Mingling the Manure of Cattle and Horses.

There are few practical farmers who are not aware of the benefits derived from the different manures made in the barn yard, but it is well to recall betimes the very first principles of the different branches of agriculture. All farmers have not the knowledge, of which the best teacher is experience, and it may not be amiss to jog the memory of others on what they know by theory but may not have reduced to practice. Among our clippings from our contemporaries the following on the subject is pertinent and seasonable:—

The accumulations of the horse stables, and also of the stables of cows and other neat cattle, should always be mingled together in the yard or compost Hence stables should open into yards over which the litter from the horses and cows should be regularly spread every day. By this means alone will a good result be obtained. The respective merits of boxes and foldyards for fattening cattle in a great measure depend upon the quality of dung they turn out. The box is economical in the matter of straw, and will be esteemed for this reason in suburban districts. It is also favorable for the manufacture of good manure, as being under cover, the liquor is wetted by the droppings of the animals only. The byre, says the Agricultural Gazette, is still more economical of straw, but it is not favorable to the manufacture of good manure, owing to the animals being tied up. Litter from byres ought to be thrown out into courts and trodden down with young stock. Foldyards require much litter, as they are always more or less open, and are for this reason preferred in rural districts, where the value of straw is not yet felt. Excellent manure may be manufactured in small troughed folds, with a considerable proportion of shedding. Cattle will do well in any of these forms of accommodation, but if tied up in byes it will be humane, as well as profitable, to have them brushed and curry-combed daily. It must be re-membered that animals thus confined cannot lick or rub themselves, and that they are deprived of the cooling effects of air and rain. The skin under these circumstances becomes irritable, and especially where, as is often the case in byres, dirt adheres to the animal. Brushing and clensing the skin and attention to the state of the feet cannot be the state of the feet cannot be too strongly enforced.

Orchard Grass.

The high opinion we entertain of orchard grass for soiling, hay and pasture, is known to our readers; but though we have ere now spoken of its value to the farmer and of its culture, it may be well to know what is said of it by other agricultural writers. The following we clip from the Country Gentleman:—

Two bushels of seed to the acre (14 pounds to the bushel) is not too much; but 20 pounds of nice clean seed will insure a good set. To sow less than 20 pounds is "penny wise and pound foolish," for less than 20 pounds will not produce a perfect sod, and all the ground not sodded over is, of course, lost. I believe August to be the best time for sowing orchard grass. I sowed this year. a small lot in August to rye and orchard grass. About the 25th of next April I shall mow the rye, which will make a fine lot of feed, and by mowing so early it will not interfere with the grass, and will protect it during the winter. I believe this to be even better than sowing the grass alone. Most farmers wish to sow grass seed with wheat or oats; if orchard grass is sown with either of these, it should be sown in March. I soil all my stock and consider orchard grass the best of all grasses for soiling, for the following reasons: its earliness, lateness, rapidity of growth and the preference stock have for it. All these qualities combined make it the best of all grasses for soiling. It does not make as much feed as corn fodder, but it does not require the work that corn fodder does, and you are obliged to manure your corn fodder land to keep it up, while orchard grass improves land every year. Stock never tire of the grass as they every year. do of the fodder. If sown about the first of March, it is not necessary to harrow the seed in, although a light harrowing will do no harm.

When to Sow Clover.

Harris, of the Agriculturist, writes as follows on this subject:—

My own practice is to harrow the wheat three times in the spring. We go over the wheat both ways with the harrow, and then sow the clover seed and follow with the harrow to cover the seed. If the ground is very hard, the harrows do not break up the crust sufficiently to afford a good covering for the seed, and if dry weather follows we have a poor catch on these hard spots. I have my doubts as to which is the better plan, but am inclined to think that so far as securing a good catch of timothy and clover is concerned, it is better to give up harrowing winter wheat in the spring and to sow timothy seed in the fall and clover seed very early in the spring. It depends very much on the soil and season. The harrowing helps the wheat and kills a good many weeds, and on sandy loam the harrow leaves a good seed bed for the clover, and if we are favored with a few showers, we are pretty sure of a good catch of clover.

Last year all my clover failed. My wheat also is a poor crop. And I do not feel like giving advice. I am enjoying a short spell of humility. I have to whistle and keep working. I try to look at the bright side. I have thirty two acres of capital barley seeded down with clover and timothy, which seems to be a good catch. But my clover last fall was just as promising, and yet it was all winter-killed except along the fences and dead furrows, where the snow protected it. I do not like to own it even to myself, but I think I weakened the young clover plants by letting my sheep and pigs pasture it too close last fall. I shall at any rate keep them out of my clover this fall.

I had an old timothy meadow which I pastured last fall pretty close. This year the hay was not over half a ton per acre. I had another meadow, which, owing to the fact that we sowed part of the field to rye, we could not pasture after the first of September. The grass on this meadow was as thick and heavy as it could grow. We got more hay from one acre of this meadow than from four acres of the other. I have always thought that it did not hurt meadows to pasture them in the fall, but last winter was so unusually cold and the soil so dry, with little or no snow to cover it, that a slight coat of grass was of great value as a protection from the severe cold winds, and also probably proved useful as a mulch during the dry weather of spring.

I have also twenty-two acres of good rye seeded down last fall with timothy and the dryer portions sown also with clover in the spring. The field has a cheerful look. Three or four acres, where I manured heavily for mangolds four years ago, is a particularly pleasant spot to visit during a fit of the blues. The rye is six feet high and as stout as it can grow. It is the cheapest and most profitable crop I have raised for years. It was a rough piece of low land which we sowed with oats two years ago and seeded down. But the seed did not take well, and so I concluded to plow it up and seed it down again early in September with timothy alone. But after the field was all prepared, the Deacon persuaded me to sow rye and seed down with it. I am glad I took his advice, though I am not sure but I should have done better to have sown timothy alone.

A Farm of 25 Acres.

Mr. B. F. Farnham, of Bucksport, Me., has a small farm of 25 acres, five in tillage and the rest in pasture. He cut, the present season, eight tons of good hay, and raised from eighty-nine rods of land, 2,500 lbs. of squash, 80 bushels Mangold Wurtzel beets, 40 bushels carrots, 40 bushels potatoes, 5 bushels beans, 60 bushels rutabago turnips, besides sweet corn, pole beans, green peas, &c., for summer family use.

The first ten rods was planted with squash, hills 8 feet apart, made broad and deep with the spade, and potatoes drilled between the hills, from which he raised 2,500 lbs. squash, and 15 bushels potatoes. Twenty rods in Wurtzel beats yielded 80 bushels; nine rods in carrots, 40 bushels; sixteen rods in potatoes, 25 bushels; twenty rods in turnips, 60 bushels; fourteen rods in beans, 5 bushels; seed planted, 6 quarts. No fertilizers were used except stable manure, and he believes we should make our own fertilizers in our own stables. He has used phosphates in years past by way of experimenting, but believes good hard wood ashes as valuable as the phosphates we generally purchase.

After the ground is prepared for the seed, about all the work and weeding is done with Harrington's patent seed sower and hand cultivator, of which Mr. Farnham speaks in the highest terms. After harvest, his land was thoroughly plowed and cultivated and laid down to grass in November. Mr. Farnham keeps two cows, from which he has sold, the present season, \$50 worth of milk, two calves for \$4, and made 240 lbs. butter, besides what milk and cream has been used in his family of five, and they are "good livers." He believes cows do quite as well in the winter on good hay and roots as on oil cake, cotton seed meal or shorts, which no farmer can afford to buy—we can raise roots much the cheapest. In feeding, Mr. Farnham makes a change in roots each day, feeding turnips, wurtzels, and carrots alternately.

It must be remembered two calves were kept to the age of four weeks, and 1,200 qts. of milk sold, besides what was used in the family, which would take the milk of one cow at least. He has made two cords of excellent manure from his pig, which was applied to the land before laying it down to grass in November.—Rural New Yorker.

Old Wheat for Seed.

Several years ago, when I lived in Saline county Mo., my attention was called to an article in the Rural World, which set forth that the previous years' growth of wheat, was better for seed than that grown the season of sowing. Also, that it would mature sooner and produce several bushels on an average more to the acre. I have given it a trial and found it to be the case. I consider old wheat for sowing worth one-third more per bushel than new wheat. Particularly so this season, as we had so much rain during the period of harvesting.

Wheat, in order to produce a healthy plant, should be sound. This season the wheat, most of it, has been wet and then dry several times, and the vitality of the chit, which has thus been frequently swollen and shrunken, has been seriously impaired. In purchasing old wheat, be careful to ascertain whether it has been in large bulk or not. It would be a good plan to test a sample, say a pint of the seed, and see what proportion of the seed fails to sprout.

If the seed is perfectly sound and rains are frequent, when the time comes for sowing, I think one bushel of seed will be enough to the acre. I intend to experiment some in this direction. take particular pains to sow only the largest and plumpest grains, and run my wheat through the fan-turned rapidly so that only the heaviest kernels work down into the discharging spout. I use a drill, which gives the wheat plants ample Where my room in which to tiller and spread. fields are exposed, say to a strong southwest wind during the winter, I run my drill from the southeast to the northwest regardless of the fences which surround the field. This is a little more trouble, but it pays, for then the dirt on the little ridges between the drill rows, is blown toward and upon the roots of the wheat plants.

A word about the management of wheat in the shock in wet seasons like the present one. After the wheat is shocked and capped, no matter if it does begin to grow, let it alone and not be continually spreading it in the sun to dry. My experience is, if wheat is let alone, there will be a greater proportion of sound wheat when you come to thresh it, then there will be if you keep all the time to work at it. I think my experience this season has convinced some of my neighbors of the correctness of my practice. I hope other wheat growers will send their views for publication—it is by a comparison of the views of practical farmers that progress can be made.—E. W. H., in Rural World.

Straw and Hay.—Good clean straw, carefully stacked, is supposed to represent a value, in comparison with the best meadow hay, of three to one. That is, an animal must eat three pounds of straw to get the same subsistence as would be afforded by one pound of hay. Now, since it is required that cattle must consume all the hay they can eat to bring them through the winter in the same condition they were in at its commencement, it is evident that, if wintered largely on straw, they must subsist largely upon the fat and flesh previously stored up; but, if fed with corn or other concentrated food, the case becomes widely different, since it acts as a devisor to the other food, and at the same time furnishes whatever nutriment it may possess to the animal.

Prof. Wi

March,

Each plan velopment if for the see earthy matisufficient quant no reward if From eve

ro reward for From ever corn, the abstructure; life is again when the fitthe process tary or simuthe other.

Experientinuous creation of the they become yet the landance as when the they become the theorem the they become the they become the theorem the the theorem the theorem the theorem the theorem the theorem the the theorem the theorem the theorem the theorem the theorem the the theorem the theorem the theorem the theorem the theorem the the theorem the theorem the theorem the theorem the theorem the the theorem the theorem the theorem the theorem the theorem the the theorem the theorem the theorem the theorem the theorem the the theorem the theorem the theorem the theorem the theorem the the theorem the theorem the theorem the theorem the theorem the the theorem the theorem the theorem the theorem the theorem the the theorem the theorem the theorem the theorem the theorem the the theorem the theorem the theorem the theorem the theorem the the theorem the theorem the theorem the theorem the theorem the the theorem t

These reagriculturibut sparse pean country large crop sumption; and sent i lions of the tain perthis fertilland would wheat, of sells control of his later than the sells cont

hausted. each cro ren; less from the depth, a below th or sap co tion in Hence, regenera many s roots gr their fo pared, a plete de ${f immov}$ a agricult nitroger turned accordin for the table k

although

ones—th

of milli and ret and ani cultiva grain in countri a manu trast to Bone acid. save th a little imp es tons go are bee

Phos

all plan

000 to

sive m

It w
ference
having
instan
phate
of pho
solubl
ble po
inert
the se

and fo

vert t

food, t