HORSES.

Feeding Idle Horses in Winter.

Idle horses which are turned off during the winter, or which are kept in a strawyard, should receive plenty of hay, and it is in all cases the best plan to feed it ad lib., the horses being given as much hay as they will eat, but not enough to waste under foot. Hay is the most suitable kind of food for idle horses in the winter time, containing as it does an adequate amount of nourishment, and being suited to the requirements of horses which are not doing any work, and which only get what exercise they choose to take. The amount of hay which idle horses consume each day when it is supplied to them ad lib. varies somewhat in different cases. On a rough average, light horses will eat from 19 to 22 pounds of hay per diem, when they are given as much as they like to eat, while heavy-draft horses require somewhat more. Hay is the best substitute for grazing. In the case of horses which are kept on straw it is most advisable to include a daily allowance of roots in their diet, as these prove most wholesome, and are of great benefit in keeping the horses healthy and preventing constipation. This is apt to occur when horses are mainly fed on hay and chaff if some laxative food is not provided. Fourteen pounds of roots daily is not at all too large an allowance for idle horses kept on straw, and when there is a plentiful supply of roots available this quantity or a slightly larger one may well be fed. Some horses are more partial to roots than others, and while all horses are fond of some roots, it is found that they vary somewhat in regard to the amount of roots which they will eat with relish. In some cases the allowance above may prove to be as much as the horse cares to eat, and more roots would not be consumed, even if offered. In any case, however, there is no chance of a horse eating more roots than are good for it when receiving a great deal of dry fodder. Though horses will readily tackle whole roots or those cut into halves, it is the best plan when feeding roots to cut them up in the root-cutter or pulper.

BRAN MASHES.

In default of a supply of roots, horses fed on straw must be given bran mashes at frequent intervals, and at any rate, once a week, while a bran mash twice weekly will be better. The bran should be dealt out with a liberal hand in preparing the mashes. These bran mashes, like the roots, serve to keep the horses healthy, by reason of their laxative effects, and it is certainly highly advisable to provide them as recommended if sufficient roots are not on hand.

The hay given to the horses is best fed in a long state, and there is no reason to chaff it. If desired, a mixture of chaffed hay and straw may be supplied to supplement the hay, but cut stuff of this description when fed by itself does not make a particularly palatable feed, and horses will only eat it if a keen appetite compels them to do so. By mixing a little dry bran or some grain in with the chop its palatability is, of course, greatly improved, and horses will then eat it readily enough. Bran contains a goodly amount of nutriment, and it is a most useful food for idle horses, as it is in no wise heating. It is certainly a good plan to feed a little dry bran to horses running in the open or kept on straw during the winter. Clean, bright wheat chaff can also be used economically as a fodder.

One of the most important questions requiring consideration in connection with the present subject is that of feeding grain. Idle horses which receive a plentiful supply of hay do not absolutely require grain, and can be wintered without getting an allowance of grain. It is, as a general rule, the best plan to feed a few oats to horses under these circumstances, and the small extra outlay which is incurred in doing so is well justified. It is not, of course, in any way necessary to give idle horses much grain, and that merely means a useless expense which gives no satisfactory return. A small allowance is all that is required. A few oats serve to keep the horse in decent condition, and help to keep up the muscles, while if no grain is given they get out of condition and lose muscle. A horse which is wintered without receiving any grain loses its condition absolutely, and is quite unfiit at first for work when it is taken into the stable again. By feeding some oats a certain degree of fitness is retained, and the horse will regain proper working condition and become quite fit again much sooner than if grain is dispensed with. When horses are given an allowance of oats, they, of course, do not require, or eat, as much hay as they do when they get no grain; and thus a saving in the hay is effected by feeding some grain, and this saving in hay is in a certain measure a set-off against the cost of grain, though it does not by any means cover the latter. It may be reckoned roughly that a pound of oats takes the place of from between two and three pounds of hay. Thus, when horses which are being wintered receive a daily grain allowance of two pounds they consume about five pounds less hay each day than they do if they get no grain. A daily allowance of a couple of pounds of grain is sufficient in most cases, but a somewhat larger allowance—say three or four pounds—does not come at all amiss in the case of valuable horses. The question of how much grain should be fed is, to a certain extent, dependent upon the circumstances of each particular case, and must be decided by the man on the spot. Plenty of chaff should in all cases be mixed with the grain, and if bran is fed, the latter should also be mixed in along with the grain and chaff. If it is found to be economical to do so, barley or corn may be fed as part of the allowance of grain instead of oats, and the whole of the grain allowance may even be composed of barley or corn should an appreciable saving be effected by using barley or corn in the place of oats. There is, however, no gainsaying the fact that barley or corn is not as suitable as are oats for the purpose under discussion, and the latter certainly deserve the preference when it comes to chosing between the two kinds of grain.—[F. & S.

Key to Chart of Horse.

1. Poll. Seat of "poll evil."
2. Forehead.
3. Face.
4. Muzzle.
5. Throat-latch.
6. Windpipe.
7. Jugular groove.
8. Point of shoulder.
9. Chest.
10. Arm, from shoulder point to elbow.
11. Forearm.
12. Knee.
13. Fetlock.
14. Pastern.
15. Neck.
16. Crest.
17. Withers.
18. Back.
19. Shoulder.
20. Elbow.
21. Seat of splint.
22. Seat of sidebone. Quarter-crack indicated below.
23. Loins.
24. Coupling.
25. Hip.
26. Croup.
27. Flank.
28. Stifle.
29. Hip joint.
30. Thigh.
31. Quarter.
32. Point of hock.
33. Hock joint.
34. Gaskin or lower thigh.
35. Seat of thoroughpin.
36. Seat of curb.
37. Seat of bog spavin.
38. Bone spavin.
39. Seat of ringbone.

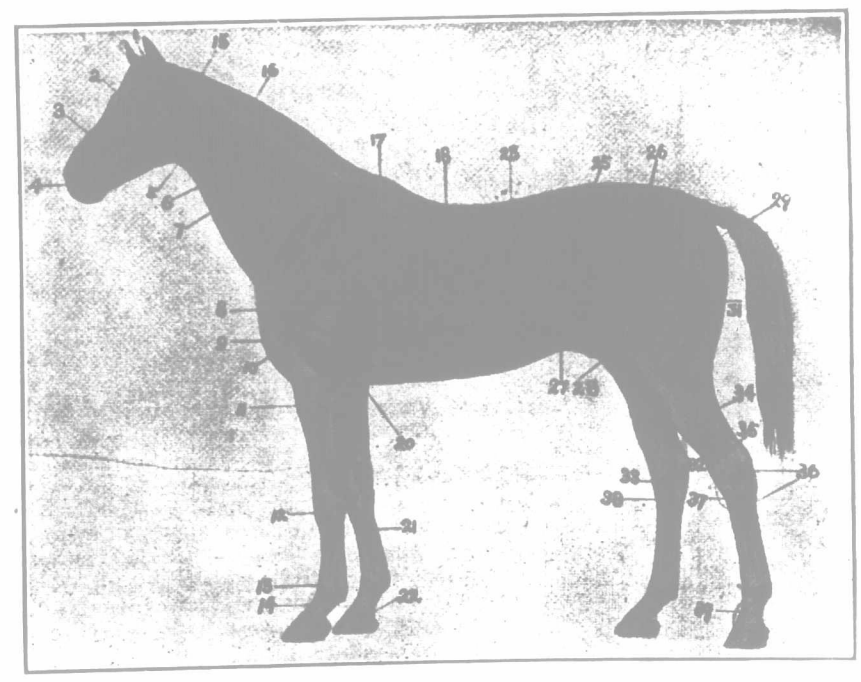

Chart of a Horse.

Age of Breeding Mares.

A correspondent of the London Live-stock Journal gives some experience on a question that has been much discussed. He says:

"I cannot say at what age a mare produces her best foal, but for the last eighteen years I have been agent for one of our largest insurance companies for mares against the risk of foaling; besides this I have had some personal experience. I have carefully analyzed the result of each year's business, and, though others may find results different, to me the greatest risk is a four-year-old mare with her first foal; I much prefer a three-year-old. I attribute this to the fact that a mare at four years of age is almost at her full strength, and oftentimes when stinted at three years, is allowed to lie comparatively idle, generally not much handled. We all know a mare is a most impatient animal, and at this age not perhaps, under the best of control; the consequence is a ruptured blood-vessel and death. With a three-year-old my experience has been much more favorable; there is one which this year has proved barren for the first time, now 15 years of age, that has produced eleven live foals, only one of which has the company had to pay for as dying before they were a month old. Mares of 8 years are generally good breeders, and can be depended on up to 14 years, but mares of 10 years and upwards when put to the stud I find very irregular, many only bring foals alternate years. From these we lose a great number of foals. I strongly advise, from figures in my possession, farmers to breed from their mares early, the first at three years, then rest one year if there is fear of spoiling her growth (which I do not think is the case). An early mother is the best milker and mother.

Hint on Stallion's Care.

What I learned by thirty years of experience relative to the care and management of stallions I am willing others should know, and should it prove of service to anyone I shall feel well paid for the trouble I have taken.

A few things that I consider of great importance are: First, before using the stallion to mares let him get some age. No colt will breed as well as an old horse from eight to sixteen years old, provided the horse has been properly taken care of. Next, avoid all pampering, both as to care and feed. Feed and work him as you would any horse, not overheating or overexerting him. If not situated so you can work or drive him, have a good roomy yard where he can run and exercise at his own free will. There are three things that should be remembered that are not conducive to fertility in a stallion or to soundness, strength or longevity in his progeny, viz., Idleness, pampering with unhealthy food, and putting him to service when too young.—[F. C. Warner, in Wisconsin Bulletin.

THE FARM.

Ditching Machines.

To the Editor "Farmer's Advocate":

I observed an inquiry in your issue of Dec. 14th respecting ditching machines. It is a regrettable fact, in view of the scarcity of labor, that a satisfactory ditching machine has not yet been invented, particularly of a form that is adapted to the wants of the farmer for digging drains. I do not know of any firm in Canada that builds a ditching machine, although there may be such, and if there is, in all probability this statement of mine will bring such a machine to light. In the United States there are a few ditching machines constructed, none of them, however, adapted to the requirements of the farmer. For digging canals 20 or more feet in width, and from 3 to 10 feet deep, small floating dredges are used successfully, and there are a number of firms in the States that construct these at a cost of from six to fifteen thousand dollars. There is a ditching machine entitled the Jacobs Steel Excavator, that can be designed to cut a ditch from 6 to 20 feet wide, and from 3 to 10 feet deep. So far as I know, there is none built to cut smaller ditches successfully, and, hence, there is none adapted for digging the farmer's drain. The want of this machine is to be regretted, for I know from correspondence I have had lately with farmers that many are hindered from doing very necessary drainage by the scarcity of labor. It seems that there is yet no method that will take the place of the primitive pick and shovel.

Ontario Agri. College. J. B. REYNOLDS.

Getting Better Clover Seed.

So far as vitality is concerned, said Mr. G. H. Clark, Dominion Seed Commissioner, there is no difference between high-colored clover seed and [illegible] highly colored. As a result of the Seed Control Act, and the education in connection therewith, said Seed Commissioner [illegible] there has been a marked improvement in [illegible] the seed trade. Buyers this year [illegible] a premium on the seed pro- [illegible] There has been in recent [illegible] imported into Canada [illegible] the good seed being then [illegible] stuff retained. This [illegible] good seed is being kept

[illegible] kindly sent us [illegible] to the "Farmer's [illegible] We are very [illegible] exceeds that

[illegible] RTSON BROS.