scrubs of mares, as a rule, and, when mating scrubs, what can you expect? Just another runt, which is only another evil on the market. There are plenty of good stallions to do the business without using these grades. If the licensing of stallions could not be done in this way, I would say let everything run as it is, and I think this is just about as satisfactory a way as it will be made, but let us hear from some of the horsemen or breeders as to their opinions about licensing stallions. A HORSEMAN.

Wellington Co., Ont.

ABOUT SHYING IN HORSES.

It is a widely-held opinion that defective eyesight is a very common cause of shying in horses, but, as a matter of fact, such is by no means the case. Unquestionably, defective vision not infrequently accounts for a horse being a shyer, yet it is nothing like so frequently a cause of shying as it is generally held to be.

The principal and most usual cause of the habit of shying in horses, says a writer in the Live-stock Journal, is nervousness or fear, the horse shying at some object or other because it is afraid of it, even although it can plainly see it. Habitual shyers are usually either of a high-strung or nervous temperament, such as is very commonly met with in well-bred horses, or they are of a very timid disposition. It is, of course, well known to horsemen that by far the largest proportion of shyers are mares. The habit of shying is nothing like so often met with in geldings as it is amongst mares, and entire horses are but very rarely given to shying. The reason why this is so is obvious when it is remembered that most usually the cause of shying is nervousness or fear. Mares are, as a rule, of a more excitable or nervous temperament, and more often of a timid disposition than geldings, the latter generally being of a more equable temperament than the former, though there are exceptions, of course, while entires are usually very high-couraged. Hence, one does not find an entire shying on account of nervousness or fear, as a rule, and geldings do so much less frequently than mares.

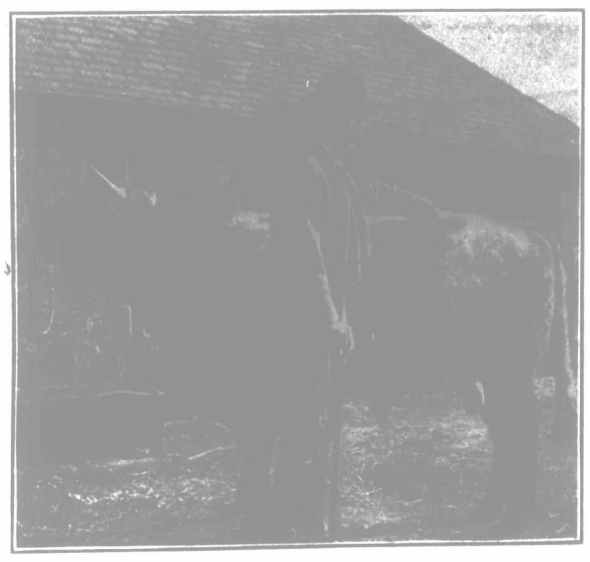
A great many—in fact, it may be said, most—young horses are more or less given to shying when they are first put to work, owing to their being unfamiliar with many objects they see, and consequently afraid of them. When they are taken up to be broken in, young horses, moreover, are very commonly inclined to be somewhat nervous at first, and this naturally renders them very liable to shy on the slightest provocation; but, as a rule, they cease the habit of shying as soon as they become accustomed to the sights of the road, and lose their erstwhile greenness and nervousness. Hence, the fact that a raw and unmade young horse shies very easily and frequently, is a matter of no importance, and no notice need be taken of it, seeing that it is only natural it should do so, in view of its greenness, and that in all probability the habit will pretty soon cease of its own accord when once the young animal's natural nervousness and greenness wear off.

Sometimes, however, this habit of shying at unfamiliar or strange objects, from pure nervousness or fear—which is so general among young, unmade horses when they are being broken in—persists long after the young horse's education has been completed, and proves itself to be quite incurable, it oftentimes, indeed, gradually becoming worse in such cases. Here we have the confirmed shyer which nothing will cure. The habit, aggravating, or worse, as it is, is, however, the horse's misfortune, not its fault, seeing that it is the result of a highly nervous temperament, or of a too timid disposition; hence, it should be kindly and patiently dealt with. In some fortunate cases it may be possible to cure it, by dint of careful management and patience, before it gets too firmly rooted; but more generally it is impossible to effect a complete cure when the shying persists after the horse has been thoroughly trained and become fully used to the road, and mostly it is in these circumstances a case of "once a shyer, always a shyer." When once the habit of shying has become firmly established, and when it is due to nervousness, the chances are much against the horse ever being broken of it. It may, perhaps, be improved, if the horse is in the hands of a careful and patient rider or driver, who knows how to deal with it, and takes the trouble to do so. At best, however, one must always be on the qui vive with such shyers, and one is never safe with them, while in many cases the habit is, or becomes, so bad that the animal afflicted with it is a wholly unsafe conveyance, and not fit to be in a private stable.

There is no doubt about it that in a good many cases horses which shy on account of nervousness are rendered worse in this respect by improper or injudicious treatment; in fact, the habit is often established in young horses solely in consequence of gross mismanagement. It is but too common a thing for the rider or driver of a young horse to force it past an object at which it is shying, by the infliction of punishment with whip or spur, and by jobbing it in the mouth. Nothing could be worse than to do this. After this wrong-headed practice has been repeated a couple of times, the young horse (horses have excellent memories, especially for disagreeable things) learns to remember that it is punished on shying, and thus, whenever it shies, it expects punishment to follow immediately, which naturally greatly increases its fears, and causes it to swerve all the more badly, or to attempt to run away. The fear of punishment, moreover, renders the animal much more inclined to shy, as in these circumstances it does not shy at an object so much as at the punishment which it expects to follow. It does not take long to convert a young horse of nervous temperament, and which is by nature inclined to shy somewhat easily, into a confirmed and incurable shyer by such senseless treatment. The proper way to manage a young horse when it shies is to treat it kindly and with patience. On no account must it be punished in any way for shying. Its fear or nervousness should be allayed by speaking quietly to the animal, by patting it on the neck, etc.—in brief, by cajoling it, as it were—that will readily calm it. If it objects to go past an object on account of its being afraid of it, it should be coaxed in order to induce it to pass the same. It is quite wrong to force it to pass the object by means of punishment. It is a good plan to allow a young horse to have a good look at any object for which it evinces much fear, it being coaxed to go close up to it and to smell at it, so that the animal may convince itself that it is harmless, and that its fears are groundless. If this is done, the horse will probably take but little or no notice of the same object next time it passes or encounters it. It is easy enough, as a rule, to overcome and eradicate the propensity to shy which arises from greenness and nervousness in a young, unmade horse, by proper and patient management.

Not infrequently, horses are addicted to the habit of shying or swerving at certain objects merely as the result of light-heartedness, or of an excess of high spirits, due to their being very fresh or underworked and full of corn. In such cases, a horse will shy at objects with which it is quite familiar, and of which it ordinarily takes no notice whatever; and very often, in addition to shying or swerving, the animal bucks or kicks up its heels at the same time, when it is being ridden. This mischievous or playful—though often very awkward and annoying—kind of shying, which is caused by an exuberance of spirits, is practiced only while the horse remains fresh, and ceases as soon as the animal settles down to its work and has expended its superfluous energy.

LIVE STOCK.



Prof. Wallace Discussing Shorthorn Points.

PROF. WALLACE DISCUSSING "POINTS."

Prof. Robert Wallace, widely known as the author of "Farm Live Stock of Great Britain," and other works, and who visited Canada during the past season, appears in the accompanying engraving discoursing on the points of a Shorthorn before the agricultural-class students at Edinburgh University. An occasional correspondent of "The Farmer's Advocate" remarks that this popular feature (instruction in cattle-judging) of Canadian and American institutions is now being taken up in the Old Land. He adds that Prof. Wallace has been giving Edinburgh folk much valuable information about Canada, from which they gather that it is a splendid country.

I received the prizes safe and sound, and like them very much. I hope to get you some more new subscribers in a little while.

York Co., Ont. CLARENCE MARCHANT.

NOTES ON FEEDING STUFFS.

By J. H. Grisdale, Agriculturist, Central Experimental Farm, Ottawa.

To know the composition of feeds, and to be able to calculate accurately the amount of various feeds that should enter into the make-up of a ration for a given purpose, is not sufficient to insure success in feeding operations. The feeder must, in addition, know something of the peculiarities of feeds, peculiarities or characteristics the existence whereof the chemical analysis gives no hint, but which exist, nevertheless, and are of even greater importance probably than is the composition of the feed. To illustrate, potatoes show a wide nutritive ratio, and, judging by chemical analysis, bran or oil meal would be excellent substances to add to the potatoes to narrow down the ration. All three of these foods are laxative in character, however, and the feeding of them together in any considerable quantities would be extremely inadvisable, if not quite impossible for any length of time.

Rations must be balanced merely so far as nutritive constituents are concerned, but they must also be so made up as to maintain the animals in good health, and as to enable the stock to get the most possible out of all the food fed.

Thus, many feeds, on account of individual peculiarities or characteristics, should not be fed along with certain other feeds. The notes on some of our more common feeding stuffs which follow are, therefore, compiled to serve as a guide to the more or less experienced feeder.

ROUGHAGE.

Generally speaking, the peculiarities of roughage are pretty well known, but even here not a few farmers, many of whom might be supposed to know better, go astray.

Timothy Hay.—Fairly laxative in character, especially when new; rich in nutritive elements; for horses and beef cattle, very suitable; for dairy cattle and sheep, not to be recommended.

Red Clover.—Quite laxative in character, rich in nutritive elements, and an exceedingly valuable feed for young stock of all kinds, including pigs. Particularly valuable for dairy cows and sheep. Working horses should receive it in moderation. Young horses, brood mares, etc., should have all they will take, and very little other feed will be required. Pigs eat it well, particularly when soaked for a few hours. Must be well made to be worth much.

Alsike Clover.—Similar in characteristics to red clover, but for horses not so valuable. Must be well made.

Alfalfa.—Exceedingly valuable for all classes of live stock on the farm, from the chicken to the horse. Nearly equal to bran for the dairy cow. Must be cut when first blossoms begin to show. Should be cured in cock.

Oat Straw.—Cut on the green side, a very valuable food for horses and cattle. Should be fed along with clover or some succulent food, since it is rather constipating in character.

Barley Straw.—Somewhat similar to oat straw, but sometimes objected to on account of awns.

Wheat Straw.—Coarser and harsher; lacks in palatability, and low in feeding value. Might serve as a filler, especially if moistened.

Buckwheat Straw.—Almost useless.

Rye Straw.—Very low in feeding value.

Flax Straw.—Quite digestible; has considerable feed value.

Pea Straw.—Quite valuable for cattle or horses, if fed in such a manner as to lay the dust; highly advisable for sheep. Constitutes good maintenance ration in itself.

Corn Stover.—Highly esteemed for cattle; good for horses. Had better be run through cutting box, and value increased by moistening.

Grain, such as oats, wheat, barley, or mixtures of one or more of above with peas, cut on green side and saved for hay, are all of very great feeding value, but, generally speaking, rather expensive to produce. They might be classed with timothy or with clover, according as peas were more or less plentiful in the mixture. Usually, however, resemble clover in value and feeding peculiarities.

Corn Ensilage.—Value depends upon stage of maturity of corn when cut. Best when corn was cut in dough stage. Bran, oil meal, gluten, suitable feeds to go along. Straw being chaffed and mixed therewith a few hours before feeding, both straw and ensilage are improved. Suitable for all classes of live stock on farm. Cost $1.50 per ton, on average.

Clover Ensilage.—Superior to most other succulent feeds when properly made. Best when mixed along with corn. Not so much meal required as when corn silage is fed. Cost uncertain.

Mangels.—Highly succulent, very nutritious, particularly valuable for calves, dairy cows and swine, not suitable for horses or sheep. Feed raw to swine. Cost, $2.00 per ton.

Sugar Mangels.—Excellent root. Superior to mangel, but has same limitations. Feed raw to swine. Cost, $2.00 per ton.

Sugar Beets.—Best roots for dairy cows, calves