REPORT
OF THE
ROYAL COMMISSION
ON THE
Administration and Application of the Regulations under the Stock Diseases Act, 1895,
As published in the "Government Gazette" on the 12th October, 1929.

Presented to both Houses of Parliament by His Excellency's Command.

[SECOND SESSION OF THE FOURTEENTH PARLIAMENT]

PERTH:
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1932.
PREFACE.

ROYAL COMMISSION

WESTERN AUSTRALIA, ) By His Excellency John Alfred North- 
YOWITZ.
J. A. NORTHMORE, Administrator in and over the 
Dependancies in the Commonwealth of 
Australia.

To Max Henry, Esquire, Chief Veterinary Officer in the 
Department of Agriculture in Sydney in New South 
Wales: Greeting:

KNOW Ye that I, the said Administrator, acting with 
the advice and consent of the Executive Council, do 
hereby appoint you, Max Henry, Chief Veterinary Officer 
in the Department of Agriculture in Sydney, in the 
State of New South Wales, but about to reside 
temporarily at Perth in the State of Western Australia, 
to be a Commissioner to investigate and report upon 
the administration and application of the regulations under 
"The Stock Diseases Act, 1905," as published in the 
Government Gazette on the 12th day of October, 1928, 
particularly as they relate to the restriction of the 
movement of cattle from the Kimberley District, in the State 
of Western Australia, and in particular to do all the 
following things, namely:

To inquire into, report upon, and advise—

1. Whether restriction of the movement of cattle 
from the said Kimberley District is necessary to protect 
the Southern portion of the State against the intro- 
duction of disease or ectoparasites.

2. If such restriction is necessary, whether the pre- 
sent restrictions as provided for and enforced under the 
said regulations afford adequate protection as afore- 
said.

3. If the said present restrictions do not afford ade- 
quate protection as aforesaid, in what manner and to 
what extent should further restrictions upon the move- 
ment of cattle from the said Kimberley District be 
imposed in order to afford adequate protection as afore- 
said.

4. Whether the restrictions against the movement of 
cattle from the said Kimberley District as now provided 
for and enforced under the said regulations inflict undue 
hardship on the cattle industry in the said Kimberley 
District.

5. If such restrictions do inflict undue hardship as 
aforesaid, in what manner and to what extent can such 
restrictions be modified so as to give relief to the cattle 
industry in the said Kimberley District, and at the 
same time afford the Southern portion of the State 
adequate protection against the introduction of disease 
or ectoparasites.

6. Any other matter relating to the movement of 
cattle in or from the said Kimberley District which in 
your opinion it is necessary or expedient to inquire into, 
report and advise upon.

And I declare that you shall by virtue of this Com- 
mission constitute and be a Royal Commission within the 
meaning of "The Royal Commissioners' Powers Act, 
1903," as reprinted in the Appendix to the Sessional 
Volume of the Statute for the year 1928, and shall have 
and may exercise all the powers which, under the said 
Act, are exercisable by a Royal Commission or the Chair- 
man thereof.

And I do hereby desire and request you, as soon as 
reasonably may be, to report to me in writing the re- 
sults of your inquiries into and your advice upon the 
matiers entrusted to you by this Commission.

Given under my hand and the Public Seal of the 
said State of Western Australia, at Perth, this 
27th day of October, 1931.

By His Excellency's Command,

(Sgd.) JAMES MITCHELL, 
Premier.

GOD SAVE THE KING ! 11

WESTERN AUSTRALIA.

To His Excellency the Administrator, Hon. John Alfred Northmore, Perth.

Your Excellency—

By Your Excellency's Command, I, the undersigned was on the 27th October, 1931, appointed a Royal Commissioner to investigate and report on the administration and application of the Regulations under “The Stock Diseases Act, 1895,” as published in the “Government Gazette” on the 12th October, 1929, in the terms of this Commission appearing in preface on preceding page.

For the purpose of obtaining information the following persons were invited to give evidence, and did so:—

G. J. Sutton, Director of Agriculture, Perth.
A. J. M. Clark, Chief Veterinary Surgeon and Chief Inspector of Stock, Agricultural Department, Perth.
C. R. Teep, Veterinary Officer, Agricultural Department.
D. T. Luck, Station Manager.
Frank Inglish, Manager of Leopold Downs Station.
Arthur Male, Station Owner.
D. McDonald, Owner of Fossil Downs Station.
C. A. Alcorn, Drover.
Dr. H. W. Bennett, Veterinary Pathologist, Agricultural Department, Perth.
L. J. McIntire, General Manager, Wyndham Meat Works.
F. J. Rowan, Manager, Billiluna Station, Kimberley.
E. B. Curlewis, Government Meteorologist, Perth.
W. H. Berry, Acting Chief Inspector, Health Department.
T. H. Wilson, President of the Royal Agricultural Society.
G. C. Marsh, Manager of the Land Investment Company in Western Australia. (Vestey's representative.)
B. W. Prowse, President of the Wellington Agricultural Society.
Edward H. Golding, Controller of Abattoirs, Perth.
E. F. Twaddle, Veterinary Officer, Agricultural Department, Bunbury.
L. H. Lewington, Shipping Manager, Dalgety & Co., Ltd.
Ben Copley, Springs Pastoral Company, West Kimberley.
D. Keane, President of the Milk Producers and Stock Owners' Association of the Metropolitan Area.
W. Sheppard, Dairyman, Fremantle.
W. E. Robinson, Member of Stock Owners' and Dairymen's Association, Perth.
John Flynn, Member of Dairymen's Association, Perth.
E. J. Tomlin, Veterinary Surgeon attached to the Department of Markets, Fremantle.
P. B. Sears, Pastoral Company Director.
J. V. Banfield, Managing Director Leopold Downs Station.
G. C. Ross, Pastoralist, West Kimberley.
F. P. Davies, of Messrs. M. C. Davies & Sons.
S. S. Glyde, Manager, State Steamship Service.
G. O'Singleton, Frazier Downs Station.
S. G. Rowe, Manager Stock Department, Dalgety & Co.
W. Taylor, Primary Producers' Association.
J. Forrest, Director of the Lulugui Pastoral Co., Ltd.
F. Murray-Jones, Veterinary Surgeon, Perth.
L. McDaniel, Buyer and Controller of Stores for Millars' Timber and Trading Co.
W. L. Sanderson, Secretary, Pastoralists' Association.
M. P. Durack, Perth.

At Broome.
K. Male, Roebuck Plains Station.
George Solway, Butcher, Broome.
A. Streeter Male, Pastoralist.
H. J. Denham, Manager of Hill Station.

At Thangoo.
J. L. Edgar, Pastoralist.
John Pleck, Nyo Station and Silent Valley.

At Brooking Station.
A. Seaton, Manager of Brooking and Oscar stations.
J. Lahay, Station Manager of Fossil Downs.

At Margaret Downs.
F. E. Millhard, Manager of Margaret Downs Station.

At Jubilee Downs.
H. H. Burns, Manager of Jubilee Downs and Nerrima.

At Lulugui.
W. H. Moore, Station Manager, Lulugui Pastoral Co.

On m.v. "Koolinda."
L. W. S. Maclennan, Inspector of Stock, Derby.

At Yathero Station.
W. A. Inglis, Station Manager of Yathero.
In order that observations might be made personally in connection with certain points to be covered by this inquiry, a visit was paid to the Kimberley Districts by plane, and the Stations travelled over by car.

During the period from the 4th November to the 16th idem, Station properties in the neighbourhood of Broome and in the country lying between Fitzroy Crossing and Derby were inspected, the type of improvement placed on these stations noted, and observations made on the cattle and their general health and condition and degree of tick infestation. A visit was also paid to Yathalero and Yere Yere Stations for the purpose of observing under what conditions cattle which had been brought down from the Kimberleys in the past were maintained whilst being fattened for the metropolitan market. The methods of quarantine adopted at Fremantle and Midland Junction, and the manner in which meat inspection was carried out, so far as detection of pleuro-pneumonia was concerned, and the procedure adopted to link up the affected hogs with the brand mark of the beast from which it was taken were observed at the abattoirs at these places. In addition, the dairying country between Bumbury and the South Coast was visited in order that some idea of the possibilities of development in this region might be obtained.

The first question upon which advice is sought is the following:—

1. Whether restriction of the movement of cattle from the Kimberley District is necessary to protect the Southern portion of the State against the introduction of disease or ecto-parasites.

The infectious diseases existent in cattle in the Kimberley District, which is roughly that portion of the State north of the 19th parallel of latitude, are pleuro-pneumonia contagious, tuberculosiis and actinomycosis, and the ecto-parasites present are the cattle lice (Boophilus auritae) and the buffalo fly (Lagovestra exigua). As tuberculosis and actinomy- cosis are found in all parts of Australia, and as the nature of these diseases is enzootic rather than epizootic, there is no necessity to take action against them. Although the time may arise when action will be deemed desirable against tuberculosis, such action is not at present feasible, nor is it likely to be so within any reasonable period so far as beef cattle from the Kimberleys are concerned. With regard, however, to pleuro-pneumonia contagious and the two ecto-parasites, it is evident that they do not exist in the southern portion of the State, and therefore those portions should be protected against their introduction.

(a) Pleuro-Pneumonia Contagiosa.

It is evident that considerable opposition has been aroused against the restrictions designed to prevent the spread of pleuro-pneumonia contagiosa. Doubt has been thrown on the correctness of the diagnosis. This doubt is not longer tenable. The evidence given and produced by the veterinary officers of the State Service, and by others, clearly indicates that the disease exists both in the East and West Kimberleys. The evidence given by Dr. Bennets, the Veterinary Pathologist for the Department, was supported by the submission of speci-mens of pleuro-pneumonia contagious from animals which had been dispatched to the South from the Kimberleys, and which had not been in contact with other cattle. The suggestion has been made that if the disease present was pleuro-pneumonia contagious it must have spread, and would have seriously reduced the herds in the affected districts. This suggestion is based on a misunderstanding of the nature of the disease, as it occurs in free range cattle, maintained under the conditions existent in the Kimberleys. Under these conditions the disease tends to follow a smouldering course with occasional epizooties, such as occurred on Kimberley Downs in 1929. It may be anticipated that unless the disease is deliberately kept in check similar epizootic outbreaks will occur here and there when circumstances become favourable in the future.

It has further been suggested that even if the disease did spread to the South, it would be very readily controlled, and would not lead to heavy loss. It might be that it would be controlled more or less readily, but the success of this control would very much depend on the rapidity with which the owners of stock reported the appearance of the disease, and the number and efficiency of the staff available to deal with it. It is a commonplace that stock owners, as a rule, are very slow to report disease, and it is certain that the Veterinary Staff at the disposal of the Government of Western Australia is not sufficient in number to handle any wide-spread outbreak of pleuro-pneumonia in the South in an efficient manner. The State of Western Australia is in the fortunate position of having a very large proportion of its area free from this disease. The only other State equally fortunate is Tasmania, which is entirely free. New South Wales certainly has certain protected areas free, but they constitute only a small portion of the State, although they include many of the richest and most heavily stocked dairying districts. Victoria, largely through the operation of the "Cattle Compensation Act," reported complete freedom for some months, but again became infected, and will continue to become infected at intervals from New South Wales or South Australia, so long as she imports cattle as at present. So far as Queensland is concerned, no portion of the State can be regarded as definitely free, and the large stations in the West are chronically infected. The Northern Territory is in the same position. South Australia has no territory which is regarded as protected or perfectly free, and she is always liable to infection by the introduction of disease with cattle from the North.

To suggest that the introduction of disease should be deliberately permitted because stamping out would not be very difficult, is a line of argument which cannot be reasonably sustained. It is, in reply to that, it is argued that the disease might not be introduced into the South, the answer is that if no precautions are taken the disease sooner or later will be introduced. It is the very insidiousness of the disease which causes pleuro-pneumonia to be looked upon as so dangerous.

Rinderpest, foot and mouth disease, and pleuro-pneumonia are classed together as the three great cattle plagues, but in its incidence and nature pleuro-pneumonia does not lead to such spectacular mortalities and epizooties, as is the case with the other
two diseases, and in consequence is able to spread unnoticed and disregarded until some sudden local epidemic occurs as was the case of Kimberley Downs. Moreover, the chances that the disease would be easily controlled are not very great, as no country has yet found that if the disease were allowed to spread into the Southern parts of the State, inoculation amongst dairy herds would be necessary. Now, whilst inoculation against pleuro-pneumonia is fairly satisfactory, its employment in dairy herds is not infrequently followed by disastrous results. I have, myself, recorded instances of a 30 per cent, loss in a dairy herd as the result of inoculation. These mortalities are beyond control because they depend on the introduction of virulent virus into highly susceptible cattle. The trouble is accentuated with dairy cattle because of the regular handling and the strain of milking. There is moreover the possibility that Western Australia may wish to develop an export trade in dairy stock. If the dairying areas are free from this disease that possibility becomes much greater. New South Wales, of late years, reaped the benefits of her protected areas. It may be said that the dairying districts could be kept isolated. That might, or might not be possible, but if the map of Western Australia is studied it will be clear that the chance of arresting the onward movement of this disease at present is greater than it ever was in the past, and that once the disease passes the 20th parallel, the chances of arresting its progress will be infinitely less. This is the most favourable moment of all for limiting the spread of pleuro-pneumonia. The line between the East and West Kimberleys could not hold the disease back permanently, though possibly it delayed its onward march, and was therefore, for a time, justified. A line roughly along the 20th parallel can definitely arrest the disease, because cattle can move across that line only on the coast or by the Canning Stock Route. I have therefore no hesitation in advising that restrictions are necessary to protect the South against the introduction of pleuro-pneumonia from the Kimberleys. What those restrictions should be will be discussed later, but it is desired here to state that the suggestion put forward by one witness that the regulations at present in force are "bunkum," and by another that they are absurd, indicates an entire failure to grasp the nature of the problem. It may be possible to criticise those regulations in detail, or their method of application, and point out that some stock owners are more handicapped than others and that the regulations press more severely on some parts of the State than on others, but it is not possible to soundly criticise those regulations in principle. They are not "bunkum" or absurd; on the contrary, they constitute a bold and praiseworthy attempt to protect the Southern part of the State against one of the most serious cattle diseases. The statement has been made that cattle owners in the South are quite willing to buy Kimberley cattle and presumably allow them to mix with other cattle. No doubt they may be, but it is a commonplace of veterinary administrative experience that stock owners are willing to take considerable risk with disease, which they do not understand.

(b) Cattle Tick (Boophilus australis).

Stock owners generally appear to recognise the menace of the cattle tick, not only on account of tick worry but also as the transmitting agent of piroplasmosis (redwater). The whole of the Kimberley District, with some moderately sized free areas, is more or less infested. The area immediately south of Broome is very heavily tick infested. It may be that the tick has reached its limit on the coast South of Broome, and, in fact, there is considerable evidence to show that this is likely to be the case, but the country in that neighbourhood is very dry (Wallal, average rainfall for 8 years—1921-28—is 9.97 inches) and it cannot be expected that the tick could not become established in the moister areas in the Southern portion of the State; therefore, in my opinion, restrictions against the spread of the cattle tick are necessary. The only methods of spread which require consideration are along the coast by travelling cattle, or by boat. These methods will be discussed in detail later. The possibility of tick spreading along the Canning Stock Route need not be considered.

(c) Buffalo Fly (Lyporoma oxysus).

The menace of the buffalo fly is now generally recognised throughout Australia, although there is some difference of opinion regarding the degree of that menace. It is admitted that, to some extent, it is possible to fatten cattle in the presence of the buffalo fly, but to assume that the presence of a blood-sucking parasite, even though of small size, in almost countless numbers, can be without harmful effect on cattle is illogical, and cannot be supported. Moreover, even assuming that with free range cattle the loss in condition due to the irritating and blood-sucking characteristics of this parasite is not excessive, its presence amongst dairy cattle, crowded together in comparatively small areas, and reflecting in their milk yield any measure of irritation or worry, cannot be looked upon with complacency. The evidence brought forward shows that the buffalo fly is present in a large portion of the Kimberley districts: that it has extended along the coast somewhat rapidly in recent years, and that the locally widely accepted idea that the line of the 20-inch rainfall would mark the limits of its probable extension must be given further consideration. The evidence of the Veterinary Office now stationed in the North, shows that the fly has apparently established itself in the neighbourhood of Wallal, which has an average rainfall of 9 and 10 inches, the point has been raised that the Southern portions of the State possess a climate which would not allow the buffalo fly to maintain itself there. Taking into consideration the climate (which in many places exceeds 35 inches) the climatic conditions, which indicate a considerable freedom from frost, and the latitude, which is roughly between the 30th and 35th parallels, it would appear that there would not be any inhibiting factor which could be regarded as likely to prevent the establishment of the fly on the Southern coastal country. As with the cattle tick, the only means by which the health of this parasite is to be feared, would be by boat or along the coastal fringe. The possibility of spread across the desert country, or by the Canning Stock Route, even in a series of good seasons, is so remote as to be negligible. I am therefore of opinion that restrictions on the movement of cattle from the Kimberleys are necessary to protect other portions of the State against the introduction of the fly. The nature of these restrictions will be discussed later. It might be desirable here to point out that by "restrictions" is meant anything which impedes the absolutely free movement of stock, and includes such control methods as dipping and spraying.
The second question which I have been asked to answer is—

2. If restriction is necessary, whether the present restrictions as provided for and enforced under the regulations afford adequate protection.

Apart from general considerations, the three conditions—pleuro-pneumonia contagious, cattle tick, and the buffalo fly must again be taken separately.

In pursuance of the powers under the Stock Diseases Act and the Regulations made thereunder, cattle from North of the 19th parallel may only be brought to the South by boat. In transit they are sprayed with a mixture designed to repel and destroy the buffalo fly at the port of shipment (Derby and Broome). On arrival at Fremantle, which is the only port at which they are allowed to land, they are either slaughtered immediately, or are clipped, held in quarantine areas at Robb’s Jetty and sold at a saleyard within such quarantined area for slaughter at works also in the quarantine area, or for despatch to Midland Junction or Kalgoorlie under quarantine restrictions for slaughter at the abattoirs at those two points. Whereas cattle from any Station in Kimberley may be slaughtered at Robb’s Jetty or Midland Junction, only cattle from properties which are not affected, and do not join affected properties, may be sent to Kalgoorlie. For a time after the passing of these Regulations, gazetted on 12th October, 1930, arrangements were made for store cattle ex the Kimberleys, via Robb’s Jetty, to be taken to properties approved by the Chief Inspector of Stock for fattening, providing the cattle were from clean holdings, or holdings which did not adjoin infected ones. Late in 1930, however, the Department, regarding the spread of the disease in the West Kimberleys as more serious than heretofore, decided to refuse permits for cattle ex the Kimberleys to go anywhere except to quarantine areas, which were doubly fenced with a space between the two fences of 20 feet, and so arranged that the cattle could be railed direct into the areas.

(a) Pleuro-Pneumonia Contagiosa.

In my opinion the Regulations as at present gazetted and carried out are sufficient to protect the South against the introduction of pleuro-pneumonia contagious from the quarantined areas of the Kimberleys. But the question has to be considered whether they are sufficient to protect the country to the South against the possible introduction of the disease by cattle normally grazing on properties lying between the 10th and 20th parallels of latitude.

During the taking of evidence Mr. Murray-Jones, who was lately Chief Veterinary Officer of this State, expressed opinions as follow (Q. 1577 to 1581):—

Do you know that the reason for the inquiry is that there is an absolute embargo on cattle from clean stations?—Yes.

Did you give any consideration to imposing an embargo when you discovered 134 cases of pleuro-pneumonia?—No, I am afraid I did not reach that stage of extreme view. Do you satisfied that you could control any likely outbreak that might occur?—The point is we proved it.

Where?—Here in Western Australia, in that we had no outbreak outside the quarantine areas.

You considered it was a reasonable risk to run and that it was not necessary to have an absolute embargo?

—Whatever course one adopted, there was a risk. If I had considered the risk sufficiently great, I would not have hesitated to recommend an embargo. As I did not recommend an embargo, it speaks for my mental attitude.

Later on in his evidence he gave the following information (Q. 1581):—

You allowed store cattle to go out to certain areas such as Vere Vere Station?—Yes, and we had cattle at Dandarragan. I would not allow the cattle to be split up into small lots, but I met the position by saying I was prepared to allow the cattle to go out as a line to a place of which I would approve as a quarantine. We allowed a line of cattle to go to Dandarragan. The place was inspected and I was satisfied that it was in accordance with my requirements as a safe and sound quarantine area. The place was inspected fortnightly by a veterinary officer, and the cattle were under constant supervision. The history of the business was that we had only one case in that lot and it was a chronic case. Speaking from memory, all those cattle had not been slaughtered when I left the Department. That is an example of what we did and what we were prepared to do.

It is to be noted that in the Kimberley store cattle sent to Dandarragan a chronic case of pleuro-pneumonia contagious was found. It was therefore nothing but luck that there had not been an outbreak of pleuro-pneumonia contagious amongst those cattle either on route or at Dandarragan. No one can detect these chronic cases by visual examination. So long as the affected animals remain in decent condition, or even otherwise if they are in a mob with any number of poor cattle and no one can say how much strain these animals can undergo without again becoming actively affected. This case probably provides the best answer to the suggestion that the Kimberley cattle should be allowed to be distributed freely. I have quoted this evidence rather in detail because of the weight which would naturally attach to Mr. Murray-Jones’ evidence. Certainly Mr. Murray-Jones had the cattle under control, and could probably have localised the outbreak. On the other hand he might not have been able to without some spread. The following point has to be borne in mind. Once an outbreak occurs in clean country, there will always be the risk that carriers have been created and escape notice. They then become a focus from which the disease may spread, and it would not be until many years had elapsed without further outbreaks that the authorities could feel fairly confident that no more would occur, and then only with cattle under constant supervision. The only method of control which would give absolute security would be to slaughter every animal which had been in contact with the affected beast. There appears to be here a failure to realise that an animal affected with pleuro-pneumonia may show no more symptoms than a rise in temperature, and poor appetite for a few days, then apparently recover and become a carrier. The only way of detecting such cases, apart from the use of biological tests which have not yet been elaborated to such an extent as to be used with complete confidence, is by temperature recording, which is quite impracticable with mobs of beef cattle.

(b) Cattle Tick.

As regards the movement of cattle tick to the South, the present regulations and restrictions do appear to provide adequate protection. Under
ordinary circumstances of tick control, one dipping cannot be regarded as 100 per cent. effective in removing cattle tick from an animal, or in giving 100 per cent. control. The circumstances here are not ordinary. The cattle moving by boat are at least seven days at sea before being landed, and every day so spent would see a lessening in the number of ticks present. They are then dipped in a carefully controlled dip in which is practically an 8 lbs. to 400 gallons arsenic solution. The percentage of ticks which, after immersion in such a solution will lay fertile eggs, is not great. Any ticks which fall off, deposit their eggs in winter or early spring. The hatching will therefore be delayed, but no opportunity would be afforded them of reattaching until after the following summer. That delay would greatly reduce the numbers of any that might hatch in view of the peculiar climatic conditions in that part of the State, i.e., an almost rainless summer. The cattle are then slaughtered at abattoirs under quarantine conditions. The system is not ideal, but may be considered reasonably safe. If, of course, cattle are allowed on to the quarantine holding paddocks when Kimberley cattle are not present, then the danger margin increases very considerably.

So far as concerns cattle moving South through Wallal, the necessity for dipping appears very doubtful, but as pleuro-pneumonia contagious and the buffalo fly control that position, the question need not be further gone into.

(c) Buffalo Fly.

I am of the opinion that the procedure now adopted against the possibility of the spread of buffalo fly by boat, whilst no doubt of very great value indeed in delaying the onward movement of the fly, cannot be regarded as 100 per cent. effective as a guaranteed permanent block. There are two possible loopholes for the escape of the fly into the South-West in connection with the traffic by boat. The first is the possibility of a very few flies escaping the notice of both the inspecting officers at Broome and at Fremantle, and landing with the cattle. The second is the possibility of manure already containing fly in the non-adult stages being landed at Fremantle as a consequence of the escape of a few flies at Derby or Broome. The Government Entomologist reports that fly has been found in the boats at Fremantle although the cattle were sprayed. (Q. 999.) I doubt the possibility of any officer being able to report that no fly is present, though he might quite conscientiously report that, after careful and thorough inspection, he was unable to detect any fly.

Unless the reasons for the failure of the spraying at Derby, on two occasions, to completely check the movement of the buffalo fly by boat are known and have been corrected, it appears definite that 100 per cent. of efficiency is not being obtained there. The maximum of safety in the light of our present knowledge will only be gained if the cattle are air sprayed off the boats at Robbs Jetty and the manure is carefully handled and searched in covered pits under official control before being issued for use on the land.

So far as the spread of buffalo fly by land is concerned, as already pointed out, the experience of the Veterinary Officer for the North indicates that re-

consideration must be given to the idea that the 20-inch rainfall line is a line beyond which the fly will not spread. The maximum of protection from a possible spread of the buffalo fly along the coast would be gained by the creation of a cattle free buffer area, about the line of the 20th parallel. The suggestion that cattle moving Southwards by land might be sprayed and then moved on, is not one which would give control. Either the spraying yards would have to be in an infested area, in which case the cattle would run the risk of infection within a few hours, or, in an area in which the fly would not establish itself, in which case it is unnecessary. If the yards are in an area in which the fly can develop, the infestation of the manure will rapidly lead to infestation of the area. If the fly cannot develop from the manure it is harmless so far as that area is concerned, and therefore spraying is unnecessary unless the cattle are likely to enter favourable areas a little further South. As the limit of the fly is not yet known the plan remains impracticable at present.

The third question to which an answer is sought is:

2. If the present restrictions do not afford adequate protection, in what manner and to what extent should further restrictions upon the movement of cattle from the Kimberley District be imposed in order to afford adequate protection.

(a) Pleuro-pneumonia Contagious.

The answer to question two (2) will show that, in my opinion, the present restrictions do afford adequate protection in connection with the movement of cattle from the quarantined areas in the Kimberley district, but there still remain two points in connection with the movement of cattle from the North which require further consideration.

11) The question of dealing with the cattle between the 19th and 20th parallels is one of considerable difficulty. The station chiefly concerned on the Western side is Anna Plains. Of all the stations affected Anna Plains is in the the worst position if overlanding is prohibited, because the road to the North and Broome is rendered so highly dangerous by the gross tick infestation existing on the stations between Anna Plains and Broome. The Anna Plains cattle are largely not immune, and ticks are far more plentiful on comparatively small portions of the run. Therefore without overlanding, there is no safe outlet for them, nor does there appear to be any safe outlet available. This may be considered a favourable moment at which to state that I do not consider that any station in the Kimberleys can be guaranteed free from pleuro-pneumonia contagious. Some of them may be, and probably are, but all that can be said regarding them is, that the disease has not been found to exist thereon.

2) The other point which requires consideration is that in connection with the Billiluna cattle. It is understood that the Canning Stock Route has only recently been reconditioned, and there is evidence that only one mob of cattle has left Billiluna in twelve years. (Q. 1072.) The Canning Stock Route must have been reconditioned after the presence of pleuro-pneumonia in the East Kimberley was known. In the course of evidence it has been suggested (Q. 429) that it would be impossible for pleuro-pneumonia to be carried in mobs of cattle doing long overland treks. It has been argued that the strain would be
so great that any chronic case would certainly again become active. This is, however, not certain, but assuming that it did happen, there would be more than a probability that once reactivated that chronic case would convey the disease to others, possibly, in some instances, in a very mild form. These might in their turn carry the disease on a further stage, and so on, and yet the drover may observe nothing amiss, save with two or three animals which he might have to shoot as unable to travel. Whilst there is evidence that care is taken to endeavour to keep Billiluna cattle apart from neighbouring stations, there is also evidence that Billiluna cattle have arrived at Wyndham with other mobs, and that therefore intermingling has taken place. (Qs. 1054, 1218.) Billiluna cannot be considered apart from the Kimberleys under the present conditions. The expediency of reconditioning the Canning stock route is very doubtful. The benefit to the cattle industry would have probably been far greater had the money been expended in improving the routes to Wyndham, and Eastward into the Northern Territory. The proper market for the northern cattle is the North. The closing of the Meatworks at Darwin, Normanton, and elsewhere in the North was a calamity for Australia. The drift of the cattle Southwards has been followed by very undesirable results in the shape of the spread of disease and parasites.

(b) Cattle Tick.

The answer given to question (2) will indicate that it is not considered necessary to increase the restrictions placed on the movement of cattle from the Kimberleys from the point of view of tick control.

(c) Buffalo Fly.

The answer given to question (2) will indicate the desirability of increasing the stringency of control regarding buffalo fly. It was felt that the answer to question (3) could be more clearly linked with present procedure if introduced in that section.

The fourth question on which an opinion is sought is as follows:—

(4) Whether the restrictions against the movement of cattle from the Kimberley District as now provided for and enforced under the regulations inflict undue hardship on the cattle industry in the Kimberley District.

This is probably the most difficult of all the questions asked to answer satisfactorily. All restrictions on the movement of stock, and all regulations concerning disease control cause inconvenience and many cause hardship. This hardship has to be borne in the interests of the State as a whole, and it is difficult to find any body of primary producers who are not inconvenience or caused hardship through regulations imposed in the interests of animal and plant health. That is in the interests of the productivity of the State. At various times Governments have compensated such groups of primary producers, either in whole or in part on account of such hardships. At other times they do not. It cannot be denied that the restrictions at present applied and enforced with regard to the movement of cattle from the Kimberleys cause hardship to the cattle industry in those areas, though the degree of hardship varies very greatly. In the East Kimberleys, it is almost nil. The Wyndham Meat Works, Queensland, the Northern Territory, and Central and South Australia, all furnish markets for their cattle, and even if restrictions were removed, the East Kimberley graziers would still utilise those markets to a great extent. In the West Kimberleys the degree of hardship varies with the locality of the station, and the presence or absence of pleuro-pneumonia. Whilst many of the stations on the Fitzroy have practically no outlet except Fremantle via Derby, the stations around Broome have a very considerable local market in the pearling fleet stationed at that port. This is borne out by the evidence taken at that place (65, 68, 59, 124 Broome evidence), but the Broome stations advance the argument that their fattening capacity is limited. The hardship, in essence, consists in the fact that there is no market for store stock from the West Kimberleys, and the competition for their slaughter cattle is at present restricted. But, I am asked to report whether "undue" hardship is caused. What interpretation am I to place on the word "undue." To my mind, it can only mean a hardship by the infliction of which the State, as a whole, obtains no corresponding advantage, or which cannot be compensated for in other ways. If this is the intended meaning of the word, then I am not prepared to say that "undue" hardship is caused to the cattle industry in the Kimberley District. There can be no question that the State, as a whole, by protecting its present clean areas from invasion by pleuro-pneumonia, cattle tick and buffalo fly, is gaining for itself a great advantage; further, it is gaining one which can be obtained without serious loss to the State so far as the direct influence of the restrictions placed on the movements of cattle is concerned. The Secretary of the Pastoralists' Association of Western Australia, who appeared before me to represent the West Kimberley cattle growers, made out an able case to show that the restrictions, at present, placed on the movements of cattle were a major cause for the lowering of prices received for such cattle. I am unable to agree with that argument, nor do I agree with the representative of the Department of Agriculture who appears to contend that the restrictions had a very slight or no effect. To my mind, the restrictions have had a minor effect, which is far and away outweighed by the general fall in prices, and diminished purchasing power of the people.

To these causes must be added the heavy slaughter of sheep this year. In order to ascertain to what extent the drop in prices has been generally, I arranged for information to be obtained from the Eastern States. In Victoria the drop in prices has been as follows:—

Average price ox beef per 100 lbs. March—September, 1929, 51s. 11d.; 1930, 52s. 2d.; 1931, 31s. 10d.—roughly a drop of 40 per cent.

In Queensland the prime beef monthly averages per 100 lbs. sold through saleyards were approximately, March to September—1929, from 31s. to 36s.; 1930, from 30s. 6d. to 34s. 6d.; 1931, from 22s. 6d. to 25s. 6d.—roughly a drop of 25 to 27 per cent.

Now in this State the price of beef cattle has dropped, with some few fluctuations, steadily since the early part of 1929. The year 1928 was a year, allowing for fluctuations, of steadily rising prices. During 1925, 1926 and 1927 prices remained fairly even, but in 1923 and 1924, they were, on occasions, very low. The years 1919 and 1920 were years of
high prices with a steady fluctuating drop to 1922.

According to figures supplied by the Superintendent of Abattoirs, the average price of 12,213 cattle sold at Fremantle between 24/3/30 and 13/10/30 was £12 ls. 6d.; during 1931 between 12/3/31 and 3/9/31, 10,480 head of cattle averaged £9 3s.—a drop of £2 18s. 6d., or roughly 24 per cent.

According to the evidence furnished by Mr. Lack (1938), the drop in average prices for bullocks at Robbs Jetty as between 1930 and 1931 was about 25 per cent., with a smaller yarding of cattle in the latter year.

On the other hand, Mr. Forrest shows a drop in returns, after paying all expenses of droving and marketing, of about 47 per cent., as between 1930 and 1931, whilst in the same way Mr. Davies shows a reduction in net proceeds of 50 per cent.

For Napier Downs Pastoral Company, with regard to Bokey Downs, however, the net returns were higher in 1931 than 1930, but judging from the figures there must have been something very unusual operating in 1930. Comparing the 1931 figures for this station with 1929 (a year of high prices) the drop in average net proceeds is about 20 per cent.

According to the figures supplied, it would appear as though for quite a number of years, the Kimberley cattle properties have not been paying concerns. It is to my mind extremely doubtful whether these properties could, without the restrictions, have shown a profit on the sale of cattle sent in to Fremantle by boat this year.

It has been unfortunate that coincident with the extreme drop in prices, there has arisen the question of restrictions owing to the presence of disease. Unless the net return for the cattle improves, it looks as though the Kimberley cattle properties will be forced to seriously curtail their operations. How can these net returns be increased? They could in the first place be increased by liberalising the conditions under which their cattle can be sold in open markets, but this can only be done (with minor exceptions) at the risk of introducing disease and ecto-parasites into the clean areas of the State. It can also be done ultimately, though generally speaking, not immediately, by a series of measures, none of which is impossible, but all of which require effort and expenditure to a greater or lesser extent by either the Government or the pastoralists or some outside body. These measures are briefly as follows:--

1. A reduction in the cost of marketing the cattle: It is really immaterial whether the price is raised or the cost of marketing lowered. The result to the grower is the same. Attention is particularly drawn to the costs of marketing supplied by Mr. Banfield (1936); Mr. Davies (1916); and Mr. Lack (1937). Rather than run the risk of spreading disease one would urge serious reconsideration of all charges involved in the marketing of these cattle. As many of these charges are governmental, and the Government also maintains a proportion of the cattle boats, it is evident that the Government can seriously influence the position.

2. Exploration of the Java market, and inquiry into the possibility of markets at Singapore and in Malaya: There does not appear to be any doubt that, with the present progress of the southern part of the State it will, as time goes on, be in a position to supply more and more beef and beef to the metropolitan markets. Much of it may not be very high class, though that by no means applies to all, but its supply will keep down the value of any better cattle from the purely beef cattle raising and fattening properties. This movement will probably not be very rapid, but it will almost certainly occur, and will affect the situation unless the increase of population overtakes it, which does not seem very probable. To my mind, both Mr. Joyce and Mr. Copland have under-estimated both the amount and quality of the beef which can be produced in the South-West, an opinion which is fortified by my own observations.

3. Improvement of the stock routes to the Wyndham Meat Works and to the Northern Territory: The Wyndham Meat Works should be utilised to their fullest capacity. They provide the one certain market for the East Kimberleys. There seems to be a tendency to look on the Northern Territory and Queensland trade as undesirable, but it appears to be an excellent method of disposing of store cattle from parts of the Kimberley areas and should be encouraged. It is a method of placing Western Australian cattle on the big consuming markets of the East, and as the only reason which is apparent for this trade is that it pays the producer better—in which idea Mr. Durack seems to concur (Q. 1930)—it is an advantage to the State. Moreover, it is probable, judging from Mr. McGhee's remarks, that if all these cattle were diverted to Wyndham the works there would be overtaxed. As it is, the movement of these cattle Eastwards makes it more possible for cattle from further West to utilise the Wyndham Works. So far as the configuration of the country allows, the use of the Works by cattle coming from the Western side should be encouraged by the improvement of the routes.

It is necessary, the co-operation of the Commonwealth Government should be sought in bringing about such improvements in the routes in the Northern Territory as are necessary to facilitate the passage of the cattle into Queensland and Central Australia.

4. Improvement in holding conditions at Robb's Jetty: The official provision in the shape of holding yards at Robb's Jetty leaves much to be desired. There does not appear to be any reason why more adequate quarantine areas should not be provided there for holding the cattle, either through departmental or private activity, as has been done by Emanuel Bros. Such provision must have a reflection on the price obtained.

5. The possible utilisation of Derby as a killing centre: In the Report of the Royal Commission appointed to inquire into the Meat Industry in Western Australia, which was tendered as an exhibit during the taking of evidence, a recommendation is made regarding the establishment of chilling works at Derby. If such works were established there would be created a possible outlet for eith cattle, old pigs, and eith sheep through the boiling down portion of the works. Even the establishment of a boiling down works alone would create
an outlet for those classes of stock. At present, the unavoidable economic waste in the West Kimberleys must be very considerable.

6. Elimination of white cattle.—Although the actual loss in cattle, due to their white colour and consequent susceptibility to photosensitization, is difficult to estimate, it must be considerable, and all breeders in the Kimberleys should aim at their elimination.

7. Polled cattle.—As allowance will certainly be made by purchasers of fat stock for the probable loss through bruising, which they would estimate from their past experience, the introduction of polled types should gradually bring about an improvement in values received.

The fifth question to be answered is the following:

5. If the restrictions do inflict undue hardship, in what manner and to what extent can such restrictions be modified so as to give relief to the cattle industry in the Kimberley District, and at the same time afford the Southern portion of the State adequate protection against the introduction of disease or ectoparasites.

Again it will be desirable to deal with the three diseases seriatim.

(a) Pleuro-pneumonia Contagiosa.

If adequate protection of the South is to be maintained, it does not appear to me that the restrictions can be modified save in minor points. I do not consider that the present line between the East and West Kimberleys performs any useful function now, and consider it should be abolished and the whole area treated as one. I am of opinion that little or nothing is gained by differentiating between cattle from known affected properties and from those not known to be affected, so far as disposal at Kalgoolie is concerned, providing efficient quarantine is maintained there and that the transit of cattle by rail thereto would be facilitated if the unsealing of trucks were permitted in the presence of an official (Stock, Health, or Police) for the purpose of getting animals which had gone down on to their feet again.

I fail to see the necessity for inoculating cattle proceeding for early slaughter, although it appears to be provided for in the regulations, except as regards cattle going to Midland Junction.

(b) Cattle Tick.

Apart from the problematical value of dipping at Wallal, I am not of opinion that the restrictions should be modified.

(c) Buffalo Fly.

No relaxation, in my opinion, is possible with safety.

The sixth question to which an answer is sought is as follows:

6. Any other matter relating to the movement of cattle in or from the Kimberley District which in your opinion it is necessary or expedient to inquire into, report and advise upon.

Apart from the direct answers to the questions submitted to me there are various points to which it is desired to refer because whilst not directly inclusive in the terms of those questions, they have a material bearing on the answers furnished to those questions.

1. The Java Market (Qs. 10, 13, 178, 292, 180).

During the taking of evidence the question of the Java market for the Kimberley cattle continually arose. It is clear that there is a very definite market there, but the general opinion appears to be that it is limited. The action of the Netherlands Indies Government in restricting export to those stations on which pleuro-pneumonia had not been reported, would tend to limit the supply, but even taking this into consideration there should be ample to supply a limited demand. The actual conditions under which these cattle are slaughtered in Java are not available, but if the abattoir at which they are slaughtered is properly isolated, and providing the cattle do not come in contact with any local cattle, the reason for this limitation by the Netherlands Indies Government is hardly apparent. The suggestion has been made that supplies are only taken when the local supply is short, and that when the local supply increases, health reasons are allegedly used to control trade. One hesitates to accept this theory, particularly as it is directly opposed to the very definite recommendations of the sub-committee of the League of Nations appointed to report on the traffic in animals and animal products. The ruling of this sub-committee was to the effect that health restrictions must not be used as disguised trade restrictions. It is suggested that on these points it might be desirable to place the Chief Veterinary Officer in direct touch with the veterinary authorities in Java, since there could then be no question of trade interests intervening. It may be mentioned that a further recommendation of the League of Nations' sub-committee was to the effect that veterinary executive chiefs should confer direct on professional matters, rather than that correspondence should pass through the usual diplomatic channels. The Java market appears to have distinct possibilities, and every effort should be made to exploit and develop it in an endeavour to assist the Kimberley cattle growers.

Cattle from South Australia.—The point was raised on several occasions that cattle were brought in from South Australia to feed Kalgoolie. There appeared to be opposition to this practice, but it is difficult to see why. If it is incorrect for Western Australia to buy South Australian cattle, then it must be equally so for Queensland to buy Western Australian cattle, but the evidence goes to show that Queensland takes many more from Western Australia than Western Australia does from South Australia. Providing the cattle introduced from South Australia to Kalgoolie are controlled in an exactly similar manner to those taken to Kalgoolie from Fremantle under quarantine restrictions it is difficult to justify any objection to such action.

Co-ordination of Abattoirs Findings and Disease Control.—This matter appears to be one of primary importance in view of the situation regarding pleuro-pneumonia in Western Australia. Attention is directed to the evidence of Mr. Clark, Chief Veterinary Officer (115, et seq.) and of Mr. Berry, Acting Chief Inspector of the Health Department (1118, et seq.). So important did this matter appear to me that I personally visited the abattoirs at Midland Junction and Fremantle. At Midland
Junction I observed inspection of carcasses taking place on the slaughtering floor, and what I observed appeared by no means satisfactory from the point of view of determining the presence of pleuro-pneumonia, or the linking up a lung which might be found affected with the brand and ear-mark of the affected beast. Admittedly this is not the Kimberley killing season, but surely, in a State held to be so largely free and yet continuously threatened by the spread of pleuro-pneumonia, there should be no relaxation of care in examining for pleuro-pneumonia. Moreover, I understand that cattle originally from the Kimberleys, might come into the market at any time now from the fattening areas. Considering how serious may be the results to any grazier amongst whose cattle a case of pleuro-pneumonia might be found, there should be very definite rules laid down and observed, so that there may be no question about any doubt in identification. Such an arrangement would not be difficult and could be enforced if the officer in charge of meat inspection understood the importance of disease control, and the place which meat inspection finding take in the detection of disease, quite apart from any question of human health. At present there appears to be nothing but a mutual agreement between individual officers that certain reports should be made. That is not sufficient. True, co-ordination can only be obtained when both services are under the one head. That head should naturally be the officer trained in comparative pathology, and who has a staff of similarly trained officers under him. If any objection is raised that such a recommendation is beyond the scope of my commission, I would say that I consider the settlement of this question to be essential to the control of the disease, and consequently to the protection of the South. During my visit to Midland Junction abattoirs I watched several bodies being examined, but not a single lung was palpated, let alone incised, and I fail to see how a complete examination for pleuro-pneumonia can be made without palpation. It was explained that, owing to a series of accidents, only a young junior inspector was on the floor. However, at Fremantle again several lungs were seen, but none had been incised, although as the handling of them was not seen, they may have been palpated. The Chief Veterinary Officer appears to be placed in a very difficult position in this matter and has to rely on courtesy for information which he should be able to demand, and for the carrying out of instructions, which he should be able to order. Meat inspection is a veterinary problem.

Discretionary Powers of Officials (Q. 189).—At various times during the taking of evidence the representative of the West Kimberley graziers pressed the point of differentiation. So far as I can see no evidence has been brought out that there was differentiation which involved a breaking of the regulations, except the movement of Mr. Male’s cattle in 1930 and the presence of Kimberley cattle at Dandaragan. There certainly has been differentiation within the regulations; for instance, inoculation is carried out in one place and not in another and so on. Mr. Sanderson appears to be rather under the impression that because a certain line of action was followed in regard to one outbreak of pleuro-pneumonia, the same line of action must necessarily be followed in regard to all outbreaks. No more fallacious idea could be brought to bear on disease control, and the persons who would suffer most from such a rigid arrangement would be the stock owners themselves. There must be certain main regulations which are definitely gazetted, but within those regulations, the wider the discretion which can be allowed to technical officers dealing with technical matters, the less harsly will the regulations press on the stock owners. If the officials’ hands are tied in every detail, it will be found that the stock owner cannot get the easement which the official would otherwise often be in a position to arrange.

Osteophagia and Osteomalacia, and Failure to Fatten (213, 371).—Throughout all those parts of the State of Western Australia seen by me the cattle are, to a greater or lesser extent, bone chasers. This habit is a definite indication of mineral deficiency, and this deficiency is one reason why it takes so long to grow a bullock on the Kimberleys.

On several of the holdings, particularly in the Broome area, it is held that only a small percentage of the cattle can be fattened. A number of cattle on these properties were seen, and it was difficult to understand why a number of them should not rapidly fatten with the appearance of rain and green feed. This is coastal country, and a very large area of Australia’s coastal country is phosphorus deficient. One suggests that as one definite deficiency since the cattle are bone-chasers, but there may be others. Nowhere have I observed cattle stations which provided so easily for experimentiation in this regard. All the cattle must come in to water at the wells and I strongly recommend that the Department assist this group of pastoralists in an endeavouer to determine the reason for this failure to fatten. It is peculiar that neither the pastoralists nor the Department has taken up this matter, as it is of great economic importance, and has a distinct bearing on the amount of hardship inflicted by the regulations under discussion. If a greater number of fats can be marketed, the store cattle question naturally becomes less acute. Moreover this group of stations are in touch with Java, and could probably exploit that trade. This may perhaps, since the question of co-operation has been raised, be a suitable point at which to emphasise the fact that co-operation between the pastoralists and the Department appears to be wanting. Moreover, when the pastoralists are lesions of obtaining scientific assistance there appears to be a tendency to go outside their own State.

Variability in action regarding Pleuro-Pneumonia Contagion in different States (Qs. 478, 480, 733, 781).—On more than one occasion during the taking of evidence it appeared that the fact that cattle which were not allowed to move freely into the Southern part of Western Australia, were yet permitted to move into Queensland and South Australia had caused the pastoralists to consider themselves inflicted with unnecessary restrictions. No State is in the same position as Western Australia with regard to this disease, as was previously pointed out. No attempt is being made to clean up Queensland, South Australia and the Northern Territory; therefore, for the time being, those States are perfectly willing to accept cattle notwithstanding the risk. The same thing applies to New South Wales, apart from its protected areas. Into the protected areas no cattle, except those for immediate slaughter, going to a
Chief Veterinary Surgeon said the regulations had been imposed, not to harass the squatters, but to give him control over the movement of stock, and provided the stock were free from pleuro-pneumonia there was no intention of preventing them from being moved.

I am unable to find any justification for such an interpretation in the text of the regulations. Regulation 4 is mandatory:

No cattle shall be landed from West Kimberley further South than the 19th parallel of latitude.

If regulations are gazetted, they should be adhered to. If they are considered wrong they should be altered, not broken to suit individual cases. To argue that regulations are gazetted to be put in force or not at will, cuts at the root of administrative control.

In the regulations under the Stock Diseases Act published in the Government Gazette of October 12th, 1929, the only section which allows discretion is subdivision (2) (b) which reads:

(b) Such cattle shall be sent to a property approved by the Chief Inspector of Stock, which shall be declared a quarantine.

The remainder of the regulations are mandatory, and one is therefore at a loss to understand how the "intention" of these regulations can be subject for discussion. As they have not been varied since the date of issue, one can only assume that their intention was at first, and remains, what is clearly expressed in them.

Admittedly, in one particular the regulation lacks definition, since the term "West Kimberley District" is used, and there appears to be no definition of such district in the regulations. There is described in Regulation 57, a West Kimberley quarantine area, and it is clear from the evidence of all concerned that the West Kimberley district and the West Kimberley quarantine area have been held to be one and the same thing. This interpretation has been followed in this report.

At the risk of some recapitulation it is necessary, in order to prevent misunderstanding, to comment on certain portions of the final statement submitted by Mr. Sanderson on behalf of the Kimberley cattle producers. In this statement Mr. Sanderson says:

We contend that the main functions of the veterinary branch of the Stock Department should be to ensure, as far as possible, the freedom of the State, with the least possible interference with the economic sides of the industries concerned.

That contention is perfectly sound, and should be the basis on which every administrative veterinary officer founds his recommendations. Mr. Sanderson then continues:

It is surely unnecessary to employ highly qualified veterinary surgeons to frame regulations restricting the movement of stock. Such could be done by any practical stockman with ordinary average intelligence.

Such a statement, considered in conjunction with the subject under discussion, reveals a confusion of thought which is unfortunately not uncommon. The essence of the problem before this Commission is not the movement of cattle in itself, but the movement of disease and parasites for which the cattle act as vehicles. An intelligent stockman could, no doubt, frame regulations governing the movement of cattle as such, but to frame regulations for the control of disease and parasites requires a very sound knowledge of comparative pathology, the methods of spread of different diseases, the life history of parasites, and much else which is only possessed by the trained man. Mr. Sanderson then continues:

We submit, the duty of the Veterinary Department is to endeavour to find a cure for any disease which may break out in such a manner that the industry concerned will not be killed in the process.

Although it was probably not realised, such a contention is, to all intents and purposes, a suggestion that the veterinary services of Western Australia should revert to the obsolete methods of fifty years ago. The primary function of every official veterinary service in the world is the prevention and control of disease.

I am unable to agree with the idea that because the head of a branch exercises discretion allowed him in a certain manner his successor, after a further lapse of time and under different circumstances, must necessarily exercise his discretion in the same direction.

I do not find that the evidence shows that the change in action under the discretionary power allowed to the Chief Inspector of Stock was due to publicity following the occurrence of pleuro-pneumonia contagious at Maida Vale, but rather that...
it was due to a slowly growing fear of the spread of pleuro-pneumonia contagious to the South.

It appears to me to be quite incorrect to talk about the "full enforcement of the regulations." That implies that the regulations were being broken or disregarded. I have already expressed an opinion on this matter. The matter should really be referred to as the changed policy of the head of the branch within the discretionary powers allowed to him. The two things are very different.

I certainly cannot accept Mr. Sanderson's contention that the fact that dairy stock have been successfully brought from the Eastern States shows that "if careful inspection is carried out by competent veterinary surgeons, a high degree of safety can be obtained." So far as pleuro-pneumonia contagious is concerned, careful inspection alone gives no degree of safety. The safety factor in bringing dairy stock from the Eastern States lay in the previous years of close control, and close knowledge of the circumstances under which the cattle were reared and kept. It may, for instance, be of interest to note that many of the cattle purchased in New South Wales came from holdings on which every beast was seen by an official every three weeks, where an exact numbering of the cattle on every farm is made and recorded, and no movement of any beast, even from farm to farm, allowed without inspection and permit.

So far as the future development of the industry and the possibilities of marketing are concerned, it is evident that the methods of control adopted in the Kimberleys must have an important influence. It is clear that the eradication of pleuro-pneumonia contagious is fraught with great difficulties in those areas, but much may be done in the way of control with the somewhat remote possibility of eradication at a future date. Every fence erected increases the chances of control. No animal found affected with pleuro-pneumonia contagious should be allowed to recover. Incubation could well be widely practised around infected centres. If local virus cannot be obtained, there should be little difficulty in arranging for supplies from South Australia, or in running cultures here. Air transport is so highly developed in Western Australia that much of the problem of time is overcome. The most suitable virus to use is that obtained locally, preferably from an animal in the mob to be inoculated. Fail-

ing that "natural virus" from another outbreak, and lastly, cultivated virus. Research workers in many centres are engaged on the problem of elaborating a more satisfactory method of inoculating, and there is always the likelihood of success in that direction. Satisfactory inoculation spread over a number of years would greatly reduce the incidence of the disease. Under present conditions cattle tick cannot be eradicated, and it would be dangerous to do so, since with it would go the immunity of the cattle to pirosis with consequent mortality when the almost inevitable re-infestation took place. But there is no reason for allowing the cattle to die from tick worry, and the condition of tick infestation noted once or twice closely approximated to that condition. Much more dipping could, in places, be carried out with benefit to the cattle, and without endangering immunity.

In this report it has naturally been necessary to refer to eventualities which might occur in connection with the movement of cattle and the spread of disease. In order to anticipate possible criticism, it may be as well to point out that in such instances I am not referring to remote theoretical possibilities, but to consequences, which at times, but not always, follow such movements.

APPRECIATION.

It gives me very great pleasure to report that throughout the inquiry everyone concerned has done all that was possible to assist me in arriving at a sound conclusion. I have to express my thanks particularly to Mr. Sanderson and Mr. Clark; to the Station Managers of the West Kimberleys for their kindness and courtesy; to the members of the Pastoralists' Association in Perth, and the professional officers of the Department of Agriculture; to the Chief Hansard Reporter and the members of his staff; and to Mr. Jago, Secretary to the Commission, who did all in his power to assist and facilitate proceedings.

I have the honour to be,

Your Excellency's obedient servant,

MAX HENRY.
Commissioner.

L. H. Jago, Secretary.

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