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HORTICULTURE VETERINARY, HOME CIRCLE.*

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Angus Mackay, Superintendent Experimental

better than it is. It gives satisfaction everywhere."

The ventilation of the scandal regarding the purchasing of army remounts for the motherland, which took place recently in the British House of Commons, may be productive of good to Canada. During the discussion, Secretary of War Broderick stated that 446,088 horses had been purchased, of which 77,101 came from the U. S., and 11,364 from Canada. It will at once be noticed that a small percentage of those horses came from Canada, and of that number only a few thousand came from Western Canada. Only a short time ago the "Advocate" chronicled the statement of Mr. J. D. McGregor, of Brandon, descriptive of the class of Montana stock he saw being purchased for the British army, mere cayuses at \$10 apiece, for which no veterinary examination was held. In marked contrast was the purchase and stringent examination of what few were bought by Col. Dent in the West. The European purchases seem to have been an opportunity for a rich dip into the British treasury, and, from information the writer has at first hand from a prominent Chicago veterinarian, the same has been the case to the south of us. That gentleman was offered the job of inspecting and passing a large number of these horses (of course, they were all to pass), but refused, as it was a job which savored strongly of crookedness. He had witnessed a large number of such horses passed some time before, and, while not expressing any sorrow, said "it was a fat thing for the contractors, and a big steal from the British Government!" The following letter in the Toronto Globe, of recent date, gets at the kernel of the matter with regard to the dilatoriness in purchasing army horses in Canada:

To the Editor of The Globe:—It is not altogether pleasant reading for Canadian farmers that the "English War Office is buying 10,000 horses in Prussia for use in South Africa." I see it is also stated that "American contractors for the War Office are purchasing remounts right along the British Columbia frontier in large numbers, while the British officers examine a great number of the same sort every day just ten miles further north, and now and then condescend to pick out one or two from a fairly large mob." I submit that other but equally fastidious gentlemen are perpetrating exactly that sort of folly in Ontario. Instead of taking what serviceable animals up to general specifications are offered to them in Toronto and elsewhere, they go on as if they were judging at a horse show, criticising a horse's ears or tail, saying his back is an inch too long for symmetry, or that he is calf-kneed or goes too wide behind. These and similar fanciful objections, which would make the Boers laugh, are the reasons for thousands more horses not being shipped from Ontario. Is it not about time to call a halt in this senseless mode of procedure? Should not the Minister of Agriculture for this Province, himself a good judge of what is wanted, make representations to the War Office, with a view to having all this tomfoolery stopped? A Canadian dealer, gifted with common sense, free of War Office red tape and of English fads and prejudices, could deliver in two months at the ship's side more horses than the English officers have bought in two years, even at as suitable for the service to be rendered by them, and in the aggregate quite as good home-bred stock. The difference of the two systems was illustrated when the horses for the contingent were

Many Westerners ate humble pie, and to little purpose, because it was duly impressed upon them by various officials that if the British purchasing officer was favorably impressed he might be induced to buy horses out West again and again. The annual ridding of the country of the type of horses termed army remounts—the misfits of horse-breeding—would certainly be a good thing.

Hon. Mr. Fisher could doubtless draw the attention of the British Government again, as he has managed to get them to buy large quantities of grain, flour and fodder, and the supply of horses of the army-remount type in the West is a large one, all statements to the contrary notwithstanding. As proof of this statement, 80 horses were picked up in the vicinity of Brandon in a few days for the last contingent.

Our failures, as well as our successes, have lessons for us if we will but learn from them. A noticeable feature about last year's crop in many localities, especially in the eastern part of Manitoba, was the extraordinary growth of rank soft straw, much of which was badly rusted and which lodged badly and did not produce the yield or quality of grain promised by the early prospects. While in many sections wheat was affected by this softness of straw, the oat crop was most seriously damaged, in some cases ruined. While late sowing and indifferent preparation of the soil had much to do with these conditions, we must look for other reasons. A noticeable fact is that on loose, mellow soil the straw was more rank and soft than on firmly packed soil or on the heavy clay spots.

To the Editor of "Farmer's Advocate"

Replying to your letter, will say that it would hardly be prudent for me to give off hand an explanation of the conditions to which you refer without knowing more details than you could well give in a letter. If your lands are exceptionally rich and there is a tendency to maintain generally an abundance of soil moisture for the crop, the loose condition as compared with the compact one would have the tendency to make the moisture go further and so result in the conditions that generally exist in a moist season which certainly is favorable to crop production tending to produce a larger amount of water and less grain. The retention of the grain in the soil from the time it begins to form to the growth period is more important than the development of a large percentage of wood in the crop.

Director of the Division of Soils, Department of
Agriculture, Washington, D. C.

Your interesting letter received. It presents to me, for the first time, information regarding the effect of rolling upon the growth of straw and yield of grain as existing in Manitoba and the Northwest Territories. This is evidently a very important question, and I should like, if possible, to be in possession of further facts respecting it before deciding as to the cause or causes of the phenomena you mention. As an interim opinion, I might say that the ranker growth of straw on the loose land is possibly due to a larger amount of soil moisture and its concomitant of nitrates. You will remember that our experiments at Brandon and Indian Head last year showed that the fallowed land contained much more moisture than that which was not fallowed. (See Report—of Farms for 1900, p. 154.) If this is the explanation, I should expect that the rolled land would give the better results when a dry season prevailed during the germination and early growth of grain, and that the loose soil would be more satisfactory when this period was excessively wet.

The ranker growth of straw and softer grain are no doubt the result of a too vigorous and too prolonged vegetative growth, brought about by the conjunction of a soil rich in nitrogen and an excessive amount of moisture, which latter may induce, if the showers be intermittent and the weather hot, a large production of nitrates. This would delay the maturing of the grain.

Rolling has the effect of "firming" or compacting the loose soil, and so rendering it more suitable for the germination of fine seeds. It, further, tends to increase the amount of water in the surface layer by setting up capillarity, which favors the drawing up of the moisture from below. This, it will be observed, does not mean any distinct gain in moisture to the soil, but merely a transference to the upper or surface layer from the deeper portions. A more rapid evaporation sets in after rolling, and, therefore, it has been recommended that a slight mulch be formed by lightly harrowing with a chain or brush harrow, thus preserving from loss the water drawn from below by compacting the surface soil.

(Sgd.) FRANK T. SHUTT.

I am not able to explain the reason why grain does not turn out as well on loose, unpacked soil as on firmer land. I have often thought the reason was on account of there being so much loose soil on top that when a dry, hot spell comes the heat and wind strike down to the roots and the grain does not fill. Loose soil induces rank growth and this induces rust when the weather favors it, which, of course, is against large yields. This year in this section some of the big yields have grown on loose fallows, but after the grain started to grow there was no check until ripe, and it filled perfectly, even when the growth of straw was extra rank. Some few fallows were lodged in places and rust injured the grain somewhat, but, except these, the grain was as good on loose soil as on well-packed. I have always been against two plowings for fallows, for the reason that it induces too rank growth, which is liable to be frozen, struck with rust, or some other drawback happen to it, in addition to bringing a lot of weed seeds to the surface ready for germination.

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The importance of a firm and deep-seated evidence of a need season to protect excessive growth of trout, with its consequent tendency to rot and lodge, and in a dry season to assist in the re-