

THE

# Canadian Agriculturist,

OR

JOURNAL AND TRANSACTIONS OF THE BOARD OF AGRICULTURE  
OF UPPER CANADA.

Vol. XIII.

TORONTO, JULY 16, 1861.

No. 14.

## On the Growth of Red Clover.

Clover, with Timothy, will, in all probability, continue to constitute in Canada, the principal material for soiling cattle or for the making of hay. These two grasses therefore are of the greatest importance in our system of agriculture, and whatever throws light on their improved culture, must be regarded with special interest by our farmers generally. In the older countries of Europe it is a common complaint that clover is deteriorating, both as to quantity and quality; and such soils are said to be *clover*. The only effectual remedy is to extend the rotation of cropping, or to bring clover in less frequently, say at intervals of five or six years, instead of three or four, and to apply artificial manures specially suited to the wants of the plant. In this country we do not hear of a complaint of this nature, still in some parts of the older settled districts, the clover crop appears of late years to have been under the average; and some change of culture is evidently required. In most cases deeper ploughing with longer intervals between the occurrence of the same crop, would unquestionably be found of great benefit. A deeper tilth would have the advantage of fixing the plant more firmly in the soil, and consequently making it less liable to be thrown out by spring frosts; the greatest injury, perhaps, to which the clover is subjected in this climate.

Dr. Voelcker, Chemist to the Royal Agricultural Society of England, made a few years since a number of very accurate and original experiments on the growth of Red Clover; and from the details of the results, as published in the society's journal, we condense the following for the consideration of our readers.

"We are far from asserting" (remarks the Professor) "that there is evidence enough to show that the failure of clover, when grown too frequently on the same land, is altogether due to the want of a sufficient supply of certain organic compounds in the soil. At the same time, we think that the facts of agricultural and horticultural practice, as well as the evidence of direct experiment, must lead to the conclusion, that the view that the organic compounds of the soil are only valuable to plants as a source of carbonic acid, requires modification. It is, indeed, probable, that some plants derive a considerable amount of their substance from carbonic compounds other than carbonic acid, and that others depend for their carbon mainly, if not exclusively, upon carbonic acid."

Such crops as, in the course of cultivation, are subjected to pretty natural conditions of growth, and which accumulate the greater portion of their substance during the period at which the sun's rays are known to be most powerful in influencing the decomposition of carbonic acid by plants, appear to depend chiefly on that source for their carbon. Those, on the