

the proportion observed in the food allowed for the army horses, is as near what it ought to be as is necessary. Suppose a working horse of middling size, to have ten pounds of oats and two pounds of beans in the twenty-four hours—it will require hay or some other substance, such as chaff or cut straw, to increase its bulk to about thirty pounds, before the functions of digestion can be carried on in perfection. A certain quantity of bulk being requisite for that purpose, independent of the quality. The same observations applies to the feeding of all other animals, but more especially such as are fattening, or in the dairy, where quickness of digestion is of such great importance. The nutriment contained in good hay, if there be plenty of it given, is sufficient to keep a horse to look at, in good condition; but corn is indispensable to enable him to stand hard work; and no man that intends to make a livelihood by cultivating land, ought ever to keep a horse that is not, both as to constitution and spirits, fully equal to his work. It is supposed that, by weight, hay does not contain of substantial nutritive matter, in comparison with oats, more than as one part to three—that is one pound of oats contains fully as much real nutriment for the horse as three pounds of hay.

When oats, weighing about thirty-six to forty pounds the bushel, is sold for one and eight pence to two shillings; ten pound of oats will cost about as much as thirty pounds of hay when selling for about five dollars the hundred bundles. This proportion will show the relative value of hay and oats, according to the market price of both at any period. These calculations may be useful to any individual keeping horses, or fattening cattle. About thirty pounds of dry food will be sufficient in the twenty-four hours for a middling sized farm horse. The thirty pounds should contain ten pounds of grain coarsely ground or crushed, or about one bushel and a half per week. This will amount to about eighty bushels of oats in the year, and might be grown on two acres of land very easily. During the winter months the oats should be mixed with steamed potatoes, carrots, or some other vegetables, mixing a small quantity of salt occasionally. If horses are stabled during the summer, they might be fed with vetches or clover, from about the first week of June to October. Each horse would require from 50 to 60 pounds of clover vetches, given with the usual quantity of ground or bruised grain in the twenty-four hours. A quarter of an acre of good clover or vetches, would afford abundant food for one horse during the four summer months. Work horses might be very profitably kept in this way, and perhaps they should be always so kept in summer on a well regulated farm, where the horses were regularly worked. There is considerable time and labour lost in sending work horses to, and fetching them from their pasture, and it is generally supposed that two horses from grass are not equal to as much work, as one horse would be well groomed and fed on clover and grain. The following table had appeared some time ago in *The Sporting Magazine*, and is deserving the attention of farmers and others keeping horses. It is said to have been proved that the quality and quantity stated in this table, are fully sufficient to keep a moderate sized horse in good working condition, and in every respect equal to any work that may be required from them by a farmer. Each column forms the mixture of food

for one horse during the twenty-four hours:—

	lb.	lb.	lb.	lb.
Oats, peas, or beans, ground or crushed...	5	5	10	5
Hay cut into chaff.....	7	8	10	8
Straw do.	7	10	10	8
Potatoes steamed.....	5	5	0	0
Malt dust or oil cake.	0	2	0	2
Bran.....	0	0	0	7
Grains.....	6	0	0	0
	30	30	30	30

About two ounces of salt should be added occasionally. Although this table shows that the various kinds of fodder enumerated as being sufficient to keep a horse in full work in condition, yet it must be evident to all that are acquainted with the properties of different kinds of fodder, that other articles, such as carrots, parsnips, and Swedish turnips may be substituted for a part of the hay, but of course, a larger weight will be required. If horses are allowed the full quantity of one bushel and a half of oats, or its weight of some other grain weekly, cut straw or pea haulms, may be very beneficially given to them occasionally, instead of hay. Small doses of nitre, and flour of sulphur, should also, be frequently administered to horses in this climate.—In feeding horses during the winter months with steamed vegetables, they should be given to them warm, unless the stables are very close, and no chance of the food being frozen. Indeed in any case, we believe, that it is the most judicious method to give the steamed food warm and mixed. A great loss is sustained in feeding any species of animals in this country with raw vegetables. We believe that it is a loss of fully one half of the food consumed. To any farmer who may think differently, we would recommend to make a careful experiment. Much food is wasted by the neglect of proper preparation of it for the use of animals, and careful attention in placing it before them in due quantity and at the proper time.

Spring Sowing and Planting.

The month of May should afford the farmers ample opportunity to finish the spring sowing and planting. Early sowing and planting, provided the soil is in a suitable state to receive the seed, will generally be found the most profitable. In Eastern Canada, farmers have been in the habit, for the last few years, to put off sowing wheat to the latter end of May, in order that it should not come into ear before the middle or latter end of July, when the danger of the wheat fly would be nearly over, as they seldom continue in the fields after the 15th or 21st of July. The risk, however, of sowing wheat so late is considerable, as it will be subject to rust and mildew, that are nearly as fatal to the crop, if attacked by these diseases when in a green state, as it would by the ravages of the wheat fly. In very favourable years, such as last year, late sown wheat may succeed, but it is a practice we cannot take upon us to recommend, as the uncertainty attending it is too great to be incurred, unless upon a small scale, by way of experiment. Peas, oats, barley, and potatoes should all be in the ground this month, as well as carrots, parsnips and any other green crop, except turnips. Indeed carrots and parsnips should have been sown in April, where the land was suitable.—We have always recommended farmers not to sell their wood ashes, as it will be found one of the best manures upon the farm, particularly for turnips, when sown; or as top dressing on mea-

dow, or mixed in a compost heap. We would suggest the propriety of mixing some fresh lime with potatoes, immediately after they are cut for seed, and allow it to dry upon the cut part previous to planting. We would also recommend planting and covering in the morning, or when the day was not too hot. It is a bad plan to leave the cut seed for any length of time exposed uncovered in the drills, to a hot sun. The seed should be covered the moment they are planted.

Principle of Rotation of Cropping.

"The first principle, or fundamental point, is, that every plant exhausts the soil. The 2nd., That all plants do not exhaust the soil equally. The 3rd., That plants of different kinds do not exhaust the soil in the same manner. The 4th., That all plants do not restore to the soil the same quantity, nor the same quality of manure. The 5th., That all plants are not equally favourable to the growth of weeds." From these leading principles, writers on agricultural science deduce the following inference:—"1st. However well a soil may be prepared, it cannot long nourish crops of the same kind in succession, without becoming exhausted. 2nd. Every crop impoverishes a soil more or less, as more or less is restored to the soil by the plant cultivated. 3rd. Perpendicular rooted plants, and such as root horizontally, ought to succeed each other. 4th, Plants of the same kinds should not return too frequently in a rotation. 5th, The plants favourable to the growth of weeds ought not to succeed each other. 6th, Such plants as eminently exhaust the soil, as the grains, and the oil plants, should only be sown where the land is in good heart. 7th, In proportion as a soil is found to exhaust itself by successive crops, plants which is least exhausting ought to be cultivated." By observing these rules of rotation, a vast improvement would necessarily be introduced in Canadian agriculture. At present, nine-tenths of the farmers pay no attention whatever to rotation of cropping. Weedy crops of grain succeed each other, without summer fallow or manuring.

Letters on "MEDICAL EDUCATION" have been handed to us, by the author Dr. Hall, of Montreal, and upon a careful perusal of them, we perfectly concur with their talented author, that an urgent necessity exists for the introduction of a law, that would prevent men not duly qualified, from practising as Physicians or Surgeons in Canada. We do not perceive anything arbitrary or unreasonable in the propositions of Dr. Hall, but we think it extremely unreasonable and improper, that any man should have it in his power to demand a licence, by our existing laws, to practice as a physician or surgeon, without being previously properly qualified by a medical education. The copy or abstract of a bill to regulate the practice of Physic, Surgery, &c., within the Province of Canada, we conceive to be perfectly reasonable, so far as we are capable of understanding it. The law in England on this subject, may be a very good president for to adopt here, making such alterations as the different circumstances of the country would require. The health and lives of the people of this Province, are not to be jeopardized by the practice of unqualified physicians and surgeons. As Dr. Hall correctly observes, it is not in the cities and principal towns that much evil is to be apprehended from the practice of such men, but in the country amongst the agricultural population they may do the most harm, where there will not be an opportunity to discover their deficiency of medical education. It is on this ground we refer to the subject, and recommend it as deserving a serious attention of the agricultural class and their representatives.