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LIVE STOCK AND DAIRY.

HOW TO GET RID OF THE CATTLE TICK.

Some Common Misapprehensions—Possibilities of Inoculation—Stockmen in Tick-Infested Territory Should Bring Only Young Stock from Tick-Free Territory.

By Tait Butler.

THE WRITER of this series of articles on tick eradication is receiving a goodly number of letters in which the writers question statements which he has made. These letters are remarkable, in that none of them have raised a single question that has not often been raised before, and as often answered. One amusing feature is the positive assurance with which some of our critics tell us we know nothing about the manner in which ticks breed or reproduce themselves.

How Ticks Breed.

The most common, although erroneous, belief of our critics is that the old female or mother tick drops to the ground and after awhile bursts open and young ticks emerge from her ruptured body. Once for all, and positively, we wish to state that this common belief is false. No ticks breed that way. How much easier and more sensible it would be for these honest but mistaken friends to put a mother tick in a bottle, plug it up with a wad of cotton, set the bottle away in a dark place and watch the results. They can verify our statement with less trouble than they can convince us that ticks burst open and permit young live ticks to crawl out of them. We have seen thousands of them lay eggs and have seen the young ticks emerge from the shells, and if any one will send us a tick that breeds in any other way we will make him a present of a life subscription to The Progressive Farmer and Gazette, or give him anything else he may ask for.

Another common error is that the common ticks on cattle are not the fever ticks. No other species ever become numerous on cattle. Whenever large numbers of ticks are found on cattle after July 15 or August 1, it may be taken for granted that they are fever ticks.

One good friend says that the common old tick, with a white spot just back of its head, does not breed the way I described for the fever tick. Now, our friend is guilty of just two errors. This tick with the spot on its back is not the most common tick on cattle and it does not breed by bursting open and allowing the young ticks to crawl out of its body, but lays eggs just as does the fever ticks, as any one may prove by putting one in a bottle or box and watching it a few weeks. This tick with the white spot gets on all sorts of animals, but it is not the common cattle tick—it is not the one that carries tick fever and does so much damage to the cattle industry.

You Can Not Kill Ticks by Feeding the Cattle Sulphur, Etc.

The other amusing points are the numerous remedies suggested for killing the ticks. We have no time to argue the case, but we know from actual experience and trial, that none of these substances when fed to the cattle cause the ticks to drop off, nor will they keep the ticks from getting on the cattle. The ticks drop off all right, but it is because they have matured on the cattle and arrived at the stage of their development when it is necessary that they leave the cattle.

There are no so-called "yearling ticks" and no ticks that live without getting on to some animal, for any

great length of time. In the eight or ten species of ticks that get on cattle there exist differences in their life history, but we have, as first stated, described the habits of the common cattle tick, the only one that is ever numerous on cattle after August 1, and the only one that causes tick fever in cattle. It is the common, well known tick that gets on cattle and sometimes on horses, mules and deer; but it is not the tick that gets on man, dogs, rabbits, or any other animal except those named.

No Treatment for Tick Fever.

We have also been asked how to treat tick fever, and how cattle that have been grown to an age of a year or more, in the tick-free area, may be brought to a tick-infested area without loss.

In the first place, it may as well be plainly stated that there is no satisfactory treatment for tick fever. There is no treatment that is likely to pay for the expense and trouble involved. On the other hand, cattle over eight months old may be inoculated and in a large measure protected from a fatal attack of tick fever; but the expense of this, the effect on the cattle and the subsequent effects of the ticks as purely skin parasites, in irritating the cattle and sucking their blood, are such a tax on the cattle industry to render the procedure unprofitable and impracticable, as a general or effective means of handling the cattle tick problem. There is but one satisfactory means of meeting the tick situation, and that is by tick eradication. The chief reason for this is that eradication is comparatively easy and permanent; whereas any other method is difficult, expensive and ineffective, or a mere makeshift.

In those sections, however, where cattle are not properly controlled, or in the free range section, if a man wishes to control his individual cattle and improve their quality, inoculation may assist him to introduce, with comparative safety, pure-bred bulls or other cattle for breeding purposes.

Inoculation Against Tick Fever.

Such inoculated cattle will not do as well as tick-free cattle, nor do we advise inoculation as either the first or second best means of handling the tick question; but by it, animals of pure breeding may be introduced with a death loss of 3 to 8 per cent. As stated, we recommend tick eradication as the best method and where this plan will not be adopted we advise as the best way of introducing pure-bred animals, the purchase of calves under four months of age, in preference to inoculation of older animals.

The calf at birth is not entirely proof against tick fever, nor free from attacks of ticks; but ticks seldom attack calves under three months of age in large numbers, and if they do, it is a well established fact that comparatively speaking the calf

under that age is not much susceptible to tick fever. As the calf advances in age, if it does not become infested with ticks it gradually loses the natural immunity or freedom from tick fever that it enjoyed at birth and by the time it reaches maturity is highly susceptible to the disease. This is the result, no matter where the animal is raised, freedom from ticks being the only important matter in determining the question of susceptibility.

If, however, the young calf that is only slightly susceptible to tick fever, say when two to four months old, gets a few ticks on it, a mild attack of tick fever is contracted and this protects it from a more severe attack later. Repeated attacks of ticks, as the calf is growing up, result in its acquiring a high degree of immunity to the disease without at any time being seriously, or at least dangerously affected with tick fever.

Young Calves Less Susceptible.

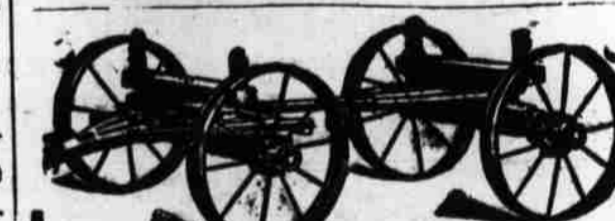
Of course, young calves sometimes suffer so severely from tick fever as to cause their death, and there are more of these cases than generally supposed, but still they are comparatively rare. It is, therefore, reasonably safe to introduce a calf under three or four months old from a tick-free area into a tick-infested pasture. There may be loss, but it will be less than when the inoculation of cattle over eight or ten months of age is practiced. The death loss will be less and the effect on the growth of the calf from subsequent attacks and tick infestation will be less.

In view of these facts we recommend the introduction of calves under four months old for purposes of obtaining pure-bred animals for breeding in preference to inoculation. There is the one objection, that with our methods of poor feeding and our short pastures, better grown animals may sometimes be obtained when older cattle are purchased. In view of the fact that inoculation is in many cases valuable in aiding to have animals introduced for breeding purposes, we will describe the operation in our next article.

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