

An American Veterinarian on Anthrax.

At a meeting in New York State, held with the object of checking the spread of anthrax, which had broken out in that State, Dr. V. A. Moore, of the State Veterinary College, Cornell University, spoke on the disease and its prevention as follows:

"The disease known as anthrax varies in its manifestations. In sheep and cattle it usually appears in an acute form of blood poisoning. The first symptom is a rise in temperature, which is followed from one or two days later by general depression and death. Occasionally it appears on some part of the body as a localized disease.

"In horses, anthrax is more often localized than in cattle. In swine it is almost always localized in the throat or jaws. In man it usually takes the form of local lesions, resembling carbuncle, known as malignant pustule. If, however, the spores of the bacteria are inhaled or taken with the food into the digestive tract, diseases of the lungs or intestines follow, which usually prove fatal.

"It is an interesting fact that these bacteria, so long as they are within the body, do not produce spores. There is no satisfactory treatment for this disease.

"Anthrax may be restricted from spreading by the burning of the dead animals, or by burying them at least six feet deep and covering the bodies before the dirt is replaced with a large quantity of quicklime, and thoroughly disinfecting all ground, fields or stables contaminated by them. If animals are buried, it is well to enclose by fencing the area in which they are buried, to prevent other animals from grazing over them, for a number of years. The surface of the ground over these animals should be burned at least once a year.

"It is very important that animals that have died of this disease should not be dragged about over the fields. If necessary to move them, they should be placed on stone-boats and drawn to the place of destruction or burial, and the boats thoroughly disinfected subsequently. In moving them, special care should be taken that no discharges from any openings of the body should reach the soil. Pasture lands on which cattle have become infected should not be used for some time afterward.

"It is also important, after the disease appears, to remove the well animals from the infected area, and later, to separate from these any animals that show signs of the disease. As a fever is the first symptom, the temperature of the animals should be taken at least twice a day, and any that show a rise in temperature should be removed and placed in a small paddock. If the animal or animals should die of anthrax, these paddocks should be covered with a layer of straw or other inflammable material and burned."

THE FARM.

Good and Poor Cement Blocks.

Wallace's Farmer, one of our most highly-esteemed contemporaries in the United States, fears that many users of cement blocks will be very much disappointed during the next two or three years, and will suffer considerable loss because of poorly-made blocks. We are not aware to what extent this may hold good in Canada, but we suspect the caution to be careful in buying only good makes of blocks will not be amiss for our readers. Indeed, we have heard complaints lately about cement-block cellar walls being pervious enough to admit more or less water. The trouble seems to be that, in order to make blocks quickly, the mortar is mixed rather dry, so that they may be the sooner taken out of the molds. It is also charged, with a degree of truth, no doubt, in some cases, that the blocks are not kept moist long enough after removal. This does not apply to all makes of cement blocks, but purchasers should be on their guard against those manufacturers who try to "cheap it" in this way. We quote as follows from the columns of our exchange, and would like to hear the experience of readers who have had experience in block-making as to the degree of moisture which gives the best and most enduring results:

"To make a good artificial rock, sufficient water must be used with the cement and gravel and sand to bring about the chemical action which causes crystallization. If too little water is used, crystallization will not take place, and the block will take water almost like a sponge. In the winter the blocks take up a large amount of water, freeze, thaw, freeze again, and, if not well made, will disintegrate within a short time. A gentleman who has given considerable study to this question, was in the office recently, and spoke of looking over a pile of blocks made by a lumberman. These blocks were made last year, and had been piled up, exposed to the weather. This gentleman stated that at least twenty-five per cent. of them could be easily crumbled with the bare hands. Many of those who have purchased block machines and are making blocks to

sell, use only enough water to make the cement and sand adhere for a few months. We urge our readers to be very cautious in buying cement blocks. First-class cement blocks or walls are made only by the slush system, using so much water that the mixture will pour from a bucket. This system is not used by professional block-makers because of the extra time required in waiting for them to harden sufficiently to remove from the molds."

The Worth of the Manure Spreader.

Genus has given the farmer many labor-saving inventions. These productions have not only made the heavier and more tedious of farm operations pleasant, but have also improved the quality of work done. We may safely attribute a large share of the accruing profits to our new and improved labor-saving machinery. The advent of each new time-saving invention lifts the farmer's occupation nearer a profession, and is convincing our professional brothers that farming at its worst is not the most disagreeable sort of work.

The manure spreader is not a recent introduction on our many improved and up-to-date farms. Still these farms are yet in the minority, and with many the investment in a manure spreader is being contemplated.



Hendrich.

Shire stallion; first at Bath & West, first and champion Royal Counties Show, 1906. Owned by Sir P. A. Muntz.

It is to these we wish to speak. By continual use on our farms of a spreader, I have striven to become an observant user, and, in basing my conclusions, have made some actual tests, the results of which I purpose giving. With a large area of our farm requiring manure, it is important to apply the quality at hand judiciously. Here the manure spreader commends itself, as an accurate application of from three to twenty-four or thirty loads per acre can be made. This is not the only advantage. To be of greatest benefit to the land treated, and insure the greatest economy of plant food, the manure should cover the surface like a blanket—not a few bunches here and there, with by far the greatest area bare. When farm-yard manure is first applied to the land, the greater part of the plant food it contains is insoluble and not available to the growing plants. When manure is spread in a careless manner, fermentation proceeds in the piles and bunches that are not scattered, and here is direct loss, besides the indirect loss on those parts of the surface which are bare. With the spreader, be the application heavy or light, if the machine has been carefully operated, we will find it difficult to place our foot down anywhere without coming in contact with manure.

It is in top-dressing grass lands that this work is most fully appreciated, and, as an instance, I shall cite my experience the past season. Wishing to top-dress an area of grass land intended for meadow, I divided it in three equal sections, all being favored by apparently like conditions. On one section, the manure was applied by careful hand spreading at a rate necessary to cover the ground, approximately fifteen loads per acre. At time of cutting, we noticed that, although we had been careful, the manure had actually killed the grass in some places where it had not been thoroughly limed, and also gave considerable annoyance in gathering the hay. From this section, the yield averaged three tons per acre.

On the next section no manure whatever was applied, as I wished to determine just what the yield would be here, as against the two plots where manure was applied, and from this section the yield averaged two tons per acre.

On the third section, I applied manure with a manure spreader at a rate of six loads per acre. Careful observation at time of harvesting revealed absolutely no grass whatever killed by manure, no manure gathered with the hay, and very little manure in sight at all. The yield from this plot averaged four and a half tons per acre. Place a value on the manure per load, and on the harvest crop per ton and the conclusion is obvious.

It is also my conclusion that six loads per acre is the most economical rate to apply manure to grass lands. A greater area can be covered with, apparently, equally as good results as from a heavier application. Very heavy manuring is wasteful. The practice is similar to starving the greater number of a herd of cattle and giving the few remaining animals far more than they can eat. Moderate application of manure to a large area will give better ultimate returns than a heavy application to a smaller area. It is difficult to say what constitutes a light, moderate, or heavy application of manure, as farm-yard manure is subject to extreme variations in composition. By results in practice, I am convinced that about twelve loads per acre from a machine of fifty bushels capacity may be regarded as the maximum quantity necessary on an average soil. Many practice top-dressing pasture lands with well-rotted manure from piles previously accumulated, and for this purpose the manure spreader is indispensable. A light dressing of manure keeps the grass growing throughout the season, and seems to promote the seeding of natural grasses, as the pasture improves from year to year. It sometimes takes a long while to make a good permanent pasture. The spreader aids in this, and also converts land that before its use gave very little growth into a heavy sward. I have in mind an area that was considered hopeless, it was a heavy clay side-hill pasture of about ten acres. Given every possible advantage, the growth of plants was patchy. The owner was induced to try top-dressing with a manure spreader. This he did for three consecutive seasons, and, as a result, this ten acres now gives as much, if not more, pasture than any other area of equal size on the farm. Where the spreader is in use, such instances are not singular.

Fully realizing the value of manure to our farms to-day, and the importance of economy in its use and application, I consider the manure spreader an imperative need in successful agriculture. CLARK HAMILTON, Dundas Co., Ont.

Rotation Kills Weeds.

The sentence which stands over this article is merely a paraphrase of one with which we concluded an editorial a few months since, to wit: Rotation is death on weeds. The assertion is true, truer than most people believe. There is a great deal of foolish inquiry for methods of destroying this, that and the other weed, when the fact is that a systematically-followed three-year crop rotation, bringing in clover, once, hoed crop or peas once, and cereals once, seeding again to clover, would combat all kinds of weeds in the most effective and economical manner, while at the same time building up soil fertility. Here is what Bulletin 95 of the Minnesota Experiment Station has to say on the subject:

Some farmers seem inclined to "give up" when their farms become badly infested with weeds. This may be the best thing they can do, unless they are ready to change somewhat their methods of farming. Continuous grain-raising and weedy land usually go hand-in-hand. The weeds are simply an ever-recurring reminder that this class of farming can not be carried on indefinitely. Those who have been convinced of this fact and have adopted a system of diversified farming are forgetting all about their old troubles with weeds. A system of rotation of crops which provides for one or more grass crops on each field in five to seven years, will eventually clean a field of most weeds, increase the net income per acre and tend to increase instead of decrease the soil fertility. Fields badly infested with the worst perennial weeds may be cleaned if strenuous efforts are followed as suggested below.

For convenience in study, weeds may be divided into three general classes, and so far as the farmer is concerned they may be treated about the same as but three kinds of weeds. These classes are: 1. Annual weeds. 2. Biennial weeds. 3. Perennial weeds.

Annual weeds are those which produce seed in one