow will starve before she will taste these plants, yet she eagerly devours the woody night-shade, which is poisonous to man.

Experiments would be very useful which should really ascertain the relative value of our different grasses, and the proper time of cutting them. For this purpose they should be sowed separately, in such quantities that parts of each might be cut at different periods of their growth, and then fed to cattle of each kind for a considerable time. The quantity of milk given by a Cow would shew which kind of hay suited her the best, but more time would be required for Horses and Sheep. T. S.

#### MEANS FOR THE IMPROVEMENT OF AGRICULTURE.

We invite the attention of the readers of the Colonial Farmer to the following extracts from the letter of an eminent individual and practical farmer, published in the *Cultivator*. The opinions of such men on the subject of Agriculture, and the best means of advancing it, deserve and will receive consideration:

"As to Legislative aid, whenever farmers shall be convinced that it is for their advancement and interest, whenever they shall wake up to the importance of their pursuit, and its intimate connection with the prosperity of their Country, they will have it; their petitions will command immediate attention, and what we are now craving as a boon, they will require as their right. But with all due deference to others, I would suggest that on this point we are premature; we are in advance of the times, and are trying to force on the farmer what he has not yet been taught to appreciate. With these views, I would rather turn the attention of the Society to the more extended circulation of Agricultural Periodicals, as the great preparative step to improvement; for myself, I feel it a great individual gain wherever I can induce a neighbour to subscribe to a periodical, he becomes to me a more intelligent and valuable associate, our minds have been occupied with the same subjects, and are prepared to converse of them when we meet, and exchange our views, opinions and experience, upon whatever has been presented to us. I also believe that occasional lectures, adapted particularly to the agricultural community, and having in view certain prejudices which might thus be overcome, would be of infinite service, and would go far to convince them of the great advantage to be derived from reading. The moment the great body of Agriculturists consent to read they will become the most intelligent portion of society, and I need scarce say, the most influential. Let the farmer read, and he will soon understand what will most conduce to his interests, and will learn how best to promote and secure them. I think then there will be no difficulty in supporting Agricultural schools in various districts of the State, and I am strongly inclined to believe that they would be more useful than one large institution as was formerly contemplated.

"It may be said that these are subjects of individual action. I am aware of it, and most sincerely hope that every friend of agricultural improvement will so consider them, and if they view them as I do, that they may be induced to act upon them. There are those in every community, who by a small sacrifice of time and attention, and with a very trifling expenditure in aid of the objects to be desired, may in a few years revolutionize the present miserable state of agriculture around them, and thus become identified with the interests and most enduring prosperity of their neighbourhood."

This appears to us to be sound doctrine. Make men intelligent, make them to understand the subjects that are of the most consequence to them, place in their hands those works that relate to their business and their interests and they will soon act understandingly and decisively. We believe and we doubt not all well informed men will concur with us, that the most effectual means for the advancement of agriculture in this country, and placing the