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## Editorial.

### Agricultural Statistics.

The Dominion Government, it appears, have already, or are about to introduce a Bill into Parliament, having for its object the collection of Agricultural Statistics. These returns will be made to the Agricultural Department at Ottawa, and subsequently published for general information.

We have for years advocated the necessity of such information, and during the time Mr. C. S. Lugrin was Secretary of the Board of Agriculture, the matter was frequently referred to in his Annual Report, and urged upon the attention of the Local Government. Methods by which such statistics could be gathered at a comparatively small cost were suggested by the late Secretary, but there were more applicable to the Province than to this country. The Dominion Government will doubtless desire such a scheme as shall secure the most correct returns. Every Province will then be able to judge of the value of its Agricultural produce, stock, &c., a matter in regard to which we have always been in the dark.

### Origin of Diseases in Fowls.

From a work on this and other matters relating to Fowls published three or four years ago, we make the following extracts—

Club Foot is an ailment which generally shows itself in large fowls, and arising from lying off high places, and causing too severe a jar.

Rheumatism is noticed in fowls in midsummer, after much damp and rainy weather, and sometimes comes from plunging them in water for the hatching fever.

Pip is confined to young fowls during the latter months, and is attributed to unclean food, dirty water, cold damp localities, or from drinking rain water.

Inflammation of the eye originates from exposure to cold and moist weather, attended with easterly winds. Costiveness arises from dry diet, without sufficient quantities of water, and the latter they should always be furnished with. The chickens should be furnished with chick weed, tender grass, green cabbage, &c.

Asthma is caused by obstructions of the air cells, and an accumulation of phlegm, which causes the surface exercise of their function, and causes them to labor for breath.

Chicken pox is generally the result of fighting, when the head has been badly picked. It will come sometimes, without any apparent cause, and will effect a number at the same time.

Cholera is a disease of recent introduction, and in some instances the fowl dies less than an hour after it is attacked. Upon dissection the liver is found much enlarged, and a sticky, slimy substance covers the surface. This slime everywhere appears to pervade the mucous membrane, and clogging up the air passages, produces death.

Moulting, or shedding feathers, is of annual occurrence, and frequently requires treatment. After the third year fowls moulter later every succeeding year, and it is often as late as January before old fowls come into feather. The time of moulting continues according to age, health, and weather, from six weeks to three months.

Megrim is brought on from over-feeding, want of exercise, and from having no shelter from the powerful sun, which effects the bird's head, and it becomes stupid and heavy.

Paralysis arises from various causes, but principally from fowls being confined in small, damp, and unhealthy yards.

Apoplexy arises from over-feeding; want of exercise, and foul water frequently bring on fits of apoplexy, and numbers of fowls drop from their roosts and die in a few seconds.

Sanditis is brought on by cold, continued feeding on dry husky corn, confinement and requirement of green food. The bird's throat becomes sore, and, unless some soft nourishing food is given them immediately, they lose flesh rapidly.

Yellows arises from the fowls having been fed on sour, unwholesome corn. Crop-bound arises from the birds having been kept short of food for several days, and then overfed with a quantity of dry corn, they consequently over-gorge themselves, and from weakness cannot digest the food.

Croup is generally caused by cold, damp and unhealthy places in which fowls are often kept, and it effects them principally in the legs.

We shall refer to the diseases and their treatment next week.

## Correspondent.

### For the Colonial Farmer.

#### RURAL TOPICS.

**FERTILIZERS FOR ROOT CROPS.**

A noted English writer on fertilizers for roots says that superphosphate of lime is principally used in England, but guano is used to a considerable extent in Scotland and Ireland, where the climate is cooler and moister than in the South of England. In dry seasons there, as well as in this country, the superphosphates do not give satisfaction. Having in connection with other scientific farmers, made many experiments with artificial fertilizers, running through a series of years, he comes to the following conclusions—

1. That their action is very much dependent upon the soil. Some soils possess a great responsive power, and others do not respond at all to fertilizers.

2. Poor land, and in poor condition, derives the most striking benefit from artificial dressings. Land in high cultivation, on the other hand, derives often no benefit at all.

3. Superphosphate is the most paying manure we can use for exotics, except which warms us in recommending them in the district.

4. The dissolved guano is less injurious in its effect upon the seed than ordinary Peruvian guano.

5. Guano and nitrate of soda together, or later, by which means they are not placed in contact with the seed, increase the crop, but not to an extent which warrants us in recommending them in the district.

6. The dissolved guano is less injurious in its effect upon the seed than ordinary Peruvian guano.

7. That the benefit from the application of superphosphate is represented by 10 to 12 tons per acre over the unmanured plots, and that in other cases the unmanured plots are fully equal to those dressed, in which cases there is a heavy pecuniary loss from their application.

8. About 2 cwt. of superphosphate to the acre has given the best economic result during several years' experience, extending over hundreds of plots.

The writer says, however, that on some soils a larger quantity is applied, as a ton per acre to mangels; but root culture is one of the main crops in England, and immense crops are obtained which warrant the use of such large quantities of fertilizer. He admits that artificial fertilizers often prove a failure—in many cases the money expended is wasted, while in other cases it is well spent. The manner of applying fertilizers on English prize farms is thus: "Artificial manures are applied by hand on the surface, namely, 5 cwt. of pulverized bone, 1 cwt. of guano, and 5 cwt. of superphosphate, at a cost of £3 10s. per acre. The land is then ploughed, harrowed, and rolled, by which operation the artificial manure is thoroughly incorporated with the soil, and the last week in May, if the season admits, the turnips are drilled on the flat, at a distance between the rows of 19 inches."

**CONSTRUCTION OF FRIGES.**

An important object in the construction of a country priory, is to let the night soil be easily removed once a year, and have no offensive odor from it. It is a bad practice to set a privy on blocks, or piers at the corners, 18 inches, or two feet high, leaving an open space between the piers or blocks, and allowing the odor of the deposits to perfume the air around one's dwelling; yet we often see them so placed—a nuisance to the place, besides endangering the health of the family. Then, we find hundreds of privies built in a style that would disgrace a pig pen; rough boards, with cracks between to light the building, instead of a window; and the whole thing unfit for human beings to use, costing, perhaps, five dollars, all told! Farmers, you ought to be ashamed of yourselves to allow such nuisances to be on your premises, and my advice is to build a respectable one, not less than 3 x 6 feet, neatly clap-boarded and painted, with a small one-way window to slide up between the plastering, or the inside ceiling. Give it a double-pitch roof, and have a box ventilator run from below the seat, up between the stalling, thence between the rafters, and coming out of the centre of the ridge of the roof, a foot above the ridge, with a moulding around the top, to give it a tasty appearance. Lay the floor with the best of seasoned, pine matched floor boards, attach square covers to the openings, hung with laths, then get a panel door for the structure, and you won't be ashamed to have a friend call on you, and stay over night.

Now, such a privy can be built alongside of the old one; and when the pit is dug (I shall not allow you to put this in its position without a pit) and walled up, four men can put it in its foundation in a few minutes. Dig the pit 3 x 6, four or five feet deep, and wall it up with brick eighteen inches thick, laid up in mortar. The dirt that you throw out will raise the ground about a foot, sloping off six or eight feet; consequently about five feet is all the depth you will require below the level of the natural ground. In the centre of the rear wall, an opening is to be left two feet wide; and the ground should be dug out five or six feet back of the privy to allow a place to go down to remove the deposits. This passage should also be walled up with brick, leaving a clear space of two feet at least between the walls; and the tops of these walls should be as high as the other walls, where they connect; and then slope off to the rear, so as to hang a door over the aperture, and have a descent of some inches. At the end of this passage a couple of steps may be made with bricks, to enable one to lean the vault out easily; I find that such a method of cleaning out a privy will work well. The night soil should be mixed with any good soil in layers—three or four times as much earth as night soil—to remain in the heap a month or two, when the whole mass will be worth as the fertilizer three times as much as the same quantity of stable manure. The tops of the heaps should be flat to hold the rain.

**DON'T BORROW MONEY.**

Perhaps few men have seen the troubles that farmers have been brought to, in consequence of mortgaging their farms more than I have; and I want my readers to be warned of the pit they would dig to fall into, by borrowing money to enable them to purchase stock, or to cultivate their farms better, and more extensively. There never was a time when the present century when farmers needed to be so careful not to run in debt as at the present time. It is no use for young men, with but little money, to buy really good farms, and run in debt for a part of the purchase money, that a farmer who is out of debt owns his homestead free of mortgage—would be very unwise to put even a small mortgage on it, no matter what his condition is, it would be better to cut down expenses to the utmost degree. When a farmer is only in debt to a few shillings, support his family on a very small income. His cows, pigs and fowls, with the breadstuffs he can grow, without any hired help, will supply him with food. Then by keeping from debt to one hundred hogs, he can buy his groceries with the surplus eggs; and with a few pigs fattened, a few calves, a little surplus hay and grain, he can clothe his family and thus avoid mortgaging his farm—the best deal.

Most cases of a farmer's prosperity and peace of mind. Every farmer who finds it hard work to "make both ends meet," and has his girls growing up, should have a patch of strawberries, raspberries, or of other small fruits for the children to weed and pick; and also to sell in the village, if not far off. Let the rising generation among farmers be utilized by being thus employed at times in some profitable and pleasant work. Strawberries often yield one hundred bushels per acre, or 3,200 quarts, worth anywhere from 15 to 20 cents a quart; and many a farmer has cleared, with the help of his children, one hundred dollars on a quarter of an acre. The Wilson, Chas. Downing Green Prolific, Kentucky, Champion Monarch of the West, Seth Boyden, and Juvenia, are among the most popular varieties.

**THE VALUE OF STABLE MANURE.**

Stable manure is generally sold to market gardeners and other people who want a little for private gardens at \$2 to \$3 a twohorse load. No farmer can afford to pay over \$1 a load and draw it two or three miles, unless it be wanted for some better paying crop than is generally grown on farms. If a farmer cannot buy stable manure at \$1 to \$1.50 a load, he had better not buy any, but make what he can on his farm, and try turning under green crops, or buckwheat, clover, &c., to keep his farm in good condition, growing more grass and less grain and food crops. Some farmers recommend borrowing money to buy manure rather than attempt to grow crops with an inefficient supply. A late writer says: "Any man who has capital enough to own valuable land cannot well be too poor to buy the fertilizers needed to make it productive. If he cannot do otherwise he may safely borrow the money to buy the crop is harvested and sold. When a farmer cannot get enough stable manure, as is the case with all farmers, buying some kind of commercial fertilizer is the alternative to doing nothing." That is doubtful. How can a farmer be assured of "safety" in borrowing money to buy manure? Suppose the season be very unfavorable, as by a great drought, and his crops fail, what then? No, don't do it; but keep more live stock, turn everything into manure that you possibly can, save your live manure, as it is worth as much as pure guano, keep all the pigs you can, as their manure is very strong, throw weeds into their pen to keep the manure from drying, with turf, much, or anything that will increase the bulk of its contents; and thus try to avoid the necessity of buying manure.

**CARTING OUT MANURE.**

In hauling out manure at this season of the year, upon fields to be plowed in April or May, if the heaps be made of a size to equalize its distribution, the same would be made if the land were to be plowed without delay; there will be a great loss in the manure by the escape of its ammonia and drying of the surface of the heaps. Suppose a two-horse load of first-rate stable dung be placed in six heaps in a field in February, and this manure remains in these heaps till the middle of April, or the fore part of May, and are then spread and the land plowed, how much loss does the manure sustain? Not less than 10 per cent. Men argue frequently that the loss is not so much; but it cannot, I think, be less than ten per cent. There must be a certain degree of loss—more than farmers can afford to lose—and the question is, how is this loss to be prevented? One way is to wait till the ground is to be plowed, and then haul out the manure, and plow it under as fast as it is spread. But farmers are too busy to haul it out then, and are compelled often to draw it out in the winter. If one must do so, it would be a good plan to make the heaps large, but not too large to be spread properly with a little extra hard labor; pack them as solidly as possible, and if they be well built up and trodden down, they may be made so compact with a little labor that not over one or two per cent of loss will take place. Another way is to put only three or four very large heaps to the acre, making them compact, as in the foregoing case, and when the time comes to spread the manure take a team and a sled with movable sideboards and proceed to remove some of the manure to other places, so that when it is spread, it will be evenly distributed. It would be but a short operation to remove a part of the manure in that way, and I think the labor can be afforded by farmers, rather than lose so large a portion of their stable dung by evaporation, as the ordinary method of hauling out manure in the winter is sure to cause.

**Length of the Milking Season.**

There are various opinions upon this subject among dairymen, as well as upon almost every other point of practice; but it is really so vital a question, connected with the profit of the dairy, that there should not be two opinions upon it. A little careful study of this question, practically, ought to settle it within very narrow limits. The cow, in a state of nature, has a short period of lactation—only from three to six months—the only requirement being food for her calf. When this object was attained, the secretion of milk ceased. But when her milk began to be used for human food, efforts were made to prolong the period of lactation, and increase its flow. The model dairy cow, as we know her, is almost an artificial production—a monument of skill in breeding and feeding. Instead of secreting a few quarts of milk per day for three months, as her long-ago progenitors, she yields from 4,000 to 6,000 quarts in a period of 44 weeks. In a state of nature, such a production of milk was impossible, even though the cow had had organs of sufficient capacity, for her food and surroundings were entirely inadequate. The extraordinary development of the milk secretions in the cow is entirely the work of the breeder and feeder. If then this work of developing the milk cow is a good one, and we are to congratulate ourselves upon its accomplishment, shall we not adopt, in the management of the cow, the same system which has been successful in developing her milk production?

It will be found that every improver has striven to extend the period of lactation, this being absolutely necessary to an increased aggregate yield of milk for the year. A cow that has given a good yield at the flush, has been encouraged by the best food and care to continue this yield as long as possible. This effort has, no doubt, been carried to an extreme in many cases, for cows should not be permitted to give milk through the year, as they sometimes do; but it is seldom that a cow having a short period of lactation were of next day, and since then

however large her yield may be considered in the flush. We have had cows giving 40 lbs. per day at the highest, and still not reaching 5,000 lbs. in a year, for the want of staying qualities, as the horsemen say; whilst other cows, never giving over 30 lbs. per day, have reached 5,500 and 6,000 in ten months. From much experience with many cows, tested individually, we have come to consider a short period as fatal to a large annual yield in a cow. We do not know of a single large annual yield from a cow that did not give milk ten months. Great yields have come from all the milking breeds, and from those of common stock; but in every instance, so far as we have been able to learn, the cow has been a long milker as well as a deep milker.

If these facts are acknowledged, what real ground can there be for two opinions upon this question of the desirable length of the milking season, except of giving a reasonable time for recuperation before the next calf is dropped? Facts show that, practically, six weeks to two months is ample time, under proper feeding and care, for the cow to recover her energies and be in condition for the next lactation. We regard this as a most important question, to be understood by every dairymen; for, when he understands its importance, he will test each cow's staying quality, and, after finding her deficient in that and in the aggregate quantity of milk, he will discard her. If a cow takes off in milking at seven months, under good feeding and care, there is no use in wasting further food upon her. Let her be prepared to go to the butcher.

You do not want to keep her heifer calves, unless the dam of the size was remarkable for holding out, in which case the calf may make this quality from the sire, for this quality in a milker is hereditary. Yet you may increase it very much in many cases. We have found it valuable to let the heifer with her first calf, at least twelve months, not allowing her to come in the second time less than eighteen months from the first calf. This helps to establish the milking habit, and the dam of the size was remarkable for holding out, in which case the calf may make this quality from the sire, for this quality in a milker is hereditary. Yet you may increase it very much in many cases. We have found it valuable to let the heifer with her first calf, at least twelve months, not allowing her to come in the second time less than eighteen months from the first calf. 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