

when the grain in which they occur is crushed and little trouble is likely to result from them.

In conclusion, would strongly recommend the chopping of grain for horses, and the use of other grains than oats, if oats in sufficient quantity are not available. Barley one-quarter or one-third the total bulk makes an excellent mixture, or wheat, I think, in smaller proportion might be used with safety. I sometimes feed a little flaxseed if I have it and find it has an excellent effect on the bowels. Bran also is useful.

Man.

H. M. DOWELL.

Experience With Crushed Grain

EDITOR FARMER'S ADVOCATE:

The choice of whole or crushed grain for spring and summer feed, will, no doubt, bring out the opinion of strong advocates for both sides of the question. Personally I prefer crushed grain, and have several reasons for feeding the same. One of the reasons, although it does not take any part in the question of feeding value, is, to my mind, more important than any of the others. I am not going to try to make out that crushed grain is better than whole oats in general way, as to feeding value. This would require a careful test. But I do not think there is any doubt but that crushed grain is better for young colts, old horses, horses with bad teeth and horses that bolt their feed. If any other grain but the staple feed, oats, is to be fed, then I certainly think it most advisable to crush it.

I have had very satisfactory results from feeding crushed oats, and some of my horses appear to do better on it than they did on whole grain. However, my chief reason for feeding crushed grain is not on account of the horses, but as a partial safeguard against distributing weed seeds, especially buckwheat—which is hard to fan out completely—wild oats and foreign grain, on the land where they are not wanted. I am of the opinion that if every farmer would use crushed grain, when he is on the land, whether it is on his own or the other fellow's, that one step, and a considerable one at that, would be gained towards the elimination of weed pests and mixtures.

The cost of crushing grain is trifling, and as there is nowadays, generally, a crusher in most districts there is not much difficulty in getting grain crushed. The hauling to and fro is perhaps the item which is most considered by farmers. But even this is trifling compared with the evils that might occur if crushing were neglected. I do not think any man should make excuse against this safeguard, even if his feed is clean, for unless all his neighbors' feeds are of the same quality it will not be long before he finds that his land has been mysteriously invaded with some one pest or another. No matter how clean his lands and feeds are, let him set an example. I think all men will find that they will have to come to this sooner or later. I know a good many farmers who have found that the use of crushed feed is a necessity for the weed pest alone, irrespective of the feeding value of the crushed grain. I would advise one and all to adopt this method of feeding for his own good, his neighbors' good and the good of the country. I do not want anyone to run away with the idea that crushing the grain fed to horses alone is going to banish wild oats and weed pests from the fields, but it is at least one of the most important steps towards the prevention; and, I think, anyone will agree with me that an ounce of prevention is a lot better than a good many pounds of cure—when weeds are the question in consideration.

Speaking of mixtures, I have used wheat and barley—wheat when I had nothing better, only worth 36 cents a bushel, and 1 northern at that. This was crushed and mixed with oats about 1 to 5. I do not like wheat for horse feed and do not want to use it, for I have seen horses ruined and even killed from eating a most surprisingly small quantity. I have often used barley, crushed, 1 part to 2 of oats, and 1 part barley to 3 of oats, which latter I found best. Barley appears to me to be heating, and some of my horses broke out in pimples on the first feed. The veterinary told me their blood was over-

heated, so I think it was too much barley that caused this. On the latter mixture I had no bad results. However, if I have them I like the plain crushed oats best, occasionally mixed with bran and now and then a handful of flax. I do not want the oats ground to a powder, but crushed enough to take the life out of anything in the way of weed seeds. I always make a point, whenever possible of dampening my chop with water to lay the dust, which I think is perhaps the only bad feature about chop; but if dampened it is avoided.

Sask.

DRAG HARROW.

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The demand for heavy draft grades for farm and commercial work shows no sign of abating. Last week in Manitoba farmers were paying as high as \$700.00 a pair for geldings for farm work. We don't know how many pairs changed hands at these figures, but good high grade draft horse, have been selling up around three hundred and three fifty. A man runs some risk in buying geldings at these prices, but horses have to be had, and when they are as scarce as they seem to be this season the seller practically makes the price.

Care and Management of the Horse

First prize address given before the Bladworth Agricultural Society at a series of meetings held during the winter.

In dealing with the very broad subject, the horse, I will touch upon the care and management and deal more particularly with the points which I have learned in the university of hard knocks. Some of these points, although in themselves small, I have found of great value.

I shall start where the new farmer should start, prior to the purchase of his horses, the stable, and while I do not propose to lay out a plan for a stable I shall touch upon a few general points very often forgotten in our rush and bustle to get up any kind of an excuse for a stable, but which, if observed, would add greatly to the comfort of our horses and consequently to the weight of our purses.

The stable, in which the horse spends one-third or more of his time, should be built with every consideration for his comfort, and we must not forget conveniences for feeding, cleaning, etc. Our stables, built generally of two ply of lumber, are prone to be damp, and little consideration is given to that vital point, ventilation. In the winter the walls are covered with frost, caused by the condensation of moisture from the stable atmosphere on the cold walls. This condition which leaves the horses wet after a mild day or night is easily remedied by introducing a dead-air space. If the stable is built of frame, one thickness of boards on each side of the studs will give us the desired condition, while if of concrete it is necessary to make blocks with an air space in each.

Ventilation should be such that there is a plentiful supply of fresh air at all times without a draft on the horses. A cool stable, well ventilated, is much to be preferred to a warm one, badly ventilated. The horses are much less liable to disease, and nature is not asked for a sudden change in her work in the horse's system when the horse comes out of the stable, as is

the case when he is brought from a warm, reeking atmosphere to the clear, pure air at a temperature of perhaps 40° below zero. There are a number of systems of ventilation in vogue, too lengthy for me to speak of here, but which may be seen from time to time in many of our good farm periodicals.

Light, a germ killer, is another important and much neglected point. It should be sufficient to provide a bright and cheery interior at all times so that a horse does not come out of the stable dull and stupid. Whitewashed walls are a step in the right direction and a great help in keeping the stable sweet and wholesome. Light should never come from directly in front of a horse as it is a strain on his eyes, and, particularly so if he must eat from a comparative dark manger, which we generally find is a necessary consequence. However, the light is better in front than not at all.

I prefer two rows of stalls facing each other, with a feeding alley down the center for convenience in feeding, ventilating, lighting, etc. Double stalls are the cause of many unsoundnesses and I think stables should be equipped with single stalls with the upper part of the partition or grating or woven wire, so that this sociable animal may not become lonesome.

The old-fashioned manger is the most wholesome, and should be high enough so that the horse may not throw his feed out or jump into it at will and have a false bottom that he may not injure his breast trying to reach the last of his hay. Overhead feed racks are an abomination, and the cause of many blind eyes.

And, now, we come to that interesting animal, the horse, himself. Choice of breed and type I will leave to yourself, but would advise the purchase of a good class that you and your teamsters will take an interest in, and if you breed they may be a source of profit. I propose to start with him in fall when all work is done. When he goes into his winter quarters we should trim his feet and see that there are no sharp corners on his teeth to lacerate his cheeks or interfere with the process of mastication. A French express firm with a large number of horses in their employ were impressed with the importance of horse dentistry by an experiment they conducted for their own enlightenment. They took 20 of their horses, had their teeth attended to by a competent veterinarian and at once cut their feed down by a number of pounds each day. Twenty other horses of a similar disposition and at similar work were marked to check results by, and at the end of a month the horses with the good teeth were found to be in better physical trim and had done their work easier and better. All horses belonging to that firm had their teeth looked after regularly after that.

He should be kept well bedded that he may be comfortable and warm and not have to stand in filth for hours, softening his feet and causing thrush, etc. We have a chance to profitably dispose of some of our straw in this manner. Exercise he should have, and plenty of it. Every day that is fit he should go out, but should

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CLYDESDALE FEMALES, THREE YEARS AND OVER, AT CALGARY SPRING SHOW. FIRST, PROUD BEAUTY, OWNED BY J. A. TURNER; SECOND, BOGDAVIE QUEEN, OWNED BY JOHN CLARK; THIRD, MAGGIE FLEMING, OWNED BY HAROLD BANNISTER.