

Light Horses—Care of Manures—Working Bulls.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—Will you kindly oblige a subscriber by publishing a reply to the following questions:

1. Is it the conclusion of experience that the best horses are raised only on grasses of high quality, and consequently on rich lands? We refer to horses adapted to hunting and cavalry purposes, and where mettle, endurance, constitution and good hools are required to be of the best.

2. What are your views as to the proper diet climate and treatment for rearing of such colts in the best way, and what are the limitations necessary to be observed in forcing them? What diet treatment is likely to produce feet which will best withstand the wear and tear of city pavements?

3. Is it certain that in the State of Kentucky the chances are best for the rearing of horses possessing in a high degree the essential points of vigor, endurance and ability to perform in the best manner the duty expected of its class, and if so, why?

4. Is the old system of wintering good colts in open but dryshelter, and on hay, straw and such grain as they may find in winter, or no grain, to be recommended as fulfilling any needful purposes? If so, what are they?

5. The cows in this vicinity are milked at five o'clock in these winter mornings. Is it a judicious thing to do to rouse working or producing animals at so early an hour? Is their sleep not curtailed thereby? What does the experience of practical stockmen teach upon the matter of habitually rousing dairy and other stock from sleep, and what seems to be the teaching of experience as to the earliest hour consistent with regard to their health and thrift at which this may properly be done?

6. Which of the two systems of making and applying manure is the most economical and efficient—foddering and feeding stock on the open sod, choosing such places as most need manuring, or feeding exclusively in the barnyard and hauling to it straw and litter to absorb and decompose, and swell the loads of compost to be hauled to distant fields and spread where desired? Is the increased cost of the last method justified by the gain over the former?

7. Is it objectionable to put a bull of good quality into a tread power, or to work him yoked to a steer? I have but few cows, and have the impression that to do so might prevent the bull from becoming breachy and otherwise unruly.

PIEDMONT.

Virginia, U. S.

Our correspondent "Piedmont" has raised some questions that require a good deal of intelligent experience to answer them in the best manner. We therefore invite correspondence in future issues from any who can speak with authority, particularly on the questions that relate to horses.

(1) Yes, but always with reference to attendant conditions, as climate, exercise, and management. When endurance and kindred qualities are found in men of a high order, they excel in those whose laborious and lengthened training is sustained by a sufficient quantity of sufficiently nutritious food. To this rule the history of cavalry and hunting horses is no exception. True, horses that can endure much are found where the fare is scant, but this does not prove that they would not be better developed and endure more had they fed on a better fare. The best hunters of Britain are raised in the rich lands of the south, and the best cavalry horses of the United States are bred in Kentucky. And in Russia the most famous chargers are reared in the valley of the Don. When certain constituents are lacking in lands otherwise rich, as lime, so favorable to bone formation, the above rule would not hold good. Neither in such a case would the hoofs be so good, but the quality of these is more determined by exercise than by diet. The two great essentials in building up constitution are liberal diet and persistent exercise, and mettle and endurance are the offspring of a strong constitution.

(2) The best climate for the development of such

horses is a mild one and not much exposed to the sudden vicissitudes of weather. The best light horses have been produced in such countries as Kentucky, and partly for the reason that they are less confined in the winter season and are therefore less enervated.

The food should be nourishing and liberal, particularly during the earlier years. The dams should be well sustained also by a suitable diet, more especially during the nursing period. A supplement of crushed oats and a little bran should be given to the colt from weaning time onward at least once a day, and now and then boiled flax added. This need not be given when grasses are succulent. They should be kept thriving, but not so loaded with fat as to incline them to sluggishness. The diet does not affect the feet nearly so much as the exercise. Standing much on a dry floor, or close confinement, are very injurious to hoof development.

(3) It is a fact that cannot be gainsaid that horses which in some other states of the union got but few fast trotters, succeeded admirably in this respect when acclimated in Kentucky. The inferior mares in these states may afford a partial explanation, but not a full one. It is more likely that the climate and rich nutritious food grown, have more to do in producing the result indicated.

(4) It is a positive advantage to allow colts to run in an open yard or shed during the day in winter, providing they can eat the principal meals alone or with not more than two in the compartment. The exercise will develop them and the exposure to a degree increase their hardihood, but exposure that leads to positive discomfort is neither kind nor profitable. It never serves a good purpose to keep animals on an under ration, which is usually the case when they are kept wholly in the barnyard, where, with them as with other quadrupeds, the only code recognized is that might is right.

(5) The time at which cows should be roused in the morning depends very largely on the time at which they get their last feed at night. The hour of waking is a relative thing, having regard first to the amount of time spent in sleep, and second, to the physiological law, from the sanctions of which there is no escape, that the rest of night is the most refreshing, and labor done after nightfall is the most wearing owing to the greater waste of nerve-power during its performance. Under natural conditions when pasturage is plentiful, animals sleep the greater part of the period of darkness and pasture when hungry, during the day. They don't usually sleep and eat at night alternately when doing for themselves, but take a long sleep undisturbed. They may be fed then with profit in the morning just so early after they have slept that they will not desire to do so again before they have well finished their breakfast. Undisturbed repose at night without a replenishment of food, is always better than disturbed repose with the supplement referred to. Regularity is of more importance in giving the morning or any meal, than the time fixed upon for giving it. The most natural time for feeding them is that hour at which they feel disposed to rise themselves, but when there are many mouths to fill and only one person to do it, it is necessary to begin early.

(6) The answer to this question is qualified by conditions as, (a) The nature of the soil; (b) the size of the farm; (c) location of the buildings; (d) the system of farming pursued and other attendant circumstances. Where the soil is light and the subsoil porous, the first method will be adopted with more profit than where it is heavy, as in the first mentioned instance, the nutriment from droppings will be more

readily absorbed and the evils of poaching, always calamitous to a clay soil, need not be feared. Where the farm is of medium size, foddering on needy pastures may be practiced with probably greater all round profit during the seasons requiring it, for, drawing the food from the field, and removing the manure under conditions requiring only a portion of each day from a man and team, would lessen the ability of both to perform a full day's work. Where the farm is large enough, the whole time of a man and team would be utilized in drawing food and removing manure, the cost of which is almost certain to be overbalanced by the extra amount of crop produced and the saving of expense in fencing. Where the buildings are central, drawing the feed and manure are always done at a much less expense than when they are not. Where grain growing is the object, foddering may be practised with better results than where live stock or live stock products are the objects sought. We have large faith in that system that will soonest bury the manure where it is to stay, near the surface in light lands and deeper in heavier. The fertility of farms can best be conserved by practising the soiling system.

(7) In this country we consider our pure-bred bulls too valuable to use in this way. They are kept in a box stalls the year round during the day, and some have a paddock strongly fenced in which they run at night in summer. If the bull is only a grade it may be wise to use him as proposed; we can see no serious objection to it, but working a bull till weary from day to day when the profit is to come from improved offspring, would defeat the object sought, particularly when beef is desired.

Annual Meeting of the Ayrshire Breeders' Association.

The annual meeting of the Ayrshire Breeders' Association of Canada was held in Kingston, 31st January, 1888, the president, W. Rodden, in the chair. This is the first meeting of the amalgamated society.

The president read a report of the work done since May last. The number of pedigrees received for entry were: From Ontario, 132, of which 59 were accepted; from Quebec and Manitoba, 120, of which 119 were accepted; total on record, Ontario, 379; Quebec and Manitoba, 119; total refused from Ontario, 73; refused from Quebec, 3. Receipts, \$239; disbursements, \$236.50.

The secretary read the annual report, in which he said that nearly all the stumbling-blocks in the way of pedigrees have been discovered, so that in future there will be much less trouble in this connection than heretofore. The Agricultural and Arts Association offer for Ontario to print the secretary's herd book on the same terms as they print the herd books of other similar associations, but they will have nothing to do with the revision of pedigrees.

The president introduced a comprehensive address by telling the story related by the poet Burns, in which were the lines:

"Where are you going my pretty maid?
I'm going a milking, sir, she said."

He believed that the Ayrshires gave more milk for the food used than any other breed, and that the grades are better breeders than the Shorthorn grades. He urged the appointment of an inspector at the show to see that cows were milked the night before being judged.

The secretary then read the constitution drawn out, and submitted it to the meeting. After a lengthy discussion it was adopted. The clauses connecting the association with the Agricultural and Arts Associa-