

Over Production.

Gloss over our financial position as we may, we must confess that there are hard times in Canada. As a class farmers stand safer than any others, though they too feel the pressure. Grain crops have yielded fair, and wheat has had a good market at paying prices; but when manufacturers and traders are found to practice the most rigid economy in order to meet their liabilities, many articles of farm produce are inevitably in less demand in the home market, and the producer has a lighter purse than he would if mechanics and all of the industrial classes were employed full time and at fair wages. When farmers have been forced to carry back from the market unsold good carcasses of beef, they may well say as we have heard them: "There is too much meat in the market, and in the country, for the demand; people do not buy as they did in other years." The demand for butcher's meat has, on the whole, been very dull this season, notwithstanding the shipments to Europe. Foreign demand cannot compensate for the want of a good home market; and a good home market we cannot have unless we give due encouragement to manufacturers. Our farmers are well aware that the best customers—they that purchase most largely in the farmer's market, are the families of mechanics; and the oft repeated cry of over-production is only an empty sound. It is not over-production, but the crowding of our markets and stores with goods of woolen, wooden, iron, and every other material made not here by Canadian workmen, but beyond our borders, that forces the mechanics who are begging for work, and who would be the best customers for our meat, cheese, butter, and other products of our farms, to stand idle around our street corners, idle because we are so unpatriotic as to defer giving any encouragement to capitalists that would willingly give employment to those who so much need it. Workingmen must now make their purchases, not as hard workingmen need for their due sustenance, but in accordance with their scanty uncertain earnings.

A Minister of Agriculture.

We Canadians are apt to think very highly of ourselves and sometimes indulge in a little self-glorification boasting of our energy and perseverance in labours as being without any equal among other people. Let us just cast a glance at what the head of the Bureau of Agriculture in Kentucky is doing in his office. It may be a stimulus to us Canadians. Example is better than precept.

The Commissioner of Agriculture of the State of Kentucky has organized a corps of special correspondents in the different counties of the State who gratuitously furnish him each month valuable reports of the acreage and conditions of various State crops, and the horticultural status of their respective counties, and the most interesting statistical information regarding the live stock and industrial interests of the county. From these reports of correspondents he has compiled and publishes each month in the papers of the State a considerable amount of acreage and condition of the staple crops, gardens, orchards, and vineyards with the numbers and condition of live stock in the various sections of the State, giving formulas for fertilizing land, and the result of experiments with them.

The Commissioner has prepared in accordance with the requirements of the law, "a general account of the Agricultural, Commercial and Mineral Resources of Kentucky," which together with a most excellent map of Kentucky was extensively distributed through the Northern and Western States, and in Europe, as a means of inducing immigration to Kentucky, from other states, and from Europe.

He has also in press his work entitled "Kentucky: its Resources and Present Condition," which contains the agricultural, horticultural, mechanical, commercial, and educational condition of every county in the State.

All this work is done at very little expense, but it is now recommended by the Governor that the Commissioner be allowed one clerk to assist him in his numerous duties.

The Best Time and Method of Applying Lime to Land.

Lime has been said to be improperly classed as a fertilizer, not really adding any fertility to the soil. Whether this theory be correct or not, there can be no doubt of the increased productiveness that has been found in almost every instance in which it has been used to increase the productiveness of the soil. The least that can be said in its favour is that it renders available inert plant-food that would were it not for the application of lime remain in the land dormant, as it had long lain. This chemical action is very beneficial. Not only is it necessary that the elements of fertility be in the soil; these elements must be in such a state as to be available for the growth and maturity of plants in their every stage. Lime also enters, more or less, into the composition of all plants, more especially wheat and clover, and for the successful cultivation of these, more than for other plants, it is necessary that there be lime in the soil, either as a natural ingredient, or applied as a fertilizer. Lime has been sometimes said to impoverish the soil. It is a powerful stimulant, and under its influence the soil yields up for the maintenance of plant-growth more food than it would were there no application of it. This is what the fertility of soil is good for, and the benefit expected from every stimulant. A large produce at once instead of a much less produce, slowly yielding year after year. Lime is most beneficial on strong clay and rich low lands; it has no effect on wet undrained soils, but on no other lands is its effect greater and more marked than such land when drained. The nutritive properties that were almost wholly inoperative in consequence of the pent-up poisonous water are at once purged of there sour qualities so injurious to plant life and by the chemical action of lime transformed into wholesome plant-food. Lime should be applied to the surface, as its tendency is to sink in the soil, and if buried deep it in short time gets beyond the reach of the roots of young plants. Our mode of application was to spread it on the surface from the cart with a shovel, evenly, at the time of sowing the seed and harrow it in with the seed. We applied it to each division of the farm every seven year, fresh slacked from the limekilns, thirty lime barrels, or about sixty bushels to the acre. We never mixed it with barn-yard manure as it would set free the ammonia, one of the most valuable constituents of the manure. In composts of muck, earth from headlands &c., we always mixed lime liberally.

Canadian Fertilizers.

The great resources of Canada as an agricultural country can scarcely be said to be fully appreciated by the most progressive and far-seeing of her people. The virgin soil has given to its toilers abundant reward for their labours, and they felt little care for what the future of the agriculture of the country might be. Even farm-yard manure was little thought of; but now in the older settled districts the fertility of a virgin soil is almost unknown; and now that there is a progressive improvement in agriculture the need of fertilizers other than farm-yard manure begins to be felt.

We doubt if any other country has greater

wealth of fertilizers than Canada. Lime, one of the important materials in improved farming, is abundant in large tracts of the Dominion, and will yet be found as valuable in agriculture here as it has been in Britain. Musselmud, a very superior fertilizer, is used in parts of the Maritime provinces. Nova Scotia is well-known not only in the Dominion, but also in the United States for her stores of gypsum; and the deposits of phosphates in Ontario and Quebec are very large. They are now being extensively mined over a wide district in the Lower Provinces. There is no longer any doubt of the existence of very rich and extensive deposits near Buckingham of phosphate of lime. Their existence has been proved, by the labour of a few miners, and of such quality and in such a large quantity that there must be a large profit in the mining. A writer in the *Montreal Witness* says:—"Scientific analysis has proved that in quality it surpasses probably anything of the kind in the world. No better can be found because it contains as high a percentage as that mineral can contain, being found in as nearly a pure state as it can exist, so that no higher grade need be looked for. As to quantity I cannot speak with the same certainty but the indications are such as to warrant the hope that phosphate mining may be prosecuted with advantage for a century to come." The Phosphate is largely exported to the United States and England, where the shippers get ready sale for it at from \$28 to \$32 per ton in its raw state, and when manufactured into superphosphate it is sold at \$50 and upwards. There is unlimited demand, but the Canadian demand for it is quite insignificant. It produces more immediate satisfactory results in climates moister than ours. Still there can be no doubts of its being remunerative here when properly applied, and that for more than the first year after its application. Land should be dry either naturally or artificially to receive the full benefits of superphosphate; and to a careless, unimproving farmer it will not bring profit. The change for the better must first be in his own ways.

Emigration to the Colonies.

Strange events and still stranger opinions are every day brought to light. From every point of the compass supplies of food have been arriving in English ports. From European Continent the fertile plains of India, the New Transatlantic world, and the more recently colonized Australia breadstuffs have been pouring into Britain, the mart of the world. All have been required for that busy hive of industry. And now we are told of millions of acres of land uncultivated in Britain, that may be brought into cultivation, and yield much of the supplies of food that are at present imported from foreign countries. The London correspondent of the *Glasgow Herald* says that an association is being formed to stop the tide of emigration to the colonies—not on the ground that the colonies are over-populated, but because there is more land in Britain than there are hands to cultivate, and thirty millions of acres not at present under cultivation. A large proportion of these millions of acres we may presume are woodland, fen and mountain, still much of it, if not all, may be reclaimed and brought into a high state of cultivation. The movement, however, cannot much effect our farming prospects. The improved land cannot supply the ever-increasing demand for meat and breadstuffs for the increasing population of the Island empire, and, as long as there is land in the colonies or elsewhere to be had for the clearing, emigration will not cease. A better home market than we have at present we will have in the course of time, and the demand for our surplus must continue.