

When buying a new machine it is well to procure one which is used to some extent in your neighborhood, rather than to experiment by bringing in something new. The implements now made by reliable firms will all do good work.

Dust white hellebore on the cabbage plants to prevent the attacks of the cabbage worm; or, what is not so dangerous, powdered pyrethrum. Use in dry form one part pyrethrum to five or eight of flour, or one ounce to three gallons of water.

At this season of the year, when the seeding is over and before haying begins, while the farmer is not rushed so much for time, it will be well for him to look carefully over his machinery and get it ready for work. If this has not been previously done, now is the time to send for any repairs necessary, that there will be no delay when the hurried season begins.

Tent caterpillars, canker worms and other leaf-eaters are not likely to give much trouble if the trees have been properly sprayed. Nevertheless, keep a sharp look out. If only a few are discovered, pull off the leaves or twigs and step on them; if more numerous, spray again with Paris green—one pound to two hundred or two hundred and fifty gallons of water.

"Six Thousand Miles Through Wonderland" is the title of a very handsome little publication, descriptive of the marvellous region traversed by the Northern Pacific Railroad; it is neatly gotten up, very prettily illustrated and well worth reading. Any of our readers who contemplate taking a summer trip should send for a copy to H. Swinford, General Passenger Agent, Winnipeg, Manitoba.

In consequence of the postponement of the World's Fair dog show from June 12th to Sept. 19-22, the exhibit of horses and cattle will have to be closed eleven days earlier than was originally announced. Horses and cattle must now be on the ground Monday, Aug. 21st, and will be released Saturday, Sept. 9th. The time of the exhibit of swine and sheep, Monday, Sept. 25th, to Saturday, Oct. 14th, is not affected by this change.

Mr. E. C. Critchfield, in a recent number of Hoard's Dairyman, advises all dairymen to sow their ensilage corn-fields to rye the last time they work them. He says that he has tried it three years and is well satisfied. The rye provides a certain amount of pasture in the fall, protects the land from washing in the fall and spring, and gives a good crop, which may be either plowed under as green manure for the next crop, or used for early spring feed.

Fruit growers are often advised to suspend lanterns over tubs of water or traps to catch the codling moth and other injurious insects, but experiments conducted at Cornell University show that this method is of doubtful benefit, for it was found that a number of beneficial insects were also caught, and of the whole number destroyed a very small per cent. were females. It would be interesting to know how this coincides with the experience of entomologists in this country.

Replying to a question in the British House of Commons, President Gardner, of the Board of Agriculture, made the important statement that out of over five thousand head of cattle received from Canada this spring, only one was suspected of being diseased, the lungs of which had been held for further examination, which, if favorable, will go a long way towards proving to Englishmen that Canada is entirely free from contagious cattle disease—a fact well-known to Canadians.

A Suggestion re the Horse Lien Act.

In your paper of April 20, you give a sketch of Dr. Rutherford's act for protecting stallion owners. I think the act should go a little further into the matter than only requiring the horses to have registered pedigrees; I think they should also require to be sound, as in my opinion a sound scrub is better than an unsound pedigreed horse. The five dollars for registration might be spent in paying a "vet." to examine horses before giving certificate.
D., Castleberry P. O.

Another Criticism.

We are in receipt of another communication from "Scrub," taking exception to "Invicta's" use of the word *ignorant* in referring to farm laborers. We feel sure Invicta did not use the word ignorant, as "Scrub" understands it, as an idiot or one fit only for an asylum, but merely in comparison with the generally understood meaning of the term educated. "Scrub" also objects to making fixed salaries for teachers, contending that the present keen competition keeps the incompetent and lazy from entering the profession. Does it in actual experience?

The Horn Fly.

In answer to a question asked by a subscriber, we give the following description of and remedies for this new enemy of the farmer, which appeared in many parts of the country for the first time last season, and has already begun its ravages this season. Because of the rapid propagation of its species, only taking two or three weeks from the egg to the perfect insect, farmers must stir themselves and make up their minds to fight it vigorously if they would keep it in subjection.

This fly, which is a native of Southern Europe, was introduced into the United States about 1886, and rapidly spread over this continent. In appearance it closely resembles the common fly, but is only about two-thirds the size; from the peculiar habit of settling upon the base of the horns to rest it has received the name of Horn Fly.

Contrary to the popular ideas, these flies do no injury to the horns nor are they directly the cause of the sores often seen on the backs, for these are produced by the animals rubbing against trees and fences in vain attempts to ease their sufferings.

By inserting their sharp, dagger-shaped trunks through the skin and sucking the blood, the flies cause such great irritation that the animals quickly fall off in flesh and milk. The eggs are never laid in these sores, as some have supposed, but in the fresh droppings of the animals, where the maggots feed upon the liquid substance of the dung.

At this early season of the year, doubtless the most successful practice will be to treat the dung so as to prevent their breeding. Leave no manure lying around the yard,—get it all under the ground as soon as possible, and then either spread out all the fresh droppings so they will dry out, or apply lime or wood ashes; even road dust or dry earth will answer the purpose by soaking up the moisture.

To protect the cattle from the mature insect almost any cheap oil will answer, as train oil, fish oil, tallow or axle grease. The addition of a little carbolic acid or oil of tar not only keeps the flies away, but also has a healing effect upon the sores. Use in proportion of one ounce (about a tablespoonful) to a half gallon of oil; rub a small quantity on the parts where the flies gather most thickly.

What is known as kerosene emulsion may be sprayed on the animals. Take two ounces of soap and boil in a quart of rain water, turn into two quarts of coal oil, churn with a force pump or stir for about five minutes, so as to mix thoroughly, and dilute with nine parts (twenty-seven quarts) of water; apply with a force pump or sponge.

If farmers would succeed they must combine in using all known remedies which will aid in reducing the numbers of this pest. For a fuller description and cuts of this insect we would refer our readers to the issue of the FARMER'S ADVOCATE of October, 1892.

When the sheep have been shorn the ticks will leave them, because of the little protection afforded by the closely clipped wool, and migrate to the lambs. Do not allow the latter to be stunted in their growth and lose flesh, when it can be easily prevented by taking a few hours to dip them. Many preparations are in the market, of which some are good, while others are injurious. Both Little's and Cooper's are highly spoken of by practical farmers, and will be found to give good results.

A little common sense is very convenient in every day life, and especially so when reading the glowing descriptions of certain novelties in seedmen's catalogues. These catalogues all contain a large amount of useful information and give an idea of the different varieties, but when an especially remarkable description is reached, it is well to read it with the proverbial grain of salt. The following appears in Sandelt & Son's catalogue as a satire upon such extravagant praise in advertising new varieties:—"We are getting up a picture of the Extravaganza cabbage, Munchausen stock, which, by comparison with other well-known objects purposely placed near it, will show that this cabbage is as big as a tobacco hogshead, and the description which will accompany the picture will prove, if words have any power, that its flavor is as sweet as sugar, its texture as fine as satin, and its habit exceedingly early or so rarely late, or so something else, as to eclipse every cabbage ever before known, and, above all, its freedom from the attacks of insects is phenomenally remarkable; indeed, an insect which simply flies over it falls dead within twenty yards. To the market gardener it is a boon, as it sells itself, its laughing face beaming with such benevolent expression as to win the admiration of every purchaser at once." We are informed that people even went so far as to send money for this wonderful cabbage.

The Summer Course for Teachers at the Ontario Agricultural College.

The Minister of Agriculture offers the teachers of Ontario a short summer course of lectures by the college staff on agriculture and the sciences most closely related thereto. The object of this course is to show how agriculture and kindred branches of knowledge may be taught by simple talks to pupils in rural schools, and also to furnish information that will serve as a basis for such talks, say the last hour of each Friday afternoon—geology and chemistry in the fall, live stock and dairying in the winter, botany and entomology in the spring. During this summer course at the college, the forenoons will be devoted to lectures on agriculture, dairying, agricultural chemistry, geology, botany and entomology, while the afternoons and Saturdays will be given up to geological and botanical excursions in charge of a professor, a certain amount of practical work in the laboratories, and observation trips in the gardens, fields and experimental plots.

The surroundings of the college are pleasant and of such a character that, in addition to the direct instruction gained by attendance at the lectures, much valuable information may be acquired by observation in the different departments of the institution—the farm, dairy, arboretum, gardens, greenhouses, laboratories, etc. The course will extend throughout the month of July, commencing on the 3rd. There will be no tuition fee. Teachers to the number of 50, male or female, will be provided with board in the college, for which there will be a charge of \$12, payable in advance to the Bursar. Washing will be done in the college laundry, and charged for at moderate rates. Sheets and towels, four of each, must be provided by applicants for admission. We would strongly advise all teachers to lose no time in making applications to the President.

The objection which has always been urged against the teaching of agriculture in the public schools has been chiefly that the teachers are not competent to give instruction. We are pleased to be able to state that this objection will soon be removed, and, in a short time, farmers will have it in their own hands to say whether they will have agriculture taught in their schools or not. The success of this undertaking depends upon the support which the yeomanry through their trustees give. It must be remembered that few teachers will take the trouble to attend these lectures unless they expect to gain an advantage by so doing.

We hope trustees in the rural sections will show their appreciation of this move by encouraging teachers to attend this summer course, and if encouragement is not sufficient, insist that they do so. Trustees should not neglect to help this work along by offering sufficient inducements in the way of a bonus or increase in salary, so that the teacher will feel that he or she has been amply rewarded for the slight expenditure of time and money.

Those in favor of teaching agriculture in public schools will do well to watch the progress of the experiment in Ontario and profit by the result. The interest in agricultural studies is growing rapidly in Western Canada. We expect to see it increased by the discussion on this subject which will take place shortly at the Central Farmers' Institute.

For circulars and additional information address the President, Dr. James Mills, O.A.C., Guelph, Ont.

Besides being a great source of annoyance to human beings, mosquitoes worry and irritate live stock to such an extent that in some localities the animals have to be housed regularly, or they will lose in flesh and young stock will be stunted in their growth. An experiment conducted by L. O. Howard, Assistant United States Entomologist, shows that kerosene can be successfully used as a destroyer of mosquito. He sprinkled four ounces on the surface of a pond containing sixty square feet, with the result that all aquatic larvæ, including those of the mosquito, were killed. The oil seemed to exercise no deterrent effect upon the female mosquitoes, for they still attempted to deposit their eggs, and in the attempt were destroyed. Several severe rainstorms occurred during the period of observation, and after the first of these the pond lost the glassy, iridescent surface effect given to it by the thin layer of kerosene; nevertheless, the insecticidal effect of the coal oil did not seem to be diminished, though no odor could be perceived. In larger ponds the presence of fish will usually prevent the multiplication of the mosquito; but the most favorable places for breeding are stagnant ponds, and these can be easily and cheaply treated in the above way. By the drainage of all swamp lands, the careful watching of all water barrels and tanks, and the use of kerosene, the mosquito plague can be greatly lessened.