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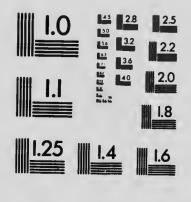


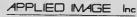
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## DEPARTMENT OF AGRICULTURE

OTTAWA, CANADA.

## **TOBACCO DIVISION**

# TOBACCO CULTURE IN CANADA

BY

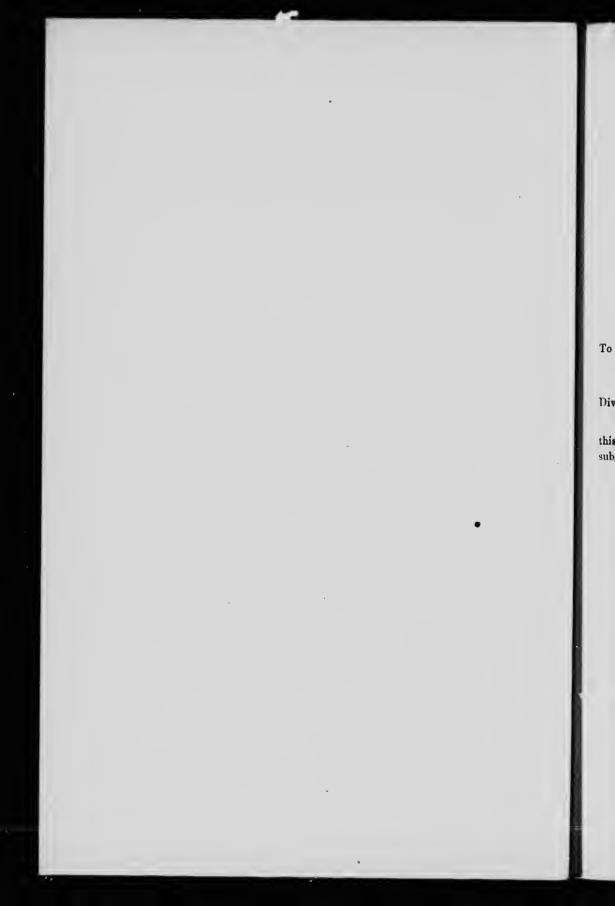
#### F. CHARLAN

Tobacco Bulletin No. A-11

Published by direction of the Hon. SYDNEY A. FISHER, Minister of Agriculture, Ottawa, Ont.

January, 1911

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OTTAWA, January, 1911.

To the Honourable

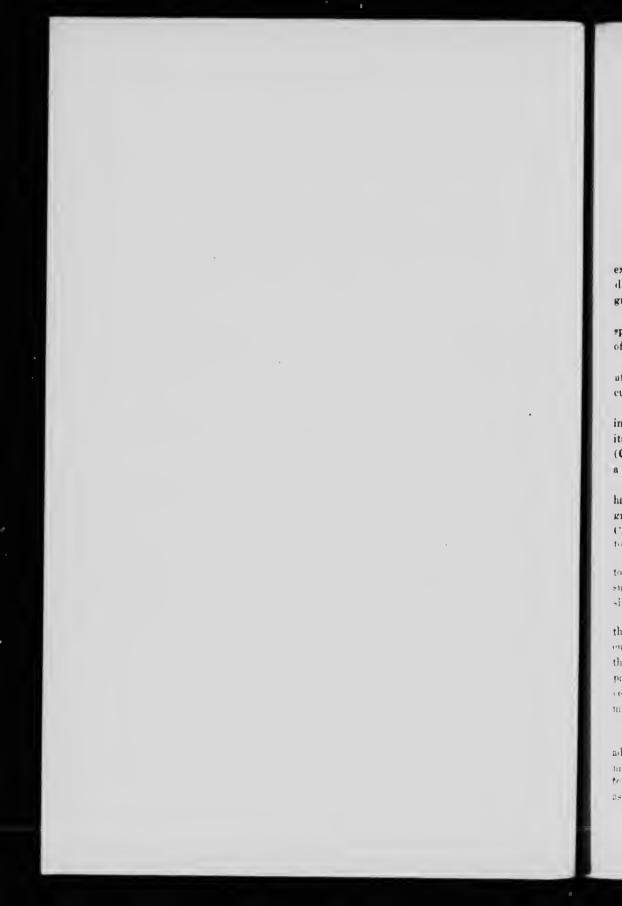
The Minister of Agriculture.

SIR,-I have the honour to submit herewith Bulletin No. A-11, of the Tobacco Division, entitled 'Tobacco Culture in Canada.'

The condition of the tobacco growing industry in the Dominion is outlined in this bulletin, which fills a long felt want for a treatise of general information on the subject.

I beg to recommend that it be printed for distribution.

I have the honour to be, sir, Your obedient servant, F. CHARLAN. Chief of the Tobacco Division.



### TOBACCO CULTURE IN CANADA.

#### BY

#### F. CHARLAN,

#### Chief of the Tobacco Branch, Ottawa.

Tobacco has been grown for centuries in Canada. Like the first European explorers who set foot on the shores of the West Indies and of Central America, the discoverers of Canada received from the aborigenes, amongst other presents, tobacco grown on the shores of the St. Lawrence.

From Central America where the tobacco plant probably originated, its culture spread to Canada long before the discovery of the New World. Its product was one of the most indispensable adjutants to the equipment of the fierce nonnads.

Revived by the Europeans who conquered the country step by step, it was only at a comparatively recent date, hardly more remote then a half century, that tobaccoculture in Canada became really worthy of the name.

Even then there elapsed a long period during which the Canadian tobacco industry, properly speaking, had to draw almost exclusively from foreign countries its supply of raw material, while part of the population, e-pecially in Lower Canada (Quebec), gradually acquired the habit of using the indigenous plant, con-uned in a rather rudimentary form (raw leaf, in hands or twists), and unfermented.

Tobacco culture, however, was organizing and rising from the chaos where it had groped so long. The aver-ion of the first manufacturers to the use of the home grown product long delayed the adoption of protective measures, but, at last, the Canadian growers were granted the necessary protection and were soon in a position to compel the manufacturers to accept their products.

The last protective law, which is but a readjustment of the preceding one, gives to the Canadian tobacco leaf a protection of \$0.25 per pound. This duty seems sufficient to enable home-grown tobaccos to compete with fair advantage against similar American products, their most formidable rivals.

To the credit of certain manufacturers it must be said that some ten years ago they took the initiative and endeavoured to develop in certain parts of Canada the culture of those varieties which seemed best adapted to the climatic conditions and the nature of the soil. This movement, sometimes ill-understood, met with a comparative failure in the province of Quebee but resulted in the creation of a new centre (South Ontario-counties of Essex and Kent), where the growing of Burley made very rapid progress.

Since then tobacco culture may be considered as definitely established in Canada. As soon as it was clearly shown that the home-grown product could be used to advantage for manufacturing purposes, in spite of the strenuous competition of the manufacturers of imported tobaccos, the Canadian Government took effective means to encourage home production. The last of these measures is the Act of 1907, which, as already stated, gives to the Canadian tobacco leaf a protection of \$0.25 per pound.

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This Act was mainly a revision of the preceding tariff, and provides that the Customduty on foreign leaf shall be paid on the date of entry, and not as previously, when the stamps were affixed, that is, when the tobacco was delivered to the retailers.

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At the present time, despite Canada's horeal reputation, its tobacco culture is already prosperous and, if we judge by its daily increasing development, the production will soon be such as to meet most of the manufacturer's requirements.

#### **TOBACCO GROWING CENTRES.—THEIR CLIMATE.**

#### Varieties grown.

I. Province of Quebee.—To this province belongs first mention. In fact it was the first part of Chunda really settled, and it was in the counties north of the St. Lawrence, in the vicinity of Montreal, that tobacco culture first developed. Chief amongst these counties are Montealm, L'Assomption, Joliette, Deux-Montagnes, &c. To these must be added a group now becoming more and more important, that of Rouville (south shore of the St. Lawrence), which would be more accurately designated by the mune of 'group of the Yumaska valley.' In this group may be included the other southern counties where tobacco culture is fast developing, as suitable lands are found.

The elimite of the northern section is rather cold, and the melting of the snow and slow drying out of the soil in late springs sometimes interfere with farming operations. Early frosts are also to be dreaded, for they threaten the crop from the first day of September. But the season extending from the 1st of June, and sometimes from the 20th of May to the 1st of September, is amply sufficient to permit the growth of all the early varieties. A judicious choice of varieties is therefore necessary, but with such a choice tobacco culture in that part of Canada will be as successful as anywhere else.

At the outset, during the period of chaos above mentioned, the crops ineluded the most different types, from the very early indigenous varieties, such as Canelle, P. it Rouge. Big Havana, to large and comparatively slow growing tobace such as Blue Pryor and Burleys, covering the whole series of seed leafs. This was the consequence of the lack of a regular nurket and of the desire on the part of the farmers to test all kinds of varieties and discover one that would givo the large-t profits, either by its heavy yields, (Burley and Large Connecticuts), or by its high prices on the market (Canelle, Petit Rougo).

The growing of Canelle is to-day fairly well localized on clay loams and gravelloams in the counties of Montealm and Two-Mountains, particularly the latter Elsewhere the seed leaf is gradually replacing the other varieties. We may say that in the counties north of the St. Lawrence, the growing of tobacco for manufacturing proposes includes the following varieties:—

Connecticut Seed Leaf-(ruther slow in ripening, and less and less grown evyear).

Havana Seed Leaf-(very early, needs from 65 to 75 days of vegetation).

Constock Spanish-(very early, needs from 65 to 75 days of vegetation).

The yield of the last two varieties is still light: from 1,000 to 1,200 pounds acre. The first variety yields from 1,200 to 1,400 pounds, but as it is easily dama-

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by early fall frosts, the results are always uncertain. As to Canelle and Petit Rouge, highly appreciated by a certain class of plue smokers, they are of small size and their yield is therefore very light and seldom above 500 to 600 pounds per acre. However, the high prices these products command on the tobacco leaf market makes their culture fairly profitable, although they cannot be included in the same class as the so called manufacturing tobaccos.

In the southern (Juebec group (Yamaska valley) the planters have not hesitated so long in recognizing the type best suited to their soil and climate. The three varleties mentioned above are the only ones grown: Connecticut Seed Leaf, Constock Spanish and Havana Seed Leaf. For the last few years the Comstock has been grown more and more extensively, while the Connecticut Seed Leaf tends to disappear entirely.

It would seem as if the proportion of light louns best suited to the growing of seed leaf were greater in this section than in the northern counties. The climatic conditions are also more favourable, spring begins earlier, fall fronts come later, summer rains are more frequent and better distributed.

The yields are slightly heavier than in the northern section, which may be ascribed to special conditions of soil and elimate, or perhaps also to the fact that tobacco culture has been but recently introduced and that the soil is not yet exhausted as in certain parts of the northern group that begin to show signs of exhaustion.

11. Southern Ontario (counties of Essex and Kent).—At an already distant date, in the neighbourhood of Windsor and on the shores of River St. Clair, a small settlement of French Canadians had attempted the growing of tobacco. The first results were encouraging, but owing to the lack of transportation facilities and, furthermore, of competition between buyers, the prices fell so low that this culture was forsaken for market-gardening whose products found a profitable market in the growing city of Detroit, just across the river on the American shore.

However, the experiment was not useless. After a comparative failure in Quebee a strong company sent agents through the south of the county of Essex to encourage the growing of tobacco amongst the farmers. This was the origin of tobacco culture in Ontario. Its development was comparatively prodigious and almost from the outset it gave a product that could compete with imported tobaccos of a similar nature.

During recent years the tobaceo crop in southern Ontario has reached the figure of 5.000,000 to 6,000,000 pounds, the greater part of which belongs to the Burley "ariety. Meanwhile farmers of South Kent, led by example, took up this new industry, and it may be said that tobacco culture has now spread to the entire north shore of Lake Erie and perhaps that of Lake Ontario.

The elimate of that part of Canada, regulated and tempered by the proximity of the immense body of water of the Great Lakes, is of marvelous mildness. At the centre of this region is found the great Niagara fruit district, and from the middle

f May to mid-October, no serious frosts are to be feared. Under these conditions. and with some caution, the comparatively late varieties (Big Ohio, Connecticuts, Burleys) can be successfully grown. With rare exceptions the rainfall is sufficient. The soils, however, seem to contain a much larger proportion of lime than the soils of Quebee. They are perfectly suited to the growing of tobaccos of a perous texture (Burleys), but it seems that for elasticity and fineness the seed leaf tobaccos give better results in the Quebec centres.

The Burley is a heavy yielder. In normal years the average should not fall below 1,300 or 1,400 pounds, and a ton per acre is not an exceptional yield.

During the last three years Virginia Bright has been tested in the county of Essex. Thanks to the judicious choice of soils the growing of this tobacco is in a fair way to success and several growers are at the present time engaged in its culture and practising flue-curing. The prospects appear to be of the brightest, the market is favourable, and till the demand for Burley has grown sufficiently, this variety offers an excellent means to avoid the over-production of the last two years, whereby the prices were so depreciated that many growers of Burley were compelled to abandou tobacco culture.

III. British Columbia.—After timid tests in the Okanagan valley, the first dating back to about ten years, this district seems to be destined to become an important centre in tobacco growing. The climate is exceptionally mild and the soil very productive. Deep light soils are to be found that are perfectly suited to this culture and the season extends from April to the end of September.

The varieties more particularly tested are the ('uban and the small seed leafs (Havana Seed Leaf, Comstock-Spanish and others imported from Wisconsin). The Cuban is grown from Canadian seed, the imported seed giving a more aromatic product but being of too feeble growth.

The efforts of the promotors of tobacco culture have met with success. While the quantity of tobacco produced in the Okanagan valley is not proportioned to the place this product could occupy on the Cauadian market, the Kelowna Cuban fillerare excellent and may replace with advantage many common Havanas.

However, the Okanagau seed leaf is not assured of such a future. The great obstacle to agriculture in that part of Canada is the almost complete lack of rain in summer. Irrigation is practised on a vast scale, but although it is sufficient, when made in spring, to secure the vegetation of comparatively small tobaccos like the Cuban, it is inadequate for the growth of medium leaved tobaccos, whose product is not as fine as could be wished.

#### TOTAL PRODUCTION .- QUALITY OF THE PRODUCTS .- MARKETS.

In normal years the present production of tobacco in Canada is 10,000,000 pounds, of which Ontario grows three-fifths and Quebec about two-fifths. In these approximate figures is included the fairly important quantity of leaf tobacco sold direct to the consumer and exempt from excise duty. The proportion of leaf tobacco consumed in Canada is considerable; there is a very active market for tobacco in the form in the Province of Quebec. The provinces far removed from the centres of production, as Manitoba and Alberta (in the West). Nova Scotia and New Brunswiel, (in the East), also take up a large quantity of the leaf tobaccos produced in Quebec and Ontario. Useless to say that mest of the growers smoke no other tobacco bat that of their own erep.

It is impossible, however, to predict the future of tobacco culture in Canada from the present production. The question of quality is of far greater importance. Admitting that as the demand increases for Canadian tobacco it will be easy to create new centres of production, or to develop those already existing, it is particularly essential to ascertain if Canadian tobaccos are fit products from a manufacturing standpoint.

As already stated, the small Canadian tobaccos (Canelle, Petit Rouge, Big Havana, etc.) are highly quoted in the province of Quebee. Their retail price sometimes reaches \$0.75 to \$1 a pound. To account for this, we must necessarily consider the habit of the pipe smoker who prefers these tobaccos sometimes rather strong. The Canelle, also known under the name of Evans, has a special aroma from which its name is derived. It is difficult, however, to dispute the quality of tobaccos so highly priced, although, practically speaking, they have undergone no previous preparation.

The Quebec seed leaf whose quality had long been disputed, at a time when it was little known but as a raw tobacco, unfermented and just out of the barn or shed, has acquired a well deserved reputation during recent years.

With proper cultivation and suitable soil these tobaccos, if harvested in good season and well cured, will stand comparison, after fermentation, with the tobaccos of Wisconsin (binders) or with those of Pennsylvania (fillers). Canada will perhaps never be able to supply the demand for wrappers. Under present conditions the growing of tobacco under cauvas, as practised in Connecticut and Florida, can hardly be attempted. However, in the preliminary grading before bulking for fermentation there has been found a certain proportion of tobaccos of sufficiently finc texture to be used as wrappers in the manufacture of ordinary eigars.

For a long time a number of Canadian manufacturers have contemplated the possibility of a system whereby they would themselves handle the raw product and establish warehouses for grading and fermentation. Under the new law this plan has been put into operation and the results are already manifest. The manufacturers themselves are of opinion that the Canadian seed leaf can easily replace similar American products, and they are presently engaging in a contest that must end to their advantage.

Another class of products, the chewing tobaccos, in which the Burleys of Ontario figure most prominently, have a long established reputation. There are few Canadian manufactures of plug tobaccos where the home-grown Burley is not used in considerable proportion, when it is not almost exclusively the only raw material employed. Favoured by an ideal climate and by a rich and cminently suitable soil the growers of Ontario have obtained remarkable results in a wonderfully short time.

The so-called dark smoking tobaccos are easily obtained, either from the large seed leaf tobaccos of Quebec, sometimes too coarse for the manufacture of eigars, or from the rather strong top leaves of seed leaf tobaccos and Comstock, whose middle and lower leaves have been used for binders and filters. There is also a fairly high proportion of Ontario Burleys employed in the manufacture of smoking plug tobaccos, chiefly used by the English-speaking population (Ontario and the western provinces), while dark smoking tobaccos, generally cut, are preferred by the French ('anadian smokers (Quebec). In the mixed products (smoking and chewing) is included the whole series of tobaccos in twists, loose plugs, and all other forms of packing in use when the culture and trade of Canadian tobaccos were in the embryo stage. They are still practised with the main object of avoiding the excise duty of \$0.05, imposed on products manufactured with home-grown tobaccos. Unfortunately these cheap products are too often composed entirely of raw tobaccos sometimes of very doubtful quality.

We have already mentioned the British Columbia tobaccos. The fillers grown in that province have been recognized of superior quality by conscientious manufacturers who have tried them. At the present time the only drawback is that their culture does not spread more rapidly and that the supply cannot yet meet the demand.

The quantity of tobacco produced in Canada is comparatively limited, about onethird of the home consumption. It is only of late years that this figure has been reached, and still come difficulty has been experienced in disposing of the last crops, particularly in Ontario. Properly speaking, there has not been any over-production, but so dull became the condition of the Canadian tobacco market at a certain moment, that the growers were on the eve of discouragement.

A law recently passed has brought a remedy to this unfortunate situation. There is at present a most active demand for all sorts of Canadian tobaccos. We may anticipate in a short time a production of 15,000,000 pounds which perhaps will not be sufficient to meet the demand.

Although the opinion is sometimes expressed and the hope entertained that Canadian tobaccos may possibly, at a future day, invade foreign markets and form part of our exports, it is well to be reserved on this point.

The cost of production of Canadian tobaccos is comparatively high. They are of good quality and will still improve, but their superiority over the American product must be well marked before competition with foreign markets can be possible at present prices. They have not yet reached this point. Moreover, with the exception of a few special products, the chief merit of export tobaccos is not so much quality as cheapness. This can hardly be realized in a country where labour is comparatively scarce and high-priced.

Therefore, whatever be the quality of Canadian tobaccos, so long as the cost of production is not reduced they must chiefly court the favour of the home market. Tobacco culture in Canada is still practically in its infancy. This industry, in spite of long-lasting difficulties, has made rapid strides and its products have gained access to the home manufactures, but from yesterday only. For some time at least its only endeavour should be to scenre a more prominent place on the home market so as to grasp the reward due to such laborious efforts.

#### THE TOBACCO SUPPLY OF CANADA.—JUSTIFICATION OF THE LAST LEGISLATIVE ENACTMENTS.

If the yearly consumption of tobacco in Canada is estimated in round numbers at 30,000,000 pounds, the 10,000,000 pounds of home production constitute a small contribution. This proportion will one day be reversed in favour of the home-grown product, the only imported tobaccos being then the high grade products which even the great producing countries, like the United States, are obliged to import from foreign sources.

Most of the tobaccos imported into Canada for the manufacture of eigars include the products of Wisconsin, Pennsylvania, Connecticut and Havana. Most of these will one day be replaced by Canadian products. The only tobaccos imported will be the high grado Havana and Sumatra and some special secondary products from Jamaica, Algeria, &c. British Columbia, and soon perhaps other parts of Canada will be fully ablo to supply the demund for fillers of such quality as to satisfy the most fastidious smokers.

The chewing tobaccos will be almost oxclusively manufactured from the Canadian Burleys, which will scon replace the Kentucky product imported at present. Even the Virginias (dark and bright) will be grown in certain parts of Ontario, without speaking of districts still unknown where the conditions of soil and climate may be equally favourable. It will then only be uccessary to import from the northern states the superior brands required for particular uses.

As to dark smoking tobaccos of the province of Quebec, they are even now secure against American competition. Moreover it is gratifying to note that their consumption increases daily in considerable proportion.

With the exception of a few special and high grade products, the Canadian tobacco industry can therefore find in this country all it needs for further development. This fact has been appreciated by a few great companies and enterprising individuals who, after giving more or less direct encouragement and support to tobacco culture in Canada, are becoming more and more interested in the handling of the home-grown product.

The last legislative measure of the Canadian Parliament is thus fully justified, for while imposing a tax on the manufacturers before they can handle the tobacco leaf, it assures to the home-grown product a protection of which it is becoming more and more worthy.

The last census has shown a decrease of 1,500,000 pounds in the importation of all kinds of tobacco, and a fully proportionate increase in the quantity of Canadian tobaccos used by manufacturers. These figures need no comment when we consider that the Canadian output is still comparatively light.

#### GOVERNMENT HELP.-EXPERIMENTAL STATIONS.

The federal government has not been content with giving effective protection to the home industry. A special branch has been created for the information and guidance of tobacco growers and for the improvement of their products.

With hardly three years of existence the Tobacco Branch has undertaken, for the first time in Canada, fermentation tests for eigar and pipe tobaccos. These experiments have since been successfully repeated by some manufacturers who are making a specialty of the handling of such tobaccos. A selection of the varieties already introduced and acclimatized in Canada has also been started. The effect of this selection is already being felt in certain sections. Improved tobacco seed, as well as practical bulletins on tobacco culture, have been distributed throughout the country.

New varieties have been introduced and are actually under test. It is possible that certain of these varieties, after they are acclimatized, principally the cigar leaf, may give products superior to the present ones, without mentioning the hybrids recently grown in Canada, a few of which seem particularly suited to the elimatic conditions of the country. During the season of 1909 three experimental stations have been established by the Minister of Agriculture.

The experimental station of Ontario (Essex county) eovers an area of 26 acres, devoted to rotation tests, to experiments with fertilizers, ote., and to determining the most promising varieties in this part of Canada. A special experiment having in view the growing and euring of bright tobaccos by the fluo process is now being conducted, and despite the rather cold temperature of the season, the results a cost gratifying.

The other two stations are located in the province of Quebee (North and South centres). They are devoted to the testing of dark tobaccos (pipe and eigar), to the selection of the most popular types in each particular section, to the production of choice seed for distribution and to the study of the different processes of culture.

A chemical laboratory, recently established and located at Ottawa, at the headquarters of the tobacco branch, completes an organization which will henceforth be in a position to meet the pressing needs of a new industry whose development is wonderfully rapid.

#### FINANCIAL SITUATION OF THE TOBACCO GROWER IN CANADA.

In Canada, perhaps more than anywhere else, the growing of tobacco has justified its reputation of being a profitable industry.

In the Quebee centres the yields have long been limited to 1,000-1,200 pounds per acre. In years where high prices prevail, a gross revenue of a \$100 per acre is far index being exceptional. The cost of production, including most of the personal work of the farmer and his family, has seldom exceeded \$45 to \$50 per acre. The net profit was then about fifty dollars per acre. An experienced grower can easily obtain heavier yields and realize as much as \$75 per acre and even more.

The brilliant prospects opened to the tobacco grower by the Canadian legislator will likely encourage him to modify his rather antiquated methods of culture. It will then be possible for him to increase the net average yield to \$75, and even to \$100 per acre in certain cases. With such conditions tobacco culture becomes one of the most profitable industries.

In Ontario, owing to the variety most generally grown (Burley) the yields are much heavier than in the province of Quebec. When in this province, as in Quebec, better care is given to the the uning of the land, it will be possible to maintain the average between 1,500 and the burley ounds per acre. At this figure, if the market price is .09 cents per pound, (it is accually from 10 to 11 cents), the net profit per acre will be from \$80 to \$100.

It has been admitted by American growers engaged in the experiments undertaken in this country or who have visited its tobacco-growing centres, that this branch of agriculture is nowhere as prosperous as it is in Canada. The immigrant with eapital might well be advised that it is one of the most profitable in which he could invest his money.

