

THE HORSE.

Feeding and Watering Horses in Hot Weather.

While it is wise at all times to exercise care and regularity in feeding horses that are used for either fast or slow work, it is especially so in very warm weather. The feed should be of the best quality and given in limited quantities. The quantity of bulky feed should be limited in all cases when time is limited, and the horses are expected to go to work or drive shortly after eating. The stomach of the horse being a comparatively small organ, the majority of horses will, if allowed, eat until it becomes distended. If an animal under such conditions be put to work on a hot day he will perspire freely, digestion is very liable to become partially arrested, and a case of acute indigestion may result. It is good practice to allow a horse to rest an hour or longer after eating a hearty meal, in order that digestion may be advanced before exercise be given, but this is not practicable in many cases, especially on the farm. The only safe method, therefore, of avoiding danger of sickness, or, if not an attack of illness, at least discomfort to the animal for an hour or two, is to limit the quantity of bulky feed given. The morning's feed should be from 4 to 6 quarts of oats, according to the size of the animal and the nature of the work to be performed, and a small ration of hay; at noon the same. In the evening it is good practice to give a little hay first, then the grain ration, and then more hay. As he will have several hours of idleness now, it is safe to allow him all the hay he will eat with a relish, but in no case should he be allowed more than he will consume. It is not only wasteful but injurious to the animal to keep feed before him all the time. In many cases farm horses are turned out on grass at night, but it is seldom that they will refuse a reasonable grain ration in the morning, even after coming off good pasture. Where this method is followed, it is good practice to allow them to stand an hour or longer in the stable after eating their grain ration in the evening. (Of course, under such conditions no hay should be fed.) This allows the digestive juices of the stomach to at least partially perform their functions, and at least a portion of the contents of the stomach will have passed into the small intestine, where digestion will be completed; while, if the animals be turned on grass immediately after eating grain they may eat so greedily as to force the grain out of the stomach before the said juices have acted properly upon it. And, while it is not probable that this will cause any noticeable trouble or uneasiness to the animals, digestion will not be as complete as it should be, hence the animals will not receive as much benefit as otherwise.

There is no doubt that crushed or rolled oats are more beneficial, pound for pound, than whole oats. It is seldom, even in hot weather, that a horse is so warm that it is unsafe to feed him grain. In cases where he has been subjected to long-continued, severe exercise, and has become excessively hot, it is wise to allow him to stand for a few minutes, and to rub him down before feeding, but such conditions seldom occur. When the time that he will be allowed to stand in the stable is limited to from one to one and a half hours, as is the case at noon, even though the weather be hot and he is perspiring freely, it is better to give him his grain and allow him a few minutes after eating, than to allow him to cool off, then feed him, and put him to work immediately after eating. Horses that are kept in the stable should be given a feed of bran, at least twice weekly, in addition to the grain ration, if at regular work. This aids digestion and tends to keep the bowels in a normal condition; but those that go to grass at night do not require this, as the grass is all that is needed.

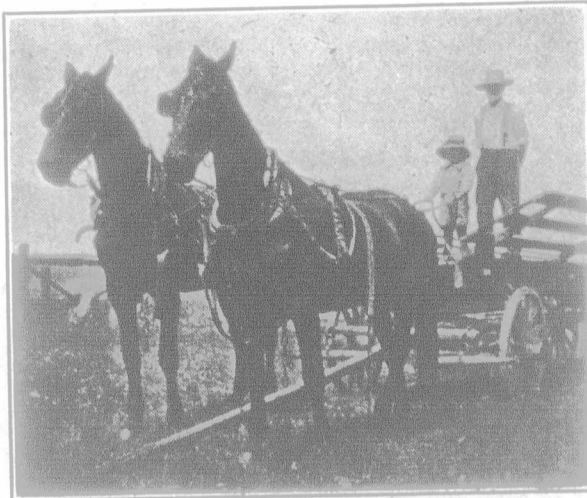
In hot weather horses probably suffer more from an injudicious system of watering. It would be well if horses could have free access to clear, cold water at will, but of course this is impracticable. Still, the popular idea that it is unsafe to allow a horse to drink when he is perspiring freely, even in hot weather, is unfounded. Of course, as in feeding grain, there may be times when it would be hurtful to allow him all the cold water he would drink, such as cases where he has been subjected to long continued, severe exercise and long abstinence from water. In such cases he should be allowed a few mouthfuls, and after a few minutes a little more, and a few minutes afterwards, all he desires. When a horse is excessively warm the introduction into the stomach of large quantities of cold water may cause such violent reaction as to excite gastritis, indigestion or founder. It seldom occurs that a horse used for either ordinary farm or road work is so warm that it is not safe to allow him all the water he will drink, unless a long period has elapsed since he had a drink.

Many people act upon the theory that a horse should be allowed water only before meals, on the assumption that if allowed to drink soon after a meal the water will force the ingesta out of the stomach before it has been acted upon by the digestive fluids. We doubt the force of this theory. We are of the opinion that fluids cannot force solids through a constricted orifice through which the ingesta must pass to reach the intestine, but rather that it percolates through the solid particles and itself passes to the small intestine. In practice we find that horses want water after a meal, especially in hot weather, and that, with few exceptions, it is wise to allow them to quench their thirst. There are some horses so predisposed to colic that it is unsafe to allow water shortly after a meal; such should be

treated accordingly, but fortunately such animals are few.

It is probable that the sense of thirst is as acute in a horse as in the teamster. When he is thirsty "he wants a drink," and usually manages to get one. The horse also "wants a drink" when he is thirsty, and the careful, thoughtful teamster will endeavor to see that he is gratified. It would be well if horses could be given at least one drink between meals in hot weather.

WHIP.



Tom and Jean.

These horses are 29 and 30 years old respectively. They are the property of J. R. Alexander & Son, Brant Co., Ont.

LIVE STOCK.

Give the boys a few animals to fit for the fair. It may interest them and will certainly do the stock no harm.

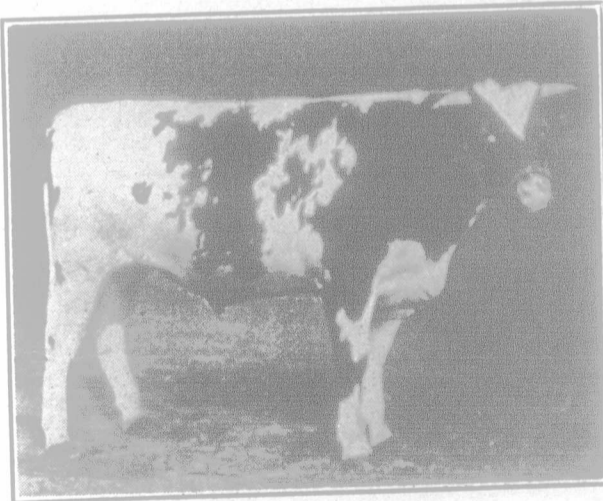
We have not yet heard of any county in Ontario boasting about having gotten rid of the last scrub bull within its boundaries.

If you are not in a position to show your stock at the large fairs, patronize the local fairs, thus assisting in making the show of greater value.

Sweet clover is proving to be a valuable pasture crop. It appears capable of carrying more stock per acre than the other clovers and grasses.

There are many fine herds of steers and heifers on Middlesex County pastures that are getting in marketable condition. The past few weeks have been favorable to making maximum gains.

Calf, pig and sheep clubs are responsible for getting many a young lad interested in better stock. Have you a calf club in your vicinity? If not, why wait for anyone else to start it? Get busy.



A Dual Purpose Bred Steer.

Raised on the Dominion Experimental Farm, Fredericton, N. B.

Unless the weather is showery, many of the pastures will be rather short for the next five or six weeks. Where possible, change the stock from one field to another occasionally so as to give the grass a chance to pick up.

While cleaning up tuberculosis in pure-bred herds, some scheme should be inaugurated to lessen the disease in commercial herds. The industry is suffering a heavy loss each year as a result of tuberculosis having made inroads into the herds.

The accredited herd system is away to a good start in Canada, and a large number of herds have been put under the test. In the United States the work has progressed rapidly. Approximately 30,000 herds are now under federal supervision. Minnesota leads with 413 accredited herds.

How can we expect to have a large number of stockers and feeders in the country when so many calves are being sent to the markets. In many cases it would not pay to raise the calves to maturity, but there are

hundreds of calves being slaughtered which would develop into right good feeders if given a chance.

The cattle's feet should be examined occasionally. If the toes are too long they should be cut back so as to prevent breaking. When they break it is often too close to the quick, and as a result the animal goes lame for a considerable time. A pair of nippers will remove the toes, or an old hand saw can be used to advantage.

Don't forget that cattle and sheep require a considerable amount of salt, and that they want it at regular intervals. In some dairy herds the flow of milk is materially decreased when salt is neglected. In the case of beef animals it is reasonable to expect that they will not make as good gains where the amount of salt is limited as where it is fed regularly.

The bottom has apparently dropped out of the hide market. A drop of 15 to 20 cents per pound in the price of hides makes quite a difference in the value of an animal. If the price of leather goods would drop accordingly, neither producer or consumer would have much complaint, but when buying a pair of shoes or a set of harness, one is not aware of any drop in price.

Do not leave it until you are actually in need of a herd or flock header before purchasing. Take plenty of time and purchase the best individual available. Remember that he stamps his qualities and many of those of his ancestors upon his progeny. The larger the herd or flock, the more important it is from a financial standpoint that the sire be a good one.

Have you visited some good stockmen and farmers in your neighboring county, or taken a trip to the Agricultural College or Experimental Farm this summer? A couple of days spent motoring through the country and having a look over some good herds not only rests a person from his every-day duties, but gives an inspiration to do better work on the home place.

According to information furnished by the Industrial and Development Council of the Canadian Meat Packers, 864,000 head of farm stock were handled at the six main stock yards of the Dominion up to June 30 of this year. They comprised 283,765 cattle, 135,387 calves, 91,957 sheep, and 254,784 hogs. Almost half this number of cattle and hogs were handled at Toronto, with Calgary leading in sheep.

Producing Steers From Dual-Purpose Cows.

There are many good stockmen who are very skeptical about the possibilities of producing both milk and beef from the one breed of cattle, and they can always advance the argument, and it is a good one, that as the milking proclivities develop the desirable beef conformation recedes into the dairy form. It is not the object of this article to discuss this problem, but rather to describe what a representative of "The Farmer's Advocate" saw relevant to the question at the Dominion Experimental Farm, at Fredericton, New Brunswick. While inspecting the herd at this farm, the writer's attention was directed to a particularly good steer about seventeen months old. The animal was straight in his lines, fairly low-set, well covered with flesh of good quality, and on the whole presented a breed appearance. The interesting thing about the young bullock, however, was his ancestry. His grandam was just an ordinary cow showing some Holstein breeding, and was picked up in a back settlement. She was developed into a good milker, giving eight thousand pounds of milk. This cow was mated with a dual-purpose Shorthorn bull and produced a heifer calf, which in due course was bred back to a bull of similar breeding. The steer illustrated herewith was the result of this mating, and the heifer herself gave 7,000 pounds of milk in her first lactation period. When questioned regarding the economy of feeding steers of this breeding, the Superintendent, W. W. Hubbard, stated that two steers similarly bred had been sold March 18, returning a profit of \$35 each. At time of sale, they were in the neighborhood of fourteen months of age. One steer weighed 850 pounds and dressed out 497 pounds, the other steer weighed 895 pounds and dressed out 493 pounds. They sold for \$96 each and cost approximately \$61 to rear, leaving a profit of \$35.

As calves they were never with their mothers; they were fed new milk until three weeks of age, and then gradually changed to skim-milk. The first real mixture was composed of the following ingredients: oil cake, cornmeal and crushed oats. This was mixed in the proportion of 100 pounds oil cake, 400 pounds of cornmeal and 200 pounds of oats. The steers were calved in January, and the meal mixture during the following winter was made up of wheat bran, 300 lbs.; screenings, 300 lbs.; oats, 200 lbs.; and oil cake, 200 lbs. Besides other roughage they received roots and silage. The steer illustrated on this page was fed similarly and weighed 985 lbs. on June 2, 1920.

The history of these steers shows conclusively that a herd can be moulded, to a large degree, in two or three generations. If one desired to breed for milk, there is plenty of evidence pointing to the fact that the milk flow can be increased and the butter-fat content of the milk influenced considerably. So it is with beef. Ordinary grade herds can be bred up to a point of excellence through the use of proper sires. The milk-and-beef combination is a little more difficult to attain, but through keen observation and close attention to matings it is evident that a compromise can be accomplished. Good sires, if properly selected, will give the desired results.