I. J. (5705), he by Logan (521); she was purchased by Mr. Geo. Tempest, of Winnipeg. Another that fell to the choice of Dr. Wilson, of Morden, was Nellie Irvington, by Irvington (379), by Hamlet, dam by G. M. Patchen. This mare was bread in California, and is said to have beaten 30 several times. Mr. J. J. Johnson, of Winnipeg, picked out the beautiful two-year-old Brightness, by Egmont, dam Jennie Forest, by Fame, by Belmont, sire of Egmont, her second dam by Edwin Forest (49), third dam by Brown Dick. Another well worth noting is Ruth, a black, by Wildmont, dam Lady Mac (record 2.34), by Mambrino Reliance. Mr. Geo. Cochrane, of Morden, made choice of the colt Babkirk, by Wildmont, out of the dam of Egton 2.33¼, and York 2.30, by Flaxtail. The standard bay mare Lady Bullock is the dam of Frego 2.21, and so highly do her owners think of her that she is going south to be bread to Egmont. Another not for sale is the black mare Jennie Balfour, by Black Timoleon, he by Black Bird, dam Flora Belle 2.22. Jennie Balfour is the dam of Clear Grit, a six-year-old gelding with a pacing record of 2.29¼, trials in 2.15. They also retain, for their own use, Madelon, a grey mare, by Geo. Sprague, dam by Clay Pilot, second dam by Grey Eagle. Another handsome filly is Ethel, by Lemont, dam by Young Onward. In addition to the foregoing, at the time of the writer's visit, there were Nellie West, by Allie West 2.25, dam by Mambrino Chief (11). This mare has a trotter by her side by Wildmont. Lady Hunt, six-year-old, is by Lakeland's Abdella, full brother to Harold. Flaxey is a chestnut mare, by I. J., he by Logan, by Vermonter. Then there is Lady Stanton, a brown mare, by the standard stallion General Stanton, by Hamiltonian 10. We had almost omitted to mention the young stallion Escapade, rising two years old, sire Roslyn, record 2.20, by Robt. McGregor, dam by Geo. Sprague, sire of 10 in the list. Christie & Fares' importation also included a fine imported black Percheron stallion, eight years old, which has been sold to Messrs Ham & Weibe, of Gretna.

Mr. Arch. Macdonald, an experienced dealer, who has brought thousands of doliars worth of superior horses into the country, had in his stable, when visited, a grand lot of the heavy type. Mr. Macdonald, jr., is also a horse enthusiast — "a chip off the old block" — and gave a very promising Sharper colt a dance round the yard at the end of the halter. He has also a very fine mare by Little Billy 2.23¼, by famous Old Clear Grit, by imported Lapidist.

Mr. E. Casselman is a lover of a good horse, and has in his stable an entire colt, 16 months old, of superb style and action, which he has christened Wheeler, sire Felix Jr., by Revenue 2.22¼, by Smuggler 2.15¾, by Blanco. Revenue's dam was May Morning 2.30, by the great Daniel Lambert. Felix Jr.'s dam, Minnie R., had a record of 2.19¼ trotting, 2.16½ pacing and 2.03¾ pacing with a running mate. Her sire was J. C. Breckenridge.

Mr. E. Vance, another Emerson horseman, has still in the stud his Clydesdale stallion Triumph, referred to in a previous issue of the FARMER'S ADVOCATE, and with which Mr. Vance reports having had a good season last year. This horse is now ten years old, and weighs between 1900 and 2000 lbs.

The Dehorning Commission.

A commission consisting of Hon. Chas. Drury, Chairman; J. J. Kelso, Secretary; Richard Gibson; D. M. Macpherson; Andrew Smith, V. S., and Henry Glendenning, has been appointed by the Government of Ontario for the following purpose:—

"To obtain the fullest information in reference to the practice recently introduced into this province of dehorning cattle, and to make full enquiry and report with all reasonable speed into the reasons for and against the practice, as well by the examination of witnesses as by collecting whatever is accessible of the evidence which has been given by experts or others, in the trials which have taken place on the subject in England, Ireland and Scotland, and in this province, the judgment in the cases tried, and any other useful information from any quarter which may be in print or otherwise obtainable."

Methods of Hastening the Ripening of Wheat by Cultivation, and Modes of Preventing Injury by Frost.

[Read by D. F. Wilson before the Brandon Farmers' Institute.]

This subject is at present of greater importance to the farmers of Manitoba than any other agricultural problem, for the province is so largely devoted to wheat-growing. As the acerage under cultivation is now very large, the damage done by a single night's frost coming a few days before the wheat is fit to cut means a tremendous pecuniary loss to the country.

That there are means of mitigating this trouble there is no doubt but in the course of a few years the subject will be much more thoroughly understood than at present. The solid seed-bed which, during dry seasons, was found so necessary in order to grow a good crop will be found to be one of the first principles to be observed in the early ripening of wheat. The use of the drill in sowing, when used on a solid seed-bed, will also tend to advance the wheat, as it places the seed in a position favorable to germination. I do not say that drilling will always have this effect, but there are some seasons that it will be a decided advantage. Thick sowing will also very materially hasten the ripening of grain, as it gives the plants less room to stool, and the roots have then fewer stalks to bring to maturity. As to the quantity of seed per acre, all depends on the soil; the more fertile it is the more seed it will require. In order to understand how different methods of cultivation will affect the ripening of wheat, it is necessary to see how these methods affect the soil chemically, for the principal reason for cultivating land is to put it in such a mechanical condition that the chemical changes requsite for plant growth may be uninterrupted. We can, I believe, by the way in which we work the land, so control the supply of that most important of plant food constituents (nitorgen) as to ripen wheat easier than by the ordinary way, the main object to be observed being always to sow wheat on an exceedingly firm and compact seed-bed. The same condition is necessary to grow a good crop in a dry season when the wheat is seldom or never frozen; and as this appears to be somewhat contradictory, I will endeavor to explain why this condition of soil is favorable in both cases. Wheat, as well as other plants, take up nitrogen in the form of nitrates (principally nitric acid), and in order that the nitrogen be changed into nitric acid heat, air and moisture are required. Now, in a dry season, owing to the lack of rain, there is not sufficient moisture to cause this change to go on quickly enough to supply the crop, but by having the soil compact moisture is absorbed from the subsoil, which partially takes the place of rain, for though in a dry season we may grow a fair crop we do not expect as heavy a one as in a more favorable year. In seasons in which we get plenty of rain nitrification goes on very fast, especially where the soil is loose, for the air is admitted and there is plenty of heat and moisture. The crops, therefore, grow rank and strong and are liable to be frozen. In this case, having the soil good and solid the air is excluded to a certain extent, and this checks nitrification and tends to make the crop lighter, but quickens the ripening. It is the superabundance of nitrates in the soil in seasons favorable to growth that is the principal cause of frozen wheat. We hear light sandy soils spoken of as "quick land", and wheat on such land is seldom frozen. This soil, as a rule, contains but little humus, and consequently is not rich in nitrogen. Manitoba, on the whole, is rich in humus, which is a great source of wealth. Farmers will do well in many cases to preserve as much as in them lies the nitrogen which it contains. The excess or partial lack of any one constituent of plant food will always affect the crop in some way, so that if in rich alluvial soils we check nitrification we grow a more perfect crop, so to speak, though the yield would probably be less, that is supposing the land which contained an excess of nitrates had time to ripen its crop before frost came. Therefore, if we would by means of cultivation ripen our wheat a few days earlier we must do so at the cost of a few bushels per acre, but this in many cases would be an immense gain.

In order to get the solid seed bed a systematic plan may be adopted, which I think will have the desired effect. Beginning with the summerfallow; it should be ploughed early and repeatedly harrowed to keep down weeds and pack the soil. There seems to be a difficulty here, for one of the main objects of the summerfallow is to lay up a store of nitrates to come into use the following season, consequently we often see very rich summerfallows slow in ripening their crops; but this is, I think, partially counteracted by quicker growth early in the spring. When the grain is getting nicely above ground that on summerfallow generally looks much better, and is farther advanced than that on other land, and as farmers generally sow the fallows first it is attributed to its being earlier, but I think very often the real reason is that it gets the benefit of the soluable nitrogen which was stored there the previous year, while the crop on other land does not get a sufficient quantity, weather being to cold at that time of the year for the necessary chemical change. By this means the crop on the summerfallow is hurried along early in the season, though it will be slower in ripening than other land.

The next spring this land if clean (and it should be clean) may be sown with the drill without ploughing, there being sufficient soluable nitrogen in the soil to grow a good crop, but not enough to make it slow in ripening.

We now have a perfect seed-bed, thoroughly compact, and containing all that is necessary to grow a good and early ripening crop. Should it not be convenient to summerfallow the land again the next year it may, in some soils, be advisable to again sow it without ploughing, but as a rule it should be ploughed in the fall, and thoroughly harrowed to help it to settle, when the freezing and thawing and the melting of the snow will so compact it that it will make a very fair seed-bed in the spring.

I do not say that this system should be followed in all cases, for different land requires different treatment, but I believe that this plan would be suitable for a large portion of the province. This packing of the soil brings up the question of rolling. There are cases in which the use of the roller is advisable, but in compacting the seed-bed the ordinary roller has very little effect; it is but a surface worker, the common iron harrow, which will pulverize and shake the soil together, is probably the best implement for this purpose, but the harrowing should be done the previous season. It is possible that exceedingly heavy rollers would have the desired effect, but these must be used at a great expenditure of horse flesh.

The proposed use of fertilizers containing large percentages of phosphate of lime will, I believe, become general. Warington says, in speaking of superphophate. "Its use tends to early maturity in the crop;" and James Gregory, speaking of fertilizers says: "They ripen crops earlier, and so practically prolong the season, making the raising of some varieties possible, where before their use they could not wisely be raised." I believe that by the use of superphosphates we will not only be able to hasten the ripening of wheat, but we can also grow heavier crops, for as phosphoric acid is probably present in the soil of Manitoba in less quantities than are the other elements of plant-food, and it is when the constituents are all in sufficient quantities that the best crops are grown, so that the cost of buying will in all probability be more than compensated for by the increased yield, as well as getting the advantage of reducing the risk from frost. Should these bone fertilizers on trial accomplish what is expected of them, it is to be deplored that so much raw material in the shape of buffalo bones has been shipped out of the country. It would have been much better to bring in sulphuric acid and manufacture the fertilizer here, than to sell the bones at a small price and then pay a high figure for the manufactured article.

(TO BE CONTINUED.)