(No. 71.)

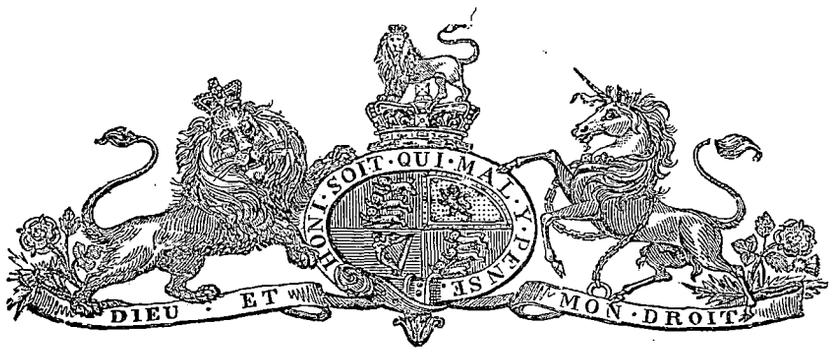
1858.

TASMANIA.

DISTILLATION.

REPORT FROM THE SELECT COMMITTEE.

Brought up by Mr. Nicholas, and ordered by the House to be printed, 5 November, 1858.



THE SELECT COMMITTEE *appointed to inquire into, and report upon, the Advantages to be derived from the Repeal of all Acts prohibiting Distillation, have the honor to submit to the House of Assembly the result of their investigations, together with the Evidence taken before the Committee.*

REPORT.

THE Committee, at the outset of their labours, decided to confine their enquiries to the subject of the probable benefits likely to accrue to the Colony from the legalisation of Distillation, irrespectively of the possible effects upon the Revenue consequent upon the introduction of a system which, if successful to the extent anticipated by the Committee, would, no doubt, interfere with the receipt of Customs' Duties upon imported Spirits. The Committee ventured to interpret their instruction from the House as more permissive than imperative on this point, which, under any circumstances, must eventually and more legitimately come under the consideration of the Executive and the Legislature, as involving a very important alteration of the Financial economy of the Government, and of the fiscal impositions on the Community.

The advantages to be derived from the repeal of the Acts prohibiting Distillation may be considered broadly under two heads; viz., as affecting—

1st. The Consumer,

2nd. The Producer.

The Committee propose to review the subject at some length under these two obvious divisions of the enquiry; submitting, in conclusion, as the corollary of their deductions on these points, the general benefits that may be expected to be experienced by the Colony at large from the legalisation of a system calculated to promote the extension, improvement, and profits of agriculture,—the retention and expenditure of capital within the Colony,—and the consequent amelioration, by the employment of labour and the circulation of money, of the social and commercial condition of the whole Community.

I. The Evidence taken by the Committee embodies the views of members of all the various classes of persons whose experience and opinions ought properly to carry weight on such a subject. The witnesses, though only eight in number, comprised Officers of Her Majesty's Customs, practical agriculturists, importers and wholesale vendors of spirits, a brewer, and a distiller of twenty years' experience in England, who had been engaged under the old laws in the same business for about two years in this Colony.

The Officers of Customs, the importer, the brewer, and the distiller, all speak to the fact of a considerable quantity of inferior Spirits, particularly brandy, being imported from Europe, from America, and from the neighbouring Colonies; and admit that Distillation is carried on here, inasmuch as they have themselves seen and tasted the illicit article at different times, and are also cognizant of its occasional intermixture with imported spirit for the purpose of retail trade. The Committee are also enabled to state, from their own acquaintance with the spirit trade in Hobart Town, that there exist somewhere within the

Colony manufactories of illicit spirits, which are occasionally offered for sale to the spirit merchant, in quantities large enough to leave no doubt as to the systematic and profitable exercise of the business.

It is unnecessary to make any comment upon the loss which must, under these circumstances, be sustained by the Public Revenue. It is also in evidence before the Committee that, in the lower class of Public Houses, Rum, the spirit most largely in demand, is subjected, after liberal dilution with water, to adulteration with vitriol and other deleterious substances, so that, according to the evidence of an Agriculturist and Police Magistrate, of considerable experience in both characters (George Kemp, Esq., J.P.), "the bad rum generally used could not be worse."

Arrack, which, according to the evidence of Mr. Watt, Landing Waiter in Her Majesty's Customs at the Port of Hobart Town, is imported here "in large quantities," is also extensively and commonly intermixed with imported spirits for sale in Licensed Houses of the same class.

It further appears, from the evidence of the same witnesses, that the importation of spirits of an inferior quality from Europe has been particularly noticeable during the last 18 months, and is principally observed in the article Brandy.

It is well known that for some years past spirit has been extensively manufactured in France and Germany from beet-root and from potatoes.

British spirits from the same articles have also been largely exported to the Continent for the purpose of re-exportation, after admixture or adulteration, under the name of French Brandy. The demand of late years for case brandy for the Gold-fields market has also caused the importation at Melbourne of large quantities of that article, much of which finds its way from time to time into Tasmania.

From these admissions by witnesses, and from facts within the knowledge of its members, the Committee feel justified in assuming the existence of two serious evils;—viz., the consumption, either neat as imported, or intermixed with a better article, of considerable quantities of spirituous liquors of an inferior and deleterious character; and, second, the existence, undetected by the vigilance of the Customs or Police, of illicit manufactories of Colonial spirits. In other words, the consumer is poisoned, while the Revenue is defrauded. The establishment of these facts,—and the Committee entertain no doubt of their existence—goes a long way towards the substantiation of a case for the legal toleration, or even the encouragement, of Colonial Distilleries.

II. The subject of the cost, profit, and consequences of Colonial Distillation involves more interesting considerations, and opens an ampler field of enquiry.

The articles from which spirits would in all probability be most extensively distilled are grain, viz., wheat and barley; roots, viz., beet, potatoes, and perhaps carrots; and sugar.

The Committee directed their enquiries so as to ascertain from the practical agriculturist the cost at which these articles could be grown; and from the brewer and the distiller, the cost and profit of extracting from these substances a wholesome, marketable, alcoholic liquor.

It appears that barley can be grown and delivered in Hobart Town at from 6*s*. to 7*s*. a bushel for English barley, and from 4*s*. to 5*s*. a bushel for Cape barley, with an average yield per acre of from 35 to 40 bushels.

Potatoes could be grown and delivered in Hobart Town at from £5 to £7 a ton, with an average yield per acre of from 6 to 7 tons; carrots at from 30*s*. to 40*s*. a ton, with an average yield per acre of 20 tons; and mangold wurzel at from 25*s*. to 30*s*. a ton, with an average yield of from 20 to 35 tons per acre. The cost of cultivating mangold wurzel is estimated by one witness at from £12 to £14 per acre.

The price of sugar is stated by Mr. Boys, M.H.A., himself an importer of both sugars and spirits, to have averaged from £30 to £31 per ton for the last seven years. "The lowest quality," he says (which would answer the distiller's purpose as well as the best), "can be landed here, duty included, at £24 a ton."

The quantity of spirit which can be distilled from these articles may be stated roughly as follows:—

Grain, raw, from 1 bushel	1¾	gallons.
Grain, malted, ditto	2	„
Potatoes, per ton	20	„
Carrots, ditto	12	„
Sugar, ditto	160	„

at an average cost, according to the evidence of Mr. Turnbull, himself an experienced distiller, of 2*s.* 9*d.* a gallon at the present rates of wages.

None of the witnesses could speak from personal knowledge of the manufacture of spirits from beet-root. But it appears from recent English and French publications on the subject, that "the average yield of sugar in beet-roots is estimated in France at about 10 per cent. of their weight, which ought, after being submitted to the most improved process of fermentation and distillation, to yield from 19½ gallons per ton."—(M. LEPLAY —*The Agricultural Distiller's Handbook*, 1856.)

The cost of distilling proof spirit from beet-root in France is estimated at 1*s.* 3*d.* per gallon, the price of the manufactured article being 3*s.* a gallon without duty.

It seems obvious from these figures that spirits could be distilled in this Colony at a cost which would prove sufficiently remunerative to the producer; while all the witnesses examined by the Committee were unanimously of opinion that the legalisation of Distilleries would give an impetus to agriculture, and create a larger home market for grain the produce of the Colony.

But, before entering on that branch of the enquiry, the Committee desire to advert briefly to the present consumption of imported spirits, and the amount annually expended in the purchase of and duty on the Foreign article.

From 1852 to 1857 inclusive the duties paid on spirits throughout the Colony amounted to an aggregate sum of £486,180, or an average yearly outlay of £81,000. The spirits entered for Home consumption at Hobart Town during the years 1855, 1856, and 1857 amounted to an aggregate quantity of 291,557 gallons, showing an average annual consumption of 97,233 gallons. There were imported into the whole Colony, in nine months of 1857 and three months of 1858, 15,400 gallons of brandy and 44,700 gallons of rum.

The value of the spirits imported in 1854, when a larger amount of duty was paid than in any of the six years already referred to, was no less than £124,507. The value of spirits consumed in Hobart Town alone in 1857 was £52,458. When these sums are added to those paid in duties on the same articles, it is obvious that enormous sums of money are annually sent out of the Colony to pay for imported spirits, and sunk in Customs Duties, on an article which the Country itself is quite capable of supplying to a very considerable extent. The exhausting effects of this process upon the financial circumstances of the Colony require no comment. With a total population, including Military and prisoners, in 1857, of 81,402 souls, Tasmania sends annually into the Foreign market for the purchase of the single article of spirits a sum equal to £1 for every inhabitant. There can be no doubt that if the same article were permitted by Law to be manufactured in the Colony, a very large proportion of this serious item of our annual outlay would be beneficially and reproductively expended in the purchase of the produce of Colonial Distilleries. The spirit-consuming capacity of the Country is shown to be great. It is in evidence before the Committee that spirits can be distilled in this Colony, and have been for many years past distilled in New South Wales, quite equal in quality and flavour to the products of the Continental Distilleries. It is admitted on all hands that illicit spirits are manufactured and consumed in the Colony at an annual loss to the Revenue, as the Committee have good reason to believe, of from £7000 to £10,000 annually.

It is an unquestionable axiom in fiscal legislation, that it is better at all times to legalise what you cannot prevent. It would therefore seem highly desirable, if on no other grounds, for that reason alone, that the existing restrictions and prohibitions on this article of manufacturing industry and general popular consumption should be forthwith and for ever removed.

But when to these arguments for the legal permission of Distillation there is

superadded the consideration that Agricultural Distilleries from beet-root and similar substances are now established under the sanction of the Law in England and France, with the most beneficial effects upon the prospects of farming in those Countries, both in the produce of grain and the raising of fat stock, whereby bread and meat have been rendered at once cheaper and more abundant;—when it is remembered that Distillation already exists in New South Wales, and is on the eve of receiving Legislative sanction in the adjoining Colonies of Victoria and South Australia,—it seems impossible that the Laws which prohibit Distilleries in Tasmania can much longer be permitted to remain unrepealed, with advantage or safety to the commercial interests of the Colony.

There is every reason for believing that capital will soon be largely invested in both Adelaide and Melbourne in the erection of extensive Distilleries.

The spirit manufactured by our neighbours will infallibly find its way into this market, where its successful competition with the imported article from Europe and America will sooner or later render the relaxation of our present prohibitory system an act of inevitable necessity. The Committee are, therefore, of opinion that it would be wiser, and more statesmanlike, to do this deliberately, as a matter of public policy and obvious justice to the agriculturist and the consumer of spirits, than to be forced hereafter by the urgency of the case, or pressure from without, into any hasty Legislation on a subject involving so largely the development of the resources, the employment of the capital, the commercial prosperity, and the public morality and health of the Colony.

But, before concluding this Report, the Committee are anxious to call particular attention to the recent progress and beneficial consequences of the distillation of alcohol from beet-root in France.

The Committee are earnestly impressed with the belief that results equally advantageous to the agricultural interests of this Country would unquestionably follow on the introduction of a similar system into Tasmania; and they are convinced that the great practical benefits to the Community and profits to the farmer, which can be shown to be the certain consequences of the scientific cultivation and distillation of beet, only require to be properly understood and appreciated to enlist the serious attention of the capitalist, the agriculturist, and the legislator.

"The distillation of beet root has been the subject of serious consideration in France since the year 1812; but, up to the year 1846, the processes were very imperfect. It was only in 1852 that the distillation of beet began to be attempted on a great scale in the north of France, and probably in no country has the development of a new industry been more rapid,—for in 1852-3 the value of alcohol obtained in France from beet was only £20,000; in 1853-4 it was £1,230,000; and in 1854-5 it was £2,000,000 sterling." *

This is not the place for a detailed statement of the cost and profits of these manufactories; but the Committee desire that it should be borne in mind that the residue of the beet, after the process of distillation has extracted 19½ gallons of alcohol from the ton of roots, is found to contain 90 per cent. of the nutritive azotic matter contained originally in the beet, solidified by the fermentation and distillation.

An acre planted with white Silesian beet is calculated to produce 25 tons of roots, yielding 493 gallons of proof spirit, worth at 3*s*. a gallon £73 19*s*. 0*d*. without excise duty. The residuum of nutritive matter, after distillation, equals 22 tons of undistilled beet-root,—the very best species of food for fattening cattle, and which the farmers purchase at the gates of the French distilleries at 10*s*. a ton.

It is in evidence before the Committee that "root crops are larger in their yield here than in England. We have two months more of autumn growing weather than in England, (says Alderman Lipscombe, a practical agriculturist of 27 years' experience.) Root crops can be grown on moderate land and at a lower rate than on the best lands in England. All root crops can be grown here much better than in England." Mr. Shoobridge, another practical farmer of many years' experience, estimates the yield of mangold wurzel at from 20 to 25 tons to the acre, and has seen as much as 40 tons.

From these data it may be reasonably concluded that the cultivation and distillation

* *Distiller's Hand Book*, 1856.

of beet root could be carried on in this Country at an equal, perhaps a larger, profit than in France, making due allowance for the difference in rates of wages and provisions. In further elucidation of these views, the Committee subjoin, in an Appendix, a detailed statement of the results of the growth and distillation of 420 acres of land in France during the season, from October, 1855 to April, 1856, extracted from the *Agricultural Distiller's Handbook* for the latter year, a work already quoted in this Report, and edited by the conductor of the *Farmer's Club Magazine*, London. (Appendix A.)

The Committee would now advert to the general result upon the Agricultural interests and resources of the Country as likely to be affected by the introduction and extension of Colonial Distillation, more particularly with reference to the consequence of the establishment of Distilleries from beet-root. For this purpose the Committee have thought it desirable to append to their Report an article on the subject published, on the 14th September, 1856, in a French journal, *Le Constitutionnel.* (Appendix B.)

The article is too long for insertion in the body of the Report, but deserves attentive consideration, and will amply repay perusal. Referring to the statements there made, which the Committee have every reason to believe are grounded on facts, and taken from Government Statistics, the Committee would record, briefly, the important points substantiated by the article in question:—

It is proved, 1st. That the cultivation of the sugar beet, and the erection of Agricultural Distilleries, have doubled the amount of corn grown in the Districts of France where beet is distilled. 2nd. That the amount of meat produced in the same Districts has increased from 11,000 head of bullocks to 17,000; and that the number of sheep has more than doubled, being increased from 70,000 to nearly 150,000; and that in the neighbourhood of Valenciennes the number of bullocks fatted has increased, since beet has been distilled, from 4000 to 11,000.

When it is remembered that nearly £120,000 are annually sent out of the Colony for the purchase of Victorian cattle and sheep, the importance of these results of Agricultural Distillation, as affecting the social economy and commercial interests of Tasmania, will not fail to strike the most superficial observer. We are encouraged to hope that the establishment of the same system, which shall enable us to manufacture and purchase within our own shores a very considerable proportion of the article for which we now pay annually to the foreign producer close upon £80,000, will also tend to develope the pastoral and agricultural resources of the Country, so as to render us eventually altogether independent of the foreign breeder for our regular supplies of beef and mutton.

In conclusion, the Committee desire to repeat their conviction that the legalisation of Distilleries would have the following results:—

First. The production, for Home Consumption, of a purer and more wholesome spirit than that now imported from Europe and the adjoining Colonies.

Second. The expenditure of capital within the Colony in the erection and working of Manufactories, and the consequent extended employment of labour, and increased circulation of money.

Third. The retention within the Colony of a very large proportion of the sums now annually expended abroad in the purchase of foreign-made spirits, and foreign-grown beef and mutton; and,

Lastly. A very great increase in the operations and the profits of the Agriculturist. The combined influence of these results must inevitably tend to the general amelioration of the condition of the great bulk of the people, and the consequent improvement of the social happiness, commercial activity, and financial prosperity of the Colony.

The Committee, for the reasons already stated, have not treated the subject with reference to the influence upon the Revenue as now mainly derived from Customs' Duties upon a very limited Tariff. This is a question for the consideration of the Executive, and the deliberations of Parliament. The time, however, cannot be far distant when the "incidence of Taxation" will become a prominent topic with Finance Ministers and Legislatures; and the entire system of the existing fiscal burdens on the

Community must ere long, in the opinion of all thinking and far-seeing men, be subjected to a dispassionate investigation, and perhaps a final and equitable adjustment.

Impressed with this idea, and grounded upon the facts and general principles enunciated in this Report, the Committee have the honor to recommend to the House, as the result of their enquiries and deliberations, the early repeal of the Acts which now in any way restrict or prohibit Distillation within the Colony of Tasmania.

A. NICHOLAS, *Chairman.*

1*st November*, 1858.

EVIDENCE.

EVIDENCE.

SEPTEMBER 22, 1858.

Mr. R. G. WATT, *Landing Waiter in the Customs.*

1. YOUR name is Robert Watt. You are Senior Landing Waiter in Hobart Town? Yes.

2. Can you say how many gallons of Brandy were imported into the Colony in nine months of 1857 and three of this year? 15,400 of Brandy, 44,700 of Rum.

3. What is the general quality of the Brandy? For the last eighteen months the Brandy has been very inferior, particularly from the Colonies, America, and Sydney.

4. Does this Brandy find its way into use? No; it generally goes out again.

5. What is this Brandy made from? From inferior grain; and large quantities of Arrack come here.

6. Much case Brandy comes from Melbourne, of inferior quality? A large quantity.

7. The Rums are not so inferior? No; nor the Gin.

8. The bulk of inferior spirit is Brandy? Yes.

9. Can you give any opinion as to the quantity of illicit spirits in Hobart Town? I know there is a quantity, but I cannot say how much. I am confident there is a considerable quantity. I have tasted the raw spirit in Brandy in this town. It can be told by the smell.

10. Has any Brandy been imported into the Colony made from mangold-wurzel? I do not know.

11. Are you acquainted with the working of the Excise system? Could you state the probable expense of such a system? I cannot.

12. How much grain will make a gallon of spirits? A bushel of malt will make a gallon of spirits.

Mr. Watt withdrew.

MR. RICHARD BROWN, *Locker at Her Majesty's Customs, Hobart Town.*

1. What was the Duty on spirits in 1836? 9*s.* for Rum, 12*s.* for Brandy; and the average price was, Brandy 5*s.* to 6*s.*, Rum 2*s.* 6*d.* to 3*s.* 6*d.* The price of spirits now is, Rum 4*s.* to 5*s.*, Brandy 10*s.* to 15*s.* The duty is 12*s.* for Brandy, 10*s.* for Rum, Gin 12*s.*

2. Are you of opinion that any illicit spirits come into use in town? Report says so, but I do not know it. It often strikes me that the chemists' five-gallon stills could be used in this way.

3. Do you know how the Distilling Laws are working in Sydney? I do not know; I never saw them.

4. Do you know of any laws in the other Colonies on the subject? No.

5. Do you think good spirits might be manufactured in this Colony? I am not aware of any reason why they should not.

Mr. Brown withdrew.

SEPTEMBER 23, 1858.

JAMES MILNE WILSON, *Esq., Brewer, &c.*

1. Your name is James Milne Wilson, and you are a brewer in Hobart? Yes.

2. Are you of opinion that the allowance of Distillation would be of advantage to the Colony? I think it would.

3. You are a large purchaser of grain? Yes.

4. Do you consider Distillation would encourage the cultivation of grain? I think it would lead to a good market for it.

5. Are you of opinion that if Distillation were allowed, parties would commence the trade? I have no doubt some would.

6. Have you any idea what would be the cost of spirits distilled from grain or sugar in this Colony? I speak of spirit made from sugar: 1 cwt. of sugar yields 5¼ gallons proof spirit, at 50°; the cost would be about 3*s.* a gallon, depending on the price of sugar.

7. Do you know anything of the Distillation of sugar from beet-root? I do not, but I read of it in France. I think the Colony favorable to the growth of beet-root.

8. Have you any idea of spirits made from potatoes? Yes; it is largely done in England. I read that 800 lbs. of potatoes will afford 30 lbs. of spirits, or about 4 gallons. A ton of potatoes will thus make about 20 gallons of spirits.

9. Do you think the manufacture of spirits in the Colony would interfere with the quality of spirits? Not more than the present system of intermixture. If the Colonial spirit were properly rectified, you would have the same spirit as that made in England—the same article.

10. Are you aware of the quality of the spirits now imported? It varies much. The spirit, if properly rectified, would be the same from grain, potatoes, or sugar. The Germans make an article expressly for mixing, about 75 per cent. O.P.

11. There are large manufactories in England for beet-root distilling? Yes.

12. *By Mr. Gellibrand.*—Would there not be a large quantity of sugar used? The manufacturer would use the cheapest article from which he could get the largest quantity of spirit. I will furnish the Committee with some suggestions in writing on the subject.

13. Do you know the prices charged in Sydney for spirits made in the Colony? No.

14. Could you inform me whether there were any local objections in Sydney to the Distillation Laws? I do not know; Distilleries have existed for 30 years there.

15. Do you know if they are thinking of passing Acts in the neighbouring Colonies to allow Distillation? I do not; if allowed it would raise the price of grain here and would give an impetus to agriculture.

16. It would require large capital to establish a distillery? Yes, it would.

17. You are decidedly of opinion that it would be advantageous to agriculture? I think it would, though the action would be slow.

18. You could produce as good spirit here, whiskey and gin, as in any part of the world? Yes.

Mr. Wilson withdrew.

ALFRED HUYBERS, ESQ., *Wine Merchant.*

1. Your name is Alfred Huybers, and you are a wine merchant? Yes.

2. Are you of opinion that the allowance of Distillation will affect injuriously the quality of the spirit sold out of Bond, by causing the admixture of an inferior article? It depends on the quality of the article. The mixture of any spirits is always injurious to a good article.

3. Do you not think that the inferior spirits now imported from England, Hamburg, Sydney, and the Colony of Victoria, and which finds its way into consumption, is equally injurious, or more so, than supposing Colonial spirits to be mixed with the best description of imported spirit? It would be, but I believe little of the bad spirit is used for mixing.

4. Is not a considerable portion of the spirits now imported of a very inferior description? The quality from England is not fallen off, but much bad spirit comes from the neighbouring Colonies,—and for these there is not much sale.

5. Do you not think that a better spirit could be manufactured here than a considerable portion of the spirit now imported? Yes, than that from the Colonies.

6. Is there not a large quantity of spirit distilled in Germany and France from potatoes and beet, which is manufactured into brandy, and exported to England as Cognac? Yes, but not so constantly as you suppose, but this is principally sent to Africa, to be mixed with rum under spurious brands.

7. Can you inform the Committee as to the quantity of spirits distilled from potatoes and beet in Germany? I cannot, without looking over my papers. The spurious spirit from potatoes is about 1*s.* 9*d.* per gallon, and is about 50 per cent. O.P. You can always discover the smell of potatoes in the spirit.

8. Can you inform the Committee of the value of spirits in the London market for the years during which you have been a Merchant in London? I must look over my books first. I think good brandy was 4*s.* to 4*s.* 3*d.* The age of spirits makes a good deal of difference in England—of 1*s.*, while here it makes no difference.

9. *By Dr. Butler.*—Have you seen any beet-root brandy? No. Large quantities of spirits were exported last year from England and Scotland to France to be made into brandy, but the French Government have recently stopped the re-exportation of brandy under spurious brands. There will, this year, be an abundant crop, and I expect that ten months hence brandy will be 4*s.* 6*d.* a gallon from the grape. It is now 8*s.* to 9*s.* 4*s.* to 4*s.* 3*d.* has been the average price for some years. Any quantity of brandy can be made in good years.

10. Do you think the allowance of Distillation would be good for the Colony? Eventually it would. At present it would affect our trade, and the reduction of payment of duty.

11. Are you aware that there is a large amount of illicit spirit in this Colony? Yes, I believe there is.

12. Is there much of the spurious spirit from Melbourne in cases? Yes, but it is easily detected.

13. What is the value of pure alcohol in England or France? I do not know, but I will let you know.

14. Are there any Rectifiers in the Colony? No, I think not.

The Witness withdrew.

September 30, 1858.

MR. R. SHOOBRIDGE, *Agricultural Farmer.*

1. Your name is Richard Shoobridge, and you are an Agricultural Farmer? Yes.

2. You have been so for many years? Yes; 22 years in the Colony.

3. What description of grain and roots do you grow? Wheat, barley, oats, potatoes, carrots, and mangold wurzel.

4. What proportion do the roots grown on your farm bear to the general average? One-third; about 60 acres of roots.

5. What is the average yield of carrots per acre? Turnips, potatoes, mangold wurzel, and beet root? Potatoes, 6 to 7 tons; turnips, 20 tons; carrots, 25 tons; beet-root, I never grew any; mangold wurzel, about 20 to 25 is an average crop,—I have seen 40 tons.

6. Is the climate of Tasmania adapted to the growth of mangold wurzel? Yes.

7. Could it be cultivated to any extent? Yes, to any extent.

8. At what price per ton could it be grown and delivered in Hobart Town? At 25*s.* to 30*s.* per ton; carrots, 30*s.* to 40*s.*; potatoes, £5 to £7; turnips, 20*s.* to 30*s.*

9. What is the average yield per acre of English barley? What I have grown is about 60 bushels; I think the average 50.

10. Same as to Cape barley? From 40 to 70; I have grown 70.

11. English barley and Cape, at what price can they be grown and delivered in Town? 6*s.* to 7*s.* for English; 4*s.* to 5*s.* for Cape.

12. Can Indian corn be grown here? Not for corn, but for greens it can.

13. Have you had any experience in the fattening of cattle from the refuse of Distilleries? No; I have had none.

14. At what price could these things be grown if the refuse were used on the ground for fattening, Distillation being allowed? One-half the prices I have stated.

15. *By Mr. Rooke.*—What is about the weight of the mangel wurzel root? I have seen them 25 lbs. weight; mangel wurzel is a most exhausting crop; once about every three years would be sufficient to work the ground with mangel wurzel; the roots prepare the ground for grain, and the grain should be drilled I think.

16. Do you believe in the existence of illicit Distillation in the Colony? I have no opportunity of knowing it, and therefore have no reason to believe it.

17. From the pamphlet which you have perused, do you believe that it would be of advantage to the Colony to allow Distillation? If the people *will* drink, I think that we should distil here, instead of sending our money away to France; our country is adapted for it.

The Witness withdrew.

October 5, 1858.

GEORGE KEMP, ESQ., J.P., *Stipendiary Magistrate, Green Ponds.*

1. Your name is George Kemp, and you are an agriculturist? Yes, I have been so for years.

2. At what price could English and Cape barley be grown? English at 7*s.* a bushel, Cape 6*s.* and even less.

3. What is the average produce per acre? English barley requires almost garden culture.—You must plough two or three times,—more expense is incurred with it than with other grain; 30 to 35 bushels is, I believe, the average,—I have seen 60 bushels. To cultivate properly £4 an acre would be the cost.

4. Is there any illicit Distillation going on? None in my District; it is 30 miles from Town, and about 10 miles each way.

5. Do you think the allowance of Distillation would give an impetus to agriculture? I think it would, certainly.

6. Have you ever cultivated beet or mangold wurzel? I have not.

7. Is this Colony favourable for the erection of small Distilleries? Generally not.—The small streams are uncertain in Summer, I should say this side the Derwent it would be available.

8. *By Mr. Miller.*—What is the price of barley now? 8*s.*, that is for English barley.

9. What would be the cost of turning that barley into spirits? I cannot say.

10. You would receive 2 gallons of spirits from barley for 9*s*. 6*s*.? I think the malting would come to 1*s*. a bushel.

11. Do you believe that 10*s*. would cover the expense? Yes.

12. Could you give in an idea, as Police Magistrate, how the duty could be collected, and what would be the proper course? I imagine by an Inspector of Distilleries, to constantly inspect—a responsible officer with a high salary, who should constantly see the quantity and quality of spirits made; and the Distiller himself should go to the Treasury and pay his duty.

13. What sort of spirit is made in New South Wales? I have tasted in New South Wales distilled there as good spirit (brandy) as ever came from France; I asked if it was not French pale brandy; it had been then 4 years in cask; the Distillers were rich men, and some have retired from business.

14. Do you know any thing of the spirits now sold in the lower Public-houses? I have heard it is fearful stuff—next to poison—it could not be worse than it is.

15. Do you think Colonial spirit would be more wholesome? Yes; the bad rum generally sold could not be worse than it is; it is reduced below proof by the Publicans, and then raised by vitriol or other bad substances.

16. *By Mr. Nicholas.*—At what price could potatoes be grown? I cannot say.

17. Do you not believe it would tend to raise public morality if a healthy spirit could be distilled? A cheap and good spirit would not depress the morality of the people—a cheap and good Colonial spirit would be better, far better, than the bad imported.

18. Do you think if Distillation was allowed it would be good for the Colony? It would; it employs labour, and would keep the money in the Colony; I am a large grower of grain,—the grains can be used for fattening pigs and bullocks.

The Witness withdrew.

October 6, 1858.

F. LIPSCOMBE, ESQ., J.P., *Alderman of the City of Hobart Town.*

1. Your name is Frederick Lipscombe, and you are an agriculturist? Yes.

2. You have been an agriculturist in the Colony for many years? Yes, from 26 to 27 years.

3. Have you grown oats, barley, and other grain as well as root crops? I have.

4. What is the average produce per acre of potatoes? My average crops have been 6 or 7 tons.

5. At what price could potatoes be grown? They would pay well at £5 a ton.

6. Do you know anything of distillation? No.

7. At what cost could you cultivate an acre of land in potatoes? £20, for seed, labour, rent, planting, and digging.

8. You have grown mangold wurzel? Yes. All root crops are larger in their yield here than in England. We have here two months more of autumn growing weather than in England. Root crops can be grown here on moderate land and at a lower rate than on the best lands in England. Mangold wurzel varies. I have heard Mr. Shoobridge's evidence read, and coincide in opinion with him. All root crops can be grown here much better than in England.

9. Could distillation be carried on from beet-root? Yes.

10. At what rate could mangold wurzel be cultivated per acre? £12 to £14 would cover every expense.

11. More labour is employed in cultivation of mangold wurzel and potatoes than in other crops? Yes.

12. Have you any knowledge of the value of distiller's refuse for fattening stock? Yes, for many years. I believe it is very valuable.

13. Carrots. What is the average crop? From 17 to 20 tons per acre could be grown at 25*s.* a ton; much larger crops in some places.

14. Are you of opinion that the allowance of distillation would be good for the Colony? Yes, I think so. I am strongly in favour of all Colonial manufactures.

15. Do you know of inferior spirits being sold in the Colony? I do not.

The Witness withdrew.

October 15, 1858.

MR. JOHN S. TURNBULL.

1. You were a distiller here? Yes, about 2 years, and at home about 20 years.

2. At what cost could you distil from malted grain at 7*s.* a bushel? It would cost about 6*s.* a gallon; this would give a profit to the distiller.

3. At what cost from raw grain? About 6*d.* less.

4. Would the quality of the spirits from raw grain be inferior to that from malt? Yes, unless it had age; this would be obtained in about 12 months.

5. What time is required to make spirits fit for use? Malt spirits can be used immediately.

6. Have you known distillation carried on from potatoes? Yes, and the quality is very good.

7. What quantity of spirit could be obtained from a ton of potatoes? About 112 gallons, or about 5 gallons from a cwt.

8. Have you seen spirits distilled from beet root? No.

9. Do you know the quality of spirit distilled from beet-root? I do not.

10. Is the refuse of distilled potatoes good for feeding pigs or cattle? Yes; and the wash from grain is good for cows and horses.

11. Carrots. Have you distilled from them? Yes. When you can get them you can get about 12 gallons from a ton of carrots. There is not much difference in spirit from potatoes or carrots. I have not myself distilled from potatoes.

12. Is the expense of distilling from root crops greater than from grain? No.

13. What quantity can you get from a ton of sugar? About 160 gallons; it all depends on the fermentation.

14. What sort of sugar? Inferior; the cheapest.

15. Did you distil from sugar? No.

16. Do you know anything of the Sorghum saccharatum? No. I have not seen it.

17. What quantity of spirits can be got from a bushel of malted barley? 2 gallons, and from raw barley 1¾. The expense of malting 1*s.* a bushel.

18. What would be the quality of the spirit distilled in the Colony? Very good. Water has every thing to do with it.

19. Foreign spirits would not suffer from the mixture of Colonial spirit? No. The Colonial spirit would be as good.

20. When distilling here, did you confine yourself to the summer time? No. All the year round.

21. Can you say whether the Distillation Bill in Victoria will pass? Yes; I think so. I have just returned from Melbourne, and works are already commencing there on the chance of the Bill passing. The works are on a large scale. I have no doubt they will export to this Colony.

22. Are you acquainted with the present kind of spirits now sold in public-houses? I don't think it is good.

23. Do you think if Distillation were allowed a better kind of spirit would come into use? Yes.

24. *By Dr. Butler.*—According to your evidence it would cost 2*s.* 9*d.* a gallon to distil spirit? Yes, at the present rate of wages.

25. How was the duty collected in your time? There was an Officer to collect it, with a salary of £180, I think, without any assistance. Colonial spirits were bonded then. Distillers were allowed to bond in a separate part of their own building.

26. *By Mr. Miller.*—Did you ever hear of evasion of the duties by Distillers? Yes, but they were erroneous reports.

27. In the present state of the Colony do you think the same Establishment would be sufficient to superintend the Distilleries? Yes, I would have no objection to undertake the duty myself.

28. You have made Geneva here? Yes, at a very small additional cost from the juniper berries. Gin would cost 6*s.* 3*d.* a gallon.

29. If Distillation were allowed, would people here go into the business? I have no doubt many would.

The Witness withdrew.

APPENDIX A.

"The beet grew on 420 acres of fair land, with a mixture in the soil of marl and limestone. The season was from October, 1855, to April, 1856.

	£	*s.*	*d.*
We distilled 8369 tons of white Silesian beet, and we debit the distillery with £1 per ton for the beet	8369	0	0
We burnt 1163 tons of coal, which cost us £1 per ton	1163	0	0
We employed labour, including a foreman at 30*s.* a week and the labourers at 2*s.* a day	470	0	0
We used 36 tons 15 cwt. of sulphuric acid, at £8 per ton	294	2	0
We purchased yeast for	18	0	0
	£10,314	2	0

We produced 166,978 gallons of proof spirit, which we sold at 3*s.* a gallon exclusive of duty.

To find the expense per gallon is easy. We find it under 1*s.* 3*d.* a gallon.

The profit on this season's operations first induced us to turn our views on England; for it is easy to see that, after allowing £1 per ton for the beet-root, we made a profit of £14,732, from which the only deductions are price of casks and carriage to town, and interest on the capital employed in putting up the distillery. The amount is thus:—

	£
166,978 gallons of alcohol, at 3*s.*	25,046
Deduct expenses	10,314
Net profits	£14,732

We only mention this to show what may be done with 420 acres of beet, and that not very good; for instead of 8369 tons it ought to have produced 25 tons per acre, or 10,500 tons. It will be observed that more than 19½ gallons of spirits were produced from each ton of beet. The residues are a further profit; and the farmers came to our distillery and paid 10*s.* a ton for the residues, and drew them home more than 5 miles."—*Agricultural Distiller's Hand-book*, 1856.

APPENDIX B.

[*Le Constitutionnel;* September 14, 1856.]

"It is said that the cultivation of beet-root has prejudiced the production of wheat, and been the cause of the deficiency in our markets—that it has invaded the arable lands—contributed to increase the price of bread and meat—thrown perturbation in the usual course of farming—worn out the soil, and thus caused the scarcity of which we have had so much to complain for the last few years.

These accusations are proofs of most profound ignorance. They recal to our recollection certain popular prejudices against railways, lighting by gas, electric telegraphs, &c., which are still considered in some parts of the Country as the cause of cholera, the disease of the vine, and the disease of the potatoe. Such prejudices could not have prevailed among our rural populations if they had given the subject the slightest consideration.

The introduction of beet-root has introduced a real agricultural revolution. A very competent judge, M. Charles Gomart, Secretary to the Agricultural Committee of Saint Quentin, has in a recent memorial disproved by figures these gross errors.

M. Gomart takes for example the districts of Saint Quentin and Valenciennes, where the cultivation of beet has made the most progress. Before its introduction into the district of Valenciennes, the cattle were fed upon clover, beans, &c., and only produced a poor strawy manure, which loosened the ground too much, and caused the production of straw rather than of grain. Each year, in the spring, the harvest promised to be very abundant; but when the rains and thunder-storms of the month of June arrived, the wheat became laid, the ground loosened, and the maximum produce at harvest never passed 10 hectolitres* per acre. To-day, thanks to feeding on beet residues, aided by oil-cake, the manure is shorter and richer; it gives shorter straw; it gives stronger stems, which resist the influence of storms better; and the ears are fuller of grains. So that it is not rare to grow 16 hectolitres of wheat per acre, instead of 10 as before.

The Society of Agriculture of Valenciennes, consulted in 1850 by the Commission of Inquiry of the Assemblée Nationale upon the state of agriculture in the district, answered that all the progress since 1832 was owing to beet-root. Before 1832 the average production of wheat was 250,000 hectolitres. Since the establishment of sugar works and distilleries, the annual harvest was 420,000 hectolitres. The average for the whole district is, to-day, 12 hectolitres per acre; whereas, before 1832, it was 8 hectolitres per acre.

In the district of Saint Quentin, the results are still more significant. About 1825, the cultivation of corn extended over 67,755 acres; of which 30,000 acres of wheat, 30,000 of barley and oats, and 7755 of rye. Whereas in 1855, we find 84,772 acres of corn; of which 67,625 of wheat, 9760 of barley and oats, and 7382 of rye. The augmentation of corn land is therefore 16,867 acres. Nor is this all; the wheat is nearly doubled, whilst barley, oats, and rye are considerably reduced, which is a sign of progress both in cultivation and in the production of food for man. But let us go further. In 1825 the average produce in the district of Saint Quentin was 5½ hectolitres per acre of wheat, 5 of barley and oats &c., and 5½ of rye. Whereas in 1852 the quantity produced was 8 hectolitres of wheat per acre, 7½ of barley, oats, &c., and 8 of rye to the acre, at which period beet root was cultivated upon a great scale, and furnished beet for 25 sugar manufactories and distilleries. From this report, beet-root, instead of diminishing the production of corn, has increased it. It is not then to beet-root that we must attribute the increase of the price of bread which has afflicted us for two or three years, but to some other cause, which we have not the space, nor is it necessary, to account for.

As respects the produce of meat, the results are still more satisfactory. We know that roots give much more nourishment to cattle than green forage. When beet-root, for example, which gives on an average from 20 to 28 tons per acre, is converted into alcohol, it eaves 75 per cent. of its gross weight in the form of pulps. These pulps or residues are excellent food for the breeding and fatting of cattle. The pulp placed in reservoirs is conserved from year to year, and thus supplies, with advantage, the place of green crops. This cultivation, therefore, must be very favourable to the production of meat.

Practice has proved that this theory is correct. In 1822, at which period beet-root had scarcely a place in the course of farming, the district of Valenciennes hardly fed 4000 oxen. In 1851 it fattened 10,784 bullocks. The use of the pulp had allowed the sugar manufacturers to substitute in a great measure oxen for farming and draught purposes, which produced them a considerable economy. It is from using oxen as beasts of burden that the beet distillers produce meat at the lowest price possible. We have ourselves very recently shown, by figures, that oxen

* 1 Hectolitre is 22 gallons 1 pint, or about 2¾ bushels. 3 Hectolitres are nearly a quarter of corn.

bred at the sugar-makers or distillers, put to work from two to six years old, are at this age sold at the best price to the butchers. We have ascertained that in these cases the ox has largely repaid its feeding, and that in short he has cost nothing to his master but the bare price of fatting. Certainly the graziers of Normandy, who buy old oxen very dear to fat, find themselves in a much less favourable position than the sugar-makers or distillers who produce and fatten them themselves. We think we have proved that it is a complete mistake to accuse beet-root of having been the cause of the rise in the price in meat, because it rendered it scarcer.

The same circumstances have arrived in the District of Saint Quentin. When, in 1828, the first sugar manufactory was erected, this District fed 11,000 head of cattle and 70,000 head of sheep. In 1852, under the influence of beet-root residues, it fed 16,909 head of cattle, and 149,491 head of sheep. Far from decreasing, the production of meat has, on the contrary, increased. Though this increase arises from many causes, we must attribute much to the increase of the cultivation of beet, and the establishment of sugar manufactories and distilleries. As far as concerns the course of farming which beet-root is supposed to have altered, nothing is so far from the truth. Before the new mode of cultivation, the northern departments knew nothing but the course of triennial farming; corn, forage, and fallow. After clover followed a fallow, because the soil was foul, and it was necessary before sowing corn to clear the ground of weeds. The introduction of beet-root, in getting rid of unproductive fallows, has rendered the soil firmer, and prevents the disastrous effect of storms. With better manure, and in greater quantity, it allows the course of triennial farming, which includes beet-root, corn, and forage. Thus beet-root may be produced alternately with corn every three years. The whole secret in growing beet consists in rendering to the soil what you take from it: this restitution takes place by consuming the pulps on the farm. To cultivate beet-root to sell, without buying the equivalent in pulps or residues, is ruining the soil, or, as we say in France, " killing the goose for the golden eggs."

M. Crespel Dellisse, (of Arras,) proprietor of seven sugar manufactories and distilleries, never buys a single beet-root; he rents more than 5000 acres of land, which he cultivates himself. His ploughing and general farm work is done by oxen. He follows the new course of triennial farming, and he finds it advantageous.

It is true some imprudent farmers, by cultivating beet-root four or five years running on the same ground, have injured their land. Others have failed from not using sufficient manure. But these examples, for the honour of the French farmer, occur very rarely. We saw, some months ago, in the Pas of Calais, land which, for the last twenty-five years, has produced only corn, beet-root, and forage, which course of cropping has amply repaid the farmer. There is, therefore, no danger in following the course so brilliantly commenced by the sugar manufactories and distilleries of the north. When the south and the centre imitate their example, we shall have bread and meat much cheaper. The figures we have just quoted cannot leave any doubts on this point.

The success of beet-root is really providential. Introduced at the moment of the Continental blockade, Napoleon I. adopted it as a means of ruining the English sugar producers. We know the fears that this humble root inspired to the Colonists of the Antilles, and the important debates which took place in the Chambers under Louis Phillippe. It was for a moment in question to suppress the beet-sugar manufactories entirely.

After having supplied us with sugar, the beet now supplies us with brandy and spirits of wine. The District of Languedoc, which furnished each year from 80,000 to 100,000 pipes of alcohol, at 60 over proof, saw its produce reduced below 30,000 pipes. The vine was no longer sufficient for the consumption of the country. Then came the beet root. Numerous distilleries were erected; and two or three years after, the north produced nearly as much alcohol as the south, before the malady of the grape.

The distilleries constructed since 1851 have much contributed to render the scarcity of food less painful. The land, deeply ploughed and hoed with care, has produced much more corn. The residues of the distilleries, absorbed by numerous cattle, have furnished a much larger quantity of meat for consumption. Far from reducing the amount of food, beet-root, on the contrary, has increased it. We hope that this precious root may become common in the centre and in the south of France. It is only by the introduction of Agricultural Distilleries that we can hope for cheap bread and meat."

JAMES BARNARD,
GOVERNMENT PRINTER, TASMANIA.