

THE MAGAZINE GUARDIAN For Parents, Pupils, Teachers, Farmers, Dairymen, Horsemen

TO THE FARMER

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 issue 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 Guardian School and Home P.O. Box No. 116, Charlottetown.

CULLED THOUGHTS ON EDUCATION

(The Journal of Agriculture and Horticulture)

"We should so live and labor in our time, that what comes to us as seed may go to the next generation as blossoms, and that which comes to us as blossoms, may go to it as fruit. This is what we mean by progress."

Respect for labor and the value of handicraft will never have the place they should have in the opinion of children and people until what are known as the "Utility subjects" are given the same prominence in schools as the cultural subjects.

George Macdonald, that writer of wise and beautiful things, said: "The day will come—and may I do something to help it hither—when the youth of our country will recognize that, taken in itself, it is more manly, and therefore, in the true sense, "more gentle" than the day to follow a good handicraft, and that the hands black as coal, than to spend the day in keeping books and making up accounts." Not but that, from a higher point of view still, all work set by God and done divinely is of equal honor, but where there is a choice, I would gladly see a boy of mine choose rather to be a blacksmith than a clerk. Production, making, are higher things in the scale of reality than transmission, such as buying and selling. It is, besides, easier to do honest work than to buy and sell honestly. The more honest, of course, to those who are honest under the greater difficulty!"

In the preface to his First Lesson in Agriculture, written for the Ontario Public Schools in 1870, Dr. Egerton Ryerson says:

"Identified as I am by birth and early education with the agricultural population of this country, I regret to see so many of our agricultural youths leave the noblest of earthly employments, and the most independent or social pursuits for the professions, the counting room, the warehouse, and even for petty clerkships and little shops. I know that persons in public offices, and inhabitants of cities and towns who have no farms, must for the most part, bring up their sons to callings other than that of agriculture; personal peculiarities and relations may prompt to the same course in regard to some farmers' sons; and a divine call may select from the farm, as well as from the shops and college, for a divine vocation; but that, as a general rule, the sons of farmers, as soon as they begin to be educated, leave the farm is a misfortune to the parties themselves, a loss to agriculture, and to the country. A boy's leaving the farm because he has or is acquiring a good education is an assumption or admission by all consenting parties that the farmer does not need such an education and as long as this is admitted by farmers not being educated, agriculture will be looked down upon, instead of being looked up to, as a pursuit for educated men. . . . But let the boy be educated to make him a better farmer, as well as a better citizen; let it be assumed, and become a recognized fact, that a farmer as a lawyer, doctor, or clergyman must be educated as a master of his work, and agriculture will hold a rank equal to, if not above, that of law or medicine. . . . I know it may be said by some, "Our farmers were not educated, and yet were successful farmers." But those very fathers will bear witness that they would have done and felt much better had they been educated. Besides, the soil was then new and more productive, and the mode of cultivating it most simple; but the culture of the soil, the growing of crops, the raising of stock, and the business transactions and social relations of the farmer are very different now from what they were in former years.

WINTER FRUIT AND FLOWERS

A wren has built its nest and laid eggs at Stogumer, West Somerset, under the impression that spring is at hand. An Aldershot boy named Arthur Sparrow, seeing a number of

starlings flying in distress round a tree in Farnham Park yesterday and an egg lying on the grass climbed the tree and found a starlings' nest with three eggs in it.

Raspberry tart made of freshly gathered fruit may be among the sweets on the Christmas dinner table for the first time in memory in some south of England homes. Mr. Walter Sales at Hastings has picked one-third a half pint of ripe berries in three weeks, and his experience has been shared by other people.

Blackberries, both wild and cultivated, are still in flower and fruit-together in some places, and the berries are remarkably large and full flavored. Quite a crop of good fruit is to be gathered even in East Anglian lanes, while farther south the berries are abundant. Almost everywhere who have a strawberry bed is discovering bloom on the plants.

MODEL COUNTRY SCHOOL

(The Journal of Agriculture and Horticulture.)

A model school grounds in miniature was a feature of interest at the Toronto Exhibition. It should contain one acre of ground. One-half acre should be set aside for a boy's playground in which they can play ball or other games. The other half acre should be devoted to a school farm and garden. Somewhere is reserved a little space for a kiddies' playground, where they may be provided with a sand heap in which to amuse themselves. The school should be the local beauty spot of the section.

Under the direction of Prof. S. B. McCready, the teaching of agriculture in public schools is fast gaining headway. As pointed out by Prof. McCready the school of the future will be a local experimental farm in a simple but effective way; it will introduce new varieties of field crops and test methods of cultivation through the children's school farm; it will be the local beauty spot with neat fences, well-kept buildings, lawns and flower beds; it will be the local playground, not only for the children but for the grown-ups; it will be the local centre for social gatherings; its library will serve everyone with books, magazines, bulletins and reports that concern themselves with the farm work in home and field as well as with literary matters.

In the school work it will not consider examination at the be-all and end-all of its effort; it will prepare the many for the sake of preparing a few for advanced work in a high school; it will remember that most time at school, and a long time at of the pupils will have only a short work, and it will make its instruction fit the needs of the worker not the scholar; it will try to keep the boy who is not clever in his mind, at school and to educate him through practical activities in play, in work at home, in handling tools, in experiences in Nature's Workshop, no less than by learning from books; it will bring the fathers and mothers back to school again in using the daily common interests as the means of education of their children.

HOW LONG TO SLEEP

(Scottish Weekly)

A proper amount of sleep is absolutely essential to continued good health, and if diet be properly attended to, this is a matter which will regulate itself. It is not easy to say just how much sleep a person requires, as the sleep is going on, and lessons as well, the young should have all the sleep they desire. Many children do not get nearly enough. They sit up late over homework, or go out too much to entertainments, or they are made to get up too early to do some work before going to school. Ten hours or even eight hours is not too much for a growing boy or girl. The adult should generally get eight hours, though some people keep well on less. It will sometimes be found that on occasion a desire for sleep makes itself insistently felt several hours before the usual time for retiring. When this is the case the best thing is to yield and go to bed. It will generally be found that the hour of awaking is not earlier than usual, thus proving that the body or possibly the mind was really in want of rest. Lack of sleep is much better made up at the beginning than at the end, but naturally this cannot always be done.

IS EDUCATION OF VALUE TO FARMERS?

(The Journal of Agriculture and Horticulture)

How many a youth says: "I haven't time to go to school." How many a father has thought the same thing. Haven't time to go to school? Let us figure on this a little and see.

Professor Warren, of Cornell University, in his book on Farm Management, in speaking of education, says: "The young man who proposes to start farming should first get an education. Education is much more essential in farming than it was 25 years ago. It will certainly be more essential in the future than it is today. A young man who is getting ready to start farming is preparing for forty years only; he is preparing for forty years now."

"In one country the farmers who had attended high school made almost twice as much as those who had

Relation of Education to Labor Income. 57; Farms

Education	No. of Income Farmers Income
Attended district school	398
Attended high school 165	\$318
More than high	622

"A high school is worth more than an investment of \$6,000 in five per cent. bonds. We do not have figures for a large number of college men, but a college course seems to be worth as much more. Time spent in high school seems to be worth about \$7 per day to one who is to be a farmer."

The labor income above stated in the table means the earning above all expenses and interest on the entire investment. It means the ability of the man in earning capacity. It is interesting to note here that Professor Spillman of the United States Department of Agriculture has estimated from the census figures that the average labor income for all farms in the United States is \$318.22, which is almost identical with the figures given by Warren in the above table for 398 farmers in a New York county.

This shows that the high school and the college place a man above the average in his earning capacity on the farm. If his advantage in greater pleasure and appreciation could be measured in dollars and cents the sum would mount up many times higher.

THE FARM

THE WINTER TONIC FOR THE HENS

A few years ago there was very little heard about green food for fowls in winter, but from experience it has been found that a liberal ration of succulent food tends to maintain health and vigor of all the birds and increase the egg production of the laying hens. To be entirely satisfactory this class of food must be produced at small cost. At the Maine Station several years of experimental work have shown that the fowls need something besides succulence in their diet. The ticks between a succulent food and a "green food" in the strict sense. Succulence may be supplied in the form of root crops, such as mangels, but a careful consideration of the case has made it apparent that the fundamental need of the fowls is not succulence as such but rather for the tonic effect which is produced by green plants, probably primarily because of the presence of chlorophyll. In feeding fowls for high-egg production it is necessary that they be given a ration rich in protein. Only fowls of strong constitution and with thoroughly sound digestive systems can handle the heavy-laying rations carrying meat scrap and oil meal, which are now so widely used by poultrymen for egg production with successful results. On these heavy rations there is a tendency for the birds' livers to become impaired in function, and ultimately to become enlarged and diseased. As the matter has been studied at the Maine Station, it would appear that one of the chief functions of green food in the ration is to counteract this tendency of the digestive system, and especially the liver, to break down under the strain of handling heavy-rations over a long period of time. It would appear that the green food given to poultry acts primarily rather as a mild tonic than as a food in the proper sense. There seems to be little of this tonic effect produced from succulent non-green foods like mangels.

The practical problem then becomes to devise a system which shall insure a supply of green food for the birds at all seasons of the year. The following system of rotation in the green food supply has been in use for several years on the poultry plant at the Maine Station with satisfactory results. It should be said that, owing to the small area of ground available for the poultry work at the Station, it is necessary that the number of birds be limited to carry, green food must be added to the ration practically throughout the year, not only for the adult fowls in the laying houses, but also for the flocks growing on the range. Beginning in the early fall when the pullets are put in the laying house they are given green corn fodder cut fine in a fodder cutter. Stalks, leaves and ears are cut together in pieces averaging about one-half inch in length. The birds eat this chopped corn fodder greedily. It is one of the best green foods for poultry that we have yet been able to find. Its usefulness is limited only by the season within which it is possible to get it. The feeding of corn fodder is continued until the frost kills the plants. When the corn can no longer be used cabbage is fed. The supply of the rest of the supply of cabbage failing before it is desirable to start the oat sprouter, which has previously been described in these columns, the interval is filled out by the use of mangels. From about January 15 to May 15 green sprouted oats form the source of green food. From about May 15 until the corn has grown enough to cut, fresh clover from the range is used. In summer the growing chicks on the range are given fodder cut as described above, to supplement the grass of the range which rather rapidly dries out and becomes worthless as a source of green food under our conditions. The very young chicks in the brooders are

given the tops only of green sprouted oats chopped up fine.

Dwarf Essex rape is an excellent source of green food for poultry, but it must be fed with great caution to birds which are laying because if eaten in any considerable amount it will color the yolks of the eggs green, with disastrous results in the market.

WINTER HATCHING

Hatching chickens in winter months must always be attended with many risks. Those who work against the laws of nature will have many battles to fight, but artificial hatching has been brought to such a state of perfection that it can be successfully carried on at all times of the year. Still for amateurs in winter there will be many disappointments.

At the present time there are numbers of good machines on the market, but new beginners should seldom be tempted to purchase a second hand incubator. Occasionally they may do well, but in nice cases out of ten they are not really as cheap as a new one. At all costs a good machine is essential for winter work.

Whether it be hot air or tank water it must run steadily the whole time, and be able to retain a correct temperature under varying climatic conditions. Many seem to think that incubators should do well in almost any room, but they give satisfactory results only when everything is favorable. If the temperature varies from 40 degrees to 69 degrees during the hatch it is too much to expect all to pass off well. The nearer one can get a room of an average temperature of just over 50 degrees the better.

It is quite time more incubators were realized the importance of strong, fertilized and fresh eggs. It is foolish to expect eggs eight to twelve days old to hatch out a satisfactory percentage of chicks, while eggs from stock birds kept in small pens are even worse. Cross bred eggs, as a rule, always hatch better than those of pure breeds. The chicks are stronger, there are not many dead in shell, while fertility is always more satisfactory.

OTHER THINGS, THE "KNOW HOW" OF WHICH WILL BE A GREAT HELP IN AFTER LIFE.

Every farm should be equipped with some kind of an outfit if it is only a wood working one costing a couple of dollars. A complete outfit for wood and metal work need not be expensive, say cost from ten to twenty dollars. I have spent that much in a year in direct pay-out besides quite a lot of time consumed. The house in which to house them, should be roomy but not expensive, of second hand lumber and covered in most of the cases they are made with boards, planks or felt.—Maritime Farmer.

THE TURF

SILAGE FOR HORSES

Silage has been fed to horses in different sections of the country with varying degrees of success. When it first came into general use for feeding dairy cattle, the corn was cut at a very immature stage. This kind of silage, when fed to horses, resulted in the same as feeding green corn, producing colic, scours, and other digestive troubles. In recent years, silage has been fed successfully by many farmers, although in isolated cases it results disastrously, probably due to one of several causes: (1) The silage may have been made from immature crops, resulting in a very acid or sour silage; (2) the crops may have been too mature at the time of filling the silo, resulting in moldy silage because of failure to settle and exclude the air; (3) poor preservation, due either to the method of filling or to the silo not being airtight; (4) carelessness in feeding, permitting decomposition to start in the silo; or (5) failure on the part of the feeder to use a sufficient amount of time in getting horses accustomed to a succulent feed after having been fed continuously on dry feed for a considerable time. Great care and judgment should, therefore, be used in feeding silage to horses and it would not be safe fed in the hands of one who is in any way careless.—C. C. Palmer, Minnesota University.

THE DAIRY

BENEFITS OF COW TESTING

(The Journal of Agriculture and Horticulture)

From correspondence with members of cow testing associations the following good reasons why every dairy farmer should commence and continue the system, have been classified.

INDIVIDUAL COWS

1. Cow testing enables one to find out the poorest cows, those not paying for their feed, so that they may be gotten rid of.
2. In many cases one-quarter of the cows in the herd have been discovered to be not worth keeping, in some cases half the herd and even as high as three-quarters have been turned out.
3. This means certainty in dairying; no more guesswork as to individual performance.
4. Cow testing shows that many cows considered only average are really the best in the herd.
5. Cow testing points out definitely which cows are best producers, both in milk and butter-fat.
6. Cow testing proves that many cows considered the highest in test are really the lowest.
7. Cow testing saves good cows from being beefed; they are found to

THE CHEAPEST POULTRY LITTER

The only form of scratching material that costs nothing is dry earth. Lay in a big store of it; keep six inches of it in the bottom of your scratching sheds; rake in the dry corn and the birds will do the rest. Your part will be to look after the nest boxes, and to keep them free of too great congestion.

Dry earth will need only to be changed about once every month or two. It has the inestimable advantage that it "dries off" the droppings immediately; and that no flies, therefore, ever likely to be spoiled by contamination. That is a point that cannot be urged in favor of any other material—not excluding peat moss litter, which is too tight for scratching purposes.

THE FARM WORK SHOP

There are but few farms on which a workshop is not needed, for there are several reasons why they are profitable investments. Some one will say, "The blacksmith shop is too big and expensive for a small farm." But even if the shop is just across the road from your house, the shop bill will be the same. Material costs the blacksmith but little, the shoes and nails to put on cost him but five cents and for his work he gets fifteen to twenty cents for a few moments' work. Other work is practically the same. With a farm shop, the hired man, who does most of the work on rainy days, under your supervision. My blacksmith bill to say nothing of the carpenter work, has been as high as twenty dollars a year and this was only part of what I was out. My time was worth something. I have sent to a shop nearly a mile away and found that others were before me so that my work could be done that day. Another trip next day and my machines must stand idle. No matter how simple the break or how easy to mend, we must go to the shop if we are not prepared to do it home. Then if we have an outfit at home we can fix it or have it fixed to suit ourselves which is not always the case when we are obliged to send to the shop, for the smith does not understand the nature of the trouble, as we do, and so does not know how to fix it. Another point, this is good training for the boys and hired men. They can learn to put up buildings, fences, gates, make and repair harnesses, plows, rollers, repair machines, shoe horses and many

other things, the "know how" of which will be a great help in after life. Every farm should be equipped with some kind of an outfit if it is only a wood working one costing a couple of dollars. A complete outfit for wood and metal work need not be expensive, say cost from ten to twenty dollars. I have spent that much in a year in direct pay-out besides quite a lot of time consumed. The house in which to house them, should be roomy but not expensive, of second hand lumber and covered in most of the cases they are made with boards, planks or felt.—Maritime Farmer.

ORIGINAL GENUINE Horlick's Malted Milk

Instantaneous Lunch. Invigorating.

The Food-Drink for All Ages—Highly Nutritious and Convenient

Rich milk, with malted grain extract, in powder form—dissolves in water—more healthful than tea or coffee. Used in training athletes. The best diet for Infants, Growing Children, Invalids, and the Aged. It agrees with the weakest digestion.

Ask for "HORLICK'S"—All Chemists, Hotels, Cafés and Stores. Don't travel without it. Also keep it at home. A lunch in a minute. In Lunch Tablet form, also, ready to eat. Convenient—nutritious.

be profitable when actual yield and cost of feed are considered.

6. Cow testing proves that many fine looking cows do not bring in much cash from the factory.

7. Cow testing helps to discover the great difference in persistency of flow.

8. Cow testing brings to notice the slightest variation in flow and urges one to seek for the cause of the shrinkage.

HERDS AS A WHOLE

9. Cow testing helps to increase the total yield of milk and fat from the same number of cows.

10. Cow testing helps to build up a profitable herd quickly because best cows can be selected from the best cows.

11. Cow testing allows more discrimination in feeding, apportioning the grain according to the yield of fat.

12. Cow testing emphasizes the benefit of liberality in feeding succulent, digestible food stuffs.

13. Cow testing abundantly proves that it pays handsomely to give dairy cows the best of care and kind treatment, this includes regularly a milking, early stabling in the fall, protection from cold rains spraying to protect from flies; and above all, particular attention to cleanliness, light and ventilation in the stable.

14. Cow testing demonstrates that many good cows can be kept at a smaller cost of feed. This not stings, but economy.

THE DAIRYMAN HIMSELF

16. Keeping records makes one more observant of all those little details that go to make up success.

17. Because cow testing develops this faculty of observation and induces reading and studying, members of associations are becoming far better dairymen.

18. There is a great stimulus received from comparing notes and results with other members.

19. The hired men take more interest in the cows, consequently they give them better attention and get more milk.

20. Neighboring farmers who originally scoffed at the idea of cow testing have become impressed with the results obtained by members.

21. A great measure or personal satisfaction results from studying each cow as an individual performer, not as a mere machine.

22. Cow testing increases one's love for good cows, and creates infinitely more pleasure in the work of the farm.

23. The definite knowledge obtained from the regular monthly testing is much more satisfactory in every way than getting an occasional result.

24. Financially, cow testing is of very great benefit, your bulls sell for higher prices. Cows sell for double the old prices when buyers see records.

25. Cow testing not only interests the boys and girls more and more in farm life, but materially assists in providing additional home comforts for the women and children.—Ex-

SIZE AND LAYING POWER.

It is a well established fact that there is no definite "egg" type among fowls, though from time to time many writers have claimed that a definite type as fixed by themselves was most conducive to heavy egg production. Professor Graham of the Ontario Agricultural College, and Dr. Fearn of the Maine Experiment Station, both of whom have been engaged in breeding work along lines of increased egg production, admit that there is no fixed type which bears a direct relation to egg yield. The results of the numerous egg laying competitions conducted in Australia, England and America, show no evidence of relationship between type and egg yield.

In America the general conception has been that of medium to standardized fowls have been among the heaviest layers and more recently it has been urged by authorities that breeders should avoid using small hens in breeding for increased egg production. One reason, though not the only one, of the general advice against breeding from small fowls was to avoid impairing the constitutional vigor and vitality of the laying stock.

Contrary to this general theory, however, Mr. G. A. Palmer, in "The Farmer and Stock Breeder," continues on page eight.



Rich milk, with malted grain extract, in powder form—dissolves in water—more healthful than tea or coffee. Used in training athletes. The best diet for Infants, Growing Children, Invalids, and the Aged. It agrees with the weakest digestion.

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TRACTS FROM 1911 REPORT OF THE CANADIAN DAIRY AND COLD STORAGE COMMISSIONER.

"DAIRY ACRES"

While glancing over the results of the dairy herd competition given at the recent dairy convention, one could not help being struck by the yields—7317 pounds of milk; 214 pounds of fat per cow.

During the same session a chart was displayed indicating that some dairy farms are producing very little milk, one was listed giving a yield of only 125 pounds of milk per acre. With a dairy farm growing corn, oats, clover and alfalfa, and having pretty good pasture, it should not be very difficult to produce 2,000 pounds of milk per acre and at the same time increase the fertility of the soil. This system should yield an income of over thirty dollars per acre instead of the insignificant average of five dollars and seventy nine cents which was the average yield per acre cultivated including pasture given officially as the average return from five thousand cows in Ontario. The acres need not be idle more than the cows; are yours just common acres, or dairy acres? The herd will average up better if the poor cows are weeded out. Do you know for certain which they are? You can easily detect them if you keep records on farms supplied free by the dairy division, Ottawa, State in your letter if you want forms for weighing every day, or only on three days per month. Is there any good reason why your cows should not average at least six thousand pounds of milk? Many men are getting this and more, but they don't do it until they keep records and know which cows should be kept and which should not.

Continued on page eight.

HORSEMEN ATTENTION!

DR. J. WOODBURY'S HORSE LINIMENT and DR. J. WOODBURY'S CONDITION POWDERS will save and preserve the life of your horses. Their use will cure and prevent the disease common to horses, such as Cough, Colds, Distemper, Glanders, Spavins, Pink Eye, Splints, Curbs, Enlargements, Cracked Hoof, Kidney Trouble, Fevers, Cuts, Sores and will remove bunches of all kinds.

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Use this preparation thoroughly for all and every disease of the horse for which it is recommended. Criticise it closely. Carefully watch, mark and notice its effects, and honestly judging it on its merits, you will be compelled to endorse it.