

CHARACTERISTICS AND WANTS OF CANADIAN AGRICULTURE.

While the general rules that govern agriculture are the same all the world over, every country has a husbandry peculiar to itself. Its character becomes moulded and fixed by the force of circumstances. There is a certain adaptation about it, and in the study of that adaptation, the secret of success is to be found.

Perhaps the most conspicuous and striking feature of Canadian farming is to be found in the newness of the country which forms its field of operation. So far as the date of its creation is concerned, Canada is as old as Palestine, but it was all primeval forest until a comparatively recent period. In many localities, that ubiquitous personage, "the oldest inhabitant" remembers when the first tree was felled, and the light of day let into the original wilderness. At that time, there was neither sphere nor scope for skilled husbandry, and high farming.

The all-absorbing thought with the hardy pioneer was to make a clearing. "A man was famous according as he had lifted up axes on the thick trees." There was wholesale and indiscriminate slaughter of the woods and forests. Trees were looked upon as the farmer's natural enemies, to be exterminated as unsparingly as the wolves and bears that found lairs in their shade. Hence the older sections of the country have been cleared to bareness, so that the landscape, in many localities, has a naked look. Fields and farmsteads are without shelter. Timber has become scarce for fencing, building and mechanical uses. Climatic changes unfriendly to agriculture have been thus induced. There can be little reason to doubt that the rain-fall has been lessened, and that our now almost chronic summer droughts have been largely caused by a too thorough removal of the trees. The country has been laid open to the sweep of fierce winds. Fall wheat, our choicest product, can hardly be raised now in districts where once it was the chief pride and main dependence of the farmer. If belts of sheltering timber had been left, this crop could be grown without difficulty or uncertainty. Had farm-yards been kept embowered with trees, the average temperature in winter would have been several degrees warmer, the comfort of stock greater, the consumption of food less, and the profit of farming higher. The pioneers were a hardy and industrious race.

"How bowed the woods beneath their sturdy stroke!" But they were sadly unscientific and improvident. This is not to be wondered at in view of the fact that most of them knew nothing of either theoretic or practical agriculture. They came to a new home and a new occupation, having everything to learn in the stern and costly school of experience.

Beneath the shade of the now obsolete forest, the early settlers found a virgin soil of astonishing fertility. Its humus was the accumulation of ages. Not only had majestic trees been reared by the rich leaf-mould, but it held a store of wealth for the coming farmer. That store of wealth should have been regarded as capital on which to trade in perpetuity. Instead of this, it was used as spending money, and lavishly squandered. Most of our farmers have run a spendthrift career. They have cropped and cropped again, with the most exhaustive products, neglecting to return to the land by timely manuring, the wealth annually abstracted by abundant harvests. Dire necessity had something to do with this. With their farms to pay for, their families to keep, their stock, tools, and implements to buy, it was not so surprising that they drew upon the virgin soil to the utmost extent possible. But ignorance, as well as necessity, prompted their course of procedure. A better knowledge of scientific agriculture would have dictated smaller clearings, better tillage, more attention to stock raising, and the application of manure while the land was yet in good heart. It is a well authenticated fact, that barns were moved by some of the early settlers because accumulated mountains of manure obstructed access to them! Surely the force of ignorance could no farther go when it had reached this absurd length!

A process of restoration is now the great want of Canadian agriculture; restoration of tree growths, and restoration of lost fertility. The highways ought to be avenueed with trees; groves planted around farm-steadiings; and the fields belted with rows of evergreens. Experienced horticulturists well understand the value and importance of shelter. Farms need it, equally with gardens. What is farming but gardening on a large scale, and what is gardening but farming in miniature? The accomplished gardener has recourse to close board fences, evergreen hedges, and even stone walls, to protect the tender growths that are his care; and farmers must adopt similar precautions. There is no lack of trees close at hand both for shade and shelter. For shade, there are the maple, elm, linden, oak, hickory, walnut and many more that must be named to make out a full catalogue. For shelter, there are the cedar, hemlock, and spruce. In all the northern parts of Canada, the White Spruce (*abies alba*) abounds, and there is no finer evergreen in the known world than this. It is not only the peer, but the superior of the far-famed Norway Spruce. Under the lee of a towering wall of verdure, that defies alike the scorching heat of summer, and the arctic cold of winter, in "this Canada of ours," fall wheat will escape the "winter killing" which is now its bane, choice orchards will endure our trying vicissitudes of climate unscathed, and tender growths will flourish that are impossible of culture under present circumstances.

Restoration of lost fertility is another urgent want of Canadian agriculture. A system to which the late Baron Liebig, severely but correctly, gave the name of "spoliation" has been pursued to well-nigh its uttermost limit. As a natural result of it, the impression is widely prevalent that farming does not pay. Alas for "our bleeding country" if this be so! Agriculture must be the basis of our national prosperity, if we are to have any. Unless we can make farming pay, the country will drift into bankruptcy without help or hope. The old system of improvident, exhaustive tillage, that is ever drawing on the resources of the soil, without paying anything back, will not pay. It is like drawing cheques incessantly on a bank account, without making any cash deposits; the result, "no funds." Stock-raising and cattle feeding must be gone into more extensively. "No stock, no manure; no manure, no crops." The opening which now presents for the shipment of our fat cattle and sheep to Britain, and their sale at paying prices there, is most opportune in view of our agricultural condition. There need be no fear of over-production, with such a market accessible. In some

districts where a too exclusive course of grain growing was formerly pursued, the farmers have taken to root culture and stock raising with the best results. In others, grass-growing and dairying are working a welcome change for the better. What is needed is that the whole country should awake to the imperative necessity of recuperating the soil. Better farming is loudly demanded.

If there is to be better farming, there must be better farmers. Those who till the soil must become educated, not in a general way alone, but in the specialties of their vocation. Farming is a business, and men require to be educated and qualified for it just as for every other business. The idea that anybody can farm, is no more sensible than the kindred ideas that anybody can make a horse-shoe, build a house, do cabinet work, prescribe for the sick, conduct a law case, or preach a sermon. There is a widespread prejudice against book-farming and scientific agriculture, which cannot be too soon thrown to the winds. "The coming man" will be a reading man in every walk of life, agriculture not excepted. There is no lack of books and periodicals now, treating on every department of the farmer's calling. It is a pleasing sign of the times that every respectable journal designed for general circulation, devotes a portion of its space to matters of rural economy. There is no excuse for ignorance now, whatever there may have been half a century ago. Even if a farmer's early education has been but scant, there is abundant help for him in the teeming issues of the press. "Read and you will know" is an unfailing talisman. Let him study and master the principles of his noble calling; let him emulate the example of the most successful tillers of the soil; let him farm with brain as well as muscle, and he will achieve results of which he little dreams at present.

He will make two blades of grass grow where only one grew before, and take rank among the benefactors of his race. He will prove himself a true patriot, and be held in grateful remembrance, when thousands of blatant politicians are deservedly forgotten.

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THE PRODIGAL SON, OR THE STORY OF AN INTELLECTUAL WANDERING.

The second of four Sermons preached in Zion Church, Montreal, by the Rev. Alfred J. Bray.

II.

ST. LUKE XIV. 11-32.

We come to-night to the time of the young man's wandering. We saw last week what sort of a mind was in him. A bold, daring, restless mind it was, a mind that would not be content to move in the old ways, and embrace an old power of faith without knowing the why and the wherefore of it. That spirit of enquiry will soon manifest itself in actual wanderings. You cannot keep it at home, it will rebel, it will rise up in defiance if driven to it. And you must not imagine that these are just the vagrant minds, the worst and lowest, deserving only your pity or scorn. They are of the highest order, they are the most generous and true. It is often love of truth that compels them to break away from the creed of their church or their home. They are driven to wander by the lofty desire to find a larger and a truer faith, a more correct interpretation of God's character and dealings with the world. Massillon, the great French preacher, in a magnificent sermon on the subject of "Religious Doubts," describes all wandering from faith as the direct outcome of sensuality. He says that men persuade themselves into doubts upon religion, and coin false creeds for the sake of killing their conscience or excusing their profligacy. I take leave to question that. It may happen now and then. A rule of universal application it is not. I believe the implication is very limited, of course some wander very jauntily away. It is not unusual to see youths smiling at their father's creed, to hear them mocking at old and venerable forms of faith and interpretations of law, youths who are just as destitute of all knowledge of the subject as they are of all modesty. They read some weekly periodical, weekly, in more than one way of spelling and qualifying a noun, but think themselves most wondrous wise. I always feel toward them as I do toward small boys that I see smoking in the street, the only argument I want to use is a stout cane. But the many of those who wander are impelled by a fierce hunger and thirst after truth, they long to have some better thing in calm possession. If constrained to move in the narrow rounds of the elder brother's ways, life would become intolerable. This younger son, if I have read his nature right, found no pleasure in gathering his portion of goods together. "Not many days after," says the parable; well there were days intervening, and I can imagine that they were days of agony to him. He would wish he could settle down and be at peace: he would wish he could for ever thrust doubt and questioning from his mind. He looks upon the calm face of his brother, and wonders why he too may not be content. But he cannot, he is drawn, he is driven, voices are calling him night and day, and at last, with a heart well nigh broken, he says "it must be," and gathers his goods together and takes his journey into a far country. "And there spent his money in riotous living," says the parable. But the parable only indicates certain stages, it only gives a bare outline. Only a comma here divides the journey and the riot. But what does that comma represent: how much of struggle, of searching, of anguish of soul? No man goes at a bound from obedience to license, from faith to falsehood. It comes to him gradually, he drifts into it almost unconsciously. From the departure to the riot is a long journey and many experiences must be passed through on the way; speaking from personal experience and observation, what are they?

The first stage of that journey lands him among the Theologians, and he gets his first experience there. He finds first of all among them some great general truths of religion, broad and deep principles that have life in them. And he claps his hands for joy, he has found his Canaan and without them. They tell him of God, the one creator and governor of the world, and the Allprovider. They teach him the doctrine of the soul's immortality, and the certainty of retribution. They teach him the moral obligation binding upon every man and all men to obey the law of God. They teach him that there is a connexion between man and God, whereby man receives inspiration and guidance and blessing. Also, and springing from that, a connexion between man and man, making it a duty on the part of one to love another, of all to love each, and of each to love all. Also that man being a sinner, not by his birth, but by his conscious act, God has found out a ransom for him. All that he learns, and in all that he can