

Sheep Husbandry.

Flukes and Scab in Sheep.

To the Editor of THE CANADA FARMER.

SIR,—It has long been suspected, and is now generally believed, by Zoologists, that the "rot" in sheep is caused by the *Distoma Hepatica* (209 species are known), sometimes called a "fluke," from its shape, found in the livers of sheep and other domestic animals, also even in that of man. It is from half an inch to over an inch in length, oval in form, but pointed at both extremities. From the fact that sheep never contract the "rot," and, of course, the *Distoma*, in dry but do in wet pastures, it is surmised that the germs of this parasite exist in the water, or on the grass, of wet or marshy land, and find their way into the stomachs of domestic animals with the grass eaten or the water drank, and into that of man from eating raw vegetables.

The larvæ, being so small as not to be visible with the naked eye, finds its way into the blood, and is finally deposited in the ducts of the liver, where it speedily becomes a "fluke." Their power of reproduction is immense, over a thousand being seen in a single liver. These creatures are bisexual, and their mode of multiplication is therefore similar to that of other creatures of both sexes, but different from that of the tape-worm in the first phase of its existence, which is, by division, similar to that of creatures of the lowest scale of animal existence. It has been observed that graminivorous animals are subject to the *Distoma*, while the carnivorous are liable to the tape-worm, in its perfect form, getting it from their prey: thus, the mouse is the nurse of the tape-worm of the cat, while the garden-snail is that of the pigeon.

Not having seen any cases of sheep diseased with the "scab," I am not acquainted with its appearance, but presume that it is the same as the *Mange* (*Scabies Ferina*) itch, which affects nearly all our domestic animals, especially the horse, sheep, dog and cow. If such is not the case it is likely to be allied to it, and the cause then, will be due to an insect, something similar to the itch insect of man.

Your article on the "Pros and Cons of Sheep Washing," suggested to me the subjects of this communication. In the article referred to, "rot" and "scab" in sheep, being apt to contaminate the whole flock, in the wash-pool or on the way leading to it, appeared as objections to the use of a public washing place. If the hypothesis that the "rot" is caused by the *Distoma* be correct, and it is very probable, since all sheep, whose livers are badly diseased with it, are found to have the "rot," although a few healthy ones have been seen, whose livers contained a few "flukes," and, as far as I am aware, no sheep diseased with the "rot" was free from the *Distoma*; it is impossible for them to contract the disease, by merely walking over the road leading to the pool, or being washed, unless they eat of the grass or manage to swallow some of the water, both of which are improbable. With the "scab" (if it is the same or similar to the *Mange*), it is different; this is communicated by contact, or might by using the same water, as the cause of the disease is, as above stated, an insect. By washing in a stream of water danger will be obviated.

Besides losing the "yolk" which may be employed as manure, as you stated, a solution of it in hot water has a very peculiar property of dissolving grease stains, and other impurities, from all kinds of woven textures, without in the least destroying the colour, but will, in a measure, restore it, and is believed to act as a mordant in fixing the colour. Two or three fleeces put in two pailfuls of boiling water, will make a pretty strong solution, to be heated for use, and the garments afterwards to be thoroughly rinsed in clean water, no soap need be used.

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NOTE BY ED. C. F.—The disease spoken of in the article alluded to by our correspondent is *hoof-rot*, while that of which he states the theory correctly enough, is *rot*;—an entirely distinct complaint. Fortunately the latter is scarcely known to flock-masters in the northern portion of this continent, at least; and is believed not to be contagious. Hoof-rot, on the contrary, is decidedly and uniformly contagious; and is believed to be communicated by a species of inoculation—by the virus of a diseased foot being brought in contact with the inner portion of an undiseased foot. Experienced flock-masters, however, find no difficulty in effecting a perfect cure of hoof-rot, by the timely use of the knife and the cautery, upon the hoof affected.

Foot Rot in Sheep.

A CORRESPONDENT of the *Genesee Farmer*, writes to know how to cure foot rot in sheep. John Johnston, to whom we sent the enquiry, kindly replies as follows: "Foot rot in sheep can be thoroughly cured by thorough paring of all the hoof from the diseased part, and applying a salve made of pulverized blue vitriol mixed with lard, butter, or any other grease. If hot weather a little tar added to the mixture is an improvement. Those sheep that are diseased must be separated from the sound at the first dressing, but the sound must have salve applied to their feet, else some of them will become lame in a short time. The diseased ones should be dressed over again in a few days, say three or four, every foot being closely examined. See that no part of the hoof has been left covering the sore. The sound ones should be dressed over again in about a week from the first dressing, or sooner if any are seen lame. About three dressings in that way will generally effect a cure, if the paring has been thorough. It requires thorough work to eradicate that disease, but I know from experience that it can be done in the way I state. But if the land is wet where they pasture, or land that retains water on or near the surface for days after it rains, it is very difficult to keep the sheep sound in the feet."—*Genesee Farmer*.

Poultry Yard.

Chickenhood.

A SERIES of capital articles has lately appeared, in the *Scottish Farmer*, on the management of chickens, a brief digest of which we herewith commend to the careful attention of our enterprising and thrifty housewives. The writer very appropriately introduces his subject by urging the prime importance of breeding only from fowls which are likely to combine, in their progeny, the marks of excellence especially sought for. In purchasing eggs for hatching, the prudent course is to apply only to such stockholders as can be trusted, and who are too sensible to spoil their market by cheating the uninitiated.

In speaking of the interest which attaches to the supervision of newly hatched chickens, the writer has the following genial remarks:

In health, warmth, and plenty, what more captivating sight than a large brood of chickens! The promising juvenile fancier, by his or her early and oft repeated visits, proves how much admired the sweet, nimble, and playful little favourites are. The animated appeals to older bystanders to watch their restless movements and happy activity, as well as the hearty shouts of laughter excited by their odd tricks, permit us no longer to wonder at the earnest entreaty of Johnnie or Nettie to be allowed to go with papa or mamma to feed the wee chickens, and as a special favour to carry their breakfast. The chicken-coop is a source of purest enjoyment to an observant child, and if the inmates are in proper condition they can do no harm either to the health or spirits of grown up people."

The first, and for several weeks the uninterrupted requirement of chickens is warmth, without which all other care is in vain. Exposure to a chill, for a brief space immediately after hatching, is death, and for some weeks after, cold is a serious hindrance to digestion, feathering, and growth. A steady mother will stick closely to her nest, till the second or third day after hatching; and there need be no anxiety about food or water during the first twenty-four hours, as warmth alone is required. For some weeks after the mother leaves the nest, she should be cooped up within narrow limits; but after the chickens are from twelve to fourteen days old, she should be let out to take a stroll of twenty minutes length. This recreation should never be permitted when it rains, or when the ground and grass are wet. The first meal of a chicken is properly oatmeal slightly slaked with water. The sounder the meal the better, and the yolk of a hard-boiled egg may be added to it with advantage. After the second week, broken grain may be given in moderate quantities as a separate meal; but it is advisable to continue the egg mixture, putting in the white as well as the yolk. Wheat is not suitable food for chickens; it fattens too rapidly and tends to roup.

Like their seniors, chickens are fond of grass and most of our common vegetables, and should have a supply cut small for them when very young; but when they are a few weeks old they delight to help themselves. They must have water constantly supplied to them in a shallow vessel, or, if one is used deep enough to drown a chick, let it be filled up with clean stones far enough to prevent this. If the slightest appearance of parasites be observed about the mother, in consequence of the weather preventing her from using the dust bath, dust a little sulphur among her feathers, particularly under her wings and over the lower parts of her body. Chickens and vermin cannot both thrive together; but care must be taken not to over-do this, and if a dust-bath can be formed under cover, the brimstone, in the majority of cases, may be dispensed with.

Do not treat them to a roost till ten or twelve weeks old. Of all chickens, we cannot in their first months see with certainty the excellencies of their respective points, and, looking to competition, we must keep all on till we are quite sure of the best. Of course, of the larger breeds, as Cochin, Brahmas, Dorkings, a very early comparative estimate may be made and rich feeding may be begun to push forward the lumps to astonish the visitors of exhibitions. The young giant must indeed, to succeed, have his oil, his gravy, his beef, and even his glass of ale or wine; and to make a frame whereon to support his flesh, do not withhold from him a feast of crushed bones in his tender years! Other breeds need not be so pampered, yet early maturity and richness of plumage may be much aided by considerate extra attention to those specimens on which the future honours of the exhibition-room depend. By all means keep them in good cheer; separate the sexes; and if the slightest tendency to pugnacity among the cockerels be observed, separate them also, and at once."

It will be convenient to effect this separation when, at most, the chickens have reached the fourth or fifth month of their age, by having a sparrow run for the cockerels, and for the pullets also, if space permit, although the latter can be, with little harm, distributed among the runs of the adult fowls.

The cockerels must not, for one day be so allocated. The first blast from the stripling's clarion in presence of a veteran ruler will be answered by the notes of war. If the slightest air of defiance is shown by the juvenile intruder to his superior, the rush of battle succeeds, and unless an early and safe flight is effected, the sharp spur of the mature pugilist is ruthlessly driven into the tender flesh of his unfortunate antagonist. If the chicken has been foolhardy enough to resist, it will be hopeless to live in his new home and thrive. He has only to make his appearance to be insulted before the ladies of the establishment; he will be hunted up often to be persecuted, and in his miserable flight, he may have to suffer the crushing indignity of being beaten by the hens.

Under these circumstances it is, of course, impossible for a young bird to fatten, or feather, or become robust in constitution. In farm yards where there is ample scope for all the stock, and abundant retreat for the vanquished, separation is less necessary; partial confinement of the pugnacious members being generally sufficient to keep peace.

"If the confinement be for a day or two, however, in cases where the battle has been all but drawn, the cure is only an inextinguishable form of the disease, as every renewed meeting will be more terrible than the preceding one. Hence, where more cocks or cockerels than one run together, and are not meant to be separated, our advice is to let the battle be decisive and the sad plight of the combatants at the end of the bloody fray will be well compensated by a last ing peace."

In cases of sanguinary frays like the above, if the plumage is much besmeared, it is better not to wash it; for when blood is left to dry, it hardly ever penetrates the downy under-part of the neck feathers; whereas, when it is washed it is soaked right in to the bird's skin, destroying its appearance, very frequently, for a whole season.

Of course, for a stock kept only for eggs and the table, the demands of the market and home consumption afford an easy and ready remedy, but even to the owners of such stock we say, do not, if you want to keep up the usual supply of eggs, and save the plumage and health of your hens, be slow to apply it; and the moment the cockerels become impudently mischievous, sweep off all you do not intend to keep permanently. If you fail to follow this advice, please do not fret at seeing your cockerels knocking one another, as well as the unoffending hens, to pieces, and bear with resignation the evil you have taken no means to prevent."