

would be trees in part of the muskegs which would keep the sun from it, and it was only where the fires had had a chance to work in on the edge of the muskegs and make a start on the moss that they had been burned out.

Mr. Lawrence stated that he would say that about one-tenth of the district to the north is covered with moss. To the south of Grand Prairie through to the district some distance to the northwest of Edmonton, towards the Sturgeon lake, there is a large proportion covered with moss, and Dr. Dawson may have intended to refer particularly to that district. Witness had been over the district between Fort Vermilion and Lesser Slave lake very thoroughly, and could speak from personal observation. To the south side of Fort Vermilion and to the west there is a tract of fertile country, varying in width from 100 miles down to 35 or 40 miles, and it is in this part that one-tenth is covered with muskeg.

The heads of wheat at Fort Vermilion often would grow to the length of six inches, and at times he had counted 65 kernels in one head of wheat. That head would be taken just out of an ordinary field. That only goes to show how by selection and careful cultivation you give a soil a chance to show what it can do. He did not mean that that would be an average for a field, but he knew he often had found such heads.

#### FALL WHEAT AND SPRING WHEAT.

There is one thing which had been found to be a great drawback to the Peace river district, and that was the spring drought. There is not sufficient rainfall every spring to start the grain as it should be started and have it growing in a few days. Sometimes wheat planted in the late spring will remain in the ground for days before it will germinate, or if it germinates and starts to grow, it will barely hold its own for some time, even until the latter part of May when the spring rains commence, and then you can fairly hear it grow. That could be avoided by better cultivation and earlier sowing. Sometimes the wheat which only started with the spring rains in the latter part of May would grow very fast and very rank, and oftentimes would not ripen before the frost would come, on account of having started too late. Owing to the occasional dry springs causing these troubles, he decided to try experiments in fall wheat, and at the first experiment he carried out he grew a small quantity of 'Golden Chaff,' but not understanding the conditions under which fall wheat should be raised, he did not make it a great success. Not that it was a complete failure, but he did not get very large returns, although he gathered off the field heads of the wheat fully matured, large and plump, ripe on July 18. Since then the provincial government is giving some assistance in getting seed into that country, and this year the witness has forty busels of fall wheat under experiment, and he has 50 bushels more ready for experiment next year, so that he expects in the course of a few years to have something more to say about the fall wheat in the Peace river district. He thinks the fall wheat will do better in the northern part of Alberta than in the southern, because once the snow comes it remains all winter, and the fact of the spring being very warm and dry would push the fall wheat right along, and it would probably be up six or seven inches in height, before the spring wheat would be up above the ground.

Apparently there has not been much winter killing, but the first experiment only has been carried out, and the witness could not tell from one experiment what the yield would be. But the fact that the fall wheat did live through the winter and matured early was sufficient assurance that it would be successful if the experiments were carried out properly.

As to spring wheat, it has been matured and cut 86 days from date of seeding. Last season (summer, 1906) wheat cutting would have commenced in the last of July, but two days of rain delayed the starting of binders. In wet seasons wheat ripens about August 20. The Red Fife tried last year gave as good returns as the Ladoga wheat and was cut at the same date. This had also been sown on the same date and on the same kind of soil as the other wheat.