

remember *all* particulars, as sometimes the slightest inaccuracy will cause loss. Never delay in your work, as one wet day in early spring will cost you a week's work afterwards—that is to say, to give an example, supposing you have some weeding to do on a fine day, and that you should put it off for a more agreeable task; a wet day comes, and you can not weed for a couple of days more; your labor is increased four-fold and your crop suffers also. Therefore use your judgment as to the most necessary work to be done, and do it.

The day for sneering at "book-farming" is gone by, therefore study the principles upon which you are working; do not endeavor to store your mind with scientific formulas, but learn the *effects* of certain manures, certain foods, and the cost of these things. Also know the cost of your crops, of each one in particular, and I know of no simpler method than that of having a plan of your farm drawn by yourself on a sheet of foolscap, the portion of land which each crop occupies being lined off. Mark down in lead-pencil on each portion, as the week passes, the amount of days plowing, harrowing and sowing, the amount of seed, the amount of manure spread, and so on; then at the end of the season sum it all up as concisely as possible, erase the pencil memoranda, and re-mark it in ink, putting down the yield resulting from it, and you see at once the cost of your crop. These plans dated and put away, are valuable for future reference, and if a small diary is kept at the same time for noting down the character of the season, date of sowing and such particulars, these two will form a very useful work.

I append a few general rules, not that they are new, but that they are concise and have been proved trustworthy under nearly all circumstances:

1. Plowing should be as deep as possible, and the earth be subsoiled also; when the subsoil is clayey, lime it well and bring it up to the surface; if the land is inclined to hold water, plow into narrow ridges and tile-drain as soon as possible. Plow in the fall for all spring crops, as the winter frosts mellow the soil, and repeat, of course, in the spring.

2. Harrowing is done to pulverize what the plow is unable to do, or has left undone. There are several kinds of harrows, each good for a special purpose; the ordinary tooth harrow is, if the teeth are made slanting, as good as any for newly plowed land; a chain harrow is very beneficial for other purposes, such as breaking lumps of manure in pastures, meadows, etc.

3. Sowing is usually done altogether too thickly, but it must not be done as lightly as they do in the British Isles, where they have a very moist climate. If a wet spring is occurring, sow a little less; if a dry spring, not so light; the moisture causes more seeds to germinate. If the seed is drilled, drill closer in a dry spring and farther apart in a wet one. The depth proper for each kind of seed must also be borne in mind, as this will affect the crop very materially; on this account drilling seed is perhaps the most satisfactory. For meadows, sow three or four sorts of seed—even six or eight sorts will do no harm; this is when cattle are bred. If near cities, and the hay is wanted for horses, a large proportion of timothy is necessary.

4. Cutting Hay.—All authorities are pretty much agreed that the proper time for cutting is during the bloom, and the curing is most perfectly done when we manage to preserve it with all the color and sap and the least proportion of woody fibre. After the bloom has come the fibre commences to form, and this is to be avoided; in a great many cases it will be necessary to begin cutting early in order to get the greater portion of the hay cut in the bloom, for if we waited for the

bloom to form before cutting any, more than half the hay would be too woody, thereby causing loss.

5. Animals must be kept clean and comfortable, and must be fed plentifully. There must be no waste, and especially with cows, no chance to trample their food allowed. They must have their food regularly and have plenty of water; the water ought not to be cold, as they lose very much in this way, the coldness of the water chilling their stomachs and systems, and making them eat more food. There is one point about horses that a great many neglect, namely, the washing of the hocks; the neglect of this inevitably brings scratches. Speak to your animals kindly and rarely strike any animal; if you find that you can not do otherwise than strike one or two of them, and it should happen to be a cow, fatten and sell it; if a horse, sell it at once, and perhaps the buyer will be able to manage it; do not, however, sell it under false pretences. It is generally the case that a kind master has a kind animal.

These few notes may perhaps be of some use to beginners; they are not intended for others. They are offered modestly in the hope that some may be stirred up to better deeds and longings. I had more to write, but think that I have occupied enough of the space of the FARMER'S ADVOCATE for this month. Let each one who may read this article determine to "make two blades grow where only one grew before, and thus be a public benefactor." In adding to your own wealth you add to the wealth of the country, though the doctrine of Free Traders is somewhat opposed to this.

HIRAM B. STEPHENS, St. Lambert.

Healthy Pigs.

The prevalence of disease among pigs in the neighboring States warns us to be more careful than ever to prevent disease among our own herds, not only by guarding against infection from that country, but also by strict attention to the food and care of our own pigs. No food but such as is clean and sound should be given them, and their pens and bedding should be such as to ensure health and cleanliness. Mr. Mechi's plan for keeping his pigs clean in their sties is deserving of consideration. Although he keeps so many pigs (200 at a time) and so closely packed, he has no apprehension of disease among them. They are always on sparred wooden floors in their sties, the spars being three inches wide, with intervals between them, and a pit under them, so that the change of temperature caused by the heat of their bodies and their breathing, is continually circulating under and above them. There should be, of course, a way of escape for the heated air in the upper part of the sty. There can thus be no stagnation of air, so fatal to animal life.

The urine falls between the spars, and the pigs generally deposit their solid excretions in a corner, so the animals are kept clean and consequently healthy. There is little danger of their getting heated and then catching cold, bringing on lung disease and hog cholera. In like manner he has fattened hundreds of cattle on sparred floors without a particle of straw or any sweeping of floors, the excretions all passing between the spars to the pit under them. At one time he had twelve cattle on these spars from the time they were six months old until they were sold fat at two years old, and they were always clean and healthy. From calves until full grown for the butcher, his cattle were constantly on sparred floors. They always fattened as quickly and grew as well as those on straw in covered yards, and were especially healthy.

We would especially direct the attention of our readers to the advantage of keeping pigs clean in sty and food as a prime item in securing their healthiness. Cleanliness and good health in such instances are almost inseparable.

Profitable Potato Culture.

Never before has the potato as a farm crop been so highly estimated. Its almost entire failure by the disease is an incalculable loss to the farmers of Great Britain and Ireland, while the potato crop in America has been unusually productive, and quite free from any disease. The crop is estimated at 181,400,000 bushels. These figures will enable our readers to form some idea of the importance of the potato crop. Throughout North America it has doubtless paid the producers well for all their expenses, but how much greater would have been the profit had all the area planted been properly cultivated? The average yield of potatoes in the United States in 1879 was only 69 bushels, an average less at least by half than what would be expected. We have reports of 400 and even more bushels to the acre, but by planting good seed in suitable and well-prepared ground, with fertilizers drawn from the subsoil, we then have a soil rich, deep, mellow and porous, such as in a favorable season must reward the farmer with an abundant crop.

The next point to be considered is the seed, its preservation and preparation. Seed potatoes should be kept, as nearly as possible, as fresh as when dug in the fall, without heating or growing. The smooth potatoes of medium size are the best for seed. It is well that they be cut a few days before being planted, and the cuts healed by mixing them with land plaster or wood ashes. It is well, also, that they be cut to one or two eyes. The distance between the drills and between the sets varies. For late varieties from 30 inches to 3 feet between the drills, as the vines are the more luxuriant. For earlier varieties six inches less space, and in garden culture not more than two feet apart.

The potato beetle has caused a great diminution of potato growing. They put in an early appearance in the season, but these early beetles that emerge from their winter quarters, being perfect insects, are not gross feeders. Their mission is not to consume but to produce. May and June are the mating months for the beetles, and it is not till the larvae appear that the great damage is done. Some take advantage of this circumstance, and by planting early varieties and planting them early, they mature so early that these suffer less from the beetle. Paris green is the great means of combating the potato beetle, as well as many other devastating insects. Other insecticides have been recommended. London purple is much lower priced, but it is doubtful if it is so effectual for the purpose. So far we prefer the Paris green to anything else. We use it mixed in water as the easiest mode of application.

The necessity of more skilful cultivation is shown by the official report of the U. S. Agricultural Department, which states the fact not very creditable to American agriculture, that the average yield in the States in 1879 was only 69 bushels, an average not half what it should be with fair cultivation.

SUCCESSFUL VETERINARY STUDENT. — C. P. Smith, who has been studying in the office of Messrs. Rudd & Tennent, veterinary surgeons, of this city, at the recent examination of the Ontario Veterinary College, Toronto, succeeded in carrying off the following prizes: First in Chemistry, first in Materia Medica, first in Physiology, with honors in other branches; also the gold medal for the best general examination. He had carried off the highest medal in the junior class last spring, being the only student that carried off the medal in both the primary and final examination. He was also awarded his diploma. The firm of Rudd & Tennent is one of our veterinary advisers.