

display of the industrial products of this section of the Province. As there is still, however, some uncertainty in regard to these events, that is both as to the time of the Prince's visit, and the additional Government aid, the preparation of the Prize List for the Exhibition has been delayed till some more definite information should be obtained, so that the amounts of the premiums and the days for holding the show could be fixed to meet the circumstances. The Prize List therefore will not appear this season quite so early as usual—about the first of June, but as soon as possible afterwards. In any event the amount offered in prizes will not be less than it has been for the two years past, viz: the very handsome sum of nearly \$12,000; and with this ample encouragement before them, farmers and mechanics cannot commence too early to take every pains in bringing the products of their skill to perfection, and doing all in their power to contribute to render the Upper Canada Provincial Exhibition of 1860 a worthy representation of the resources of the country.

WHEAT CULTURE AND DRAINAGE.

We find an article in the London (England) "Gardeners' Chronicle and Agricultural Gazette," for a copy of which we have to thank Mr. Hutton, Secretary of the Bureau of Agriculture, upon "The limit of Wheat Culture in Scotland," accompanied with a table, showing the mean temperature for the months of June, July, and August, during the years 1857, 1858, and 1859, with the height above the sea level, at places in Scotland within, on the borders of, and beyond the wheat region. The table shows that an elevation of two or three degrees of mean summer temperature is sufficient to constitute the difference between a region that will not produce wheat and one where it can be grown profitably. We need not insert the table, however, but the article itself has a practical value, as illustrating the effect of

thorough drainage in elevating the temperature of the soil, and even of the climate itself. We have no lack of warmth in the air in any part of Upper Canada during the three summer months, for the maturing of wheat, the mean temperature ranging probably from 5 to 10 degrees above the averages given in the table; but in many places, owing to an excess of moisture, it is late in the season before the soil has attained its proportionate degree of heat. Could we therefore, by draining, increase the heat of the soil in the months of April and May, so that spring crops could be safely sown early, and fall wheat commence to make root vigorously, so as to get quickly beyond the danger of heaving out by the night frosts, and come into ear too early for the operations of the midge, we should be greatly the gainers. The following is an abridgement of the article referred to; it is written by James Stark, M. D., F.R.S.E., &c.:

The object of all scientific investigations is to reduce them to some practical end; and as we know the influence which temperature exerts on the flowering of plants and in the ripening of their seeds, the extensive meteorological observations made in different parts of the country, if turned to their proper use, ought to throw much light on the subject. At present I purpose to offer a few remarks on the bearing of some of these observations on the limits of Wheat culture in Scotland.

In the cultivation of the cereal crops it is of little or no consequence what the temperature or severity of the weather may be during six months of the year, whether the ground during that period be bound up with hard frosts and covered with ice and snow, or whether it be saturated with rain and enjoy a moderate temperature rarely below the freezing point. Hence it happens that though many parts of the United States and all Canada have their soils bound up with hard frosts, ice, and snow for five or six months every year, as good or better Wheat is raised there as in Britain, where the winter is usually so open that the plough is rarely interrupted above a week or two continuously. For a country like Scotland, situated just on the very verge or limit of the Wheat region, it is of very great importance to ascertain what that degree of temperature is which will