

## The Farmer's Advocate AND HOME MAGAZINE.

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DOMINION.

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### Nature's Diary.

A. B. KLUGH, M.A.

It is not so very long ago that external parasites were the commonplace daily companions of the great majority of human beings, now their presence is quite rightly regarded as a shame and a disgrace. From clearing himself of parasites to clearing his animal possessions was the next step, and a great deal has been accomplished in this line. But there is still room for improvement, as a good many people seem to regard lice on their chickens as a natural and necessary evil.

We often speak of chicken lice as if there was but one species of parasite concerned. As a matter of fact there are several.

The Chicken Head Louse, as the name implies, is found mainly on the head, though occasionally on the neck and elsewhere. It often causes much annoyance to grown fowl, but is particularly injurious to young chickens.

The Chicken Body Louse remains on the skin rather than on the feathers, and favors those portions of the skin which are not densely feathered. This species is rather large and robust, straw yellow in color, with dark spots. On account of its close contact with the skin it is extremely irritating to its host, and often a marked reddening of the skin results in the regions most heavily infested, and in some cases scabs and clots of blood result. The eggs of this species are deposited in clusters at the base of the feathers. They hatch in about a week, and the adult stage is reached in from seventeen to twenty days.

The Shaft Louse normally occurs along the shafts of the feathers, and is smaller and lighter in color than the Body Louse. It does not occur on young chickens as, since their covering of down does not constitute a suitable environment.

The Wing Louse is found on the large feathers of the wings, and occasionally on the neck hackles, tail and back feathers. This species is dark grey with an elongate body and is a rather sluggish species.

The Fluff Louse is found on the fluffy feathers on various parts of the bird, and is a small, broad species pale in color with a translucent appearance.

All these lice, but particularly the Head Louse and Body Louse, affect the birds infested with them injuriously, causing an unthrifty condition, resulting in loss in weight and a diminution in egg-production. Droopiness, lowered wings and ruffled feathers are often a sign of infestation. In young chickens lice are often either directly or indirectly responsible for death.

Many things have been advocated for the elimination of lice from some fairly efficient, some not, chickens, but recently Messrs. Bishop and Wood, of the United States Bureau of Entomology, have discovered a method which is not only certain in its results, but also cheap and easy of application.

They found that sodium flouride is exceedingly

poisonous to all species of chicken lice, and at the same time entirely harmless to the birds. Sodium flouride can be obtained in two forms, the commercial and the chemically pure. Since the commercial grade is in the form of a finer powder and is cheaper than the chemically pure, it is the better for use. Sodium flouride may be obtained from the druggists, but as there has, up to the present time, been very little demand for this chemical, the druggist may have to order from the wholesale house, so that intending purchasers should ask their druggist for it well in advance of the time they wish to use it.

In treating poultry with sodium flouride, if proper methods are followed, one application given to all the fowls on the premises will completely eliminate lice. It is essential that the treatment be thorough, and that every fowl be treated, for if one bird escapes treatment it will in a short time reinfest the entire flock, and necessitate a repetition of the process.



Chicken Body Louse (Enlarged).

The method of application is as follows: The chicken is placed in a pan on a table, the wings or legs being held with one hand, while with the other hand pinches of sodium flouride are placed among the feathers next to the skin as follows: One pinch on the head, one on the neck, two on the back, one on the breast, one below the vent, one on the tail, one on either thigh, and one scattered on the underside of each wing while spread.

Only from two to three minutes is required for treating each fowl, and a pound of sodium flouride, at a cost of about forty cents, will treat a hundred birds.

The sodium flouride does not kill all the lice on a bird instantaneously, but three days after the application the birds will be found completely free from lice.

### Cheer Up, the Rain is Over!

BY ALLAN MCDIARMID.

Ontario seems to have come in for a fair share of wet weather this fall, no room for debate on that point. But the interesting thing about it is to notice the different ways in which those affected by it, speak of it. Some will tell you that it's a good thing to have plenty water in the soil in the fall as it helps the crops to pull through in case of a dry spell next summer, and another thing, there's no danger of anyone having to draw water for their live stock this winter on account of dry wells or springs. And if we didn't have rain and plenty of it at this time of year, how could we do our ploughing?

But there are others, and quite a number of them too, who don't see the thing in that light. The glasses they are looking through must be of a different color to the other fellow's. They seem to give the world and everything in it a sort of a blue tinge, as one would say. These people apparently get a good deal of melancholy satisfaction out of the idea that everything is "going to the dogs" and hasn't very much further to travel. They and the optimists that we mentioned first are something like the two camps that religion used to be divided into, and is yet, to a certain extent. One side took the ground that this world was continually getting better and gradually developing into a state where mankind would have attained perfection, both mental and moral. The other side held that things were going from bad to worse and that in a short time this earth was to be burned up, with the majority of the creatures that inhabit it, both human and otherwise. They themselves, with a few others that they could pick out, were to be carried safely to Abraham's bosom there to rest for evermore.

These are the two classes into which the world is, seemingly, divided, and the difference is always apparent, no matter in what sphere of life we find them. All the best work of the world is done by the former class, the optimists, while on the other hand, anything is accomplished by the pessimists is done in a sort of half-hearted way, because they have to do it, one would say. They seem to think that whoever planned this world wasn't up to his job and so far as their life here is concerned the best thing they can do is to get through it as quickly and with as little exertion as possible. Being endowed with a little less than the average amount of common-sense they set themselves up in the position of one who has the ability to criticize the world and everything in it.

I heard of one woman who said she didn't see evidence of any great wisdom in the creation of this world. "A cow might have planned something just as good" she said. She was referring particularly to the war that was effecting so much of the world, but she showed her ignorance of the first principles of the growth and evolution of life on this earth, as it has taken place throughout the ages of the past. Only through the struggle for existence could life be developed and progress be made, and it is as we looked on the war as part of that age-long struggle that we see the fulfillment of the purpose

of an all-wise Creator. This is the point of view as taken by the intelligent optimists of the world and it is the only one that can make of life the reasonable and worth-while thing that it must in the end prove itself to be.

A doctor in one of the hospitals in France, asked a badly wounded soldier he was attending, what countryman he was. "Well", he replied, "what the bullets and shells have left of me is Canadian." He was a joker and an optimist to the last. As most of our boys over there are, as a matter of fact. It would seem as though there was something in a dangerous or difficult situation that had a tendency to bring out the most hopeful and cheerful side of our character. It isn't those of us that are most comfortably situated that show these qualities always, at any rate.

As an example of this take the "habitant" over in the Province of Quebec. Often his farm is small, but hardly ever can the same be said in regard to the size of his family. He should be killed by his worries and responsibilities, according to our way of thinking. But is he? No chance. He's the happiest and most care-free mortal ever created. I've seen him when he hardly knew where the next meal was to come from, let alone those of the day-after-to-morrow, and it apparently made not the least difference in his cheerful condition of mind. Never having been starved to death, I suppose, he took it for granted that he never would be.

The state of the weather cut very little ice with him. No matter what it was for others it was always "beau temps" for him. And he always gets enough, apparently, to keep him living and comfortable to a pretty decent old age, which is about all anyone can say for the best of us.

This kicking about everything that don't go to suit us has a bad effect on our character and nature in the long run. I've been talking to people this fall who seemed to take it as a personal injury, intended for themselves, the amount of rain they had been getting, they couldn't get their potatoes dug, they couldn't get their fall-ploughing done and you would think that if something wasn't done about it soon that they would quit trying to do anything and we'd see what would become of things then.

This time next year they will have forgotten all about it, but of course it will be because something else just as bad is happening to take its place.

They may not think it but if they'd just cheer up and try and look pleasant, they'd make more money. I know an old chap that never says anything but "it's a fine day", when he meets you, no matter what the weather may be, rain or shine, and the same old man has about as many dollars gathered together as any other two men in the community. His cheerful temperament always kept his earning ability up to the top notch, apparently. Joking aside, a man will do better work when he is hoping for and expecting good results than when he isn't.

And, to go back to the weather, we really have no right to be finding fault with it any more than we have to criticize the color of the sunset or the number of the stars. The same Author is responsible for everything we see and we may be sure that, in the long run, it's all planned for our greatest possible benefit. If things are not coming to our liking at the present minute it may be because it's just as necessary for us to develop the ability to overcome difficulties as it is that we build up a good big bank account before the time comes to quit.

It's a pretty sure thing we've been put on this old earth to make good by some means or other, so if that's the case it's up to us to see that we don't go at it in the wrong way.

Cheer up. It looks as though the rain was over.

### Tractor Difficulties.

One thing which renders the tractor less serviceable in this country than it should be is the great difficulty experienced by owners in obtaining parts and repairs. The majority of the tractors in use in Canada are manufactured in the United States, or at least the companies' headquarters are there. The branches and agencies located on this side of the line are eager enough to sell a machine, but they render far from satisfactory service in supplying parts and replacing breakages. For instance, seeding is on and the cultivator and harrows are drawn out, but just then some simple piece of mechanism goes wrong. The tractor owner gets in touch with the agency only to learn that the part wanted is not in stock and can only be obtained somewhere in one of the States of the Union. At the best a delay of a week or two is occasioned and valuable time is lost. This is only an example of what happens many times throughout the season. It is not the worth of the part but the want of it that is so important. Tractors would be one hundred per cent. more popular if it were not for these exasperating delays that the branches should guard against by keeping parts and repairs constantly on hand; a farmer does not buy one of these expensive outfits to play with on rainy days. He gets it with which to do his work, but when it is standing idle, awaiting repairs, it is only in the way. This kind of farm power will never be entirely satisfactory until some system is devised whereby parts can be speedily obtained and attached. Tractors have come to stay, but there is urgent need of better service along the lines indicated.