

Plaster—Some Facts About its Use.

The value of plaster as a fertilizer is very often asked. What service will it be to the crop, if any? To what crops should it be applied? What quantity per acre should be used?—are questions of frequent occurrence.

In some instances an application of plaster has been given and no benefit to the crops have been perceived. The consequence has been those who used it have doubted if it were at any time advantageous. But any fertilizer may betimes be inoperative. In order to be really beneficial two conditions are requisite, first, that the soil needs that fertilizer, and second that the plaster be in due time dissolved in the soil, and so made available for plant-food. Plaster is of great benefit to several crops when applied as a top-dressing. It has been found of essential service to clover, corn and wheat and others. If applied at the commencement the crop cannot, however, reap any benefit from it. It remains undissolved in the ground. It should therefore be applied early in the spring in time for the spring rains—say early in April—earlier if convenient—to growing crops. To some it must of course be applied much later. The quantity of plaster applied, varies greatly. An English writer, a high authority in agricultural matters, gives the quantity at from ten to twenty cwt., while an American writer states that one tenth that quantity is as much as the plant can absorb. If this be correct still the application of the larger so far from being a waste, may serve to improve the soil, if not permanently, at least for some succeeding crops. Canadian farmers might, we are convinced, make more liberal use of our Canadian fertilizers—plaster, phosphate and salt, and do so with profit to themselves.

We give the following about its use:—

An Indiana farmer states that he had "one hundred acres of stiff clay, which was in an exhausted state from continued cropping of wheat, exhaustive power of weeds, and by being plowed when wet during a period of twenty years. He kept it in grass, clover and wheat, adding a little manure and applying gypsum annually until a crop of thirty-five bushels of wheat to the acre was the result." He also says:—"Plastered clover, plowed under, as a green crop, is the best and cheapest preparation for wheat; and the clover roots, where plaster was used, penetrated the sub-soil to a depth of three feet or more."

Another farmer writes from southern Illinois as follows:—"I find gypsum a profitable investment, and regard it as one of the best aids, in conjunction with growing clover, to restore old and worn out lands that we have. I sow a barrel of it, about three hundred pounds to the acre, as early in the spring as possible. The cost, delivered here, is about \$3 a barrel. Before beginning to use gypsum, the yield of corn was twenty-five bushels to the acre. It is now over sixty. I let my land lie in clover three years. I cut the first crop of the second year's growth for hay when in blossom, and the second crop later in the season for clover seed. The third season I pasture the field,

and break it up after harvest and sow in wheat. Each season the field receives its regular amount of gypsum in the spring."

A Wisconsin farmer states that he sowed one and a half bushels of gypsum per acre on a field as late as the 20th of May, and increased the yield fully three times what it was on an adjoining field, the circumstances being similar. Where he applied a heaping tablespoonful of gypsum to corn in the hill, the spot where it was applied could be seen in a crop of wheat which followed.

Review and Prospect of Canadian Agriculture.

The state of exhaustion to which large territories throughout North America have been reduced by the scourging culture of a few years has been the subject of general observation. The land of New England especially has been exhausted of those elements of fertility that had amply rewarded the labours of those who tilled the virgin soil, and parts of our own fair Dominion have been for some time falling into the same impoverished condition. There are, however, means to restore

farm from the wilderness and ample returns of corn pay him yearly for his simple labours; from the seemingly exhaustless bosom the earth gives back abundant harvests, but at length a change appears creeping slowly and gradually over the smiling landscape, the corn is first less beautiful, then less abundant at last it appears to die altogether, he forsakes therefore his long cultivated farm and hews out another from the native forests, but the same early plenty is followed by the same vexatious disasters, the axe levels its yearly prey and generation after generation proceeds in the same direction a wall of green forests before them a half desert and naked region behind. Such is the history of Colonial culture in our own speech such is the vegetable history of the march of European cultivation over the continent of America. No matter what the geological origin of the soil may be, or what is the chemical composition, the same inevitable fate overtakes it." It is interesting to look at those parts of America which lie further towards the north, the flat lands which skirt the lower St. Lawrence and which near Montreal stretches into wide plains, these were celebrated as the granary of America in the time of the French Dominion. Fertile in wheat for many years, they yielded a large surplus for exportation

now they grow less of this grain than is required for their own consumption, the oat and the potatoe have taken the place of wheat as the staples of lower Canadian culture. The wheat producing zone is yearly shifting itself more completely towards the West. The correctness of these views is afforded by the returns of the United States census of 1850, the produce of wheat in the New England States in 1840 amounted to 2,014,000 bushels and in 1850 was reduced to 1,078,000 bushels. Now mark what the increase knowledge of the chemical science has done, the improver takes the place of the exhauster and follows his footsteps on the same altered land, over forsaken tracks he spreads large application of shelly marl or strews on it thinner sowings of gypsum and as if by magic the yield of previous years is doubled or quadrupled, the wheat comes up luxuriantly again and midge, the rust, etc., all disappears from his wheat and his peaches. Though long mismanagement has in a minor sense desolated large portions of North East-

ern America a new fringe of verdant fields has already begun to follow towards the West, the fast retiring green belt of the virgin forest. Treat the soil more skilfully, give due weight to its geological origin the condition of climate by which it is affected and its chemical history with a full appreciation of the late wonderful discoveries of the phosphate mines and the whole region will in time be brought back to more than its original productivity.

The Apiary.

Bees require special attention at the present time, see that they have plenty of food; do not depend on the first blossoms that appear. If the weather is cold and wet, very little honey can be found, sometimes none. Continue feeding the bees until you are quite sure they can get honey. At this season you should be particular to kill all bugs and worms, that you may find about your hives.

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PASSING A TREE WITHOUT STOPPING THE KNIVES OR TEAM.

the fertility of our farms. The stores of fertilizers beneath the surface of the soil are now being rapidly brought from their hiding places in the earth and applied to our lands. The following remarks on this subject, by the Hon. L. R. Church, presented to agriculturists very forcibly the past and possible future of our agricultures:—

After referring to the successful efforts attending the exportation of meat, butter &c., to England, he goes on to remark that such continuous stretches of phosphate bearing rocks and such vast and apparently inexhaustible deposits of mineral phosphate of lime will in no far distant time restore those lands in Canada, now in a measure, exhausted by unwise and unsystematic farming, and he would in confirmation give extracts from a work published in England by a well-known scientific gentleman Mr. J. F. W. Johnston, which will merit the attention of all interested in agricultural pursuits. "Man," he states, lands in a new country and fertility surrounds him, the herbage waves thick and high, and massive trees raise their proud stems off to the sky, he clears a