

to collect the hay on the meadow. This should be no longer tolerated. When it can be raked by a horse with one-fifth the expense, it is surprising that so many adhere to the old practice.—If farmers are unwilling to procure a revolving rake, let them at least provide themselves with the common horse rake. The cost is only two dollars, and it will pay for itself in less than half a day, and in half an hour if a shower of rain is coming upon a crop of new hay. Attach the draught ropes to the outer teeth cut to about one third the length of the others, and no difficulty will be found in managing it.

We last year saw a meadow of fifteen acres raked with a common horse rake, in about six hours of time actually employed, a part of which yielded three tons to the acre; and the whole of the hay was drawn to the stack, chiefly from the winrow, by the horse and rake, sufficiently fast to keep a strong active man (who had previously laughed at the plan) hard at work all day to pitch it on the stack. By regulating properly, by means of the handles, the pitch of the teeth, loads were collected which were a good load for one horse to draw. One man only (without any rider) was sufficient to manage it. It abridged the labor so much, that cutting the grass was more than two-thirds of the work done on the meadow. On extensive and smooth meadows, we would by all means recommend the revolving rake in preference to any other, and the hay sweep (described last year in the Farmer) to collect and draw it to the stack or place of deposit. But the common horse rake may be used on any meadow, if not intolerably rough.

Mowers should commence work by four o'clock in the morning, when the air is cool and the grass moist and then they may rest at the heat of the day.

In harvesting grain, it is much better to cut it a few days before it is perfectly ripe, than to allow it to stand too long. If cut when not entirely ripe, and bound up *before the straw becomes dry, it will derive nourishment from the stalk* sufficient to ripen it before the sheaves become thoroughly dry.

The great advantages of cutting early are, the grain is not wasted by shelling, the straw is worth more, and it enables the farmer to drive business and prevent losses from bad weather and other delays.

Lodged and rusty grain should in all cases be cut as soon as admissible, as little is gained by suffering it to stand long.

Whenever it is necessary to leave grain upon the field after it is cut, it should be put up so as to withstand any rain without injury. This may be easily effected by placing about six sheaves closely together, pressing their heads to a point, and capping the whole with a seventh. The cap is made by binding a sheaf firmly near the lower end and spreading the straw on all sides by breaking it down over the band.

At this busy season of the year, the garden must by no means be neglected—the ground must be kept clear from weeds,—plants which need it watered in dry weather, always in the evening to allow the water to penetrate the soil before evaporating;—herbs, as they come in flower, must be cut and dried for future use; they must be cut in dry warm weather, and always dried in the shade;—fruit trees which bear too thick must have their fruit thinned, if it is wished to have it of any value as to flavor. In the flower garden, seeds must be gathered, labelled, and preserved as they ripen, and the roots of bulbous plants taken up as the tops wither and die; they are best preserved by drying them somewhat, in small heaps covered with sand or dry soil to protect them from the rays of the sun. As soon as taken up they should be labelled to prevent mixing.

The May and June numbers of "*The British American Cultivator*" published at Toronto by Messrs. EVANS and EDMUNDSON, have been received and have supplied part of the matter under the Agricultural head this month. This periodical contains much interesting matter and is furnished at one dollar per annum. It is published monthly.

PRINCIPLE OF ROTATION OF CROPPING.—"The first principle, or fundamental point, is, that every plant exhausts the soil. The 2d., That all plants do not exhaust the soil equally. The 3d., 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. 2d. Every crop impoverishes a soil more or less, as more or less is restored to the soil by the plant cultivated. 3d. Perpendicular rooted plants, and such as root horizontally, ought to succeed each other. 4th. Plants of the same kind 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 are 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.—*British American Cultivator.*

THE TURNIP FLY.—In Canada, grasshoppers, in very dry seasons, are most destructive to turnips, after they get into the rough leaf. Hence, between the turnip fly, and the grasshopper, turnips are an extremely uncertain crop in British America.

The most certain method to obtain a crop, is to sow on new land, and to use the ashes of earth or wood as manure, on either new or old land. This we have found to be a most certain remedy against the ravages of the turnip fly. We have also steeped the turnip seed previously to sowing, in a strong decoction of tobacco water, for twenty-four hours; and if the weather is favourable for vegetation at the time, the plants will retain so strong a taste and smell of the tobacco, for a few days after they come up, that they will be in the rough leaf before the fly will prey much upon them, and then they will be safe. The rapid growth of turnips, is of great advantage to save them from this insect, and the richer the land, the greater chance there will be of safety to the crop. From the first to the tenth of July, we have found the best time to sow turnips, if the weather does not happen to be too dry at that time. Prat soils, properly prepared, are very suitable for producing turnips in Canada. On this kind of soil, dressed with ashes, a crop is more certain than on any other land.—*Ibid.*

REGULARITY IN FARMING OPERATIONS.—In all farming operations, a due regard to order and regularity should be invariably observed: so that every one employed should not only know his own business well, but the proper time and season for the due performance of it. No two sorts of work or operations should be allowed to interfere or clash with each other, or to a certainty, at least one of them will be performed in a slovenly or disorderly manner. All should be as regular and systematic as if the whole business of the farm were regulated by some well adjusted machine. To be engaged in different sorts of work out of the proper season, (for there is a season for all things), particularly sowing and planting, to witness a profusion of weeds allowed to grow up, and ripen their seeds, to notice rubbish and litter scattered about during the summer, are sure indications of slovenliness, if not of decided bad management. In the fall, to neglect the repairing and opening of ditches and drains where they require it—and when the work is done, having the various farming implements all properly secured and stowed away, until such time as they may be wanted again in the ensuing spring or summer—and not left to rot in the fields where they happen to be last used, or placed in gaps instead of proper fencing materials—all too plainly indicate something wrong in the system. It is extremely difficult in this country to find hired men that will pay due attention to all these matters, without the strictest personal superintendence of the farmer in every case. Farm labourers that have been constantly accustomed to work on English farms that were well managed, are of much greater value here, than any other class of workmen; but we are sorry to say, that very few of the former class come to British America.—*Ibid.*