

TO THE FARMERS

Farmers and others interested are invited to contribute to The Farm, The Dairy, The Turf, and Good Roads departments of The Guardian, either by question, correspondence or otherwise. Answers will be given by experts to all questions of general interest and space will be given to any articles that will in any way help to advance Prince Edward Island interests.

Contributors are asked to have their articles at this office early each week, as only a short emergency item can be handled as late as one p.m. Wednesday. All received after that hour cannot appear until the following week.

THE SCHOOL AND THE HOME

Contributions for this department should be addressed to President Teachers' Association, Guardian's School and Home, P. O. Box 198, Charlottetown.

GOOD SCHOOLS A NECESSITY.

(Continued)

Everyone whose opinion is worth anything admits the supreme importance of education. Very few will care to deny the great part which the public schools are playing, and must continue to play, in the education of the common people. To do the work demanded of them the public schools must be good schools. Good schools do not grow of themselves; they must be created; they must be wisely directed; they must be generously supported. The Country or Province which is unable or unwilling to support its schools is out of the race altogether. It cannot hope to hold its own in the keen competition which is every year becoming keener, and which, whatever form it may assume, is always really a competition of intelligence, knowledge, skill, character. The production of these qualities is the great work of the schools. These are the motive power of every business and trade, and profession and industry, and without them all those industries and activities which bring wealth and prosperity would languish and die. We cannot afford to neglect schools. There are some things in which we cannot afford to economize. The farmer, for instance, who, feeling that it costs a good deal to cultivate his farm properly, sow good seed in it and keep good stock on it, determined to retrench in these particulars will soon find himself reduced to poverty. His income depends upon these expenditures and if he cannot afford to make them he is out of the business altogether. It is the same with schools. If this Province cannot afford to support its schools it must be content with a position of inferiority. These three things go together; good schools, intelligence and prosperity. To do these; poor schools, ignorance and poverty. Good schools cost money, but we can't afford to do without them for poor schools are still more costly.

LANGUAGE AND GRAMMAR.

Something must be radically wrong when a child can attend school until he is 15 years of age, receiving instruction in language and grammar during every year of his school life, and yet go out into the world as

ignorant of the simple forms of good English as if he never had seen the inside of a schoolhouse.

The object of all study in language should be to enable the pupil to speak and write English correctly. Every lesson should be a lesson in language. Constant attention to errors of expression commonly heard in the schoolroom and on the playground may do much to correct in the rising generation the mistakes of the previous and less favored ones. Much depends on the enthusiasm of the teacher and her ability to inspire the pupils with a desire to use the best forms of speech. The committing to memory of definitions and rules, the analyzing of sentences, and the parsing of words will not, by themselves, enable one to speak the English language with accuracy and facility. One's knowledge of these things must be so thorough that he will be unconscious of what he knows, and unmindful that he is using formulas.

THE FARM

CONSERVATION OF SOIL MOISTURE.

(By Mr. W. M. Lea.)

At this season when the soil is filled with moisture it is most important that all red or fall plowed land be cultivated at the proper time to break up the top crust and help form a dry mulch to protect the land from drying out.

Proper cultivation in the early spring can be made to assist the soil in conserving sufficient moisture to often carry the crop through a long dry season, and it is very important that this work be given attention at the proper season.

The action of frost, snow and rain of winter leaves the land in a solid condition the particles of soil being closely packed together, making proper conditions for the sun and wind to quickly evaporate the soil moisture.

Every observing farmer has noticed that land tramped or carted over in the early spring dries out more quickly than other soil, the closer the soil particles are packed the faster the evaporation. The sun drying out the top layer draws from the next and so on down as far as the soil is closely packed. This condition both wastes moisture and keeps the land from warming up, as the heat of the sun is used in evaporating the moisture instead of warming the land.

Many experimental tests have been conducted to show the alarming waste of moisture through neglecting to break up the crust at the proper time, reports of which we are all familiar with and go to show that it is necessary to do something at this season to break the connection in the closely packed soil. Any implement that loosens up the surface allowing the soil a chance to dry out accomplishes this. The dry, light soil acting as a much larger checker further waste of moisture. We have often observed the difference in both moisture and texture of the soil in the part of a field where proper cultivation was given over that not worked in the spring. By the 1st of June the latter will be hard and dry, while that cultivated properly, moist, loose and light.

We are very particular to harrow each field of fall plowed land as early in the spring as the land will work properly. Our rule is to harrow everything "red" at first this mulches the land and holds moisture until we are ready to attend to each crop in turn, in growing grain our aim is to cultivate as late as possible (for this same reason) just as the grain is showing through, unless the land is seeded to clover, in which case a roller run over where the land is dry will break up the crust and have about the same action as the harrows.

But with sown and roots we are enabled by cultivation throughout most of the growing season to keep the

moisture from evaporating and this is one reason why we like a large acreage of those crops.

Cultivation is said to be manure, and I would add rainfall as well, so we should give particular attention to the best crops possible in the fall.

Much depends on the preparation for our crops the fall before, and when possible I always favor fall plowing for grain with one, thorough shallow cultivation in the spring. We must remember that to whatever depth the connection be broken in spring work the land will dry out in a spell of drought and this is one reason why we do not plough in the spring if we can possibly help it, but forced to do so makes the depth much less than in the fall. In a moist good growing season almost any sort of preparation seems to answer but we should always prepare our ground as for a dry unfavorable summer and for all and any conditions that we may transpire our soil will be well prepared.

INSECTS PESTS OF POULTRY.

(By T. A. Benson.)

All poultry keepers should realize the very great necessity of keeping their flocks free from the many insect pests which attack them. At this season particularly should we be on the alert. Sometimes fowls become so infested with these pests that they are totally incapacitated for work. Brooding hens frequently leave their nests half way through the incubation period for no other reason than that they can no longer bear with the torture imposed upon them by these pests. In some cases hens die upon the nests from exhaustion due to loss of blood, and newly hatched chickens are frequently lost as a result of carelessness in regard to keeping them free from lice and mites. There are various distinct species of lice as they are generally known, and these various species are partial to particular parts of the body, as the rump under the wings, between the wing feathers, and upon the head and neck. Often these parasites so debilitate both young and adult birds that they are a ready prey to any infectious disease with which they may come in contact. Darkness, filth, dampness, badly ventilated coops and houses, and dirty runs all favor the rapid increase and development of these enemies; and strict cleanliness is the first step towards prevention. If the birds are given the opportunity to dust themselves and all their quarters are kept clean there will be little trouble with lice. The houses, coops, etc., should be whitewashed twice a year, spring and fall. The floors, walls, nests, roosts, etc. should be washed with a white wash which is sufficiently liquid to flow freely and run into every crevice. A little carbolic solution or kerosene oil will make it more effective and the further addition of a little soft soap or potash lye will make the wash even more destructive to parasites. Give the hens a dust bath of road dust into which two or three handfuls of sulphur powder should be mixed. Dust the setting hen two or three times, during the incubation period and keep the chicks and their mothers away from the older stock. Remember that the chicken mite commonly known as the "Red Mite" or "Red Spider Louse" unlike the lice does not live in the feathers or on the bodies of the birds, but in the cracks and crevices of the roosts, nests, walls, etc. coming out to attack the birds when on the roosts at night, or when sitting in the nests by day. These mites live upon the blood of the birds, by piercing the skin and then sucking the blood. It is only when gorged with blood that these mites are red, their natural color being a light grey with tiny dark spots showing through the skin. They are almost the worst enemy of poultry, feeding on the blood which would go to build up the constitution of the birds and also to make eggs. They must be fought systematically and a house found to be infested with them should be washed or sprayed every

three days for at least two weeks. The spray or wash will only kill the mites, and the eggs of these mites will hatch in about three days. Insect powders will not kill red mites as they have a peculiar breathing apparatus, characteristic of the various families of spiders, the powder will only make them uncomfortable for a time and drive them of the bodies of the birds only to return later. The extermination of these mites may be hastened by dusting all the fowls the evening before the cleaning and spraying (or washing is to be done).

Last week T. A. Benson, Dominion Poultryman was in the Long River, Darnley and Georgetown districts.

At Darnley a large and enthusiastic gathering turned out to hear Mr. Benson, notwithstanding the bad weather. At Georgetown also there was a good turn out and the greatest interest was shown.

This week Mr. Benson is on the mainland in connection with his work, and expects to return in about ten days.

THE BARNYARD.

There is no better time in the year to demonstrate the advisability of keeping a comparatively clean barnyard than spring. Spring is always accompanied by more or less rain, and the melting snow coupled with this ensures a few weeks of mud around the buildings, and the barnyard very often presents a sorry spectacle. What a difference there is between the barnyard situated on a dry knoll and the one placed in a veritable lake. This difference is all of course, due to location, but there are other differences due wholly to management during the winter months. In one yard you will see the manure neatly piled at one side or one end a good distance from the stable doors, and not spread promiscuously all over the yard. In another yard the manure is dumped almost as soon as it is outside the stable door, no particular effort being made to keep the pile compact or tidy, and in others the litter and manure are spread out a few feet deep over the entire yard, and the cattle and other stock are permitted to trample through it and "spray" it up into their mouths.

Manure is one of the most important assets of any farm, and represents no small share of the profits of livestock husbandry, hence is too valuable to be wasted. There is a great loss from many yards at this season from run-off, due to the excessive amount of moisture precipitated or already in the manure from the recently melted snow. Some loss is also due to leaching it. It stands to reason that where the manure is spread out over a large area the run-off loss is much greater than where it is kept in a tidy pile several feet deep. A larger exposed surface means the incorporation of more water, which soaks through to the already saturated soil and runs away as surface water. Besides, where manure is kept piled in neat solid piles, the losses due to the work of organisms are not so great, and plant food is not so decomposed and distributed through the air to such an extent as where the manure is spread over a large yard only a foot or two in depth.

Aside from the actual plant food loss there is considerable satisfaction in having a dry yard, at least, as dry as it can possibly be made at this season, and a yard through which one can walk without sinking to his knees in water-logged stable manure. A dry barnyard bottom, kept bedded with a little straw or scraped clean, the manure being piled neatly, should be the aim of all.

PASTURES.

This is the time of the year when farmers should be making provision against a dry season. Nearly every year the flow of milk from the cattle falls off about the first of August because of poor pastures. Nearly every one then regrets that they had not made provision for this by the seeding of oats and peas or vetches. A farmer who keeps live stock never makes a mistake by sowing an acre or two of this crop for green feed. If the season should be favorable so that he does not need it, it can be made up for hay, and there is nothing better for the production of milk in winter than oats and peas out green. Peas are very expensive this year and it may prevent some people from seeding, but it will be a bad mistake to allow the milk flow to fall off for want of some succulent feed at this time of year.

THE DAIRY

DAIRY BREEDS.

By Mr. F. T. McRae.

(Continued.)

These (in connection with cold water baths and electric fans in hot weather) are the conditions under which these large Holstein records are made.

Mr. Lea has come out with another claim which was a surprise to me, he thought he was better informed. He has claimed that milkmen prefer Holstein grades to any others. This may be true in some places where milk is scarce and any quality of milk will sell, but where competition is keen they are simply not in it. We have had some experience along this line, so am not talking at random, and that other milkmen would be casting to the demands of people who want their money's worth, appreciate the supremacy of the Ayrshire as a cow for the dairy and learned from the following: Last October 220 head of Ayrshire grades was taken to Brercliff Manor Farms near New York from Quebec near Ottawa when Mr. Lea has justly allowed to the Ayrshire stronghold. They made up a trainload of 222 tested for tuber-

culosis only one reacted and one suspicious which also speaks well for the health of the breed. There was also another shipment of Ayrshire grades; seventy-five head went from the same district to Saskatchewan, also another shipment of seventy-five from a district in Ontario to the West, where on account of their hardiness and productiveness they are leading all breeds. In cities such as Charlottetown, for instance, where a 3.5 per cent milk is demanded, which is certainly not too rich, the milk from 75 per cent of the Holstein cows recorded in the advanced Registry, could not be legally sold, or taking the average of all the Holstein cows and heifers recorded up last May, they would not come up to that quite moderate standard. That surely settles them as being the best breed for city milk trade.

To prove that for grading up a herd of common or inferior cows, there is nothing like a pure bred Holstein bull, Mr. Lea gives some of his personal experience—the purchasing of a heifer from one of his pure bred bulls and from a \$25.00 scrub dam and after developing her to maturity sold her for seventy-five dollars. That was an example of good breeding, also good feeding. Had the scrub cow been in Riverside Barns from infancy to maturity, and her heifer even from a Holstein sire been sold to the other fellow, how adverse results might have been. However, to get square with Mr. Lea, some few years ago we bought a cow at auction for \$29.00, raised a calf from her, sired by a pure bred Ayrshire bull, took this heifer to Amherst, won second prize in the dairy test competing against

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ALCLAYETTA
Record 2:26 1-4.

BINGEN 2:05 7, 2:06 1-4
Sire of 11 in 2:10, inc. Uhlau 1:58, Admiral Dewey 2:04 3-4, King Cole 2:05 1-4, John Ward 2:05 4, etc.

FANELLA 2:18
Dam of 5, including 2:04 Mac 2:05 1-4, Magowan (2) 2:10 3-4, etc.

ALCLAYTONE 1:29 08, 2:20 1-4
Sire of 19, including Louise G. (4) 2:06 1-4, Leila Wilkes 2:14 1-3, William H. 2:15 1-4.

WILKETTA
Dam of Alclayetta 2:26 1-4.

MAY KING 1:27 2, 2:20
Sire of 27, including B'ngo 2:06 1-4

YOUNG MISS
By Young Jim 2:00 9.
ARION 1:50 00, 2:07 8 4
Sire of 7 in 2:10; dams of 4 in 2:10 etc.

DIRECTOR 2:19
By Directress 1:59 9.
Dam of 1; grandam of 5.
MAYONE 2:22, 2:27.
Sire of Martha Wilkes 2:08 3 4, etc.

CLAYRENE
By Harry Clay 45, 2:20, Dam of 1 in list.

WILKES 1:54, 2:21 8 4
Sire of 23; dams of 23.

LAMBRETTA
By Daniel Lambert 1:02.

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