FARM and GARDEN.

For the CANADIAN FARMER.

WHEN TO CUT HAY

BY M. MCQUADE, EGMONDVILLE.

The season for haying will soon be at hand, and there are a few seasonable hints and suggestions that may come in about the right time just now. There are two well founded opinions about the best stage of growth at which grass should be cut to make the best hay. Some maintain that when grass is in bloom, is the proper time, but we must bear in mind that all grasses are not in the same stage of development when the blossom first appears; that some kinds bloom but once, and others twice; some for a longer, and others for a shorter period. Red clover will keep in full bloom for from eight days to three weeks, according to the state of the land and the weather. The large or German clover will keep in bloom twice as long as the short red clover, and a difference of two or three weeks will make a great difference in the quality and quantity of the hay. Timothy blooms twice, once with a whitish blossom, and next with a blue one, which differ ten days to two weeks in their appearance. Now, the point to be determined is, at which of these stages should the grass be cut, granting ground and weather to be all right for haying.

Those that maintain that at full bloom is the best time to cut, must modify their time by a scale of two weeks, for grass cut at the first blush of the blossom will fall to pieces in drying and handling. This is especially the case with timothy and blue grass. Clover cut at that stage will contain too much water—scarcely any wood tissue, no honey in the blossom, and will shrink to less than half its bulk. In this stage clover is very hard to save, as the slightest dew will injure it very much, and a heavy dew ruin it and cause it to turn black, and lose all its leaves. Timothy cut in the first blossom, is also very easily damaged by dew or a very light shower, and not only shrinks very greatly, but falls in pieces in handling, because there is a piece of the stalk above each joint that is little else than a bundle of skeleton tubes filled with sap, which, when dried, evaporates into thin air, leaves the stalks in pieces, and even the pieces that remain are only like bundles of dried threads with very little weight or matter for food. We have seen hay cut at this early stage, which not only would not hang together to pitch off the load, but was apparently as light and void of nutriment as so much tissue paper, yet it was cut in bloom, but too early.

It will be obvious that the bloom must be well matured before the grass should be cut. Professor Arnold and some others favor cutting at a young stage, and some have tried to follow their teachings. This class of persons maintain that grass cut young will remain grass, and yield more nourishment than when more fully grown. There is no doubt that grass is the best feed for cattle, and there is as little doubt that such grasses as blue grass and white clover that mature very early, make the best pasture for the production of beef and butter. Professor Mills declared that no other grass will produce so much beef and butter, and he is right, and the characteristics of this grass is, that it matures an abundance of seed, that is fitted and ripened early. The seed was beginning to harden on the 12th of June, this year, about this time, and for the next three weeks will be the period at which cows make their best mark in guilt-edge butter, and two year olds cover the sharp angles. In this period the main pasture grass is blue grass and white clover, which will both ripen their seeds in the order in which they are named.

There is an argument on the authority of the milk pail and butcher shop, in favor of mature grass for feed and to be cut for hay; there are other arguments by a host of advocates, who do not plant their standard on theory or science, but appeal to what they consider irreputable practical experience. The one class appeals to science, the other to experience, and it may sometimes happen that either may go too far, or may begin too soon; but experience has the greatest weight of authority in its favor, and is more sure to be right. But science and experience should agree, and must support each other as surely as the sill supports the posts in the hay mow, for science is only nature's law put in words. Where science and practice differ or conflict, the trouble is not between nature and her products, but between men who do not happen to get hold of the right end of the thread or miss some conditions in the circumstances. The advantages in favor of having grass pretty well matured for hay, are that it will not shrink so much, and that next, that it will cure more rapidly, a quality that is not to be despised, especially if weather should be showery, as it often is in July. The contention in favor of young grass is that it contains less woody tissue, and that woody fibre is indigestable. There is no doubt but grass gets more woody with age, and that the excrement of cattle will show more woody fibre from matured hay than dried young grass, because there is more to digest and more to be left; but this is no argument to prove that woody tissue is indigestible in the stomach of a cow, as it is more difficult to solve in the labaratory. Chemically considered, woody tissue is similar in composition to starch and sugar, two of the most nutritious substances of food which we have, and science cannot enter the stomach of a living animal to watch the operation, as it would in the crucible or alembic. Science must first destroy the texture of something before it can decide; experience decides by results of observation. Science has decided that the poison of the rattle snake and the white of an egg, are chemically alike, the one a deadly virus, and the other a rich nourishment. Experience of the early settlers of Ontario, has proved that cattle have come through long winters plump and healthy on browse alone, on a simple fodder of woody fibre alone, with regular rations of salt.

We have given arguments for both sides of the question, but properly speaking, there should be but one opinion, and what that should be, is what is our duty to find out. Some of the most careful feeders declare that they have had the best results with timothy that had been cut when the seed was getting in the milk. That would be a few days after the last blossom had been shed. The general opinion, therefore, avoiding extremes, varies only about four to six days at the most, with regard to timothy and blue grass. And, so far as our own, and the best experience go, the time for clover is when the honey is in most abundance in the blossom, a few days before the blossom begins to fade. Of course, the state of the ground and the weather must always be consulted. Another point that should be observed, is, that only as much should be cut at a time as can be saved and housed or stacked without dew or rain. It will be always safer to cut a little earlier or later than run the risk of getting a shower.

FARM AND GARDEN PESTS.

The season is at hand when farm and garden pests come down upon the crops of the farmers with a vengeance, and it is well to know how to apply a remedy at once and with little expense. The Massachusetts Agricultural Experiment Station have made full investigation upon the question and we present our readers with the result of these inquiries.

Cabbag Flea.—The first insect of importance that appears, is the small black flea, or jumping beetle, that attacks the cabbage, radish, turnip, etc. Dusting with Paris green mixed with one hundred times its weight of plaster has proved an effectual remedy. This must be done when the plants are wet, and after every rain.

Cut Worm.—The cut-worm, of which there are several species, including the army worm, works only during the night, and may be destroyed by the same friendly remedy as above. We would advise a trial of pyrethrum powder mixed with five times its bulk of plaster, as being more safe, although we have no positive proof that it will be effectual.

Striped Squash Bug.—The striped squash bug, which has been so abundant for the past two seasons, is best kept in check by the use of plaster and Paris green. For the family garden the safest and most satisfactory way to overcome them is to make a bottomless box twelve inches square, and six or eight inches deep, and cover it with mosquito netting. One of the boxes placed over each hill until the plants have become tough and hard is a sure protection.

The Potato Beetle.—The potato beetle has evidently become a permanent resident among us. Paris green extended with plaster, flour, or water, is the only cheap and easily applied remedy known, at present, but great care must be exercised in its use, and especially in the place where the package is kept, that it may not get upon the food of animals. London purple is equally efficient.

Cabbage Worm.—The cabbage worm, the larva of the common white butterfly, may be easily destroyed in several ways. That of hand-picking, if begun before the brood has passed into its perfect state, is effectual. We have also found that pyrethrum powder, mixed with five times its bulk of plaster, and dusted into the centre of the leaves with sulphur bellows, is certain destruction to every one of them. The application of insectides in liquids to the cabbages has not been satisfactory on account of the peculiar structure of the leaf surface which allows the water to roll off in drops and not adhere to any part of it. Paris green is unsafe to use after the leaves have become over four inches in diameter.

Currant Worm.—The currant worm should be destroyed while small, with the dust of hellebore or pyrethrum. The latter being perfectly harmless, is to be more highly recommended than the former.

Plum Weevil.—There are two certain methods of capturing the plum weevil, the first by jarring the tree early in the morning, and catching them upon sheets stretched below upon a frame or upon the ground, and the second by placing chicken coops under the trees. The former method must be attended to regularly every morning for three weeks after the plums have set, and in the latter case, if the number of trees is large, a large flock of chickens will be required to make that remedy effectual.

Codling Moth.—No positive remedy against the ravages of this insect has as yet been found. It is claimed that Paris green sprayed over the trees in water is effectual, but should it prove so it is far too dangerous a remedy to apply where grass or other crops are growing under them.

Apple and Peach Borer.—For the destruction of these two insects no sure remedy has been found except the knife. It is probable that covering the trunk of the tree near the ground with the ink or tar used to catch the moths of the canker worm, or wrapping around the trunk bands of tarred paper, would assist in keeping them away.

CURRANT WORMS.

Take a strong decoction of tobacco, and with a sprinkle apply the same to the bushes. Wash the currants thoroughly before using. I have tried this and I know it is effective, and does not injure the fruit.

BONES AND WHEAT.

BY PETER C. DE LINDE.

One pound of bone contains the phosphoric acid of twenty-eight pounds of wheat. A crop of wheat of forty bushels per acre, and sixty pounds per bushel, weighs two thousand and four hundred pounds, and it requires about eighty-six pounds of bones to supply it with that essential material. Remember this, ye Dakota bonanza wheat farmers.

FLAX CULTURE IN OUR NORTH-WEST

There are many opportunities for new, paying industries in the now developing North-west. Why not a flax manufacturing establishment? Immense quantities of cord are used by the thousand of twine binders that are used at harvest. Why should not this cord be made at home, instead of sending abroad for it? The facilities are all here, and no where else can they raise such flax as the North-west can produce. Let the subject be agitated and let some action be taken by some of our leading farmers towards the establishment of a manufactory of articles made from flax at some convenient point in the great North-west.

The experience of the best wheat growers goes to show that wheat should be cut when in the "doughy state." That is when the kernel can be crushed readily between the thumb and finger. If left to over ripen, the starch and gluten are both diminished in quantity, and the woody fibre increased. Shocking the wheat is the most important part of harvest work. Good shocking will always pay.

It may have been a strong sense of personal interest that has prompted a churn manufacturer to give the following advice, but it is valuable none the less: "Many fill the churn half full; but the time it takes to churn is lessened nearly one-half when the churn is filled only one-third full. Many dairymen make this mistake by buying too small a churn." What is saved in the extra cost of a larger churn is lost in extra time in churning, often in a single week, always in a month. Hence the folly of this expensive kind of economy. But it is like a great many traditional economities quite too generally practiced.