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AGRICULTURAL ECONOMICS

COMMONWEALTH OF AUSTRALIA.

DEVELOPMENT AND MIGRATION COMMISSION.

REPORT

ON

FAT LAMB AND PIG INDUSTRIES OF TASMANIA

AND

THE UTILIZATION OF THE SOMERSET FREEZING  
WORKS IN CONNEXION THEREOF

(WITH APPENDIX).

TASMANIAN TECHNICAL REPORT No. I.

By Authority:

H. J. GREEN, GOVERNMENT PRINTER, MELBOURNE.

C.5436.

## CONTENTS.

	PAGE
<b>PART I.—The Fat Lamb Industry—</b>	
(a) Economic Aspects of Fat Lamb Production .....	5
(b) The Development of an Export Trade in Lambs .....	5
<b>PART II.—The Somerset Freezing Works .....</b>	<b>7</b>
<b>PART III.—Marketing Scheme .....</b>	<b>9</b>
<b>PART IV.—Appendix I.—Report of the Investigation made by G. A. W. Pope, General Manager of the South Australian Government Produce Department, on behalf of the Development and Migration Commission, into the Economics of the Burnie Freezing Works, Tasmania, and the outlook of the Fat Lamb Industry, with Appendices .....</b>	<b>11</b>

# REPORT ON FAT LAMB AND PIG INDUSTRIES OF TASMANIA, AND THE UTILIZATION OF THE SOMERSET FREEZING WORKS IN CONNEXION THEREOF.

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## PART I.—THE FAT LAMB INDUSTRY.

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The Commission has given careful consideration to the possibilities of developing the fat lamb industry of Tasmania, and particularly with reference to an export trade in fat lambs.

At the present time Tasmania imports a number of sheep for slaughter annually. This is, however, a seasonal trade and there is always a serious danger of over-supplying the market during the summer. This is to be expected where there is no export outlet, and where seasonal conditions have such a marked effect upon the available sheep and lambs for slaughter requirements, there are marked seasonal fluctuations in prices.

### (A) ECONOMIC ASPECTS OF FAT LAMB PRODUCTION.

The Commission has, through its technical officers, made a survey of the sheep industry with a view to determining the prospects for fat lamb production, and, in addition, has received a Report upon Lamb Marketing, and the problems connected with the re-organization of the Somerset Freezing Works, from Mr. G. A. W. Pope.

From these Reports it is apparent that conditions in Tasmania favour a considerable increase in lamb production. Many of the larger stations would be able to increase their ewe flocks at the expense of present dry stock, and thus produce a greater percentage of lambs in relation to the total flocks than is done at present.

About 70 per cent. of the flocks of the State are of crossbred or mixed breeding, and though these are capable of great improvement, such crossbred types will form a good foundation, and an economic source of supply of breeding ewes for the production of high class lamb suitable for the export trade. Further, there is evidence to show that the Down breeds thrive in the arable farming parts of Tasmania, and as reports indicate that good temporary pastures and fodder crops suitable for fattening lambs can be produced in Tasmania, the prospects for both breeding a high class type of export lamb and fattening them, are good.

Tasmania stands in great need of a change in some farming practices. The long continued cropping with cereals, and in some of the richer parts of the State, with potatoes, has greatly depleted the soil fertility, and it will only be by the greater utilization of farm crops for feeding to live stock, rather than selling them as cash crops, that the soil will be restored to the right degree of fertility for prosperous arable farming. Furthermore, the hay crop, one of the stable crops of Tasmania, is no longer sufficiently profitable on the average, and it will be necessary to either reduce the acreage under oats or else practice greater feeding off of this crop by live stock.

The maintenance of flocks of ewes for the purpose of raising lambs apparently offers rather better prospects than dairying, though further development of the two industries should occur.

### (B) THE DEVELOPMENT OF AN EXPORT TRADE IN LAMBS.

Though conditions in the State are favorable for the greatly increased production of lambs, it must be realized that the home market is limited, and that if a greater production is encouraged without finding an export outlet for the surplus, the resulting prices on the home market during the summer months are likely to fall below a profitable level, and thus do serious harm to the whole sheep-breeding industry.

A development in lamb production can only take place by establishing an export trade. If this is done the home market would tend to become stabilized, and a stimulus would be given to breeders to produce a better class of sheep than is found at present in the State.

Though conditions are naturally favorable to lamb production, there are certain difficulties connected with the expansion of this industry which make it necessary to proceed very cautiously in the initial stages of export. The farmers of Tasmania have not had the experience of producing lambs under the stringent conditions demanded by the English market, and it must be anticipated that in the earlier stages the quality would not be of the highest standard.

The farmers will also experience some difficulty in changing from one farm practice to another, though there are apparently a sufficient percentage of farmers in every district of the State with a knowledge of sheep breeding to set an example to their neighbours. However, the provision of an export outlet will give encouragement to breeders to enter this industry, and it will be found that changes in farm practice will necessitate further capital outlay on the farm for replanting of paddocks and the erection of sheep-proof fencing.

The increased demand for breeding ewes is also likely to create a shortage with a consequent rise in values, and it may be difficult to justify this capital outlay in the earlier stages by the price received for the lambs.

We must also take into consideration the probable lack of confidence of the farmers in a fat lamb marketing scheme owing to a previous attempt and failure to establish this industry, and it is possible that in the earlier stages the farmers may not be anxious to co-operate.

Some of the requirements to develop this industry on a safe basis are as follow:—

There must be a steady programme of development without any very heavy capital expenditure either on the production side or in marketing.

For the financing of a fat lamb marketing scheme it will probably be necessary for the State, through the proposed Rural Bank, to advance sufficient money to give the export business a fair trial, but such advances should only be proportionate to the degree of financial support that is promised by the farmers themselves. That is, when the farmers indicate their willingness to support a fat lamb export industry to the best of their financial ability by taking up shares in the proposed new company, then the Rural Bank will be justified in giving financial assistance. The Commission is not prepared to recommend the State to finance this marketing scheme without a clear indication on the part of the farmers that they are prepared to do their part in establishing the industry.

While establishing the machinery for an export trade in fat lambs, there must be an associated progressive policy to both increase production of lambs and to improve the quality thereof.

The Commission feels that while there is economic justification for increased fat lamb production with the object of developing an export trade, there is at present no guarantee that the farmers are able or willing to respond to lamb export proposals, or that the lambs produced will be of sufficiently high quality to meet the critical export requirements. Therefore the Commission recommends a policy of steady development of the export market at a low capital expense, and that at the same time the Department of Agriculture and the Agricultural Bureau should conduct an extensive campaign with the object of improving the production side of the lamb industry on the lines indicated in the Appendix.

A detailed marketing scheme is presented later.

## PART II.—THE SOMERSET FREEZING WORKS.

The Commission has received reports of a general nature upon the Somerset Freezing Works and the operations of the North Western Co-operative Freezing and Canning Company Limited from its technical advisers, and following upon these, Mr. G. A. W. Pope, General Manager of the South Australian Government Produce Department, was engaged to report on the economics of these freezing works, and the possibility of utilizing these works in connexion with the establishment of a fat lamb industry. This report is presented as an Appendix to this Report.

It will be seen from Mr. Pope's report that he estimates a further sum of approximately £20,000 is required to carry on an extended business on the produce storage side, and also to develop the export lamb trade on a considerable scale. The Commission feels, however, that it is undesirable to make all these attempts at once, because, firstly, it is necessary to obtain the support as shareholders of a sufficient number of producers and possible producers of fat lambs; secondly, because the question of finding a suitable manager will require time and patience, and thirdly, because it is essential that by, for instance, the development of a wholesale butchery business, the reject lambs and sheep unsuitable for export can be disposed of.

There is considerable evidence of a somewhat general character that, provided these opportunities for export are available, the supply of fat lambs will grow rapidly. The Commission, however, considers that it is undesirable to commit either the Government or the proposed reconstituted Freezing Works Company to a large fat lamb export business, until the individual producers have joined up as shareholders, and have given clear indications that the probable net return to them for fat lambs is satisfactory and profitable. This, obviously, can only be done by a step-by-step development of the business, which will provide exact information on which propaganda among the producers may be based.

The Commission desires it to be fully recognized that there are two important matters involved in this project:—

- (1) The increase of the export trade of Tasmania in mutton and lamb, for the production of which Tasmania is suitable; and
- (2) The improvement of the fertility of the richer lands of Tasmania by an increased amount of animal husbandry, carried on in connexion with the tillage and treatment of these lands.

The second factor is, in the opinion of the Commission, of great importance, and it believes that, as this factor becomes accepted by the farmers and graziers of Tasmania, they will realize that even although, in some cases, the net direct return for fat lambs to the grower may not be as great as is desired and considered necessary, this indirect return is of vital importance.

The financial position of the Burnie Freezing Works at present is, briefly, that some £16,000 of shareholders' money has been expended, and that the company owes the Government approximately £14,000 for loans and interest, calculated without compounding. The company has never had sufficient working capital, and it appears to have carried on under very difficult circumstances, without incurring heavy losses. It is understood that the Government loan of £10,000 was used for construction purposes. For some time past, the company has been running "under furled sails," with a part-time secretary, and with a staff of only two or three. It has made a small, but definite, profit on working account by the storage of butter and bacon, and by the lease of portion of its plant to the Bacon Factory.

The investigations by the staff of the Commission support the views of the Directors of the Company (who have carried on without payment and under very difficult circumstances, as stated above), and of Mr. Pope, that a reasonable amount of working capital and a small amount of capital for additional construction, together with sound management, would enable these works to give considerably greater benefits to Tasmania, and to earn, at least, some recognizable profit. It is suggested that these facts and figures should be submitted to the State Development Board, and that this Board should have placed before it, for approval, for modification, or for rejection, the scheme given below, which, if adopted, should be so recommended to the Government.

One immediate result of utilizing these works for fat lambs will be to evict the bacon curing business of the North West Dairy Company, which at present occupies part of the works.

In his Report Mr. Pope expresses a strong opinion that a modern bacon factory should be built adjacent to the present works to accommodate this industry. Obviously, such a proposal must be the subject of negotiations with the North West Dairy Company, but in the interests of the producers provision for this industry should be made that will obviate the necessity for any interruption.

It would seem to be worthy of consideration as to whether this business could not be best conducted by the company now proposed to take over the Freezing Works, but at present the investigations necessary to warrant an expression of opinion on this point have not been made.

The necessary investigations and negotiations should be conducted by the appropriate committees of the Agricultural Bureau before the scheme recommended is finally adopted, and any necessary consequent alterations made in this scheme.

Provision for the present general produce storage business of the works must also be made.

As regards the utilization of the works for the slaughtering, freezing, and export of lambs, the Commission feels that there is justification for reasonable financial assistance to explore the possibilities of developing this industry on an experimental basis. However, there is no guarantee that the farmers are able or willing to respond to propaganda for the production of fat lambs, or that they will support the new company. Therefore, it is advisable that such financial assistance should be on a limited scale only in the initial stages, and should be proportionate to the degree of support given by farmers as indicated by their willingness to take up shares in the new company.

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### PART III.—MARKETING SCHEME.

#### RECOMMENDATIONS REGARDING COMPANY ORGANIZATION, FINANCE AND TRADING POLICY.

(1) That the Company be re-organized on the basis of the issue of one £1 ordinary share for each four £1 shares held by the present shareholders, with a new preference issue of 25,000 £1 shares, paying 6 per cent. as preference dividend, and that these preference shares shall be sold at such times and in such quantities as shall be determined by the Board of Directors.

Though estimates of the value of the Freezing Works on a scrap basis is only 2s. 6d. in the pound sterling, it is felt that to write it down to this figure would be too drastic. The original shareholders have established works of considerable potential value, and it is considered that the additional 2s. 6d. is fair recognition of this. It may further be considered equitable, should the finances of the company ever permit, to provide for further rehabilitation from profits of such of these shares as are still in the hands of original holders.

(2) That the Government mortgage of approximately £14,000 shall be allowed to remain, with a definite provision for repayment to the Government over a period of years.

(3) That it be provided that the profits, when earned, shall be used—

*Firstly*, for the payment of the interest upon the Government's mortgage ;  
*Secondly*, for the provision of a Redemption Fund to repay the Government mortgage ;  
*Thirdly*, to the extent of 5 per cent. for the provision of a Reserve Fund ;  
*Fourthly*, for the provision of a Depreciation Fund ;  
*Fifthly*, for the payment of interest upon the preference shares ;  
*Sixthly*, for the payment of interest upon ordinary shares ;  
*Seventhly*, for distribution to supplying shareholders.

(4) That the Board of Directors be approved by the Government, and shall include one director representing the Government, to watch the financial interests of the Government as mortgagees and guarantors.

(5) That it be understood that the policy of the Board will be as outlined above, namely, to develop the business on the produce storage side ; to test out the business of fat lamb export, and to gather in producers and potential producers as shareholders.

(6) That the Board of Directors shall appoint a manager and such staff as will enable this programme to be carried out.

(7) That, pending the obtaining of the necessary finance by calls on preference shares in cash and in deductions from payments due by the company to shareholders, the Government shall guarantee the account with a selected Bank up to an amount to be determined.

(8) That it be clearly understood that, if the policy and management of the works and the company do not meet with the approval of the Government, the Government can, on due notice, withdraw its guarantee to the Bank.

(9) That it be clearly understood that the business shall be conducted in such a way as to increase, firstly, Tasmania's trade, and, secondly, in due course to pay to the Government the amount owing to the Government on mortgage.

(10) It is recommended that the company encourage shareholders and other producers to consign their lambs and pigs direct to the works. These could then be purchased on a quality and weight basis and advice notes could be sent back to the farmers showing them clearly the basis of valuation and pointing out any obvious faults in breeding and feeding, together with recommendations for improvement. It will probably be necessary for the company to purchase outright on a conservative basis and later make a further distribution as a bonus when the results of the year's trading have been ascertained.

(11) These broad proposals should be elaborated in detail by a firm of accountants before submission to the State Development Board.

It will be seen that the proposal forecasts the final possession of the whole business by shareholders, who are utilizing the works, together with the original shareholders, whether the latter be suppliers or not.

The Commission believes that, in due course, an ample supply of fat lambs and sheep suitable for export will be available. From the evidence of the size and importance of the fat lamb export industry on the mainland (particularly in Victoria), and in New Zealand, and bearing in mind the similarity of conditions between Tasmania and Victoria and New Zealand, it is clear that strong effort to develop this industry in Tasmania is justified.

The suggestions of the Commission are made on the basis that this Burnie Freezing Works should be a demonstration plant for Tasmania, and it believes that as the project becomes successful the necessity will arise for a similar undertaking in the vicinity of Hobart. It further suggests that as, and when, this comes about, the work should be undertaken as an extension of the operations of the Co-operative Company now proposed.

The amount of the guarantee necessary by the Government for the preliminary stage of the work, as suggested, would in the opinion of the Commission not exceed £10,000, and probably would be less. Of this amount, possibly £2,500 will be required for construction purposes, and the remainder for trade purposes. Provided that the management is sound and the supervision is strict, the loss on trading account should be nothing. The £2,500 required for construction purposes would add to the value of the plant, and as it is considered unlikely that the project will fail, this portion of the capital can be regarded as reasonably safe.

## CONTENTS.

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## A P P E N D I X I.

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REPORT ON THE INVESTIGATIONS MADE ON BEHALF OF THE DEVELOPMENT AND MIGRATION COMMISSION INTO THE ECONOMICS OF THE BURNIE FREEZING WORKS, TASMANIA, AND THE OUTLOOK OF THE FAT LAMB INDUSTRY, BY G. A. W. POPE, GENERAL MANAGER OF THE SOUTH AUSTRALIAN GOVERNMENT PRODUCE DEPARTMENT.

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REPORT ON THE INVESTIGATIONS MADE ON BEHALF OF THE DEVELOPMENT AND MIGRATION COMMISSION INTO THE ECONOMICS OF THE BURNIE FREEZING WORKS, TASMANIA, AND THE OUTLOOK OF THE FAT LAMB INDUSTRY, BY G. A. W. POPE, GENERAL MANAGER OF THE SOUTH AUSTRALIAN GOVERNMENT PRODUCE DEPARTMENT.

PART 1.—THE OUTLOOK FOR THE FAT LAMB EXPORT TRADE.

The proper sequence is to first study the market possibilities—(a) Where is the market? (b) Will the prices it is likely to pay be sufficient inducement to stimulate production? (c) What does it require in regard to quality?

England is the only export market that can be relied on. Its annual importations of frozen lamb for the past six years have been as follows:—

1921	..	..	..	..	7,582,907	Frozen Carcasses Lamb
1922	..	..	..	..	8,594,169	" "
1923	..	..	..	..	8,907,557	" "
1924	..	..	..	..	7,904,385	" "
1925	..	..	..	..	8,790,429	" "
1926	..	..	..	..	8,280,841	" "

For these quantities it has paid the following average gross prices:—

	1921.	1922.	1923.	1924.	1925.	1926.
	d.	d.	d.	d.	d.	d.
New Zealand	..	..	12	11 $\frac{3}{8}$	11 $\frac{1}{2}$	11 $\frac{3}{8}$
Australian	..	..	11 $\frac{1}{2}$	10 $\frac{1}{4}$	10 $\frac{1}{8}$	11
Argentine	..	..	10 $\frac{3}{4}$	10	9 $\frac{1}{4}$	10 $\frac{7}{8}$

It costs Australia from 3d. to 3 $\frac{1}{4}$ d. a lb. to pay all charges.

The average weight of the Australian lamb is 32 lb., so that by deducting the charges from the gross prices given above and adding 4s. 6d. as the average value of a woolly skin, the net return can be arrived at.

For more definite results it is stated that the Government Produce Department of South Australia bought, shipped, and sold, 3,272 lambs during 1926, the net returns for which were 17s. 9d. per head, and an authentic case has also come to my notice where 250,000 lambs were bought in Victoria at an average of 18s. 11d. each net at the works.

Collectively, the figures used should fairly accurately show that the average price of a lamb in 1926 was from 17s. 9d. in South Australia, to 18s. 11d. in Victoria. The average weight of these can definitely be fixed at 33 lb., and the skins brought 4s. 6d. each in South Australia, and 5s. 6d. each in Victoria.

The outlook for the future cannot be judged on any higher basis than these results, for the reason that English trade is passing through a time of depression, and the general tendency in the English meat trade has been towards lower prices than those ruling prior to 1926.

Attached as Appendix I. is a complete *pro forma* Account Sale of a lamb which shows a net return of 17s. 10d. at the works in Australia, and it can be taken as indicative of what Australia received on the average last year, after paying all the charges as set out thereon.

The future cannot be prophesied, but cables just received indicate that the Australian season this year will open up at about 8 $\frac{1}{2}$ d. per lb. gross, London, and the general impression is that prices will be very similar to last year.

Tasmania must be careful not to calculate in terms of higher prices, as the permanent tendency is downwards, and it must also be pointed out that from the net prices quoted herein railage to the works must be deducted, and should the producer employ an agent to sell his lambs to an exporter, not only must the agent's commission be met, but exporters will expect to make a profit.

My inquiries lead me to the conclusion that the present lamb raisers in Tasmania believe that lambs cannot be profitably produced under 20s. a head, and that 25s. is a fair price, and therefore there is a difficult task ahead in inducing other producers to enter the industry on the basis of lower prices. It is well to emphasize the fact that at present they mostly keep their lambs for long periods to develop weight, which incidentally must increase the cost of production, whereas the export lambs must not be excessively heavy.

QUALITY AND WEIGHT.

Dr. Finlay, in his report, deals with the question of experimental work in connexion with—

- (a) The breeding of the right type.
- (b) Fattening lambs on fodder crops.

The experimental work carried out at Roseworthy College, South Australia, on lamb breeding for the export trade may not be widely known, but as I believe it comprises the most complete investigation on the subject yet undertaken in Australia, and the results are about to be published, Tasmania might find it useful in helping along the slow road of experiments and investigations. The College have shipped their own lambs with the following yearly results:—

1924—534 lambs realized	..	..	..	29s. 6d. net at the Works
1925—484	"	..	..	17s. 8d. "
1926—422	"	..	..	19s. 10d. "

Quality is of great importance, and the comparison of prices between New Zealand and Australia gives some idea of the reward the English market offers in this regard. Victoria can also command  $\frac{1}{2}$ d. per lb. above New South Wales and South Australia, so all the advantages Tasmania has in the way of pastures, &c., should be taken full advantage of.

Lambs are graded for quality and weight, as follows:—

*Quality*—Good average quality }  
Fair average quality } Decided by condition, shape, and colour.  
Third average quality }

Condition is the first consideration, but shape and colour are factors which are governed by breeding and age.

*Weight Grades Ranges are*— .. .. .. .. from 28/36 lb.  
" Upwards of .. .. .. .. from 37/42 lb.  
42 lb.

and the following quotations received from London (taking those of the 26th May, 1927, as an example), illustrate the fall in prices that takes place as weight increases:—

Victoria good average quality	..	..	..	28/36 lb.	..	8 $\frac{3}{4}$ d. lb.
"	..	..	..	36/42 lb.	..	7 $\frac{3}{4}$ d. lb.
"	..	..	..	over 42 lb.	..	7 $\frac{1}{4}$ d. lb.

When lambs are fodder-crop fed in New Zealand, the age increases, and the tendency is to also increase the weight and develop the colour and shape of mutton. The very best lambs are slaughtered around the age of four to five months, and are milk-fattened by the ewe. Any other method is a substitution, good in its way, but not the best. The ideal is to feed the ewe so that it can quickly milk-fatten its lamb.

While on the question of weights, it is pointed out that any carcass weighing beyond 42 lb. is liable to be classed as a "teg" or "Hoggett" by the buyer, with the expectation of buying at 1d. per lb. under lamb prices.

#### PART 2.—BURNIE FREEZING WORKS.

If, after studying the position in regard to cost of production as against market prospects, it may still be assumed that 40,000 to 60,000 lambs will be available annually for export within the next three years, I would report that—

- (a) The Works are quite capable of treating this quantity along the lines later referred to.
- (b) That if necessary a commencement could be made this season.
- (c) That the Works are modern, excepting detail which will also be referred to and which will cover all the additions at present necessary.
- (d) There should be no delay in bringing about an arrangement for properly financing and managing the Works.

#### DETAILS OF ABOVE.

- (a) The Works have a capacity of 800 lambs per day, so that calculating the flush of a lamb season spread over a minimum of 14 weeks, 56,000 could be handled in this period at the rate of 4,000 per week.

The Works would also have sufficient storage to hold lambs awaiting shipments, provided regular shipments were made, in regard to which there should be no difficulty with the quantities that could be offered.

*Charges*—The cost to the farmer, or in other words, the charges the Company may make, should be in line with other Australian works, and I suggest adopting the scale of the Amalgamated Freezing Companies of Victoria. Their published charges and conditions can be obtained, and for the purpose of this report it is sufficient to quote them as 1 $\frac{1}{4}$ d. per lb. plus the retention of all by-products and offals, except the skin. The rate covers all charges from the time the lambs are received until placed f.o.b. Burnie. On a 32 lb. lamb the total receipts will average approximately 5s. per head, as detailed in Appendix 2.

*Expenses*—Disregarding for the moment overhead expenses, the working expenses in treating lambs during fairly constant running in the season should average somewhat as follows:—

Labour, from time lamb is received until placed f.o.b., and including	
wraps, tickets and miscellaneous expenses .. .. .. ..	1s. 9d. per head
Freezing costs .. .. .. ..	8 $\frac{1}{2}$ d. "
Treating offals, &c. .. .. .. ..	3 $\frac{1}{2}$ d. "
<hr/>	
	2s. 9d. per head

I wish it to be clearly understood that these particular figures are based on rough estimates, and cannot be taken for any other purpose than the sketchy outline I am drawing as to the Company's probable opportunity of making profits from lambs, as labour conditions, continuity of work, engine-room conditions, management, &c., are the governing factors in regard to costs. Deducting this 2s. 9d. expenses from the 5s. gross revenue, the remaining 2s. 3d. per head is carried forward for overhead expenses and will be dealt with under the heading of "Finances."

- (b) It is strongly advised that every effort be made to induce producers who are now growing lambs to export a proportion this season during the flush (occurring during December–January), as by successfully treating and shipping say 2,000 lambs (about the minimum required to obtain a ship), it would prove—

1. Suitability of the Works to handle the trade.
2. The value of present Tasmanian lambs on the export market.

This practical demonstration would do more in a short time to develop the trade than long periods of preaching. Action in this direction is commended for special attention as an urgent necessity from many points of view.

## CONDITION OF WORKS, ALTERATIONS, ETC.

(c) The Works must be restored to their original condition by removing the added bacon factory plant and by thoroughly over-hauling and cleaning. Some permanent damage has been done to the insulation by bacon curing brine leakage, and in other parts by age, but no reconstruction is necessary at present, and the repair work is relatively a small item. Replacements must be faced in the future, but that will not interfere with the carrying on of the business as soon as work is available.

While the curing plant must be moved from its present position, this bacon factory business should not be parted with, and I am sure it would pay to erect a modern factory alongside the works—beyond the slaughter-hall and freezing rooms, but adjacent, so that both these sections could be used, one for slaughtering and the other for cold storing pigs and bacon. This is a source of revenue the year round, and at a small outlay (£1,000-£2,000), an ideal factory could be erected as a standard for Tasmania.

Future additions should include—

Two-ton ice tank.  
Duplicate refrigerating machine.  
Manure press.  
Roof over stock yards.  
Employees' dressing room.  
Caretaker's cottage.

*Power.*—It was found so expensive to run the machinery with steam that an oil engine was installed, the purchase of which was made by the bacon factory. It will be necessary to determine which is the cheapest power available.

## PART 3.—FINANCE OF AND FINANCING BURNIE WORKS.

Although I have stated that the Works could commence operations without delay, the North Western Co-operative Freezing and Canning Company Limited is not in a financial position to do so, and it is essential that more money be available before any business can be undertaken.

Dr. Finlay has laid down a carefully thought out system of co-operation as the best means of control, and I entirely agree with the theory that producers should finance and manage their own business, but in practice it has proved a failure so far as co-operative ownership of meat export works in Australia is concerned. The history of the Works enumerated hereunder, all of which were co-operative, and have now returned to the control of the Governments as security for the money advanced, is sufficient evidence of the hopelessness of co-operation in this particular trade:—

Victorian Co-operative Works..	..	..	..	Ballarat
				Bendigo
				Donald
				Murtoa
Western Australia ..	..	..	..	Fremantle
				Carnarvon
South Australia ..	..	..	..	Eyre's Peninsula

Tasmanian farmers appear to be in serious financial straits and would have no money for this venture, while the Company has already exhausted the possibilities from a private investor's point of view, and could offer no inducements that would appeal. It, therefore, appears evident that the further money required must be provided from public funds.

The amount should be sufficient to provide a trading fund and to carry out repairs, renewals and additions, as the business warrants. It must be invested in the business with all the risks and advantages obtaining to an ordinary preference shareholder. It must not be a loan only, but it could be surrounded with all the protection possible under the circumstances.

Had the Company received all its money under such conditions, it would be solvent to-day, instead of which it borrowed from the Government under guarantee to pay interest and this interest debt, together with the Government's demand for payment, must force them into liquidation, which means the sacrifice of what otherwise would be a good asset for the shareholders.

The balance-sheet to the 30th June, 1926 (Appendix 3), shows that if it were not for the overdue Government interest the Company would be paying its way, and the shareholders could rely on development for dividends, &c., and the money was provided as follows:—

	£	s.	d.
From shareholders ..	16,679	10	0
Forfeited shares ..	283	14	6
Government loan ..	10,000	0	0
Profit from trading ..	504	6	6
	<hr/>		
	£27,467	11	0

Starved as they were for money to trade with, the results obtained are remarkably successful.

It appears sound to suggest that if the total of the £50,000 capital of the Company were subscribed, the additional amount of approximately £19,000 would be sufficient for all purposes. This would show the Capital Account somewhat as follows:—

	£	s.	d.
Subscribed by shareholders ..	16,963	4	6
Capitalized profit ..	504	6	6
Loan from Tasmanian Government ..	10,000	0	0
Capitalized interest (say) ..	4,000	0	0
New money to be provided ..	18,532	9	0
	<hr/>		
	£50,000	0	0

A financial reconstruction would be necessary along lines somewhat as follows:—

(a) The Government to take over all unallotted shares in the Company, holding 14,000 in security for the £10,000 already advanced and interest now owing, and 19,000 shares in security for the £19,000 new money put into the business.

(b) The present shareholders to give an option to the Government over their shares with a right to purchase at 2s. 6d. a share at any time, provided the shareholders also have the option to pay back all the money, with interest, the Government has invested.

(c) The apparent loss of £14,594 to shareholders would represent the money sunk in the Works, which can be calculated as depreciation.

(d) Under these adjustments the Government would have ample security for the money invested, as I believe time will show that these Works are a vital necessity, so long as they remain the only properly equipped combined (slaughtering and freezing) Works in Tasmania.

(e) Anticipating that by establishing a lamb export trade the business will become profitable, I suggest that profits should be distributed somewhat as follows :—

- (1) Create a reserve for repairs and renewals up to 5 per cent. per annum on the reduced capital in the buildings, plant, and machinery (not land).
- (2) Additional profits to be used for paying the set rate of interest on Government money.
- (3) Should there be any further profits, a reserve should be built up to provide recapitalization of the 17s. 6d. a share, which must be at present sacrificed by the shareholders, which would re-establish the original capital, and which might be of great value for general purposes if the business develops and prospers.

I attribute the present position more to the inability to carry on a business without available finance than to the absence of any avenues of trade. There should be sufficient general business available to more than meet working expenses, and if an export trade in lambs can be developed, the financial future of the Works is bright.

The Directors resorted to a system of sub-letting parts of the buildings to the Bacon Factory, which gave them a start, and by storing butter and crudely making ice in petrol tins, they have earned more than their working expenses and, although they owe the Government about £3,400 for interest, their total loss as per this Profit and Loss Account is only £2,596 5s. 2d.

Assuming again that 56,000 lambs will be available annually, and that the present business carried on can always be relied upon to pay its own working expenses and, perhaps, made more profitable by expansion, it is proposed to show some comparison between the figures given before as the part of the gross profit on lambs carried forward for overhead expenses of the Company, and the probable overhead expenses.

This amount of 2s. 3d. a lamb on the total would represent £6,300, and the overhead would be somewhat as follows:—

These figures show a credit of £1,206 7s., but it must always be remembered that such results could only be obtained under the ideal condition of a maximum output and efficient management.

#### PART 4.—CONTROL AND MANAGEMENT.

The future success of the Works is dependent now on finance and management, and a Manager is required with trading ability and knowledge of the market conditions of the primary products of Tasmania. Even without knowledge of the meat export trade, such a man would be more valuable than a "purely meat export" man. This point is stressed because general business is available, while the problem of developing the lamb trade has still to be solved.

A Work's Manager capable of supplying the technical knowledge required in properly conducting the Works both as regards local cold storage and export of lambs should be obtainable.

His duty would be internal management, and his knowledge should cover tallow and manure manufacture, slaughtering for export, and an acquaintance with refrigerating engineering; all the staff on the Works to be placed under him, and his responsibility would be to the Manager.

I have in mind a man of this type who could be approached if it be deemed desirable.

These servants should then be answerable to a Board nominated by the suppliers of the new capital.

## PART 5—FURTHER ACCOMMODATION IN TASMANIA

It may be argued that a works situated at Burnie is not sufficient and suitable to cater for the whole of Tasmania, but I would recommend that under no circumstances should any money be provided to build other works until it has been proved, through the present works, that the lamb export trade warrants such additional expenditure.

I foresee that people whose natural outlet is Hobart will complain that, owing to long rail haulage, Burnie is unsuitable to them, and in considering their convenience I visited the Hobart Abattoirs and the Town Cold Stores. At present there is no freezing accommodation that could be considered suitable for the trade. The Abattoirs lack modern installation in some particulars, but I understand thought is being given to the creation of improvements.

As Hobart is so situated that it will be selected as the site for any additional export accommodation, I would suggest that it might be economical to amalgamate the local abattoirs business with the export trade, and this idea might be borne in mind should a scheme be promoted for a modern abattoirs. It could be incorporated in the plans for future consideration without, in any way, adding to the cost.

Launceston is much in the same position as Hobart, as regards present accommodation, and has the additional drawback of not being a deep sea port. It might be advisable to treat any new abattoirs scheme there in the same way as is advised for Hobart, but I am of the opinion that one works in the north, and, later on, one in the south, will be all that is required.

I favour combining the export trade with the city abattoirs because in Tasmania neither is likely to be a large business, and one would help the other, especially in regard to profitably treating offals, which is one of the main factors.

#### PART 6.—GENERAL.

It will be noted that I have given no opinion as to the suitability of Tasmania as a lamb producing State, for the reason that the full investigations of the officers of your Commission and the State Department of Agriculture would be of far greater value than anything that I could report on the matter.

In a general way I formed the opinion that farmers on small holdings would require to purchase their breeding ewes, and that there are other larger holdings unsuitable for fattening lambs, but ideal for the breeding of the crossbred ewes the farmers would require.

It has also occurred to me that the producers are now anxiously awaiting some visible results from the advice that has been broadcasted, and while it is, of course, up to them to act on and profit by this advice, I feel sure they would view the opening up of the Burnie works as a decided step towards their future prosperity.

The farmers are in urgent need of an organization that can be appealed to for information on markets generally, both on the mainland and over-seas. The Egg Association now being formed commences this system, and I can see no reason why the company could not become a general inquiry bureau for producers of all classes of primary products, and in many cases act as the distributing agents.

A live commercial man would soon surround himself with many avenues of trade, and as far as I can see would not be encroaching far into the business of private traders.

It is very fortunate that these works were built under pre-war conditions, and therefore relatively very cheaply, and it is also fortunate that they have no rivals in Tasmania.

There must be all classes of businesses to be undertaken, and it does therefore seem that success is only dependent upon proper finance and management.

#### HOME REQUIREMENTS.

It is evident that fluctuations in market prices for stock in Tasmania are at times very severe, but I am afraid the cold storage of meat would not be a solution.

The company had great difficulty in disposing of the 500 lambs they stored, and generally the Australian public do not take to frozen meat.

There are grave risks in speculatively cold storing meat, and although some of the very big firms hold certain quantities, the practice is not generally adopted in Australia.

I have to thank Dr. Finlay and Mr. Keam for officially directing and assisting my inquiry, and many other gentlemen throughout Tasmania for voluntarily aiding my investigations, and making my trip comfortable and enjoyable.

(Signed)

G. A. W. POPE,

General Manager,

South Australian Government Produce Department.

29th August, 1927.



## APPENDIX No. 3.

## NORTH WESTERN CO-OPERATIVE FREEZING AND CANNING COMPANY LIMITED.

BALANCE-SHEET AS AT 30TH JUNE, 1926.

<i>Liabilities.</i>	<i>Assets.</i>
Nominal capital, 50,000 shares at £1 each .. 50,000 0 0	By capital expenditure, at cost .. 27,450 18 6
Unallotted capital, 33,311 shares at £1 each .. 33,311 0 0	„ Office furniture, at cost .. 16 12 6
Subscribed capital .. 16,689 0 0	„ Sundry debtors .. 235 18 1
Less calls unpaid .. 9 10 0	„ Profit and loss .. 2,596 5 2
	„ Suspense account .. 81 1 0
Forfeited share money .. 16,679 10 0	„ Stock .. 500 0 0
Loan from H.M. Government .. 283 14 6	
Sundry creditors .. 10,000 0 0	
Bank of Australasia .. 3,464 12 10	
	30,880 15 3

## Working Account.

To Wages .. .. ..	728 8 11	By royalty on pigs .. .. ..	520 0 0
„ Stores .. .. ..	260 5 9	„ Storage .. .. ..	1,115 4 0
„ Repairs and upkeep .. .. ..	126 13 0	„ Sale of ice .. .. ..	403 18 5
„ Freight and cartage .. .. ..	7 13 7	„ Sale of bags .. .. ..	7 1 9
„ Fuel .. .. ..	408 12 11	„ Sundries .. .. ..	242 4 11
„ Purchase of lambs .. .. ..	623 2 10	„ Lambs on hand .. .. ..	500 0 0
„ Balance carried down .. .. ..	633 12 1		
	2,788 9 1		2,788 9 1

## General Charges.

Insurance .. .. ..	188 1 8	Brought down .. .. ..	633 12 1
General charges, including Bank interest .. .. ..	265 18 10		
Rates and taxes .. .. ..	6 2 0	Less carried down .. .. ..	276 10 5
Interest to H.M. Government .. .. ..	450 0 0		
	910 2 6		910 2 6

## Profit and Loss Account.

Debit balance brought forward .. .. ..	2,319 14 9	Balance .. .. ..	2,596 5 2
Debit balance from working account .. .. ..	276 10 5		
	2,596 5 2		2,596 5 2

## APPENDIX No. 4.

## BURNIE FREEZING WORKS, BUILT BY C. A. D'EBRO, 1914.

1. The cattle and sheep slaughter-house floor is arranged with hide and pelt shoots to floor below. The carcasses are run off to hanging rooms on overhead rails in the ordinary way. The blood is conveyed by gravity through a 4-inch pipe to bye-products house. Offal is delivered from dressing floors to trucks on rails placed 3 feet lower than dressing floors, and thence run across overhead gangway to bye-products house. This is the only difference from the modern practice of conveying offal away by water shoot. The rest of the works are in accordance with the latest arrangements of export works.

2. *Insulation.*—The whole of the timber used for freezing chambers and stores was Tasmanian hardwood, and single 3½-inch x ½-inch linings, and 2-ply ruberoid were used on walls, and single 4-inch x 7/8-inch flooring, and 2-ply ruberoid on floors. All construction had to be done as economically as possible to meet the money available. As far as we remember, we think the linings shrank considerably in places.

The insulation used was buzzer chips.

3. A space of 30 feet was left between slaughter-house and hanging-room for extension of slaughter-house, and this extension would provide three additional sheep pens, making a total of seven pens, which would be capable of treating 1,200 lambs per day. We estimate that the existing four pens would treat 700 lambs per day. With the three additional pens, 60,000 should be put through in ten weeks of five working days per week.

4. The works as designed were for handling 700 sheep, 40 cattle, and 100 pigs per day.