

Experimental Farm Work.

Superintendent Bedford of the experimental farm at Brandon, Man., spoke recently at an institute meeting at Brandon. The following summary of his remarks was published by the Brandon Times.

For the illustration of his talk Mr. Bedford had three large cases of preserved grasses on exhibition and also large photo scenes from the Experimental Farm which were passed around for inspection as proof of what may be done on a Manitoba farm.

In speaking of their experiments with barley over at the farm, Mr. Bedford said that Odessa and French Chevalier barley had gone 4 bushels to the acre, but with smutty barley the results were not so good. Baxter barley for instance, which was soaked in sulphur showed two smutty heads out of a hundred, soaked in bluestone it showed four and not treated at all it showed 10.

In experimenting with peas he found in 1895 that the Carleton peas went 22 lbs. to the bushel, the Kent 61, the Prince 60, the Mackay 60 and the Pride 50, though the Pride came out the best last year. Peas, he said are an easy thing to cross fertilize. All of the above varieties are hybrids obtained by saking the pollen from one flower over the other. They should be sown early on a stiff and clean soil, preferably on the edge of a pond of water as it dries. The smaller and medium varieties do best in Manitoba and are profitable at a yield of from 40 to 50 bushels to the acre.

With regard to roots they had found it expeditious to plant year after on the same soil. The advantage came through the time saved in killing off the weeds. When the land became clear the crops also thrive better. When they began raising potatoes they got 250 bushels to the acre, but last year they raised 600. They began with 500 bushels of turnips per acre but last year had 1,000. Their process is to plow in the fall, plowing deeper and deeper every year, to then harrow and roll the plot. In the spring it is harrowed again and every year manured ten tons to the acre. Of Mangolds they had raised 1050 bushels to the acre last year and 1,050 of the sugar beet, American variety. The early green carrot has given 921 bushels to the acre. Referring again to potatoes in response to an enquiry he said they were planted in every third furrow, harrowed when an inch or two above the ground and hilled with a cultivator after that.

Grasses.—For these of course the best season is a wet one. The most successful grass he had found was the Austrian Brome, of which the cattle are most fond and which has a larger amount of leaf than most other varieties. It is an early and late grass coming ten days before the others and staying till the snow flies. It has also a rich after math which is not the least thing in its favor. Of native grasses they had experimented with the bearded bald and Virginia ryes and found them all more fruitful than timothy. Timothy goes from 1 to 1½ tons to the acre for a year or so then yields only half a ton, while the native grasses give about four tons. He had found it wise not to sow the grass seed with grain. Out of a hundred cases in which two were planted so, 98 thrived well and the two were small and sickly. Their nourishment had been absorbed by the growing grain. Of the Brome grass he said they were distributing free, one pound samples from the farm which would seed about one-tenth of an acre.

Trees.—Concerning trees and their culture Mr. Bedford spoke at some length, and more especially to the teachers. He said the first requisite was a good fence. They would not send out any more samples to schools which had no fence around them, as the government was not raising trees for cows to scratch their backs on. In addition to the adorn-

ment of the school the tree planting would be a useful object lesson to the children. For hedges the trees should be transplanted two or three feet apart. The tops being cut off every year with a sickle makes them throw out suckers in the ground, so that in seven years a symmetrical hedge from twelve to fifteen feet in height could be obtained. This hedge about the school would make an excellent snow break. These spruce trees originally sown as seeds should be transplanted from seven to ten feet inside the fence to keep the cattle from browsing on the branches. The only care they need is with a hoe to keep the weeds down. The weeds are so many spouts for evaporation and must be killed and then nature in the stirred up soil will do the rest.

For avenue trees the Ash Leaf Maple is superior to the native White Elm of Manitoba which is one of the finest trees in the world for the purpose. They may be found down at the iron bridge. They are less susceptible to insects than others, grow fast and are very hardy. They should be set out at least 20 feet apart and not as in town here, 10 or 12 feet as the roots grow easily to 25 or 30 feet.

When the fence and the hedge and the avenue have been attended to there comes the place for ornamentation trees which might be in front of the school. For this the Manitoba White Spruce is a fine tree and better than the Norway spruce. Care must be taken in transplanting it from the edge of the slough to take up considerable earth with the roots. If the earth falls away from the roots the tree will be n.g. In planting it dig deeper than it was originally, put surface soil in the bottom of the hole and pack it firmly because if the blowing wind shake the soil from the roots the tree will die. A lone tree should be taken and not one from a clump. Of the one hundred spruce trees moved to the shady side of the hill on the farm, ninety-seven are thriving. On a strong soil the spruce improves much in color. It is a fine ornament and a rapid growth. Only a little pruning should be done to avenue trees. Russian poplar must not be pruned at all. Black poplar is fragrant after a rain, but it needs moisture, so the ground about it must be well cultivated. Lilacs have been imported from the east but they blossom so early as to be caught by the frosts. The Josephia is a better plant because later in blooming. The flowering locust has a pea shaped yellow blossom and thrives in Siberia. It is grown from seeds and whether as an ornamental bush or a hedge is beautiful in its wreath of blossoms.

Propagation and culture.—The soft varieties may be propagated by cutting off a slip eight inches long and planting it deep, to the last bud in fact, and then keeping it clear of weeds. If propagating from seeds, the maple seeds must be kept dry all winter but the red haw, for instance, must be kept moist so as to lose its outer coat. Another way of propagation, say of poplars, is to bury a branch in the soil when roots will come from the buds. Gooseberries and currants are propagated in that way. From a single bush planted in this way 150 sprouts might be got in the spring.

Plums may be improved by grafting, that is cutting off a slip of a better variety and shaping the edge like a wedge and fitting it into a notch on a branch of the tree, the wound being sealed air tight with wax. The fruit will partake of the nature of the graft not of the tree. It will answer equally as well to graft the buds into one another at the right time. Plum trees might be easily improved in this way. The Manitoba wild plum is the earliest in the world. The sand cherry is the only cherry that can be crossed with a plum tree in this way.

Distribution.—The effort is in this line to grow seeds as perfect as possible and then to seed them out for the farmers to try. One pound package of seedlings are being sent free on application, but cuttings are sent by express, collect. As much as \$25 in a day is being paid for postage on these things.

Flowers are either annual or perennial. The perennial flowers are second year flowers as a rule and are easy to join. Late varieties are no use. The ground should be kept free of weeds and in planting, judge the depth by the size of the seed. If small it should just be pressed into the soil, but if the size is of a pea bury it an inch deep, annuals may be planted in a cigar box, in space about two or three inches apart, and transferred to the garden not earlier than May 21st. Five or six varieties are being distributed at the farm. The perennials should be planted in July and transplanted the following spring, when they will remain in blossom for several years. Of these the best at the penny and sweet William. Sweet William or pansy should be covered in winter, not with hay or manure but with tree branches. The tulip is gorgeous and early and may be had from a bulb planted in the fall. The larkspur grows on the farm to a height of five feet, from a tiny seed and is covered with blue blossoms.

To get flowers out of season, pinch the buds when they come out first, and the growth will be retarded.

Stock on the Ranges.

General Superintendent Whyte has returned to Winnipeg from a tour of the Canadian Pacific railway lines west. While in the Territories he made inquiries and observations as to the condition of the live stock on the ranches. Early in the winter, during November, there were heavy snowfalls, which threatened to be serious for the ranchers, but later chinook winds melted away the snow, and since about the first of December the cattle have fared well and are now in excellent condition. The weather lately has been all that could be desired, and if it continues any way favorable. Mr. Whyte was informed that the number of stock for shipment this season will be fully 50 per cent in excess of last year.

Government in the Territories

At a recent meeting of the council of Calgary, the following motion was passed.

That in the opinion of this council it is desirable that some change should be made in the form of government now in force in that part of Western Canada, lying between the provinces of Manitoba and British Columbia and known as the Northwest Territories of Canada, and a readjustment of the boundaries should also be made.

And we believe that the material interest and prosperity of the said districts would be best promoted and the multiplication of governments avoided by adding that portion of Assiniboia lying between the province of Manitoba and the 3rd meridian, to Manitoba, and erecting the remainder of Assiniboia, Alberta and Saskatchewan into one governmental district, with provincial powers.

Bluestone is very firm and advancing in price.

The London auction sale of wool closed on February 10. Cables say that, compared with opening rates, the best merino and crossbred wools closed 5 per cent higher, with other descriptions unchanged.