

and under such circumstances that we realize the truth of the poets words :—

"The world needs men, a time like this demands.  
Strong minds, true hearts, pure faith and ready hands;  
Men whom the lusts of office does not fill;  
Men whom the bribes of office cannot buy;  
Men who possess opinions and a will;  
Men who have honor, men who will not lie;  
Men who can stand before a demagogue,  
And damn his treacherous flatteries without blinking.  
Tall men seen crowned, who live above the fog,  
In public duty, and in private thinking."

With such men as these in our council chambers and legislative and parliamentary halls, backed up by a free, fearless and independent press, the avowed champion, exponent and reflector of public opinion, with the courts of our country presided over by judges, honest, honorable and conscientious, lies the only hope of the farmer in getting justice and having his rights respected. The fight may be long and bitter, but to use the words of an American writer on this question, "Sooner or later it will feel the heavy hand of the people laid upon it, and when that time comes it will come with a power not to be withstood. There will be no trace of the monopoly left."

#### Fall Wheat Failure and the Best Means to Remedy it.

BY THOS. ELMES, PRINCETON, ONT.

Perhaps never in the annals of our country has this subject been of such vital importance as at the present. Spring wheat has been such an uncertain crop the past few years that it has almost been abandoned by the Ontario farmer, and fall wheat has during the same period fallen far short of an average crop, until this season it seems to have reached the climax, for reports of serious damage to this important cereal have reached us from all parts of the Province, and the loss to the country will, no doubt, be many millions. Owing to the remarkably dry weather during seeding time last fall the plants attained but little growth of either top or root, and entered the winter in a very weak state, but the latter was very favorable to them, and had the spring opened warm and growing, no doubt we would have had an abundant crop, but the trying weather in April and the early part of May proved too much for the already weak plants, and gave such unfavorable results that many are crying out, "Let us forsake wheat raising altogether." This will never do. Wheat has been, and always will be, we hope, a most important source of our country's wealth, and, although the shadow hangs over this cereal at present, let us not be discouraged and fold our arms, but let us arise like men, and remove every obstacle, and use every means to remedy our misfortunes and mistakes of the past.

Discard the thought that the time will ever come when any part of our fair and fruitful country will be obliged to buy their bread. There are many things, it is true, over which we have no control, but there are a vast number of others which we can master and with them extensively counteract other evil effects. We propose to point out a few of the best means we can employ to ensure success.

First, what can we do in the preparation of the soil? There is no other crop that suffers so severely on fields requiring drainage as fall wheat. The injurious effects are felt alike in fall, winter and spring. But underdrainage is not sufficient, the land requires surface drainage as well; water furrows must be made to carry off immediately the water of winter and early spring, when it is impossible for the underdrains to act on account of the frozen state of the ground, and the water would therefore remain until it

had done permanent injury to the wheat. The land should be ridged, say five to eight yards wide, so as to rapidly convey the water to the water-furrows. Of course it is thoroughly understood that the soil should receive an ample supply of barnyard manure and cultivation sufficient to clean it of all grasses or noxious weeds. Unfortunately in doing this we get our land too fine, which has an injurious effect on the wintering of wheat, as it is apt to run together, become hard and smooth and kill the plants. This may be remedied to a great extent by passing the roller over the land after the last plowing, directly after a good shower, not of course when the land is too wet. Then after it has dried put on the cultivator, and the trouble of the running together of the soil will be obviated to a great extent. I think the experience of the past few seasons proves that we generally sow too late, for the plants do not attain that strength necessary to pass through the trying ordeal that lies before them. The early part of September is better than the middle, although this may vary a little in different localities.

Now I shall make a statement that no doubt will be questioned by some, but after careful observation and experiments, I am convinced of its truthfulness. It is that a vast amount of our best fall wheat land is being ruined by salt. Land suited more particularly for wheat is also well adapted for barley, which, in order to grow a good, bright, heavy sample, is heavily salted. The oat and turnip crops also receive heavy dressings of salt. This is continued year after year until the soil is full of salt, the direct enemy of fall wheat and its best friend, clover. The effect of salt is to attract dampness and cool the soil; hence, soil that has been heavily salted for years when sown to wheat is almost sure to be a failure, because salt makes the ground too cold and clammy for the young plants in fall, and materially increases the intensity of the cold during the winter. Then when the snow disappears, ground that has been salted will draw dampness and thaw four times as deep as that without salt, and this occurring daily forms a slime on the surface, the soil runs together and much of the wheat perishes. Then again, when the first early growing days of spring come, when the plants require all the soil as warm as possible, the salt keeps it several degrees colder than it otherwise would be, and has, therefore, an evil effect on both wheat and clover.

But I must leave this question and pass on. We can do much to regulate the temperature of early spring (for our wheat) by draining the swamps and low lying lands surrounding our wheat fields. There is a rapid evaporation going on during the day from shallow water or wet lands, which, when night comes on, chills the atmosphere and descends in frost upon the tender plants endeavoring to spring into life. Later in the season this is also a fruitful source of rust, which so often devastates our fields.

The sooner we consider fall wheat a crop that requires special care and cultivation, and indeed perhaps a nursed crop, the better for ourselves and our country.

In my next article I will give the results of my experiments with fall wheat, as well as the results of new varieties sent out by others and myself into nearly every county in Ontario, as I am daily receiving reports from leading farmers who have tested them this season in their different localities, and by this means we hope to arrive at which are the best, hardiest and safest varieties to sow in the future to give us better results.

#### Regularity of Hours for Farm Work.

BY J. LAIDLAW.

(A competitor in the Farm Drainage Essays.)

In these days, when we so often hear of the members of Trade Unions and other labor organizations demanding shorter hours and increased pay per hour, intelligent and thinking farmers are led to ask themselves the question, "How do the wages and hours of work for farm hands correspond with those of the laboring classes in towns and cities?" And the answer comes almost intuitively: Lower wages and longer hours. And yet we have often heard of men who had been engaged in work in towns and cities, but have left it to engage in the country, where first-class farm hands say that in spite of the lower wages they can save more money in the country, where there is less temptation to spend it, than in the city. Receiving their wages every two or three weeks, they never seemed to have enough at any one time to lay it away and consequently it is spent, whereas in the country they generally get it in a "lump sum" at the end of the term, and are more apt to invest it judiciously. There is no doubt that the average farm hands are worked too long hours to take that interest in their work which it deserves. The answer given by the boy when asked about the number of hours he worked daily is perhaps in the mind of many, viz: "That they worked sixteen hours a day and did chores the rest of the time." This may be somewhat overdrawn, but it contains more truth than poetry. It is unfortunate that it should be so, as well as an injustice and a wrong to those affected by it. Have the young men in the country no talents of such a nature as to require a little time to read and study in order to develop them properly? No pleasures which they wish to enjoy, or friends with whom they may wish to meet for a little innocent amusement and recreation? Certainly they have, but all are not at liberty at such an hour to have a little time at their disposal to carry out their desires, and the means of instruction and study are not always as available as in the towns and cities. Those who have had these advantages in their early years are in nine cases out of ten the most advanced and intelligent farmers in the country, are a credit to their profession, as well as being able to take a place in the legislative and deliberative bodies in the country, to go out as the accredited representative of their fellow farmers and fellow citizens, and by their business ability, common sense and judgement, uphold their rights and obtain justice in the cause which they represent. I do not mean to say that it is impossible to be successful without the benefits of a good education, but other things being equal it is a decided advantage. In fact we have many cases of such men who have been more than ordinarily successful, have amassed a large amount of money and have been able and capable public men. But these exceptions only prove the rule; and when we consider and compare what these men have done, and what they might have done under other and more favorable conditions, viz., a more liberal education, which would have developed their reasoning and observing powers, and enabled them to compare the different branches or systems of farming in which they were engaged, with a view to drop those not so favorable and profitable, and turn their whole energy to those best suited to their local con-