

if you have a mind to do it everywhere, and it has been found by those who have been there for years that they seem to die out in some way once in seven years.

*By the Chairman :*

Q. What is the cause of that? A. It seems to be a disease. I have seen some that had a kind of swelling about the throat. That is the only way it can be accounted for on reasonable grounds I think.

Q. You have spoken of the timber north of Prince Albert and within the region of this enquiry. How far north of Prince Albert do people bring sawlogs down?

A. They have not got them far out yet, because it has not been necessary.

Q. How far out could they cut them? A. They could cut them I fancy 20 miles out. There are two creeks that they float them down, Red Deer Creek (but that is a very common name and does not convey anything) and Sturgeon Creek. Logs have also been cut since the settlement was first made on some islands in the river—Gunn's Island, Badger Island, and others.

Q. You were speaking of the frost, and you said, if I remember right, that you had frost sometimes as early as the 17th of August? A. Yes; that is the earliest I have observed personally.

Q. You have mentioned also that wheat was often put in on the 17th of April?

A. Yes.

Q. That would be 94 days between the placing of the seed in the ground and the first frost? A. Yes.

Q. Do you know any variety of wheat that will ripen within that period? A. In dry years, such as we have had—take 1886 as the most recent—it did ripen within that time—the Red Fife.

Q. Have you made any experiments with the Russian wheat that the Government have been distributing through the Experimental Farm? A. No. I have had samples of Ladoga wheat sent me this spring to experiment with.

Q. What is the period necessary for the growth of this wheat? A. They claim that it ripens 10 to 14 days earlier than Red Fife.

Q. In that case, if it were true that wheat sown on the 17th April would be ripe that many days earlier, it would be in no possible danger from early frosts?

A. No; that is all that is wanted.

Q. What is the effect of frost upon the agriculture of the region—I mean by that the deep penetration of the frost, whether it affects the growth of plants, to your knowledge, or whether instead of that it is an assistance to their growth in years of drought? We want that from you as a practical farmer? A. Do you refer to the growth of cultivated plants?

Q. I do? A. The only grain that is really damaged by frost seems to be wheat, and in certain years there is no doubt whatever that it has been more or less damaged by frost.

Q. I mean the winter frost; what effect has the deep penetration of that upon the growth of wheat? A. We think beneficial. The theory is—and I fancy we have seen it in practice—that the ground being quickly frozen, and as I explained in the early part of this examination we sow on the frost, ploughing our land in the fall, we can harrow it much sooner than we can plough in the spring and get the seed in, and the gradual thawing of the frost supplies moisture to the plant, and by the time that is exhausted in the natural course of things we expect to have rains, and generally speaking we have them in the spring. There is a unanimous belief that this deep frost is an advantage to grain growing.

Q. In coming out of the ground, has it the effect of breaking up the soil? A. It never heaves at all.

Q. I mean does it pulverise the soil in coming out? A. It has no noticeable effect on ploughed ground at all. Very often we have this chinook or south wind blowing and it leaves without creating a flush or a flood. It leaves a slippery coat on the surface, and very soon after the snow disappears, and the ground is harrowed very easily.

Q. Have you seen the effect of the chinook winds as far west as Prince Albert?

A. Yes; it is very marked.