

result of tests for three years. In a test of 35 varieties of wheat, sown in small plots on the same day—May 3—red fife ripened two days earlier than white fife, and yielded the same. Ladoga, several varieties of cross bred wheats from the Central experimental farm, and gehun, the latter an Indian variety, ripened in 108 days, which was the shortest time in maturing. The last named wheat also gave the largest yield—37½ bushels per acre, and weighed 6½ pounds to the bushel. As to the quantity of seed per acre, 1½ bushels gave the best return in a test made with red fife wheat, though 1½ bushels of seed per acre gave practically the same yield, and one bushel of seed per acre returned only one bushel less crop, while 1½ bushels per acre gave 2½ bushels less than the best yield. In a test of red fife with various drills, the press drill ripened two days earlier than the common drill, and gave two bushels more per acre. Fall plowing as in previous years, gave the poorest results, spring plowing making a much better showing. Wheat sown on stubble with a press drill, without plowing, gave a much better yield than the fall plowing, but not quite as good as the spring plowing. Summer fallow gave a much better return than any of the other modes of cultivation. The smut test as usual proved an unqualified success, a plot of affected seed, showing 251 smutty heads, and gave only 24 bushels per acre, while the same seed, when treated with blue stone, gave 34½ bushels per acre, and only 8 smutty heads.

Barley was sown usually at the rate of two bushels per acre, and matured on an average of 95 days. The straw was heavy ranging from 3 to 4½ feet. Odessa six rowed gave the best yield, going about 50 bushels per acre, but four of the two rowed varieties went over 50 bushels per acre, these being Kniver chevalier, Danish chevalier, Thanet and duckbill, yielding in the order named, the largest yield being 54½ bushels per acre.

Forty varieties of oats were tested. The banner gave the largest yield,—one hundred bushels per acre, from a small plot, but in some other tests other varieties gave better returns. In the large field plots welcome came first with 78½ bushels per acre, prize cluster second with 77½ bushels, and banner third with 67 bushels per acre. Prize cluster matured ten days earlier, but in most tests gave a smaller yield than the banner. The earliest sowings gave the best results. In one test of forty varieties, sown in small plots, the winter gray and welcome varieties were the earliest to ripen, maturing in 92 days. The largest yield was the winter gray, with 82½ bushels per acre, welcome 78½, cluster 64, bonanza 66, American beauty 78, the other varieties yielding from 50 to 77 bushels per acre. Fall plowing only gave 36 bushels per acre, spring plowing 66 bushels, fallow 78 bushels, and drill without plowing 62 bushels per acre. The press drill gave 100 bushels of banner oats, common drill 86 bushels, and broadcast sowing 75½ bushels, the drill sowing ripening 6 to 7 days earlier than the broadcast machine. Two bushels of seed per acre gave 98 bushels, 2½ bushels of seed gave 89½ bushels of oats, and 2½ bushels of seed gave 80 bushels per acre.

Two and a half up to nearly four tons of dry fodder were obtained per acre from mixed grains, cut for hay. Promus Inermis has proved the best grass so far cultivated, as it stands the winter well, yields the best, and makes an early start in the spring. Flax did not make a profitable yield.

With apple trees no success has been attained, the winter proving too severe for them. A few dwarf Russian apples have survived. Grabs have also been winter killed. Many thousands of forest trees have been set out, consisting largely of trees grown from seed on the farm.

WINNIPEG INDUSTRIAL EXHIBITION.

The fourth annual exhibition of the Winnipeg Industrial association will be held this year from July 23 to July 28 inclusive. Prizes amounting to \$15,000 will be offered, many of the individual prizes being for large sums, so that liberal inducements are offered to draw out exhibits. A large portion of the prizes are offered for products of the soil, such as grains, roots, etc., and also for live stock, poultry, dairy products, etc. The exhibition will therefore be largely one representing the agricultural resources of the country, though other departments are not neglected.

The railway companies have again accorded very generous treatment to the association, by offering the same very favorable rates to visitors and exhibitors that were given the three previous exhibitions. All exhibits sent from any railway point in Manitoba and the Territories will be carried by the railway companies absolutely free of all charges, both to and from the exhibition, provided the ownership has not changed in the meantime. From points east of Manitoba, exhibits will be carried at the ordinary tariff rates, but will be returned free if ownership has not changed. Very liberal passenger rates will also be given those visiting the city during exhibition week, the rates offered for the return trip being less than the single fare rate one way. These very favorable terms from the railway companies will go a long way towards assuring the success of the exhibition. The low passenger rates would bring a large number of visitors to the city even without the attraction of the exhibition, while the free carriage of exhibits removes the principal objection which would otherwise be in the way of reaching exhibits from a distance.

One of the features of the Winnipeg Industrial, in addition to the ordinary exhibition, is the programme of sports, amusements and attractions provided. These include military parades, drill competition of uniformed societies, children's drill, military sports, horse, dog and bicycle races, Caledonian sports, band competition, polo tournament, tug of war, fireworks, musical concerts, etc. The programme of attractions is not complete, and a number of features are still being arranged for.

The success which has attended the Winnipeg Industrial since the organization of the association, is sufficient to warrant the success of the fair this year. The association is in much better position this year to provide comfortable accommodation for visitors and exhibitors, and also provide a more attractive programme.

The buildings and ground conveniences have been increased each year, and the difficulties which had to be met with at the outset have been largely overcome. Visitors who were here on previous occasions, will find many improvements this year. The association has been actively at work since it was first organized, and constant in making every effort to establish this fair on a grand scale. Bailing and other improvements are yet to be added, before the association will be satisfied with its facilities and accommodations for the great exhibition which will be held here annually. Everything, however, cannot be accomplished in a day, and those who visit the exhibition this year will be gratified at the progress made in the short life of the association. Western Canada has the material for providing a first class annual exhibition, and the Winnipeg Industrial will do its share of the work in providing for this annual event.

Those abroad who contemplate visiting Manitoba this season, should make a note of the exhibition dates, and endeavor to be in Winnipeg at that time. The exhibition will afford an opportunity of viewing the resources of the province, such as can only be seen once a year. While visitors will gain much knowledge by viewing different parts of the country, they will at the exhibition have a special opportunity of learning of the resources of the country, such as could only be learned at great time in the ordinary way of making trips through the country.

DEEPENING THE CANALS.

The question of enlarging the St. Lawrence canal is assuming a position of importance in the East. A mass meeting of business men was held at Toronto recently to consider the question of urging on the Dominion government the advisability of deepening the canal. Resolutions were passed favoring the project. The original resolution favored deepening the canal to twenty feet, but as the government is now engaged in deepening some of them to fourteen feet, the meeting instead urged hastening of the work and ultimate deepening to twenty feet. A committee, composed of a score of prominent business men, was appointed to arrange for an international convention to consider the question of deepening waterways common to Canada and the United States.

The deepening of the St. Lawrence canal to twenty feet is a big contract for Canada to undertake alone, in view of the enormous cost of the proposed undertaking. Large portions of the United States would be equally benefitted with Canada in the completion of the great work. The St. Lawrence is the natural commercial highway for the country on each side of the boundary. The deepening of the canal is even of greater importance to the northern states than to Canada, viewed from the standpoint of the much larger quantity of products for export from these states. The theory of an international plan for the further development of the great commercial highway has therefore been advanced. This looks plausible enough in theory, but how to put it in practice is a difficult question. The United States would

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