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WINNIPEG, MANITOBA.

line of the quotation; the experimenter has not been a seller of wheat. The table, "Value of mill products obtained from a bushel of wheat, shows that the contention of the Grain-growers, and of Mr. Greenway on the floor of the House of Commons (July 13), that the spread between the prices of grades is not justified by the milling

values of those grades, is pretty well founded. One statement in the bulletin might, we think, pondered upon, viz., "In terms of uncleaned wheat, the material which the miller purchas-Judging from the bulletin, the grain as it leaves Ft. William is comparatively dirty, for the average sample of 3 northern, as shipped from Ft. William, was subject to a dockage of one per cent. before milling.

The baking tests show that there is little difference in value between the various grades, if value for baking of the flour from these grades is considered.

A very interesting table is that termed, "Value of the mill products obtained from a bushel of wheat," straight flour being priced at \$2.50 per 100 pounds, low-grade flour \$1.10 per cwt., bran and shorts (mixed) 70 cents per cwt. This table serves to indicate the difference between the cost of raw material to the miller and what he gets for his finished product:

VALUE OF THE MILL PRODUCTS OBTAINED FROM A BUSHEL OF WHEAT.

	G	rade.		Low-grade Flour.	Shorts and Bran.	Tot	tal.
No),	l hard	\$0 94	\$0 04	\$0 12	\$1	10
No),]	l northern.	90	041	121	1	
No	. 2	2 northern.	881	0ŏ	121	1	06
No	. 3	northern	851	05	13	1	031
No	. 4	extra	. 801	064	131	1	001
No	. 4	£	. 75	08+	131		97
No	. !	5	. 651	09	16		901
No	. 5	frosted	651	10	16		911

The final sentence of Experimentalist Saunders'

bulletin is worthy of preservation: "It is evident that what may be called the single milling value of the different grades can never fix the prices that will be paid for the wheat. The highest grades will probably always command enhanced prices, while the value of the

for feeding purposes and not for milling. some of the intermediate grades IT SEEMS POS-SIBLE THAT MILLERS COULD AFFORD TO PAY RELATIVELY HIGHER PRICES THAN THOSE WHICH HAVE LATELY PREVAILED, if greater attention were given to the grinding of such wheat, and special efforts made to find most advantageous markets for the products."

The chemical portion of the report by Prof. Shutt is mainly of interest to the general reader in the conclusions arrived at, which are as fol-

" In concluding the discussion on this part of the investigation, we may endeavor to briefly answer the questions: How far does the composition of the wheats, as revealed by chemistry, agree with the official grading? Can we predict from such wheat analyses the quantity or quality of flour to be obtained therefrom?

"We find a great similarity in composition between these wheats, especially among the higher members of the series, as regards all the more important constituents, i. e., those which affect the bread-making quality, and we should presurmise, therefore, that the grading has been based upon the relative yield of first quality flour (of which color is an important factor) rather than upon the essential differences in what might be termed the relative strengths of wheats.

"As regards quantity of flour, we have shown that in such a series the weight of the kernel and the weight per bushel, and to a minor degree, the fiber, indicate the relative flour yield. Our results in these determinations are in excellent accord, supporting the supposition that the grading of the wheats has been made primarly from the standpoint of yield of first-quality flour.

"The percentage of protein in the wheat undoubtedly is a measure of strength of the resultant flour, but if we except No. 2 Feed and No. 5 Frosted, we scarcely think it would be justifiable to use differences in protein content, such as we have met with between these wheats (frequently less than 25 per cent.), as a basis for the arrangement of the wheats in their order of merit. And the same holds true for the data regarding gluten and gliadin. It is highly significant, therefore, that the resultant flours were found so uniform in quality for breadmaking.'

The bulletin is a valuable contribution to knowledge, and is a piece of effective ammunition for the Grain-growers' Association. Experimentalist Chas. Saunders (son of Director Saunders) is to be congratulated on the lucid way in which he has placed the results of his work before the public.

Horses.

Feet and Floors.

In almost every respect the conditions of our country are suitable for horse-raising, but in one respect they are not. This is in connection with the effects of soil and climate upon the growth of hoof. Our climate is too dry, and our soil becomes so, too, for the production of broad heels and waxy horn. It is not that horses are naturally becoming more and more objects to be pampered, but we subject them to such unnatural treatment by standing them on dry, plank floors, or leave shoes on for too long, or restrict their range so that the feet cannot be worn down, and do many other things that prevents nature taking her course with the feet and general health of the We strongly incline to the opinion that we shall have to adopt floors that will not conduct so much moisture from the feet as do our plank floors, and we should make some attempt to soften the feet by soaking occasionally in dry weather, or by the use of solvent oil or ointment.

If one is observant he will have noticed that, invariably, the feet of Canadian-bred horses tend to become narrow and dry, resulting in a great prevalence of what is commonly called contracted feet, or, properly, navicular arthritis. The natural conditions being against the best development of the horse's foot, it follows that more care should be given to modify its growth. Beginning with the foal the first summer, its soles should be kept level, and the horn not allowed to grow out to great lengths. The breeders of Clydesdales in Scotland have succeeded in developing a remarkably good-footed horse out of a breed which a few years ago was not remarkable for wide, open hoofheads. There the care begins early the sole of the colt is kept level with the frog, and the latter is made to come in contact with the surface of the ground, as nature intended that it should. Then, in winter, instead of having a hard, dry, plank floor to stand on for five or six months, with a variation to hard, frozen ground or dry snow, such as we have here, they commonly have an earth floor in their stalls, or stalls paved with stone, and in such stalls the feet are prevented from becoming so dry as they do out here. In summer there is considerable rain that is conducive to the softening of the horn and its expansion. Added to this, the Old Countryman devotes considerable time to paring the hoof, so that the toes do not become too long, and that lowest grades will be determined by their utility the heels may carry their share of the weight.

Fitting and Mannering Horses for the Show-ring.

The following article has been written for the "Farmer's Advocate" by Mr. R. P. Stericker, who is himself a breeder of horses, and known all over the continent as a lighthorse judge at the leading exhibitions. A sequel to this article will be one on the Handling of Horses in the Ring.-Editor.

There is no question that a moderately good horse, well fitted, mannered and shown, will. before the average judge, come out ahead of a really first-class animal shown in plain, everyday condition, and lacking the requisite manners. would, therefore, seem to me of paramount importance that animals intended for "showing" should have both condition and manners.

A colt, say up to three years of age, will probably be shown on the line, and whether of draft, coach, saddle or roadster breeding, he should for at least two or three months before the show be fed liberally and be given a halfhour's exercise every day (Sunday, of course, excepted) in the manner in which he will be shown. If to halter simply, he must be taught to "lead up," or, in other words, not to lag behind his groom, for nothing looks worse than the horse hanging back when he should be right up and a little ahead of his leader, who should walk or run, as he may be required, on a level with the point of the horse's shoulder. In case a bridle is used, care should be taken that the colt is not afraid of the bit, which should not be of too severe a character. If the colt be of a naturally lazy disposition, the probabilities are that he will never make a high-class show horse, as nothing appeals more to any judge that a prompt, sprightly animal, that is always right up, willing and desirous of appearing at his best at all times when on exhibition. Some horses, even if of a sluggish disposition, can be greatly improved by good condition and judicious handling; it does no harm to such animals to have a man or a boy follow them with a whip when at their daily exercise, just to remind them it is necessary to keep where they belong, and that they must put their best foot forward, and show the best that is in them. Too often one hears in the show-ring "This colt has not been handled much." No colt should go to a show unless he has been handled, and I want to say that many a prize is lost for lack of a half-hour-per-day handling during the fitting period. I cannot too strongly impress this point upon your readers.

With regard to "conditioning," I could not lay down any hard-and-fast rules. Much depends. of course, on the kind of horse. If of the draft breeds, greater bulk of food should be given, if of the roadster or coaching type, less bulk and more dry feed. But whatever kind of horse is to be "fitted," it should not be turned out on pasture to fight flies and get sunburnt; a good roomy box-stall is the best place, with shaded windows so the flies don't bother. Then feed all the horse can reasonably eat three times a day, say of crushed oats and bran, with good clean hay twice a day, supplemented with a little fresh-cut grass or other green stuff once or twice daily; some feed milk, boiled feed, and condition powders. The two former I do not advocate, as there is danger of getting the digestive organs out of shape with both, and cons quently a predisposition to colic, partial paralysis, and in some cases even death. No harm can ensue if good condition powders be used judiciously, or, in place of them, a pint of raw linseed oil, with a little sweet spirits of nitre, once every two or three weeks, preceded by a bran mash the night before, thus keeping the digestive and other organs in good order. Good, liberal, regular feeding is what counts, and with ordinary common sense and observation it is not hard to put any animal into good condition, when, as a matter of course, the hair or coat will naturally become soft and glossy. I do not advocate a great deal of currying or brushing until within, say, two or three weeks of the show, then go at nim tooth and nail, and always rub the hair towards the tail.

I have indicated above that the colt should be handled for a half hour daily in the way he is to be shown, and should be encouraged in every way and not jerked round or whipped so he does not know what is required of him; a colt will soon learn if given the opportunity and his teacher be reasonably patient with him and not wish him to learn all at one lesson.

The continual handling every day is what is needed, and naturally makes manners. Of course, the horse should be taught to stand still when required, and show his paces properly when asked to do so. This is indispensable to successful

In case of roadsters, a colt over two years old would best be driven a half hour daily, or even longer, but never so long as to tire him out. Mature horses should be worked about twice as long as colts, but never long enough to take off the condition you are seeking to put on. All harness horses should be driven daily, made to stand still, back when asked to, and start prompt-The same general rules in feeding apply as