

AGRICULTURAL.

Discretion in Feeding.

If the men who work horses understood the peculiarities of the horse's system as well as the locomotive engineer understands the peculiarities of his engine; then, as with the latter the outside limit of surface could be obtained with the least risk or wear upon the machinery. But there is a broad difference in the qualifications of the two classes of men. The engineer improves his fitness by doing expert work upon his machine after having served an apprenticeship; while the former employs a man who has previously been a wood chopper or a digger of ditches, knowing little of horses, to drive and feed. This but partially tells the story but yet illustrates why horses are so commonly worn, crippled and stiffened at early ages, while the locomotive is well preserved and useful after a long period of hard service. There are all degrees of digestive and assimilative force in horses, as there are also all degrees of ability to turn off work, meanwhile keeping the body and digestion in good condition; all the forces intact and uninjured. Some horses will do full work on corn, eating it three times a day, continuing this through the year, regardless of weather. Such a horse may have a mate whose digestion will be greatly disturbed by being fed two or three rations of corn. Some horses will do fairly well on corn feed during cold weather. These differences in the digestive forces must be studied and the management directed accordingly. But, as a rule, no horse will perform as efficient service on corn as upon oats. The difference is nearly as pronounced as is that between the use of green grass and well cured hay as a basis to work upon. The horse eating corn in sufficient amount to sustain him at daily labor will be observed to pass offensive grasses, sweat freely in warm weather and show distress upon any considerable exertion, especially if driven at a free gait upon the road. In the day of travel by stage coach and canal packet, no manager thought of feeding corn to horses except to make time upon the tow-path or public road. The common rule was, half a bushel of oats daily, with a light ration of clean, well cured timothy hay to each horse. On this feed muscular endurance, and what is commonly called "wind," were maintained at the highest attainable point for hard service, and that too with the least possible risk to health and limb. It requires a better judgment than that possessed by the average hired man to arrange for and carry on the feeding of horses that are expected to turn off much work, either on the farm or on the road. Horses, like men, get dull and listless when the digestion is wrong. The muscular system is under the control of the nervous system, including the brain, and the muscles have no tension and rebound when digestion is disturbed. Under such a state the horse cannot be otherwise than a sluggish having no vim or courage. When the feeding is carried on indiscreetly the coat staves and the outer surface feels too cool under the touch of the hand, in all weathers. This is the natural and invariable result of the blood leaving the surface and hugging too closely about the digestive organs when the latter are laboring with wrong in kind or too large in amount. Under such influence the limbs and ears will be found to be cold; the pulse will be quickened, raised from the normal beat of 40 to 50 or over per minute. In this state the appetite is dulled and irregular. When the body is overworked what is the remedy? Rest! When the digestive organs are at fault from too much or from improper food having been given, then first of all we must give rest to the organs implicated. No remedy will avail anything without rest. He is a wise man who, in dealing with the ills of either man or beast, knows how to estimate the ability of a living organism to repair itself, and to so shape the conditions, including the feeding, as that it will have the best of opportunities for doing this.

After Haying.

Most farmers of our acquaintance in years past usually cut their English grasses first, letting the grass in swales and runs, if such there happened to be upon the farm, stand until the last. Generally this practice is not the best unless the better grasses are cut early and haying is hurried along so fast that these spots bearing indifferent fodder are then cut and the hay secured at a stage in its growth when the forage will be at its maximum value. Low ground hay, at its best, is usually of poor quality, composed as it usually is largely of flat grass, rushes and wild herbage, and when this is allowed to stand until its best period for cutting is passed, makes a fodder but little better than straw and more fitted for bedding than for food. But out earlier in the season, say about the time the clovers are in blossom, this swale hay makes very profitable fodder, fed to young stock in connection with some better quality hay or a ration of grain.

But these remarks are made incidentally, they recurring to us as the season comes round when the hay tools are taken in hand again bringing to mind former experience in this matter. It is more particularly of another matter connected with these low grounds of which we have a few words to say. On older lands which have been cleared for many years, my remarks are not applicable, but where these low grounds have been recently brought into grass each year brings with it work that might be advantageously done in fitting them to bring them into better condition for the scythe.

The low wet lands are usually the best grass-producing lands on the farm; and until well settled and picked up of roots, stumps, or any such debris that usually work to the surface on swampy tracts, they are about the worst places to swing a scythe over there is. After haying and in a time of drought, if such a time arrives this year, is a good time to go over wet lands and remove the stumps where the roots have become rotten, and dig out the logs which as the muck becomes dry settles away and leaves them above the surface. Often on such lands it will be found advisable to construct an open ditch to drain off the water from parts of the swale, but when practicable the blind under drain is preferable. Open ditches are a nuisance on any part of the farm from their liability to become clogged and filled up by banks caving in obstructing the flow of water. A ditch of any kind is of little use unless it discharges water freely and continuously when there is water to flow. Again, there are sometimes portions about the sides of such low ground more or less stony, but the soil of that mucky character which enables

it to bear a good burden of grass when properly drained. Such places are often easier leveled about the rocks by hauling on earth and sand than by digging and removing the stones. It is usually the case that material for such grading can be found in close proximity to the place where it is desired to use it. A couple of hands with oxen and cart would render in a short time many spots which are now rough to mow and hard to cart over, smooth and free from obstructions to scythe and wheels.

Other parts of a swale may be so much lower than the surrounding sides that water stands so late in the season that only the coarsest and most worthless herbage is produced upon it. The bottom of such places, after passing a layer of muck of more or less depth, is usually a marl or hard pan. Sometimes after penetrating the upper crust is marl or clay a softer and porous stratum of reached through which water readily percolates. When such is the case a well excavated at the lowest point and this filled with stones, will carry off the water as it accumulates and the character of the herbage be gradually changed to the better grasses. Of course judgment should be exercised to determine to what extent it would be economy to expend in this direction.

After haying is a good time to go through the hood crops and pull out the weeds that have escaped the hoe. It is a better plan to carry a basket along in which to deposit the weeds as pulled and carry them from the field, as most weeds are now in blossom or past, and will mature the seeds sufficiently, even if the weather is hot and dry, to re-seed the ground. There are lots of things every farmer will find the right time to do is along after haying, but I will let these I have suggested suffice.

Young Pigs—How to Feed Them.

As soon as the young pigs are three weeks old arrange some troughs made V shape, from one six-inch and one four-inch board, in some lot where large hogs are excluded, and where the pigs will find them easily. Put in the troughs some good milk or slop and soaked corn, or better still, two-thirds corn and one-third oats, in other troughs. As soon as pigs have learned to eat give only what they will eat up at each feed. Be particular to keep their troughs clean. Castrate the boars when four to eight weeks old. When the pigs are to be weaned leave them in their accustomed range and remove the sow. Continue feeding soaked corn and slop made from shorts, bran, milk, house slop, water, etc., until September 1st, when new corn will be fed. When making the change from old to new corn the slop may be taken away, as it will likely be needed for more young pigs. But continue if possible to give them slop. It is now time to finish the stock for market. If the pigs have been well fed and cared for they will now average 125 to 140 pounds each. They should now be pushed as rapidly as possible. See that there is abundance of pure water, and salt in a trough in some convenient place. Rake up and burn the coals and waste matter as often as they accumulate. By November 1st they should weigh 200 pounds or over, and may be marketed or fed two months longer at a gain of 50 pounds per month, as circumstances may dictate. You now have a nice smooth lot of medium-weights, with fine finish. All the local buyers wish first choice, hence you get the extreme top price. The buyer returns from market well pleased and requests you to notify him when the next lot is ready for sale.

Grooming.

Comparatively few animals are properly groomed. A farmer's son may clean the colt, but the old horse that daily performs the drudgery of the farm seldom has the dirt, dirt, and sweat thoroughly removed from his sensitive skin that plays so important a part in his healthfulness. If the importance of grooming could be impressed upon farmers, and they would practice what they learn, it would add many years to the valuable service of farm animals. An important part of grooming is hand-rubbing. The legs of some horses are liable to swell, and there is no remedy so successful as hand-rubbing. The curry-comb should never be used on the bony parts of the head or on the legs. A good feed is not only a comfort to the tired horse, but it also saves much labor in grooming.

Running Water as Good as Ice.

I do not know but the high price of ice will prove a blessing to me, as I find I can raise cream with running water in the creamer at a much warmer temperature than I supposed. I have used no ice in the creamer yet, and the water runs now at 60° or more and in the creamer sometimes gets as warm as 62° and 63° F. The cream appears to all separate, and it is in a much more condensed form; 4½ spaces usually making a pound of butter. One morning as a test of the perfection of the creaming of the milk, I took the skim milk and added one fourth part of hot water and set it again; but the cream upon it at night was scarcely perceptible—not enough to measure. That milk had set only 24 hours, but I usually let it stand 36 hours before skimming. I do not dilute the milk with water as I have seen recommended, as I do not find it necessary to do so. It is surprising how well the milk remains sweet. After standing 36 hours in water at 60° F. and then skimming. I have never known the skimmed milk to be other than sweet after standing 12 hours longer in the cans on my barn floor. I think the water sealing by the Cooler System has much tendency to preserve the milk sweet. I do not know at how high a temperature I can use the water to cream the milk, but shall use as long as it will do the work. The water usually gets up to about 70° F. before the hot weather is over.—[M. Morse, in *American Cultivator*.

Our antipodean cousins are evidently not lacking in enterprise, nor faith in their new and rapidly developing country. A bill has been introduced by the Premier into the Victorian parliament, providing for the construction of 1,077 miles of country lines and 39 miles of suburban lines, the whole to cost \$12,500,000, besides a grant from the Treasury of \$2,000,000. This is a large proportionate increase, the present railway mileage of the entire continent being only 7,000 miles. The additional facilities have been rendered necessary, so the Premier explained, by the rapid growth of the population, which, as the census proved, was increasing faster than the population of America. The prospects of the bill are encouraging.

DIED IN A DOCTOR'S OFFICE.

Thomas Butler Drops Off While Being Treated by Dr. Wallwin.

TORONTO, Aug. 7.—The other night about 10 o'clock Thomas Butler, bartender, and brother-in-law of Vincent T. Bero, who keeps the Bero house at Dundas and Queen streets, died very suddenly in Dr. Henry Wallwin's office, at Simcoe and Richmond streets. He had been treating with the doctor for over two weeks for some disorder of the system, and about 8 o'clock he paid a visit to the office. The doctor remarked when he entered that he looked dull and sleepy, but without paying much attention proceeded to apply some dressing to the patient. During this operation Butler suddenly relapsed into a state of coma. The doctor became alarmed and called to his housekeeper for water and whiskey, but finding these produce no effect he telephoned for Dr. Primrose, on whose arrival they applied the stomach pump and tried every other means to restore the man to consciousness. Their efforts, however, were without avail, and shortly after Dr. Primrose's coming Butler breathed his last.

A Wonderful New Barometer.

At the last conversation of the Royal Society, London, England, a new barometer was entered, which will, on one slip of paper, note the beginning, variations in intensity, and termination of rain and hail, the instant of each lightning flash, and the beginning and duration of a thunder clap. The instrument can be read for periods of time down to the fifteenth part of a second. An arrangement was also exhibited to show, either by projection or photography, the oscillatory nature of an electric spark.

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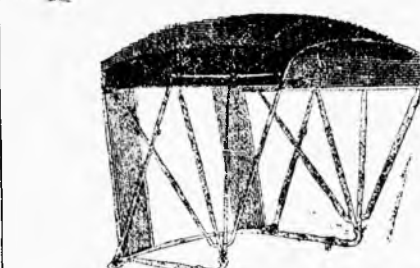
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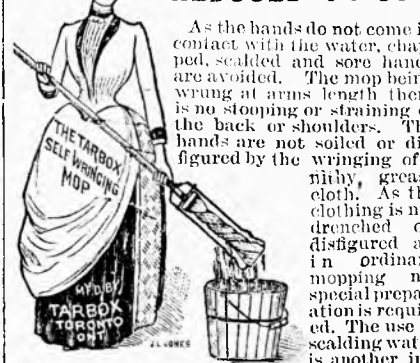
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