

man should keep more sheep than he can care for at all seasons of the year. Small flocks well cared for are worth far more than neglected flocks of larger numbers. The larger the flock, the more liability to disease, and the more care will be necessary. Keep the flock up to a good standard by the use of the best sires. Keep the sheep, and they will keep you. The hoof of the sheep is golden, and there are many reasons for this.

Show Ring Type.

THE TYPE WHICH SHOULD NOT WIN IN THE SHOW-RING.

It not infrequently happens that an animal in show-yard condition possesses a most excellent heart-girth or crop, as far as bulk and form are concerned, which in a thin condition possessed a markedly weak heart-girth and defective crop. It is not impossible to have fat deposited over these regions in very highly-finished animals to a depth of two and a half or three inches. This is what the show-fitter calls the filling out of the crop as the animal finishes. The discriminating judge can readily ascertain that this is fat by its soft or velvety touch, and no animal that has filled its crop late in life, and with fat, at such expense as is in this way required, and depends upon a deposition of fat for symmetry in these regions, is entitled to respectful consideration in the show-ring.

In truth, this remark might be made with equal emphasis with regard to all portions of the body. The ideal show animal is one which possesses thickness of covering and symmetry of muscle, rather than fat, and the whole of this to be evenly covered by a thin layer of subdermal fat. For ideal conditions, this fat covering should not be over three-fourths of an inch in thickness anywhere, and an average of half an inch is preferable. Such a layer of fat over a thick covering of lean meat will give the firm but elastic handling qualities so highly prized in the show-ring, and will give a carcass that is not disappointing to either the retailer or consumer. The judge in the show-ring ought to discriminate against the animal which in any part of its anatomy, excepting perhaps such unimportant parts as the flank, the brisket, and the scrotum, depends for thickness and symmetry upon a heavy or thick deposit of fat.

THE PROFITABLE TYPE TO PRODUCE.

It should be said, however, in extenuation of the practice in the show-ring of giving consideration to animals carrying very thick layers of fat, that they are the type of animals which fatten easily and early, and if they possess a symmetrical form when in moderate condition, and have laid the fat on evenly, it matters not how thick the layer may be, because in actual farm practice the animal will be sent to market without this excessive fat, and this indicates the best type of animal to breed, not only for the producer, but for the killer and the consumer, and this, of course, the type which should receive the award in the show-ring.—[H. J. Waters, President Kansas State Board of Agriculture.]

Bloat in Ruminants.

The most common disease of the digestive system in ruminants is bloat, tympanitis, hoven, or blown. It is sometimes called colic, but it differs essentially from colic in horses, in which the seat of the disease is either the small or large intestine, while in bloat the trouble is confined to the rumen or paunch, commonly called the first stomach. When we consider the great size of the stomach in ruminants, and the fact that it is divided into four compartments, each of which has certain functions to perform, we are not surprised to know that it is more liable to disease than the intestines; while, in the horse, the stomach is comparatively small, and consists of but one compartment, and is less liable to disease than the intestines.

The most fruitful cause of tympanitis in cattle is green food of various kinds, as clover or grass, turnip-tops, rape, etc., especially if eaten when frosted, or even wet. This is particularly noticeable when the patients have been unaccustomed to green food for a considerable time. Any food that ferments easily, if eaten in considerable quantities, is liable to cause an attack. Sudden changes of food of any kind may cause the disorder, or deficient secretion of saliva may produce the same effect, and in many cases the trouble is noticed, without any well-marked cause. In such cases it is doubtless due to an unsuspected and unaccountable weakness of the mucous and other glands. The formation of gases in the rumen or paunch always occurs to a limited extent, but they are eliminated during rumination or pass backwards with the ingesta, unless formed in excessive quantities. The cause of excess, upon this matter is primarily dependent either upon the state of the stomach or the nature of the food. The fibres of the muscular coat of the rumen run in a longitudinal and transverse direction, and under normal conditions there is constant relaxation and contraction of these fibres.

This causes a sort of a churning motion, which keeps the contents of the organ in motion, and mixes it with the fluids present. When, from any cause, there is a torpidity of the walls of the rumen, its contents are not disturbed, and gasses in excessive quantities are very liable to be generated. This torpidity occurs in most debilitated animals, and renders the animal liable to an attack of tympanitis from very slight exciting causes. It can be quickly caused by the introduction into the rumen of excessively cold material, as turnips or grass that are frosted, or even by drinking large quantities of very cold water. In cases of choking, when the full calibre of the gullet is closed, bloating will soon be noticed, but if the obstruction be triangular or of such a shape that a passage exists at some point between it and the walls of the gullet, the gases can pass out, and, while the patient is unable to swallow, tympanitis will not be well marked.

Symptoms.—The symptoms are readily recognized. The patient becomes uneasy, lies down and rises repeatedly, switches the tail, and kicks at the abdomen. Food is refused, and rumination suspended. There is depression, protrusion of the muzzle, projection of the eyes, usually a flow of saliva from the mouth, and often a moan or grunt is heard at intervals. The back is arched, and there is a marked swelling of the abdomen, particularly marked on the left side. If that part between the point of the hip and the last rib on the left side be tapped, a resonant or tympanic or drumlike sound will be heard, hence the name "tympanitis." If this part be pressed, it will yield to pressure, but will immediately regain its former shape when pressure is ceased. Respiration becomes labored, from the fact that the distended rumen presses forward on the diaphragm and occupies a portion of the lung cavity, thereby preventing expansion of the lungs to admit a sufficient quantity of air. The severity of the symptoms depends upon the distension of the rumen. In some cases the symptoms are but slightly marked, while in others the distress is acute.

Treatment.—Treatment must be directed to either eliminate or neutralize the excess of gases, and prevent their generation. In an ordinary case, the administration of 2 to 4 ounces oil of turpentine in a pint of raw linseed oil, melted butter or lard, or even sweet milk, will give relief in from thirty minutes to an hour. In this case, the drugs are introduced directly into the diseased organ, and exert both a chemical and physiological action. Oil of turpentine neutralizes the gases and prevents their formation, and also acts as a general stimulant. Where no drugs are at hand, one-half a cupful of baking soda, or two tablespoons of carbonate of ammonia, given in a pint of warm water, often gives good results. It is also good practice to tie a stick in a patient's mouth, to facilitate the escape of gas through the mouth. The passage of a probary or a piece of garden hose down the gullet to the stomach will sometimes give relief

quickly. In order to do this, of course, some device, as a gag with a hole in the center, a cleft-ice, or something of that nature, must be used to keep the mouth open and prevent the patient from chewing the instrument used. If relief is not given in an hour, the dose should be repeated.

In severe cases, where the symptoms are extreme, death may occur quickly from suffocation, rupture of the rumen, rupture of the diaphragm, or absorption of the gases. There is not time to wait for the action of drugs, and mechanical relief must be given promptly. In some cases, the passage of a piece of garden hose, as mentioned, will give immediate relief, but in others this will not act, as the hose or probary enters the solid contents of the rumen, while the gas is on top. Then, the only means of giving relief is to puncture the rumen. This is done on the left side, at the most prominent point between the point of the hip and the last rib. The proper instrument is a trocar and canula, which consists of a pointed spike about six inches long, which fits into a metal tube about $\frac{1}{4}$ to $\frac{1}{2}$ inch in diameter. This is inserted through the skin, muscles and walls of the rumen, the spike is removed, and the tube, through which the gas escapes, is left in as long as necessary. Where this instrument cannot be procured quickly, a knife with a large blade can be used, and the lips of the wound held open by the fingers. A small opening will not prove satisfactory, as it cannot be kept open. The wound requires no after-treatment, further than being dressed with an antiseptic, as a five-per-cent. solution of carbolic acid daily until healed. In some cases there is so much froth or bubbles in the gas that it will not escape freely through a puncture, but the puncture will prevent death from the causes named, and large and repeated doses of oil of turpentine will often effect a cure. In most cases, after recovery, it is good practice to give the animal a purgative of 1 to 2 pounds Epsom salts, and feed lightly for a few days, in order that the stomach may regain its tone.

When bloating is due to choking, of course, the obstruction must be removed, for which purpose it is generally necessary to pass a probary. In rare cases the pressure of gas upon the obstruction is so great that a probary cannot be passed, and it is necessary to puncture first, but this is seldom the case. Such articles as whips, fork handles, harness traces, etc., should never be passed in lieu of a probary, as they are very liable to pass to one side of the obstruction and rupture the gullet, which will prove fatal. The instrument passed must have a cup-shaped end, so that it will not pass the obstruction, but practically grasp it and force it down. A garden hose, strengthened by a whip or other article to within one-half inch of the opposing end, is probably the only device that can be safely used in lieu of a probary. We have discussed tympanitis in cattle. In sheep, the same remarks apply.



What the Fly Brings Us.

Coming from its breeding places in the vilest of filth, laden with death-dealing disease germs, the stubborn hobo of the insect world is at this season striving to enter a million homes.

What are we going to do about it?