

Technical and Bibliographic Notes / Notes techniques et bibliographiques

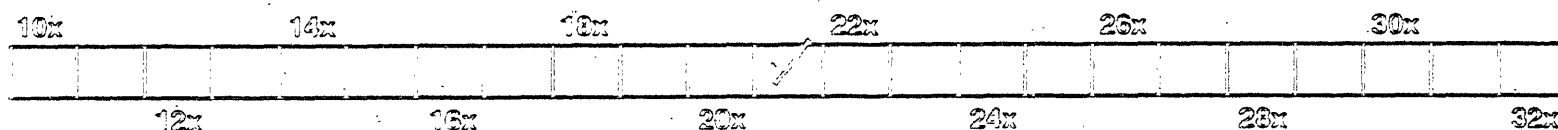
The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- Coloured covers / Couverture de couleur
- Covers damaged / Couverture endommagée
- Covers restored and/or laminated / Couverture restaurée et/ou pelliculée
- Cover title missing / Le titre de couverture manque
- Coloured maps / Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black) / Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations / Planches et/ou illustrations en couleur
- Bound with other material / Relié avec d'autres documents
- Only edition available / Seule édition disponible
- Tight binding may cause shadows or distortion along interior margin / La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure.
- Blank leaves added during restorations may appear within the text. Whenever possible, these have been omitted from filming / Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.
- Additional comments / Various pagings. Commentaires supplémentaires:

- Coloured pages / Pages de couleur
- Pages damaged / Pages endommagées
- Pages restored and/or laminated / Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed / Pages décolorées, tachetées ou piquées
- Pages detached / Pages détachées
- Showthrough / Transparence
- Quality of print varies / Qualité inégale de l'impression
- Includes supplementary material / Comprend du matériel supplémentaire
- Pages wholly or partially obscured by errata slips, tissues, etc., have been refilmed to ensure the best possible image / Les pages totalement ou partiellement obscurcies par un feuillet d'errata, une pelure, etc., ont été filmées à nouveau de façon à obtenir la meilleure image possible.
- Opposing pages with varying colouration or discolourations are filmed twice to ensure the best possible image / Les pages s'opposant ayant des colorations variables ou des décolorations sont filmées deux fois afin d'obtenir la meilleure image possible.

This item is filmed at a reduction ratio checked below /
Ce document est filmé au taux de réduction indiqué ci-dessous.



REPORT

OF THE

SPECIAL COMMITTEE

ON THE

STATE OF AGRICULTURE

IN

LOWER CANADA.

Printed by Order of the Legislative Assembly.



Toronto :

PRINTED BY ROLLO CAMPBELL,
SIMCOE STREET.

1850.

REPORT
ON THE
STATE OF AGRICULTURE
IN
LOWER CANADA.

[Translation.]

LEGISLATIVE ASSEMBLY,
Thursday, 8th August, 1850.

The Special Committee appointed to inquire into the State of Agriculture in Lower Canada; the means of improving it and of facilitating the settlement of the Waste Lands, have the honour to Report, as follows:—

Your Committee have to observe that the means which they had at their disposal in accomplishing the first part of their task, were necessarily very much limited from the total absence of statistics of a recent nature, and that they have relied upon the opinion of persons whose assistance they have availed themselves of in their labour, and whose letters are annexed to this Report; these Documents, Your Committee beg leave to submit to the serious consideration of Your Honorable House.

Your Committee have given to the subject referred to them, that earnest attention which its im-

portance deserves ; and, in the performance of their duty, have not for a moment lost sight of the fact, that the soil holds the first place among the natural riches conferred upon a people, and that of all the arts, that which has for its object the cultivation of the soil, is the most worthy of occupying the attention of Economists and Legislators.

Your Committee observe with a degree of satisfaction, in which Your Honorable House and the country will participate, that the inquiries they have felt bound to institute, have enabled them to say that Agriculture has made great progress during late years, and that all classes of society, and especially the educated, have turned their attention to this important science. The time has gone by when the educated youth were satisfied with merely admiring the noble examples of the great men in different ages who gave their attention to Agriculture, and confined themselves to such barren admiration. The impetus has been given—apathy has disappeared—yet another effort, and the cause will go forward without assistance, and with that onward tendency which the preceding movement has lent to the ideas and actions of men.

A few years ago, Your Committee would have been at a loss to find a sufficient number of persons to assist them in their investigations. Now, however, on consulting the organs of the press, Your Committee experience a different kind of embarrassment—the difficulty of selection. Among the great number of persons whose zeal in the cause of Agriculture is of public notoriety, it became the business of Your Committee rather to endeavour to limit the number of their applications, than to make selections ; it being necessary to avoid rendering too voluminous the documents to be examined, and which are attached to the present Report as an Appendix.

Your Committee, in the first place, were required to examine into the present state of Agriculture in

Lower Canada, and will now proceed to enter into that difficult part of their investigations.

The state of advancement of Agriculture among a people may, in a greater or less degree, be inferred from the comforts which they enjoy, taking into account the nature of the soil and influence of the climate of the country they inhabit, and is to be compared, in its relations with the progress of human knowledge, to the state of advancement attained by other nations placed under similar or analogous circumstances. "It is in fact," says Mr. Johnston, in his Report of an Agricultural exploration in New Brunswick, "the actual condition of the practical Agriculture of a country, which will determine the actual productiveness of its soil; while, on the other hand, the possible productiveness of its soil being known, the amount of produce actually raised must serve as an index of the actual condition of the Agricultural practice."

Your Committee will now enter into the consideration of these different points in so far as they relate to the actual state of Agriculture in Lower Canada; and, in the first place, they lay down as an established principle, that few countries have been more highly favoured than Lower Canada as respects the quality of the soil; and that the position it holds in point of climate is in nowise unfavourable. The more the climate of Lower Canada is examined with the eye of a practical observer, the more convinced we become of the fact, that it is anything but unfavourable.

The result of an enquiry instituted in New Brunswick (the climate of which is similar to ours), proves it to be a fact, that the cold and snow of our winters have a fertilizing effect upon the soil, and naturally produce a degree of friability in the soil which elsewhere cannot be obtained but by dint of labour. The durability of the productive faculty of our land is such that even to this day our meadows yield,

without culture, double as much as they would do in England or on the continent.

Those who complain of the shortness of our agricultural season, meet an answer in the rapidity of vegetation, which leaves no interval between the white covering of our joyous winters and the luxuriant verdure of our meadows. Those who contend that the wintering of our cattle involves the agriculturist in enormous expense, may be answered by saying, that it is yet a question, even in more southerly climates, whether it is not an immense advantage to keep cattle housed during the greater portion of the year.

This frivolous and groundless objection, urged against the climate of Lower Canada, is one of those prejudices which will disappear like many others which, by creating imaginary evils, prevent the people from peaceably enjoying those blessings which Providence has extended to them, and accuse nature of producing the misfortunes which are attributable only to discouragement.

If Lower Canada should not be prosperous, it will be owing neither to its geographical position, the inferiority of its soil, nor the disadvantages of its climate.

Speaking of the present state of Scotland as an agricultural country, compared with its former position, the learned Scotchman, above alluded to, says : —“ Its climate has been tamed and deprived of its
“ terrors. Its most worthless portions in Caithness,
“ and even in the Orkney Islands, have been sub-
“ dued to the culture of wheat. Its ploughmen are
“ ranked among the best in the world. Its turnip
“ husbandry is universally praised.”

Your Committee have obtained a copy of a paper written by Dr. Winder, the Librarian of Your Honourable House, in which the climates of Upper and Lower Canada are compared. It will be seen from this work, a copy of which is annexed to this

Report, that there is scarcely any difference in the average range of temperature. It is also proper to observe that, during the mid-winter months, when the temperature is much lower in Lower than in Upper Canada, it is of little consequence to the plant whether the cold varies a few degrees more or less, as the snow protects the earth from the too violent action of the frost. In proof of the little difference in the climate of Upper and Lower Canada, as regards its influence upon Agriculture, the natural productions of the soil are the same in both sections of the Province, and in both are similarly affected by the circumstances of exposure and implantation. The cultivated products are also the same, with the exception of certain fruits. The foliage of the horse-chesnuts which grow on the glacis of the citadel of Quebec, is as rich and their form as fine as those found in Toronto or the District of Niagara. At one hundred and twenty miles below Quebec, apples are produced, inferior to those grown at Montreal, but equal in flavour to those of Upper Canada; and the same quality of fruit may be produced wherever the soil is properly chosen, and the orchards are sheltered by means of tall forest trees.

The people of Lower Canada, taken in the aggregate and without distinction of race, are inferior to no other nation in point of intelligence, health, dexterity, and strength; they possess, in a greater degree perhaps than any other, that amiability and unaffected cheerfulness which contribute more than is commonly supposed to both health and happiness. They are inferior to many others with regard to political, and above all, agricultural education. These facts are insisted on by Your Committee in order to prove that the country possesses all the advantages necessary to make Lower Canada any thing that its population may desire. Nothing exhibits greater weakness than to cry out, "It is impossible!" nothing,

on the other hand, evinces greater strength than the exclamation, "I am determined!"

If we were to judge of the present state of Agriculture in Lower Canada by the ease in which the majority of our farmers live, and especially by a comparison of our products with those of other countries, and particularly European countries, keeping in view the comparative extent of population, we should be tempted to look upon Agriculture as much further advanced here than it actually is. In France the value of the grain raised amounts to but 75 francs per head of the population, while in Canada it amounts to more than 90 francs per head. In England, where cattle are more numerous than in any country in the world, there are found, according to Mr. Rubichon, but 13,503 head of cattle to every thousand farming families, while in Canada, each thousand similar families possessed, in 1845, upwards of 18,000 head.

In 1831, in Lower Canada, when the fly was not prevalent, the wheat harvest gave 6.65 bushels for each inhabitant; while in Upper Canada, in 1842, it amounted only to 6.62 each; and in the United States, in 1840, only 4.96. But this is owing to causes arising from very different circumstances; the principal of which, as regards the countries of Europe, is the relative extent of cultivated land compared with the total amount of the Agricultural population.

"The possible productiveness of the soil being known," as Mr. Johnston says in the above cited passage, "the actual production will serve as an index of the condition of the Agricultural practice."

Your Committee, for want of the requisite statistics to determine the productive capacity of the soil, admit what is the general opinion, that the soil certainly does not produce as much as might be expected from its quality.

Your Committee, in support of this view, refer to the letters annexed to this Report, and especially to that of Mr. William Patton, of St. Thomas, who furnishes details respecting the produce derived from 50 arpents cultivated under his care, and adds: "I mention this to prove our land will produce equal to any land on the continent, if properly managed." Major Campbell, in his answer to the Committee, says:—"Generally speaking, the land in cultivation does not produce much more than a fourth of what it might do, were a better system introduced." "The present state of the Agricultural department in the Eastern Townships," says Mr. Gustin, "is, generally speaking, in a depressed and embarrassed condition, especially among the ordinary class of Farmers, or those dependent on the immediate avails of their labour to support their families and defray their annual expenses."

The principal cause of this state of things is, beyond a doubt, that which is pointed out in the letter of the Rev. Mr. Desaulniers, of the College of St. Hyacinthe:—"Up to the present time," says the learned professor, "the agricultural population of the country have exercised their industry on newly cleared lands, covered and enriched by the vegetable matter of the forests, and consequently possessing a lasting fertility acquired by ages of repose."

There is not, indeed, the shadow of a doubt that the astonishing fertility of the soil has given rise, with us, to the existing evil; with us, poverty has been caused by too great abundance; but, on the other hand, the lessons we have been taught by adversity will turn to our advantage. Such dear-bought experience will not soon be forgotten. People have already begun to perceive, as the Rev. Mr. Delage, of l'Islet, justly remarks, "That adversity makes one wiser; and that since the seasons have

“ been so unfruitful, Agriculture has made remarkable progress.”

The Agricultural population of Lower Canada have often been reproached, bitterly, with not having sooner adopted a good system of cultivation ; and in doing so, the faults of the present system have often been, in certain respects, exaggerated ; and the very peculiar position of the Lower Canadian population, compared with that of the countries of Europe and of other parts of North America, has been lost sight of. It is not many centuries since Agriculture has taken that position which it now occupies in Europe, both as a science and as an art ; and, at this very day, many European countries are hardly better, if not worse situated, than Lower Canada in this respect. In the countries in which Agriculture has made such progress as cannot too much delight the friends of humanity, it is due to an older state of society, and, above all, to necessity, the parent of all industry. In the other parts of North America the importation of practical knowledge and foreign capital has given rise to a state of things which Lower Canada, from her very peculiar position, has not been capable of attaining, at least for the major part of her population. Indeed, so soon as that state of things, which latterly consumed the whole energy of the enlightened part of that population, began to disappear, a portion of that class of citizens turned their attention to Agriculture, which ought now to be the principal object of the study and efforts of every friend to his country. It is in this light that every thing is looked upon in the neighbouring States, and they have understood, according to the opinion of Mr. Goodrich, Secretary of the State of Vermont Agricultural Society, that the advancement of Agriculture is a question “ of as great importance as the fact, whether General Taylor or General Ampudia fired the first gun on the banks of the Rio Grande, or whether a whig or a democrat shall be

“made a Justice of the Peace in some mountain village containing half a dozen families.”

Independently of all other defects, there are three capital vices in the system generally followed in Lower Canada: one relates to manure, another to the rotation of crops, and the third to the raising of cattle. These three evils arise from the same cause which is above mentioned. The primitive soil, which was in itself endowed with an extraordinary fertility, which yielded abundant harvests without the use of manure, or rather with the manure deposited on it for centuries, rendered the work of man useless, or rather of less utility in this respect. The virgin state of the soil and its durability, admitted of the same crops being raised on the land for several years. Wheat being the most profitable grain, nothing but wheat was sown, and all the land was sown with it; what was barely sufficient for the stock of cattle kept, being only just what was necessary, and the manure furnished by them not being taken into consideration. Thus our soil went on getting poorer until having lost all its strength it ceased to produce wheat, or produced only a sickly grain without sufficient strength to resist accidents. The evil arose so suddenly, and was so little expected by the agricultural class, who enjoyed, without anxiety, the blessings of the present, that many persons were utterly discouraged, and resigned themselves, with all the apathy of despair, to an evil which they thought it beyond their power to put an end to. It may be useful to remark here, that abundant harvests had given a great number a taste for luxury, which is the cause of a large portion of our population being deeply in debt at the present day.

The other defects in our present system, pointed out in most of the communications which have been received, and which Your Committee cannot too much recommend to the attention of Your Honorable House, arise from the want of improved instru-

ments, the insufficiency of the drainage in certain Districts, the complete destruction of our forests, part of which should be preserved for shelter and part for sugaries. The want of attention shewn by the Legislature on this subject; the want of agricultural education, and the absence of a sufficient market, are also pointed out.

Your Committee cannot consider the want of a market as one of the causes which can have retarded the progress of Agriculture, for if we compare the prices obtained by our agriculturists with those obtained by the farmers on the borders of Lakes Erie, Huron, and Michigan, and in all that territory which is commonly called the West, it will be seen that their distant position and the expenses resulting therefrom, have this effect, that the producer, in those sections, has never been able, nor ever will be able at any time, or in any market in the world, really to obtain for his produce the same price which our agriculturists obtain for theirs. Your Committee are nevertheless of opinion, that the improvement of the navigation of the St. Lawrence and of the inland communications, will have the effect of greatly increasing the price obtained for the produce of our agricultural industry, by diminishing the cost of transport, which is comparatively enormous for the whole of the population inhabiting the lower part of the river, in consequence of the almost utter impossibility, from the want of wharves, of their deriving any advantage from steam navigation.

Your Committee will now enter upon the most difficult part of their task, that of suggesting the means which the Government has within its reach for the improvement of Agriculture. It is at this moment, especially, when good harvests seems to be returning to us, that we should profit by the recent experience which we have obtained from adversity, and induce the population of the country parts to

use all the means which a new prosperity may furnish them in order to prevent new misfortunes.

MEANS SUGGESTED FOR THE ADVANCEMENT OF
AGRICULTURE.

In recommending the means to be adopted for the advancement of Agriculture in Lower Canada, Your Committee have only selected from among all that have been presented or suggested, those, the practicability of which is incontestable, and which have already successfully been brought into operation in other countries. The whole of these means together will not entail upon the Province the expenditure of a greater sum than that for which the public credit is now pledged under laws actually in force, including the yearly donation voted by the Legislature, for the Agricultural Society of Lower Canada.

The means recommended, and which Your Committee have thought it their duty to take into consideration, are :—Agricultural Societies, such as already exist; Model Farms, with Schools of Agriculture; the publication of Elementary Treatises to be distributed gratuitously among the population of the country parts, and the schools; the publication of a Journal, and the appointment of two Superintendents. As regards the formation of a system of agricultural credit, as recommended by the Rev. Mr. Pilote, of the College of St. Anne; the preservation and planting of trees for shelter, as recommended by Mr. Langevin, and many other suggestions of importance, and worthy of the attention of the friends of Agriculture, they do not come within the action of the Legislature, and besides all these things will come within the attributes of the Superintendents, a portion of whose duties will be to impart instruction.

Your Committee will now enter upon the examination of these various means of advancement, and the results they think themselves justified in expecting therefrom; they will then proceed to give an outline of the financial part of the system taken as a whole.

In coming to the determination to recommend the use, at the same time, of the various means above mentioned, Your Committee were desirous of conforming to the different suggestions made to them, and find themselves confirmed in the propriety of putting these various means into practice, by the experience furnished by foreign countries in which a similar system has produced wonderful effect. Your Committee did not lose sight of the very just remark of Mr. Watts, M.P.P., who says, (speaking of the Lower Canadian population,) "they are not a travelling community, and if they are to learn, some one must come forward to teach them." By combining several means together, the attention of the agricultural class will be engaged on every side, and once convinced, once fairly started, none will advance further towards improvement than the Lower Canada agriculturist, for none is endowed with greater intelligence, courage, strength, or skill, than he.

That Agricultural Societies, as they exist and are conducted at this day, have done good, there can be no doubt, and the fact is established in most of the letters annexed to this report; but at the same time it is certain they have not produced all the results which were expected. In many instances, the contingent expenses and the costs of management have amounted to exorbitant sums, compared with the pecuniary means of these societies:—for instance, in the Reports laid before Your Honorable House this year, it appears that one of these Societies expended £32 in managing an amount of £209; another £24 for contingencies, when the revenues of the Society amounted to only £153. This has had the effect of

creating, among the agricultural population in many localities, a spirit of distrust and suspicion. There should be (and there are) in each County a sufficient number of able men, sufficiently friendly to their country to conduct these associations without receiving any emolument. An appeal of this nature to the enlightened class will find an echo in every County in Lower Canada. Another defect of these Societies is pointed out by Messrs. Pinsonnault and Evans, in their Report of the Lower Canada Agricultural Society for this year :—“The benefit of exhibitions,” says the report, “are generally participated in only by our best farmers, men of capital, and parties having their farms in good order, while those who really require instruction and encouragement, are continually excluded.”

By the existing law, each County is entitled to receive out of the consolidated revenue fund of this Province, a sum treble that subscribed in the County, provided the sum granted do not exceed £150. The only Counties thus benefitted are those in which a subscription is made ; and in this respect it generally happens, or at least it is reasonable to think so, that those who profit by these provisions are exactly those who are the least in want of them. Such was not the object of the Legislature, whose intention was rather to enlighten the agriculturists who were backward than to recompense those who were more advanced, and thus in a manner force the former to improve their system, by leading them to expect a reward as honorable as it is profitable. In this respect, therefore, the grant for such Societies should be general, and apply to every County or division of a County, independently of any consideration. It would seem that the District Societies are mere surplusage, and they will be so especially after the appointment of Superintendents who will be entrusted with the duty of spreading from County to

County, and throughout the country, a knowledge of the respective progress of the different localities.

One of the reasons why the existing Societies have not produced the results expected from them, is that generally those defects of our system which must be removed, have been lost sight of, and that generally these Societies have confined themselves to granting prizes for the finest animals and the finest specimens of vegetable and grain produce. The object of these agricultural *comitia* (as we may call them) is to cure the evils of the prevailing system, and to induce the husbandman, by the hope of honorable distinctions and of reasonable gain, to undertake improvements which will be surpassed in another year by new competitors, thereby creating a noble emulation and gradually spreading the good effects of practical progress. It is therefore requisite, in order to the attainment of this object, that the greater part of the rewards granted, should be in favour of improvements which tend to strike at the root of the principal evils of our present system: Your Committee have already pointed out what these are.

Your Committee therefore recommend that a part of the grant be applied in favor of Exhibition Societies, the amount to be apportioned according to the joint ratio of population and the extent of land occupied—two considerations which it is desirable to keep in view in the distribution of sums destined for the encouragement of Agriculture—the soil and the labour bestowed on it, having an equal share in this branch of industry. In distributing the prizes, care should be taken to grant prizes for the following and other similar objects, namely:—for the best crop of vegetables for cattle; for the greatest quantity of manure, natural or artificial employed on a given extent of land; for the greatest quantity of compost or manure created by labour; for the most productive meadow, acre for acre; for the largest flock of cattle fed upon the produce taken off a given extent of land.

The object of these different prizes is evident. Manure is wanting on land, but we have it at hand in the fish and sea-weed of the lower parts of the river, in the turf of our bogs, in the application of various natural improvements; the object of these prizes is to induce the husbandman to bestow on his land those manures which will enable him to feed a larger number of cattle, which, in their turn, will furnish to the land all the juices it requires.

Your Committee must confine themselves to a general and succinct statement of the various means which they take the liberty of recommending to Your Honorable House; but they cannot quit the subject of these Societies without expressing their opinion, that in every case, the prizes should be awarded only to agriculturists living exclusively upon the produce of their agricultural industry, all other competitors being merely entitled to be honorably mentioned.

Your Committee now come to Agricultural Schools and Model Farms. It is impossible, without enormous expense, to establish special Agricultural Schools accompanied by Model Farms on a large scale. From calculations, the correctness of which is not in the least doubted by Your Committee, it appears that each of these Model Farms would cost not less than £3,500, and they would perhaps be attended only by a few pupils belonging to a class, which, by its position, is the least in want of instruction; it is therefore in the institutions now frequented by our youth that the means must be found of establishing such Schools. Your Committee have great pleasure in citing, among other authorities, in support of their opinion, the weighty one of Mr. Johnston, expressed by him in his report of the exploration made by him in New Brunswick.

Happily such institutions exist in Lower Canada, and can compare with those of more favoured countries; happily we have a class of men in these insti-

tutions who can perform great things with little means, who having bid an eternal farewell to all worldly enjoyments except that of doing good, are neither under the necessity nor in a position to require salaries, but devote their whole life to the education of youth, asking in return only food and raiment.

Your Committee therefore suggest, that a special and annual grant be allowed to each of the Colleges of St. Hyacinthe, L'Assomption, Nicolet and St. Anne, on condition that a Chair of Agriculture be established for the instruction of their scholars; and that a portion of land, in the immediate vicinity of each institution, be cultivated as a Model Farm. Your Committee have not consulted the Directors of these different institutions, but do not entertain the slightest doubt as to their inclination, and do not fear to guarantee their good will on this subject; a similar grant might be made for the same purpose in the Townships, at one of the Academies where a portion of the youth who speak the English tongue receive their education. Thus with less expense than the establishment of one single separate institution would entail, and with a hundred fold the chances of success, the country would be in possession of five institutions in which the whole of its youth could obtain a knowledge of the noble art of Agriculture; a knowledge which hundreds of young men would every year bring into practice on their own account, or impart to their compatriots throughout the country. Your Committee are so fully convinced of the importance of this arrangement, that they fearlessly express their conviction, that this plan alone is destined to advance the progress of Agriculture in Lower Canada more fully than it is physically possible to do by any other means. Your Committee, in recommending a certain number of Colleges and one Academy only, have no intention of depreciating the others, but in doing so have only been influenced by

the small amount of means which they have to rely upon. The next means of spreading education, a means which Your Committee cannot too much recommend, is the publication of an Elementary Treatise on Practical Agriculture, to be printed in pamphlet form and distributed gratuitously to all the Schools and in the family of every agriculturist.

In order that a treatise of this nature should be useful and produce the desired effect, it should (as remarked by Dr. Dubé and the Rev. Mr. Ferland) be short, precise and clear; free from all scientific terms and speculative ideas; in a word, its sole object should be to teach the tiller of the soil the means of amending his system by an appropriate rotation of crops, by the production and application of manure, and by increasing and improving his stock; and all this without any other capital than his own labour and that of his family. Your Committee recommend therefore that a competition be opened, and a prize granted for the best elementary treatise on Practical Agriculture, comprising all the different qualities which have just been pointed out. A book of this sort, containing only a few pages, and profusely distributed throughout the country parts, would become the subject of discussion and of practical study, which cannot fail to attract the attention of the farmers, and immediately to produce immense good. It is well known what influence pamphlets thus distributed have had upon the manners and customs of nations. This little work should be made a reading Book in the Schools: the child's ideas will, without any labour, be impressed with the improvements which are pointed out in it, and he will, doubtless, put them into practice when he becomes older.

Your Committee further suggest that the annual grant allowed to the Lower Canada Agricultural Society be increased and continued to them, on condition that they shall still publish the Agricultural Journal in French and English, and endeavour to

increase their library, and keep, as they now do, a seed depôt.

Your Committee are of opinion that the appointment of two Superintendents of Agriculture, one for the Districts of Montreal, St. Francis, and the Ottawa; and the other for the Districts of Quebec, Gaspé and Kamouraska, is absolutely necessary. The Superintendent will form the managing part of the system, and together with the Professors of Agriculture in the Colleges, will constitute the teaching body. His duties, as your Committee conceive, would be to make annual tours of inspection in the Districts within his jurisdiction; to publish an annual report, containing as complete a description as possible of the different sorts of soil, their means of improvement; pointing out the defects in their cultivation, and showing the means of remedying these defects; in a word, this report would be the channel through which the Superintendent would convey to the public the result of his researches and studies.

The Superintendent should place himself in communication with the Provincial Geologist and the Chemist under him, in order to derive every advantage from the information which can be obtained on Agricultural industry, from Geology and Chemistry. He would moreover be one of the Directors of all Exhibition Societies and of the Lower Canada Agricultural Society, and visitor of the Agricultural Schools in the Seminaries and Academies.

Such are the means which your Committee think it their duty to recommend to your Honorable House, and the whole expense of which do not exceed the amount now appropriated, as Your Committee will presently show. If your Honorable House should deem meet to increase the sum which is now granted for the encouragement of Agriculture, a sum which is certainly small when we take into consideration the immense importance of this branch

of public economy, and when we compare it with the sums expended and promised for other branches of industry which are doubtless worthy of attention, but of far less importance than Agriculture. If, therefore, Your Honorable House were disposed to increase the grant by a few hundred pounds, Your Committee would then recommend the following: Increase the number of Agricultural Schools attached to the Colleges and Academies, and grant, in different parts of Lower Canada, an annual sum of £200 to some good farmer, possessing a good farm and a sufficient number of cattle, together with the advantages of an elementary education, on condition of his cultivating his own farm as a Model one, under the immediate direction of the Superintendent of his District, and obliging him to show and explain to every visitor the details of his mode of cultivation. This sum of £200 added to the means already in his possession, would enable him to improve his system of cultivation and his breed of animals, and to procure instruments of a superior make, at the same time, that it would allow him to dispose of a portion of his time in explaining the details of his art to his visitors. This is the only means which Your Committee can see, to establish at certain distances Model Farms calculated to meet the views and come within the reach of the generality of farmers who would more likely be discouraged than instructed by farms kept up on an extensive footing and at a heavy expense.

Your Committee thus recapitulate:—the soil and climate of Lower Canada are favorable to Agriculture, —the people are laborious and intelligent; but they do not, however, derive from the soil more than one-fourth of what it can produce: the cause of this is, that the system of cultivation is bad. The principal defects of this system are:—first, the want of an appropriate rotation of crops; secondly, the want or bad application of manures; thirdly, the little care

bestowed upon the breeding and keeping of cattle; fourthly, the want of draining in certain places; fifthly, the want of attention given to the meadows, and the production of vegetables for feeding cattle; sixthly, the scarcity of improved agricultural implements.

The means recommended are:—first, County Societies; secondly, the choice of prizes to be granted at the different exhibitions; thirdly, the establishment of Agricultural Schools and Model Farms in our Colleges and Academies; fourthly, the publication of elementary treatises on Agriculture; fifthly, the publication of a journal, together with the establishment of a library and a public seed depôt; sixthly, the appointment of Superintendents of Agriculture.

Your Committee will now proceed to show how the expenses of this arrangement can be covered by the sum now appropriated, and which amounts to £7,500, distributed as follows:—

For 36 Counties, at £150 each	£5,400
Three Districts, entitled to an annual grant of £500 each.....	1,500
Annuitv to the Lower Canada Agricultural Society	600
	<hr/>
	£7,500
	<hr/>

Now, Your Committee suggest that this collective sum of £7,500 be distributed in the following manner, in order to meet the expenses necessitated by the various means above suggested for the encouragement and advancement of Agriculture:—

For prizes to be granted by the public Exhibition Societies, a sum of.....	£4,000
being about £100 for every 20,000 souls.	
For five Schools of Agriculture, with Model Farms attached to Colleges and Academies, to be distributed in equal portions	1,500
	<hr/>
Carried forward.....	£5,500

Brought forward.....	£5,500
Premium to the author of the best elementary treatise, and for publishing the treatise in both languages (see Messrs. Lovell & Gibson's letter).....	600
Annuity to the Lower Canada Agricultural Society, for continuing the publication of a Journal, &c.....	700
Salary of two Superintendents, including their travelling expenses	700
	<hr/>
	£7,500
	<hr/>

After the first year, the above mentioned sum of £600 for the printing of an elementary treatise, would, for the following years, be applied towards the publication of the annual returns of the Superintendents.

Your Committee think they have recommended to Your Honorable House, a system both complete and practicable, and are supported in this by the opinion of foreign men of science; the recommendations made to them by persons whom they have consulted on the subject, and the experience derived from the employment of similar means in Europe, and in several States of the American Union.

Your Committee, conformably to the order of Your Honorable House, further had under their consideration the means to be adopted for facilitating the settlement of the Waste Lands—the only chance of arresting the progress of that thirst for emigration which for some years past has committed so much mischief among the youth of Lower Canada.

Your Committee will only make a few remarks on this subject which occupied, last year, the attention of a Committee appointed by Your Honorable House to inquire into the causes of the emigration which takes place annually from Lower Canada to the United States; Your Committee take the liberty of

drawing the attention of Your Honorable House to the report made on that subject.

The principal means of inducing the youth of the country to settle on the Crown Lands, is, in the first place, to survey these lands and open roads, which will enable the poor settler to reach with facility the place at which he has to commence achieving, alone and unaided, one of the most difficult but the noblest of all conquests.

Your Committee may be permitted to remark to Your Honorable House, that every sum expended for the object in question is an advantageous loan for the State, by the sale of the Crown Lands and the increase of the population, every individual of which, even the very poorest, is a source of revenue which flows through several channels into the public treasury. Independently of this consideration—which can only serve as an answer to certain objections always raised against improvements which are not in themselves productive of revenue—it is the duty of a good government to meet the first wants of its people; now the opening of roads and the surveying of the Crown Lands are the first wants of a new country, and it is at this time the most urgent one in Lower Canada.

Your Committee therefore recommend Your Honorable House to entertain the numerous demands made by Lower Canada for several years past. If the financial state of the country did not admit of the undertaking of these various roads and surveys by ordinary means, Your Committee would take the liberty of suggesting to Your Honorable House the following method, namely, the issue of debentures bearing interest and redeemable at a period near that at which the payment of the land sold would fall due. By issuing debentures to the amount of one-tenth of the value of a new township, there is no doubt that all the wants of the settlers in that Township would be provided for, and that the redeeming of the debentures

tures would be easily effected after a few years; the sale of the lands, leaving a residue, the collective amount of which would be certainly double that of the territorial revenue at the present day, under a system which, instead of facilitating the settlement of the youth of the country on the waste lands, seems to throw every obstacle in their way.

With respect to the other means of facilitating the clearing of the Waste Lands, Your Committee refer Your Honorable House to the letters which form the Appendix to the Report of this Committee, and in particular to those of the Reverend Messrs. Ferland and Hébert. But before closing their observations on this subject, Your Committee think it their duty to remark that the intention of forming large settlements ought always to be kept in view, and for this purpose nothing could be better than to countenance those associations of settlers which are being got up, and to encourage the people to get up others, either by furnishing them with the means of opening roads and making other improvements which are necessary in new settlements, or by remitting to the association a sufficient proportion of the price of the lands, to enable them to meet the expenses of these works.

The whole respectfully submitted.

J. C. TACHE,
Chairman.



APPENDIX.

[*Extract from the Order of Reference.*]

(Circular.)

Committee Room, No. 5.

COMMITTEE ON AGRICULTURE:—

Messrs. TACHE', (Chairman.)
DUCHESNAY,
FOURQUIN,
McCONNELL,
EGAN,
BOUTILLIER,
ARMSTRONG, and
LACOSTE,

Appointed to inquire into the State of Agriculture in Lower Canada, the means of improving it and of facilitating the settlement of the waste Lands, to report thereon with all convenient speed, with power to send for persons, papers, and records.

Toronto, 14th June, 1850.

SIR,

The Committee are desirous of receiving from you, at your earliest leisure, a synopsis of your opinions on the different subjects mentioned in the order of Reference, an extract whereof is attached to this letter.

The Committee depend upon the zeal which you have always shewn towards the advancement of Agriculture, and have not submitted any special question, but give you full latitude. The Committee, nevertheless, take the liberty, particularly to call your attention to the different effects produced by the

Agricultural Societies at present in existence ; to the results obtained from the establishment of Model Farms, and the publication of elementary treatises on Agriculture for distribution in the country parts, and especially among the Schools.

As the Committee are desirous of reporting as soon as possible, they request you to answer at your earliest convenience, and rely upon the information you shall give, in order to assist them in their labors.

By Order.

J. P. LEPROHON,
Clerk to Committee.

[Translation.]

St. JOHNS, 18th June, 1850.

SIR,

I acknowledge the receipt of your letter of the 14th instant, and in reply, I have to state that Agriculture with us, unfortunately, is far from being in a prosperous state, but that it is not entirely attributable to the negligence of the inhabitants.

It is quite erroneous to suppose that bad cultivation always proceeds from the ignorance or negligence of the farmers ; poverty is frequently its cause : the most intelligent require means to enable them properly to cultivate—intelligence and taste are worthless gifts when unaccompanied by means—the intelligent but indigent man frequently sees what it becomes his duty to do, but cannot accomplish it ; compelled to economize where he should not, he acts against his principles and opinions, becomes discouraged and disgusted, his cultivation is neglected, and finally he finds himself identified with the ignorant and the negligent who labour without system. The Seigniorial charges, swelled to an unlimited extent, greatly contribute towards this evil.

I therefore say that the first step towards agricultural improvement is to abolish the pretended rights of the Seigniors, which are frequently ill-founded and unjust, from the exorbitant dues which they exact.

As to Agricultural Societies, they have rewarded the rich farmers, but they have certainly not improved the condition of the poor man who has not been able, for want of means, to avail himself of them. I have always believed, and I am still of opinion, that Model Farms on an extensive scale, situated in the centre of the different parishes, would do more good than Agricultural Societies, especially if in addition thereto the ordinary education necessary to a husbandman were afforded.

I therefore believe that the funds which are now granted separately for the improvement of Agriculture and for education, would, if united, be productive of greater benefit by being employed in the establishment of Model Farms in the parishes, at which individuals destined to become farmers, might, while they received the education necessary for a farmer, acquire at the same time practical knowledge from the master, who should, in that case, be a man of good theoretical acquirements as well as of practical capacity; moreover, the young man who is destined to become a farmer, being required to work a certain portion of time on that farm, would not lose the habit of working, nor consider himself dishonoured by putting his hand to the plough after completing his education. The produce of the farm in question being for the benefit of the master, his salary would not much exceed that now given to Teachers, that is, including the assessment.

As to the vacant Crown Lands in the Townships, the opening of Roads, the building of churches, and the granting of a reasonable time for payment, can alone be an inducement for young men to settle thereon; but I would suggest, as a more efficacious means, the offer of a premium to whomsoever might

settle there and clear a certain number of acres within a given time, which premium might go in part payment of his purchase money.

I only received your letter last night (17th), and in conformity with your request, I hasten to answer it. Had I had more time, I should have replied at greater length.

Believe me to be,

Your very humble servant,

G. A. MARCHAND.

J. P. LEPROHON, Esq.,
Clerk of Committee.

Addressed to

WM. EVANS, Esquire,
Secretary, A.S., L.C.,
Montreal;

and laid before the Committee by that gentleman.

[Translation.]

MONTREAL, 18th June, 1850.

SIR,

You inform me that you have just received a letter from the Chairman of the Committee (of the Legislative Assembly) "appointed to inquire into the State of Agriculture in Lower Canada; the means of improving it, and of facilitating the settlement of the Waste Lands," and that you are requested by the said letter to make known to the Committee your ideas and opinions respecting the object for which the Committee were appointed. You request me at the same time, as a life-member of the Agricultural Society of Lower Canada, to impart to you my ideas on the subject.

I confess, Sir, that I feel myself incapable of suggesting plans for the improvement of Agriculture;

for, as regards agricultural knowledge, a few theoretical notions are all that can be expected from those who do not make Agriculture their daily occupation. As, however, every true friend to his country should lend his conscientious assistance in all matters of public interest, I shall not refuse to respond to your call. I answer your inquiries as follows:—

I. THE STATE OF AGRICULTURE IN LOWER CANADA.—From what I have been enabled to glean in the course of my communications with the most influential persons in the country, while I conducted the Agricultural Journal in 1848, and since that period, when a director of the Agricultural Society of Lower Canada, I do not believe that the present state of Agriculture in that section of the Province is satisfactory. I fear that there still reigns an attachment to old notions, which is unfavourable to the introduction of modern discoveries and improvements. I fear that in general the agriculturist has an aversion to innovations in his mode of life and system of cultivation. I fear that he does not employ such agricultural and other implements as are best calculated to make his land lighter, and afford it that degree of preparation which alone can ensure rich and abundant harvests. I fear, also, that the agriculturist too much neglects the choice of manure and the raising of sheep and horned cattle, and too frequently forgets that there is a rule of rotation to be observed in the sowing, which alone can preserve the fertility of his fields, and secure to himself and his children an ease and competency necessary to the prosperity of the country. Finally, I fear that the agriculturist is not conscious of the evil he commits by unceasingly cutting down the trees of the forests, which are daily receding from the settlements, and are not in some measure replaced by judiciously made plantations; and that there are numerous descriptions of grain and vegetables which might prove a fruitful source of riches to the Pro-

vince, and also other agricultural produce and means of immense wealth for the farmer, which are now totally unknown or forgotten.

II. CAUSE OF THIS STATE OF THINGS.—After having ascertained the actual state of Agriculture, it becomes necessary to inquire into the causes to which this state of things is attributable. Now, among the principal causes, I would cite, in the first place, the state of inferiority in which the French Canadians were formerly kept by the Colonial Government; the bad legislation of that period, which tended only to favour the large land-holder to the exclusion of his less favoured neighbours, whom it seemed desirable to drive from the Canadian soil. But at all times, up to the present moment, the great injury has been the indifference which has been manifested with regard to the Agriculture of the country. It is true, that occasionally stereotyped speeches were made, in which the farmers' calling was extolled, but there it almost always stopped; if anything further was attempted, it was either done badly or in such a manner as openly to throw discredit upon the doctrines it was intended to inculcate. Neither let us forget that the want of education—not only of ordinary school education, but principally, of an agricultural education suitable for a farming population—has powerfully contributed to close the avenues of improvement in Agriculture against the Canadian. We must not, for all that, unreasonably accuse those who have been entrusted, particularly for the last few years, with the direction of public affairs, for the evil had already been done, and it only remained to arrest and endeavour to remedy it, which I am happy to say they have undertaken to do. Let us accuse those who, during such a length of time, refused to look upon the husbandman as belonging to the most interesting and useful class in Society, the class most deserving the attention of the legislator and patriot.

III. THE MEANS OF IMPROVING AGRICULTURE IN LOWER CANADA.—There are two methods of improving the Agriculture of the country : the means that are already in operation, and those that are not.

The means in operation are, Agricultural Societies, Agricultural Journals, and exhibitions of Agricultural produce. As regards Agricultural Societies, it is probable that what would most benefit the country would be to have several in each county and one Provincial Society to which the others would be subordinate, with which they would communicate, and which alone might extend and regulate the diffusion of agricultural information and discoveries; but we must admit that these societies—in spite of efforts and labour which are deserving of the highest praise—have as yet been enabled to effect but a very small portion of the good which they are expected to do to the population in the midst of which they exist. The reason of this is, that they limit their operation to the parish or locality where their members reside.

They, for the most part, have no connexion whatever with the Agricultural Society for Lower Canada, which, being in communication with the members of the clergy and other persons of the highest respectability all over the country, is in a position to acquire the best possible information ; and by means of its agricultural journals, can instantly communicate with the whole country, and promptly disseminate the knowledge of the discoveries and inventions in Agriculture. This want of intercourse, so desirable in every way, must not be attributed to any spirit of rivalry or jealousy, but may be owing to neglect or forgetfulness on the part of the Parish or County Societies, which it is yet time to remedy; and this they will undoubtedly do if we consider that the members who compose them are all actuated by patriotic and philanthropic motives. The Societies will moreover exhibit in that intercourse the same

zeal which they manifest in regard to their agricultural exhibitions, which, when well conducted, are doubtlessly calculated to keep alive among agriculturists a useful spirit of emulation, and induce them to improve the quality of the produce of their fields and the breed of their cattle. But according to the opinions of those who are best acquainted with, and most favorable to Agriculture, it would appear that the annual sum of £500 for each District, granted by the Legislature for agricultural exhibitions, and which each County receives in rotation, should not be continued for the same purpose, but otherwise employed in the encouragement of Agriculture; for if the Returns from the several localities are to be believed, the present mode of applying the £500 in each District, cannot carry out the intentions of the Legislature, owing to the amount having, according to such Returns, unfortunately been distributed among a few competitors at exhibitions, sufficient public notice of the holding of which had not been given.

Numerous are the means to be employed for the improvement of the Agriculture of the country. I believe that the first and most important of such means undeniably is the education of the people—a good Agricultural education. Now, can the benefit of such education be conferred on our population otherwise than by means of Model Farms, Schools of Agriculture, Agricultural Journals or Essays? Every one agrees as to the necessity of having model farms; but the suggestions on this head are various.

In the first place, it would in justice require that such Model Farms should not be given up to individuals for the purposes of private speculation. The management should be given to agricultural Societies; and in this respect it would be desirable that the Agricultural Society of Lower Canada, which publishes two Agricultural journals, should have a model farm under its charge, as by means

of such journals it could easily publish the progress of the model farm, and point out the mode of proceeding adopted there. But the name of a model farm is not all that is required; the reality should be obtained, and, as the Province should make a point of acting liberally in the matter, the grant of land for each farm should contain from 300 to 500 acres, otherwise a complete failure may as well be anticipated. The different model farms would make quarterly returns, and furnish, occasionally, detailed statements of their affairs. They would make known the mode of cultivation adopted by them, the success obtained, the losses suffered, and even their failures, the causes of which they would take care to investigate and expose. The whole would be published in the Agricultural Journal, which should be specially aided by the Legislature, in order to its maintenance on a proper footing. In it the different Agricultural Societies throughout Lower Canada should be compelled to insert their advertisements, and this would afford the Agriculturist an additional motive to subscribe to such an excellent publication. But this is not all: to each of these model farms should be attached a theoretical and practical School of Agriculture. The theory would be taught by the Professor and by books; the practice would be learned by working and seeing others work on the model farm.

The labour of the scholars would so far diminish the expense of the establishment, which must necessarily cost a certain amount at the outset, but it would certainly, in four or five years, cover both its expenses and the interest of the capital advanced; but even should it still shew an excess of expenditure, it is certain that model farms will not be the less required. From them must the agriculturist, and the son of the agriculturist, learn his art; in them he will perceive how noble his profession is, and learn the means of rendering it lucrative both to himself

and his country. These model farms, with the accompaniments above suggested, require that the elementary or school education given to the child of the agriculturist should be appropriate, and such as to fit him for the studies of the model farm; otherwise it would be necessary to attach a purely elementary school to the model farms, which would complicate the system and impede its operation; this is, however, quite a gratuitous supposition.

Another means of improving Agriculture would be a Provincial Agricultural Exhibition; this would only require the amount now granted for the District Exhibitions of which I have already spoken. An exhibition of this nature would excite among the agriculturists and others devoted to industry and the arts, a most laudable spirit of emulation—one which, up to the present day, has never been awakened—the premiums offered being too insignificant; but it would be quite different if the prizes in expectation were three times as valuable as those under the present system. At all events, in whatever light the subject of Agriculture may be viewed, every one will agree that the Legislature must not leave the agriculturist and his children unassisted; on him do we principally depend for our physical existence, and he has a right to expect from the delegates of the people, that support which has certainly become of pressing necessity.

IV. MEANS OF FACILITATING THE SETTLEMENT OF THE WASTE LANDS.—Although I have extended my remarks to some length, I cannot help saying a few words on this subject. I believe, in the first place, that in order to settle the Waste Lands, we must preserve and prevent our population from emigrating; we must facilitate his access to those lands by the opening, and if possible the keeping in repair of the high Roads or principal ones. Opulent individuals or companies must be prevented from monopolising large tracts of land, and from keeping them, if they

already have them in their possession. I do not mean that they should be forcibly despoiled or dispossessed, but wild lands must be taxed to such an extent as to prevent the large land-holder from keeping them uncultivated, or induce him to sell them. These are important and perhaps difficult means: at all events, a grand movement will, in all probability, be made shortly, which will be nothing more than a continuation of that so generously begun by the Reverend Father O'Reilly.

The most important matter for the moment is the adoption of prompt means for the improvement of Agriculture; the settlement of the waste lands will no doubt keep pace with it: thanks to the impetus given to it by so patriotic and respectable a class of our fellow-countrymen.

I conclude, Sir, by requesting you to excuse the length of this letter, in consideration of the motive which gave rise to it; and permitting you to make any use of it which you may think proper.

I have the honor to be,

Sir,

Your very humble and obedient Servant,

HECTOR L. LANGEVIN,
Life-member of the
Agricultural Society, L.C.

[Translation.]

To J. C. TACHE', Esquire, M.P.P.,
Chairman of the
Committee on Agriculture.

St. HYACINTHE, 20th June, 1850.

SIR,

At a period when a more intimate acquaintance with the sciences of economy has convinced all go-

vernments that Agriculture is in fact the most effectual means of satisfying the real wants of the population, and the purest and most abundant one of all national prosperity, I should feel myself very culpable if I did not respond to the honor which the Committee, of which you are the Chairman, have been pleased to confer upon me.

I should wish, in order more fully to meet your benevolent views on the important subject now under your consideration, that I were possessed of more extensive information than I can lay claim to; notwithstanding, however, my avowed incapacity, I comply cheerfully with your request, as I am convinced that whatever is done for the improvement of Agriculture in Canada, however little, is still of great importance to the general prosperity of the country.

It must certainly be admitted that agricultural science has made but little progress in this country; but I am far from believing that it is attributable to any want of aptitude for such progress on the part of our population. It appears more natural to me to explain otherwise, and assign other reasons for such backwardness.

Up to the present time the agricultural population of the country have exercised their industry on newly cleared lands, covered and enriched by the vegetable matter of the forests, and consequently possessing a lasting fertility acquired by ages of repose.

In fact, our ancestors cultivated these lands with advantage, without noticing their exhaustion, and without even suspecting the fertility which might, by means of manure, be imparted to the soil. It has now become necessary, in consequence of the soil having lost that abundance of vegetable mould which it formerly possessed, that the people should be made acquainted with the nature of manures and their proper mode of application, so as constantly to

remedy the exhaustion occasioned by an uninterrupted succession of crops.

It may be useful to mention that great progress in this respect has already been made in various localities, owing partly to the scientific cultivation of a certain number of educated persons dispersed throughout the country, and partly by the instruction contained in the Agricultural Journal of the Lower Canada Society; for the usefulness of a publication so ably conducted cannot be doubted; and indeed, I look upon that journal as productive of all that has been most effectual up to the present time in the improvement of Agriculture, with the exception perhaps, of such mechanical inventions as have lately been discovered, and which cause the forests to disappear, as if by magic, before the rapid strides of the agriculturist. I do not hesitate to believe that the Agricultural Society of Lower Canada have, by means of their journal, given an impetus, which, although as yet but feebly felt, is eminently calculated to produce excellent results.

As regards the grants made by the Legislature in aid of the exhibitions of the several Agricultural Societies, I have not as yet met with any one who has admitted their good effects: the prizes are generally given to persons who have no need of such encouragement; they are already sufficiently remunerated by the superiority of their produce; and experience teaches them the advantage they derive from surpassing others in the means to be taken to acquire such pre-eminence.

I am therefore compelled to say that such rewards are not, in my opinion, effectual as an encouragement to the mass of the population. The chief defect in the Agriculture of Canada is, in my idea, the want of manures. Now, to remedy this defect, the agriculturist must necessarily make arrangements for keeping a sufficient number of cattle; which, however, he is unable to do without having a super-

abundance of forage; this forage he cannot obtain in sufficient quantity, save by the means of meadows; and this calls to my mind the old adage of Cato's: "The first essential of good cultivation is good pasturage, the second, indifferent pasturage, and the third, bad pasturage." What was true in the days of Cato is still so in the present age. The use of meadows should therefore be encouraged throughout the Province; and, in my humble opinion, it would be far better during some years, instead of the grants made in aid of exhibitions, to distribute gratuitously, under certain regulations, through the different Counties of the Province, the seed necessary for sowing the land designed for these meadows. Such donations would doubtlessly have the effect of convincing our agriculturists that what they so much feared to spend in the purchase of these various sorts of seed, must soon be reimbursed to them by the improvement of their lands, the excellence of their pasturage, and the greater abundance of forage.

Elementary treatises on Agriculture, distributed among the country schools will, I am convinced, meet with the approbation of all sincerely interested in the welfare of the country.

Such books placed in the hands of children, cannot fail to give them a taste for an agricultural life, and will insensibly instil into the minds of parents certain ideas which will gradually develop themselves in public, and certainly be productive of beneficial effects. Knowledge never spreads throughout a community without producing the results which naturally flow from it.

As regards model farms, experience has proved, and every one, I believe, is satisfied that they are eminently useful; nothing is better taught than what is so taught with the assistance of example and practice.

Many of those who take an interest in the agricultural state of the country have publicly expressed

the desire of having them established amongst us. The principal difficulty in the way of the establishment of such model farms, appears to consist in the large amount of capital which must necessarily be laid out on them.

But can there not be a beginning for this description of Institution as well as for any other? Would not model farms, although on an inferior footing to those maintained at a great expense by the Governments of Europe, be calculated to instil into our population a taste and respect for agricultural science, particularly if they were accompanied by Agricultural Schools, at which a limited number of young men intending to follow agricultural pursuits would be entitled to instruction? Moreover, an economical system of cultivation in model farms would, I think, be more easily imitated by the agriculturists than those which necessitate a great outlay of capital.

As a beginning, without incurring any great expense, the following objects might profitably engage the attention, viz:—The proper drainage of lands, grass and clover meadows; the successive rotation of seed suited to the soil; the production and preservation of manures; the art of raising well-bred cattle, and the manufacture of butter and of cheese. At all events, I consider that the keeper of a model farm should proportion his improvements according to the income to be derived from them, so as to avoid encouraging in others the cultivation of articles, the cost of the production of which exceeds their value, as is too frequently the case in the model farms maintained by European Governments.

I do not see any obstacle in the way of the immediate establishment of model farms, on the conditions just enumerated, in many parts of the Province. I consider it also necessary to inform you that the Directors of the College of St. Hyacinthe, who, as you well know, are far from being wealthy, have for

a length of time determined upon opening an Agricultural School, as soon as they are provided with an extent of ground sufficient to enable them to receive a greater number of pupils. They possess lands which for many years they have cultivated not only with advantage to themselves but to their neighbours, who have thus an opportunity of observing the improvements which may be made on lands at a trifling expense. In proof of which, permit me to remark, that they possess in the parish of St. Rosalie, a lot of land of very indifferent natural fertility, which, by its promising appearances this spring, has induced many farmers to follow their example, to improve land of the same quality, which for several years has been cultivated unproductively.

I have taken the liberty of citing this instance to shew that with model farms and Agricultural Schools, the state of Agriculture throughout the Province can in a few years be easily improved.

But I have already trespassed too long on the time of the Committee, I beg of you, Mr. Chairman, to accept my apologies, and

Believe me, very truly,
Your most obedient humble servant,
JS. DESAULNIERS, Ptre.

[Translation.]

L'ISLET, 22d June, 1850.

MR. CHAIRMAN,

I must preface my remarks by acknowledging my incompetence to do justice to the subject on which the Committee on Agriculture have done me the honor to consult me; nevertheless, to evince my willingness to assist the Committee in their labours to the utmost of my power, I have no hesitation in transmitting to them my ideas on the subject.

During the continuance of years of scarcity the inhabitants were compelled to give great attention to the subject of Agriculture; nevertheless we are very far from having what is called an improved system of Agriculture.

The lands are now, it is true, drained with greater care, and this year particularly, all the farmers agree in the opinion that the lands were never brought to a better condition, but everything is as usual conducted according to the old system. The sowing of a large quantity of grain is more generally aimed at, than the sowing of grain of a good quality and on properly prepared soil. The most effectual remedy for this evil would be, I believe, the establishment of good model farms in the centre of each County, until it is possible to have one in each Parish; for it must not be done with these as was done with the common schools, that is, to establish them all over the country before being provided with a sufficient number of persons qualified to conduct them. It is better to begin by having a smaller number, and that these should be conducted by efficient men, of practical as well as theoretical ability. It becomes the more necessary to make a proper beginning, because the farmers generally are prejudiced against what they call "newspaper Agriculture," and the least failure in the application of any new theory, would be sufficient to prevent for a long time the successful teaching of Agriculture. I am, therefore, firmly of opinion, that it would be far better to have no model farms than to have them conducted by persons of indifferent capacity.—(Oh! why have we not a community of these good Trappists in Canada?)—That is why I would insist on establishing, in the first instance, model farms in the centre of each County only, and even to commence by having but one in each district, in order, in the first place, to form practical men, who might afterwards teach Agriculture with success.

In the meantime, a few small elementary treatises on Agriculture might be distributed throughout the country; these might be accompanied by a small glossary of the technical terms most used, interpreted, as much as possible, by those most in vogue among the country people.

Such treatises would probably be productive of more good than an Agricultural Journal, which is seldom read by any but the rich; and who, for the most part, have no opportunity to put into practice what they read. I do not intend to say that an Agricultural Journal is useless; on the contrary, I consider it necessary, if it be only to interest the educated class in the cause of Agriculture; to stimulate its zeal to assist the progress of that most useful of all arts, and to instil a taste for the same into the youth of the country, who, seeing the interest taken in it, and the importance attached to it, will cease to consider the calling of an agriculturist as one of a degrading character. The expense which these objects would entail upon the Government, would be that which, in my opinion, would be productive of the greatest benefit to the Province. It must be admitted, that up to the present time, the agricultural interests have been the most neglected, although they are certainly the most important. Agriculture forms part of the manners of the Canadian people. It is, it appears to me, the art which best becomes their genius and their habits, as well as the country they live in.

As regards Agricultural Societies, as there are none established in the County of L'Islet, I have not had much opportunity of witnessing their effects, and consequently I cannot say much to the purpose. Others, I hope, will do so to the satisfaction of the Committee on Agriculture.

The settlement of the Waste Lands is certainly a subject worthy of claiming the attention of the Legislature. It might, possibly, be of advantage if a

law were passed by the latter, to encourage the formation of companies with the view of effecting new settlements on the Crown Lands, on certain conditions which would prevent every description of monopoly.

This I conceive would not be more difficult than the law which authorizes the formation of Agricultural Societies. What several persons would not be able to execute separately, they could easily accomplish collectively. The Association for the Counties of L'Islet and Kamouraska had intended at first to ask for an Act of Incorporation, but that project was postponed to a later period for certain considerations which I shall not here undertake to enumerate.

What appears to me the most urgent, is that the Legislature should grant some assistance to the settlers, to enable them to open roads and construct the necessary bridges. This expense would soon be reimbursed by the sale of the lands, which would be effected much more promptly and with greater facility.

It is impossible, without means of communication with the old settlements, for poor settlers to go and penetrate into the thick forests, there to effect a clearing by which they must profit but little, if they cannot carry elsewhere the produce which is to enable them to procure the other necessaries of life.

Another sort of encouragement which would be greatly appreciated, especially by the Canadians, would be to reserve, in each township, a number of lots of land proportionate to the number of parishes which might thereafter be formed therein—these lots being intended as sites for the erection of a Church or a Chapel and for the support of the missionary—also, a lot of land in the centre of each parish, which would be intended at a later period for the support of a central school and the establishment of a model farm.

My occupations, at this moment, and the desire expressed by the Committee to receive with all convenient speed, the opinion of those whom they have been pleased to consult, prevent my extending my remarks any further on this subject. I shall not, however, close them, without expressing the opinion that it would be perhaps expedient to create an Agricultural Board, in the same manner as the Board of Public Works, the Crown Lands Department, &c. The creation of this department would, I think, greatly contribute to the progress of Agriculture, as well as to elevate, in the opinion of the public, that calling which has heretofore been so much neglected and, perhaps, a little despised.

Permit me, in conclusion, to express to you my satisfaction that the Committee have chosen as their Chairman a man residing in the midst of farmers, and whose patriotism, and especially whose zeal for the advancement of Agriculture, cannot fail to prove for us a favourable omen of the labours of the Committee.

I have the honor to be,

Sir,

With the greatest esteem,

Your most humble servant,

F. H. DELAGE, *Ptr.*

[Translation.]

BERTHIER, 23rd June, 1850.

Sir,

My residence being at a distance from the Post Office, I only this day received your letter of the 14th instant, which you have addressed me by order of the "Committee appointed to inquire into " the State of Agriculture in Lower Canada." In

answer, I have the honor to refer the Committee to the suggestions contained in the Report of the Agricultural Society of the County of Berthier, transmitted by me to the Legislature during the session of 1846, and which I thought it useless to repeat every subsequent year.

My opinion is, that if the Agricultural Societies have not yet been productive of all the good expected from them, it is owing to the want of model farms. I think, therefore, that in order to encourage so important an art as that of Agriculture, the Legislature should provide means for establishing, at once, a few model farms in each county, so as to give the farmers an opportunity of judging of the happy results of an improved system. The circulation of elementary treatises on Agriculture in the schools, would, I think, be also of great use.

I have the honor to be,

Sir,

Your most humble servant,

PIERRE E. DOSTALER,
President, Agricultural Society,
County of Berthier.

J. P. LEPROHON, Esquire,
Clerk to Committee on Agriculture,
Toronto.

STANSTEAD, 23rd June, 1850.

SIR,

Last evening I received a communication from you of several parliamentary papers, among which was one signed by the Clerk of the Committee on Agriculture, and forwarded by J. C. Taché, Chairman of said Committee, bearing date 14th June, instant, requesting my opinion on the different subjects contained in the order of reference attached.

I was pleased to learn that our member is included in said Committee.

I regret that I am no better qualified to meet the requirements and comply with the wishes of your Committee. Had I anticipated a request of this description, I would have endeavoured to arrange my views on the subject in a more concise and methodical manner than I can possibly do in an off-hand reply ; yet, through respect for the Committee, and the interest I feel in the subject, I hasten without delay to offer a few desultory remarks.

The advancement of the agricultural interests of the Province is a subject of paramount importance, and I am gratified to learn that your Committee are disposed to bestow upon it that portion of time and attention which its importance demands. I hope and trust that this foundation-stone of our country's prosperity—the source whence the wealth and growth of Canada must originate—will not be hurried over till faithfully viewed in all its bearings and brought to rest on its proper basis.

The present state of the agricultural department in the Eastern Townships is, generally speaking, in a depressed and embarrassed condition, especially among the ordinary class of farmers, or those dependent on the immediate avails of their labour to support their families and defray their annual expenses. This state of affairs, though in some degree the result of their own indiscretion, has mostly originated from causes over which they exercise no control, and consequently must depend for a remedy on the strong arm of the law, guided by the consummate wisdom of an enlightened and well-informed Legislature. For except this numerous and valuable class of producers, who support the world and furnish the wealth of nations, be sustained in this Province beyond their present means, Canada must go down and sink into insignificance.

The honest industrious farmer is now treated as a mere animal of labour, unfit for any important situation in society, and a lawful prey for the merchant, the mechanic, the professional man, and the plotting speculator.

In consequence, our young men are forsaking the calling of their fathers; thrusting themselves behind counters; crowding a profession; or finally, leaving their country for some more favoured clime. All others are allowed cost, freight, and profits, while the avails of the farmer's labour are exacted at half their cost; thus he becomes involved, parts with the childrens' bread, turns out all his stock, mortgages the farm; at last he reluctantly yields up the long-venerated old homestead, and wends his way to some far-distant land, to close his days in destitution, inveighing loudly against Canada, its Government, and laws.

A partial remedy for some of the prominent evils above cited might be found in a Legislative enactment, extending a kind of protection to this unfortunate class of farmers; securing them, to a specified extent, against the claims of the creditor; allowing them to retain the means of subsistence, the team and tools, that the business of the farm might not be interrupted.

Another fruitful source of much evil to the agricultural interests of this section, is found in the extensive Legislative grants of wild lands to certain non-residents, possessing neither interest nor sympathy for the well-being of the place. Some of which lands, instead of proving wild, were found inhabited, long settled, and well improved: here the poor settler has been cruelly harrassed; exorbitant prices demanded, or frequently driven, unremunerated for his arduous toil, from his home and country, and in some instances, finally ruined.

These lands should be reclaimed from such unfeeling oppressors, and given to actual settlers on easy

terms; and thus, these waste places, that now appear deserted and again becoming desert, would be the abodes of men and teem with plenty, while content and cheerfulness would be, in some measure, restored to our late distracted, though once happy, country.

How far, and to what extent, Agricultural Societies have proved beneficial in this Province has been, and still is, a debatable question. There is much difficulty in managing its concerns in a right manner so as to render it efficient and not liable to abuse; and it requires more time and attention, (not to mention expense,) than most farmers are willing to bestow gratuitously; while difference of opinion, local prejudices, and sectional interests, all operate to give a wrong bias and retard improvement. Yet under all these, and many other existing difficulties, I think farm stock has been greatly improved, the capabilities of the soil tested, emulation in some degree awakened, tools and implements of husbandry of superior adaptation introduced, and finally, a perceptible advance towards systematic farming. Yet I am far from thinking the present mode of conducting Agricultural Societies in this country as approximating to any thing like perfection. I am decidedly in favour of the establishment of model farms, agricultural schools, Farmers' libraries, and the circulation of periodicals devoted to Agriculture and domestic economy, these I view as the leading channels through which knowledge can be most readily conveyed to the practical farmer. Every Agricultural Society should have its model farm, and every such farm its Agricultural School, where young men may be taught, and pay their tuition in the labour of their hands. Here should be taught the true elements and most approved system of scientific farming, the properties and proper application of manures, the advantages derived from a rotation of crops; frequent change of seed, &c., &c.; likewise, the management of farm stock—a knowledge of the various breeds,

and the peculiar qualities of each. A model farm should be stocked with blood animals of the most approved breeds; and here should be raised an extensive variety of grains, grasses, culinary roots, &c., not neglecting even the ornamental adornments of choice fruits and flowers, rich vines and melons, that it might possess attractions to exhilarate the mind, delight the eye, and please the taste; and I would have it the grand seed store of the County. I would extend the principle still further, every elementary school, receiving Government patronage, should have its acre of land deeded with the school-house; this should be cultivated by the scholars, each of whom should have a distinct portion for his own cultivation, the avails of which should be his own property, and this would soon disclose the utility of agricultural information; and then, various treatises on the subject might be profitably and acceptably introduced. The girls, too, should likewise have their flower-beds, boxes, and shrubbery, rendering the school location a primitive Eden, where innocence, elegance, and ingenuity, are harmoniously displayed; while that Teacher who best promotes the grand design without encroachment on other branches, should be particularly distinguished and amply remunerated. Thus, I imagine, were the present Legislature to place the vacant lands in the hands of actual settlers with a pure allodial title, constituting them lords of the soil, elevating the standard of Agriculture, rendering the farmer in one sense a privileged character, aided by a well regulated and ably conducted society, and possessing the advantages to be derived from a scientific education in the profession; then create or open to them a steady unfluctuating market, and, I feel convinced, our country would soon exhibit the pleasing aspect of happiness, peace, and plenty.

I am aware that in carrying out these views, formidable barriers will present themselves, requiring some exertion to surmount; but, such is the present

state, that nothing short of a vigorous effort can arrest the downward progress of Canada, or restore it to its former standing.

Never was there a more extensive field open for the display of Legislative skill, and if the present Provincial Parliament, by their united wisdom, prudence, and foresight, should succeed in extricating our common country from its present thralldom, they will confer upon it lasting benefits, proving themselves worthy the responsible station they hold and well deserving the highest eulogium.

I have the honour to be,

&c., &c.,

ELISHA GUSTIN.

J. P. LEPROHON, Esquire.

[Translation.]

LA TORTUE, 24th June, 1850.

SIR,

I have the honor to acknowledge the receipt of the letter you have written me by order of the Committee on Agriculture. Having only received the letter yesterday, I could not, in so short a space of time, recapitulate the few opinions I may entertain on the different subjects which must occupy the attention of the gentlemen of the Committee. As those gentlemen have had the kindness to allow me the greatest latitude in my answers, I shall avail myself thereof, by not answering directly to the questions submitted: I shall merely confine myself to a general view of the means which I consider the best calculated to advance the progress of Agriculture in this country. It is very remarkable, that at the present day, the attention of all the most enlightened nations should be so strongly called to the importance which ought to be attached to the advancement

of Agriculture. To what should we attribute the efforts made on every side to encourage an art so ancient, yet so little appreciated—that of Agriculture—unless it be to the conviction which is gaining ground among the enlightened persons of all countries, that a nation cannot prosper and become great if the culture of the soil be neglected? It is a similar motive which induced the House to appoint a Committee on Agriculture.

The country will appreciate its efforts; and let us hope that the labours of the Committee, aided by the information furnished by the true friends of the country, of their own accord, will result in the passing of a measure by the House, to provide effectively for the advancement of Agriculture.

But what is to be done towards that advancement? All are of opinion that the encouragement of Agricultural Societies, the establishment of model farms, and the publication of elementary treatises would greatly contribute towards obtaining the very best results. But most people differ in opinion as to the application of these various means. What does this difference in opinion arise from? According to my ideas, it is due to two things which are not to be found in any of these projects. In the first place, there is no settled plan—the well digested details of which would lead us to expect a steady working which must terminate in a result of any kind whatsoever. Secondly, there is no person whose peculiar qualification is to direct and give an impulse to every undertaking having agricultural improvements for its object. It appears to me very evident, however, that it is impossible to succeed without a settled plan, with persons capable of making it work well. Let us have such persons, and the plan will not fail. But how shall we procure persons having the requisite qualifications? I think that the best way would be to bring out a professor from Europe, and place him at the head of a Normal School of Agricul-

ture. The pupils should be chosen persons, to whom a course of two or three years at the utmost, would be sufficient to enable them to instruct a class of Agriculture, in each of the numerous Colleges of Lower Canada.—A grant would be made by the Government for the support of these classes which each College would be required to establish.—The most capable among these Professors would be chosen and placed at the head of the model farms to be established in each County. I am convinced that if these farms were well conducted, they might in a few years cover the costs incurred in bringing them into operation and other incidental expenses. Connected with this Normal School would be the publication of a Journal of Agriculture, a certain number of copies of which would be sent gratuitously to each *Curé* of a Parish, who would be requested to distribute them among such of his parishioners as might be the most capable of profiting by the reading of the journal.

Some of the pupils of the Normal School might also be entrusted with the duty of reading the journal after parochial mass; they might, in addition, make a few comments within the reach of their hearers. At certain fixed periods, there should be exhibitions of agricultural produce. The prizes granted should consist of medals, books, or other objects of taste, but not of money—for it has already been remarked that prizes in money excite cupidity more than emulation.

I will take the liberty, in conclusion, of recommending to the attention of the Committee, the Agricultural Journal published at Montreal, in the French and English languages. It is beginning to spread through the country parts, and it has inspired many of our *habitans* with a taste for improvement. It would, therefore be unfortunate, if for want of a little assistance, this journal were given up, it being the

only one which has, as yet, rendered any real service to Agriculture in this country.

I am, Sir,

With consideration,
Your most humble Servant,

ALFRED PINSONNAULT.

J. P. LEPROHON, Esquire,
Clerk, &c. &c. &c.

ST. HILAIRE, C.E., June 24, 1850.

SIR,

In accordance with the request contained in the communication I received from the Committee on Agriculture, I beg to submit my views on the very important subject therein referred to.

As to the present state of Agriculture in this section of the Province, I think it will be admitted by all parties, that it is anything but good; and that, generally speaking, the land in cultivation does not produce much more than a fourth of what it might do were a better system introduced. I need not stop here to detail the particular defects of the present mode of cultivating the soil among the *habitans*, nor the remedies to be applied to them: I imagine it to be the object of the Committee to obtain information touching the best means to be adopted to bring about a general change. It is very certain that this cannot be done in a day, it must be the work of time.

One of the first steps to be taken, in my opinion, is to endeavour to raise, in the estimation of the *habitans*, the occupation of cultivating the soil. One way to effect this would be to establish in our colleges a course of agricultural study, giving prizes for proficiency in it as in other branches. I would also recommend the reading of plain and simple works

on Agriculture in the Common Schools. In many places in Europe, Agricultural Schools have been established with great success,—the pupils performing all the operations on the farm—thus acquiring a thorough knowledge of their business in practice and theory. I would gladly see one of these in each County of the Province; but I fear that if it were attempted to establish such just now, but few parents would send their children to them: the language held, generally, would be, “I do not send my child to school to work in the fields, he can do that at home.” In process of time, however, these prejudices will disappear, and schools of this description will, I doubt not, meet with the same success that has attended them elsewhere.

A further aid to the object in view would be the establishing of Model Farms. I am aware that in England Model Farms are not always held in high estimation by practical farmers; but I think the reason is, that they are very often conducted without due attention to economy. I would propose that a farm of about ninety acres be purchased in each County, in some central position, to be vested in the hands of Trustees; that it should be let to some intelligent person, who has had experience in good cultivation, for a certain time free of rent, on condition that he pursued a proper system and afforded every information in his power to the *habitans* of the County; that his accounts be kept correctly, and open at all times to the inspection of the Trustees. To pay for these farms, the sums voted every year to the Districts may well be taken. I think, if the Committee take pains to enquire into the matter, it will be found that these grants to the Districts might be far more beneficially employed than they are at present. As prejudices wear away I would attach an Agricultural School to each of these farms.

I would also propose that the Government establish one Experimental Farm in the Province, where the

modern improvements in culture and in machinery and implements should be tried; the results to be carefully registered and published, in order that the public may take advantage of such as are proved to be well adapted to this climate. A school should be attached to this farm: I have no doubt, that in the Province, a sufficient number of parents will be found to send their children to it. The pupils educated at this establishment, would be well qualified to take charge of the Model Farms before alluded to; or, if they return to their homes, they would spread the information they have acquired, and set a good example to their neighbours. I now approach a part of my subject which I fear will meet with much opposition at the present moment, as it involves the creation of a place. I once had hopes that the establishment of the Provincial Agricultural Society would render the appointment of a Superintendent of Agriculture unnecessary, but experience has taught me how false these hopes were. One of the many advantages which the mother country possesses over us is, that there are to be found, at all times, independent gentlemen, able and willing to undertake and perform, without remuneration, the duties of office-bearers in Societies established for the public good; here, this class is wanting, and though the duties are nominally undertaken, the performance of them is little thought of. In a young country like this, all are too much occupied with their own affairs to be able to give their time to the public; hence the whole weight of the business devolves on one or two individuals who may be willing to sacrifice their time, but even these cannot be counted on with certainty at all times.

To carry out any great scheme of Agricultural improvement, I am of opinion that it will be necessary to make a special appointment of some individual who shall devote his whole time and attention to it. He might be called Superintendent or Com-

missioner of Agriculture; he, with the Mayor of the County, and President or Presidents of the Agricultural Society or Societies in the County, should be the Trustees in whom the Model Farms before alluded to should be vested. The government Experimental Farm and the School should be under his control: it should be his duty to see that the Model Farms are properly conducted, and that all experiments at the Government Farm be duly registered and published. I need hardly add how much the success of this scheme will depend on the selection made of a person to fill this most important office.

The Provincial Agricultural Society may be the means of effecting much good. The Journal is a ready mode of communicating agricultural information to all parts of the Province, and at its office in Montreal there is a library of choice works on Agriculture for the use of its members. Being composed of persons from all parts of Lower Canada, there are no petty local jealousies to disturb the harmony of its proceedings. It would perhaps be advisable to alter its constitution so as to bring it into more direct communication with the County Societies, to whose action it might thus be made to give more uniformity than at present exists.

I submit this scheme to the Committee with the utmost deference: my residence in the country has not been long, but I have not been an inattentive observer, and I have had ample time to satisfy myself that its resources are very great, and that they may easily be developed with energy and activity; and also, fully to appreciate the excellent qualities of its inhabitants amongst whom I have the pleasure to reside.

I have the honor to be,

Sir,

Your obedient Servant,

T. EDMUND CAMPBELL.

D'AILLEBOUT, 24th June, 1850.

SIR,

I beg leave to acknowledge your circular of the 14th instant, requesting me to give such information as I may possess on the State of Agriculture in Lower Canada, and the means of improving it; and also, for facilitating the settlement of the Crown Lands.

The first part of your enquiry is one, to answer which efficiently, would require a more intimate knowledge than I possess. It is true, I have occupied myself with farming to a certain extent, and have a general knowledge of what is done in that way in the Province; but, having led a very retired life, with full occupation in other matters, I have no pretension to the information required to make my remarks of much weight. I shall therefore only succinctly give you my impressions, as far as my own knowledge will enable me to do so; remarking, by the way, that there are numerous works to which you can profitably refer; and, among others, I would especially call your attention to those published by Mr. W. Evans, Secretary of the Lower Canada Agricultural Society.

Great prejudice exists against the cultivation of the soil by our Lower Canadian population; and invidious comparisons, to its disparagement, have been frequently made with that of other countries. But, so far as I have been able to judge, local circumstances of soil and climate considered, I doubt whether our population has any cause to be ashamed of entering into favourable competition with the agriculturists of other parts of this continent.

The greatest number of those who disapprove of the system of cultivation adopted here, either do not know or sufficiently reflect on the difficulties our farmers have to overcome. Among these, the shortness of the season for farming labour is not the least. When, in ordinary years, sowing begins from the 5th

to the 10th of May, and fall-ploughing ceases about the beginning of November, little time is allowed for sufficient tillage; and to this may be attributed, in great measure, much of the apparent neglect in cultivation. At the same time, while it is true that much unjust blame is attached to our mode of farming, it is equally certain that many bad habits are followed from long use, which it would be desirable to remove. The custom of sowing the land alternately every year, without either manuring or laying down grass, and giving time to the land to recover itself from over-cropping; allowing the weeds to grow for the purpose of pasture, instead of good grass, are among the worst features of the system. To obviate these and other defects, it has been recommended to raise green crops; but I apprehend, that those who gave this advice, do not sufficiently consider the difficulty of preserving the greater part of these kinds of produce during our long winters: besides, all lands are not suitable to such growth, and manure would be required to produce a reasonable return: to do this, stock should be raised, which our winters render too expensive to be profitable. Frequent ploughing would be of use in destroying weeds and bringing land into better tilth; culture is wanting to accomplish this. It is therefore evident, that it is easier to find fault than to discover remedies for the evils we suffer. Long experience has induced the adoption of a system which has been found, upon the whole, to be the best adapted to the climate and soil we have to work with; and we ought rather to look to the result, for the good or evil effects of the mode followed by our people, than to the recommendation of theories or methods followed in other countries, placed in circumstances dissimilar to our own. Although not generally rich, the greater number of farmers in this part of the Province, who have reasonably good lands, are well to do, and live comfortably and contented;

and those who are industrious and saving, even on lands of inferior quality, seldom fail to acquire a competency. I infer from this, that their tillage cannot be quite so bad as is frequently represented; and I believe they have little cause to envy any people of the same class in other countries. In saying this much, I do not mean to aver that no improvement can be affected in our system of cultivation; I only propose to shew that much unnecessary blame has been attached to it, and that it is not so easy, as some persons suppose, to introduce a better one. No doubt many improvements might be made; for example:—where manure from cattle cannot be obtained, ploughing in green herbage, such as buckwheat and clover, is found to be of great use, both for cleansing the land from weeds, and rendering it more productive; and I have found, by my own experience, that sowing grass seed with all my grain has had the effect of destroying weeds—of giving better pasture to my cattle—and, at the same time, ameliorating the soil. My experiment has induced some of my neighbours to do likewise, and I doubt not it will spread to others. From this, it is easy to infer, that good model farms, conducted by experienced and educated men, and upon economical principles, would be of the greatest benefit in inculcating, by example, the new and most approved methods of cultivation; and also, in aiding to eradicate old and inveterate habits, which, it is well-known, in all countries, has been difficult to overcome.

Agricultural Societies, carried out upon enlarged principles, are excellent auxiliaries in producing a spirit of improvement and competition; and our societies, such as they are established—although in some instances managed with narrow and restricted views—have done some good in creating emulation in the competitors for the prizes which have been offered.

I am not so sure that elementary works on Agriculture, distributed in the country and the schools, would be of much use; indeed I doubt of their being of any benefit, at least until a superior class of teachers are more generally introduced in our rural parishes. These, as almost all other kind of books, would be merely learned by rote, the subject remaining unexplained; both because the majority of the teachers are too idle, and what is worse, frequently too ignorant, to make the necessary commentaries, so as to inculcate what they pretend to teach. Still, as the introduction of such books might be of use, it would be, perhaps, money well applied to make the trial.

As to the settlement of the wild Lands of the Crown, all that is required is to sell them at low prices for cash; and to remove all difficulties in the public offices and agencies, in obtaining them at once on application. The whole evil which has formerly retarded their settlement, has arisen from the obstacles thrown in the way by the government.

I have now, in as synoptical a manner as I could, replied to the order of reference which the Committee has done me the honor to submit for my opinion, and I only regret that my means did not enable me to do it more effectually; which, however, I regret the less, as I am convinced you will have no lack of information from better sources than those I possess.

I have the honor to be,

Sir,

Your very obedient humble Servant,

WM. BERCZY.

J. C. TACHE', Esquire,

Chairman,

Committee on Agriculture.

ST. THOMAS, 24th June, 1850.

GENTLEMEN,

The population in Lower Canada, of French origin, are entirely ignorant of the improved system of Agriculture, and in consequence it will require very great changes before they can acquire it. Unfortunately, the want of education among the rural part of it, prevents their improvement from Agricultural Magazines, and their non-intercourse with Europeans or Americans, deprive them of acquiring the necessary information by that means.

After giving the subject the most deliberate consideration in my power, I beg leave to state it as my opinion, that the granting of wild Lands without any consideration is bad, and must be a failure, for it prevents that local attachment so necessary to an agriculturalist, which a purchase naturally creates. I would recommend a price to be put on the lands, according to their value, the payment to be made easy.

Agricultural Societies and Exhibitions have done much good in all other countries where they exist, and I am confident will eventually do so in Lower Canada; but, as yet, we have not had a fair trial of their effect.

I am of opinion, also, some good might be obtained from the establishment of Model Farms; but for any Bill to work well, a power must be given to the Superintendents to exercise their authority without any reference to the parents of those entrusted to their charge.

The distribution of agricultural works among the Schools will be of use; but the Seminaries and Schools should introduce Agriculture as a part of their studies.

I beg further to add, in my opinion, nothing will tend so much to the improvement of the agricultural population in Lower Canada, as the introduction of European or American settlers on the wild

lands in the rear of the Seigniories: and I am satisfied, if we can manage to obtain the great trunk Railroad to Halifax, it would do more for the improvement of Agriculture than all other Legislative enactments which could be introduced into Parliament.

Our population, as I stated above, cannot acquire the necessary information by reading,—they cannot acquire the necessary knowledge from ocular demonstration, because no European population remain among them,—and for the want of cheap and rapid communications cannot travel, and are thereby not only deprived of several markets for their produce, but the experience of others, among whom they would naturally travel for the sale of their produce.

The farms being all worn out, from having drawn off their riches for years without anything being put on,—that is, from continual cropping—it will naturally require means to improve them—which work, in various ways, should the Railroad go on, will furnish them, as well as give them a market for their produce at their own doors.

WILLIAM PATTON.

[Translation.]

BOUCHERVILLE, 25th June, 1850.

To the Members of the Committee appointed to inquire into the State of Agriculture in Lower Canada.

GENTLEMEN,

In answer to your circular, I have the honor to inform you that a matter of so vast an extent as that referred to in the circular, cannot be the subject of long comments on my part, my knowledge being very limited.

Nevertheless, if the little practical experience I possess on the matter in question, be not the fruit of

any recent discovery, it will at any rate be additional evidence which will support and corroborate what perhaps many others have said and still say every day.

With reference to the present system, I can state to you, with assurance, that the manner in which it works does not at all come up to the object intended; and that not only it has not succeeded in attaining what is expected from it, but, on the contrary, it has only served to promote, instead of a practical and theoretical knowledge, one which is erroneous and for the most part wanting in economy; nor has it been productive of any success as regards the science of Agriculture.

I have therefore no difficulty, gentlemen, as far as I am concerned, in agreeing to the exchange of such a system for any other one whatsoever, which cannot fail to be a much better one.

Now, without possessing an exact idea of the good results which might be produced by the plan proposed, I think we should not hesitate one moment in declaring ourselves in its favor; it may not, perhaps, have the merit of being as popular as that which is at present in operation, but I am most firmly convinced that it will have a most happy result, if vain prejudices do not throw too many obstacles in its way.

In conclusion, I am in favor of the principle of Model Farms, and of having as many of them as possible.

I have the honor to be,
Gentlemen,

Your most humble and

Obedient Servant,

F. A. BOURDON.

ST. THOMAS, 26th June, 1850.

GENTLEMEN,

In accordance with your request, herewith are transmitted the answers to questions submitted to me,—but, on so important an inquiry, I consider it the duty of every one to render all the information in his power; and in consequence, I will begin by calling to your attention, of whom our agricultural population in Lower Canada are chiefly composed.

Our first settlers from old France were not agriculturists, but either Fishermen or the sons of good families, to the latter of whom Seigniories were granted. On their arrival in the country, the land—as is the case with all new land, from the continual decomposition of vegetable matter—was rich, and although the settlers only worked one-third of the year, with their economical habits, the ground produced much more than they consumed; the remaining two-thirds of their time they spent in smoking, dancing, ceremonies of the church, and on the road going to Court or Market.

Education was not thought of; the children went on the same way: and yet, without any improvement to their land, it still yielded more than sufficient for their families. Another generation comes on, and they begin to complain of the crops falling off, and not producing as formerly, but for the want of education could not imagine the cause; and, unfortunately, the Seigniors, who actually were as much interested as the farmers, were neither acquainted with Agriculture or cared but little about it. This has continued until all the old farms—in the hands of Canadians of French origin—are so worn out from continual cropping, they will not produce enough for their subsistence, and the proprietors are all in debt.

The domain I now hold was in such a state when I purchased it, although cried up by all the farmers in the District as the most productive, it actually did

not produce sufficient to pay the labourers. I have had it ten years, during which time every field has been worked up on the rotation-crop-system, and my crop, the last year, was as follows:—

The land under cultivation was 50 acres, and I raised upon it 390 bushels of Wheat, 400 bushels of Oats, 300 bushels of Turnips, 160 bushels of Swedes, 360 bushels of Potatoes, 10 bushels of Barley, and 2000 bundles of upland Hay. My Wheat averaged $17\frac{1}{2}$ bushels per bushel, 35 to the acre, weighing 62 lbs.; my Oats averaged 15 bushels to the bushel, or 45 to the acre, and weighed 43lbs. to the bushel. I mention this to prove our land will produce equal to any land on the continent, if properly managed.

As our lands are worn out, it will require means to improve them; and capital, once introduced by way of public improvements, we might have some chance of arriving at improvement.

Cheap and rapid communications are required. For instance, one of our most opulent farmers will go from this to Quebec with a load of mutton, six sheep, which he disposes of at 6s. the carcass

£1 16 0

(One day going up, one day crossing and selling his load, two days returning and leaving Quebec.)

Now, my calculation is, a day's work for man and horse on his farm, is worth 5s., which makes four days

1 0 0

£0 16 0

From which I will deduct his expenses for four days, and horse, at least 5s. more; then comes expenses of bridges, wear and tear: consequently, our agriculturists raise and fatten six sheep for 2s. per carcass. Now, as this takes place from this, only twelve leagues from town, how much worse from any places below? Now, all our produce goes up in the same way.

The old lands cannot support the inhabitants, therefore, they must leave : if something on a large scale for the introduction of capital takes place ; and that, in my opinion, is the grand Trunk Railroad, which will furnish work on the spot to the agriculturists, a market, during its construction, for their produce, and turning into immediate cash.

The introduction of European farmers among us.

Settling and opening the Wild Lands, thereby improving the climate.

And when completed, a cheap and rapid communication to several markets ; and all of which would tend to give us the means to improve, and the intelligence required to know how to accomplish it.

I have the honor to be,

Gentlemen,

Your most obedient and

Humble Servant,

WILLIAM PATTON.

To the Gentlemen of the
Committee on Agriculture.

[Translation.]

TROIS PISTOLES, 27th June, 1850.

To the Members of the Committee appointed to inquire into the State of Agriculture, &c.

GENTLEMEN,

I have the honour to acknowledge the receipt of your circular of the 14th instant, and hasten to communicate to you the little information I possess ; considering myself fortunate, if the few suggestions I shall make, are of some use to you in the patriotic work you have undertaken.

Agriculture, as practised in Lower Canada at the present day, is a matter of routine, slow, and productive of unimportant results, although it requires

considerable labour on account of the bad system which is followed, and the state of imperfection of the implements which are used. This state of things has long created a desire to see great changes in our method of cultivation. The Legislature, it is true, have given us the means of establishing Agricultural Societies, doubtless thinking that these Societies would prove to be a means of encouragement and of improvement. We should consider ourselves indebted to the Legislature for having given us those means; but these Societies have not attained, nor will they ever attain, the object which ought to be expected in legislating on this subject, that is, to afford assistance to the agriculturist whose means are scanty, by enabling him to reap a greater quantity with a less amount of time and labour; the Societies have not done this.—Their results have, as yet, been productive of no effect, or nearly so.—The prizes distributed, sometimes fall to the lot of an intriguer who has succeeded in deceiving the judges. At other times, and it is most often the case, a farmer in easy circumstances carries off a prize for which he has only had the trouble of going to the exhibition. And again, for what objects are prizes given? for the least ill-favoured animals of a debased and degenerate breed. Besides, there is no improvement in the ploughing, the manuring, the draining, the making the land lighter, the agricultural implements, &c. No care is taken to suggest to the farmers the means of restoring to the land, by particular manures adapted to each quality of soil, the force and strength which it has been deprived of by the crops. This is what the Societies should have done, and what they have failed in doing. I can speak with a little knowledge of the matter, having been for three years Secretary to one of these Societies. Nevertheless, they cost about £10,000 to the Province, annually. I think, therefore, that it would be wiser to abolish these Societies, and substitute

Model Farms. One in each Municipality would be sufficient for the present. These Farms should be confided to expert and intelligent agriculturists; and if we cannot find such men here, let them be brought from the mother-country. They ought to be sufficient to furnish a living to the person working them. He ought also to be entrusted with the duty of teaching the theory and practice of Agriculture to a certain number of young men sent from each Parish of the Municipality. There should be in these farms all the most useful and best yielding seeds, the most improved agricultural implements, and the animals best appropriated to our climate. If these expenses are too great to be all incurred in the same year, let the sum at present expended by the Agricultural Societies, be applied every year to this object, and in a short time we will see Model Farms scattered over the whole face of the country.

These farms will be a powerful stimulus for the Canadian Agriculturists, who will naturally feel inclined to adopt a system of culture which they will see so successful with others. The present generation require practical Agriculture; the time for theory has gone by: it requires something which speaks to the mind and strikes the eye.

I do not pretend to say, however, that instruction in the theory of Agriculture should be neglected; on the contrary, I am of opinion, that the distribution of small elementary treatises on Agriculture throughout the country parts, would be of great advantage for the rising generation; but these treatises should be purely elementary, and written in terms as simple and clear as possible; for if they contain too many technical expressions and details, they will be incomprehensible to the greater number, who will lay them aside. They should be distributed at as low a price as possible, and if gratuitously, so much the better. These books should be placed in the hands

of the children attending the schools, after they have learned their alphabet.

If the preceding remarks can be of any use to you, I shall deem myself fortunate in having contributed something towards improving the lot of a great portion of my fellow-countrymen.

I have the honor to be,

Gentlemen,

Your obedient Servant,

CHAS. T. DUBE'.

[Translation.]

TORONTO, 27th June, 1850.

SIR,

In answer to the circular which I have this day received on the part of the Committee on Agriculture in Lower Canada, I have the honor to submit the following remarks:—

From personal observation, I think that cultivation is improving in Lower Canada; but its progress is slow, and it is undoubtedly possible to stimulate it much more.

The public moneys granted to the County and District Societies are not productive of all the good which might be expected, not from any want of zeal on the part of these Societies, but because the system is bad. Prizes are given for what is judged the most deserving at the exhibitions; but the animals, grain or other articles for which these prizes are granted, are frequently of a very inferior description.

No pains are taken to ascertain and publish the circumstances attendant upon, and the method employed in, obtaining the various results. Practical experiments are not sufficiently encouraged, nor is the introduction of improved implements. The

prizes—frequently spent by those who have obtained them, without being of any benefit to the progress of Agriculture—are far from covering the expenses and loss of time caused by the exhibitions. If some more advanced Counties show proofs of any progress, the absence of detailed reports prevent its development. If these exhibitions are to be continued, they absolutely require some radical improvements. I am of the same opinion as those who would prefer to see Model Farms established—I mean practical schools of Agriculture—furnishing, within a given compass, examples adapted to the condition and means of the mass of farmers. This plan does away with experiments of a purely scientific or conjectural nature; it also excludes a lengthy course of instruction in the science of Agriculture.

These two latter objects could only be put into practice in one sole and central establishment, inasmuch as the costs would be considerable and productive of no profit.

Mr. David Handyside, of Chambly, has placed in my hands a plan of a Model Farm, which I have great pleasure in laying before the Committee. I am unable to decide upon its applicability; but I know that Mr. Handyside has drawn it up with great care, and that he possesses extensive information on the state of cultivation in our country parts, and his views appear to me to be patriotic and disinterested.

The insufficiency of the drains and water-courses, the want of artificial meadows, the use of seed which has become fouled by being mixed with weeds, are among the number of the general obstacles in the way of Agriculture. The lateness of the sowing, in consequence of which the grain freezes in the autumn, is one of the great causes of the poverty which exists in newly cleared places. The new settlers—instead of working for others, or making potash early in the spring—ought to begin by sowing their fields, and by

doing so in a proper manner, though the extent might not be so great. To impart information respecting the expenses attendant upon Agriculture, should be one of the first duties of those who will undertake to encourage so important an art. The Journal, published at Montreal in each language, separately, by Mr. Evans, has rendered and still continues to render great service. It is more and more appreciated. The difficulty of corresponding with those to whom it is sent, and the costs of collecting the subscriptions, have caused a considerable deficit to occur in the publication of that journal, which cannot be covered unless the public grant be continued to the Agricultural Society of Lower Canada, under whose auspices it is published. I therefore respectfully recommend, that the approbation of your Committee and of the Legislature be given to the determination of the above mentioned Society to apply all its resources to the publication of that journal, until more abundant receipts from the farmers place it in their power to hold a Provincial Exhibition.

A. N. MORIN.

J. P. LEPROHON, Esq.,
Clerk to Committee.

To the Honorable
A. N. MORIN,
Montreal.

DEAR SIR,

Yours, of the 26th ultimo, was duly received, enclosing statements of Legislative grants to the various Agricultural Societies in Lower Canada. These will be noticed in their order in this communication.

I now proceed to place before you a Model Farm in detail, and will humbly endeavour to point out the manner in which it ought to be conducted.

MODEL FARM.		£	s.	d.	£	s.	d.	
In extent One hundred and fifty arpents, one hundred of which under tillage, fifty in wood, with suitable buildings, such as dwelling house, barns, stables, &c., may be purchased for ... ..		...	...	...	500	0	0
To Stock the same, the following is proposed:—								
6 Horses, each £15	... ..	90	0	0			
1 Canadian Stallion, for the use of the County	... ..	50	0	0			
12 Milch Cows, 90s.	... ..	54	0	0			
1 Ayrshire Bull, for the Dairy as well as County	... ..	25	0	0			
50 half-blood Sheep, Merino, each 10s.	... ..	25	0	0			
		£	244	0	0			
IMPLEMENTS OF HUSBANDRY.								
6 sets of Cart and Plough Harness, each 80s.	... ..	24	0	0			
3 Box Carts, 100s.	... ..	15	0	0			
2 Iron Ploughs, 120s.	... ..	12	0	0			
1 Sub-soil Plough, 120s.	... ..	6	0	0			
2 pairs Harrows, 50s.	... ..	5	0	0			
1 Drill Plough, 100s.	... ..	5	0	0			
1 Roller, made of Oak, 50s.	... ..	2	10	0			
2 Scythes, 10s.; 12 Sickles, 15s.	... ..	2	0	0			
6 Hoes, 15s.	... ..						
12 Shovels and Spades, 42s.; 4 Dung Forks, 16s.; 4 Hay do, 10s.; 4 Rakes, 5s.	... ..	3	13	0			
2 Wheelbarrows, 15s.	... ..	1	10	0			
1 Threshing Mill, ...	... ..	70	0	0			
FOR THE DAIRY.								
1 Cheese Press, ...	... ..	£5	0	0			
1 Churn, ...	... ..	2	10	0			
60 tin Milk Pans, 2s. 6d.	... ..	7	10	0			
1 Boiler, built in Bricks, ...	... ..	5	0	0			
			20	0	0			
		£	166	13	0	410	13	0
Add, for Contingencies, Fencing, &c.	89	7	0
					£	1000	0	0

I now proceed to show how the 100 acres should be arranged and cropped the first year:—

I would divide the Farm into fields of 10 acres each, and shall designate them No. 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10;

To be cropped as follows:—

No. 1.—Fall wheat with dung; sown in with grasses in spring.

No. 2.—Spring wheat with dung; sown in with grasses in spring.

No. 3.—Barley.

No. 4.—Barley.

No. 5.—Oats.

No. 6.—Mangel Wurtzel, with dung.

No. 7.—Beans.

No. 8.—Three of which in potatoes with dung; 7 pease.

No. 9.—Pasture, which may be found on the farm.

No. 10.—Pasture.

It now follows to give a moderate idea of the prospect of a crop from the above distribution:—

	£	s.	d.	£	s.	d.
No. 1.—10 acres Fall Wheat, 25 bushels per acre—250, at 4s. 6d.	56	5	0
No. 2.—10 acres Spring do, 14 bushels per acre—140, at 4s.	28	0	0
No. 3 and 4.—20 acres Barley, 25 bushels per acre—500, at 2s.	50	0	0
No. 5.—10 acres Oats, 25 bushels per acre—250, at 1s. 3d.	15	12	6
No. 6.—10 acres Mangel Wurtzel, 600 bushels per acre—6,000
No. 7.—10 acres Beans, 30 bushels per acre—300, at 5s. 6d.	82	10	0
No. 8.—7 acres Pease, 30 bushels per acre—210, at 2s. 3d.	23	12	6
3 acres Potatoes, 150 bushels per acre—450, at 1s.	22	10	0

DAIRY PRODUCE.

From Twelve Cows, with good grazing and ample winter food, which has been provided for, in the Mangel Wurtzel as already stated, and not extended, they ought to produce in the ten months of each year 7,200 gallons Milk, which will yield:—

2880 lbs. Cheese, at 5d. ... £60 0 0
1440 lbs. salted Butter, at 7½d. 45 0 0

Twelve Calves, raised on the cheese-whey and grass, will be worth the first year, each 25s. 15 0 0
Twelve one-year Hogs, purchased as Stock, lean and of a good breed, could be fattened each year, from the whey and churn milk

Carried over £ 120 0 0 288 10 0

	£	s.	d.	£	s.	d.
Brought over	120	0	0	288	10	0
of the dairy, weighing each 250 lbs.—						
3000, at 25s.	£37	10	0			
Deduct first cost, 20s. each,	12	0	0			
	25	0	0			
3 Colts, worth the first year, 20 dollars ...	...	...	...	145	0	0
The services of the Stallion, to 100 Mares, at 20s. each, ... ..	...	...	...	15	0	0
The service of the Bull, to 100 Cows, at 2s. 6d. each, ... ..	...	...	...	100	0	0
	...	...	...	12	10	0
SHEEP.						
The Fleece of fifty head, each 4 lbs.—200, at 1s. 8d.	16	13	4			
50 Lambs, five months' old, 7s. 6d.	18	15	0			
				35	8	4
				£	586	8 4

I note here, being now autumn, that the Stock to be provided for during the winter, is as follows:—

7 horses and mares.

13 (12 cows and 1 bull).

12 calves.

3 colts.

50 sheep.

12 hogs.

—
97
—

Their provision will be noticed hereafter.

EXPENSES.		£	s.	d.	£	s.	d.
First Ploughman, with board,	20	0	0				
His Wife to have charge of the Dairy,	10	0	0				
Second Ploughman, with board,	15	0	0				
Four Apprentices, (if possible Canadians,) to serve for two years, enter at the age of 18 and leave at 20, each at £6,	24	0	0				
A Dairy Maid, (a Canadian,)	9	0	0				
630 minots Oats, for 7 horses during the year, at 1s. 3d.	39	7	6				
690 loads of Manure to be purchased first year, at 6d. per load	17	5	0				
Cost of Seeds for Cropping the Farm, say £25.	25	0	0				
Carried forward				£	159	12 6	

	£	s.	d.	£	s.	d.
Brought forward ... ..	...	...	...	159	12	6
BOARD OF THE SERVANTS.						
The Food to consist of, as follows, throughout the year:—						
Breakfast and Supper; Porridge and Milk.						
Dinner; Animal Food and Soup, with Vegetables from a Kitchen Garden;						
WILL REQUIRE:						
Cwt.	qr.	lbs.				
45	2	14	Oatmeal, at 7s. 6d. ...	17	2	2
22	3	7	Beef and Pork, at 37s. 4d. ...	42	1	8
639			gallons Milk, at 3d	7	19	9
104			minots Potatoes, at 1s.	5	8	0
30	do		Wheat, ground for Bread, at 4s. ...	6	0	0
Shoeing Horses for the year,						
Tear and wear of Implements of Husbandry,						
					78	11
					12	5
					10	0
				£	280	9
Value of Crop,						
Expences,						
					326	8
					260	9
				£	325	19
From this surplus of £325 19s. 3d. to be deducted the Revenue arising out of the Stallion and Bull, which would not be engaged by the Canadian Farmer						
					112	10
				£	213	9

Leaving a very respectable margin to the farmer for his year's work, besides his family comfortably lodged and fed.

I now proceed to provide for the 97 head of animals, from the 1st November to the 30th April.

From the 6000 bushels mangel wurtzel I will consume, as follows:—

	Bushels.
12 cows and 1 bull=13 head—each.....	183=2379
7 horses.....	46 322
12 calves.....	46 552
3 colts.....	46 138
50 sheep.....	46 2300
12 hogs, fed from the dairy.....	
97	Total bushels.....5691

As respects fodder, you will find ample when I draw your attention to the straw that will be produced from

20 acres barley,
 10 " oats,
 10 " beans,
 7 " pease.

—
 47
 —

The properties of all of which are considered in my native country (Scotland) excellent food for cattle, and will keep them in high condition.

On the important subject of manure, you can easily see that a large quantity will be produced from the 97 head which will be fed the first winter; you have also the 20 acres of wheat straw, for their bedding, which will materially increase the stock of manure.

Before taking leave of this part of my subject, I beg to draw your attention to the 10 acres of fall wheat which you will notice I have recommended. I am fully aware of the great dislike the Lower Canada farmer has of following out this method themselves; I have perfect confidence in sowing winter wheat, from having had practical experience of its success.

In the year 1825, I had an interest in a farm of 300 acres in the parish of Longue Pointe, and being anxious to introduce the Scotch system of sowing winter wheat, to which I had been accustomed in my early youth, I therefore determined to put the experiment to the test, in direct opposition to the opinion of an old respectable Scotch farmer, full of prejudice, who admitted never having tried it, at the same time stoutly maintained that it would be a failure. Not daunted, I proceeded in the month of August to till two fields adjoining each other, each 10 acres in extent—I ploughed them twice and did

equal justice to both—the one I sowed about the 15th September; harrowed well, and rolled in with a heavy roller. The other I sowed the following spring, say 15th May, with the same treatment; and when I harvested, the result was as follows:—

Fall wheat, 30 bushels per acre, weight, 65lbs.

Spring wheat, 14 do. do. do 60lbs.

I may be asked, What kind of winter had you? I answer, Such a one as may be termed an average.

I would beg to ask prejudiced men of Lower Canada, how it happens that Upper Canada farmers almost always succeed with their winter wheat?

They nearly have the same quantity of snow as we have, and we all know that snow is the great protector.

Let Lower Canada do away with all its old prejudices and follow things new, which will be for its advantage.

I am firmly of opinion, from long observation, that the French Canadian farmer endeavours to cultivate too much land, considering his means. The consequence is, the labour is badly performed; and, as it is to be expected, yields miserable crops.

Were the *habitants* (I speak of them as a whole) to confine their attention industriously to the cultivation of 50 acres, they would, in the end, become better farmers, and able to enjoy the reasonable comforts of life; as also in a few years get rid of that curse—debt to their country merchants—from which, unhappily, very few of them are exempt; and, as a natural consequence, has been productive of much misery all over Lower Canada. While on the subject of debt, I have often wondered how it came that a *habitant* was in debt: economical in his habits, frugal, I may say even to a fault, still we are told that he cannot meet his engagements. How is this? I will answer, and to you, a Canadian gentleman for whom I have a high respect, I will frankly express my sentiments.

The *habitant*, in his present position, from want of that great blessing, education, is degraded and neglected: his natural talents are good; and by being guided and encouraged, he would, ere long, become useful, as also hold his rightful position in society.

During a long residence in this country, now 34 years—and which, from the nature of my pursuits, has brought me in contact with Canadian Agriculture—I have watched, I am sorry to say, the gradual decline of its prosperity; and, in the same period, I have looked with wonder at the proceedings of our Legislature, in not finding one solitary member of that Assembly taking an interest in the subject on which I am now writing you. It would have been well for this country that more attention had been paid, by the representatives of the people, to this interesting and important object. Yet it is not too late to do well; establish model farms throughout the country; the expense is insignificant in a Legislative point of view, and, depend upon it, much good would spring out of it.

On the score of Legislative encouragement I beg to correct myself, as I have now before me your kind favour of 26th ultimo, already acknowledged, handing statements of Grants to Agricultural Societies throughout Lower Canada for the year 1847, being the latest return that could be obtained: amount £4,579 12s. 3d., currency. This is so far well, but I much question the good that has been produced from such an outlay.

At the various exhibitions it may have amused spectators, and gratified the successful competitors; but in the end I would ask, Has it improved the breed of cattle? or does it at this day shew any improvement, generally, in Agriculture in this section of the country? I humbly answer, No.

I have had occasion to attend one or two of those exhibitions; and on examination I found a few horses, cows, samples of pease and Indian corn, but saw

neither wheat, barley, oats, oxen, pigs, or any of the valuable roots for winter feed, of which this country is lamentably deficient. In a word, in my belief, the sums given away at many of these shows exceed the whole value of the stock exhibited; and again, it has been admitted that the farms of many of the successful competitors, are often found to be in the worst order. I am well aware of the importance of such encouragement, and feel satisfied the intention of the Legislature meant good; but be assured it has not had the desired effect.

As no doubt these grants will still be continued, I would strongly urge on your notice the happy results that would arise by confining the premiums to those only whose farms are carefully conducted; out-houses in good order; sufficient food for the cattle in winter; in fine, a neatness and comfort in each domestic circle: were these few rules attended to, we would see, for a time, much less competition, and in its stead a much higher blessing, viz: industry, emulation, and comparative wealth. These suggestions I submit to your serious consideration.

As an evidence of winter feed for cattle being miserably deficient, I state, without fear of contradiction, that around this village, to a distance of six miles, where I occasionally take my walk, you will see in the farm yards one or two horses, a few cows, calves, colts, sheep, and hogs, all in wretched condition. Those few, who are able to buy hay, have to draw it from a distance; and are now paying forty shillings per hundred bundles.

Further, I may venture to say with equal confidence, that from Chambly Basin to the outlet of the Richelieu at Sorel, and on both sides of the said river, including the concessions, extending to the St. Lawrence on the north, and to the St. Francis on the south, the same deplorable state of things (with a few exceptions) exists. I will only add, on this head, to support my assertions, that a highly

respectable gentleman, in a neighbouring parish, is at this moment drawing hay from a distance of 12 miles. He has, to my personal knowledge, spent money to a considerable amount, in endeavouring to promote Agriculture; and as yet, it happens, he has not been able to raise, within himself, the necessary winter fodder for the small stock he keeps. And again, looking to the distance he has to fetch his supply, is ample proof of the wretched condition generally, of the French Canadian farmers, in this section of the Province.

This alone, through your influence, compels me to urge on the notice of Members of the Lower House, the necessity of devoting more attention than they have already done, to the promotion of this all-important object.

If the Legislature should see fit to make appropriations for establishing Model Farms—and I am not without hope that some action may be taken thereon this session—I would recommend, as it will be necessary to appoint individuals of respectability to superintend these farms, that it be their duty to visit the said farms at least once in every week, so that the servants may see that there is a watchful eye over them. Again, the Superintendent should be held to keep register accounts and statements, shewing how the farm or farms under his care are conducted; as also, the accounts should exhibit a full and detailed view of all disbursements and receipts—in fact an account current—shewing the profit or loss arising out of the undertaking. These documents should be made up to the 30th April in each year, to be laid before the Legislature, as evidence of the good, which I am sanguine enough to hope may be the result.

Individuals employed to take charge, ought to be reasonably paid for their services; and for this end, to ensure vigilance on their parts, give them a liberal interest in the result of the farm; which, if well

managed, I am satisfied will yield a sufficient surplus to remunerate any class of men that would undertake such a charge.

On the other hand, were the Legislature to attach fixed salaries to such appointments, I fear the same amount of good would not be attained; and in all human probability, entail a loss upon the country. Let any appointment work out its own good, and we may then hope for success; but rest assured, not otherwise.

I fear I have already detained you too long; but I would crave your indulgence to say a few words, through you, to our young French Canadians of the higher order. It is much to be regretted that as yet they have shewn no taste for the gentlemanly profession of Agriculture.

Had they done so years ago, their good example would have had a powerful effect in rousing the Canadian peasantry to industrious habits; and at this day, would have shewn a very different state of things to that which exists in every Canadian parish. Still let us hope, in this respect, to see a change for the better. I venture to recommend, without giving offence, that they retire into the country, where many of them have large properties, and there take a lively interest in agricultural pursuits; which, in the end, will make them useful to themselves and a pattern to those who, no doubt, would look up to them for instruction. I have been led to express these few words from the deep interest I have always felt, and will still continue to feel, for bettering the condition of the Canadian farmer.

I remain,

My dear Sir,

Your's sincerely,

(Signed,) DAVID HANDYSIDE.

CHAMBLY, 18th April, 1850.

MONTREAL, 19th June, 1850.

GENTLEMEN,

I have, for many years, urged the necessity of obtaining the Statistics of Agriculture in Canada, with a view of ascertaining its true condition, and its annual products, supposing that it would be the most proper mode of proceeding, in order that suitable remedies might be adopted for its amelioration where its improvement was most required.

In the year 1842, when acting as Editor of the "British American Cultivator," I published a series of "Questions" which I proposed should be sent to the Clergy of the several Parishes, with a request that they would endeavour to reply to them, or to as many of them as possible. I had previously, by letter, brought the subject before the late Lord Sydenham, when Governor General, but he took no notice of my letter.

The following are some of the Questions I allude to, with some slight alterations, and a few added. The census taken last year, includes, or rather answers, many of these questions; but I humbly conceive there are many very material omissions in the Act for taking the census, so far as regards the Statistics of Agriculture.

QUESTIONS.

- 1.—Name the Parish.
- 2.—Extent in arpents, or as near as possible.
- 3.—Number and size of farms.
- 4.—Nature and general quality of the soil.
- 5.—Nature of the sub-soil.
- 6.—State of the drainage generally.
- 7.—Number of arpents under plough, or arable.
- 8.—Usual course of cropping, and modes of cultivation, and manuring for each crop.
- 9.—Whether weeding the crops is generally practiced; what weeds prevail most, and do they abound so as to be injurious.
- 10.—What number of arpents in meadow.

11.—Number of arpents in pasture, and state the quality of the pasture, and what proportion of it has been cultivated. Are the weeds regularly cut down, or are they allowed to mature. How are the cattle supplied with water; and is there any shade by trees, hedges, or otherwise.

12.—Number of arpents waste, but occupied; what proportion is capable of cultivation; whether all is bearing wood, or what else: what is the value of the wood, and is it kept for the farmer's own use.

13.—Number of arpents of unoccupied waste; its quality, and suitability for settlement and cultivation; and on what terms attainable for occupation or settlement.

14.—Average quantity of Hay, per arpent, from artificial grass and from natural grasses; and is the hay generally well cured; are there much clover or other grass seeds sown.

15.—Number of arpents, and quantity produced per arpent, of Wheat, Rye, Barley, Oats, Buckwheat, Pease, Beans, Indian Corn, and other grains not specified, in the last year; also, the quality of the samples of each, and whether clean, and of unmixed varieties.

16.—What are the varieties of Wheat cultivated: what time sown generally. Are the crops liable to injury by the wheat-fly; and which is early or late sowing found to answer best. Are the crops well harvested and in good time: how are the crops cut down, and managed subsequently, until housed.

17.—Are there any Hops; and what number of arpents cultivated, and what produce.

18.—Number of arpents of Potatoes; how cultivated; any manure applied, and how: subject to disease in seed or crop, or not: what varieties are cultivated, and which varieties are least liable to disease; what time planted; produce per arpent.

19.—Number of arpents under green crops; how cultivated. What are the varieties; what produce

of each per arpent, and how are the products employed.

20.—Number of arpents in summer fallow. What mode of executing the process, and when commenced; what the quality of the soil. Is summer fallow found to be beneficial to the soil, and what crops are generally grown after it.

21.—Number of Horses employed in Agriculture, and for other purposes. Are the males generally geldings.

22.—Number of Mares kept for work, and breeding; and what attention is there given to procure a good race of horses, of pure Canadian or other breeds; and which breed is considered best and most profitable.

23.—Number of Oxen kept for work; how are they worked; and are they considered better than horses for work, and cheapest to keep: what age are they disposed of, and in what state.

24.—Number of Oxen annually fattened on grass, and stall fed, each separately; what degree of fatness do they attain in either case, and how long fattening; what description of food is supplied to them when stall feeding, and what average weight do they be brought to, when sold to the butcher. Are those generally fatted upon grass regularly castrated when calves. Is it oxen that have been worked that are fattened, or to what age are oxen generally kept, when disposed of fat, either grass or stall fed.

25.—Number of milch Cows kept; and of what description; whether of pure Canadian, mixed, or of other pure breeds: which are found the best and most suitable. What average quantity of milk do they produce daily, each; and what quantity of milk is required to produce one pound of butter from each breed.

26.—Number of Calves raised for rearing or meat; how many of male and female kept for stock; are the male calves castrated, and at what age. Are the

calves raised upon the cows, or fed out of the pail ; and if the latter, do they get all milk, or what substitute.

27.—Number of Sheep of the long woolled breeds ; their quality ; average weight of carcass when at maturity, and fat, and of each fleece ; also, value, per pound, of wool, and how disposed of.

28.—Number of Sheep of the short wool breeds ; their quality ; weight of carcass when at maturity, and fat : weight of fleece, value per pound, how disposed of.

29.—Number of Lambs bred in the year for rearing and for meat ; value of the latter when sold. What is the average mortality until weaned, per hundred born ; are the male lambs castrated before they are weaned, or when.

30.—Number of Sheep, of all descriptions, sheared in a year ; the breed, quality, and value of sheep generally, and what breed are most esteemed : how are they kept in summer and in winter, with regard to food ; are they pastured with other stock in summer.

31.—Number of Swine fattened in a year ; what are they fattened upon generally : their ages and average weight : what are the most esteemed breeds ; what proportion is sold by the farmers ; what price per 100 lbs. would be considered fair remuneration.

32.—What quantity of cheese and butter are made in a year ; are the dairies good and suitable, and is the produce of cheese and butter of good quality ; how are both disposed of, and at what prices.

33.—What is the mortality in stock annually,—horses, neat cattle, sheep, and swine,—what are the prevailing diseases, and supposed causes ; are they under the control of medical skill and remedies if properly applied.

34.—What is the state of the roads ; how are they repaired.

35.—What is the state of water communications, if there are any ; might they be made useful, and how.

36.—What is the state of the farm houses, and buildings; are they good and suitable generally.

37.—What the state of the fences, and materials used.

38.—What the rate of wages for all descriptions of servants and labourers, and the probable number employed by farmers, and their efficiency. State if farm labourers are to be had at all times to meet the demand for them as ploughmen, and for other works.

39.—State if there are any domestic manufactories carried on; describe what they are—their extent, and the value of their manufactures annually—also, the number of persons employed in them; if hired, the wages they obtain, and if not hired, what they are able to earn by their labour.

40.—Give any other useful information that will have a tendency to show the true State of Agriculture in the Parish, and particularly as regards capital, and the want of it.

41.—Do you suppose the establishment of Model Farms in each County, would be calculated to advance the improvement of Agriculture if under good management.

42.—Do you suppose the introduction of suitable agricultural works, for reading in the country Common Schools by the children of the rural population, would be advantageous.

43.—What description of farm implements are generally made use of; and are they numerous, and well adapted to the uses they are employed in.

44.—What is your opinion of the benefits of the County Agricultural Societies to the improvement of Agriculture in your Parish.

45.—Do you consider it possible to introduce improvements—in the present system of farming practiced in your Parish—that would very much augment the annual produce, and how would you propose that this improvement could be best effected.

Respectfully submitted.

WM. EVANS.

Answers to the following Questions, of those submitted by the Secretary of the Lower Canada Agricultural Society, in the last, or July, number of the Agricultural Journal:—

The 1st, and four following questions, I cannot reply to with any pretensions to accuracy, and will leave them to other parties to answer.

The 6th. As to the state of drainage generally, I can reply: That I have never seen a farm drained in Canada, to come up to my ideas of what was necessary. Even as regards open drains, they are not, generally, well formed, or sufficient in any respect, to drain the lands of superfluous waters. The main drains are not large enough, nor sufficiently deep to carry away the water with the necessary rapidity from the lesser drains; and this is a matter of great consequence, that the water should discharge rapidly from the lands. The country is generally level, and unless the main drains are considerably lower or deeper than the lesser drains, the discharge of water will be too slow from the lands, and hence they become saturated with moisture, until dried up by the sun; and it is from this cause that the soil becomes baked and hard.—I am persuaded, that improvement in our draining, so as to make it sufficient to drain the land, would double the annual produce.—Lands, insufficiently drained, cannot be cultivated properly or to advantage for any crop. Draining is more necessary here than in England.—I know some parties entertain a different opinion, because we have so much heat and drought in summer.—It is, however, a great mistake to suppose that the stagnant water, remaining in the soil, would be beneficial to the crops in dry and warm summers; any farmer may be convinced of this by examining the crops upon the insufficiently drained parts of his lands, and comparing them with the well drained parts: in the driest summers we have, the latter will have a good crop, while the former will

have scarcely any crop upon it. There is another defect in our drainage; that in general the drains are cut perpendicularly, and the earth taken out is heaped upon the edge or bank of the drain; hence, the parts of the lands nearest the drains are much the highest, instead of being the lowest as they always should be. The drains, from not being properly sloped, are continually falling in, from the effects of rain and frost; and hence, in the spring, when the action of the drains are most required, they may be nearly useless from the earth of the sides falling into them.—The high banks or mounds formed upon the edges of the drains are undermined by the water in its passage to the drains, and causes the soil to close in at the bottom of the drains, or to waste in from the sides.—All drains should be very much sloped, and always in proportion to their depth, allowing that for every foot in depth they should be two in width at the top, and any drain under four feet deep requires to be only the width of the shovel at the bottom. When a large quantity of water has to be discharged, and the drains are large and deep, the bottom may be wider; but in very few cases does it require that the bottom should be over from twelve to eighteen inches wide.—A well sloped drain takes away the water better than one that has the sides nearly perpendicular.—Every particle of earth taken out of drains in making or sloping, may be applied to useful purposes, as compost, for filling up low places, and as dressing on soils of different quality, which latter application might be better than manure for it.—It would be a great improvement to remove all the banks of drains, and it would pay well for the trouble.—In all cross drains in farms it would be well to stop the drains so that the plough might pass over them, unless where water was constantly running; made in that way, it would be easy to keep them in good order by a simple channel in the centre, kept clean, the width of the shovel. The grass

might grow upon all the drain except this small channel. When a large quantity of water was to be carried off, the drains being wide, would admit of its rapid discharge, and subsequently the small channel in the centre would be sufficient, and no other part would be waste. The first expenditure, in constructing drains properly, might exceed the cost of making drains in the usual manner; but this extra expense would be amply repaid by the better drainage of the land, and by the diminished expenses of keeping the drains in order.—The banks of drains, as generally made at present, are much higher than the lands adjoining, instead of being lower, as they should be.—There are many small rivers and water-courses, that would require to have obstructions removed, that dam the water and cause great injury to the land through which they pass. I have seen many of these, when a trifling expenditure would remove the obstructions: but, as many would derive benefit from the improvement, it is altogether neglected, because all parties do not unite to execute the work required to be done. In England, the legislature have made large loans to landed proprietors for drainage and other improvements, and are doing so this Session of the British Parliament, and these loans are made on very favourable terms. These loans are made in a country where there is a vast amount of capital already employed in Agriculture. Some of the best lands in Canada are waste for want of draining. Clay lands in particular, that require draining, would produce immense crops if drained. Cultivation and manure is all but wasted, when employed on undrained land; and I am convinced there are not many farms in Canada sufficiently drained throughout. I have been more particular on this subject, as draining should precede all attempts to improve our Agriculture in this country.

7th. I shall not take upon me to answer.

8th. Usual course of cropping, and modes of cultivation, and manuring for each; I may reply to, but not so fully as may be necessary.

The practice, most general in Lower Canada, amongst Canadian Farmers, is to have the arable lands divided into two equal divisions, and sow one half one year, and the other half the next year, without sowing any grass seeds upon the half to be left for pasture for one year. The manure from the farm yard is frequently put out upon a small portion of this pasture in the month of July, and left in cart-load-heaps, unspread, until the fall-ploughing, when it is spread and ploughed in. I have often seen as much manure, put out in this way, upon an arpent or two, as would be a reasonable dressing, if properly applied, for ten arpents or more, while these ten arpents are left without any, although requiring it as much as that which had so much over what was necessary. The manure upon a large proportion of farms is thus nearly wasted. It loses, while in the yard, a large portion of its valuable properties, and is then put out to the field, exposed in cart-load-heaps to the hot sun, at the most warm and drying season of the year.—It thus must lose three-fourths of its value, before it is employed in the production of crops.—The lands that have been thus left for pasture, are generally ploughed once in the fall, for sowing in the following spring, with wheat, peas, or oats. The ploughing may be executed so as to turn over the soil, but is seldom ploughed according to the established rules of *good* ploughing. The ridges are not straight, nor the furrows properly finished and cleaned out for the water to run off. The bottom of the furrows should always be lower than the ploughed soil of the ridges, in order to carry off the water from the ridges that would otherwise lodge under the furrow-slices which formed the ridges. By passing the plough once in each furrow after all the land is turned over, a deep furrow will be formed, which

will completely drain the ridges, if there are proper outlets provided, to command the furrows. The want of attention to all these matters is a great defect in Canadian ploughing, and the cause of the lands being so saturated with moisture in the Spring sowing time.—These defects are easy to remedy, if the farmers would take time to do the work.—It is not a defect of doubtful character, but one that must be plain to any man who will examine the matter. If the bottom of the furrows are not decidedly below the under sides of the furrow-slices that form the ridges, it will be impossible for the water to pass off from the ridges, but will remain under the furrow-slices, to the great damage of the soil, and of whatever crop sown. I admit that good crops are frequently raised under this defective system, but certainly, only where the soil is of the very best quality, and where it would give still better crops, if cultivated properly. There is no such thing as a regular rotation observed, that is so necessary in good farming. The land is allowed to repose every alternate year, and cropped every alternate year, by the simple preparation of one ploughing, and harrowing in the seed in Spring.—If this system was practiced in the British Isles, they would not raise crops of one-fifth the value of those that are raised by good farmers in those countries, under a better system of husbandry.—Parties may think that improved systems of Agriculture would be unsuitable for Lower Canada; but there is no doubt, that many improvements are required in our system of husbandry, that might be introduced with advantage to farmers, and to the country generally.

9th. Weeding the Crops, &c.

I reply to this, that weeding the crops is very much neglected generally, and that weeds prevail, very injuriously, in consequence of defective cultivation,—the total neglect of rotation of crops—the small proportion of green crops—and the want of

summer following to clean the soil properly. Thistles, wild mustard, the ox-eye daisy, wild pea, wild oats, and mugwort, are the most prevailing and troublesome weeds, but there are many others very injurious. Conch grass is very general, and scarcely any exertion made to remove or destroy it, consequently, it is to be seen in almost every crop, and in the hay crop, when the land is seeded down: it is almost impossible to get rid of this grass, except by summer fallow properly executed, when all the roots of this grass is harrowed up, and hand-picked off the land. A large proportion of the nutriment of the soil is absorbed by worthless weeds in Lower Canada, and there is no effectual means adopted to check or remove them; on the contrary, our system of husbandry tends to augment their number every year, and make them more injurious to the farmer. When weeds are allowed to mature, their seeds are sure to find their way to the fields in the manure, mixed with the seed sown by the farmer, or fallen from the plants where they have grown in the lands.

11th. Pastures.

The Pastures are generally poor, compared with those of the British Isles, and with what they might be here. I have seen some excellent pastures in Lower Canada, where justice has been done to them. It is a great mistake to lay down land in an exhausted state, and without any grass-seeds or clover for pasture. It cannot produce good pasturage for animals; particularly when it is again ploughed up before it is covered with a natural herbage of grasses, or has time to be enriched by the manure of the cattle pastured upon it. If lands were allowed to remain in grass several years, they would become good pastures, although they might have been laid down exhausted and without clover or other grass seeds. By keeping the weeds checked, lands would soon become stocked with natural grasses, and make great improvement as pastures. There is frequently natural supplies of water

which is much the best for cattle. Draw-wells, however, are very general, and would answer, provided the supply was constantly kept for animals in summer. Where artificial ponds are made, the water is very apt to become bad, and full of all sorts of insects and vermin, and the water unfit for the use of animals. Shade by trees, and live hedges, are much wanted in many parts of the country. Many farms have not a tree left upon the cleared portions, and there is no attempt made to supply the want by planting trees. The destruction of all the trees in clearing lands is a great evil, and should be prevented.

Respectfully submitted, by

WILLIAM EVANS.

[Translation.]

LONGUEUIL, 28th June, 1850.

SIR,

In answer to your circular of the 14th instant, transmitted to me by order of the Committee on Agriculture, and which I received at seven o'clock last evening, requesting me to furnish you with a synopsis of my opinions on the different subjects mentioned in the order of reference; I have the honour to reply:—

That having received it at so late a period, I have not been able to devote sufficient time to the study of the question. I hope the Committee will excuse me, therefore, if I do not give them all the information they expect from me, touching the several subjects mentioned in the order of reference, in consequence of the short time allowed me to answer:

I think it my duty to remark to the Committee that the County Agricultural Societies should not be abolished, but the funds granted for the district ex-

hibition—held in each county according to its seniority—might, in my opinion, be expended in publishing elementary treatises on Agriculture, to be distributed as mentioned in your circular. With respect to model farms, they may be of great use in improving Agriculture, if they are well managed. I think, that it would be better not to establish more than two at present, as an experiment, because a greater number might perhaps not work with advantage, for want of a qualified master, and on account of the expenses which must be incurred for the experiments which will be necessary in order to attain the desired end, before establishing them in each county. Then, the moneys granted to the County Agricultural Societies might be expended on the Model Farms, if the Legislature should think it requisite, in consequence of there not being sufficient revenue to establish them in all the counties. As regards the settlement of Waste Lands, it would be necessary for the Legislature to pass a law, obliging proprietors to pay an assessment of so much per superficial arpent, so long as they shall not have settled and cleared their lands according to the intention of the law. This money might be applied to the support of the model farm and the schools of the county in which it will have been levied.

I am, Sir, &c.,

J. VINCENT.

J. P. LEPROHON, Esquire,
Clerk to Committee.

[Translation.]

COLLEGE OF ST. ANNE,
LaPocatière, 1st July, 1850.

To the Members of the Committee on Agriculture:
GENTLEMEN,

I regret, exceedingly, that I have not sooner answered the questions submitted to me by the Com-

mittee on Agriculture. It is with pleasure that I now fulfil that duty.

The points on which the Committee appear to me to require information, I shall reduce to six.

1st.—The causes of the backward state of our Agriculture.

2d.—How to remedy this.

3d.—The settlement of the Crown Lands.

4th.—Of what results have the existing Agricultural Societies been productive.

5th.—The advantages of Model Farms.

6th.—The publication of elementary treatises on Agriculture.

On each of these points I shall only say a few words; and merely state my opinion, without entering into long details.

1. Why is our Agriculture in so backward a state?

The first and principal cause is the ignorance (I beg pardon for making use of the term) and consequently the prejudices in which the great mass of our farmers have been allowed to remain. The little instruction which has been given them, has always been more calculated to give them an aversion for Agriculture, than to inspire them with esteem and regard for the first of all useful arts. Far be it from me, however, to reproach them for this: they cannot learn what we have neglected to teach them.

The second cause is the want of a capital applicable to agricultural improvements. But this disadvantage would very soon disappear under a system of instruction, more adapted to the condition of the farmers, in the Schools of Agriculture connected with Model Farms;—a legislation more in harmony with the immediate wants of Agriculture;—in fine, with a better expressed public opinion on every thing relating to it, both directly and indirectly. I think that the necessary capital would be easily found by means of Agricultural Credit Associations, such as

exist in Europe, where they appear to be productive of immense good.

The third cause is the insufficiency of our present legislation on several points affecting the interests of Agriculture. So long as the legislature shall leave the friends of this noble cause to struggle alone against the apathy and prejudices of the masses, nothing can be expected.

The fourth cause appears to me to be the absence of markets, at which the agriculturist may dispose of his produce to advantage. Those of the towns are far from being sufficient.

The fifth, is the emigration of our fellow-countrymen to foreign parts.

The sixth, is the fisheries and lumbering establishments, which are carried on for the benefit of a privileged class, and to the detriment of our hardy brothers, who almost always return ruined both in body and soul, from their employment in the service of those whom they call their *bourgeois*.

I now take up the second question of the Committee, namely :—the means of improving our Agriculture. The most important and unquestionable one is to cause ignorance and prejudice to disappear by a proper instruction : not that which makes a man a doctor, a lawyer, a notary, or a merchant's clerk, as under our present system ; but one which will teach him to look upon Agriculture as an art, having its rules, its secrets and its developments, which are brought to light by the discoveries and experience of every day. The farmer, therefore, requires an instruction of a particular nature ; but here a difficulty presents itself. Ought we to begin by the young men, or content ourselves with making the older ones read, by distributing everywhere an immense number of agricultural treatises and journals ? The latter plan is good, but the former is better ; it is even the only effective one.—The mind of youth receives without effort all the ideas imparted

to it ; but manhood has its own ideas, prejudices, and routine.—A good discussion might, perhaps, convert a few ; but it would be an infinitely small number. The great mass of others will set aside your agricultural treatises and journals. We must, therefore, commence with the young men ; but with this condition, that we must speak to the mind by teaching him principles, and to the eye by an immediate application of these very principles ; one cannot exist without the other.—The mind seizes more firmly what is shewn to the eye.—I conclude, therefore, that we require special Schools of Agriculture and Model Farms connected with them. Until we can have them, it would be very useful to introduce into the elementary schools short treatises on Agriculture. The reading of these treatises, commented upon, if you like, by such of the masters as might be capable of doing so, would, by degrees, accustom the children to form ideas which they would be desirous of putting into application at a later period. A second means of improving the state of our Agriculture, would be to favour our agricultural and manufacturing productions, by according to our produce a sufficient protection against the importation of produce of the same nature from foreign countries.—It is a fact, that in many instances the importation of a foreign article has had the effect of ruining the same article produced by us. Is it surprising, then, that we are without manufactures of any value ?—In the absence of foreign markets, manufactures in this country would be an outlet, constantly open, to our agricultural produce. Now these manufactures would not fail to spring up on all sides, if a sufficient protection were afforded to the objects produced by them. Unfortunately, all questions of tariff appear to be arranged for the interests of foreign trade. We have been, and still are, the victims of too great condescension. The vital interest of the country—its agricultural and manufacturing produce—has been bartered

for advantages which were often imaginary, but always of an inferior order. A good system of agricultural reform requires, therefore, as a necessary condition, that manufactures should be encouraged: now, that encouragement can only proceed from a good protective system. A third means would be to found Agricultural Colleges with Model Farms. In the fourth place, the interests of Agriculture should be directly represented among the heads of the State. Establish a board of Agriculture with a chief who, if it is required, will have a seat in the Executive Council, in the same manner as the Commissioner of Crown Lands or of Public Works.

Let us now come to the settlement of the Crown Lands. This, for the last few years, has become almost a national work. Public opinion has proclaimed it such; considerable efforts have been simultaneously made at several points of the country. The government have generously lent a hand to the friends of this work, and strongly seconded their patriotic zeal: but must we stop there, and let things go on? Is every thing yet done? I presume not. The very great facilities offered to the settlers by the government consist, principally, in a considerable deduction from the price of the lands. In addition to this, they make a free grant of fifty acres of land on the high roads, to each person who will settle upon them and open the road. These are certainly very valuable advantages. Knowing, however, as I do, the poverty and discouragement of the settlers, I shall add—at the risk of being considered as one whom it is impossible to content—that in certain cases something more will be required. That something more would be a few advances in money to assist them in opening the principal roads and making bridges, in the distant parts of the country most susceptible of being speedily settled by a numerous population. These advances would not be lost to the public treasury, for the government might gradually increase the price of their

lands in the neighbourhood of these localities. They would very soon receive, with usurious interest, what sums they advanced. As the work of colonization is carried on, at the same time, in a great number of localities, and the public treasury is not sufficient to open roads everywhere, the government, in their wisdom, will decide which are the most deserving of it, either from the extent and fertility of the soil, or from the number of settlers proceeding thereto at the same time, from a great number of parishes, or who have already effected considerable improvements in these localities.

4th. What results have been obtained from the Agricultural Societies at present established?

They are productive of some good, there is not the slightest doubt; but they do not attain the end for which they were established. By modifying a little the law authorizing them, according to the system above pointed out, much better results would be obtained.

5th. Model Farms.—Everything ought to be expected from good Agricultural Schools, with well conducted Model Farms. I think it useless to enlarge upon this point.

6th. The publication of elementary treatises on Agriculture will also be productive of great advantages, provided they are read in the elementary Schools. It would be throwing away time and money to content ourselves with offering them to the great majority of the present generation of our farmers. This opinion may surprise some, and even wound the feelings of others. What is the use of deceiving ourselves, when we have a thousand facts before our very eyes? It is a state of things which is very much to be deplored.—It must be taken for what it is worth.—I only state the fact, and nothing more.

These, gentlemen, are my opinions on the various subjects submitted by the Committee on Agriculture.

I have stated them frankly : that is the sole merit I attach to them, and on that score I crave indulgence for all the rest.

Accept, gentlemen, the assurance of my most respectful consideration.

F. PILOTE, Ptre.

[Translation.]

NICOLET, 2nd July, 1850.

SIR,

May I request you to submit the annexed remarks to the Committee, by whose order you have asked me to transmit to you my observations respecting "the effects produced by the Agricultural Societies as at present established; the results which may be expected from the establishment of Model Farms and the publication of elementary treatises on Agriculture."

I have the honor to be,

Sir,

Your most obedient Servant,

J. B. A. FERLAND, Ptre.

J. P. LEPROHON, Esq.,

Clerk of Committee.

Although the Agricultural Societies have not, as yet, been productive of all the good which might be expected from them, and although they have sometimes given rise to complaints and created great dissatisfaction, the advantages resulting from these associations are nevertheless of sufficient importance to induce the Legislature to accord them its protection.

The annual exhibitions got up by these societies are favourable to the interests of Agriculture. They

serve as a place of meeting for the most intelligent and advanced farmers of a county; they become for them a regular fair, and are in fact a sort of Agricultural *comitia*. Indeed the finest samples of grain, the most remarkable specimens of farm animals, after having been examined at these shows, frequently pass into other hands, being either sold or exchanged for others. The productions of domestic manufacture are submitted to public inspection;— what progress has been made is closely remarked: proposed improvements are discussed;—the respective merits of the different sorts of grain, and the various breeds of animals are made a subject of study and debate.

By means of these exhibitions the resources of the country are better understood. Although I have, for many years, followed with interest the progress of our domestic manufactures, I confess that I was surprised at the variety, the beauty, and high finish of the linen and woollen stuffs displayed last autumn at the exhibition of the County of Nicolet. The Agricultural Societies, it is true, are not of immediate service to the greater number of the farmers; but they are certainly of great benefit to the most enterprising and enlightened among them. Now, the progress which the latter will make in Agriculture, will gradually extend and produce favourable results with their less intelligent and less resolute neighbours.

A few suggestions might, perhaps, be made to the Committees of Management of these Associations. It seems to me that ploughing and harrowing ought to be encouraged by prizes: for, notwithstanding our national prejudices, it must be confessed that our countrymen are generally inferior, in this respect, to the English and Scotch farmers. A portion of the prizes might also consist in improved implements which it might be desirable to bring into use.

Model farms and elementary treatises would greatly tend to promote the advancement of Agriculture,

and serve to impart to the masses a taste for agricultural improvements.

It must be observed, that in order to be productive of real benefit, the agricultural treatises should be placed within the reach of the most ordinary intellect, and should only recommend the putting into practice of such improvements as are possible in the present state of our Agriculture. Separated from France, whose language and institutions he understood, and subjected to England, whose idiom could not communicate to him any intelligible idea, the Canadian remained, up to the last twenty years, the same as he was in 1759, as regards his knowledge of the Arts and of Agriculture. Since then, he has only been a novice in Agriculture, and requires to be taught the elements of that art: he will, at a later period, be able to receive instruction in its more difficult branches.

When he will have become more advanced, agriculturists will have an opportunity of inducing him to enter into speculations of a higher nature. The treatises he requires at present must be short, simple, and positive. The terms made use of should be those of his ordinary language, or, at least, such as his wife may be able to explain to him—for Josephite is generally the only dictionary that Jean Baptiste possesses. Laying aside discussions, and particular thesis, let him be taught a method which is unquestionable, well-tried, and practical.—The learned dissertations of a Dombasle, a Young, or a Sinclair, would be all Greek or Hebrew to him.—If Monsieur Agénor de Gasparin's little treatise upon Agriculture were arranged in the form of dialogues, adapted to the circumstances of the country, and free from all expressions which the people are ignorant of, it would seem to me the most proper work for our French Canadian farmers. Mr. Evans's excellent treatise might be taken up at a later period.

The Model Farms seem particularly adapted to Agricultural improvements among the people of the country. Nevertheless, in order to give the habitants confidence in them, each of these establishments should pay its own expenses and be of the same extent as the ordinary run of farms, that is, about 120 superficial arpents. If they cannot support themselves after the first costs of their establishment have been paid, they will serve as an argument against the advantages of an improved system. It would be desirable for each county to have, at least, one good Model Farm, on which both example and advice might be obtained respecting Agriculture.

I need not say that the person entrusted with the working of this farm should speak the language of the population in the midst of whom he would be placed: for our French Canadians, farmers from Belgium or the north of France would appear to me to be the best.

In conclusion, I will venture to add, that it is important for the Government, fairly and honorably to enforce the provisions of the law, enacted last year, for the redemption of lands respecting which the conditions of clearing and settling shall not have been fulfilled. It would be useless to suggest improvements in Agriculture, if our countrymen cannot find lands on which they can put these improvements into practice.

J. B. A. FERLAND, Ptre.

[Translation.]

GRANDE BAIE, 5th July, 1850.

GENTLEMEN,

I am very much afraid my answer will not reach you in time: it is not my fault, but that of the

mail, which only comes to this place twice a month ; and never comes at all to the woods of the Township of Labarre.

The subjects which your Committee are entrusted with the duty of inquiring into, are so important and so intimately connected with the interests of my countrymen ; that notwithstanding it may perhaps be late—and notwithstanding the very little information I possess on the subject—I consider it my duty to give my answer, without mentioning, however, the causes which dictate it. It is but too true that Agriculture is, generally, in a deplorable state in Lower Canada. I am convinced that this state of things cannot improve at once: the friends of the country want time and perseverance, in order to introduce, into the country parts, the various changes which Agriculture requires.

The Agricultural Societies have already done some good: they have had the good effect of altering the routine opinion entertained by a certain number, and now we must let example do the rest. This good has only been partial, but it will become more general in time. Model Farms, I think, would attain the same end if they were well managed. Any well written treatise on Agriculture, placed within the reach of people, has always a good effect ; and I am persuaded, that generally speaking, the people are more than ever disposed to profit by the instruction furnished them on this subject.

I think that an agricultural treatise disseminated throughout the country parts, distributed among a certain number of farmers, and especially in all the schools, would produce a favorable result. The farmer is so fully convinced that he can be taught nothing in the way of cultivation, that it will be necessary to repeat his lesson to him very often before you can change his ideas, and especially before you can induce him to change his routine.

The Agricultural Societies, the Agricultural Journal, and the different papers written on the subject, have already contributed to open the eyes of a great many. I have no doubt, therefore, gentlemen, that by encouraging the Agricultural Societies, the Model Farms, the treatises on Agriculture, &c., you labour effectually for the public good.

I have a word to add on the subject of the settlement of the Crown Lands. I confess that I can scarcely suppress my indignation when I reflect that so great a number of Canadians have emigrated to look for farms, while there are so many, and such fine lands around us. It is indeed a misfortune! it is even a shame! but for whom? Every body knows. The means, gentlemen, and the only one calculated to facilitate the speedy settlement of the Wild Lands of the country, is to open roads, in the first place; and in the second place, to give those lands at the same low rate as at present, that is, at a shilling per acre. It is not too much, but it is quite dear enough in all the new settlements. Without means of communication, the clearings will only progress slowly, and be always unproductive of success for the first settlers: this has been proved by experience.

Yes, gentlemen, I am convinced that if the Government would grant a reasonable aid towards opening the roads which are at present necessary, in order to penetrate into the interior of the wild lands of the Crown, it would better serve the interests of the country and its own, than by any other grant which it can make for Bridges, Canals, Railroads, &c.

Without proper organization, and I must add, without the presence of a priest in the midst of them, our Canadians would not bear up long against the distress and destitution of every kind to which they are exposed in the woods.

I hope you will excuse me, as I write in haste, in order to avail myself of an opportunity which just occurs of sending this by private hand.

I have the honor to be,

&c. &c.

A. F. HEBERT, Ptre.

[Translation.]

ST. HYACINTHE, 5th July, 1850.

To the Honorable the Committee of the Legislative Assembly, appointed to inquire into the State of Agriculture in Lower Canada.

GENTLEMEN,

We, the undersigned, in conformity with your circular of the 11th June, requesting information on the State of Agriculture and the means of improving the same, have the honor to transmit to you the following synopsis, which contains our humble opinion on this important subject.

Considering, as we do, that Agriculture is the most firm support of national welfare, and the most certain source of riches and prosperity: we saw with pleasure the appointment of your honorable Committee, in the hope that it would be productive of great improvements in our agricultural system, by the necessary measures which would be adopted to bring it to a state of perfection.

We are of opinion that one of the principal causes of the backward state of our Agriculture, is the almost total want of efficient action on the part of the Provincial Legislature up to the last few years.

Immense sums have been appropriated for the construction of Canals, even when it was said that the revenue to be derived from them would not pay for their cost; but as to Agriculture, the action taken by the government has availed nothing.

One great obstacle to the advancement of Agriculture in this country, is, that the better and more enlightened classes of our society do not consider it a respectable profession for one to engage in. Hence it follows, that those who might be best qualified to promote its interests have hardly any connection with it.

Another obstacle, of no less importance, is the Seigniorial Tenure, which, instead of facilitating improvements, tends on the contrary to the waste of property.

Labour and capital, these two principles of all material progress, are unwilling to lend their aid to any enterprize, the profits of which are to be shared in by a privileged class which furnishes neither labour nor capital. There is nothing which encourages the agriculturist more, than to secure to him all the benefit of the improvements he may make on his property. The commutation of Seigniorial Dues, on a fair principle, would, in our opinion, be one of the best means of encouraging industry and agricultural improvement.

We think that the County Agricultural Societies have generally caused very little progress to be made in the acquirement of useful and practical knowledge; and the heavy sums which have already been expended will be almost useless, unless our Agriculture be improved and its produce increased; this cannot be the case without proper means of education and practical instruction in this art. Nevertheless, we are happy in being able to say, that the Lower Canada Agricultural Society has shewn great perseverance in its labours and been productive of much good, considering how limited were its means. The publication of its Journal has created great interest among our country parts, in the advancement of Agriculture, and has not a little contributed to inspire the wish for instruction in rural economy. If it were more profusely distributed, its advantages would be immense. A

sure means of obtaining this result, would be to oblige the County Societies to subscribe for a certain number of copies of the Journal for distribution among the agricultural class.

The publication of elementary treatises upon Agriculture, for distribution among the Schools, would, in our opinion, be productive of much good, and give to the children an education adapted to the calling of their fathers. It almost always happens that the son of a farmer leaves school—without having seen a book which has the slightest reference to Agriculture—and returns to his home, with less information on rural economy than on anything else. It is, therefore, absolutely necessary that we should introduce agricultural treatises into the schools, in order to give to the youths an instruction which may prove more useful to them hereafter.

We are of opinion, that Agricultural Schools and Model Farms would be eminently calculated to give to the people a favourable idea of the progress and improvements which have been made in the various branches of rural economy. Public opinion, generally, seems to desire these institutions; and it would be only fair to get up establishments of this sort for the benefit of the Agricultural class, which forms nearly nine-tenths of our population.

The great interests of the farmers have been too long neglected, or sacrificed to the profit of the other classes. If the government have to provide for the education of the people, the system of instruction must be such as will prove to be the best adapted to all classes of Society; and it is high time that the farmers should, in order to enable them to practice their art, obtain all the advantages which the other professions have long since been in possession of. Nothing, in our opinion, would be better calculated to give to the sons of our farmers an education which will enable them to practice their art to the greatest advantage to themselves and to society, than the establishment of a Model School and Farm.

The settlement of the Wild and Waste Lands is, perhaps, the greatest duty the government have to perform at the present moment, in order to prevent thousands of persons from leaving their country to procure a farm for themselves and devote themselves to Agriculture. We know that the government have done a great deal for the settlement of those lands within the last few years : but no report, that we are aware of, having been published on the progress of these settlements, it is impossible for us to furnish any information on the subject to your Committee. We will merely state that one means, which, in our opinion, would facilitate the settlement of the Townships, is the establishment of a good road system, better adapted to the wants of these localities, and which would bear more effectually upon the large landholders.

We think, also, that the marked success obtained from the settlement of the Townships in the District of Quebec, is principally owing to the efforts which have been made and the example shewn by the patriotic clergy of that district.

The formation of a Board of Agriculture, attached to some one of the branches of the administration, would greatly contribute to the advancement of the progress of rural economy, and give to this important branch of Canadian industry that rank which it ought to hold.

All which is humbly submitted.

EUS. CARTIER,
BOUCHER DE LABRUERE.

TORONTO, 6th July, 1850.

SIR,

In acknowledging the receipt of your letter of the 14th instant, requesting a synopsis of my opinions on

the State of Agriculture in Lower Canada, the means of improving it and of facilitating the settlement of Wild Lands therein, I have, at the same time, the pleasure of making my reply.

With reference to the two first questions, it must be evident to the most indifferent observer, that since the passing of the Act for the encouragement of Agriculture in the year 1845, by the establishment of Agricultural Societies, Agriculture has made a quiet but decidedly progressive movement. Upwards of thirty Societies have been established under its provisions; and although the letter and spirit of the law has, in several instances, been disregarded by those appointed to carry it out, a spirit of emulation has, nevertheless, been awakened equal to the expectations of the most sanguine; and a strong desire to adopt the more improved systems has very generally manifested itself. I would, therefore, recommend the continuation of the said act, with certain amendments, which I shall write down for your consideration.

The act authorizes some thirty or forty Societies to demand and expend upwards of £7,000 of public money, under certain restrictions. If these had been faithfully observed, it would have worked well; but it neglected to provide a check to ensure their strict observance. The result has been a violation, both of the letter and of the spirit of the law, in some cases very wantonly. Large sums of money have either been misappropriated or never accounted for; and the government appears to be without power to compel its restitution or to punish the delinquents.

To correct this evil, I recommend, with other amendments, the insertion of clauses providing for the establishment of a Board of Agriculture. The Board to consist of a Superintendent of Agriculture, and an Assistant Superintendent; either of which may exercise the functions of the office, with power to examine and check the accounts of the different

Societies: to see that the money has been spent according to law.

That no Society shall be entitled to public money without a certificate from the Board that all accounts of preceding years have been examined and found correct. Officers of Societies, omitting to furnish such required returns, to be subject to fine, and imprisonment if not paid.

Books and accounts to be at all times open to the inspection of the Board. The Board required to prosecute all officers, either collectively or separately, either in their corporate capacity or as private individuals, whenever moneys are misapplied.

The Board to have power, under restrictions, to name the judges, and to fix the day for holding the exhibitions.

The Board, as far as practicable, to attend an exhibition in each county annually.

The Board could be paid from the £1,500 now allowed to the three Districts of Quebec, Three Rivers and Montreal, viz:—the Superintendent £350 per annum, the Assistant £250, and £100 for travelling expenses and contingencies, accountable.

The District Shows to be limited to two annually, instead of three as at present, and to be entirely under the control of the Board.

To be held in such places as the Board may from time to time determine.

There may be raised, by the fault-finder, an objection to creating a new office; yet all men, who would close the doors to dishonesty, must see its necessity.

The United States President, in his opening address at the commencement of the present session of Congress, recommended the creation of such a department. Some superintendence is required where the expenditure of several thousand pounds is entrusted among a parcel of country shopkeepers, who are now, I might almost say, embezzling the money. The very knowledge that the check existed would curb

their rapacity, and would restore confidence to the farmers generally. Now they are dissatisfied, yet dare not find open fault, because they are all, more or less, in the shop-keeper's books. In many societies traders are the managers, judges, and general receivers; the latter position is their only object of attainment.

The Board, by fixing the time of the exhibitions, might so arrange matters, that one or two sets of judges would attend them all; and by hiring men, competent to assign the grounds of their judgment on the spot, a spirit of confidence would be infused among the competitors, (now sadly wanting,) and good practical knowledge imparted at the same time.

This plan would also be attended with less expense than the present system; for now, all is done by favouritism, and paid accordingly.

The attendance of the Board at the different exhibitions would be advantageous, if composed of practical men; it would give the benefit of experience and advice where considered requisite: it would be the chief organ of communication with societies desirous of importing implements, labour-saving machines, animals of kinds, and grains. At present, most of the societies are quite at a loss where to apply for articles they are desirous to obtain, or are totally ignorant of the existence of labour-saving machines, which ought to be found in every parish. To the absence of such a medium of communication may safely be ascribed the limited progress made in several counties since the act was in operation. The Provincial Agricultural Society ought to have been such a medium. It might have been so, had men of practical knowledge been at its head; but however meritorious may be their zeal as unpaid amateur theorists, certain it is that a great deal of money has been expended; and while the good done is a mere trifle, the harm is considerable. Of all vocations, farmers are perhaps the class of men least

willing to turn from the beaten track, and if, unfortunately, they make their first deviation in taking up an equivocal improvement, and it fails, all novelties (however useful they may be) are in future pronounced humbugs, and are not listened to for an instant. It is, therefore, desirable that there should be some party in the Province from whom the local Societies should be entitled to claim and receive trustworthy information. A few well-written catechisms of the best rotations of crops for the different soils and localities, and the most desirable methods of cultivating the different grains and green crops, printed on large sheets, and stuck up in the *habitant* houses, would do more real good than would be effected by the most ably conducted periodical.

The act now expiring has certainly caused a spirit of emulation amongst farmers generally throughout Lower Canada, which is really surprising, when it is remembered that it has only been in existence during four years, and that previous to that time, legislation on that subject had been altogether a dead letter.

If, in amending the act, the power can be taken out of the hands of the country shop-keepers, and the societies compelled to appropriate the money to the purposes of the act, no person can safely foretell the state of advancement to which a few years will bring us.

In my own neighbourhood, under the auspices of our Society, cultivated grapes are becoming very general: the products of most farms are certainly doubled. Horse-rakes, which earn their value every day they are used, are now in active demand—their cost is ten dollars—and with one of them a man and horse will do more work than twenty men. Scufflers, which will also earn their value in a season, are making their appearance: and our double harrows—where a man and a pair of horses will do, in a day, more work, and better, than a Canadian with his ordinary implements will perform in ten—are to be seen on

many farms. I was the first to import them; and so strong was the prejudice against their introduction, that I was compelled to drive them in person, while my labourers used the ordinary kind, in order to convince them of their advantage.

Should the principle of the foregoing remarks meet your approbation, I shall be happy to assist you in the details of remodelling the present act.

Although the following anecdote does not come within the scope of your inquiries, I cannot resist giving it a place here, in order to show to what lengths prejudice will blind a whole community:— At one of our agricultural dinners, a valuable imported bull was offered to the farmers of one of our distant Townships, on the condition of signing a bond to return him in equally good condition on that day twelve months. An elderly and respectable farmer objected to taking him, assigning as a reason, that his stock had proved inferior both as milk cows and working oxen. On being told that none of his produce were over two year old, and consequently were yet unproved, he admitted that he had never yet seen any of them, and that he formed his opinion from a bull which his neighbours had formerly owned, and which was called of an improved breed. His statements carried weight, and the offer of the bull was declined.

I shall conclude with observing that the Canadians are an intelligent people, and if convinced of the utility of any suggested improvement by actual demonstration, they readily adopt it; but they do not hunt after them; they must be brought to their own doors. They are not a travelling community; and if they are to learn, some one must come forward to teach them. They labour under the additional disadvantage of having no agricultural works published in their own language. I have been in the habit of visiting the great fairs in the neighbouring Union, at which I have never met a French Canadian, ex-

cept from the neighbourhood of Montreal, and they were not exclusively farmers. The labour-saving machines of the United States, properly selected, would be invaluable in this country.

I fear that you will think I have allowed my letter to extend to too great a length. I shall therefore briefly observe, with reference to the settlement of Wild Lands, that the most likely way of bringing it about would be by making it an expensive business for speculators to retain them. This could be brought about by an Act authorizing their sale, in a summary manner, for local assessments or for road duties when payment is not made on their account. As regards Model Farms, I think it impossible to devise a scheme which could be generally acceptable and useful to the whole of Lower Canada; and that were they limited to certain localities, that dissatisfaction would be created. The inhabitants of each County might be empowered, in the new bill, to appropriate the proceeds of their subscription and government allowance to such purpose, instead of to exhibitions, if they preferred so doing, which would meet the desired end.

One or two parties, who are known to conduct the best farms in Lower Canada, might be induced to keep a journal of the transactions, and let them appear every month in the papers, for a trifling consideration. Reading these daily proceedings would, in my opinion, be more generally useful than Model Farms (scattered as they must necessarily be), and the difference of cost would be as one pound is to one hundred.

I have the honor to be,

Sir,

Your most obedient humble Servant,

B. N. WATTS.

To CHARLES TACHE', Esquire,

M. P. P.,

Chairman of Committee.

MONTREAL, 12th July, 1850.

SIR,

I have the honor of acknowledging the receipt of a letter from the Committee on Agriculture, dated 14th ultimo, in which I am desired to express my opinions on various subjects therein mentioned, connected with the Agriculture of Lower Canada.

I feel some delicacy in venturing to comply with the request, but having already put my hand to the plough, I scorn to look back.

Had the questions of the Committee referred only to the treatment of the soil and the management of cattle, it would be a comparatively easy matter to answer them. Experience has taught me that the soil of Lower Canada will yield to the plough and the harrow, and give out its rewards to skill and industry; but what power will be sufficient to tear off the mantle of ignorance and prejudice which envelopes the farmers of Lower Canada, and arouse them to intelligent action, it will require a wiser and more experienced man than I am to determine.

The Agricultural Societies, so far as I can judge, have proved altogether ineffective in accomplishing the ends for which they were established. There can be no stronger proof of this than their unpopularity. I am ashamed to say, that the Society of which I am a member—although certainly in as good a locality as any in the Province—has not been able, for the last two years, to raise a sufficient amount by subscription to entitle it to the whole of the sum granted by the Legislature.

I think that the chief reason for this want of popularity, is the disproportion which exists between the agricultural knowledge of the British and French population. The former are the minority, but being possessed of more skill than their French neighbours, they have obtained a great proportion of the money given as prizes. This has proved a ground of jealousy; and the consequence is, that few of the French

population even look at the Society's shows. The man with a crutch soon finds that he has no chance in the race with the man who has his limbs perfect.

Some of the Societies have divided themselves into two classes; thus allowing the French to compete amongst themselves. This I consider to be humiliating to the French, and evil in its tendency to keep open the gap between the two races. It prevents those who are behind from aspiring to excel, and in fact completely neutralizes the effects of competition; for where it is not "best with the best, there's little honor won or little lost."

The Societies have hitherto been working at the wrong end of the lever, in attempting to introduce fine cattle into the country, while little or no pains have been taken to teach the farmers the first principles of Agriculture.—If a thorough knowledge of their business were diffused amongst them, they would find better cattle for themselves.—At present fine cattle can live only with a very few.

I would recommend that the local Societies should publish Annual Reports, failing which no money should be granted to them by government: these Reports should specify, in detail, what kind of soil, and in what description of locality, the grains, vegetables, &c., which obtained their first and second prizes were grown; the mode of culture, &c., &c.; and also, the breeds of cattle which obtained their first and second prizes; the mode of treatment, &c., &c. Any person refusing to give such information may be disqualified from obtaining future premiums.

These Reports should be laid before the Provincial Society, and funds should be provided to publish them. They would then be distributed by the members of the Executive Committees in each County. This plan would, I think, continually and effectually bring the subject of agricultural improvement before the minds of the people, and show them that there was a strong desire on the part of the Societies to forward their interests.

I cordially approve of the establishment of Model Farms, and of the distribution of elementary treatises on Agriculture. I know of no surer means of making any people what they ought to be, than by giving them sound and wholesome precepts suited to their condition, and accompanied by a corresponding example. Perhaps, however, the best Model Farm is that farm in each County which is most profitable to the cultivator, and which is managed on a system which can be taught to others. I may be excused for mentioning here that in the beginning of the year 1849, I wrote a short Agricultural Tract, which I considered adapted for distribution amongst my French Canadian neighbours. A copy of it was laid before the Lower Canada Agricultural Society and was approved, Major Campbell being President at the time. If you think that the tract is likely to be of any use to you, I believe that Major Campbell can give information concerning it. If it has been lost sight of, or laid aside, I can furnish you with a copy of it.

I would also suggest the propriety of sending lecturers on Agriculture into the country parishes during the winter season; they would be sure to find an audience in almost every school-house in the Province, and knowledge would thus be brought to the very doors of the *habitant*. Since I came to the country I have seen public addresses resorted to as a means of arousing the French Canadians to action with great effect.—I need only allude to Father Chiniquy's cold-water discourses, which have proved so powerful in extinguishing those fires which, for many years, have been devouring the very vitals of the Province, and in bringing about a great moral reformation amongst the people.—A man who can command the confidence of the *habitans*, and would follow up the reform of M. Chiniquy, by showing them how to apply to their legitimate purposes the precious fruits of the earth, which he has taught

them to save from destruction, would do a great deal towards restoring the exhausted fertility of our Lower Canadian farms, and rendering the Province prosperous and happy. To be available for this purpose, the man must be one of themselves; a priest, or some other person who is possessed of their respect and confidence.

I think that the attention of the Legislature should be called to the laws that regulate the opening of road, and of main-drains or water-courses. I am not sufficiently conversant with the laws to point out the act and sections that need amendment; but I will give an example of one of the grievances to which I allude :—

Suppose a valley of five hundred arpents intersecting fifty farms; down the centre of this valley is a small ditch, two feet deep and three feet wide, made according to a "*procès verbal*" drawn out perhaps a hundred years ago, when the land was under timber: now it is cleared, and useless for want of draining; the ditch being too small to carry off the water. Perhaps ten of the farmers, at the head of the valley, wish to drain and improve the land, but forty of them are satisfied with the condition their land is in, and will not do any more than they are bound to do by the old "*procès verbal*." Here the non-improvers, being the majority, are a drag and a hindrance to those who wish to go forward.

As to the best means of settling Wild Lands, I do not pretend to know very much about the subject; but I do think that the man who redeems land from the wilderness should be lord of it himself. If possible let there be an equitable commutation between the feudal lords of Lower Canada and their feuars. I believe that many of the Seigniors are doing all that is in their power to benefit the "*censitaires*;" but I cannot help thinking that, as a class, they hold much the same social position as the gleds and hooded crows do among the fowls of the air: the more car-

tion the fatter they grow. I have had nothing to do with any land in the country which has not been sold over and over again. The farm I now possess has been sold four times during the last twenty-five years: if it should go on changing proprietors under the same system, and at the same rate, to the end of the century, the Seignior will have received more than its own value in a period of seventy-five years. In conclusion, I would ask, that if ever the cry for "Agricultural protection" be again raised in the Parliament of Canada, you will, for the honor of the farmers, use all your influence to put it down. Get us a fair competition in the markets of the world; do all in your power for the education of our agricultural population; in a word, teach the farmers of Canada self-defence, and they will protect themselves.

I cannot close without stating a few facts to show that it is neither the geographical position nor the soil of Lower Canada that keeps her so low. The most independent of our agriculturists are men who came to the country twenty or thirty years ago; most of them with no other capital than their hands and heads, and no other ambition than to obtain a servant's place. Having filled this position for a few years, they have leased worn-out farms, at from ten to twenty shillings per arpent. I could point out many who have not only paid these rents, but have purchased several farms for themselves. Now, if those who had no rent to pay had applied to their land the same skill and energy, the country might have been like a garden; as they might have expended in improving their land the sums which their neighbours had to pay as rent. If this had been done, would not Lower Canada have been now just as much richer as a Province, as those who have farmed upon a good system are richer than those who have farmed upon no system at all. My own father and his family came to this country at the time above

mentioned, I may say, without a dollar; they are now all settled in Lower Canada, and are the owners of upwards of a dozen of farms.

Supposing that there are 75,000 farmers in Lower Canada, and that each of these, by adopting a good system of Agriculture, could, in the course of five or six years, raise forty pounds per annum (I think a very low estimate) more than he does now, the country would be three millions per annum richer. Is not this a result worth striving for?

I have the honor to be,

Sir,

Your most obedient Servant,

WILLIAM BOA,
St. Laurent.

Observations and Remarks on the Meteorology and Climate of Upper and of Lower Canada; by WILLIAM WINDER, Esquire, M.D., Librarian to the Honorable the Legislative Assembly of Canada.

Amongst those who have studied the subject of Meteorology and the climate of Canada, the idea has been entertained, that the mean temperature of the two Provinces is nearly equal on an average of years. The accompanying tables, though not perhaps perfectly exact, have been compiled with the view of obtaining something like an approximation to the truth of the above statement. They comprise a period of thirty-four months, from 1847 to 1849, inclusive, being the only years to which the compiler had access, with reference to both sections of the country, and are deficient in the months of January, 1847, and February, 1849, of which no record could be found. The month of January, 1847, for Lower Canada, was indeed available; but

the corresponding one for Upper Canada, necessary for comparison, could not be procured. The whole of the observations are taken from a register of the weather kept at Montreal, and from those furnished at the Royal Magnetic Observatory at Toronto, by Captain Lefroy. The fruits, plants, and trees of a country are said to form a good criterion of its climate, and this opinion would seem to be correct with respect to the temperature of Canada. As one proof of this, it may be remarked that in June of the present year, the Hon. L. J. Papineau made an excursion to the Falls of Niagara, and botanizing in the woods surrounding them, found only two plants which do not grow on the mountain of Montreal, viz:—the black walnut, and the Persimmon, *Diospyros Virginiana*, sex. syst., *Diœcia Octandria*; natural order, *Ebenacea*: a native of the warm climate of the Southern States of the American Union. From hence he inferred, and it appears justly, that the temperature of the atmosphere in and about Montreal and the Falls, must be nearly the same; and on examining the tables above mentioned, we find the result of the average to be a difference, for the thirty-four months compared, of only 1.46° . A further examination also shews that the mean temperature of Montreal is 46.4° , and that of Toronto 45.50° , whilst the means of the two added together give the medium temperature of the two Provinces as 45.77° . The eminent French philosopher Arago, states the mean temperature of Europe to be 56.6° , and that of the centre of England is said by Dr. Craigie to be $50.$. It is impossible to ascertain, with any degree of precision, the portion of heat felt in any part of America, merely by measuring its distance from the equator. The maxims which are founded upon experience in the old hemisphere, will not apply to the new, where the cold maintains a manifest preponderance. Various causes contribute to render the climate of America different from that of the old continent. America

advances much nearer to the pole, than either Europe or Asia. Both these have large seas to the north which are open during part of the year, and even when covered with ice, the wind that blows over them is less intensely cold than that which passes over land in the same high latitudes; but in America the land stretches from the St. Lawrence towards the pole, and spreads out immensely to the west. The wind in passing over enormous mountains, covered with snow and ice, becomes so impregnated with cold, that it acquires a piercing keenness, so that over the whole of North America, a north-west wind and cold are synonymous terms. This difference in heat is supposed to be equal to twelve degrees, but Dr. Mitchell contends that it amounts to fourteen or fifteen degrees.

It is an undoubted fact, that in the same degrees of latitude, the winters are colder and the summers warmer in North America than in Europe. This general observation is very important with respect to agriculture, commerce and navigation. The following facts are interesting as proving the foregoing assertion:—Hudson's Bay, in the same latitude as the Baltic Sea, is even in summer encumbered with ice. In New York, in the latitude of Madrid and Naples, the winter accompanied with ice, lasts, on an average, 164 days; and the Delaware is frozen over five or six weeks.—New York has the summer of Rome and the winter of Copenhagen; Quebec the summer of Paris and the winter of St. Petersburg. —In America it must then be recollected, that the climate by no means depends altogether on the degrees of latitude, but is influenced, more or less, by the winds, the lakes, the great tracts of land in the north, the ocean and the gulf stream. In the northern part of the United States the medium temperature amounts to about 45., and in the southern to 68. Fahrenheit, whilst the foregoing tables shew the mean temperature of the Canadas to be 45.77 °.

			Winter.	Summer.
The medium temperature of Lake Superior, is			21.	69.
do	do	Lake Ontario	30.	72.
do	do	New Orleans	59.	83.
do	do	Key West	70.	81.

In Quebec, the thermometer sinks to 30. below zero, and rises in summer to 95. above zero. In Baltimore, the thermometer rose twice in the course of eight years to 98., and sank four times below zero; whilst in Montreal and Hamilton (at the head of Lake Ontario) it has been noted as high as 103. of Fahrenheit in the shade.

Humboldt reckons the mean temperature of the air, overland, nearly on a level with the sea, at the equator, at 81.5° . The mean temperature of latitude 45° , in Europe, at $56.$. At the pole, judging from the observations of Capt. Parry, the mean temperature cannot be taken to exceed 13. below zero.

In the immense valley of the Mississippi, to the west of the Alleghanies, the mean temperatures are nearly the same as in the corresponding latitudes on the Atlantic; but, as in Upper Canada, compared with the Lower Province, the winters are not so cold, nor the summers so hot. The mean temperature of the west coast of America appear to correspond with the mean temperatures of the western parts of Europe.

The preceding remarks apply only to the temperature of those parts of the earth that are nearly as low as the surface of the sea; but as we ascend into the atmosphere the temperature constantly diminishes, so that even in the torrid zone, at a certain elevation, we come to the region of perpetual congelation. The cause of this diminution of temperature is the expansion of the air in proportion to its elevation, which occasions an increase in its capacity for heat, and a consequent lowering of its temperature. This diminution is partly counteracted by large masses of earth which communicate heat to the air. This is probably the reason why the temperature of

Mexico and Peru diminishes, according to the observations of Humboldt, only one degree of Fahrenheit for every 495 feet of elevation; while in Scotland, Dr. Hutton, of Edinburgh, states the diminution to amount to one degree for about 268 feet of elevation. He kept a thermometer on the top of Arthur's Seat, and another at Leith, near the level of the sea, for three years. The mean difference between the two was 3., and the height of Arthur's Seat, above the level of the sea, is very nearly 803 feet.

M. Arago has demonstrated that during the last 2,000 years the temperature of the earth has not varied so much as one-fifth of a degree, as otherwise the length of the day would have altered, which is not the case.

When we dig to a certain depth below the surface of the ground, we come at last to a situation in which, if the bulb of a thermometer be put, it remains unaltered during the whole year. The heat at this depth is considered as representing the mean heat of the place at the surface of the ground. The bottom of the cavern, under the Observatory at Paris, is about ninety feet below the surface of the earth; a thermometer placed in it varies only about one-fifty-fifth of a degree during the whole year, from 52., which is the exact mean temperature of Paris.

It therefore appears, from the preceding observations, that at a certain depth below the surface of the earth, which does not seem much to exceed thirty feet, the thermometer remains unaltered during the whole year, and exhibits the mean temperature of the surface in that locality. Hence the mean temperature of a place may be determined by that of springs flowing from a certain depth (not less than thirty feet) under ground. The wells at New York vary from 32 to 40 feet in depth, and, according to Dr. Nooth, the mean annual variation of their temperature is 2., namely, from 54. to 56.; this would make the mean annual temperature of New

York 55. . Dr. J. Hunter states that the temperature of the wells at Brighton, in Sussex, vary from 50. to 52., which would make the mean temperature of the air in that part of England, close to the sea, 51.; whilst the mineral spring at Tunbridge Wells, a short distance from Brighton, is always of the temperature of 50., as appears from observations made in winter and summer. Thus it would seem, that at a certain depth below the surface of the earth, a thermometer indicates the mean temperature on the surface, that this depth is not much more than thirty feet; and that, probably, no great increase of temperature could be found at the depth of sixty feet. When, however, we penetrate to a greater depth below the surface, the temperature becomes higher than the mean of the place, and the elevation of the thermometer increases as the depth augments.

The vegetable kingdom in America has reigned under two great aspects, those of forests and prairies. The forests extend from the River St. Lawrence to the Gulf of Mexico, over plains, declivities, and mountains. A European can form no idea of the magnitude and beauty of the American primeval forests and trees; and while in France there are said to be only thirty-seven kinds of trees that grow to the height of thirty feet, there are, in America, one hundred and thirty kinds which excelled this measurement; which, with the variety of their growth and foliage, are the admiration of every beholder.

On a review of the vegetable products of the Canadas, we find that in both Provinces they are much the same, a consequence that might be expected to follow from the similarity of climate.

Of those of Upper Canada it may be remarked, that all the fruits generally found in England thrive remarkably well; but the plum, apple, strawberry, raspberry, and melon, attain a luxuriance of growth and perfection, as stated by a modern writer, unknown in England. The melon, planted in the open

ground, in most years produces excellent crops. In many places vines prosper well. Peaches are indigenous south of the parallel of 43° , or at least grow rapidly from the stone, and bear fruit within a few years; although good and rich flavoured grapes and peaches are seldom met with, owing to their culture being neglected. The same observations apply to all garden produce, which will attain a degree of luxuriance unknown in England, with much less care and culture. In Lower Canada, the new land is covered with timber; the greater part of the trees being from two to three feet in diameter—the larger the timber, the better the soil—and therefore the choice of land is generally directed by the growth of timber on it. Where beech, maple, hickory, butternut, and chesnut grow, we find a good soil of yellow or hazel loam; where elm, white ash, white oak, butternut, and red oak grow, the soil is strong; where white pine, hemlock-pine, birch and spruce grow, the soil is sandy; cedar swamps, though often composed of good soil, are not desirable, unless easy to drain; black ash, soft maple, or plane swamps, are mostly on a clay or marl, and if well-drained make lasting meadows; where there are small poplar and small white birch, the soil is poor, being light loam on white clay.

The foregoing may be taken as a descriptive list of forest trees in the Lower Province, and the soils on which they grow. The soils most congenial for orchards are light loams or gravel. Apple-trees thrive much, also, on rocky or limestone land. A great variety of apple, pear, peach, plum, cherry, grape-vines, and other fruit trees may be found in the neighbourhood of Montreal; the apples from thence are considered superior to any other. Cherries, chesnuts, walnuts, hickory, hazel, and filbert nuts, grow wild, as in Upper Canada,—as do gooseberries, strawberries, raspberries, blueberries, cranberries, and black currants.

These details will, it is hoped, be of some service to those whose attention may be directed to the study of the climate of the Canadas, and their agricultural capabilities.

The present rage for emigration to North America and Canada, has certainly been the means of eliciting much valuable information relative to those countries; but it has also produced much merely literary speculation, numerous ridiculous blunders, and not a few wilful misrepresentations. The dictum of Voltaire, that Canada was merely a barren rock, covered with perpetual frost and snow, has, with strangers, passed into a proverb; but the emigrant farmer may be told with truth, that although the season appears short, and the cold intense at certain periods, the winters are more pleasant and salubrious, and the summers warmer than those of England; the seasons more uniform, and the air more clear and dry.

Medium temperature of the air in Upper and Lower Canada, from the 1st of January to the 31st December, 1848, inclusive:—

MONTREAL.			Mean of the Month.	TORONTO.			Mean of the Month.
January, ...	...	...	18.9 °	January, ...	...	...	27.41 °
February, ...	...	...	19.	February, ...	...	...	26.28
March, ..	...	...	27.6	March, ...	...	...	27.4
April, ...	...	...	42.8	April, ...	...	...	40.67
May, ...	...	...	61.	May, ...	...	...	53.74
June, ...	...	...	70.	June, ...	...	...	62.54
July, ...	...	...	73.5	July, ...	...	...	65.37
August, ...	...	...	72.8	August, ...	...	...	68.34
September, ...	...	...	57.4	September, ...	...	...	53.39
October, ...	...	...	45.	October, ...	...	...	46.38
November, ...	...	...	31.4	November, ...	...	...	33.61
December, ...	...	...	23.45	December, ..	...	...	29.12
Total Means, ...	...	...	538.89 °	Total Means, ...	...	...	533.89 °

1849. MONTREAL.	Mean of the Month.	1849. TORONTO.	Mean of the Month.
January, ...	11.7 °	January, ...	18.49 °
February, ...	Not known.	February, ...	Not known.
March, ...	31.66 °	March, ...	33.24 °
April, ...	39.6	April, ...	38.74
May, ...	54.2	May, ...	48.30
June, ...	71.5	June, ...	63.
July, ...	75.7	July, ...	67.82
August, ...	74.	August, ...	65.
September, ...	59.1	September, ...	57.
October, ...	46.3	October, ...	44.94
November, ...	41.	November, ...	41.87
December, ...	17.9	December, ...	26.56
Total Means, ...	519.6 °	Total Means, ...	514.96 °

1847. MONTREAL.	Mean of the Month.	1847. TORONTO.	Mean of the Month.
January, ...	Not known.	January, ...	Not known.
February, ...	13.25 °	February, ...	22.48 °
March, ...	23.55	March, ...	26.25
April, ...	39.36	April, ...	39.
May, ...	61.45	May, ...	53.49
June, ...	70.	June, ...	58.14
July, ...	77.76	July, ...	67.62
August, ...	72.	August, ...	63.93
September, ...	59.5	September, ...	54.91
October, ...	45.	October, ...	43.71
November, ...	35.6	November, ...	38.
December, ...	20.9	December, ...	30.
Total Means, ...	516.57 °	Total Means, ...	497.53 °

Y E A R.	Mean of Year.	Y E A R.	Mean of Year.
Montreal, 1847, ...	46.77 °	Toronto, 1847, ...	45.21 °
do 1848, ...	44.9	do 1848, ...	44.49
do 1849, ...	47.18	do 1849, ...	46.81
Total, ...	138.4 °	Total, ...	136.50 °
Mean of three years...	46.4 °	Mean of three years..	45.50 °

Y E A R .	Mean of Year.	Y E A R .	Mean of Year.
Mean of Montreal,...	46.4 °	Mean of Montreal,...	46.4 °
Mean of Toronto, ..	45.50	Mean of Toronto, ...	45.50
Total, ... ..2	91.54 °	Difference of Tem- perature between Upper and Lower Canada, for Three years,	1.46 °
Mean Average Tem- perature of Upper and Lower Canada	45.77 °		

The following results, taken from the Government Meteorological Observations, made at Toronto for the past ten years, will serve to correct any erroneous impressions respecting the climate of Upper Canada :—

Mean temperature, taken from ten years observations, 44.3 °.

Highest temperature, 95.0 °—12th July, 1845.

Lowest do 18.6 °—16th January, 1840.

Total number of days on which rain fell, 965.

Yearly average, 97.

Total number of days on which snow fell, 475.

Yearly average, 47.

Total number of days perfectly fair, 2,213.

Yearly average, 221.

Average yearly depth of rain, 33.4 inches.

Average yearly depth of snow, 56.6 do.

Mean temperature of four summer months, 62.6 °, four warmest months.

Mean temperature of four winter months, 26.6 °, four coldest months.

It is to be remarked, that if a particle of snow or rain falls during the 24 hours, the day is respectively considered at the Observatory as a rainy or snowy day.

WILLIAM WINDER.

Toronto, 2nd August, 1850.

TORONTO, 12th July, 1850.

SIR,

In reply to your note of to-day, we beg to say that the charge for printing 50,000 copies of 48 pages, in French, would be about £300.

And for every additional sheet of sixteen pages, (50,000 copies) £100.

The charge for printing 12,000 copies, same as above, in English, would be about £80.

And for every additional sheet of sixteen pages (12,000 copies) £26 10s.

These charges would include paper, folding, stitching, &c.

We are, Sir,
Your obedient Servants,

LOVELL & GIBSON.

J. C. TACHE', Esquire,
Chairman, Agricultural Committee.

INDEX

TO LETTERS, ANSWERS, AND OTHER DOCUMENTS
FORMING THE APPENDIX TO THE REPORT.

	PAGE.
Berczy, Wm., Esquire—Letter dated D'Aillebout, 24th June, 1850	59
Boa, Wm., Esquire—Letter dated Montreal, 12th July, 1850	118
Boucher de la Bruère, Esquire—Letter dated St. Hyacinthe, 5th July, 1850 ; signed also by Eusèbe Cartier, Esquire	108
Bourdon, F. A., Esquire—Letter dated Boucherville, 25th June, 1850	64
Campbell, Major T. E.—Letter dated St. Hilaire, C. E., 24th June, 1850	55
Cartier, Eusèbe, Esquire—Letter dated St. Hyacinthe, 5th July, 1850 ; signed also by Boucher de la Bruère, Esquire	108
Delàge, Rev. F. H.—Letter dated L'Islet, 22nd June, 1850	42
Desaulniers, Rev. Jos.—Letter dated St. Hyacinthe, 20th June, 1850	37
Dostaler, P. E., Esquire, President Agricultural Society, County of Berthier—Letter dated 23rd June, 1850	46
Dubé, Dr. C. T.—Letter dated Trois-Pistoles, 27th June, 1850	68
Evans, Wm., Esquire, Secretary to the Lower Canada Agricultural Society—Series of Questions published by him in the July (1849) number of the Agricultural Journal, and forwarded to the Committee	84
——— Answers to the said Questions, also forwarded to the Committee.....	89
Ferland, Rev. J. B. A.—Letter dated Nicolet, 2nd July 1850	102
Gustin, Elisha, Esquire—Letter dated Stanstead, 23rd June, 1850	47
Handyside, David, Esquire—Letter containing a Plan of a Model Farm, dated Chambly, 18th April, 1850 ; addressed to the Honorable A. N. Morin, and laid before the Committee by that gentleman	73

Hébert, Rev. A. F.—Letter dated Grande Baie, 5th July, 1850	105
Langevin, Hector L., Esquire—Letter dated Montreal, 18th June, 1850; addressed to Wm. Evans, Esquire, Secretary to the Lower Canada Agricultural Society, and laid before the Committee by that gentleman	30
Leprohon, J. P., Esquire, Clerk to the Committee on the State of Agriculture—Circular dated 14th June, 1850, signed by him by order of the said Committee	27
Lovell & Gibson, Messrs., Printers—Letter, stating the cost of Printing an Elementary Treatise on Agriculture	133
Marchand, Gabriel, Esquire—Letter dated St. Johns, 18th June, 1850	28
Morin, the Honorable A. N., Speaker of the Legislative Assembly—Letter dated Toronto, 27th June, 1850	71
Patton, Wm., Esquire—Letter dated St. Thomas, C. E., 24th June, 1850	63
———— Letter dated St. Thomas, C.E., 26th June, 1850	66
Pilote, Rev. F.—Letter dated College of Ste. Anne-la-Pocatière, 1st July, 1850	96
Pinsonnault, Alfred, Esquire—Letter dated LaTortue, 24th June, 1850	52
Vincent, J., Esquire—Letter dated Longueuil, 28th June, 1850	95
Watts, R. N., Esquire, M. P. P.—Letter dated Toronto, 6th July, 1850.....	111
Winder, Wm. Esquire, M. D., Librarian to the Honorable the Legislative Assembly—Observations and Remarks on the Meteorology and Climate of Upper and of Lower Canada.....	123