

## CHAPTER XIV.

*Red-Water.*

The nature of this disease has been very much misunderstood. It consists of a discharge of high-coloured urine, and therefore has been attributed to an inflammatory affection of the kidneys. It will generally be found to begin in another organ, the liver, and to be connected, in the first stage at least, far more with disease of that gland than of the kidney.

There are evidently two distinct species of red-water.

One, but which occurs most seldom, begins with decided symptoms of fever. There is shivering, succeeds by increased heat of the body; the muzzle dry; working of the flanks; urine of a red colour, evidently tinged with blood, and occasionally consisting almost entirely of blood, discharged in small quantities, and frequently with considerable pain; loss of appetite. As the disease proceeds, the animal loses strength; the bowels become constipated or very loose; and the urine of a dark colour, approaching to black.

Very early in the complaint the loins become exceedingly tender, and the animal shrinks when pressed upon; some heat is likewise felt there, showing evidently the seat and nature of the disease. It sometimes proceeds from cold, particularly when beasts are turned into low pasture grounds at the spring of the year. It also frequently seizes young cattle that are feeding, or in good condition; for a fulness of blood in the system renders them more liable to the complaint.

Sometimes inflammation of the kidneys proceeds from external injuries; such as a violent bruise across the loins, in consequence of other beasts ramping on them, or a severe blow in the region of the kidneys.

The discharge of bloody urine may either proceed from inflammation of the kidneys or a rupture of some of the blood-vessels, and in either case blood is discharged with the urine, and may be often detected in clots; whilst in the other kind of red-water, although the urine is dark in colour, it does not contain blood. The former disease is more frequent with bulls and oxen, and the latter with milch cows.

When the kidneys are inflamed, and the animal evinces tenderness on pressing the loins, the treatment should consist of blood-letting, purging, and the application of sheep-skins and stimulants to the loins. But in some cases where blood is discharged with the urine without any inflammatory appearances, the exhibition of astringents and stimulants, such as the following, have effected a cure:—

*Recipe No. 20.*

Take oil of juniper, two to four drachms; tincture of opium, one ounce; oil of turpentine, one ounce. Mix, and give it in a pint of linseed tea, once or twice a day.

*True red-water* is a disease of the digestive organs, principally of the liver: and the dark colour of the urine is owing to the presence of vitiated bile, probably loaded with carbon, and not to blood, as used to be supposed.

The more frequent causes are connected with the nature of the pasture. There are some farms, or particular parts of the farm, where red-water is almost sure to follow when cattle are turned upon them. Low marshy grounds are apt to produce it, and also pastures with much woodland, and especially in the latter part of autumn, when the leaves are falling. Some have said that elm-leaves are apt to cause red-water; others attribute the disease to the oak; and many more to some of the numerous species of ranunculuses that abound in our marshy and woodland pastures. The truth of the matter, however, is, that no one knows what plant is most concerned in the affair; and all that the farmer can do is to observe what pastures most frequently produce red-water, and at what season of the year, and to use them as much as he can for other stock in the dangerous seasons.

A removal from a poor to luxuriant pasture, or from a low marshy situation to a dry and lofty lo-

cality, are frequent causes of red-water; and it often occurs after a long succession of dry weather.

Cows that are dried of their milk are often attacked by it, when put into luxuriant pasture, while, perhaps, it does not affect those that are still milked. The reason of this plan is plain enough:—superfluous nutriment not being carried off by the udder in the form of milk, the digestive organs are deranged, and the secretions of the liver become vitiated.

Some breeds of cows are more disposed to red-water than others, and especially if they are brought from a distance, and the quality of their pasture changed, whether from good to bad, or from bad to good. A cow that has once had an attack of red-water is very liable to a repetition of the complaint. The farmer is obliged to take a great deal of care properly to manage the change of pasture with her, and, notwithstanding all his care, she will probably have two or three attacks of the disease every year. It will behave him to consider how far it is prudent to keep such an animal. No beast that is subject to periodical complaints of any kind should be kept, for it may easily be prepared for the butcher, and disposed of with little or no loss to the farmer.

The symptoms of red-water are at first purging, which is usually followed by constipation; the appetite is impaired; the pulse and breathing quickened; and the former, though bounding at the heart, is often weak. The membranes of the nostrils and eyelids are pale, and the legs cold; the milk is diminished, and rumination ceases. The urine, from being brown, often becomes black, and the disease is, in this state, often denominated black-water.

The red and the black-water are diseases that require prompt and careful treatment, for although, in some slight cases, the beast does not seem to be much affected by either, and works or yields her milk as well as ever, yet ere long it preys upon the constitution, and the animal gradually wastes away.

It is folly to wait in order to see whether nature will effect a cure. Except in beasts suddenly put upon more than usually rich pasturage, it never is or can be a salutary discharge. It must be preying upon the system and wasting the strength, and the sooner it is got rid of the better. It attacks milch cows oftener than others, and it is more injurious to them than to others. While it lasts, it often materially lessens the quantity of milk, and, even after it is removed, the animal is slow in returning to her former strength.

The first thing to be done is to remove the cause of the disease. The pasture should be changed. A more open and a drier situation should be found, and where the grass, although succulent and nutritious, is not very plentiful. If there is considerable fever, or the animal should appear to be really ill from the discharge, she should be taken under shelter, and fed on mashes, with a very little hay; or a few turnips or carrots may be allowed her if they are in season.

Bleeding is often necessary at the onset of this disease, but it should always be practiced with moderation, and in many cases abstained from altogether. About two hours after bleeding, the following drink should be administered:—

*Recipe No. 21.*

Take, Epsom, or glauber salts, one pound; ginger, half an ounce; carbonate of ammonia, half an ounce. Pour one quart of boiling water upon the ingredients, stir them well, and give when new-milk warm.

A quarter part of this drink may be given every six hours, until the bowels are freely opened, and the medicine may be assisted by clysters. The successful treatment of the disease very much, or altogether, depends on early and thoroughly opening the bowels. If this is early accomplished, the animal will almost certainly recover. If it is neglected, or the constipation cannot be overcome, within the first two or three days, the termination will probably be fatal.

When the bowels are properly acted on, mild stimulants may be exhibited, such as—

*Recipe No. 22.*

Take ginger, one drachm; gentian, one drachm; and spirit of nitrous ether, one ounce. Mix, and give in a pint of gruel.

If, with the amendment of the symptoms, the urine should appear black, a diuretic, such as one ounce of nitre, may be given with the above drink, or even the more powerful stimulant, spirit of turpentine, in doses of one or two ounces.

If, after the bowels have been well opened, and the fever is somewhat abated, the discharge of blood still continues, and in as great a quantity as before, it will be right to have recourse to astringents, yet such as will not irritate and stimulate the kidneys; and even these should be administered cautiously. Constipation attended the early and most violent stage of the disease—some remission, at least in the fever and the pain, if not much diminution of discharge, attended the removal of the constipation; it must, therefore, be dangerous to confine the bowels again. The following prescription will be as efficacious as any:—

*Recipe No. 23.*

Take, oak bark, powdered, half an ounce; powdered catechu, two drachms. and opium, powdered, half a scruple; mix together in a pint of gruel or warm water.

This may be given morning and night, for a week, cautiously watching the state of the bowels, and suspending the astringent, and even having recourse to physic, if the bowels should again be confined.

The recovery of the animal is denoted by the restoration of the pulse and breathing to the natural standard, and the return of the appetite, together with the healthy appearance of the urine. It is essential, however, to exercise the greatest caution with regard to the food for some little time, bearing in mind that the digestive organs have been greatly impaired.\*

\* [*Red Water.*—Charles, Waistell in the London Farmer's Journal, says: For a full grown cow dissolve two pounds Epsom salts in two or three pints of boiling water, and give it when new milk warm: then keep her six or eight hours without food. If then the salts should not have operated, give four or five quarts warm water, and drive her about gently; in a quarter of an hour it will operate; then give her as much warm water as she will drink, and turn her out to graze, if the weather be dry. "My brother, J. Waistell, of West Park, has used the above remedy for upwards of thirty years, and has not in all that time lost one beast by the red water. Before he commenced using it he almost invariably lost cattle annually by that disease. His cattle were less frequently afflicted than formerly, which he attributes to his having underdrained a great part of his farm, which was wet and boggy. The remedy was communicated to him by a relation, Mr. Kendall, a cow-keeper, who for many years kept many cows, and occupied part of Mary-le-bone Park, at London." S.J.]

*Cows.*—Cows should have warm water for a few days after calving, otherwise they are very liable to colds, inflammation of the udder, &c. It is a good method as practised by many, to prepare the first drink by putting a shovelful of hot coals into a pailful of cold water, and after a few minutes take off the swimming coals, and then give the water to the cow, which must have become sufficiently warmed, and it will have acquired an alkaline quality which is considered beneficial.—*Boston Cultivator.*

*Manure for Melons.*—The best is pigeon dung, and from the use of this, it is said the Persian fruit derives its superiority. Hen dung is probably next in value, and after this guano, which is the manure of sea fowls.