

months when the pasture has become fairly well matured, I prefer to turn the horses out nights, if at all possible. From year to year a horse consumes an amount of dry heating food which calls for special regulation to neutralize the excessive proteid consumption that has taken place. Substituting the grass for a certain part of the dry feed might for a time lessen, to some extent his energy and power to endure protracted hard labor. Yet, it is a fact that such a procedure would enable the average horse during his life time to perform much more labor than if kept continuously on dry feed.

It is generally admitted that oats are the most satisfactory grain for horses. Corn may be used in combination with other grains, but it is too heating a food to be fed exclusively to horses. Bran forms a suitable and desirable addition to a ration, being cooling and soothing in its action. Approximately ten pounds of oats, five pounds of corn and three pounds of bran divided into three equal feeds make a days ration that it would be hard to improve upon. The weight fed at each meal should be about the same, although for the sake of variety the corn may be omitted at the morning meal and fed at noon. For the evening meal it is a good plan, when possible, to feed crushed oats along with the bran and a few handfuls of cut hay, the whole being dampened and salted to render it palatable.

It sometimes happens that when horses are being well fed for heavy work and are allowed to stand idle for a day or two the disease known as lymphangitis is apt to get a foothold. More especially is this true of the heavy draft types. In England, it is sometimes called "Monday morning fever," because more cases are reported on Monday morning, after Sunday's rest, than any other day during the week. A horse getting three full grain feeds a day generates in his system a large amount of heat and energy, which is just what he needs to perform a good day's work. When, however, he gets a day off, and the full grain ration is continued, there is no vent for it. Being the function of the lymphatic glands to dispose of this excess of nourishment, if they fail to do so they become inflamed and an attack of lymphangitis results. To counteract this tendency the grain ration should either be reduced or a bran mash substituted, at the same time allowing exercise.

Another matter about which diversity of opinion exists, is how and when to water the horse. Dr. Reed of the Ontario Agricultural College has expressed the very sensible conclusion: "When a horse is thirsty he wants a drink." This is probably the very best guide for the attendant and certainly an acceptable one to the animal himself. There is a great deal of exaggerated fear about watering horses when warm. When a large amount of perspiration has been secreted while working it leaves the system parched. A pail or two of water of moderate temperature is the best thing that can be given, and ordinarily they should have it at once. So long as precautions are taken to have the chill off, it will not hurt him in the least, but rather refresh and prepare him to enjoy his feed.

A variety of factors must unite in keeping horses in good condition. Judgment in working, increasing or diminishing the allowance of heavy feed, regularity in time of feeding, frequency of watering, and care in fitting harness and matching teams—in a word that rare quality called "common sense"—are the secrets in maintaining the teams in presentable condition, and strong, working condition. Some one has said: "It is not so much what you feed as how you feed it," common sense without oats being better than oats without a reasonable accompaniment of brains.

Elgin Co., Ont.

AGRICOLA.

LIVE STOCK.

The Stable Boy's Diary.

EDITOR "THE FARMER'S ADVOCATE":

Uncle Bijah is in the neighborhood and gave us a call to-day. As soon as he spied the hogs on cement floor he sounded a note of alarm, "You'll have crippled pigs, boys, mark my words." "Well now, Uncle, this is no experiment but the end of over ten year's trial with bunches of a dozen pigs more or less all the time. You notice the floor has a little slope to the cleaning-out end, but no swell upper berths and not even planks in the corner for the black and red beauties, now valued at a cent an ounce, to snore on—just plenty of dry straw and the pens regularly cleaned every five or six days. Well-ground mixed chop of oats, barley and corn is scattered dry in the feeding troughs at meal time, and the whys or slops poured upon it. The pigs do their own mixing and warming without sods or charcoal. Result: No crippled pigs in a dozen years and good deers of every cross and breed. Feeding or floors? We won't argue over it, Bijah. You pay your money and you take your choice.

One of the roan two year-olds, a voracious feeder, showed signs of bloat this morning, shifting about uneasily, as tight as a drum, and still reaching after moreilage. "Try turp. and oil" said neighbor Scott, who happened along, so the black bottle with a pint of raw linseed oil and about two ounces of turpentine was turned into her and the feed slackened off. By afternoon she was right as a trivet.

It is worth noting that the very first treatment record of the splendid, tabulated series in January and February "Farmer's Advocates" for diseases of farm animals, made good. I have carefully preserved the set for use, as every stable-man should. They are most valuable and equal to a whole veterinary library.

The square plank water trough before the cattle

gave out a while ago. Moisture had soaked in about the tongue-and-grooves and rot followed. We decided on something simpler—a v-shaped rough made of sound, dressed 16-foot pine planks, one set, 10 inches by 2 inches, and the other, 8 inches by 2 inches and the splicing places about two feet past each other. The ends of the planks were bevelled and in putting them together plenty of white lead paint was used and a wire nail about every six inches. The troughs were properly levelled and supported on a strong v-shaped brace spiked in front of the large alley posts every eight feet. It has proven a most satisfactory job, easily kept clean and gives no trouble when frost gets in as it does on zero nights.

Brooming and grooming day—The cows enjoy the currycomb and brush next to good corn silage. It's amazing how much dust filters down into basement stables through the feed chutes and spreads over the backs and into hair and skin of the stock, choking up the pores in a most unhealthy way and making a hot-bed for vermin to start in. And those cobwebs need sweeping down again. Wonder if John H. Comstock's big work on spiders tells the whence and the where of the stable variety and what it feeds on? It deserves our thanks, anyway, for it festoons the place with danger signals of dirt.

The white world goes with the passing of winter, the equal of which we rarely see. The cattle never fed better, if as well. We shall soon forget those bracing "ten below" mornings when the lantern threw its six o'clock flare across the trackless, knee-deep crystalline, which sifted in like fine dust under the stable doors. Through the windows the cattle caught the light and the stanchions clanked as the row rose in welcome, staring at the cloud of steam pouring in behind them. In the adjoining stabling the Clydesdales lunge heavily to their feet and the driver whinnies for hay. The long, double row of cattle are contentedly munching and shifting back and forth in the stalls making a homely sort of music for the stable-man that the Edison phonograph has yet to duplicate.

Middlesex Co., Ont.

STABLE BOY.



Doone Grand Knight.

First and reserve champion, Perth, 1917. Sold for 1,000 guineas.

Our Scottish Letter.

February has gone. It has been a month of remarkably dry weather, and in this respect a striking contrast to February of 1916. The rainfall for the month this year is represented by a decimal, while the rainfall for February 1916 was fully 4 inches. For nearly three weeks the country generally was frost-bound, and even in the earlier weeks of the month even when frost was not experienced we had a spell of phenomenally dry and cold northeast wind. Were labor conditions normal the general opinion would be in favor of such a month as we have had. The trouble is that ploughing was retarded and with a serious scarcity of labor it is well-nigh impossible to overtake arrears. Still in spite of all adverse conditions we are forging ahead. Labor is being organized on a national basis. The scheme of National Service has caught on. Neville Chamberlain, to whom it has been entrusted, wants an industrial army of half a million men between 18 and 60 years of age, and it is intimated to-night that he has got his first 100,000. Everything is being done to prevent waste of labor, and so far as agriculture is concerned, the one thing on which all energies are now being concentrated is ploughing. In some of the counties it is surprising to find such a liberal response to the call to cultivate more land. Farmers are endeavoring to do their duty, and prices for all kinds of agricultural produce are affording them every inducement to extend the area of cultivated land.

Before it is too late, I may say something now about the Spring bull sales. They are almost over and records have been made for all breeds. The Shorthorn leads and easily surpasses all other breeds, alike for top prices and for averages. At the same time there was a great gulf between the prices realized for the tops, mainly for the export trade, and bulls for crossing purposes. The gulf between the two classes of bulls was not nearly so marked in the case of the other breeds. The top

price of the sales was made at Perth by James McWilliam, Garbity, Lochabers, a popular Morayshire breeder, formerly of Stoneytown, Keith, where his younger son, Ralph S. McWilliam, now farms. James McWilliam got £2,205 for his champion bull calf, Garbity Golden Victor, the buyer being Mr. Shepherd, London, for the Argentine. He had an average of 1917 for three young bulls, a figure never before reached at Perth. The reserve champion of the show and sale, the two-year-old Doone Grand Knight from the Earl of Moray's herd at Doone Lodge, Perthshire, made £1,050, and also goes to the Argentine. Warspite of Naemoor, from J. J. Moubray's herd at Naemoor, Dollar, made the same figure, and other two young bulls made 50 guineas apiece more—that is they sold for £1,102 10s. apiece. Mr. Moubray had the second best average—making £425 5s. for four. Mr. Law, Whiterow, Forbes, had £420 apiece for two, and the Earl of Moray, the splendid return of £372 2s. 4d. for five. J. Reynard, Manuel House, Boness, had £357 apiece for two, and remarkable averages for larger numbers were made by two herds in Strathearn (Perthshire). Both owed their high returns to the Duthie-bred bull, Collynie Cupbearer, W. A. Dron, Criefvechter, Crief, a tenant-farmer, had an average of £275 17s. for seven, and Duncan Stewart of Millhills, Crief, £256 4s. for eight. I. Ernest Kerr of Harviestoun, who a week earlier topped the Aberdeen-Angus sales, had £224 18s. 9d. of an average for four Shorthorns, and Ralph S. McWilliam came close up with £223 2s. 6d. for an equal number.

The top price made for an Aberdeen-Angus bull was 950 guineas, or £997 10s., and the top average was £364 for six. Both records were made by Mr. Kerr of Harviestoun, Dollar, and the buyer of the 950-guinea bull was James McWilliam who topped the Shorthorn sales. He bought on commission for an Argentine buyer. So that the two highest-priced bulls of this spring have gone to the Argentine. The second best average for the blacks was made by Captain Reid, Tillyrie, Kinross—a new breeder. He had £201 5s. for three. Messrs. Grant, Glenfaleas, Banffshire, had £189 for two, and both Lord Rosebery, Dalmeny, and L.F. Cumming of Kinnermony, had averages of £173 5s. each for four bulls. The famous Ballindalloch herd of Sir George Macpherson Grant, Bart, had £169 4s. 6d. for six, and a comparatively young herd—that of J. M. Marshall of Bleaton, near to Coupar-Angus, had £147 for five. The average price of 295 Aberdeen-Angus bulls sold this Spring was £64 3s. 7d., and the average for 297 sold in February, 1916 was £45 5s. The champion 950-guinea bull, Jolly Eric, was got by Prince of the Wassail—a bull bred at Ballindalloch, which did magnificent service for many years in the Harviestoun herd. The dam of Jolly Eric was got by the phenomenal champion bull, Elect of Ballindalloch, and his grandam was by Prince of the Wassail. It will thus be seen that there is something unusual in this breeding of Jolly Eric, Prince of the Wassail being both his sire and his

great grandsire. Another notable thing in connection with the Perth Aberdeen-Angus sale was Captain Reid's good fortune. At the Brucklay dispersion sale in Aberdeenshire last autumn his representative bought the bull calf, Eurotas of Brucklay for £42. At the Perth sale this calf won second prize and sold for £525.

Ayrshire breeders have, during the past winter, gone in strongly for home sales of their bull calves, and the system has proved a great success. It has many recommendations. The growing popularity of milk records has led purchasers of bulls to attach great importance to the records, and the character and type of the dams of their stock bulls. Hence the sales which take place at the farms where good bull calves are reared are well patronized. The top price was realized at the Bagenoch sale in the end of the year. At James Howie's sale at Hillhouse, Kilmarnock, in February, Mr. Cunningham paid £336 for a bull calf, and others made £168 and £159 12s., an average of £87 for 15 was excellent business. Prices into the three figures, as we express it, are quite common now for Ayrshire bull calves, and scarcely a sale has been held this past season at which several high prices over the century were not realized. The Milk Record System has put thousands of pounds into the pockets of breeders of Ayrshires.

Galloways and Highlanders have shared in the advances. At the Castle Douglas sale, a top price of £140 was obtained for Tarbrooch Caesar—the buyer being W. B. Donaldson of Auchincledon, Kilmear, a member of the well-known shipowning firm of Donaldson Bros. The breeder was John Cunningham, Tarbrooch, Dalbeattie, who has one of the best Galloway herds in existence. At Oban two Highland bulls made £95 each, and these were the top prices. All round, cattle breeders have been having a good time, and as farmers do not pay Income Tax on profits, or on excess profits, stockbreeders have generally been laying by them in store.

The Prime Minister, a week ago, delivered a great speech in which he outlined great times for farmers.