

Agrio14 - Dogs Ordinance attached has been split wito 3 files 1. Agrholu - Dogs Ordinance 2. FIS/1/B - (temp title) ANMALS/POLICY/IMDATIO 3. FIS | 2 | A - ANIMALS | DOGS | INSPECTORS (LFL P/11 No uply to 89 and Mr. Miller has beand DCS Please see note at bottom of 19 Noted Dem b/12 BES -CS-The order is use in this file. at (22) that I reviews whome attribed 160/43. please ee pps 23 24 +25 the ugual of (25) (arimais letter to the Shiller) should be setured to the hills!

Reference 27.

The instructions at 27 have now been made by the Governor-in-Council in exercise of the powers given by paregraph 3 of the Dogs Order 1975 (folio 22)

2. Paregraphs 8 and 10 of folio 27 were not approved by the Governor-in-Council, but the remainder may issue in the appropriate form. In this connection will you please advise if it would be nore suitable to gesette or merely issue as an instruction. In any event sufficient copies should be distributed to farm managers and I note that a number have already been run off. These, in fact, would serve if the paper was out so that the instructions finished at paregraph 7.

24.2.76

O.i/c Aguic,

To note (28, - (29 please.

2. I strict stere is no need to gazette see Instructions. Arrangements have been made for distribution to see Inspectors.

3. legies of the Dogs Order 1975 were so distributed last year?

3 9.3.76

AS 28 29 metad ky ... O.1/c Aq. Dept. ... 10/3/76

Ag. C.S.

Bu 6.4.76

mail - (19)

Short draft memo to cover Dr. Cox' paper for Exco on proposed Epidemiological survey to detect Hydatidosis. For consideration pse?

Ag. A. S. 18.5.76

10

Ref. Hv. Months minute on fut cover. I have checked though the incoming med beach and can find no record of incoming tetter from Mrs Bostlemanns

17.6.76 Bu 24/6/76

C.S. Mr. Kerr now has a copy of Mr. Whitley's booklet on the hydatid worm for proofing. Re Mr. Kerr's letter at 174. There seems to be some difference about the number of copies required - I am inclined to think that 500 would be adequate, certainly not more than 750? There is also the question of the Spanish translation. It seems to be a question of balancing the cost of translation and production (printing and proofing etc.) against probable usefulness. I think the Spanish version could be very useful, particularly in the Camp where there is an increasing number of Chilean workers. We need to consider effective distribution of the booklet and some kind of pre-release PR exercise as suggested in your letter to Mr. Kerr (169)? 19 6 M. el 186. CS Pl see (190) 12 tu Went 191 the two Agric werkers have been doing this fer some Time now according to Mr Halliday. I suggest we await her Halledays return in November Sefore Journally passing this to him. 2619 23/9 74. pl. 0 (c A.D. 6 19ly. Sue 19 reply asin 18 +

Bu for the CS to see (56) Bu 29/6 PCS 10 14 = ab (155). 55/17 tile note: cony of (60) sent 6 B. Hardcastle Je Duft a.c. s. f.c. pl.

Solls

Los Solls

Los desfator by to morrow's chast for comments. Logian alling F.C. of one of the former are for your former for the pro- Carried are in the next by") frompt altentia. M, 18 B/U 16/8/76. He 14 8 Tel. do Matthel stepl.

CROSS Reference felios 206,201, 173, 167, 163, 151, 151, 151, 164, 2 pertaining to Serological Screening have been transfered to file MED/31/5

Human Hydatidosis Screening Scheme 8 7/2/77

E EIF



AS (Mr Browning)

Will you please see Mr Whitley and gently educate him about the correct procedure for obtaining funds, and also about the presentation of papers to ExCo.

- In this latter respect it is always best for the officer concerned to submit a draft ExCo paper, particularly on highly technical matters.
- I have already seen Whitley once before about this general matter before I saw his letter. I have asked him to submit a brief "link" note which we can use to relate the highly technical requirements of his letter to Mr Miller to the draft Order which he and the Hydatids Committee have prepared. He was unaware of the Administration Instructions already promulgated, and I gave him copies of these.
- In brief, although Mr Whitley intends to be helpful, I am sure, it is essential we have a rather more developed paper to submit to ExCo if anything material is to emerge from it. We don't wish to find ourselves in the situation that has occurred so often in the past, where we amend legislation repeatedly only to finish up with something that is ignored.
- 5. One of the most important aspects, of course, is the amount Government may have to vote for the use of Droncit in place of Scolaban, and it would be helpful if he could clarify this for us.
- 6. I should also like to show this to Mrs Rosser as an indication of the burden Technical experts can impose on the Administration.
- 7. The draft Order is , I believe, on the Dogs Policy file.

8. Pl. spick.

Transferred / have removed of 167 for aght by HE.

inthe councilis / have wheel for to be be unt back. Pl. KIV.

papers to / have wheel for to be be unt back. Pl. KIV.

Sept.

#### C.S.,

Bayers have now replied by telegram (at p. 212) to our letter of 22.12.76 (at p. 205).

- 2. The rate of exchange is DM4.01 = £1. The cost of the drug therefore works out at about £8.75 per 50 tabs.
- 3. I have discussed the question of control campaign quantities with the V.O. and we recommend -

1st year 20,000 tablets 2nd year 13,500 tablets 2.50 13,500 tablets 4th year 13,500 tablets

the There are about 850 dogs in the Colony (in actual fact 15 - 20 fewer than that, but we used that figure in our calculations), and at 2 tablets per dog, we would need 1,700 tablets at each dosing. At 6 weekly intervals, i.e. 8 dosings a year, we would require 13,600 tablets annually. The amounts set out in para 3. would give us some six months supply of the drug on hand at any given time.

5. The manufacturers await our final confirmation before supplying the drug.

11.2.77

11 ?u

This is good. When do we go now pl?

Assait SOA reaction? Take to Exce & SFE?

What plans has V.O.? Same in for Scoloban.

We a you are satisfied w. P. R. aspect victe

an earlie minute of mini that you should neveral

the ro's astrice to you to defer early artis.

25 815/2

See sulté in AGR/1014 -Dogs legislation

Alste: Spoke to Mr. C. J. Kerr as V. O. olice in Camp.

3.3.77.

O.i.c. Aquic

To see (205) and (212) with 23 above.

It is purposed to dose with thousit every six weeks. I would expect 100 packs by an this financial year, the account for the remaining 300 packs rould were also be received before 1.7.77.

You wise wish to submit an A.I.S.E.?

If a.S. 77

27.

C.S.,

your 24. I have spoken to both An Kerr and Mr whitley.

- 2. It is not considered necessary to await S.O.A. in this case (the proposed new dogs Dider only was referred to them). The present position could be for mention at taclo.
- 3. The Oi.C. Aguic is preparing on AISE for submission to S.F.C.
- 4. It is proposed to use droneit in the same manner as Sedahan that the interval between each dosing programme will be shortened from quarterly to six weeks.
- 5. The Velermany Officer is natisfied with the P.P. side of the exercise. He has been explaining the advantages of suricining to Froncit whenever he has been on John in the boump. It is also intended that either hefor Mr. Miller will give a radio John on the subject.
- b. The two immediately outstanding items are 
  i. our final confirmation for the supply of

  Dioneit should go off to Bayer (? this could

  be done by telegram and follows: up with

  a confirmatory letter); there is a certain

  ingency about this as our stocks of Scotaban

  are now low out we will not have enough

  on hand to continue the dosing programme

  unless the new ding is received here reasonably

  quickly; and
  - ii. He provision of funds (over and above the amount wolld for the purchase of Sestation, which was never actually ordered). Die Agric will aliens to this. she para 3 above.

A

CS.

20,000 Dromet was received par air parcel post or Parcel 17th The cost is on follow. 20,000 tals: DM 14,622.44 @ DM 4 to & I = &3655.61 N 118278 p each lead II 2 and an AISE for hardle were submitted to FS

30

\$10.1/e 13 24

Su. \$4.77. r. 16 (2€)

C.S.,

Pages 220/A/B/C, 229, and 234.

2. The Chairman of the Hydatids Committee and the Veterinary Officer recommend that we acquire two of the sets of slides. From the information available on this file it appears that the total cost would be about £20.

A) 3. If the advice of Messrs Miller and Whitley is accepted (and I would suggest that it is), then I will ask the C/i.C Agric to submit an AISE if he does not have sufficient funds on the appropriate vote.

D,

A 3

anyst y our abies

32 G 14/4

O.i.c. Agric,

Minute 30. Howe you money or you wolf to meet the cost of the slides pl? If wit, would you submit on AISE ( C.S. 15.4.77.

C.S.,

Registry

(235) The ExCo decision to switch to Droncit is at p. 200A. An Inf ExCo Memo is filed at (217), it concludes "the use of Droncit will therefore be implemented on an appropriate date on advice from the Veterinary Officer in consultation with the Officer in Charge, Agricultural Department". ExCo noted the Memorandum on 15th March 1977.

- 2. I understand that SFC has now written-off the cost of the Scolaban which we have on hand.
- 3. Inform the V.O. in raply to (235) that the use of Droncit may be implemented on a date chosen by him in agreement with CiC Agric pl?

35

Yes, SFC has written it off and the V.O. should implement as soon as possible.

Jac. s. 2-5-77

May we have a new volume please.

Jan C. S. 2-5-77

37

36

Volume I closed after folio 235 Volume II opened (45/17) No. 160/43/11

It is requested that, in any reference to this memorandum the above number and date abould be quoted.

#### MEMORANDUM

23 APRIYII

23rd, April,

1971

The Colonial Secretary.

From: Officer in Charge of Police.

STANLEY.

Stanley, Falkland Islands.

SUBJECT :-

#### Tapeworm Eradication (Dogs) Oreder 1970.

During a recent visit to Darwin School on Saturday 17th April 1971, I had occasion to pass through Darwin Harbour paddocks, situated about 700 yards north west of the School. Stacked in heaps along the hillside I saw the carcaes of hundreds of sheep, all had been skinned, and appeared to have been killed no longer than one week previous to my visit. I counted the heaps which totalled eight.

On the Friday afternoon and again on Saturday morning, I visited Goose Green, and saw that a large number of dogs were running loose around the Settlement.

Today I was having a conversation with Mrs Davis, from New Island, who told me that when sheep are killed on the Island the carcases are dumped over the jetty or the high cliffs. When I pointed out to her that they should comply with the law, she inferred that a number of other Farms were not obeying the instructions either, and if I wanted proof I should take a trip on the aircraft and see for myself.

I feel very concerned about the attitude of people who are prepared to ignore the law in this manner, with little or no thought for the consequences which could result.

Officer in Charge Falkland Islands Police Force.

DOGS ORDINANCE. (Chapter 21)

DOGS (AMENDMENT) RULES 1972.

No. of 1972.

Governor.

In exercise of the powers conferred by section 13 of the Dogs Ordinance, the Governor in Council has made the following rules-

- 1. These rules may be cited as the Dogs (Amendment) Rules 1972, and shall come into operation of the day of 197.
- 2. Rule 3 of the Dogs Rules is amended by the deletion of the words "one pound" and the substitution therefor of the following"one pound fifty pence".

Made by the Governor in Council this

day of

1972.

Clerk of Councils.

Citation and commencement.

Amendment of rule 3. (Vol. II p.181)

HB.

# CONFIDENTIAL EXECUTIVE COUNCIL

No. 54/72

Raising of Licence Fees

Dogs (Amendment) Rules

Wild Animals and Birds (Export) (Amendment) Regulations

Wireless Telegraphy (Amendment) Regulations

Memorandum by the Colonial Secretary

Among the revenue raising matters discussed in the Select Committee of the Estimates were proposals to:-

- (a) increase the licence fee for a dog from £1.00 to £1.50 per annum;
- (b) increase the export tax on elephant seals from £150 to £200 and on "all other penguins" from £15 to £25, and
- (c) increase the licence fee for an amateur to operate a wireless telegraphy station from £1.50 to £5.00 per annum.
- 2. Monourable Members are asked to advise that the attached draft amending legislation be made.

(T. H. Layng) COLONIAL SECRETARY

Al Lay

Ref: 1125 24th August 1972

HRT.

### DOGS CEDINATOR (Chapter 21)

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Made by the Governor in Council this day of 1972.

CLERK OF COUNCILS

HILT.

I when It Hills her bee telling people that I try may not the days for a with along the paved road which run for Moody Brook up towards the Twen Sisters without his permission. O if I tells me that this is greated as a road and a right of way exists and again can walk his day I there!

The section of Law Mr Hills is also as a sect of of and are sect of of the sect of of the sect of the sect of of the sect of the sect of of the sect of

referring to world agreed to be seet 9 of Cap 21 Dags. From this I note that It amon' of the bad can give permission. In the case of the bad 17- Mill, beares In the Coom, perumbly permission can be give by the Coverns or by the office as well as by M- H as Marger of the station?

3. Coll yn advice a Item two

29/8

Bol. Sec.,

The Two Birters (or North Gamp) Road is a road within the meaning of the Road Graffic Ordinance (Gap. Go) therefore the public, their reliables and domestic animals under control have the right to pass along it.

2. Mr. Hills would have the right to complain if an animal, such as a dog, left the road and interfered with his sheep.

3. Mes, both It. & and Sh. Hells could give permission to amy person to go upon or across this farm with his dog, because they bett of the Dogs Ordinare and the interpretation of "owner" in the Interpretation and Jeneral Saw Ordinare (Gan. 33).

P.B.

Nes. To me a a doggy File M.

31/8

Dear Sir,

Please refer to our conversation of some few days ago when you were kind enough to draw my attention to the provisions of the Dogs Ordinance.

2. The relevant provision reads (Section 9 of Cap. 21)

"Any person who shall take any dog upon or across any sheep station between the first day of August and the last day of November of each year without the permission of the owner or manager of such station previously obtained shall commit an offence".

With regard to the sheep station situated in the area of Moody Brook, \*\*\*\*\*, being Crown Land, I am advised that permission can be given either by Her Majesty's representative in the Colony or by the Manager of the station. With regard, however, specifically to the Two Sisters (North Camp) road, I am advised that this is a road within the meaning of the Road Traffic Ordinance (Cap 60) and that therefore the Public, their vehicles and their domestic animals have the right to pass along it.

Yours faithfully,

V

(T. H. Layng)
COLONIAL SECRETARY

R. W. Hills, Esq., STANLEY.

HRT.

Reply at 415 NA

### EXTRACT FROM MINUTES OF EXECUTIVE COUNCIL MEETING NO. 5/72 HELD ON 6TH, 7TH AND 13TH SEPTEMBER, 1972

#### 11. RAISING OF LICENCE FEES (Memo 54/72)

It was agreed that the following subsidiary legislation be made:

Dogs (Amendment) Rules 1972
Wild Animals and Birds (EXport) (Amendment)
Regulations 1972
Wireless Telegraphy (Amendment) Regulations 1972

CLERK TO COUNCIL



The Honourable,
The Colonial Secretary,
STANLEY.

6, Brisbane Road, Stanley.

8th September, 1972.

Dear Sir,

414

Thank you for your letter 160/43/III of the 2nd September. I had considered the matter of our conversation closed but your letter prompts me to offer some explanation of my position.

I have managed Moody Valley Farm for some 20 years and on many occasions I have received requests to permit working dogs to travel across the farm in charge of the farm worker concerned. Such requests have always received my consent but I am sure you will appreciate that as a farmer I cannot allow the unrestricted run of dogs on my farm particularly during the lambing period.

Your letter indicates that I am not free to control my farm as I would wish and that Her Majesty's representative within the Colony has right of sanction of movement over the area which I lease. I am unaware of this point and would be grateful for your explanation accordingly.

I have no desire other than to be fair and reasonable but both my wife and I have a considerable investment in Moody Valley Farm and I must know exactly where we stand.

Yours faithfully,

12 W All

R.W. Hills.

Replyat 416

72

Dear Sir,

415

Thank you for your letter of September 8th.

- 2. I am afraid that the legislation in force in the Colony makes it quite clear that for the purposes of the Dogs Ordinance permission for transit across land can be given either by the owner of the land or by the farm manager. In the case of Crown Land, such as that leased by you at Moody Brook, this means that legally either the Queen's Representative in the Colony as owner of the land or you as manager of the Sheep station can give permission.
- 3. You may care to discuss this with the Registrar of the Supreme Court if you are unclear as to your position.

Yours faithfully,

(T. H. Layng)
For COLONIAL SECRETARY

R. W. Hills, Esq., 6 Brisbane Road, STANLEY.

HRT.

/11/8/h

From: Chief Police Officer.

4th July 1974

To: Ag. Cheef Secretary,
Secretariat.
Stanley.

Sir,

Subject: Contravention of S.10, Dogs Order 1970

I respectfully submit the following report for your information. The report concerns the investiag ations on farms which were not complying with the law relating to hydatid disease.

- 2. On Thursday 30th May 1974 Inspector Felton returned from North Arm after completing investigations into firearm offences. It was stated by Inspector Felton, that he had seen a number of dogs not under control running free. Mass slaughter of sheep was in progress and dogs had easy access to the sites where the killing and disposal of carcasses were being stacked. None of the viscera had been removed.
- 3. On Friday 31st May 1974, on instruction from the Chief Secretary, I visited North Arm, accompanied by Mr L.J. Halliday, Agricultural Officer. The Manager. Mr Blake, was questioned, and the sites visited and inspected where the disposal and killings had taken place.
- The result of this investigation revealed that requirements under the Tapeworm Eradication (Dogs) Order 1970, was not being complied with. The sheep were being slaughtered and disposed of in large piles on a field some  $\frac{3}{6}$  of a mile distance from the Settlement. The viscera was not being removed. Although I saw no dogs in the vicinity, there was no doubt dogs could gain easy access to the carcasses. The Manager admitted that he had often to reprimand employees who were neglectful in control of their dogs which they allowed to roam on the settlement greens. Viscera was in evidence on the foreshore of the Settlement where the killing of beef had been taking place the same day. The offal was being removed seperate and put into drums, the rest of the guts was thrown on the beach. The Manager explained that he allowed the drums of offal to remain uncovered. After one or two weeks he would have the drums emptied into the creek.

- 5. A second farm, Goose Green, was visited and inspection made, by Constable Card, on the 12th June 1974. He reported his findings and from these, it was obvious that this farm was using the same practice as North Arm.
- 6. A third farm, Port San Carlos, was visited by Constable Betts, on the 11th June 197h. He saw beef being slaughtered and the viscera thrown onto the beach. There was however, no sign of dogs. They were he was told, kept in wire enclosures. except when required for work. I also visited this farm two days later and saw no sign of dogs. On the beach I saw the carcass of a cow and dog. The viscera had not been removed. Both had been dead for only a short time.
- 7. There was evidence that certain requirements were not being fully complied with. Carelessness by the management was evident. They are very willing to exercise the care necessary in preventing the spread of this disease. Efforts at Goose Green are being made to erect wire enclosures for the dogs. At North Arm, plans are already made for pens to be built to hold dogs.
- As had the desired effect of drawing attention to the negligente on farms. In these particular cases I would propose issuing an official caution, instead of prosecuting. My opinion is that more can be achieved by warning than in a prosecution this time. It is my intention that the Police must pay frequent visits to every farm and those who are not complying with the law must be prosecuted. These visits should be commenced as soon after the S.O.A. meetings as possible.

Superintendent.

cc. The Chairman,
Hydatids Committee,
Stanley.

10th July 1974.

Ac. Chief Secretary

Chief Police Officer

#### Dogs Order 1970

The Governor has read your report dated 4th July 1974 with interest and agrees that no legal action should be taken on this occasion. I understand that both he and you will be referring to the matter at the S.O.A. meeting later this week.

2. His Excellency also asks for your programme for visits to the Camp by your police officers to be submitted to him not later than the 15th July.

(R. Browning)
AG. CHIEF SECRETARY

#### **MEMORANDUM**

Reference AGR/10/4

Date 15th July 1974

From

Chief Police Officer.

To

Ag. Chief Secretary, Secretariat, Stanley.

#### Dogs Order 1970

Your memorandum of the 10th July refers.

- 2. I would propose that during the month of August, Police officers should visit all main Island settlements, and several of the smaller farms on the outer Islands. The latter could be fitted in with aircraft schedules. These first visits would establish a foundation to work on in the future
- 3. Transport between farms poses a problem. I do not know if the Managers would consent tomaking available a form of transport to the next farm. If they were agreeable, it would save considerable time and expense, and prevent any inconvenience to the Air Service whose assistance we would require otherwise. The Forrest is an alternative but I feel a great deal of time would be lost. It must be taken into consideration, that one officer taken off normal duty means alteration to the general routine, and additional duty for other officers. This can be avoided if transport is on hand and visits planned in accordance with day duty officers.
- 4. A further means of transport is by horse. There are officers who enjoy riding. This would be a good way of visiting the nearer farms in the North Camp and as far as Fitzroy to the south. The Agricultural Department have horses which are sufficiently capable of these close visits.
- 5. It would be advantages if the means by which officers will visit farms, can be satisfactorily arranged, whereby I could proceed with a programme of visits during August.
- 6. The Helice do not have funds available to carry out these Camp Visits, normally the flight is charged to the Secretariat, will this practice continue or will the Pelice be provided with funds for such business.

Superintendent



21st November

74.

Dear Mr. Miller,

I am to thank you for the suggested amendments to Orders 1/70 and 9/73, which you have kindly submitted. The effort put in by you and your committee in this matter is much appreciated.

2. The subject has been noted for consideration in Executive Council.

Yours Sincerely,

(R. Browning)
for CHIEF TECRETARY

The Hon. S. Miller, JP, Stanley.



aused by tapeworm Echinococcus granulosa.

Life cycles: Two cycles are involved; the first, the larval cycle in the intermediate host and the second the adult stage in carnivores. The tapeworm eggs are swallowed by the intermediate host ( sheep, pigs, cattle, horses, man) and the embryo hatched in the small intestine and then migrates through the wall into the blood stream. It is filtered out by the tissues and then the embryo develop s into a hydatid cystthe larval bladderworm.

wasse and good tecessar alleging one of they become

All the venous blood leaving the intestines passes through the liver before returning to the heart. It is all then pumped into the lungs and then out to the rest of the body via the heart again. There is nothing magic about the liver and lungs that cause the cyst to develop there but it is purely that these two organs are the first filters that the tapeworm embryo passes through. It is important to realise this as hydatid cysts can develop in any tissue in the body and will form in kidneys, spleen, bones, and muscle etc.

The hydatid cyst grows fairly slowly in all animals including han. In sheep the cyst is just visable as a tiny white nodule a month after the egg is swallowed. A month later it is about 2.5 mm in diameter and about five months after the egg is swallowed it may have reached 2 cm in size. The cyst is usually buried in the tissue but the wall may rupture so that daughter cysts develop. These are usually scattered over the pleura and peritoneum (the inside lining of the chest and abdomen) and on the surface of the intestines.

These daughter cysts should not be confused with the false hydatid cyst which is the larval bladderworm of Taenia hydatigena. This tapeworm is also present in the colony but is quite harmless to humans. The false hydatid cyst has a long neck so that the bladderworm hangs from the organs (usually the liver) like a balloon.

Inside the true hydatid cyst, scolices develop which will later form adult tapeworms. These scolices make up what is commonly called "the hydatid sand". Not all hydatid cysts are fertile. In cattle up to 90% of the cysts can be sterile so will not produce any scolices but is sheep only 8% are sterile. Recently there has been a suggestion that the cyst that forms in horses is a separate subspecies of Echinococcus granulosa but the adult can still affect dogs and probably come back to humans so it is important that the liver and lungs of horses are also suitably disposed of.

I have received reports that goese are affected by hydatid cysts but I think this is most unlikely. It is more likely that another different tapeworm is involved.

The tapeworm can only complete the cycle if the hydatid cyst, and in particular the scolex, is eaten by a dog, cat or fox. The scolex is the beginning of a tape worm which grows in the small intestine of these animals. Although the adult tapeworm can grow in the cats, it will not reach sexual maturity and no eggs will be produced. Therefore the presence of a cat is quite harmless from the point of view of hydatidosis.

#### hydatidosis./...

In dogs and foxes the tapeworm reaches sexual maturity and segments passed out in the animal's faeces. Thus the eggs are released into the environment and contaminate the animals fur.

CONTROL: Control of hydatidosis must be twofold. We must keep the dogs away from all bladderworms (hydatid cysts) and we must prevent any adult tapeworms developing by dosing the dogs regularly and correctly.

- 1) Hydatid cysts: it is important to remember that these cysts can develop in other organs besides the liver and lungs and therefore if someone finds a cyst elsewhere, that organ must be disposed of in the approved manner. If daughter cysts are found on the inside of the chest or abdomen the whole carcass should be burned. There are three main methods of getting rid of liver and lungs.
- a) Rotting: unfortunately I do not know how long the cyst remains viable in an organ but we have been recommended that the liver and lungs should not down for a month. This means a month from the time the last samples were added and not a month from the first. Adding a few paunches that are split open will aid the rotting down process. These containers must have tightly fitting lids and it must not be possible to knock them over. I personally believe the concrete tanks which are seen on many farms are essential as the 45 gallon drums are open to a lot of abuse.
- b) <u>Burial</u>: this is basically a rotting process but it is essential that dogs and foxes cannot get to it. When the pit is full it must have at least three feet of earth on top. The system at San Carlos is worth mentioning and it would be benifical to many managers to see it. A deep pit is covered by a large tank with a man-hole cover in the top thus making it dog-proof. The tank is sunk into the soil so that dogs cannot dig into it. I am told that the pit usually lasts a year. Those farms with arm diggers on tractors could usfully contemplate such a system for the settlement or for the annual cull. A similar system using a 45 gallon drum instead of a tank may be possible for outside houses.
- c) <u>Burning</u>: this method is highly efficient but must be carried out in an enclosed container as the cysts can burst spraying the hydatid sand outwards. Surprisingly little driftwood and diesel is required to get a suitable fire going. It is important that the liver and lungs are completely burnt rather than just charred on the outside.
- 2) Dogs: Remember a dog is your worst enemy in respect to hydatid disease. Dogs should be confined the wholt time if they are not working. This is true in Stanley as well as the camp. Dogs must not be allowed to roam in Stanley and, in my opinion, they should not be left uncontrolled in camp. I would like to see far more cages being built in settlements. The system at Port Stephens is to be recommended where each shepherd has a cage with his kennels at the end. The floor has large flag stones on it so that it can be kept clean. The sides are made out of corrugated iron up to about three feet so that the dogs cannot fight or chew through it.

prough it/.... Above this the wall is of wire mesh.

Separate from these runs are enclosed runs for bitches on heat. When a sang is working from a shanty or outside house, chains should be provided so the dogs donot room while the gang have a meal or smoke. It is naive to expect anyone to find all the dead sheep in camp so it is essential that dogs are closely controlled on occasions when they are working in camp.

The tapeworm egg is in the dogs coat so make sure you wash properly before handling any food or hating a smoke.

Now a few points on dosing:-

- a) Scolaban should be given on an empty stomach i.e. at least eight hours after the last meal. Thepurpose of this is to make sure that the pill passes straight through into the small intestine where it acts. If there is food in the stomach, the stomach will be contracting and will break up the scolaban before it reaches the small intestine.
- b) For the reasons given above the pills should NOT be given in meat or any other food.
- c) The Scolaban tablet is made up of two parts. The outer white layer is a protective coating while the pink centre contains the active drug bunamidine. If the stomach acid gets to the bunamidine it will be inactivated. It is therefore essential that the outer protective layer is intact when the dog is dosed.
- d) The old remedy Tenoban caused severe stomach pains sometimes, Scoleban will cause mild colic occasionally. The dog should be fed a small meal two to four hours after dosing to prevent this possibility.
- e) The dose rate is 10mg bunamidine per one pound bodyweight. In other words, the usual size tablet (200 mg) is for 20lbs while the smaller size (100 mg), which the Agricultural department are obtaining, will be for 10 lbs.
- f) Thile I belivev the dosing gun is quite efficient some of the deaths that occur are probably due to the tablet "going down the wrong way." In fact the tablet has probably gone down the wind pipe and blocked one lung so causing it to collapse and the dog to die.

THE PHYSICAL DOSING OF THE DOG SHOULD BE THE RESPONSIBILITY OF THE INDIVIDUAL OWNER THOUGH A DOG INSPECTOR MUST BE PRESENT TO ENSURE THAT IT IS CARRIED OUT CORRECTLY.



# CONFIDENTIAL EXECUTIVE COUNCIL

No. 12/75

## Dogs Ordinance - Tape Worm Eradication, Dogs Order 1975

The Hydatids Committee, under the chairmanship of the Hon. S Miller JP, has reported that the present law on hydatid control is so inadequate - being loosely worded, ambiguous and confusing - as to make it difficult to take a successful prosecution under it. They recommend that a new Order should be made to tighten the existing 1970 Hydatids Order.

- 2. Further consultation with the committee led to a conclusion that it would be preferable to emend the Ordinance so that the matter could be thoroughly ventilated and publicised in LegCo.
- 3. However, this would delay the matter over-long and it is now agreed to be preferable to revert to the original idea and promulgate fresh subsidiary legislation.
- 4. It is now proposed to cancel the existing (1970) Order and replace it with a new one. The principle changes are intended to prevent dogs having access to livers and lungs of dead animals and to ensure they are adequately supervised and controlled when not being worked or exercised.
- 5. Council is asked to advise if a new Order may be made. Normally I should prefer to follow a procedure of obtaining ExCo's prior consent to policy followed by a draft instrument. In this case however, because of time lost Council may may be prepared to consider the Order in draft with this paper. This is attached as Annex A.
- 6. The Inspectors appointed under the 1970 Ordinance would continue to operate the new Order.

The Secretariat Stanley 12th March 1975 AGR/10/4

CFEJ

#### Draft

#### Dogs Ordinance (Cap 21)

#### ORDER

(under section 12A of the Ordinance)

No.

Governor

In exercise of the powers conferred by section 12A of the Dogs Ordinance, the Governor has made the following Order -

- This Order may be cited as the Hydatid Eradication (Dogs) Order 1975.
- The Governor may appoint any fit persons to be inspectors for the purposes of this Order.
- An inspector shall require the owner or other person in charge of any dog in his area to dose the dog with an approved preparation under the personal supervision of an inspector in such manner and at such intervals as shall be directed by the Governor-in-Council.
- 4. An inspector shall supply the owner or other person in charge of any dog with such doses of the approved preparation as the inspector shall consider essential, free of charge in Stanley and at cost outside Stanley.
- Every inspector shall have power to inspect any dog at any time.
- The owner or other person in charge of a dog shall ensure that the animal is confined or chained unless being worked or
- exercised under control.

  No pure shall put or control to the fell

  7. Livers and lungs of cattle, sheep, horses or pigs shall be allowed access to such livers and lungs. within 28 days of their removal from the car-
- 8. Dogs must be removed from, and remain out of, the immediate area when the actual process of slaughtering cattle, sheep horses or pigs is taking place.
- No person shall knowingly and without reasonable excuse permit the carcase of any cattle, sheep, horses or pigs belonging to him or under his control from which the liver and lungs have not been removed, to remain in any place to which dogs for more shall umm reams to be unused at the

10 Livers and lungs shall be removed from all carcases of cattle, sheep, horses or pigs and shall be disposed of by one of the following methods only -

i.

ii.

burning burning burying to a depth of at least 3 feet in a covered dog-proof pit, placing in a covered dog-proof receptable for a minimum of 28 days, iii.

iv. cceking for human consumption, v. boiling for a given period of hours.

11. Any police officer may, for the purposes of ascertaining that the provisions of this Order are being complied with, at all reasonable times enter on any land or premises.

or mapeder

- 12. Any person who obstructs or impedes any police officer in the execution of his duty or who contravenes or fails to comply with the provisions of this Order shall commit an offence and shall be liable on summary conviction to a fine not exceeding £200 for the first offence or £500 for the second or each subsequent offence.
- 13. The Tapeworm Eradication (Dogs) Order 1970, and the Tapeworm (Dogs) (Amendment) Order 1973 are cancelled.

By Command

Chief Secretary

Ref: AGR/7/120

#### MEMORANDUM



Reference ARO/10/4

AGR

Date 18th March 1975

From

Chief Police Officer

To

Chief Secretary, Secretariat, Stanley.



Hydatid Control (Dogs)

Reply of 456

I would propose that Legislature be introduced to reduce the number of dogs within the Colony, particularly in Stanley where dogs are unnecessary.

- In order to strengthen control of dogs within Stanley, I recommend that licence fees be increased from £1.50 to £5.00 per annum. Owners who keep dogs as a genuine pet will still pay, but those who interests themselves only when the dog is very young and allow it to roam freely thereafter, will not be keen to pay such higher fee.
- If we are ever to prevent the spread of this terrible disease no effort should be spared in introducing and enforcing Legislature no matter how unpopular it may be.

Chief Police Officer.

% non/10/4

1st April 1975

Chief Secretary

Chief Police Officer

Eydatid Control

The question of reducing the number of dogs by increasing the licence fee is being referred to the Mydatids Cormittee.

(D 2 Torrison)
for CHISP 3 GRETARY

QFEJ

ist April

75

The Chairman Hydatids Committee

Boar Sir,

The Chief Police Officer has raised the question of the control of dogs and I enclose a copy of his memo to me on the matter.

Please consider the subject at your mext Hydetids meeting.

Yours faithfully,

one

(D R Morrison) for CHIEF SECRETARY

CIEJ



Sed neil

75

The Conourable Willer JW Toss Louse Ross Loud Stanley

Sir !

#### Roge Order

Trefer to Pro memorandum To 12/75 and discussion on this subject on 14th Merch.

I now attach a re-drafted version of the Order which I propose to re-submit to Council for discussion and decision. I have tightened up come of the Regulations but have also left out the worde 'under control' at the end of legulation 6.

Possibly you may prefer these words laft in. so you will doubtless raise this in Council.

I am.

Your obedient dervint

CHIEF CONTE

one

000 Degistrer Supreme Court

OFFI



# CONFIDENTIAL EXECUTIVE COUNCIL

No 17/75

### Dogs Order



With reference to Memo 12/75 and discussion on 12th March I now attach a re-drafted Order which Honourable Members will wish to re-consider and advise upon.

The Secretariat Stanley
AGR/10/4

3rd April 1975 CFEJ

### Draft

### Dogs Ordinance (Cap 21)

ORDER (under section 12A of the Ordinance)

No.

Governor

In exercise of the powers conferred by section 12 $\Delta$  of the Dogs Ordinance, the Governor has made the following Order -

- 1. This Order may be cited as the Hydatid Eradication (Dogs) Order 1975.
- 2. The Governor may appoint any fit persons to be inspectors for the purposes of this Order.
- 3. An inspector shall require the owner or other person in charge of any dog in his area to dose the dog with an approved preparation under the personal supervision of an inspector in such manner and at such intervals as shall be directed by the Governor in Council.
- 4. An inspector shall supply the owner or other person in charge of any dog with such doses of the approvéd preparation as the inspector shall consider essential, free of charge in Stanley and at cost outside Stanley.
- 5. Every inspector shall have power to inspect any dog at any time.
- 6. The owner or other person in charge of a dog shall ensure that the animal is confined or chained unless being worked or exercised.
- 7. No person shall feed or cause or allow to be fed livers and lungs of cattle, sheep, horses or pigs to any dog, nor shall any person allow any dogs access to such livers and lungs.
- 8. No person shall allow any dog to remain in the immediate area where slaughtering of cattle, sheep, horses or pigs is taking place.
- 9. No person shall knowingly and without reasonable excuse permit the carcase of any cattle, sheep, horse, or pig belonging to him or under his control from which the liver and lungs have not been removed, to remain in any place to which dogs can gain access.
- 10. An owner shall remove or cause to be removed the livers and lungs from all carcases of cattle, sheep, horses, or pigs and shall dispose of them by one of the following methods:

i. through burning to ash,

ii. burying to a depth of at least three feet in a covered dog-proof pit,

iii. placing in a covered dog-proof receptacle for a minimum of 28 days

11. Any police officer may, for the purpose of ascertaining that the provisions of this Order are being complied

with, at all reasonable times enter on any land or premises.

- 12. Any person who obstructs or impedes any police officer or inspector in the execution of his duty or who contravenes or fails to comply with the provisions of this Order shall commit an offence and shall be liable on summary conviction to a fine not exceeding £200 for the first offence or £500 for the second or each subsequent offence.
- 13. The Tapeworm Eradication (Dogs) Order 1970, and the Tapeworm (Dogs) (Amendment) Order 1973 are cancelled.

By Command

Chief Secretary

197 Ref: AGR/7/12C



AGR/10/4 3. Hydatid Eradication (Dogs) Order 1975 (Nemo 12/75)

> Honourable Members fully debated the proposed Order and advised that the legislation should be re-drafted and submitted to the next meeting of Council for further consideration. It was argued that the words "exercised under control" in Clause 6 of the proposed Order were unclear and, if strictly interpreted, could have the effect of denying regular exercise to dogs which would as a result lose their fitness.

Honourable Members recommended that broad-casts on the objects of the new order should be made by a member of the Hydatids Committee and that the Chief Secretary should call for regular reports on the operation of the Order and the effectiveness of the inspectorate.

### ROSS HOUSE

### PORT STANLEY

FALKLAND ISLANDS

The Hon., The Chiof Secretary. Stanley.

April 10th, 1975.

Dogs Ordinance (Cap.21) ORDER.

(Under Section 12A of the Ordinance)

Sir,

Further to our conversation earlier this afternoon, which followed the protracted discussion of this Order at Executive Council yesterday, I would like to emphasise the following points.

Inspectors. I would go along with you in leaving the references to 'Inspectors' as they are and we shall have to wait and see whether we run into any resignations concerned with putting the whole Order into effect.

baragraph 6. I would acquiesce in leaving out the two final words 'under control'; I would have liked to see them in but do not think this is of any great matter.

Paragraph 10. The three sub-paras in this section in the Committee's view must stay as they are and we would not want any further addition to allow cooking in any form at all no matter over how many hours. There is considerable risk in stature having livers and lungs lying around, en route to the boiler; when being cooked for chicken or other food they can be under-cooked and we do sometimes see dogs that have crawled into hen yards.

In my view, much as the Committee enjoy eating livers, this withdrawal of any cooking of offal also entails no retention of livers for human consumption.

Right through the contents of this amended Dogs Order there are certain inconveniences and in a sense, hardships, but we have undertaken the task of reducing and finally we hope completely disposing of this worrying and dangerous disease from the human population.

If we are so to rid the Colony of hydatidosis we must use stringent measures, and they must be carried out.

Yours faithfully, flugheller

Copy to the Hon.L.G.Blake.

Ackid son

Paragraph.9. I omitted to refer to this on my first sheet.

I do not think this paragraph needs alteration to meet

Mr Blake's objection to removing liver and lungs.

He has a point as had the Association of Farm Managers,

see their section 2 (a).

The point here is that if livers and lungs are not removed the carcases must be left (or stacked) in dog proof pens.

The whole major essential part of any of this Order is that does must be able to have account to any livers.

The whole major essential part of any of this Order is that dogs must not be able to have access to any livers or lungs of sheep, horses, cattle or pigs.

There are various ways of reaching this position safely and it is up to inspectors and police to approve safe

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methods, and disallow unsafe ones.

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Course & Standales.

Stanley
16th July, 1974.

The Chairman, Hydatids Committee, Stanley,

Dear Sir,

The events of the past twelve months with respect to the "Dogs Ordinance" have been discussed at length by this association and we would like to offer the following recommendations to your committee.

- 1. It should be made an offence to leave a dog loose unattended.
- 2. At scrag killing time carcases should be disposed of in one of the following manners.
  - a) That stacking be permitted but only in dog proof pens.
  - b) That all viscera be removed and buried at least three feet below the grounds surface.
- 3. Breakdowns in the present system occur which are beyond the control of the manager when investigations are made every effort should be made to ascertain the actual person who has committed the offence.
- Note:- Present investigations have only proved that an offence has occurred the blame being put without further investigation onto the owners of the farm.
  - 4. The present ordinance is very poorly worded, containing ambiguous clauses and confusing statements which could make prosecution impossible and should therefore be reworded and then perused by an expert in agricultural law.
  - 5. If and when the ordinance is revised all dog owners should receive a copy of that ordinance.

We would like to point out that these are the views of the majority of active farm managers whose main interest is to see the Falklands free of this disease.

Yours faithfully,

### AGR/10/4

### 3. Legislation relating to dogs (Memo 17/75)

Honourable Members re-considered the draft Hydatid Eradication (Dogs) Order 1975 (see Minute 3 of Meeting 4/75); and advised that the Order should be made subject to the following emendations -

- 10. (a) An owner shall remove or cause to be removed the livers and lungs from all carcases of cattle, sheep, horses, or pigs, where such carcases are within a radius of two miles of any dwelling house, and shall dispose of them by one of the following methods:-
- i. through burning to ash;
- ii. burying to a depth of at least three feet in a covered dog-proof pit;
- iii. placing in a covered dog-proof rece tacle for a minimum of 28 days;
- iv. boiling for a minimum of 2 hours.
- 10. (b) Livers and lungs shall in no case be removed from the carcases of cattle, sheep, horses, or pigs when such carcases are outside a radius of two miles of any dwelling house but the carcases shall be stacked in heaps of not more than forty in pyramid fashion with the legs in and the backs out.

Honourable Members further advised that the Order should be reviewed at quarterly intervals; that managers and inspectors should be encouraged to report on the working of the Order; and that a careful tutorial programme under the direction of the Chief Secretary should be set up. His Excellency concurred and ordered accordingly.



CLERK OF COUNCIL



6/75 Held on Thursday 22nd Nay 1975.

### AGR/10/4 2.1. MATTERS ARISING

- 2.2. The consensus of opinion of Honourable Members was that the proposed Clauses 10(a) and 10(b) of the Hydatid Eradication (Dogs) Order 1975 should be deleted and the following Clause 10 substituted therefor:-
  - 10. An owner shall remove or cause to be removed the livers and lungs from all carcases of cattle, sheep, horses or pigs and shall dispose of them by one of the following methods:
    - i. through burning to ash;
    - ii. burying to a depth of at least three feet in a covered dog-proof pit;
    - iii. placing in a covered dog-proof receptacle
      for a minimum of 28 days;
    - iv. boiling for a minimum of 2 hours

The Honourable S. Miller, J.P. dissented.

Clerk of Council

Per jee in Ackhola.



EXTRACT FROM MINUTES OF EXECUTIVE COUNCIL MEETING NO. 9/75
HELD ON FRIDAY, 11TH JULY 1975.

POL/4/2 ACR/10/4 8. DOGS (AMENDMENT) ORDINANCE 1975 (Memo 34/75)

The Bill to amend the Dogs Ordinance (Cap. 21) to authorise the Postmaster to issue dog licences and collect the licence fees vice the Superintendent of Police, was approved for remission to the Legislature.

CLERK OF COUNCIL

Mar: Bill passes to beas Pinter - 14: 7.75



### GOVERNMENT PRESS RELEASE

During recent months Government, in collaboration with members of the public, has given extensive consideration to the problem of hydatidosis and His Excellency has now made an Order to tighten the control of dogs in an effort to eradicate this disease from the Colony once and for all.

A law on its own cannot achieve much. It must have the willing support and co-operation of the public and in such a serious matter as this, Government is confident everybody will support it. I would appreciate it if you would kindly give the Order and its purpose the widest possible publicity, stressing the following main points:-

- A dog must be confined or chained unless it is being worked or exercised.
- Dogs must not be fed any animal livers or lungs.
- Dogs must be removed from any slaughtering area.
- 4. Carcases must b∈ kept away from dogs.
- 5. All animal liver and lungs should be disposed of in a menner approved by the law.

Government is confident that if this new order is carried through with co-operation and diligence, there should be a dramatic drop in the existence of this horrible disease.

Anyone who has known a case of this disease cannot fail to agree that the Order is a most necessary step, and Government hopes that it can count upon you to do your utmost to ensure that the provisions of the law are carried through.

The penalties for non-observance are severe, but this will be unnecessary if the action envisaged is carried through in the spirit of co-operation and integrity.

Secretariat
Ref: AGR/7/12/C

AGR/10/4

### CHARTRES SHEEP FARMING CO. LTD.,

### CHARTRES

### FALKLAND ISLANDS

September 101975

The Chief Secretary. Secretariat.

Stanlev.

Dear Sir.

### Caging of Dogs

I note that the new Dogs Order has now been generally circulated and this I welcome. However, I do feel that Government should allow some time before enforcing the order completely. We are pressing ahead with all speed with the errection of cages and are fortunate in having enough material on hand to do this - I think. However with our limited labour resources it is physically impossible for us to complete these for at least two months. Other farms may not even have sufficient materials. I hope it is Governments intention not to prosecute right away and if so I feel it would be preferable to make this known publicly as it is a worry to some people.

I would suggest that some kind of discussion on the air between yourself, the Chief of Police and Mr Miller, or some such. I would suggest a deadline of about three months and that anyone not able to comply with the Order at that time must put up a very strong case to yourself if he is not able to comply then, otherwise prosecution will follow.

It is, am sure, adviseable for some lattude to be given as I am certain that immediate prosecutions would only destroy a lot of the goodwill towards the program that exists at the moment.

Yours faithfully,

CMARTRES SHEEP FARMING CO. LTD.

W.P.L.C

Minutes of a Committee Meeting of the Falkland Islands Sheepowners Association Limited, Held at Swanler from the 14th to the 22nd July

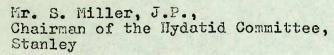
Agricoly

Hydatid Campaign - latest position

Mr S Miller spoke at length on this subject and stated that the committee had not got very far on this very important matter and cosidered strong measures should be taken. (The New Dogs Order was read out, it is not yet Law until signed by the Governor but approved by Executive Council)

Recommended that the MX New Dogs Order should stand as it is and be circulated with out delay; Vote taken, all in favour. Arranged with for Farm Managers to meet with the Hydatids Committee Tuesday afternoon, July 22nd 1975.

15th September





Dear Mr. Miller,

I would like to take the opportunity of recording two points in relation to the recent Dogs Ordinance Order:

- 1. A recent case brought to the attention of the Superintendent of Police and subsequently to myself has shown that although it is essential now under the law to confine a dog, there is no restriction on where this dog may be confined. There are two problems attached to this: firstly, as in the case that I have referred to, there could be the danger of confining a dog in such a position that its excretia present a health hazard to those living or cultivating vegetables nearby. Secondly, although not related to the health of the community, it leaves open the possibility of confining dogs in unsuitable and inhumane enclosures.
- 2. In my opinion Paragraph 6 of the Order is too loosely worded for any conviction to be made or upheld. According to the wording of the law, anyone could release a dog and leave it unsupervised and could claim (legally, at least) that the dog was being exercised, which the present law permits.

Yours sincerely,

The Can

Derek Cox Senior Medical Officer

cc Chief Secretary



Agrioly

Hydatids Committee,

Stanley.

18.9.75.

The Senior Medical Officer, Stanley.



Dear Dr.Cox,

Thank you for your letter of 15th September in which you refer to two matters arising out of the recent Dogs Order.

1.Confining of Dogs. I find it difficult to follow the reasoning behind the complaint brought to the Superintendant of Police. It would appear obvious to me that a person's dog or dogs will be confined either upon a suitable place within that person's property, or in the case of a farm upon an area designated by the farm.

where, as your letter suggests, a dog is confined alongside somebody's vegetable garden, or vegetable bed, then that dog has no business to be confined in such a place.

Further if a householder does not possess any fit and proper place so to confine a dog, he would have no other course than to dispose of his dog.

I would not wish my last paragraph to sound high-handed but as you, of all people, are well aware we have here a foul disease of which we can only rid the Colony by reasonably tough methods.

With regard to 'unsuitable and inhumane enclosures' that is surely a matter for the police who it is hoped will soon commence to travel round the colony to inspect all operations and erections in connection with hydatidosis and dogs.

2. Paragraph 6. Here I would agree with you entirely. The original draft of this paragraph which was produced a year ago by this Hydatids Committee included the two words 'under control' at the end of this paragraph.

Against my strong opinion and objection Executive Council in its wisdom had these two words omitted from the final draft.

In the course of a letter on this subject to the Chief Secretary, I wrote on April 10th 1975, the following:-

"Right through the contents of this amending Dogs Order there are certain inconveniences and in a sense, hardships, but we have undertaken the task of reducing and finally we hope completely disposing of this worrying and dangerous disease from the human population."

Yours sincerely,

Ly due Mulling Chavinan, Hydatil, Comm.

MEMORANDUM

Reference AGR/10/4

Date 2nd October 1975

From

Chief Police Officer

er SECRETARY
-30CT 1975

Chief Secretary, Secretariat.

## Dogs Ordinance (Gap.21) ORDER

In accordance with section 3, of the Hydatid Eradication (Dogs) Order 1975, the section reads ...in such manner and at such intervals as shall be directed by the Governor in Council.

- 2. No such direction has been made to my know-ledge, with the result that owners, or persons in charge of a dog, could if they so wish, refuse to comply with an Inspectors requirements. This has unfortunately occurred during yesterday's dosing of dogs. Theowner has a four month old dog, but he refuses to give it an approved preparation. I am unable to prosecute owing to the Otder not having included in it, such directions by the Governor in Council.
- 3. I would be grateful if action could be taken on this matter with as little delay as possible. I do not consider that it should be necessary for the Governor in Council to deride on this matter, it could and should rest with an Inspector who is guided by the most recent recommendations of the Vet. Officer, R.W. Bostelmann.

4. No Inspectors have been appointed under the new Order.

Chief Police Officer

Artion being laken.



20th October,

75.

Mr S. Miller, J.P., Chairman, Hydatids Committee, Stanley.

Dear Mr Miller,

Attached herewith is a copy of a memorandum received from the Chief Police Officer. I should be grateful for any observations or advice you may have regarding it.

- 2. With reference to the final paragraph of the memorandum, action is of course being taken to appoint inspectors under the new Order.
- 3. Could we perhaps in the meantime issue instructions to dog inspectors setting out present practice, similar to those considered by the Hydatids Committee on 16th/51st July 1975 and appearing as Annexure II in the minutes of that meeting?

Yours faithfully,

6

(R. Browning)
for CHIEF SECRETARY

Sec 105 m AGR/7/14

Our Ref: AGR/10/4

The Hon. W. R. Juxton, Chartres Sheep Farming Co. Ltd., Chartres.

Doar Sir.

### CACING OF DOGS - FOGS (AMENDMENT) ORDINANCE

Thank you for your letter of 10th September about this matter.

I confirm that there is no intention to proceed to immediate prosecutions and, in fact, I have obtained instructions from Executive Council that I shall monitor progress, particularly during the first six months or so, to see her effective the Order is.

So far the response to the Order seems to have been markedly

As regards your suggestion that the matter should be discussed on the air, I should be perfectly willing to do this, but it would have to be handled with obvious care to avoid the sort of discussion that has accompanied this legislation through all its stages so far. In fact, I think it would be better to postpone this until the Order has been in operation for about six months because, already, there are suggestions from some quarters that the law can be made even more effective by such measures as, for instance, feeding dogs on cooked meat only.

I should prefer, at present, not to put a firm deadline to the strict implementation of the order. I enviouge that the New Your might be the most appropriate time to implement it in its full force, but if you think this is too long to wait, please let me know. In this compection, I have in mind, of course, that I have already written to farm managers (my circular letter of 24th September refers) and hopefully any discussion of the Order could include the comments produced as a result of this circular.

If there is any further clarification I can give you, or if you would like to discuse the untter with me, please do so at any time.

Yours faithfully,

A.J.P. Monk CHIEF SECRETARY

c.c. Mr. S. Miller (N.O.O.)

Could we please liaise about the eventual broadcast?

AGR/10/4

ROSS HOUSE

PORT STANLEY

FALKLAND ISLANDS

Nov. 4th, 1975.

His Excellency The Governor, Government House

Dear Mr French,

The enclosed letter from Dr Gemmell arrived with yesterdays mail from New Zealand.

He is a well-known expert on the investigation of hydatidesis and has visited South American countries several times in recent years.

Two years ago he wrote to Government and Rex Browning passed the letter on to me; I replied by the next outward mail but never heard any more until this letter now enclosed.

You will doubtless observe that I have been promoted to a Doctorate, but not specified.

However the important thing is, as you will agree, that we must arrange a visit, in December as he suggests because such a visit and investigation would be extremely valuable to the Colony for both medical and live-stock reasons.

I will confidently leave the matter to you to arrange.

Yours sincerely,

COPY

Ministry of Agriculture
and Fisheries
NEW ZEALAND

Hydatid Research Unit
PO Box 913 Dunedin
October 16 1975

Mr S Miller
Chairman
Hydatids Eradication Committee
C/- Ross House
Port Stanley
Falkland Islands

Dear Dr Miller

I shall be working on a course on hydatidosis at the Centro Panamericano de Zoonosis in Buenos Aires during November.

I am wondering if it would be possible for me to visit you and examine your control scheme sometime during early December. As yet I have no funds for the visit, but I am hoping to persuade one of the drug firms to provide finance from Buenos Aires.

I would particularly like to examine your statistical data and evaluate progress. In return I will be able to supply you with the latest information on drug research in hydatidosis and progress in the New Zealand and Tasmanian schemes.

My address during November will be C/- Dr R Rodriquez, Centro Panamericano de Zoonosis, Casilla 23, Ramos Mejia, Prov. de Buenos Aires, Rep. Argentina.

With best wishes

Yours sincerely

Sgd M A Gemmell

The Hon S Miller JP Ross House Stanley.

His Excellency the Governor has passed on to me the letter to you from Dr Gemmell.

He has asked for this to be mentioned at the next ExCo of 17th November.

In the interim doubtless you will wish to acknowledge Gemmell's letter. His address during November will be:

> c/o Dr R Rodriquez, Centro Panamericano de Zoonesis, Casilla 23. Ramos Mejia, Prov. de Buenos Aires, Rep. Argentina.

> > A J P Monk Chief Secretary

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Chief Secretary's Office Stanley.

Ref: FIS/1/13

7 November 1975

To: All Councillors
Sheep Owners' Association

Dear

I attach copies of a letter written to the Hon S Miller by Dr Germell.

I have discussed with His Excellency who has written to the Embassy in Buenos Aires to propose that we should welcome a visit by Dr Genmell. If he is unsuccessful in obtaining funds from a drug company I propose that the Falkland Islands Government should accept the costs as Dr Genmell could contribute valuable knowledge to our hydatid problem.

A J P Monk Chief Secretary

The Financial Secretary
Lt/Col the Hon R V Goss OBE ED
The Hon W E Bowles
The Hon S Miller JP
The Hon L G Blake JP
The Hon A B Monk JP
The Hon W R Luxton
The Hon R M Pitaluga OBE
The Secretary, SOA

RR FCO

EN CLAIR

FM PORT STANLEY

GR 50A

UNCLASS IF LED

TO ROUTINE BUENOS AIRES TELMO 188 OF 06 HOVENBER

COSTS OF VISIT IF HE HAS MOT BEEN ABLE TO FIND A SUITABLE SPONSOR.

2. HIS ADDRESS IS:-C/O DR R RODRIQUEZ, CENTRO PANAMERICANO DE ZOONOSIS CASILLA 23

RAMOS HAJIA PROV DE B.A.

FCO PLEASE PASS

FRENCH

MMMM

SENT AT 05 06 1342Z JMD

214 GOVERNOR FK ROBE LONDON

TTS ALL FRO ERE HAVE U ANY MORE PSE

BRATEFUL KNOW

DR GEMMELL'S RESPONSE

TO OUR INVITATION ,

the pe. ACR/7/12

214 GOVERNOR FK PRODROME LONDON

RORDS FOFI 002/28 NOV

RR PORT STANLEY

GPS 47

EN CLAIR

FM BUENOS AIRES271945Z

UNCLASSIFIED TO ROUTINE PORT STANLEY TELNO 176 OF 27 NOV/75.

OUR TELNO 175: DR. GEMMELL.

1. GEMMELL CONFIRMS THAT HE WILL ARRIVE IN PORT STANLEY ON 1 DECEMBER. GRATEFUL YOU MAKE RETURN BOOKING ON LADE FLIGHT ON 8 DECEMBER. FLIGHT IS FULLY BOOKED AND LADE WILL ONLY ACCEPT RESERVATION OF ONE OF FIG'S SEATS IN PORT STANLEY.

ASHE

NNNN

Hon. S. Mille confirms DR GEMMELL will depart monday 8 Dec.

SEN

SENT AT 281338Z AW

214 GOVERNOR FK

SE

tie me. AGR/7/12

### BROADCAST NOTICE



### ANNOUNCEMENT FROM THE SECRETARIAT

Among the passengers who arrived on today's F27 aircraft was Dr Michael A Gemmell of the University of Otago Medical School, Dunedin, New Zealand.

Dr Gemmell is a well-known authority on hydatid disease and is at present visiting South America in connection with an international campaign to eradicate, or control, the disease.

He will be staying in the Colony for a week and, while here, will be visiting the Camp.

At 8 p.m. on Friday, 5th December, he will be giving an illustrated talk on hydatid disease in the Town Hall, and members of the public are invited to attend.

Dr M.A. Genmell - Provisional Schedule for his visit during week Dec. I to 8.



Monday Arrives. Ress House for lunch; to G.H. early pm.
Dec. I Back to Ross House to examine statistics and
hydatid literature.

6 pm. Conference with hydatid Committee in Conference Room.

Return Foss House where he will stay the night.

Tuesday
Dec. 2. By air with S. Miller to Darwin Harbour.

Wednesday Dec. 3. " " to San Carlos (?) or other famm.

Thursday
Dec. 4. " " to Port San Carlos.

Priday.

Dec. 5. " " back to Stanley. Studio in pm for taped inter-view with Dr. Cox and S. Miller.

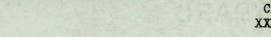
8.80 pm Lecture and Slide Showing Town Hall for the General Public.

Saturday
Dec. 6. Interview and discussions with Dr Cox at the Hospital.

IO am (or suitable time).

During the week-end see the Governor again for final discussion.

Monday Dec.8. Depart for Argentina.



20th December, 1975

Dr. M. A. Gemmell, Centro Pan Americano de Zoonosis, Casilla 3092, Correp Central BUENOS AIRES

sent via boward hance.

### HYDATIDS

I found discussions with you extraordinarily useful and the opinion here seems to be unanimous that your visit was mott timely and valuable in clarifying our position as regards Hydatids eradication. I hope that something really worthwhile and long-lasting will emerge from your visit. When you were here you mentioned that you would be writing about the possibility of secondment (on aid terms if possible), of an Inspector from New Zealand. We all agreed that this would be extremely useful.

~/

I don't know if we touched on this at the time, but I should value your views on whether there is any chance of persuading the W.H.O. to undertake a control eradication campaign in the Colony. As you have now seen for yourself, the situation in the Falkland Islands is such that a control scheme could be very closely observed and could, in fact, turn out to be a "laboratory" for study of the disease.

I hope my letter will get to you in time to give you information about an appointment we have just made to fill the Veterinary Officer's post. The officer concerned is Mr. R. T. Whitley who could probably most conveniently be contacted through Miss Huish in the F.C.O. I have accordingly sent her a copy of this letter. In a separate letter, I have already mentioned to Mr. Whitley that I think he would find it most helpful to meet you while you are in the U.K. en route from New York to New Zealand and I shall be most grateful if you could possibly spare the time to put him in the picture generally about Hydatids and in particular about our situation.

With very best wishes and thanks for a most helpful visit.

.J.F. Honk CHI WE SECRETARY

c.c. Miss J.C.S. Huish, W.I.A.D.

Agreplie



BRITISH EMBASSY

BUENOS AIRES

24 December 1975

A J P Monk Esq Chief Secretary PORT STANLEY



Dear Shun

- 1. Thank you for your letter) of 21 December enclosing a letter for Dr Gemmell.
- 2. Unfortunately Dr Gemmell has already left Buenos Aires to continue his travels; I gather he will be reaching New Zealand some time early in the New Year. I have accordingly readdressed the letter to him there.

H J S Pearce

pur eve,

(13)

### HYDATIDS COMMITTEE

Minutes of the twelfth meeting of the Committee held on Monday, 12th January 1976 in the Conference Room, Secretariat

PRESENT: Mr S Miller, JP - Chairman

Mr L J Butler

Dr F C Cox, MB, ChB, MRCP Lt Col R V Goss, OBE, ED

Mr L J Halliday Mr R W Hills Mr C D Kerr

Clerk : Mr R Browning

- 1. The Report on the Control Programme directed against Hydatidosis (Echinococcus granulosus) in the Falkland Islands by Dr M A Gemmell, dated December 1975, was considered. The meeting formally adopted the Report and unanimously agreed to advise Covernment to accept all the recommendations made in it.
- 2. The Committee decided that it would be most useful if the Hydatid Control Officer (see paragraphs 10.1 and 10.2 of the Report) could be selected and in post by the second half of April. They considered also that steps should be taken now to recruit the person whom the Officer would be training. It was envisaged that one person in addition to the Veterinary Officer would be sufficient, and that although such a person would probably not be a full time officer it might be possible for him to combine his duties as an hydatid control officer with other duties in the Agricultural Department. The advertisement calling for applications from persons willing to be trained should issue as soon as possible.
- 3. The Committee felt that the diagnostic survey using arecoline hydrobromide as the test agent should continue under the supervision of the Veterinary Officer after the departure from the Colony of the Hydatid Control Officer.
- 4. With regard to Recommendation 10.4 in the Report, it seemed that the most convenient time for the Senior Medical Officer to visit the CEPANZO in Buenos Aires would be mid-February. It could be expected that his visit would be of one or two weeks duration depending on the actual agreed form the seriological survey and analyses would take. The Committee were of the opinion that it was essential that the visit took place. They also recognised that it might prove advantageous for Mrs Jane Harrison, the Laboratory Technician at the Hospital, to visit the CEPANZO also.
- 5. The Committee looked forward to the early implementation of all the recommendations made in the Report.
- 6. The Committee asked that if, because of staff shortages, the Police Iepartment could not enforce the Hydatid Eradication (Dogs) Order 1975, consideration might be given to empowering some of the inspectors so to do.

HYDATIDS COMMITTEE. Ross House. Stanley.

The Hon.

The Chief Secretary. STANLEY.



Jan. 13th, 1976.

Sir.

At a meeting of the Hydatids Committee held yesterday evening in the Conference Room in the Secretariat, the Committees studied the Report on our control programme written by Dr. M.A. Gemmell of Dunedin, New Zealand at the end of his week's visit to this Colony which was especially to investigate and advise upon our hydatids problem.

The Report was considered by the whole Committee as being very comprehensive and extremely well put together.

We considered that Dr. Gemmell's recommendations should be

implemented by Government as early as can be arranged.

In particular we recommend that Dr.Gemmell's recommendations 1. on page 8 and 4 on page 9 be given particular and very early attention by Government; in connection with 4, the contact to be arranged for the Senior Medical Officer and the Immunologists of CEPANZO in Buenos Aires could best be arranged during next February. This date is suggested by the S.M.O. himself and he also thinks that for the actual serological survey, it would be both beneficial and save a lot of instruction time if the Laboratory Technician, Mrs Jane Harrison, could accompany the Senior Medical Officer to Buenos Aires.

Deliberations in connection with both the appointment of an overseas Control Officer and the selection of a local officer to be trained by the overseas officer, would best be made by Executive

It would seem necessary also for some legislation to be effected by further Amendment to the 1975 Dogs Order in order that any Control Officer can effectively set up a diagnostic dog survey upon any sheep farm at any time.

I would appreciate a discussion on this letter and the Minutes of yesterday's Hydatids Committee Meeting, later this week so that Dr. Gemmell's recommendations can be put into effect as soon as possible.

> Yours faithfull Ly ducy Mullin

Hydatids Committee.

Control ficer waddle from N.2. (ex 6.10 ander) ofor Tasmania -2 1/c in Tasmanian Hydelids Right. 513/4

# ERADICATION COUNCIL Newsletter

No. 37 April, 1973

G.P.O. BOX 407 D, HOBART TASMANIA, 7001, AUSTRALIA

Telephones: 23 2266, 637 321



Control dogs at all times and feed them only prepared dog foods

# WORLD AUTHORITY ON HYDATIDS VISITS TASMANIA



Dr. Michael A. Gemmell has just paid a visit to Tasmania to discuss with officers of the Department of Agriculture programmes for the control of hydatid disease and cysticercosis.

Dr. Gemmell is the Director of the New Zealand Hydatid Research Unit where he has been engaged in extensive research work for the past fifteen years.

He is one of the world's leading authorities on hydatid disease and he travels extensively.

His research output has been enormous and it is hard to find an article on hydatid disease anywhere in the world in any language which does not contain his name (often in 2-3 places) in the list of references.

His first work with hydatids was in 1954 when, as a research Fellow, holding the George Aitken Pastoral Research Fellowship, he undertook extensive surveys of hydatid disease in rural dogs and sheep in N.S.W. and initiated a small pilot trial in the Gundagai Pasture Protection district. This was, in fact, the first attempted control trial in Australia.

Dr. Gemmell gave three lectures at a recent Hydatid Inspectors School in Launceston and met members of THEC at a special meeting in Oatlands.

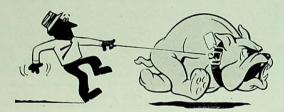
Subjects included Cysticercosis in food animals, anthelminthics, cysticercosis research, and hydatid control in other countries.

More details in our next issue.

### LET'S TALK DOGS

By courtesy: Dept. Capital Territory





# IS DOG CONTROL NECESSARY?

### CANBERRA'S PROPOSED

DOG ORDINANCE

Dogs have been controlled in Canberra for the past twenty years, but the Department of the Capital Territory now proposes to give more emphasis to dog control.

The New draft Dog Ordinance presented to the A.C.T. Advisory Council in September, proposes to increase registration fees from \$1.00 to \$2.50 for sterilised dogs and from \$1.00 to \$5.00 for unsterilised dogs. It also proposes fines ranging from \$20.00 to \$50.00 for dog offences.

The suggested cost of retrieving a dog from the dog pound will be \$8.00 for the first day, \$13.00 after two days and \$18.00 for three or more days. The dog will be destroyed if it is not collected within five days.

Maximum penalties of \$50.00 are pravided if a dog, other than a guide dog, is on school or kindergarten grounds without the permission of the headmaster.

The draft ordinance released for public comment has brought in a spate of letters from residents both supporting and condemning the new laws.

The section which has aroused most comment has been the one which carries a penalty of \$50 for the offence of permitting a dog to defaecate anywhere than on the land of its keeper without either removing or burying the faeces.

"No longer will it be enough to take leash, pipe and tobacco when walking the dog" says one Canberra newspaper, "you will also need your spade and bucket."

But dog breeders and welfare organisations in Canberra have welcomed the Department of the Capital Territory's proposed firmer controls on dog owners.

SPCA Inspector Mr. Alan Sims said "Canberra in common with other cities, has too many dogs. The best method of controlling the population problem is de-sexing."

An editorial of the Canberra News, however, is headed "The Council Turns on our Pets," which it says "it is determined to push out of the city and territory."

"Having cleaned up the dogs" it says, "the council will now presumably turn to Canberra's cats and then probably start phasing out the budgies."

But the majority of readers' letters condemn the stray dogs of Canberra which have been allowed to wander at large, fouling footpaths, nature strips and private gardens. One reader — a keen gardener — goes so far as to say that if a dog fouls her garden again, she will return the faeces to the owner's letterbox.

But there must be some grounds for complaints about stray dogs, as the official figure for dogs destroyed at the pound in 1970-71 was 2,540 and the total amount of dog control expenditure for the same period was \$25,994.

An important aspect of the dog nuisance in Canberra is the fact that the planning authorities do not permit the erection of front fences.



# TENTH INTERNATIONAL CONGRESS OF HYDATID DISEASE



In our last issue we reported on the hydatid campaign in Cyprus which was discussed at the above conference.

Dr. Beard attended this congress which was held in AREQUIPA, PERU, from 22nd to 27th October, 1972 and sent us these additional notes.

Most of the world endemic centres of hydatid disease were represented at the Congress with the bulk of the audience from South American countries. Over 120 papers were given, more than half of which were clinical, and two of these were given by Dr. Samuel Fitzpatrick, of Hamilton, Victoria. Other papers dealt with epidemiology, immunology and control. The official languages were Spanish and English, with facilities for simultaneous translation, but several European contributors used French, which was generally translated only into Spanish.

A paper by Dr. Rausch of Alaska listed the biological and morphological criteria at present used in distinguishing the species of Echinococcus. Dr. Varela of the Panamerican Zoonoses Center, Buenos Aires, gave eight papers with various other authors on the immunodiagnosis and other immune phenomena of human hydatid disease and Dr. Ferreti of Italy, who attended in a wheel-chair due to the after effects of poliomyelitis, gave a paper on immune reactions to the larval stage of Cestodes which stimulated considerable interest.

Dr. Gunnel Huldt from Sweden described her investigations in the sacrology of the sylvatic (wild) strain of E. granulosus infection in the human, which occurs in Alaska, Northern Canada and Lappland. This strain involves the walf and reindeer and produces eyels which pursue such a benign course in the human that surgery is not indicated. It is extremely difficult to demonstrate antibodies in Lapps with hydraid disease.

Dr. Kagan of the Communicable Discusses Center, Atlanta, Georgia, gave a paper on laboratory diagnosis and another on the epidemiology of the disease in North America, where both sylvatic and pastoral strains occur, Small pockets of the pastoral strain have been identified in the Western United States, and in one area the disease is about as prevalent as in rural Australia. In Fountain Green, Utah (pop. 467), population screening by blood tests and a modified skin test led to the discovery of 3 new cases with liver cysts, later confirmed surgically.

The pastoral strain, which is the universal one in Australia, goes through dogs and sheep. This one can be dangerous in humans and often gives demonstable antibodies. Like other strain differences, this one depends on ecology rather than climate because it was well established at high latitudes when it was endemic in Iceland.

The serological diagnosis of hydatid disease is receiving considerable attention in the overseas endemic areas. There are many laboratory techniques available now, but no test is entirely free from false positives, and there are many patients with lung cysts (detected by X-ray and confirmed at operation) whose blood tests and skin tests have been negative. This may be because some patients do not have circulating antibodies.

#### INFECTION IN DOGS

In nearly all parts of South America where surveys have been made of the prevalence of infection in dogs, the rates often approach 30 per cent in rural areas. Prevalence in city dogs is low but probably significant considering the human population at risk. A recent survey of 1000 stray city dogs in Lima, Peru, revealed 6 infected dogs, roughly matching the 1.0 per cent prevalence found there in 1952.

(Continued on Page 8)

### MUNICIPAL COUNCILS WILL NOT PAY FOR HYDATID TESTING

There still seems to be some doubt in the minds of local Government authorities about paying \$2.00 per dog to the Department of Agriculture for the testing of dogs for hydatids in their municipalities.

Although this was the case under the previous arangements when councils signed agreements with the Minister, this method of paying for the campaign ceased in June 1971.

As reported in our Newsletter No. 35 of October, 1972 the Minister for Agriculture, Mr. Costello, wrote to T.H.E.C. stating that the monies currently collected by municipal councils under their dog tax would not be required for testing fees.

In the opinion of T.H.E.C., this does not mean however that dog licence fees should be lowered. It means that more money will be available to councils to enforce the local Government Act in relation to dog control. Revenue from dog registrations should be used to pay for dog rangers' wages, transporting of stray dogs, pound facilities, registration discs and associated clerical expenses.

It appears that many councils have been collecting \$2.00 per dog for the last 2 years and have allowed dog owners to continue to believe that the money is required by the Department of Agriculture for dog testing. In fact the money is not used at all for that purpose.

We wonder just how much of the dog tax is in fact used for matters concerning dog control.

### FED OFFAL - FINED

### MORE PROSECUTIONS

In December last year a man was fined \$10 and \$2.70 costs under the Stock Act in the Campbell Town Court for failing to dispose of sheep carcases. This was the second offence for this sheep owner. He was fined on a previous occasion. The Court took into consideration an offence committed at the same time, for cruelty to animals, for which the defendant was convicted and fined \$60 and costs.

#### FEEDING OFFAL TO DOGS

An Oatlands man was also fined \$10 and \$2.75 costs at the same time under the Police Offences Act for allowing a dog access to offal. Evidence was given by the district Veterinary Officer and the local Police Constable that they had seen a dog chained up and eating offal. The presiding Justice, Mr. Webster, said the Bench found the offence proved as the dog was under the defendant's control at the time. (Maximum penalty for this offence is \$80).

### Hydatid Black Spots



During the testing of dogs in March 1973 seven positive dogs were found. Six of these came from RICHMOND and one from ROSS.

Other areas where a high incidence has been found during the current financial year are SPRING BAY eight; KENTISH, NEW NORFOLK, and GREEN PONDS with six each, and five in BRIGHTON.

What is the reason for these sudden fresh outbreaks? Are some dog owners still deliberately feeding offal, or is it because some dogs have access to offal or dead sheep through lack of proper dog control?

#### HUMAN INCIDENCE

There have been four human cases in the SPRING BAY MUNICIPALITY and five cases in the NEW NORFOLK AREA over the past two years.

Testing of dogs is at present being carried out in the municipalities of CLARENCE, DELORAINE, PENGUIN, RICHMOND, RINGAROOMA, ROSS and SCOTTSDALE.

# WHO'S WHO IN T.H.E.C.



MR. R. J. (REX) MUNDY

Mr. Rex Mundy is Secretary of the Southern Tasmanian Division of the Meat and Allied Trades Federation of Australia and was nominated as a representative on the Tasmanian Hydatids Eradication Council in October, 1970.

Mr. Mundy replaced Mr. A. C. Allen, past President of the M.A.T.F.A., who died in the same year.

Rex Mundy is the Executive Assistant to the Managing Director of Richardson's Meat Industries and a member of the Tasmanian Meat Industry Advisory Council.

He is also a grazier and is therefore fully aware of the hydatid problem in Tasmania, in all its aspects.



B. P. BRACKEN P. & F.

Mr. Barry Bracken was nominated by the Parents & Friends' Association to be a representative on THEC in June 1969, and has attended meetings regularly since then.

At last year's Annual General Meeting he was elected to the executive of THEC.

As well as being president of both The Tasmanian Council and the Northern District Council of the P. & F. Association, he is the Tasmanian delegate to the Australian Council of the P. & F. Association.

He is also an executive member and past president of the Prospect High School P. & F. Association.

As a result of his position he is able to make parents and friends more receptive to the importance of Hydatid control. He can thus influence the thinking of a large section of the community toward adoption of control measures which are a vital part of the educational programme in this state.

### HYDATIDS IN OTHER COUNTRIES

INDIA. Dr. Prakash, from New Delhi, India, a regular reader of our Newsletters, sent us his paper on hydatid infection in man and animals in and around New Delhi. Medical records from two New Delhi hospitals from 1962-1965 showed an average of 3 hydatid cases per 10,000 hospital admissions. Six dogs from 130 examined (4.6%) were positive for adult hydatid worms. These were stray dogs captured from the city.

About 9 per cent of sheep and goats slaughtered in New Delhi were found to have hydatid cysts.

In 1940, 18 out of 100 dogs examined in Calcutta were positive to **Echinococcus** granulosus. (18%).

In a small town in the Punjab (Rajanpur) 156 dogs were examined for hydatid worms in 1938 and 28% of them were positive.

(by courtesy Bull. Ind. Soc. Mal. Com. Dis.22)

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ESPLANADE LAUNCESTON

SALAMANCA PLACE HOBART

### CONGRATULATIONS

Since celebrating the 10th anniversary of the formation of the Tasmanian Hydatids Eradication Council, letters of congratulations were received at the THEC office from Cyprus, Greece, India and New Zealand.

Dr. Polydorou, chairman of the Central committee of the Anti-Echinococcus campaign in Nicosia, Cyprus wrote:—

"I should like to use this occasion to convey our best wishes to you all and to congratulate you for the progress made so far in the eradication of hydatids from Tasmania".

"We would also like to take this opportunity to wish you every success in the future. (They intend publishing an article on the Tasmanian campaign in their bulletin).

### Dr. S. Prakash wrote from New Delhi:-

"Please accept my heartiest compliments and congratulations on the ten years celebration of Tasmanian Hydatids Eradication Council's hard work. I thank you very much for the Newsletter which I have been receiving so regularly".

Dr. A. Andriopoulos of the Ministry of Agriculture in Athens who is responsible for hydatid control in Greece wrote to thank us for the News letters and wished us progress and successful results to our endeavour.

The New Zealand Hydatid Council congratulated THEC in an article in its latest News Bulletin.

### DEPARTMENTAL OFFICER TRANSFERRED

Mr. John Elliott, Veterinary Officer (Disease Control) recently took up duties in Launceston. He will assist the Veterinary Specialist Officer (D.C.) and will be taking an interest in the Hydatid Programme. In particular he will be making periodical visits to testing strips and district offices.

# NEWS FROM A.C.T. HYDATID CONTROL COUNCIL

We reported in our last Newsletter that the A.C.T. had set up a hydatid control council. It held its fourth meeting in February.

A deputation from the council including Dr. Beard (who is Secretary) had spent a day at Cootamundra in N.S.W. in December as guests of the district hydatid control committee there.

The Jindalee Shire council and Hydatid committee were the first group to launch a hydatid campaign in N.S.W. and Cootamundra was selected by the Division of Health Education as their first pilot scheme.

The municipal offai pits were examined by the group as well as some excellent killing sheds, offal pits and dog pens on local properties.

Mr. Howkins and Dr. Beard attended a meeting of the Cootamundra hydatid committee in February which reported on a survey of 85 local properties. In its two years of existence this committee has had a profound effect on local public opinion.

#### TRAINING FIELD STAFF

The A.C.T. Health Services proposes to send two health inspectors to Launceston (Tas.) this year to attend the training course for District Hydatid Inspectors in preparation for the commencement of testing of dogs in the A.C.T.

# HYDATID INFECTION IN SHEEP (N.S.W.)

The large export abattoir at Cootamundra reports hydatids in every single consignment of sheep it receives and this includes many consignments from the A.C.T. Of mature sheep, about 60 percent have hydatid cysts. Losses from condemned offal are estimated at \$2000 per month.

# OWNERS OF POSITIVE DOGS TO PAY MORE

Owners of dogs found positive to the hydatid tapeworm Echinococcus granulosus by the Department's testing teams will now have to pay \$5 per dog for the compulsory treatment with bunamidine. Previously the charge was \$2 per dog. If a man has only one positive dog, all his other dogs must be treated with the same drug at a cost of \$5 per dog.

# DERWENT VALLEY HYDATID CASES

Although it is hard to find a satisfactory reason, hydatid disease has always been particularly prevalent in the Derwent Valley and this part of the state seems to have more than its fair share of human cases.

In the early days of the campaign many cases of hydatids were reported from the Derwent Valley and this year again unfortunately there have been another three cases.

During the 20 year period from 1950-1969 there were no fewer than 31 cases notified in the Hamilton and New Norfolk municipalities. (This would probably be only half of the actual cases). After Hobart, New Norfolk had the highest number of notifications in the state (24).

A New Norfolk doctor thinks one of the reasons is that in this area there would be a greater risk of human contact with any infected dog than in other parts of the state. This is possibly because in the Derwent Valley most of the properties are small farms and every sheep farmer would have his own dog which goes with him everywhere and therefore comes in contact with more people.

During the past two years there have been five cases from the Derwent Valley in patients residing in Westerway, Ouse, Magra, New Norfolk and National Park.

### TENTH INTERNATIONAL CONGRESS (From Page 3)

### CONTROL PROGRAMMES

The control programmes discussed were those of Argentina, Spain, New Zealand and Cyprus. Dr. Pablo Purriel who is now Minister of Health in Uruquay, was to have spoken on an important pilot project in the Department of Flores, which has completed its first year of operation, but neither he nor his colleagues in the project were able to attend. The Tasmanian control programme was not described but a paper on the falling human incidence in Tasmania discussed its possible influence.

In collaboration with the Panamerican Zoonoses Center (PAHO/WHO) in Buenos Aires, the Department of Public Health of the Provincial Government of Neuquen in Argentina is conducting a mass anthelmintic dosing programme. This was described by Dr. de Zavaleta. Arecoline is being used, for economic reasons, and mass treatment is considered to be justified as an introductory measure to reduce the very high infection pressure. Dr. Sanchez Perez described another systematic arecoline dosing scheme in the Province of Avrila, Sprin.

Dr. Gemmell gave an outline of the New Zealand control programme, which started as a voluntary scheme to control a disease communicable to humans, developed into an official scheme for the same purpose, and more recently has taken on added responsibility to control other cestodes. Three tapeworms (E. granulosus, Thydeligens and T. ovis) are now defined as "hydatid worms" under the New Zealand Hydatids Act (1963), and there have been penalties (re-dosing fees) since 1968 for the owner of a dog showing any of these worms on test. A search for safe and effective taeniacides has been initiated.



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A COMPLETE AND BALANCED RATION FOR THE PREVENTION OF HYDATIDS

AND SHEEP MEASLES

20

Ref: AGR/7/12 C

16 January 1976

Dr M A Gommell

Rydatid Research Unit

Medical School P O Box 913

Dunedin New Zooland

cc D G F Hall Eng MDE LAD FCO

Miss J C S Muish WEAD FCO

I refer to your Report (copies of which I attach to the other addresses) and shall be nost grateful if you will please, as soon as possible, let me have your advice on the two matters I wrote to you about in my letter of 20th December concerning the appointment of an Inspector for the Colony, and also a WHO-mounted control campaign.

- 2. I have written also to the Tasmanian authorities (through David Hall,FCO) asking for copies of the Tasmanian legislation which our Hyd tids Committee consider essential.
- 3. My earlier letter was sent to you through Howard Pearce, from our Embassy in Buenos Aires, but I understand it missed you there and was forwarded to New Zealand. In it I had expressed the hope that you would be able to meet our new Veterinary Officer, Mr Whitley, while you were on route in UK, but doubtless this opportunity has now slipped by.

A J P Honk Chief Secretary

(%)

Ref: AGR/7/12A

16 January 1976

D G F Hall Esq MBE (2) Latin American Department Foreign & Gommonwealth Office London SWIA 2AH

### TAS ANIAN HYDATIDS

I shall be most grateful if you will please send a copy of this letter to the Tasmanian Authorities with a request that they send me direct, as soon as possible, a copy of their legislation relating to the control of Hydatids.

A J P Monk Chief Secretary



23rd January, 1976

Our Ref: AGR/7/12A

D.G.F. Hall, Esq., MBE, L.A.D., Foreign and Commonwealth Office, LONDON SW1A 2AL

### HVDATIDS INSPECTOR

I attach a Report compiled by Dr. Commell on our programme for Hydatid Control.

You will note that he recommends the secondment here of a qualified and experienced Inspector to assist in the testing of dogs. Dr. Germoll has suggested that he night be able to obtain a suitable candidate for us and he recommends that this Officer should be attached here for three months.

This would seem to be an immensely suitable matter to be dealt with under the technical assistance aid programme and I should be grateful if you could give agreement in principle for this to proceed.

I have copied this letter to Dr. Gemmell in New Zealand with the hope that he can liaise direct with you about the nomination of a suitable person to undertake the work.

> A.J.P. Monk CHIEF SECRETARY

c.c. Miss Huish, W.T.A.D. Dr. Gommell

# REPORT ON THE CONTROL PROGRAMME DIRECTED AGAINST

# HYDATIDOSIS (Echinococcus granulosus)

## IN THE FALKLAND ISLANDS

(December, 1975)

M. A. Gemmell
Hydatid Research Unit,
Medical School, P. O. Box 913,
Dunedin, New Zealand

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### Introduction

The Falkland Islands are a British Crown Colony situated in the South Atlantic about 300 miles east of the Straight of Magellan, and 1,000 south of Montevideo. The group contains two large islands and about 100 small ones, with an estimated land area of 4,618 square miles. The chief industry is sheep farming with an export of wool.

Annual reports are made of all livestock, including dogs (Sect. 40 Livestock Ordinance, Cap. 40). A comprehensive evaluation of the sheep and cattle industries has recently been made (Davis, Dickson, McRea, Mead and Williams, 1971). Reference should be made to these for livestock numbers, farming practices and the livestock industry. Briefly, there are about 800 dogs and 600,000 sheep. This report summarises the problems caused to human health by the hydatid organism Echinococcus granulosus, a parasite of dogs and sheep.

In size, the Falkland Islands are about one quarter of the land area with 1/50 of the dog population of Tasmania. Both countries have similar control programmes. Recommendations are made for the successful prosecution of the control programme, based on personal observations and discussions held with members of the community concerned with the control of hydatidosis in the Falkland Islands. Comparisons are made between the control programme in the Falkland Islands and current control practices in Tasmania and New Zealand.

# 2. Mchinococcus granulosus and its Spread in the Falkland Islands

Both cattle and sheep were introduced into the Felkland Islands before 1800. Further introductions of sheep continued during the next 100 years from such endemic areas as Uruguay and Chile. From 1900 the Colony became self-sufficient for livestock. No records have been cited indicating that Echinococcus granulosus was present during the 19th century. This was quite different to the immediate introductions of hydatidosis that occurred during colonization of Australia and New Zealend.

The first possible record of hydatid disease in man was recorded by Cheverton (1936). This case was not documented and remains unconfirmed. Hydatidosis was reported in 1941 to be uncommon in sheep (Gibbs, 1946). Subsequent studies are in conflict. Fletcher (1953) reported a prevalence rate of about 3% in aged sheep, whereas Rippon (1954), without giving rates, reported that hydatidosis was common in cattle and sheep. A comprehensive survey of ovine hydatidosis was undertaken in 1969/70 (Davis et al., 1971). This survey indicated that ovine hydatidosis was not only common, but existed on almost all properties in the Colony.

It is difficult to understand why the parasite failed to become established in the extensive sheep flocks during the early period of settlement. Almost certainly it must have been introduced on several occasions. Surveys and discussions with workers engaged in the sheep industry tended to confirm that the parasite was uncommon until about 1950. From that time, its spread was rapid. Just preceding this decade introductions of sheep were made from known endemic sources such as New Zealand and Chile. It is conceivable that these recent introductions provided sufficient parasitic material to establish the life cycle and permit a rapid spread.

Some confirmation has been obtained from human case histories that the decade 1950-1959 was an important period, during which there was an exponential increase of hydatidosis in livestock. The first confirmed case of hydatidosis was recorded in 1966. This was followed in 1969 by a further case. Since 1970 the average incidence rate of human hydatidosis has been 2 per 2,000 inhabitants per annum.

There are a number of important epidemiological factors that require to be investigated. These include:
(a) factors limiting the spread of hydatidosis in domestic livestock prior to 1950; (b) factors leading to the rapid spread of hydatidosis in the sheep flocks during the decades 1950-1959 and 1960-1969; (c) the impact of this exponential increase in ovine hydatidosis on present and future human health.

## 5. Structure and Function of the Control Authority

The Falkland Islands Government is directly responsible for the introduction of legislation and the prosecution of the control programme directed against hydatidosis. The Departments most involved include Agriculture, Health, Education and Police.

Following the enactment of Ordinance 12A - (a bill that amends the Dog Ordinance Legislation), further legislation is implemented by the Governor by Orders made in Council. Four Orders have been made. These were the Dogs Ordinances (Cap. 21) 1965, 1970, 1973 and 1975.

An Advisory Committee directly resonsible to the Government was set up in 1969. The Chairman is appointed by the Governor. Ex Officio members include the Police Department, Health Department and Agricultural Department. Nominees of the Chairman include: representatives of the Trade Union, Falkland Islands Butchery and Sheep Owners' Association.

The Advisory Committee determines policies, methods and priorities, and recommends to Government the appropriate legislation required to implement the policies. The Order in 1975 (Hydatids Eradication (Dogs) Order), consolidates previous legislation and defines the methods currently employed for the control of hydatidosis.

These structures and functions do not differ very widely from those established in Tasmania.

# 4. Current Measures and Methods Used for Control of Hyderidosis

Dog Control Inspectors, mainly managers of farm properties or their deputies, were appointed in 1970. Their responsibilities include: (a) registration of dogs; (b) de-worming of dogs by drugs; (c) supervision of disposal of raw offal. In 1975, this responsibility was increased to include the supervision of effective dog control and housing of dogs. In 1975 also, Hydatid Inspectors were appointed to collaborate with the police, to ensure that all measures were being implemented effectively. Penalties for obstructing the Hydatid Inspectors and police, and for non-compliance with the Ordinances include fines not exceeding £200 for the first and £500 for subsequent offences.

Registration of dogs is compulsory on farms, but fees are only payable for those dogs retained in the township of Stanley (40 dogs belonging to 1,000 persons).

Treatment of dogs is compulsory, and the drug must be given every three months. The current drug of choice is bunsaidine hydrochloride, given at a dose rate of about 40mg/kg.

# 4. Current Measures and Methods Used for Control of Ardatioosis (continued)

Methods of disposal of offal include burning, burial, boiling for two hours or disposal in covered receptacles for 28 days, with subsequent release mainly into the sea, with destruction by sea birds.

There are a number of similarities and differences between these measures and those applied in Tasmania and New Zealand. First, all inspectors are voluntary agents in the Falklands, whereas paid staff only are employed in hydatid control in Australasia. Second, methods of disposal by using covered receptacles for 28 days and subsequent release into the sea have not been recorded in other control programmes.

### 5. Observations on the Implementation of Control Policies

As previously stated, there are only about 800 dogs associated with 600,000 sheep. The method of sheep farming is extensive, and sheep are brought into contact with dogs in the home paddocks only about twice each year. Thus, for most of the year, contact between the sheep flocks and dogs is relatively infrequent, and the opportunities for infection of sheep are restricted to short periods.

To achieve an effective age structure, large numbers of sheep are killed each year at about 7 years of age. Disposal is by burning or placement in dog-proof fenced areas. Sheep, however, are killed throughout the year for human consumption and for dog food. Thus, opportunities could exist for dogs to gain access to raw infective offal.

In the township of Stanley, an official abbatoir under the supervision of the Health Department provides fresh meat for human consumption. Up to 170 sheep are killed there each week. Again, opportunities exist for access to raw offal by dogs.

As far as observations could be made, all measures cited in the Ordinances were being complied with. No evidence was found that dogs were not under effective control. Evidence was obtained that offal and dead carcases were being disposed of in accordance with the Ordinances on the farms visited and at the abbatoir.

It was evident, however, that no testing technique using arecoline hydrobromide had been applied. It is this lack of intelligence information which makes it very difficult for the Hydatid Committee to determine the effectiveness of implementation of its policies by the dog-cwning community. The use of arecoline hydrobromide for detecting accidental or even deliberate breakdowns in control has formed the basis of the control programmes in both New Zealand and Tasmania. There, experienced workers are available as advisers on control programmes.

# 5. Observations on the Implementation of Control Policies (continued)

### It is recommended:

- 1. That an experienced Hydatid Control Officer from either New Zealand or Tesmania be seconded for a period of about 3 months, to set up a diagnostic survey using aracoline hydrobromide as the test agent, and that he trains others to continue this service as and when required by the Hydatid Advisory Committee;
- 2. That this Short-Term Consultantship should preferably be undertaken when a veterinarian has assumed his duties, and that appropriate funds be obtained for the Consultantship.

### 6. Measurement of Progress in Control

Surveys on hydatidosis in sheep were carried out in 1969/1970 by Davis et al. (1971) at the Stanley Abbatoir and on farms. No problems were encountered in identifying the origin of the sheep. Since 1970, comprehensive records of infection rates in all sheep killed at the Stanley Abbatoir have been kept. Further studies by the writer tended to confirm that at least on some farms, there had been substantial reductions in the prevalence rate of hydatidosis in adult (7 year-old) sheep. No evidence could be obtained that the prevalence rate of Taenia hydatigens had been modified, and Taenia ovis was confirmed in sheep hearts.

There is a long period between infection and autopsy of sheep. Several more years will be required before a comprehensive analysis can be undertaken. It is emphasised here that the data obtained have some in-built errors, due to the inclusion of lesions caused by other organisms (e.g. Taenia hydatizena and Oseous lymphadenitis). Nevertheless, the data recorded in the annual surveys are of real importance to the appraisal of the control programme. Indeed, they represent a comprehensive record of changes in the prevalence rate since the initiation of the programme.

#### It is recommended:

3. That only clearly identifiable cysts be recorded as Echinococcus granulosus, and other lesions which might be suspected of being hydatid should be recorded separately as 'doubtful'.

### 7. Human Health

The detection of hydatidosis in man usually follows within about 40 years of the introduction and spread of Echinococcus granulosus in domestic animals. If it is accepted that an exponential increase in hydatidosis occurred in domestic animals during the decades 1950-1969, then it seems very likely that at the present time there are a number of undetected cases of hydatidosis in the human population.

It appears that few, if any, difficulties may arise in the collection of serum samples from the majority of permanent residents of the Falkland Islands (Cox, 1975, pers. contact). Recently, specific serological tests have been developed for the diagnosis of human hydatidosis at the Centro Panamericano de Zoonosis (CEPANZO)(Pan American Health Organization) in Buenos Aires. Thus, both serum samples and specific tests could be made available to test the human population for hydatid disease.

There are very good reasons for identifying cases of hydatidosis before they induce clinical symptoms. Such a survey, with subsequent clinical confirmation and medical action, will remove the majority of human cases within the period when the control programme in animals should reduce the chances of further cases to almost zero.

#### It is recommended:

- 4. That contact be made at the scientific level between the Medical Officer of Health, Falkland Islands, and the Immunologists at CEPANZO, with a view to carrying out a serological survey on human hydatidosis;
- 5. That following (4), approval for a collaborative project should be made through the appropriate channels of the Falkland Islands Government and the Pan American Health Organization.

# 8. Collaboration with other Countries involved in Hydatidosis Control

The model set up in the Falkland Islands for the control of hydatidosis is of real importance to other countries with similar problems. There is a need to publish the methods used and progress made in control at the international level. Furthermore, contact should be made with other countries operating similar programmes. Incouragement should be given for a wide range of investigations. These include the factors responsible for the absence of hydatidosis until very recently, and those responsible for the exponential increase from about 1950 converds.

### 8. Collaboration with other Countries involved in hydaticosis Control (continued)

Such information would be of value internationally. In this regard, both New Zealand and Tasmania have similar control programmes. It is anticipated that the International Congress of Hydatidosis may be held in Tasmania in either 1977 or 1980. The opportunity for workers in the Falkland Islands to participate in the Congress should not be overlooked.

#### It is recommended:

6. That encouragement be given to investigations on hydatidosis within the Falkland Islands, with a view to publications and the exchange of information with other countries having similar problems.

### 9. Drugs and other Research

Almost certainly, highly effective drugs will be introduced for the control of hydatidesis within the next few years. In addition, research in other fields is advancing rapidly.

#### It is recommended:

- 7. That close contact be initiated between the Falkland Islands Government and the appropriate research organizations in New Zealand (Ministry of Agriculture), with a view to collaboration in drug research and analysis of programme data;
- 8. That appropriate contacts should be made between the Falkland Islands Government and PAHO/JHO, with a view to establishing close contact and research projects (see No. 6).

## 10. Summary of Recommendations

In view of the need to obtain reliable information on dog control and prevention of access by dogs to raw offal it is recommended:

1. That an experienced Hydatid Control Officer from either New Zealand or Tasmania be seconded for a period of about 3 months, to set up a diagnostic survey using arecoline hydrobromide as the test agent, and that he trains others to continue this service as and when required by the Hydatid Advisory Committee.

### 10. Summary of Recommendations (continued)

2. That this Short-Term Consultantship should preferably be undertaken when a veterinarian has assumed his duties, and that appropriate funds be obtained for the Consultantship.

Errors in identification of hydatidosis in sheep becomes important during a successful control programme. Gross errors may suggest a higher rate than is the real case, leading to loss of confidence in the control programme. It is recommended:

3. That only clearly identifiable cysts be recorded as <u>Mchinecoccus granulosus</u>, and other lesions which might be suspected of being hydatid should be recorded separately as 'doubtful'.

A full reassessment of the policies, measures and methods of control should follow after the results of the arecoline hydropromide survey in dogs has been completed. Surveys on human hydatidosis, if undertaken during a control programme, may remove cases before ill health is suffered. It is recommended:

- 4. That contact be made at the scientific level between the Medical Officer of Health, Falkland Islands, and the Immunologists at CEPANZO, with a view to carrying out a serological survey on human hydatidosis;
- 5. That following (4), approval for a collaborative project should be made through the appropriate channels of the Falkland Islands Government and the Pan American Health Organization.

Investigations and research form a real part of a control programme, and lead to a better understanding of local problems. It is recommended:

6. That encouragement be given to investigations on hydatidosis within the Falkland Islands, with a view to publications and the exchange of information with other countries having similar problems.

Collaboration between control authorities and national or international research organizations is mutually beneficial. It is recommended:

- 7. That close contact be initiated between the Falkland Islands Government and the appropriate research organizations in New Zealand (Ministry of Agriculture), with a view to collaboration in drug research and analysis of programme data;
- 8. That appropriate contacts should be made between the Falkland Islands Government and PAHO/WHO, with a view to establishing close contact and research projects (see No. 6).

## Acknowledgements

I wish to thank the Chairman and Members of the Hydatid Research Committee, and members of the Falkland Islands Government for their kindness and courtesies extended to me during my visit to the Falkland Islands.

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Chief Secretary

Senior Medical Officer

### CONFIDENTIAL

You will know from discussions in the Mydatids Committee and Dr. Germell's Report that a recommendation has been made that you should visit the CMPANGO Centre in Buenos Aires.

In a letter to me the Chairman of the Hydatids Committee has suggested that February would be a suitable date. He has also suggested that you might be accompanied by Mrs. Jane Harrison. So that Government can give early consideration to this visit and particularly its timing, will you kindly let me have your recommendations taking into account your work load including visits to Camp etc.

As regards the attachment of Mrs. Jane Marrison, perhaps you will let me have also some indication whether this instruction will be of long lasting benefit to the Colony and, of course, in this connection we would wish to take into account the duration of Mrs. Marrison's stay here.

(31)

27th January, 1976

Our Ref: FIS/2/A

The Hon. S. Miller, J.P. Ross House, Stanley.

### DOGS ORDER 1975

You will know that the Order specifies that dogs must be dosed in an approved manner.

Although I cannot recall discussing this matter in detail with you, I understand that you have proposals from the Committee of the approved manner in which dogs should be administered with Scolaban or other drug and perhaps you will be kind enough to let me have a copy of this so that we can get Exco formally to approve it. The latest instructions that I can find are attached as Annexure II to the Minutes of the 10th Meeting of the Mydatids Committee on 16th/31st July 1975. Would you agree that we can use these?

We are now, of course, taking a completely fresh look at the type of drug and dosing required and may come up with something quite different eventually. For the meantime, however, I would suggest that we should follow the practice formerly in use under the previous Order but to close any loophole in the law. We should, I think, publish this in the Gazette.

A.J.P. Monk CHIEF SECRETARY

### FALKLAND ISLANDS



Dogs Ordinance (Cap. 21)

# **ORDER**

(under section 12A of the Ordinance)

No. 2 of 1975.

N. A. I. FRENCH,

Governor.

In exercise of the powers conferred by section 12a of the Dogs Ordinance, the Governor has made the following Order—

- 1. This Order may be cited as the Hydatid Eradication (Dogs) Order 1975.
- 2. The Governor may appoint any fit persons to be inspectors for the purpose of this Order.
- 3. An inspector shall require the owner or other person in charge of any dog in his area to dose the dog with an approved preparation under the personal supervision of an inspector in such manner and at such intervals as shall be directed by the Governor in Council.
- 4. An inspector shall supply the owner or other person in charge of any dog with such doses of the approved preparation as the inspector shall consider essential, free of charge in Stanley and at cost outside Stanley.
  - 5. Every inspector shall have power to inspect any dog at any time.
- 6. The owner or other person in charge of a dog shall ensure that the animal is confined or chained unless being worked or exercised.
- 7. No person shall feed or cause or allow to be fed livers and lungs of cattle, sheep, horses, or pigs to any dog, nor shall any person allow any dogs access to such livers and lungs.
- 8. No person shall allow any dog to remain in the immediate area where slaughtering of cattle, sheep, horses, or pigs is taking place.
- 9. No person shall knowingly and without reasonable excuse permit the carcase of any cattle, sheep, horse, or pig belonging to him or under his control from which the liver and lungs have not been removed, to remain in any place to which dogs can gain access.
- 10. An owner shall remove or cause to be removed the livers and lungs from all carcases of cattle, sheep, horses, or pigs, and shall dispose of them by one of the following methods:
  - (i) through burning to ash;
  - (ii) burying to a depth of at least three feet in a covered dog-proof pit;
  - (iii) placing in a covered dog-proof receptacle for a minimum of 28 days;
  - (iv) boiling for a minimum of 2 hours.
- 11. Any police officer may, for the purpose of ascertaining that the provisions of this Order are being complied with, at all reasonable times enter on any land or premises.
- 12. Any person who obstructs or impedes any police officer or inspector in the execution of his duty or who contravenes or fails to comply with the provisions of this Order shall commit an offence and shall be liable on summary conviction to a fine not exceeding £200 for the first offence or £500 for the second or each subsequent offence.
- 13. The Tapeworm Eradication (Dogs) Order 1970, and the Tapeworm (Dogs) (Amendment) Order 1973 are cancelled.

By Command,

22nd May 1975.

ARTHUR J. P. MONK,

Chief Secretary.

Ref. AGR/7/12C.



Hydatid Research Unit, C/- University of Otago Medical School, P.O. Box 913, Dunedin, New Zealand.

January 13 1976

A. J. P. Monk Esquire Chief Secretary's Office Stanley Falkland Islands.



Dear Mr Monk,

### Hydatids ref AGR/7/12/C - AGR/5/2

Thank you very much indeed for your letter which arrived after I had returned to New Zealand.

I have and am giving much thought to an international research programme for hydatidosis in the Falkland Islands. I believe that the control programme is almost unique in the world and would lend itself to a thorough investigation. The international contribution would in my view be enormous. I discussed this with Dr Steel, Veterinary Attache at the Embassy and he was enthusiastic to support research efforts and in particular collaboration between Dr Cox and Dr Varela Diaz on the serology of human hydatidosis.

I have already raised the matter by letter with Dr Pedro Acha, Chief, Department of Ruman and Animal Health, Pan American Health Organization, with a view to seeing whether or not PAHO would be interested in establishing a research project based on the human and animal epidemiology of hydatidosis in the Falkland Islands. I will also be writing to Dr Abdussalam, Chief. Zoonosis Division, World Health Organization, Geneva to get his views. When I have received their replies I will write to you again. Meantime there might be merit in sounding out Research Organizations at the Colonial Office with a view to a joint National/International research programme. I am also wondering whether or not at the appropriate time a firm request from you to the New Zealand Ministry of Agriculture for direct assistance may be worthwhile. However as you know in handling these type of projects there is a need to do our homework first. I believe when we get all the information to hand we can then set out a formed joint project

through your good offices. Meantime I am very pleased indeed that you have engaged a veterinarian. This will make it much easier to establish the research component. Indeed, it may not be necessary to obtain the services of a hydatid control officer from New Zealand or Tasmania as I originally recommended. If a research project is established, I can provide all the information directly to the veterinarian.

I have very recently sent 12 copies of my report to Mr Miller and will keep in touch with you both with regard to my progress in obtaining financial support for a research project. Any help from your end with the Colonial Office would be appreciated.

With best wishes

Yours sincerely

Mikeel & Semme

M. A. Gemmell

(3)

New Zealand Ministry of Agriculture and Fisheries Hydatid Research Unit C/- University of Otago Medical School PO Box 913 DUNEDIN

6th January 1976

S Miller Esq Ross House Port Stanley Falkland Islands

Dear Mr and Mrs Miller -

It was indeed a great pleasure to have met you and I really enjoyed not only the work but also your very kind hospitality.

Under separate cover I am sending you 12 copies of the report. I gave one copy to Dr Steel at the Embassy and he was enthusiastic to help particularly with the work proposed by Dr Cox in collaboration with Dr Varelas Diaz. The latter is, of course, Very keen to work with Dr Cox. Also, the Pan American Zoonosis Centre seemed enthusiastic to get the programme off the ground.

I have not been able to contact the appropriate personnel here with regard to a consultantship to test the dogs in the Falkland Islands, but hope to do so before the end of January.

Incidentally, I found my raincoat already packed in my suitcase and now owe you one. I amy be returning to the Pan American Zoonosis Centre during November this year and if so may be able to pay you a further visit plus a raincoat.

I have given thought as to the merit of obtaining a Work Health Organisation grant to assist in evaluating the analysis of your prevalence rates of hydatidosis in your sheep population. It seems to me that your figures are almost unique and the only ones that would show a reduction over time commensurate with your success in control. I think at this stage it does depend on undertaking first an evaluation of the incidence of hydatidosis in your dog population. Certainly, your scheme is a model that would be very valuable to ourunderstanding of the problems of control. If you have any ideas on the value of obtaining a World Health Organisation grant project, let me know.

I will get in touch with you as soon as I can about a suitable person to undertake a testing programme with your dogs.

Again many thanks for your kind hospitality.

Yours sincerely,

(signed)

Michael A Gemmell



11th February, 1976

The Ron. S. Miller, J.P., Ross House, Stanley.

Many thanks for your letter from Dr. Germell. I have copied this for my file and return the original to you.

I have now received a letter from Dr. Gemmell written from Dunedin dated 13th January and you may be interested to see this at your convenience. There is not a great deal new in it so there is no great urgency.

The two questions of the visit of Dr. Cox to the Zocnocis Centre in Buenos Aires and the W.H.O. project here, have already been dealt with by me in correspondence to Dr. Genmell and I shall look back over my papers to see if there is anything we can do to accelerate those matters. I also wrote to the F.C.O. on 23rd January asking if they would consider technical assistance for the appointment of the Inspector.

If you think there is anything we can helpfully do, please contact me at your convenience.

A.J.P. Mork CHIEF SECREFARY

Hm. S. Malais copy



### ANNEYURE II.

### Draft

### INSTRUCTIONS TO DOG INSPECTORS

X

- 1. The owner or any person in charge of a dog shall be supplied by an inspector with such doses of an approved preparation for dosing the dog as the inspector shall consider essential.
- 2. The approved preparation is "scolaban".
- 3. The recommended dosage is l x 200 mg. tablet per 20lb body weight of dog
   l x 100 mg. tablet " 10lb " " " "
- 4. An inspector shall personally supervise the dosing of a dog, and shall keep the dog under observation for at least 3 minutes after dosing to ensure that the dose has been retained.
- 5. Dogs should not be fed for 8 hours before dosing. They may be fed 2 hours afterwards.
- 6. The tablets should be given whole and without any form of food covering.
- 7. All dogs over 3 months old shall be regularly dosed at intervals no greater than 3 months.
- 8. A card shall be issued to every owner in respect of each dog owned by him, similar to these issued to dog owners in Stanley, indicating the date on which the dog was last dosed with Scolabar.

In inspector may inspect a dog at any time

During culling programmes on farms the unopened cancases shall be stacked in dog-proof pens. These pens shall be constructed to the satisfaction of the inspector who shall ensure that the design and height of the fence, the material from which it is built, and the depth to which it is buried are such as to render the carcases placed inside the compound completely inaccessible to dogs.

Draft

The Secretariat, Stanley.

September 1974.

Dear Sir.

# Hydatid disease eradication campaign

In the past few months, visits have been made by the police authorities to a number of farms in the Islands. They have carried out enquiries and have observed that the requirements of the law relating to the control of infectious and contagious diseases in dogs are not being fully complied with. Henceforth, the police will make unannounced visits to all farms throughout the Colony, and persons who are not complying with the law will be prosecuted.

- 2. It appears that least care is being taken during culling programmes when mass killings of sheep take place on the farms.

  Disposal culad carcases during mass killings will be carried out by one of the following methods cally:
  - 1. A stacking un-opened at least 3 feet inside pens to be specially constructed for the purpose to the satisfaction of an inspector, or until suitable pens are built, by stacking in piles of less than 50 with the legs in and the back out and the top careages so placed as to lock the whole in pyramid rorm, or
  - 2. alternatively, removing the viscera and burying it to a depth of at least 3 feet.
- 3. In other circumstances, only the following alternative methods of disposal of livers and lungs are to be used:
  - 1. burning,
  - 2. burying to a depth of at least 3 feet in a covered dog-proof pit, or
  - 3. placing in a covered permanent dog-proof receptacle for a minimum of 28 days.
- 4. A copy of the recently made Hydatid Eradication (Dogs) Order 1974 is enclosed herewith and recipients are asked to study the Order carefully. It is emphasised again that only by concerted effort on the part of everyone in the Colony can hydatid disease be eradicated from these Islands.

Yours faithfully,

Chief Secretary.

To All Farm Managers.



23rd February, 1976

Our Ref: AGR/7/12

The Hon. S. Miller, J.P., Ross House, Ross Road, Stanley.

For your information and use as you see necessary, I attach copies I have received from the Foreign Office, of the Tasmanian Stock Regulations, 1975 plus the Statutory Rules 1975.

A.J.P. Monk CHIEF SECRETARY

### ANNEXURE I

### ADMINISTRATIVE INSTRUCTION TO DOG INSPECTORS

On the direction of the Governor-in-Council and in accordance with the provisions of paragraph 3 of the Hydatid (Eradication) Order 1975, the owners, or other persons in charge of dogs, shall dose dogs in accordance with that paragraph observing the following detailed instructions:

- 1. The owner or any person in charge of a dog shall be supplied by an inspector with such doses of an approved preparation for dosing the dog as the inspector shall consider essential.
- 2. The approved preparation is "Scolaban".
- 3. The recommended dosage is:
  - 1 x 200 mg tablet per 20 lb body weight of dog
  - 1 x 100 mg tablet per 10 1b body weight of dog
- 4. An inspector shall personally supervise the dosing of a dog, and shall keep the dog under observation for at least 3 minutes after dosing to ensure that the dose has been retained.
- 5. Dogs should not be fed for 8 hours before dosing. They may be fed 2 hours afterwards.
- 6. The tablets should be given whole and without any form of food covering.
- 7. All dogs over 3 months old shall be regularly dosed at intervals no greater than 3 months.

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### (2) 40. Administrative Instructions to Dog Inspector

Approval was given to the proposed administrative instructions to be issued in accordance with the provisions of paragraph 3 of the Hydatid Eradication (Dogs) Order 1975, with the exception of instruction No. 8 which was deleted. (A copy of the instruction is attached as an annexure to these minutes).

CLERK OF COUNGII

EXTRACT TAKEN FROM THE MINUTES OF THE MEETING OF THE STANDING FINANCE COMMITTEE

## 4.(12) PASSAGES COST - Dr Gennel

The Connittee approved the payment from Government Funds of the passage costs for Dr Gennel Conodoro Rividavia/Stanley and return at a cost of £37.50.

ROSS HOUSE

PORT STANLEY

FALKLAND ISLANDS

16.2.76.

The Hon., The Chief Secretary. Stanley.



Sir.

I submit herewith a paper from the Hydatids Advisory Committee, which I suggest after approval by Ex.Co. might well be circulated to all farms as these have already received their copies of the S.O.A. Information Circular No.6.

OurThe reference to this SOA circular, paragraph No.15, written by the SOA chairman, is in effect to help to allay any possibility of confusion concerning the application of Dr.Gemmell's recomm--endation No.3. in his Report. This recommendation is that only identifiable cysts be recorded as Echinococcus Granulosis, and other lesions which might be suspected of being hydatid should be recorded separately as 'doubtful'.

The chairman of SOA in his xxxxxxx circular Report thought that with the wide variety of intelligence in farm butchers, there could be gross errors in diagnosis leading to false and incorrect figures.

This assumption would be well founded indeed if the Committee

had ever taken notice of farm recorded incidence figures.

In fact very few of these ever reach the Committee as most farm managers also regard them as unreliable.

I would like to take the opportunity of this letter to remind you that in the copy sent to you of the Minutes of the 12th meeting of the Committee, 12th January 1976 the Committee suggested: -

Minute No.2. Appointment through selection of a young officer to be trained as a Hydatid Control Officer by the Australasian officer we hope to secure temporarily; and that this officer could be an officer of the Agricultural Dept.; we must remember that Mr L.R.Anderson, hard worker though he is , is now well into his seventies and will have to be replaced before very long.

Minute No.6. There still seems to be no move on the part of the Police Dept. to move about the farms to inspect anti-hydatid precautions; the Committee suggested the appointment of one or two inspectors to get on with this task. In our view all this pre--liminary inspection needs to take place before the arrival of any Control Officer to make the diagnostic survey of all dogs.

Yours faithfully

Hydatids Advisory Committee.

Ag Chief Secretary

Senior Medical Officer

### HYDATIDOSIS

This confirms that while Government welcomes steps being taken to plan for an investigation into hydatidesis you should ensure that Executive Council is fully in the picture and approves the arrangements.

2. Please submit a paper for consideration by Executive Council.

D R Morrison As Chief Secretary





Hydatid Research Unit C/- University of Otago Medical School P.O. Box 913 DUNEDIN.

February 20 1976

A. J. P. Monk Esq. Chief Secretary's Office Stanley Falkland Islands

Dear Mr Monk

Thank you for your letter of 16 January and copy of letter to Mr D.G.F. Hall of 23rd January.

I have sent a rather lengthy letter to Mr Miller in answer to some of his inquiries. The length is related to the appointment of the veterinarian, This in my view does alter the need for the consultantship by a hydatid control officer from here, since Mr Whitley and I can correspond to sort out most of the details required by him for the arecoline test in dogs. He should be able to undertake the tests straight away. In addition, there may be more merit now that he has been appointed for me to visit you perhaps next November and collaborate with him and Dr Cox in getting joint projects started with the Pan American Zoonosis Centre and assisting in writing up the program for publication. Rather than repeat the details at length, I am sure Mr Miller will show you my letter to him.

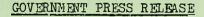
I approve very much of the idea that technical aid should come in the first instance from the Technical Assistance Aid Programme of the Foreign and Commonwealth Office. My reason for this is that your control programme is one of the best in the world and I believe that the Falkland Islands should publish the information in such a way that it will be given the credit and will be regarded as an equal partner in any joint project worked out later with International Agencies such as PAHO and WHO. I still have not heard from these two organizations, but I am hoping to join a Committee in Africa during March in which these organizations are well represented. I will raise the question personally with some of its members.

Meantime, I will not correspond with D.G.F. Hall at the Foreign and Commonwealth Office until your Committee has decided whether or not the Falkland Islander Mr Michael Shane, Waimakariri/Ashley Hydatids Control Committee, P.O. Box 9 Rangiora, New Zealand, is a suitable candidate or whether it might be better now that Mr Whitley has been appointed, to adopt the approach of collaboration between him and myself.

With best wishes

M.A. Gemmell M. N. M. A. Commen.

Ag.-G. 102



During recent months Government, in collaboration with members of the public, has given extensive consideration to the problem of hydatidosis and His Excellency has now made an Order to tighten the control of dogs in an effort to eradicate this disease from the Colony once and for all.

A law on its own cannot achieve much. It must have the willing support and co-operation of the public and in such a serious matter as this, Government is confident everybody will support it. I would appreciate it if you would kindly give the Order and its purpose the widest possible publicity, stressing the following main points:-

- A dog must be confined or chained unless it is being worked or exercised.
- Dogs must not be fed any animal livers or lungs.
- Dogs must be removed from any slaughtering area.
- 4. Carcases must be kept away from dogs.
- 5. All animal liver and lungs should be disposed of in a manner approved by the law.

Government is confident that if this new order is carried through with co-operation and diligence, there should be a dramatic drop in the existence of this horrible disease. Anyone who has known a case of this disease cannot fail to agree that the Order is a most necessary step, and Government hopes that it can count upon you to do your utmost to ensure that the provisions of the law are carried through.

The penalties for non-observance are severe, but this will be unnecessary if the action envisaged is carried through in the spirit of co-operation and integrity.

Secretariat
Ref: AGR/7/12/C

45/12/11/18





Foreign and Commonwealth Office

London SW1A 2AH

Your reference

AGR/7/12A

HWF 154/1

elephone 01-

11 March 1976

A J P Monk Esq The Secretariat

Port Stanley FALKLAND ISLANDS

HYDATIDS INSPECTOR TECHNICAL ASSISTANCE:

Thank you for your letter of 23 January to David Hall which was copied to me.

We certainly agree that it would be very useful if an experience Hydatids Control Officer could visit the Falklands to advise on the mechanics of your control programme. effective control programmes are in operation in New Zealand and Australia it is probably true to say that the most experienced experts in this field are likely to be from either of these two territories. In this case, we would recommend the designation of an expert from either of these places but would suggest that as a first step, it would be appropriate for you to ask either Australia or New Zealand to provide the funds for the project. They may well be willing to do so in view of the fact the hydatids control model in the Falklands is significant in other than the local purely context. (See paragraph 8 of Dr Gemmell's report). It would be interesting to know who paid for Dr Gemmell's visit to the Islands, because the proposal to appoint a consultant for 3 y/Gemmell's months is a logical sequal tc/visit and could appropriately be financed from the same source. If other approaches failed, we

could return to the question of funding from UK Technical Assistance

(Miss) J S C Huish West Indian &

Atlantic Department

Mr J Davie Copied to:

Funds.

Animal Health Adviser

ODM RA624 Mr D G F Hall

LAD FCO

AURIA Julias file pe HYDATIDS Mr Hardcastle phoned on Friday because the Manager of North Arm has a summons to appear on Wednesday 31st March icw alleged insecure covers for offal containers. The Manager of North Arm reported one of his employees for distributing livers which is an offence. The Police went to North Arm and I believe they discovered that the management did not have everything as it should be! 07) 15 HR BLAKE Mr Hardcastle says that the Police did not speak to Mr Blake the Manager. I'r Hardcastle made the point that this did not make for a good working relationship between the Police and the management of farms. COMPLA. 2 Mr S Miller who is Chairman of the Hydatics Committee came to see some weeks ago and hoped that the Magistrate would impose heavy fines if convictions were secured! He said that it is only by taking firm action are we going to make headway and make people aware of the need for care. Mr Miller, suggested that if the Police cannot make regular visits to farms, the we should consider appointing inspectors to see that the law is being adhered to. insphilors was distributed comelusions of July 29/3 The is now sut judice and the outcome. me (lisely More Keep in formal.

QGR. 7/18.

P.O. Box 954,
DARWIN N.T. 5794

11th May, 1976

Chief Secretary
Stenley

Chief Secretary
Stanley
Falkland Islands,
SOUTH ATLANTIC
VIA BUENOS AIRES.

\* - 3 JUN1976

Dear Sir,

I feel it is my duty to inform you of a new drug for use in your hydatid Eradication scheme.

The drug, Praziquantel, is 100% effective against Echinoccoccus granulosus and I believe will be more readily acceptable to the dogs and therefore to the people of the colony. It is made by Bayer of Germany (they have a fectory in England where the Crown Agents could obtain supplies) under the name of Droncit. As you are no doubt aware by now, Scolaban has various shortcoming which I think will not occur with Droncit although the old dogs will still object to being dosed because of the rough handling that is involved.

I have used Droncit here since it came out and have had no difficulty indosing dogs. The tablets can be divided for more accurate dosing although, this is unnecessary as it is extremely safe and we give it here at the highest dose rate because we have a particular tapeworm. There is no need for fasting before dosing and the tablets are to be given with a little meat although I still prefer to administer tablets direct to dogs.

I would recommend that the tablets, are given at the dose rate of 1 tablet per 25 pounds liveweight. This should be given to all animals over 3 months including pregnant and lactating bitches.

I believe the use of this drug would be a major breakthrough in your fight in hydatid eradication. Needless to say there is a disadvantage - Droncit is slightly more expensive than Scoloban per tablet but, as the dose rate is lower, the difference is marginal.

The welfare of the Islands is still very much in my mind and before I left in November I promis**f**ed to send you any information on hydatid control. However as I have only received discourtesy from your office since I left the Islands and none of my letters, giving you information that you requested, has been acknowledged I expect no reply to this one.

Yours,

R.W. Bostelmann

M.A., Vet M.B., MRCVS.

-3 JUN 1976

there.

## Proposed survey of the incidence of tapeworm infastations in dogs.

The purpose of this survey is to establish some precise information as to the incidence of tapeworm infestations in dogs, with particular reference to Echinoceccus Granulosus. When the information is available, the effectiveness of the present measures may be assessed. The survey would also reveal localities where there are accidental or deliberate breaches of the regulations.

programme needs the whole-hearted approval of, and co-operation from, the public. It is therefore proposed that, should the survey reveal problem areas, legal penalties should only be sought as a very last resert. It is felt that penalties should be available in case there is persistent and fragrant violation of the control measures which, after all, are in the interests of the whole community.

The fine datails of the dosing procedure have not yet been finalised. Although it is not essential, it would be much better if the procedure was standard sed.

Any survey of this nature requires that a sample of the facces of dogs is obtained within a predictable time and is effective in revealing the presence of tapeverss. The only preparations uitable for this purpose are those which contain one of the salts of Arecoline. These act by paralyzing the worm and by stimulating the muscles of the intestines to contract thereby purging the dog. Infortunately there is one serious drawback in the use of this drug, and that is that the worm is still alive when passed and the eggs are still highly infective. There is thus a risk of infection to the dog handler, the drug administrator, and anyone else in the vicinity, and also to sheep should they later be allowed access to the dosing area, unless appropriate precautions are taken.

The eggs of the worm are extremely resistant to atmospheric conditions and they may be alive after two years even when exposed to freezing. Fortunately, the eggs are destroyed by heat -a direct temperature of 71°F is required. It is therefore imperative that the surface on which the dog defactates is either treated by heat, or is disposed of in such a way so that further in infection is impossible - i.e. by burial. Therefore it would be best to used a concrete area set aside for this sole purpose, but a plastic, disposable surface, or the earth could be used. The concrete surface is the easiest from which to collect the purged facces.

There are certain precautions which are necessary to avoid undue risk to the dogs:- dogs should not be given bones for at least three days prior to dowing; during the proceding 12 hours they should only be given soft food and plenty of water; the dogs must rest for at least four hours before dowing.

Following docing, water must be available, and the dogs at should be washed to remove any eggs adherent to the coat.

Within the centext of the survey, it is not essential that sick or aged dogs are tested.

The timing of the survey would be to coincide with the time of the routine Scolaban dosing, which would be delayed until about 10 days after the use of Arecoline. It is unlikely that the whole of East and West Falkland can be done at the same time.

If any problem areas are revealed, it is proposed that the test be repeated at about six monthly intervals but only after an exhaustive (but not 'official') enquiry to try to show how the infection occurred.

Legal penalties will only be sought if, and when, fragrant violation of the regulations can be shown, of if a dog is found to be positive on three consecutive tests with arecoline. (I am thinking along the lines of destruction of a persistantly infected dog with the onus on the dog owner to try to explain the reinfestation).

It is not proposed to begin the survey without the full co-operation and agreement of the majority of the farm owners and managers.

This is only a brief 'introductory' document which is aimed at stimulating comment. If it is decided to procede with the survey, more information will be forthcoming on the desing procedure and facilities required.

teve Whitley.

Veterinary Officer, GTU

These are purely my thoughts and ideas and do not represent official views etc.



6th July 1976

C D Kerr Esq Team Leader GTU Stanley

#### HYDATID ERADICATION DRUG

I have been informed by Mr R Bostelmann of a new drug, 'Praziquantel', for the treatment of Hydatidosis. The relevant extract from his letter\_reads:

"The drug, Praziquantel, is 100% effective against Echinococcus granulosus and I believe will be more readily acceptable to the dogs and therefore to the people of the colony. It is made by Bayer of Germany (they have a factory in England where the Crown Agents could obtain supplies) under the name of Droncit. As you are no doubt aware by now, Scolaban has various shortcomings which I think will not occur with Droncit although the old dogs will still object to being dosed because of the rough handling that is involved.

I have used Droncit here (Australia) since it came out and have had no difficulty in dosing dogs. The tablets can be divided for more accurate dosing although this is unnecessary as it is extremely safe and we give it here at the highest dose rate because we have a particular tapeworm. There is no need for fasting before dosing and the tablets can be given with a little meat although I still prefer to administer tablets direct to dogs."

./2 ..

"I would recommend that the tablets, are given at the dose rate of 1 tablet per 25 pounds liveweight. This should be given to all animals over 3 months including pregnant and lactating bitches.

I believe the use of this drug would be a major breakthrough in your fight in hydatid eradication. Needless to say there is a disadvantage -Droncit is slightly more expensive than Scoleban per tablet but, as the dose rate is lower, the difference is marginal."

Perhaps you would kindly pass this information to Mr Whitley in case he may find it useful.

I have written to Mr Bostelmann to thank him for his information.

A J P Monk

Copies to Chief Secretary, Mr. S. Miller,

Mr. S. Miller, - with view to circulation Camp and posting Mr. B. Hardcastle notice boards Stanley.

#### THE LIFE CYCLE OF THE HYDATID WORM



# THE WORM :

The correct name for this tapeworm is Echinococcus granulosus. The adult worm consists of a head which is attached to the lining of the intestines of the dog by suckers and hooks, and up to four segments. The only permanent part of the worm is the head which is attached very tightly to the intestines. The segments are produced by 'budding' from the neck of the head, so that, as the worm hangs in the guts, the oldest segment is the one furthest away from the head.

The segments are hermaphrodite - each one having both sexual organs so that it may fertilise itself; but more usually the worm twists around so that one segment fertilises another one.

After fertilisation the eggs mature in the segment which is eventually released as a packet of eggs which come out in the faeces of the dog. The eggs are dispersed by rupture of the packet.

The eggs are protected by a very resistant covering which enables them to be able to resist the effects of the atmosphere - including freezing and drying - for over a year.

The largest specimens of the worm have been measured and found to be 6 millimeters long (therefore you would get 4 of these worms to one inch).

It has been calculated that a single worm may roduce up to 500 eggs per week - each egg being fertile even if there is only one worm in the dog.

#### IN THE SHEEP :

The eggs, having been passed out of the dog, lies on the grass and is eaten by a sheep. The protective covering of the egg is digested by the stomach juices and the actual egg is 'activated' by the bile and other digestive juices in the intestines. Then the egg which has hooks, eats its way through the wall of the intestines and enters the blood stream.

In the same way that the products of digestion of food reach the liver, the eggs are carried to that organ. In the liver the blood vessels become smaller and smaller in diameter so that the egg often becomes lodged here. If it is carried through the liver the next site where there are fine diameter blood vessels is the lungs. Obviously if the egg is carried through this site, it may end up anywhere in the body including both the brain and the bones.

When the egg has finally settled it begins to grow. It takes the shape of a balloon which becomes full of 'hydatid sand'. Each particle of the sand is a replica of the parent eyst and, if released from the parent will grow into a cyst on its own.

The cysts grow very slowly in the sheep, taking about 1 year to reach half an inch and therefore they are very difficult to see when young.

In the sheep most cysts are found in the lungs and only about 25% are found in the liver. The effect on the sheep is mainly due to the physical size of the cyst causing difficulty in breathing and making the animal more susceptible to lung infections such as pneumonia.

If the cyst becomes settled in the bones it can not grow in its normal balloon shape but has to take the shape of the bone. Thus the bone marrow is destroyed and the bones become weak.

The cysts rarely contain more than a pint of fluid in the sheep, but in other species, for example man, they may grow to contain several gallons of this 'sand' each particle of which may form a worm if eaten by a dog.

The infection carried by the sheep can only be transmitted to the dog by the death of the sheep and the dog eating the cyst or its contents, which may be spread over a wide area, if the cyst has been broken.

The cysts can survive the death of the sheep for several weeks and so carrion feeders (such as dogs and seagulls) are important in spreading the infection.

### IN THE DOG :

The particles of hydatid 'sand' eaten by the dog, become attached to the walls of the intestines and grow into adult worms over a period of 6 to 9 weeks. Of course the worm cannot lay fertile eggs before it is adult.

The presence of the worms in the guts of dogs does not cause them any noticeable harm and they may have infections to the order of several thousand worms without ill effects.

Neither the sheep nor the dog develop any sort of immunity to the cyst or the worm.

#### IN OTHER SPICIES :

The lifecycle of the worm alternates between the adult living in a carnivore (a meat eating animal) and the intermediate stage (the cyst) living in a herbivore (a grass eating animal).

There are two types of cycle of infection which occur throughout the world. The first is called the sylvatic cycle in which the infection alternates between a carnivore and a herbivore which are naturally associated such as the dingo and wallaby in Australia, the timber wolf and caribou in Canada, the jackal and the deer in Pakistan and India. This cycle is only important when man 'interferes' by feeding caribou, wallaby, or deer meat to his dogs.

The other cycle is the one with which we are directly concerned and is called the 'pastoral' cycle. The dog is always involved and the sheep is very often the 'other half' of the cycle but in the Middle East the camel and in Scandanavia the reindeer are involved.

The worms affecting these other animals are slightly different from the one here, but are equally capable of causing hydatid infection in manif he gets infected from the carnivore in the cycle.

Incidently it is an occupational hazard of shoemakers in Iraq to get hydatid disease because they soak the leather in a soup made from dog faeces!

## PRINCIPLE BEHIND ERADICATION OF THE DISEASE:

The cyst in the sheep can only cause infection if it is eaten, or allowed to contaminate the food eaten, by a dog. In other words the sheep can not pass the infection on whilst it is alive. There are no drugs available which can destroy the cyst in the living sheep, or any other intermediate host.

The dog can contaminate a very large area of ground with eggs that are resistant even to the most severe weather, so a patch of grass contaminated many months ago, and, which now appears clean, can still harbour the infective eggs. They can still be capable of infection after several infective eggs. They can still be capable of infection after several days' immersion in formalin. The eggs are only killed by a temperature of days' immersion in formalin. The eggs are only killed by a temperature of days' entired (160 degrees Forenheit).

If a dog has several thousand worms inside it and they are all producing up to 500 eggs per week, imagine what the total egg production must be!

There are no drugs available at the moment which are 100 per cent effective in killing all the worms both young and old, so it is essential that the dogs do not get reinfected once the infection has been eliminated or cut down. Scolaban is one of the best drugs available at the present time but a lot of work is being done to produce even more effective ones.

Imagine what happens when a dog with no worms comes across a piece of offal with a cyst (which may be less than an inch in diameter) - he eats the cyst and each piece of the 'sand' forms a worm in his guts and about 8 weeks later the worms have matured and begin to lay all those eggs, which remember, can infect not only the sheep but you and me!

HU on Hydatids Policy for THE LIFE CYCLE OF THE HYDATED WORM.

Comments on the article from Sydney Miller:-

#### SHEET 1. IN THE SHEEP.

Paragraph 2. I think your last sentence is very misleading; It is very rare indeed that cysts occurs elsewhere than in the liver and lungs.

Your wording, to me, could make local people think that they are liable to develop hydatid cysts virtually anywhere in their bodies nearly as frequently as in their livers and lungs.

Last Paragraph, Sheet 2. According to McCrea (MRCVS here in 1969/70) cysts cannot survive more than up to seven days in a carcase as the rapid decomposition that sets in causes their death;

Dr.Gemmell agrees with this and in addition both these authorities are sceptical about the spreading of any infection by birds - though I agree it could be very remotely possible.

As with your paragraph 2 above I believe you will cause quite unwarranted alarm locally by both paragraphs.

The reason why our current legislation requires offal to be retained in drums or other dog proof manner for a minimum of 28 days before disposal into the sea or elsewhere is that McCrea said such disposal of decomposed offal would be safe after 7 days, and Government in January 1970 multiplied this period by 4 to be safe.

SHEET 2. IN THE DOG. Reference your third paragraph. Dr.Gemmell advised us that some sheep and some humans developed a total immunity to infection by hydatid cysts; he said this was more common in sheep.

SHEET 2. IN OTHER SPECIES. I feel that a lot of this is very misleading and does not appear in Germell's written teaching.

In any case feeding 'meat' to dogs should not spread hydatid disease as the cysts are in the offal with the exception of Taenia Ovis which is normally in the heart or muscle - but this chap does not infect humans; it only results in rejection of such carcases at abbattoirs and freezing works.

I would suggest that as far as advice & information to people in this Colony is concerned we should stick to dogs and the offal from sheep, cattle, pigs & horses.

To Steve Whitley. It was kind of you to have your article passed to me for comment; I also find it somewhat flattering as I am no scientist and have only gleaned the little I know about combatting Echinococcus Granulosus during the last six years, the hard way, and more particularly from intense questioning of Dr Gemmell last December; he stayed with us here in Ross House and I gave him no rock. In addition I want with him everywhere and closely followed rest. In addition I went with him everywhere and closely followed his examinations and sorting of cysts and lesions at the Stanley Butchery and on the two farms we had time to visit.

He is after all, a world authority and is very

well known in the hydatid world.

In brief my criticisms above boil down to the fear that some of your sentences will be both misleading and worrying to many people here, and unnecessarily so.

So please forgive my criticism but after all you did ask me for it !

Lors Home. 12.7.76.

L', ducy Muller

Reply to the comments on the article from Mr. S. Miller: F SEC.

Re Paragraph 2. It is not very rare for a cyst to be found in an organ other than the lungs or the liver. It may be uncommon but is certainly not rare. If I may refer you to the article by Gemmell and Diaz, in Table XVL1, you will see that in Tasmania in Cattle 0.9% of carcases inspected had cysts in organs other than the lungs and/or the liver. Admittedly these were cattle, but the prixciple holds true for sheep as well, and it is better for people to be aware of the truth about this disease from an early stage rather than being told an ammended version later on when the necessity arises.

Re Paragraph last, Sheet 2. My source of information for this statement was Dr. A. Dunn, Parasitologist. Since the time of writing the article I have had the opportunity of reading the Gemmell-Diaz article and found that they say: 'Survival of Protoscolices in cool climates may exceed one month (Batham, 1957)'. As you, of course, know the protoscolices are the hydatid "sand". I have recently attended a mass killing where some of the carcases were opened by slitting the flank to remove the kidneys. This procedure, in my opinion, means that there is even less chance of the carcase temperature being maintained anywhere near warm enough to cause the death of these infective particles in a very short time. \* Chapter 3 page 25

In my conversations with people in Camp, I have been told that a certain times of the year, many sheep die and the intestines become spread about the surrounding ground by the birds. These circumstances would increase the chance of the dogs becoming infected by stopping to eat just a small segment of the offal which may itself not have a cyst but which may have been contaminated by the fluid from another cyst when ruptured by the peck from a bird.

Re Sheet 2 - In the dog. With respect, there is a difference between innate and acquired resistance. To quote Gemmell again,....'little is known of the innate resistance to hydatids in man.....' (p.33). It is very possible that some animals have an innate resistance to the infection either of the adult worms or the intermediate stage (in fact, it would be very surprising if this did not happen because we are dealing with a biological population), but as far as I know, the acquired resistance which does occur is of little significance especially with regard to the eradication of the disease.

Re Sheet 2 - In other species. All this information is quite accurate and is intended to show that we are not the only ones with the problem, and also to stimulate interest. In fact when I have recounted some of these facts, the people in camp have been very interested and I feel that it helped them understand the basic aetiology of the disease.

Chief



23rd July 1976

C D Kerr Esq G T U Stanley

### HYDATID CAMPAIGN

Would you kindly thank Steve Whitley for his most informative write-up on the ghastly Hydatid disease, which I have read with blood curling interest. He obviously knows his stuff and can put it over. I was particularly impressed by his explanation of the points raised by Sidney Miller.

As I believe I have told you, Government has recently made a preliminary policy discussion on this but will concentrate on it during the next week or so.

In the meantime you may accept that Mr Whitley will be given every support possible in mounting his campaign. So that it is really successful perhaps you and he will now give concentrated and detailed attention to the administrative arrangements required, as it would be a pity for it either to get off to a bad start or to founder for lack of forward planning. If we can be of any assistance to you in this planning please do not hesitate to consult me.

A J P Monk Chief Secretary.

AJPM:m

CONFIDENTIAL







4th August 1976

Chief Police Officer.

#### INSPECTION UNDER THE DOGS ORDER

Government has decided that during the next three months or so it would be prudent to rely on advice by the Veterinary Officer and not to take active steps to check farms for compliance.

2. The matter will be reviewed at the end of this period but in the meantime you should please disrogard my instructions for surprise visits to farms.

A J P Monk Chief Secretary.

AJPM:m

CONFIDENTIAL

It is requested that the number and date

THE SECRETARIAT,

STANLEY, FALKLAND ISLANDS,

SOUTH ATLANTIC.

10th August, 76.

A.J.P. Monk Esq., Chief Secretary.

Dear Mr. Monk,

should be quoted.

#### HYDATID DISEASE

Please find enclosed the text and suggested format of the general information booklet. As you know, we hope to have this circulated throughout the Colony, for which one thousand copies should be adequate.

The original text is slightly altered and has the approval of the Sheep Owners Association Ltd., and also the approval of the Gen. Secretary G.E.U.

Kindest regards,

C.D. KERR.

Chief

13th August 1976

C D Kerr Esq G T U Stanley.

Thank you for the text of the proposed general information booklet. I have now sent this for printing by the Government frinter and he will show you a galley proof in due course.

- 2. I have restricted the printing to 500 copies, which should suffice.
- 3. After a week or so will you kindly enquire through my office how the printing is going, with a view to mounting a pre-issue P.R. exercise to ensure that the pamphlet is read and absorbed. Doubtless you will bear in mind it will be helpful to limite with the SCA, CEU, the Farm Managers' Association and the SCA Eydetids Sub-Committee.

A J P Honk Chief Secretary.

m.

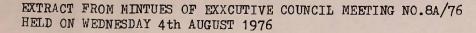
EXTRACT FROM THE MINUTES OF EXECUTIVE COUNCIL MEETING NO. 8/76 HELD ON WEDNESDAY 21st July 1976.

AGR/7/12 8/76

### 15. Hydatid Disease - Policy (Memo 45/76)

- 1. Mr. Blake who was unable to attend the meeting had asked that discussion on the subject be postponed until he could be present.
- 2. After discussion Council agreed to hold an ad hoc meeting within the next week when Mr. Blake would be able to discuss this subject.

Acting Clerk of Councils:



(0)

AGR/7/12 8A/76

- 2. Application of the Hydatid Eradication (Dogs) Order 1975
- 2.1. There was a wide ranging discussion covering the role of the police, the Veterinary Officer and inspectors in the application of the Order.
- 2.2. It was agreed that the Veterinary Officer should not become closely involved in the inspetion and policing of the Order, but should use his professional standing and influence to persuade farmers to improve their methods of offal disposal and control of dogs.
- 2.3. It was further agreed that the Veterinary Officer should report to the Chief Secretary through the Chairman of the Hydatids Committee in about three months time, after he has been able to visit most of the farms, on the general aspects of the application of the 1975 Dogs Order. Further consideration will then be given to the need for a comprehensive inspection by the police or inspectors appointed under the Order. Meanwhile specific complaints are to be investigated as in the past.

Ag. Clerke of Councils.



AGR/7/12 8A/76

# 1. Hydatid Disease - Policy

- 1.1. Honourable Members considered the Memorandum expressing Government's views of the broad policy lines which should be followed in the campaign to eradicate hydatid disease.
- 1.2. From the discussion there emerged a difference of opinion as to which programme, the serological screening of the human population or the screening of the dog population, should have priority.
- 1.3. Mr. Blake, supported by Mr. Miller felt that the programme was too slow and there was a need for immediate action on the serological survey. Mr. Blake also felt the majority of the population would wish to be screened and that fears of an unfavourable public reaction were exaggerated.
- 1.4. His Excellency pointed out the need for very careful planning in an operation of this kind and the probable need for outside assistance and finance. He also drew attention to the present unstable staff situation in the Medical Department.
- 1.5. The Chief Secretary said that Government had already taken action in seeking contacts with the World Health Organisation, and the Senior Medical Officer had been asked to provide a detailed plan of his proposed human hydatidosis screening campaign.
- 1.6. The Veterinary Officer, in conjunction with the Head of the Grasslands Trials Unit, had been asked to prepare a detailed scheme for the testing of the dog population and equipment and supplies for this had already been ordered.
- 1.7. The following broad consensus emerged:
  - (a) The dog screening programme should go ahead as soon as the necessary supplies and equipment become available.
  - (b) The Medical Department should produce a detailed programme of the proposed serological screening of the human population.
  - (c) Dr. Gemmell and the World Health Organisation and any other suitable multinational body should be approached at once, through the Foreign and Commonwealth Office and the Ministry of Overseas Development, on the possibility of the human screening being undertaken by a fully qualified visiting research team and financed from the same source.

Acting Clerk of Councils:

copied to MED 1315

DRAFT TEL FIFO OO

1821302

From Port Stanley

SSITURD RESTRICTED

Tel No. 543 of 18 August 76

HYDATIDOSIS.

1. PLEASE ENSURE THAT EARLY ACTION IS TAKEN ON MONK'S LETTER OF 11 AUGUST 76 WHICH RECEIVED IN THIS WEEK! HEDRIS BAG. NOW.

SEEN FROM HERE 2. WE SEE FIRST PRIORITY TO ENLIST W.H.O.'S SUPPORT FOR SCREENING CAMPAIGN MOUNTED

AND FINANCED BY AN EXTERNAL ORGANISATION.

FRENCH

File ref AGR/7/12 AJPM:m 18/8/76.

• REF: AGR/7/12

It is requested that the number and date should be quoted.

CHIEF SECRETARY.

Dear Mr. Monk,

THE SECRETARIAT.

STANLEY, FALKLAND ISLANDS,
SOUTH ATLANTIC.

18th August, 19 76.

HYDATID BOCKLET

Thank you for your letter 13/8.

I feel that the number of copies of the booklet is insufficient. The population of the Falklands is approximately 2000. When this number is divided by "average family size" factor 3.2 (and there is reason to suppose the Falkland factor is very much lower than this) the theoretical number required is 625. Thus my original estimate of 1000 copies would seem pretty accurate. The S.C.A. put very strong emphasis on the fact that it is necessary to have the booklet read by everyone and in their cwn homes. The object is to inform and clear up many misunderstandings which undoubtedly exist.

The suggestion has been made that a limited number of copies (100) should be available in Spanish, since it is the Spanish-speaking members of the community who could be the weak link in the attack on this horrifying disease, due to their inability to read English. G.T.U. would undertake the translation.

The Hydatid Committee is a Government, not an S.C.A. Committee.

Kindest regards,

C.D. KERR.

See also 186.

#### PERSONAL & CONFIDENTIAL

Reigh





23 August 1976

Hon S Miller, JP Ross House Stanley.

# BYOATEDS ORDER 1975

12 in AGR[7/12/1

Thank you for your helpful letter of luguet E. I note with interest what you say about the particular incident that gave rise to my letter.

- 2. You will know that we have decided not to send the Chief Police Officer on surprise visits to farm for the next three months. I have accordingly cancelled an instruction I had given him before this decision was made.
- 1. In still somewhat concerns that when we do ask the lolice to take positive action are instructed of sendors sees might escape because of the legal conflict between parameters 9 and 10 of the Order. In this resurt is have in mind that if we are to allow (as you suggest we must in certain cases) some persons to leave carcases with the livers and lungs in them, we should make explicat in paragraph the places, circumstances and conditions under which the law allows this. If we do not we could have extraordinary difficulty in convincing a court that the carcases had not been left "to rem in in any place to which does could gain access" (para 9).
- 4. Similarly paragraph 10 states categorically test "an owner or person in charge shall remove or cause to be removed the livers and lungs from all carcases etc". If we are to allow the exceptions referred to above and folling under para 9, it would be legally correct to think to refer to these exceptions in para 10.

./2



As you are so intinately involved in this matter and so anxious to strengthen the law - which you were so instrumental in bringing into force - you may feel that this matter is sufficiently important to place before your Sub-Committee, and if need be the 5.0.A., so that when we do come to mount a campaign we are sure of having exhausted all possibilities for evasion. Lhaving while at the same time/gained the willing compliance of the farsers and their labour. In this connection I have in mind that it would be disastrous to have another prosecution fail. Raturally, it is better to proceed without having to use the big stock but if we do it will only dilute the law if it breaks in our hards.

You rightly see the real key to a solution as the monitoring and control of dogs. I am in frequent touch with the Veterinary Officer over this aspect and I know you are too. I agree with you that it is correct to wait until he has completed his proliminary investigations and made recommendations before we resert to inspection but I refer to the matter now because I believe we can usefully use this interior period, of say 2 or 3 mentes, to ensure (a) that we have got the law absolutely right, and (b) that we carry with us all these who work with sheeds.

> A J P Monk Chief Scoretary.

BI.



30th August 1976

# PERSONAL & CONFIDENTIAL

C D Kerr Esq G T U Stanley.

I attach a copy of a letter I sent to Mr Miller. The conflict in the law may have already occurred to you or Mr Whitley.

2. You will note that Government proposes to do nothing without the fullest consultation with the SGA and GTU and perhaps you will be kind enough to let me have your considered views on my proposal, read in conjunction with the 1975 Order. Naturally you will wish to discuss with Mr Whitley.

A J P Monk Chief Secretary

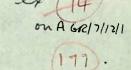
Encl.

CONFIDENTIAL

AGR/7/12 AGR/7/12/1.

Ross House, Stanley.

24.8.76.



26 AUG 1976

A.J.P.Monk Esq. Secretariat.

## HYDATIDS ORDER 1975.

Dear Arthur,

Thank you for your letter of 23rd August. )

- 2. Yes I know that at a recent Ex.Co. meeting it was agreed that the Chief Police Officer should wait longer before he was sent on various visits to farms, but I was not very happy about it as I know there are some black spots where insufficient precautions are being taken which means that in those areas hydatid infection is still being spread.
- 3 & 4. I enclose a suggested alteration to sections 9 and 10 which should I think cover all circumstances; at any rate this alteration forms a basis for discussion and debate.
- 5. I would not think it necessary to have a meeting of our Committee; I think the proposed alteration really only concerns the farming community. Perhaps Government if and when we agree any alteration could circularise all farm managers with of course a copy to Chairman S.O.A. and also to Whitley and the S.M.O.

CHIEF SECRETARY

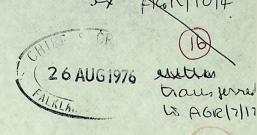
25 AUG 1976

MINLAND ISLANDS

Tours.

## DOGS ORDINANCE (CAP 21)

ORDER No.2. of 1975.



Suggested alteration and amendment of Sections 9 and 10.

- 9. a). No person shall knowingly and without reasonable excuse permit the carcase of any cattle, sheep, horse or pig belonging to him or under his control from which the liver and lungs have not been removed, to remain in any place to which dogs can gain access.
  - b). This shall not apply at a main autumn killing where unopened carcases must be removed to a stacked dump not less than 2½ miles from the killing centre; but if stacked less than 2½ miles from the killing centre such carcases must be contained within a dog proof netted enclosure for a minimum of six months and then burnt.
  - c). Section 9.a). shall not apply to carcases found and/or skinned in main camps or outside paddocks where it is not practicable to remove the liver and lungs.
- 10. After sub-section (iv) add the following: This removal of livers and lungs shall not apply in the case of 9. b) and c) above.



2 September 1976

C D Kerr Esq G T U Stanley

(175

Further to my letter of 30 August, I attach a draft of suggested alteration to Sections 9 and 10 of the Dogs Order.

2. I shall be gratoful if you would let me have your comments where consulting Mr Whitley.

A J P Monk Chief Secretary

Enc1. Cong of 177A.

m.



Originals returned (via 6H) & Mr S Miller - 20/10/76.

Hydatid Research Unit
University of Otago Medical School
P.O. Box 913
DUMEDIN NEW ZEALAND

June 18 1976

Mr S. Miller
Ross House
Port Stanley
FALKLAND ISLANDS

Dear Mr Miller

Thanks for your letter of 23 May, which I received after my return from a Conference on hydatidosis in Nairobi, Kenya. Dr Varela-Diaz was present at the Conference and I was able to get up to date with current politics re PAHO and H.M.G. I sincerely hope that progress at that level can be made, since CEPANZO could be of great help to you, Cox and Whitley.

I enclose a temporary comparative figure of the changes in the provalence rate of hydatidosis in the sheep populations in some control programmes including the Falkland Islands. I can redraw the Falkland Island data for you for your publication if that would be helpful. Perhaps you can check the figure for accuracy. Anyhow let me know if you would like me to prepare any illustrations for you.

With best wishes to you both

Miland of Common

Yours sincerely

M. A. Gemmell

Encl:



Hydatid Research Unit University of Otago Medical School P.O. Fox 913 DUNEDIN NEW ZEALAND

April 9 1976

Mr S. Miller
Ross House
Port Stanley
FALKLAND ISLANDS

Dear Mr Miller

Yours last two letters were slightly confusing because the second arrived 10 days before the first one.

Point 1

Re journal for scientific article, I would suggest that you should aim high to begin with. International journals might include: (1) Bulletin of the World Health Organization or (2) The American Journal of Epidemiology. More local ones include: (3) U. K. - Veterinary Record or British Veterinary Journal; (4) New Zealand - N. Z. Veterinary Journal or (5) Australia - Australian Veterinary Journal. All these would be quite suitable for a descriptive scientific article on hydatidosis and its control in the Falkland Islands. My experiences in drafting papers is that it takes much longer than one originally thinks. Indeed it took 3 years from the time of the first draft to the printing of the Styx Paper.

Under separate cover I am sending you a copy of the "Guide to the development and continuation of programs for the control of hydatidosis/echinococcosis written by myself and Varela Diaz. This is a confidential document in draft form and cannot be cited or used, since editing and publication has not yet been approved by the Pan American Health Organization. It may, however, help you in preparing your own manuscript. If there are any reprints or references that you wish to have, please let me know.

Point2

I am most pleased that Dr Cox has now met my friend Victor Varela Diaz. I strongly support the recommendation that an official approach should be made through the British Government to the Pan American Health Organization. This would make it much easier for me to contribute. Indeed, the financial assistance required for a consultant could be made available through that organization. You can use my Falkland Island report to assist in any formal approach. Indeed, PAHO already has an unofficial copy.

Point 3

The problem I raised of sending a Hydatid Control Officer from Australasia is one which concerns the recent appointment of a Veterinarian to the Falkland Islands. Mr Whitley will have been trained to undertake a wide range of parasitological investigations. My view and I think that of any Ministry would be that the sending of a Hydatid Control Officer to advise Mr Whitley on parasitological surveys would be similar to seeking finance to send a district nurse to advise Dr Cox on human health care. I cannot see any funding authority accepting this recommendation.

Now I am going to suggest in the light of Mr Whitleys appointment that my recommendation should be changed. I would be available to be seconded through the Ministry in London or through the Pan American Health Organization to assist Mr Whitley during November/December 1976. If a formal funding request to either organization for me to act as a consultant is made? the Chief Secretary and that is acceptable then Mr Whitley can begin work on the control program almost straight away.

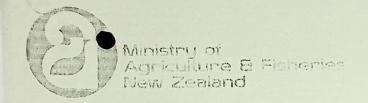
I suggest that between now and November Mr Whitley treats all the dogs with arecoline hydrobromide on each farm during routine visits on other matters. The purged material can be collected and stored in jam jars with 10% formalin. I can supply the arecoline if he finds difficulties in obtaining supplies. The methods of treating the dogs etc are explained in your copy of the Styx Field Trial. If required I can then assist him in examining these samples during my visit. The decision can then be made by the Committee as to whether or not further tests should be made or the program should be changed into a strong drug treatment program with such modern drugs as praziquantel (under separate cover). At the same time I would be able to assist you in the final drafting of your scientific paper. Both Varela Diaz and myself would be able to collaborate in your program.

With best wishes and tight lines for your wife's fishing trip.

Yours sincerely

14 shall from

M. A. Gemmell



Hydatid Research Unit C/- University of Otago Medical School P.O. Box 913 DUNEDIN.

February 20 1976

S. Miller Esq.
Ross House
Port Stanley
FALKLAND ISLANDS

Dear Mr Miller,

First thank you for your letter of January 17th. I have now found out the name and address of the Falkland Island Hydatid Control Officer. He is Michael Shane, Waimakariri/Ashley Hydatids Control Committee, P.O. Box 9 Rangiora, New Zealand. I have made some discrete inquiries with regard to his abilities. I am informed confidentially that he is not regarded as one of the best by the Superintendent of Hydatid Control. I have not approached him at the present time, but thought perhaps you may have some information which might be useful with regard to his background in the Falkland Islands.

I note in your letter that a veterinarian has been appointed. This is good new for the scheme in many directions. This brings me to two points.

# Point 1

#### The need to publish nationally and internationally

First, you inquired how best your methods and control program can be published and made known internationally. This must be done by local personel, and not by an outsider. There are two levels that are required. First, the general description which could be valuable to agricultural and medical authorities, should be published. This could be suitable for farming or Public Health journals and in my view should be prepared and issued by the Hydatidosis Control Committee or the Falkland Island Covernment. Help in writing the technical details can be given by Dr Cox and Mr Whitley. The second method and by far the most important internationally would be a scientific article with an analysis of data written for such a journal as the Bulletin of World Health Organization or a Journal of Epidemiology. I enclose a copy of an article I wrote on the Styx Field Trial in New Zealand for the Bulletin of the World Health Organization. This illustrates the sort of scientific standard to be aimed at. Now the important point I wish to stress is that it must be submitted by persons living and working in the Falklands and not In this way, the Falkland scheme gains its own prestige and by outsiders. contributes internationally and in return receives the respect of other countries working on this problem. Also rightfully it becomes a leader in methods for control and automatically becomes elligible to be regarded as an

equal partner in any collaborative project nationally and internationally. I would be very happy to assist in preparing or analysing data or reviewing the proposed articles before publication.

Point 2

The need to develop self-sufficiency as an equal partner with other collaborative groups

This brings me to my second point now that you have a veterinarian. I am anxious that collaboration is commenced between the Pan American Zoonosis Centre in Buenos Aires and Dr Cox. Other joint projects should follow on the animal side with Mr Whitley. I am aware that the Scientific Advisory Committee of the Pan American Health Organization meets in Buenos Aires next November. There would be merit in trying to get some joint projects introduced into this meeting. It seems possible that there could be more merit in eliminating the consultantship by one of our control officers in favour of (1) correspondence between Mr Whitley and myself on technical details of methods of arecoline diagnosis in dogs (2) a short-term consultantship during November/December for myself to collaborate with Mr Whitley in confirming his methods, assisting him in analysing his data and preparing appropriate material for publication. At the same time, I can on my way home present the data to the Pan American Health Organization for consideration of developing joint projects. In this way, your hydatid program is not a supplicant for international aid, but rather can be regarded as an equal partner with other groups working on hydatidosis in the area. International aid for scientific projects then becomes much more easy to obtain, since the Falklands scheme will be making its own real scientific contribution.

With very best wishes to you and Mrs Miller

Miles A. Genne

Yours sincerely

M. A. Gemmell

His Excellency

The forema.

1-9-76

FALKLAND ISLANDS

1-9-76

FOVERING THE STATE OF THE SENTENCE

Dean Mr. French

Liviting to over conversation this morning

The His house of cases which the S. H. O. PORT STANLEY in Connection with the human cases which the S. H.O. has promised me but failed so far to provide, I enclose all my letters from D! femmell since his visit Dus in December 1975. his visit to us in december 1975.

On you will see he continually re-iterates the importance of our Raichland Blands Hydeliad Story hein, purduced eventually to W. H. O. for the Colony's subsequent benefit.

I thought it better for you & read there letters (A which naturally Lhave replied) and so put yourself fully into the picture. the C.S. has seen these letters from time & time, but the important extract an I think you will agree is at the left of page 2 in the letter A april 9t. London, but time is getting on and if we are

going to get D' femmell seconded through the Hinistry whis visit funded, we should insufately take steps to make this certain. Tours succeedy Edway Under D.S. Probably you have a copy but I endone one of femmell's Report on his visit Dus. Llu,



# Reference Hydatidosis Survey

- 1. I attach a letter from Mr S Miller covering correspondence which is self explanatory.
- 2. Would you please request the SMO to provide the information required by Mr Miller for transmission to Dr Gemmell by not later than noon on Tuesday 7 September. Please add that I have a personal interest in ensuring that this deadline is met. The information sought by Dr Gemmell might prove decisive in maintaining his interest and support for our application for WHO or some other external organisation to undertake the survey in the Colony.



1 September 1976

N A I French

Dec 184

Chief

6 September 1976

Senior Medical Officer Stanley.

#### HYDATIDOSIS SURVEY

Mr S Miller has apparently been seeking some information required for transmission to Dr Gemmell, concerning young cases of Hydatidosis.

2. I appreciate that you have had a busy time recently but you should please ensure that Mr Miller gets this information to get it away by this week's post. The information is required to send on to Dr Gemmell and might prove decisive in sustaining his interest and support for our application for external assistance to undertake a Mydatids survey in the Colony.

5m

A J P Monk Chief Secretary.

Revised at

m.

-8 SEP 1975

Medical Department, 185
Stanley,
Falkland Islands.

7th Scytenber 1976

indicated

Mr S. Millef, Chairmen, Hydatid Committee.

Dear Sir.

## Ref; Frevious hydatid cases in Falkland Jelands

Please find enclosed a list of the hydatid syst cases which I can call to wind as having occurred in the Falkland Islands. I suspect that this list is not quite complete - I think that there may be another two cases still in the Falklands whose names have slipped my mind, and there was certainly one Falkland Island girl who was treated for hydatid cyst in U.K. two years ago.

When we sooke about this last week I do not think that you/the degree of urgency attached to obtaining this information which has been suggested to me in the letter which I received from the Chief Secretary today, and I regret that you have felt it necessary at this time to approach me through the Chief Secretary.

Yours faithfully

Ref 184.

Perek Cox Semior Medical Officer,

The Con

c.c. Chief Secretary.

tien

Shiefx

14 September 1976

C D Kerr Esq G T U Stanley

## HYDATID BOOKLET

Will you kindly refer again to my letter of 13 August.

- 2. You mentioned to me that you thought 500 copies would probably not be sufficient. Would you therefore agree that 750 might suffice? I have no strong views and if you feel that 1,000 are necessary I shall instruct our Head Printer accordingly. Naturally if we can avoid waste we should.
- 3. My early letter also referred to some advance publicity for the booklet and doubtless you have this in hand bearing in mind liaison with the SOA, GBU, ctc.

A J P Monk Chief Secretary.

Fil.

FOF 1007/20

RR PORT STANLEY

GR43

CYPHER CAT A

FM ODM LONDON 1412Z

RESTRICTED

TO ROUTINE PORT STANLEY MODEV 086 OF 20 SEPT

YOUR TELEGRAM NO 543 OF 18 AUGUST AND MONK'S LETTER AGR/7/12 OF

11 AUGUST. (167)

HYDATIDOSIS

WE ARE SEEKING EXPERT OPINION ON PROPOSALS AND HOPE TO LET YOU KNOW THE OUTCOME IN THE NEAR FUTURE

MINISTRANT

NNNN

SENT WPXEEE 20/2051Z GMH RECD 20/2051Z GML

## **MEMORANDUM**







No. 7. AGR

From

Chief Police Officer

To Chief Secretary, Secretariat.

20 SEP 1976

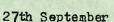
Subject :-

Dosing of Dogs

It has been the practice for a few years, for the Force to undertake the dosing of dogs with scoloban, each quarter, but due to the staff shortage over the past 2 years, the officers from the Agricultural Department have successfully carried out the task.

2. It is the primary duty of every Police Officer to enforce the law relating to the control of the Dogs Order 1975. I feel that to impose this additional and onerous task on members of the Force is quite unnecessary, whilst we have a Department and staff in the Agricultural Department, who are better qualified to do this work. I therefore request that the Agricultural Department be responsible for the quarterly dosing of all dogs, and allow the Police to enforce the law where ever necessary.

Chief Police Officer



From: Clerk, Agricultural Dept.

To: Chief Police Officer

## Dosing of Dogs

Reference your memo to the Chief Secretary of 20th September 1976.

As Messrs Anderson and McKey of the Agricultural Department have been carrying out the quarterly dosing of dogs in Stanley for some time it is felt that any definitive ruling on this matter would be best left, until Mr & Hallidey returns from UK leave on 18th November.

for CHIEF SECRETARY

Chief Secretary's Office Stanley Falkland Islands

30 September 1976

Department of Health Services, G P O Box 191 B, Hobart, Tasmania.

Dear Sirs,

## HYDATID DISEASE NEWSLETTER

We receive regularly one copy of your Tasmanian Hydatid Disease Newsletter. We make good use of this but if you could let us have, say, 50, these would be of great value for distribution to our farms.

- 2. Like you we are embarked on an intensive campaign to eradicate hydatidosis, but unlike you we lack the resources and expertise to produce the excellent literature that originates from your office.
- 3. May I ask that you might make these copies available to us gratis, although we would consider paying for them if necessary.
- 4. Can I further trespass on your hospitality and ask whether you would be able to make available any of the last three of the 16mm films on hydatids referred to in the newsletter of August 1976?

Yours faithfully,

A J P Monk Chief Secretary.

190

cc. The Hon S Miller, JP. :

P.S. This refers to your letter of 20 September.
I hope we can bring it off.

3/1 on Policy: Hydahds pl 1/46 CHIEF SECRETARY. AGRITIL Dear Mr Monk. I thank you for your letters to Campbell concerning the thydatid Campaign and proposed charges in the legislation. at length, to the Miller concerning the Campaign & buchose a copy of the letter for your information and perusal. I hope that you with fugive one for not replying to your points is detail but I think that they are covered by the letter. To any orban Your Licerty. THIS DOCUMENT STILL TO BE TYPED. PLEASE EXCUSE MANUSCRIPT Campbell.

THE SECRETARIAT

Ref: AGR/10/4

10 November 1976

F G Cooke Esq 2 Wilberforce Road Cembridge CB3 OEQ England

I attach a "layman's draft Dogs Order" drafted by Mr Sidney Miller and members of our Grasslands Trials Unit including the Vet.

I have had no time since receiving it to do other than glance at it. I have promised in Miller to pass it on to you. In Miller and his committee would like to use this as a substitute for the Hydatid Eradication (Bogs) Order 1975, which admittedly is defective, but obviously you will not be in a position to do more than merely study it until we have set out our policy with regard to dogs, and told you clearly and concisely what we aim to achieve. I propose to do this within the next week or so.

A J P Monk CHIEF SECRETARY

66 AGR/7/12

REF: A. (-R/7/12

It is requested that the number and date should be quoted.

STANLEY, FALKLAND ISLANDS,

SOUTH ATLANTIC.

loth November, 19 76.



A.J.F. Monk Esq., Chief Secretary.

Ref: - CS/1176/HC/10

Dear Mr. Mont,

At our meeting this morning various matters were discussed on the subject of Hydatid Disease and the following points were agreed:-

- You do, and F.I.G. will, approve the recommended change from routine dosing with Scologan to Droncit;
- F.I.C. will approach, as soon as ossible, the Manufacturers of Drancit to agree a price and confirm an order sufficient to last one year (i.e. 20,000 tablets). The Manufacturers are BAYER-VITERINAR-BERFICH VERTRICH, 509 LEVERUSEN, BAYER-ERM, 5 KOLN-MUIHEIM, FED. REP. GERMANY;
- You have no objection to my paper and letter to Mr. S. Miller being shown and discussed with farmers and Seuncillors;
- The paper will be circulated to all Councillors prior to the December (1976) Exco meeting;
- 5. The paper will be discussed at Exco in December 1976;
- 6. F.I.G. will pay travel and accommodation for campers to attend a broadcast discussion on Hydatid discase;
- The draft order will be sent (or has been sent) to the logal advisor without dolay;
- You accept the need for urgency in the change of drug and the law in order to protect the public; 8.
- Addi istrative instructions will be Cazetted and circulated; 9.
- You accept the importance of having an appointed Chief Inspector 10. with discretionary powers;
- You realise the need for an increase in the licence fee for does 11. in Stanley.

I would be grateful if an acknowledgement of this letter could be sent o me.

Yours sincerely,

R.S. WHITLEY - G.T.U.

C.c. Mr. S. Millar Hydatid Chairman Hydatid Committer.

188 + 20,000

180,000 181.000

1360,000

AGR|7/12

REF:

It is requested that the number and date should be quoted.



THE SECRETARIAT,

STANLEY, FALKLAND ISLANDS,

SOUTH ATLANTIC.

8 November 1976

(B7).

Dear Tv. Houle

Please find enclosed an advance copy of the Proposed Dogs Order, submitted on behalf of the Chairman, Hydatids Committee. I believe he will suggest that it be submitted as an Information Paper to Exco. It is also his opinion what it would be helpful if at the same time the enclosed letter addressed to him from the Vetermaty Officer is celse submitted as an Information Paper. I can consider you will agree that it is an exhaustive and logical discussion of the problem leading materially to the Proposed Dogs Codor.

Hydatuds Plicy

Kindest regards Campbell. 162/1014



Mr. F.G. Cooke, MA, LLB, PJK., 2 Wilberforce Road, Cambridge, CB3 OEQ.

Dear Mr. Cooke,

I enclose a copy of a letter which I wrote to Mr. S. Miller on the subject of hydatid disease and its eradication from the Falklands.

Following from the letter and after discussions with the Hydatid Committee, it was decided to re-write the prevalent Dogs Order which was known to be full of boopholes.

I would like to take this opportunity to briefly try to fill the gap between the letter and the draft order. If, of course, I do not completely explain any particular point, please do not hesitate to contact me.

Sections 2,3,4 - Definitions have been included mainly so that the order not only is most precise but will have flexibility in the future in case, say, we wanted to ban the feeding of any part of an infected carcase to dogs etc.

Section 5 - It was thought necessary to move the administrative power from the Governor in Council to a Chief Inspector who would therefore be able to use which ever drug he considers appropriate - i.e. he can run check tests to monitor the efficacy of the drug used for dosing.

Section 10 - Have included hearts with livers and lungs.

Section 13 - Place of slaughtering animals is restricted thereby limiting opportunities for errors in offal disposal, which must take place by one of two methods - section 16 (a) and (b).

We were still left with the problems of the mass killings and of sheep which died out in camp.

So automatically exceptions had to be made to the previous exceptions.

(In 14 (c) - should it be "...... Section 14 is fairly straightforward. in writing by the Chief Inspector"?)

Section 15 - As you know some shepherds houses are not permanently occupied and therefore it is un-reasonable to expect a farm to maintain a carcase-free zone around such a building when unoccupied. The carcase only presents a hazard if there is a dog present.

Does the first phrase of this Section introduce an ambiguity which conflicts with Section 14? - i.e. how many carcases make a dump? and what about times of the year other than at the "main autumn mass killings"?

Section 16 and 18 define the persons responsible.

Section 19 - Restricts use of cestocidal drugs so that position is monitored by Chief Inspector.

asked me to pass a message to Ma whitley that letters to the hegal adviser must go though his office Message lift not in, Ma Kers not in office Message lift with me Mcadam.

In summary, we are trying to produce an Order ( - but may be an Ordinance, depending on the decision by EXCO) which:-

- (a) Stipulates the species which may be dangerous to dogs;
- (b) Stipulates where these species may be killed and how their offal may be disposed;
- (c) Restricts the movement of dogs;
- (d) Stipulates that dogs shall be dosed with an approved drug;
- (e) Allows for the difficulties of carcase disposal at mass killings and when sheep die out in camp (or have to be killed by Shepherds);
- (f) Defines responsibilities;
- (g) Permits discretionary powers to the Chief Inspector.

I hope these comments are of value to you.

Kind regards,

Yours sincerely,

R.S. WHITLEY, MRCVS.

Co. Chief Scentung

## FILE NOTE - For attention by AS:-

Further to my minute at 21 I think you can ignore the injunction to Mr Whitley as I think he has now got the point but please write for my signature to Mr Cooke apploprising for Mr Whitley's letter sent to him direct.

Then I see action on folio 196 following as follows:-

- 1. SPC must approve additional funds to purchase the Droncit tablets referred to in para 2 of 196.

  Application to SPC should indicate (a) what the stocks of Scolaban are, (b) how long they will last, (c) firm date of change-over to Droncit and (d) the total cost of a year's supply of Droncit.
- 2. An Exco paper will have to be prepared which must include the points we discussed, as follows:-
  - (a) that SCA and GEU have been consulted adequately,
    (b) that there will be no undue haste in converting to the new drug with consequent risk of mistakes,
  - (c) that there are no side effects from the drug, (d) that we can guarantee continuity of supplies, and
  - (e) the earliest date by which the drug can be available from the supplier.
- 3. The vet should write to the bever for the information required for the Exco paper.
- 4. A copy of the vet's letter at 197B should accompany the Exco paper.
- 5. The Order should accompany the Exco paper. In this connection I have discussed it with Mr Millor and made several suggestions which he will be submitting shortly. These are simed to remove inconsistencies in the Order and to tighten up definitions.
- 6. Some of the administrative instructions could well be incorporated in the Order.
- 7. As regards the Chief Inspector proposed under the new Order I understand this is to be the Veterinary Officer. Special mention should be made of this change in the Order in the Exco paper. One defect of the old Order was that inspectors did not carry out their jeb.

  Presumably the purpose of a Chief Inspector is that he will but he must be supported by others who are prepared to make themselves unpopular and ensuring that provisions regarding the disposal of livers, lungs etc are done properly.
- 8. As regards the increase in the licence fee T am not sure that this can be done by an Order in Council but you will wish to check.

Please proceed as above and discuss as necessary. This is an important matter but it is also equally important that we get it right and do not let either enthusiasm or professional pressure divert us from achieving the ultimate goal by the quickest road. Above all we must not let the law seem to be ridiculous, which would be a real danger were we to legislate for yet another Order which was either inconsistent or unenforcible.

Jan.

22 November 76.

m.

by Rules when

5.13 of Dogo Ont.

## T. H. E. C.

## TASMANIAN HYDATIDS ERADICATION COUNCIL

G.P.O. Box 407 D, Hobart, Tasmania, 7001, Australia

First Floor: 113c Hampden Road, Battery Point Telephone: 23 2266



8th November, 1976.

Chief Secretary's Office,

STANLEY,
Falkland Islands. S.Atlantic.

VA. MONTEVIDEO.

Dear Sir,



## HYDATID DISEASE NEWS LETTER

As Secretary of the Tasmanian Hydatids Eradication Council and joint Editor of the News Letter, I am replying to your letter of 30th September.

We are pleased to note that you find the News Letter such good value. From our present print order, we could not supply you with asmany as 50 copies of each issue, but I am sending you under separate cover by sea mail 25 copies of the last issue (No. 7) 25 copies of No. 6 and 50 copies each of a simple life cycle leaflet, and home killing leaflet.

We may be able to increase the print order later, but funds for this type of material are not so easy to obtain now as they were 10 years ago when the campaign began.

However, I will endeavour to send you 25 copies of each issue (quarterly) until further notice.

Regarding the films, I regret that we cannot send you any of these on loan, on account of the freight and distance. No copies have been sold to the American continent at all as yet, so I am afraid there is no chance of you being able to hire it from a library.

If you do decide to purchase copies, I would recommend "Killer on the Move" and "Family Group".

The National Film Library of Canberra have copies of both the above films, but I do not know whether they would let them go out of the country.

Sorry that I cannot help you in this matter and trust that you will find the literature useful.

Yours faithfully,

While mere

(John Pichmere)



# EXTRACT FROM MINUTES OF EXECUTIVE COUNCIL MEETING NO. 16/76 HELD ON MONDAY, 29TH NOVEMBER 1976.

## 9. Hydatid Control Campaign

- 9.1 Mr Blake said that he had had discussions on this subject with Mr S Whitley, the Veterinary Officer, and asked that the draft amending Dogs Order should be circulated to all interested parties for early comment.
- 9.2 He recommended that in its hydatid control campaign, the Colony should switch from the drug Scolaban to Droncit as a matter of urgency, and further that negotiations should start now for a four years' supply contract with the manufacturers of the new drug (Bayer AG of Cologne, Germany), with a view to obtaining the first shipment in June 1977.
- 9.3 He thought also that consideration should be given to airfreighting a sufficient quantity of the new drug to permit its introduction into use here in advance of the receipt of the main supply.
- 9.4 The Chief Secretary pointed out that this was a complex and expensive operation requiring the very fullest public relations programme and consultation with SOA/GEU. It could also prove expensive and SFC would have to vote funds.

CLERK OF COUNCIL

STANLEY, FALKLAND ISLANDS,

SOUTH ATLANTIC.

19 76. 14th December,

A.J.P. Monk Esq., Chief Secretary.

It is requested that number and date

fould be quoted.

Ref: - CS/12/HO.



Dear Mr. Monk,

I refer you to my letter of 10th November 1976, reference CS1176/HO/10, on the subject of Hydatid Disease.

I wonder if you could tell me the progress of the negotiations with Bayer concerning the acquisition of Droncit?

Incidently, I have not yet received an acknowledgement of the letter of 10/11/76.

Many thanks for your letter of 16/11/76 on Artificial Insemination.

I wonder if you have received a letter from me dated 10/11/76 on the subject Perhaps you could check through the records to see if a of Milk production? reply has been sent?

Also I wonder if you have received a letter concerning the cattle in Stanley (dated 10/11/76?).

Yours sincerely.

// R.S. WHITLEY, MRCVS.

Il. till 970 to with to the CSO we lone personally a inform kem that this subject comes whis your artist. Si4/12



14th December,

76.

H. Rowlands Esq., Financial Secretary.

Dear Mr. Rowhands,

### TRANSLATION HYDATID BOOKLET.

A Spanish translation was made of the Hydatid Booklet and subsequently distributed to the appropriate people.

The translation was done by Mrs. Tessy Byffen, who used to be a Spanish teacher here. The time taken, I understand, was about six hours including typing, and I consider a payment of £1.50 per hour about right.

May I therefore seek your approval to make available the sum of £9 for Mrs. Byffen from G.T.U. Local Estimates section - Printing?

Kindest regards,

C.D. KERR - G.T.U.

c.c. Chief Secretary.

The Life Cycle
of
The Hydatid Worm

## The Worm

The correct name for this tapeworm is *Echinococcus* granulosus. The adult worm which lives in the intestines of the dog consists of a head, with suckers and hooks, and up to four segments. The only permanent part of the worm is the head which is very closely attached to the wall of the intestines by the hooks and suckers. The segments are produced by 'budding' from the head, so that, as the worm hangs in the guts, the oldest part is the one furthest away from the head.

The segments are hermaphrodite which means that each one has both sets of sexual organs and may fertilise itself; but more usually the worm twists around so that one segment fertilises another.

The oldest segment drops off the worm when the eggs inside are fertile and mature. This packet of eggs passes out of the dog in its motions and the eggs are released by the segment breaking. The eggs are covered by a very resistant covering which enables them to withstand the effects of the atmosphere - including freezing and drying - for over a year.

The largest specimens of the worm have been measured and found to be 6 millimetres long (therefore, laid end to end, you would get four worms to the inch).

It has been calculated that a single worm may produce up to 500 eggs per week.

When a dog passes a motion, the rain soon disperses the brown matter, but the eggs of the hydatid worm (if present in the motion) may still be present on the grass or ground for many months after.

## In the Sheep

The eggs lying on the grass or ground are eaten by a sheep. The protective covering of the egg is digested by the stomach juices and the actual egg is 'activated' by the bile and other digestive juices in the intestines. The egg which has little hooks on it, penetrates the wall of the intestines and enters the blood stream.

In the same way that the goodness of the food enters

the body, the eggs are carried to the liver. The blood vessels become smaller and smaller so that the eggs often become lodged here but they often pass through and are carried to the lungs where they become stuck in another lot of fine blood vessels. If, by chance, the eggs are carried through the lungs, they may obviously end up anywhere in the body.

If a dog which is infected with the worm has relieved itself in a place which becomes very dusty, in the spring or summer, then the eggs may become airborne and directly infect the lungs of sheep when they inhale the dust.

When the egg has finally settled it begins to grow and takes the shape of a balloon which is full of little particles called 'hydatid sand'. Each of these particles is capable of forming another cyst if the balloon is broken.

The cysts grow very slowly in the sheep taking about one year to reach half an inch diameter, and therefore they are very difficult to see when young.

In the sheep most of the cysts are found in the lungs and only about 25% are found in the livers. The effect on the sheep is mainly due to the physical size of the cyst, when large, causing difficulty in breathing and making the animal more susceptible to infections such as pneumonia.

The infection carried by the sheep can only be transmitted to a dog by the death of the sheep and by the dog eating the cyst or its contents, which may be spread over a wide area if the cyst has been broken.

In the same way, there is no possibility of humans catching hydatid disease by touching or eating a cyst, or eating the meat from an animal which has a cyst in the lungs or liver. But the more that lungs and livers are handled and moved about, the more chance there is of a cyst or its contents coming into contact with a dog and the disease being transmitted to the dog.

When a sheep dies or is killed, most of the cysts die over the next week or so, but they CAN survive for three weeks. This is why we must store the offal for 28 days before final disposal.

## In the Dog

The particles of hydatid sand eaten by the dog become attached to the walls of the intestines and grow into adult worms over a period of about seven weeks. Of course the worms cannot lay any eggs until they are adult.

The presence of the worms in the intestines does not cause a dog any harm even if there are several thousand worms.

The worms may grow better and produce more eggs in some dogs than others, but NO dog is resistant to the infection.

## In other species

Basically the life cycle of the hydatid worm alternates between the adult stage living in a carnivore (meat eating animal) and the intermediate stage (the cyst) living in a herbivore (a grass eating animal).

There are two types of cycle of infection which occur in different parts of the world. The first is called the sylvatic cycle in which the infection alternates between a carnivore and a herbivore which are naturally associated such as the dingo and wallaby in Australia, the timber wolf and caribou in Canada, the jackal and deer in Pakistan and India. This cycle is only important when man 'interferes' by feeding caribou, wallaby or deer offal to his dogs which then become infected and can pass the infection to man. The other cycle is called the pastoral cycle and is the one with which we are directly concerned. The dog is always involved as the carrier of the adult stage, and the sheep is very often the other 'half' of the cycle, but in the Middle East the camel, and in Scandinavia the reindeer are involved as the carriers of the cyst.

Incidentally, it is an occupational hazard of shoemakers in Iraq to get hydatid disease because they soak their shoe leather in a soup made from dog faeces.

## Principle behind the eradication of the disease

The cyst in the sheep can only cause infection in the dog if the dog eats either a cyst or food which has become contaminated by the fluid from a cyst. There is no way

that a sheep can pass the infection to a dog while it is alive.

There are no drugs available at the moment which can destroy the cysts in a living sheep.

A dog can contaminate a very large area of ground with eggs that are resistant even to the most severe weather. A patch of grass contaminated several months ago, and which now appears clean, can still harbour the infective eggs.

The eggs are so resistant that they can still cause infection after several days' immersion in formalin. The eggs are only killed by a direct temperature of 71 degrees Centigrade (160 degrees Fahrenheit).

If a dog has several hundred worms inside it and they are all producing up to 500 eggs per week, imagine what the total egg production must be! Even though it may take several eggs being eaten by a sheep to cause a cyst, obviously the chances are quite high with this huge number of eggs being produced.

Not only may a dog contaminate the ground with eggs but he may also contaminate himself - the eggs become attached to the hairs of its rear end and also to the hairs around its mouth.

Incidentally, in France the disease is called "La maladie des mains sales" which means "the disease of soiled hands".

This underlines the fact that

#### PERSONAL CLEANLINESS

is of the utmost importance.

If the simple precaution of washing your hands after handling animals or dirty materials is taken, and making sure that NO dog has access to offal, then the chances of getting hydatid disease are very much reduced.

R. S. WHITLEY, B.V.M. & S., M.R.C.V.S. Veterinary Officer, G.T.U.

August 1976

Printed at the Government Printing Press, Stanley, Falkland Islands.

CHIEF EECRES

14th December,

76.

J. King Esq., Head Govt. Printer.

Dear Mr. King,

## HYDATID BOOKLET.

I wish to express my thanks on behalf of C.T.U. for the issue of the booklet on the Hydatid worm.

We all thought the presentation of the booklet excellent, which as you know, influences people to some considerable degree as to whether the subject matter is read or not.

Kindest regards,

C.D. KERR - G.T.U.

c.c. Chief Secretary.



22 December 1976

Messrs.
Bayer Voterinar Bereich Vertrich
509 Leverkusen
Bayerwerk
5 Koln-Muiheim
GERMANY

Dear Sirs.

## DRONCIT

We wish to switch to the use of the drug Droncit in connection with our hydatid control campaign which has been in operation for some years. We would hope that the change to Droncit can be made by June 1977.

- 2. In order to implement the decision we would like to consider whether to enter into a four-year supply centract with you, for the supply of some 20,000 tablets a year. We would appreciate it if you would please cable whether you can supply the drug and arrange for its delivery here by that date. Information with regard to the cost would also be appreciated.
- 5. In addition, would you be able to despatch a small quantity of the drug by air in advance of the bulk supply, so that the new drug can be made available earlier than mid-1977? We would require some 5,000 tables as soon as possible.
- 4. Cables may be addressed to CHIEFSEC STANLEY.

Yours faithfully.

A. J. P. M

(R. Browning)
SECRETARY

Reply at 210

ec. Is whiteless for

es. DRONCIA

(207) 6 weekly dosing (Vet prefers) Montley dosing & 3462.92 £2303.24

£1861.25 pu you but not as effective. SCOLABAN

NOTE
L970 allocated under HEAD II Sullead 2

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if montely dosing

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77

National Film Library, Canberra, Australia.

Dear Sirs,

## Films on Hydatidosis

For some years now this Colony has been mounting an hydatidosis eradication campaign and in an effort further to educate our local population in the matter we would like tooobtain copies of several films.

2. It is understood that you may have the films -

Killer on the Move; Family Group; and Kill with Care.

Would you kindly advise me by air mail whether you could provide us with the films, and the cost of them.

3. The indications are that our campaign is proving successful and the availability of the films would greatly boost our efforts.

Yours faithfully,

CHIEF SECRETARY



10th January

77

Mr. John Pichmere,
Tasmanian Hydatids Eradication Council,
G.P.O. Box 407 D,
Hobart,
Tasmania, 7001,
Australia.

Dear Sir,

### Hydatid Disease News Letter, etc.

Thank you very much for your letter of 8th November 1976. We are indeed grateful that you have been able to supply us with copies of the News Letter and look forward to receiving them in due course.

- 2. The position regarding the supply of the films has been noted, and enquiries made to the National Film Library of Canberra..
- 3. I wonder if we could ask a further favour of you? Would you kindly send us by airmail a catalogue of the 35mm colour transparencies you have available. It is felt that the transparencies would prove invaluable here in further educating the local population in our anti-hydatidosis campaign. Arrangements will be made to refund to you the cost of the postage on the catalogue.

Yours faithfully,

6

CHIEF SECRETARY

us

The Secretariat, Stanley, Falkland Islands.

28th January 1977.

To: All Farm Managers

Gonourable Councillors

Hydatids Committee

Registrar, Supreme Court

Dear Sirs,

# Hydatid Tradication Campaign and Proposed Dogs Order

During the latter half of 1976 Mr. Sydney Miller, J.P., Chairman of the Hydatids Committee received a letter from Mr. R. S. Whitley regarding the Hydatid Eradication Campaign. Following the receipt of the letter, discussions were held by the Hydatids Committee and a consequent amending Dogs Order was drafted.

- 2. Copies of Mr. Whitley's letter and the draft Dogs Order are attached hereto. Would you kindly peruse them and let me have early any constructive comments or alternative suggestions you may have.
- 3. It is hoped to make the new Order acceptable to as many people as possible and as water-tight as can be. In order to achieve this objective it is proposed to take cognizance of the suggestions received in reply to this letter, and then to submit the resulting further draft Order to the Governor in Council for consideration at an early date. Your co-operation would, therefore, be greatly appreciated.

Yours faithfully,

CHIEF SECRETARY

#### DOGS ORDER

- 1. This order may be cited as the Hydertid Eradication (Dogs) Order 1977.
- 2. In this order
  - i) "Approved Place" means any place or building wherein animals are slaughtered whether within a main settlement or sub-settlement or shepkerd's dwelling.
  - ii) "Herbivorous Animals" shall include cattle, sheep, horses, pigs, guanaco, rabbits, hares, and any other species so determined by the Governor in Council.
  - iii) "Infected Carcase" means any carcase of an herbivorous animal which has present in it the cyst of any species of tapeworn.
    - iv) "Owner" includes the actual owner of any farm or the ranager or other person for the time being in charge of the farm.
- 3. Any farm which has present infected carcases shall be deemed to be an infected farm.
- 4. The Governor shall appoint a Chief Inspector and may appoint any fit persons to be inspectors for the purpose of this Order.
- 5. An Inspector shall require the cumer or other person in charge of any dog in his area to dose the dog with an approved preparation under the personal supervision of an inspector in such manner and at such intervals as shall be directed by the Chief Inspector.
- 6. The Chief Inspector shall issue a card to every owner or person in charge of a dog, similar to those issued to dog owners in Stanley, and it shall be the responsibility of such owner or person in charge of a dog to see that the inspector enters on the card the date and details whenever the dog is desed with an approved preparation.
- 7. An inspector shall supply the owner or person in charge of any dog with such doses of the approved proparation as the Chief Inspector shall consider essential, free of charge in Stanley and at cost outside Stanley.
- 8. Every inspector shall have the power to inspect any dog at any time.
- 9. The owner or other person in charge of a dog shall ensure that the animal is confined or securely tethered unless being worked or exercised under supervision.
- 10. No person shall feed or cause or allow to be fed any liver, lungs or heart of any herbivorous animal to any dog, nor shall any person allow any dog access to such livers, lungs or hearts.
- 11. No person shall allow any dog access to the area where the slaughtering of cattle, sheep, horses or pigs is taking place.
- 12. Except where permitted under Sections 14 and 15, no person shall permit the carcase of any herbivorous animal belonging to him or under his control from which the liver, lungs and heart have not been removed, to remain in any place to which dogs can gain access.

13. Except where permitted in this Paragraph all cattle, sheep, horses, and pigs shall be slaughtered in a place reserved solely for this purpose and which is fenced in such a way as to prevent access by dogs at any time. Permitted exceptions:-(a) where an animal is destroyed on humanitarian grounds; (b) when the main autumn mass killings of sheep occur; (c) on uninhabited islands. 14. At the main autumn mass killing shoop carcases shall be removed unopened, either:-(a) to a stacked dump not less than 2 niles from the nearest dwelling house; (b) if stacked less than  $2\frac{1}{2}$  niles from the nearest dwelling house, the carcases must be contained within an enclosure which prevents access by dogs or birds, for a minimum of three months and then burned; (c) disposed of in such a way as approved by the Chief Inspector. The carcase of an herbivorous animal shall be permitted to lie, skinned or unskinned in main camps or autside paddocks where the carcase is more than one mile from the nearest dwelling place which at any time is being occupied by a person who has a dog in his charge. A person who slaughters an animal in the approved place shall remove the liver, lungs and heart from the carcase and shall permonently dispose of them by one of the following methods:-(a) by burning to ash in an incinerator which is contained within the dog proof area surrounding the killing place; by burying in a covered dog proof pit so that the surface of the contents at no time is loss than three feet from the entrance to the pit. The pit must be within the dog proof area surrounding the killing area. 17. The drainage channel from a killing house must be covered at all times to prevent access to the effluent by dogs or birds. 18. The owner of a farm shall ensure that adequate facilities for slaughtering herbivorous animals and disposal of livers, lungs and hearts from such herbivorous animals are provided, in accordance with the previsions of the previous Paragraphs in this Order. 19. Cestocidal drugs may only be obtained from the Chief Inspector or a resident Veterinary Surgeon and may only be administered at such times as shall be directed by the Chief Inspector or a resident Veterinary Surgeon. 20. The Chief Inspector or any Inspector or any Police Officer, may for the purpose of ascertaining that the previsions of this Order are being complied with, at all reasonable times enter on any land or premises. 21. Any person who obstructs or impedes any police officer or inspector in the execution of his duty or who contravenes or fails to comply with the provisions of this Order shall commit an offence and shall be liable on summary conviction to a fine not exceeding £200 for the first offence or £500 for the second or each subsequent offence. 22. The Hydatid Eradication (Dogs) Order 1975 is cancelled.

Dear Mr. Miller,

I have been informed that you and Mr. Monk are drawing up some proposed alterations of the Dogs Ordinance to fill the present loop-holes. I feel that it is an appropriate time to let you know my thoughts on the Hydatid Eradication Scheme.

Some of the following remarks are somewhat controversial but they will, I hope, stimulate some interesting discussions between us and the Hydatid Committee, the end result of which will be a watertight law backing an effective campaign to control and eradicate Hydatid Disease.

I am taking the liberty of sending a copy of this letter to the Chief Secretary because he has been in communication with me concerning the proposed changes to the Law. I feel that it is safer - and certainly is easier - if, on this subject, I make my recommendations through yourself and the Hydatid Committee otherwise our lines might get crossed and, above all, we must work together against this disease.

Whilst in Camp, much time was spent in observation and discussion concerning the control of Echinococcosis.

The Hydatid Campaign has a twofold purpose: primarily to prevent infection of humans and secondarily to improve the saleability of the sheep carcases - here and abroad. Obviously these two aims are very closely interrelated and the methods of c ntrol inseparable.

In other parts of the world there is always a wild canid population which can act as a reservoir of infection for the sheep and thence dogs and humans, but we, in the Falklands, are in the enviable position of not only having no wild canids - except the Foxes on Weddell, Beaver and a few smaller Islands - but also have no stray dogs. Therefore the total population of dogs is both small and easily identifiable. This means that it is possible to examine each and every dog for the presence of Echinococcus granulosus.

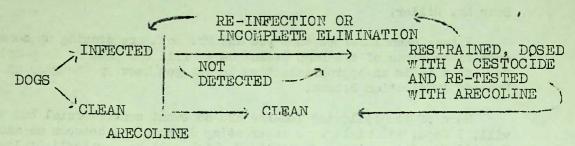
The idea behind the use of Arecoline is to determine the approximate percentage of the dog population which is infected at any one time. I say "approximate" because dosing with Arecoline does not detect all infected dogs because of physiological variations in the response to the drug by both worms and dogs.

When the deg population is large or unidentifiable, the use of Arecoline enables a small fraction to be tested and the results extrapolated to encompass the whole population.

Arecoline testing also provides one with the facility for testing a dog in the presence of its owner and, if positive, to immediately begin the "follow up" enquiry to determine the source of the infection. The detection of an infected dog in front of its owner has great psychological value in embarrassment - hopefully - and shunning by his friends and associates.

Unfortunately the use of Arccoline has two further drawbacks which need to be mentioned. The first is the fact that the worn and eggs when expelled from the dog are still alive and capable of infecting man and sheep - therefore a very high standard of hygiene and care must be maintained - and the second is the discomfort caused to the dog which can be severe in a small percentage of cases.

The Arecoline testing scheme can be represented by the following "flow diagram" -



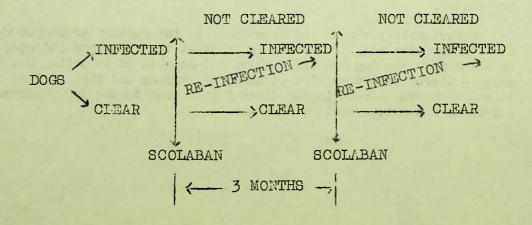
From this you will notice that some dogs may apparently be clean but still harbour the infection.

At the present time, I am having certain difficulties connected with the proposed survey.

This survey can only begin when:-

- 1. Laboratory Facilities Available these are not necessary if testing and processing is done on the farm, as long as the equipment is available (which it is) and as long as the farms are willing to provide time and facilities. At the present time there are no Laboratory facilities available in Stanley;
- 2. Arecoline is present all British drug manufacturers have ceased production of all sorts of Arecoline salts and so I, as yet, have none. At the moment I am trying to obtain supplies from U.S.A. and Argentina and Uruguay. When these will arrive I do not know.
- 3. Dogs available it would be possible, but not necessarily politic, to demand the dogs to be presented for testing at any time. As you know shearing will soon start and the dogs (and nen) will be working hard. It is vital that the dogs be rested for at least 18 hours prior to Arecoline testing. This neans that it will probably be unpopular to begin testing during the shearing season. You will understand that I have much other work to do at the present time in connection with the Epididynitis programme and G.T.U. duties. Therefore it would be difficult, at this time of year, to devote a fairly lengthy period solely to Arecoline testing. You will appreciate that, as with farmers, much of my work is seasonal.

The present Scolaban schene may be summarised by the following flow diagram:-



The faults of the schene pay be sum arised:-

- 1. The drug is only about 90 95% effective against adult worms, and far less effective against irrature worms;
- 2. The preparent period of the w rm is 6 8 weeks and therefore the frequency of desing is insufficient to ensure safety;
- 3. The Law, as it stands, has several severe loop-holes;
- 4. Due to the facts statedin (1) and (2), we are never sure of the exact risk of infection due to contact with any one dog.

At the present time there are several potential sources of infection by which dogs may obtain worms:

- 1. by eating cysts in offal (illegal);
- 2. by enting cysts in other tissues;
- 3. by eating neat contaminated by cyst fluid;
- 4. drainage from offal pits;
- 5. drainage from killing houses.

The greatest source of infection lies with the cysts, most of which are found in the liver and lungs.

With the present system of ferming, it is quite impossible to ensure 100% that NO dog has access to ANY offal because there are always dead sheep lying about in Camp. Therefore, I see our duty - by our, I mean the Colony - is to try to reduce the frequency of contact between dog and offal, and to encourage, may descend, increased vigilence on the part of the dog owners and their collectues.

With reference to (4) and (5) above, it would be fairly simple to improve the present situation - which leaves a lot to be desired on some settlements - by ensuring by law, that drainage channels from killing houses were either enclosed or fenced so that neither birds nor dogs could gain access and also ensuring that the drainage from offal storage drums or pits was fenced off to prevent any possible access by dogs at any time (i.e. even at low tide).

In connection with this, I have seen affal druus, covered and technically dog proof and therefore legal, obzing fluid from the base. This fluid may contain hydatid sand and therefore presents a potential hazard.

We now come to a more thorny problem contained in items (2) and (3) above. In order to be absolutely certain that a dog could not become infected by eating a cyst centained within the next or other tissues (including the brain) or by cating neat contaminated by cyst fluid, we would either have to prevent any dog eating mutton, which is obviously impracticable, or to kill any potential infection, prior to feeding to dogs. This means heating to a required temperature which is maintained for a certain time (i.e. boiling for 2 hours). Now this suggestion obviously presents immense difficulties and, from my point of view, dangers in that dogs would be fed cooked bones - unless the ment was removed from the bone prior to feeding - and this would increase the chances of gastro-intestinal trauma due to bone fragments. Therefore I suggest that we could nodify this idea by saying that any carcase in which an hydatid cyst or a cysticorcus tenuicollis cyst (false hydatid) is found in any organ, rust not be used for feeding to dogs. This reduces the possibility of cyst fluid contaminating dog neat. It would probably be safer to say that the carcase of such animals should be destroyed and not even used for human consumption.

I include the false Hydatid cysts because their presence in a carcase shows that there is a dog/sheep cycle being maintained and the sheep, therefore, has access to grass contaminated by dog faeces and so may contain a hydatid cyst.

With reference to item (1) in the list above - "By eating offal" - I feel that the situation is fairly good at the moment but there is still room for improvement as there are one or two people who are either ignorant of the dangers or just bloody minded and are prepared to endanger the health of others. Bearing this in mind, I feel that, with reference to Paragraph 10 of The Order, the more alternatives you give people, the more chance of errors occuring.

I have seen methods for burning offal which are both easy to construct and cheap to operate using wood from the beaches, peat and a small amount of oil waste from tractors. I have also been trying to contact firms who supplied to U.K. M.A.F.F. with a chemical called ISOKAL 1 which is used in the iron smelting industry. This chemical was used during the 1967/68 Foot and Mouth outbreak to enhance combustion of sheep, cattle and pig carcases and would, I hope, be of considerable use in aiding combustion of offal and carcases here.

Therefore, I am of the opinion that Paragraph 10 should be reduced to two alternatives - either burning or burial as in subsection (1) and (2).

In order to be 100% certain that no dog is infected, we would have to have a system whereby: (1) a drug is used which is 100% effective against adult and immature worms, and to prevent all possible sources of reinfection. If such a system was operating, then the routine dosing of dogs could coase, thereby saving a considerable sum of money. The annual SCOLABAN bill is approximately £650 but if the frequency is increased this would rise to £1950 which is a hefty sum but, in fact, an acceptable price to pay for the prevention of this disease.

It would be nice to be able to operate a system whereby any dog found to be infected by Arecoline testing would lead to prosecution of the owner, but this would be unfair on the owner - and probably legally impossible - unless all sources of infection were legally barred.

As you know, there are new drugs available which are more effective against Echinococcus granulosus than Scolaban. I have now received more information on one of these drugs - DRONCIT. This information has come from the manufacturers - BAYER - from Dr. Thakur at CEPANZO, who has done independent tests and from Dr. M.A. Gemmell who uses the drug in New Zealand and describes it as "far superior to any other drug".

Droncit has been found to be 100% effective against adult and immature Echinococcus granulosus.

We are, therefore, in a position to ensure public safety by the use of this drug at a frequency which equals or is less than the preparent period of the worm. This means dosing at 6 weekly intervals or less - the beginning of every month would be easier to remember. The drug may also be given mixed with food or liquid and is relatively tasteless and so removes the difficulties associated with Scolaban dosing.

Droncit, however, has not yet been registered in the U.K. - a very lengthy process - and therefore is not on sale, but it is available in Uruguny, South Africa, Australia and the Netherlands and is used, under official centrol, in New Zealand, Cyprus and Greece.

I am in communication with Bayer in Germany to find out the price of Droncit, but I recommend a change from Scolaban to Droncit as soon as possible even if it means buying the drug from a country other than U.K. I feel that if these other countries, New Zealand in particular, think the drug to be safe to use, then there should be no reason for us to wait because registration by the Medicines Commission is a very lengthy process.

Now, if the Colony changes to using Drencit, a new campaign must be formulated. There are 4 alternatives:-

- 1. Dose all dogs every menth (or 6 weeks) until no more cysts are found in herbivorous animals probably about 15 years or slightly more because cattle live longer;
- 2. Dose all dogs every month for (say) 6 months and then cease.

  This would be followed by periodic, spot Arccoline testing to determine the reinfection rate (if any) and the places of reinfection;
  - 3. Dose all dogs every month but periodically stop and later carry out Arecoline tests;
  - 4. As in (2) but also periodic re-dosing with Droncit to "clean" the dogs again.

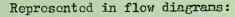
The advantages of (1) is that we can assume that all dogs are "clean" and therefore no longer present a danger to human health. The disadvantages are that (a) total reliance may be placed by dog ewners in the drug at the expense of maintaining strict offal disposal methods (these must be continued because the more warms present in a dogs intestines, the more chance of the drug - even if it is "100%" - being insufficient to cope with a heavy burden); and (b) the cost to the Colony - unless the burden is passed on to the owners, as it is with Scolaban.

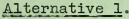
The advantages of (2) are that the cost is less - unless the spot Arccoline tests cost as much as the drug would have done if it had been used continuously - but this factor depends on who is paying(!) and the problem areas can be located and dealt with.

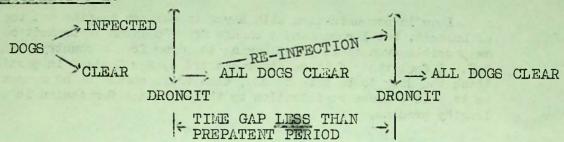
The disadvantages of (2) is that humans could be exposed to infection after the end of the 6 monthly Droneit dosing if reinfection should occur. It would obviously be those people who permit the reinfection that would be most exposed to the disease.

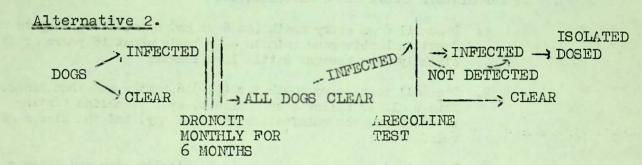
The alternative (3) was included because this would give the authorities power to carry out checks on the reinfection rate. The idea is that a certain farm is informed that no dosing will take place at the end of that month - the killing and intended dosing should be close together - and later an Arccoline test is carried out. This would detect most of the dogs which had access to cysts or cyst fluid during the time since the last Droneit dosing. It calls for strict control of the drug so that it is used ONLY when demanded by the central authority. Some farmers now have a stock of Scolaban and use it when they think fit - as well as at the routine dosing time. A similar situation in conjunction with schemes (2), (3) and 4 would not be helpful.

Alternative (4) is similar to (2) but has the advantage of periodically ensuring that the dogs are free from infection whilst maintaining the options for Arccoline testing. The periodic dosing could be carried out by myself on my travels around the farms, or by any other appointed person, and so would retain absolute control on the quantities of the drug available.









Alternatives (3) and (4) are nodifications of (2).

I suggest that our noral responsibility, which is to protect the human population, and my professional responsibility, which is to also protect the animal population, indicate that alternative (1) is the method of choice.

By implication, you will have noticed that, I am also advocating implementation of a Droncit programme as soon as possible even at the expense of prior Arecoline testing. This might appear as an "about turn" on my part but in fact is not really, because in the past we only had Scolaban with which to deal but now we have the much safer Droncit which negates many of the arguments I put forward for the Arecoline Survey.

From the Scientific point of view, Arccoline would have been used to determine the "Base Line data" from which our progress could be assessed - by periodic and repeated testing in the future. Now with Droncit, we are able to assume a new Base Line - i.e. of zero per cent infection - and our progress can be estimated by the presence, or absence, of cysts in the sheep and cattle.

A further point is a suggestion that it might be a good idea - from the management and legal point of view - to have one person on each settlement responsible for disposal of offal. This person - whether it is an employer or employee - would be appointed by the Inspector on the farm - it may be the Inspector himself - and so the responsibility would be defined.

Throughout the Order the only species mentioned, other than dogs, are cattle, sheep, horses and pigs. There is no mention of other species which could have cysts. So I suggest that a definition paragraph be inserted "UNDER THE ORDER HERBIVOROUS ANDMALS SHALL INCLUDE CATTLE, SHEEP, HORSTS, PIGS, GUANACO, RABBITS, HARES, AND ANY OTHER SPECIES SO DETERMINED BY THE GOVERNOR IN COUNCIL". (This last bit is in case of importations of other species in the future).

And thence throughout the Order after "Cattle, Sheep, Horses and Pigs" should be inserted "or any other herbivorous animal".

We are still left with two problems - of sheep dying in Camp and of mass killings.

I believe that Paragraph 9 covers the sheep dying in Camp. I have been concerned about the dead sheep which litter the land alongside tracks at one or two settlements but these farms are obviously in contravention of the law. Incidentally, the law does not state by whom, or what, the lungs and livers must be removed! From the point of view of general hygiene and also from the hydatid point of view, I wonder if we could say that it would be illegal to leave any carcase (with or without lungs) to remain in any place within two miles of a dwelling house or within 50 yeards of a track used for communication between settlements.

The "suggested alteration and amendment of Section 9 and 10" has one or two possible loop-holes. With reference to 9b I think it would be better to say " $2\frac{1}{2}$  niles from the nearest dwelling place" rather than "the killing centre".

Does the removal of tongues or brains become illegal under these circumstances?

With reference to a change of drug used in the campaign - whether it be Droncit or Arecoline - I think that the law enables us to use what we wish - as directed by the Governor in Council.

I include a list of some of the recommendations. I make no pretence at being a lawyer but thought that my "attempts" may be useful to show the directions of my thoughts.

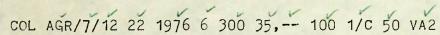
Yours sincerely,

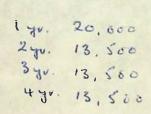
R.S. WHITLEY. - G.T.U.

## SUMMARY OF SOME OF THE RECOMMENDATIONS

- 1. If the choices for offal disposal remain as they are then I recommend additions along the following lines:-
- A. (1) THE AREA AROUND KILLING HOUSES SHALL BE FENCED WITH NEITING TO A HEIGHT OF SIX FEET TO PREVENT ACCESS BY DOGS:
  - (2) OFFAL STORAGE RECEPTACLES, IF NOT CONTAINED WITHIN THE FENCED AREA AROUND THE KILLING HOUSE, SHALL BE FUNCED WITH NETTING EITHER TO A HEIGHT OF SIX FENT, OR IN A NETTED ENCLOSURE, TO PRIVENT ACCESS BY DOGS;
  - (3) THE GROUND WHICH COULD POSSIBLY BECOME CONTAMINATED BY SHEP-AGE FROM OFFAL STORAGE RECEPTIONS HUST BE FENCED TO PREVENT ACCESS BY DOGS AT ALL TIMES;
  - (4) DRAINAGE CHANNELS FROM KILLING HOUSES MUST BE ENCLOSED OR COVERED TO PREVIOUS ACCESS BY BIRDS AND DOGS;
  - (5) SUBSECTION (iii) OF PARAGRAPH 10 OF THE ORDER SHOULD BE ALTERED TO CLOSE THE "DEEP FREEZH" LOOP-HOLE. PERHAPS IT SHOULD READ "PLACING FOR A HINIMUM OF 28 DAYS IN A DOG-PROOF RECEPTACLE WHICH SHALL BU UNINSULATED AND TO WHICH CHEMICALS HAVE NOT BEEN ADDID".
- 2.A If the choices are limited to subsections (1) and (11) of paragraph 10, then I recommend the inclusion of:-
  - THE PLACE OF BURNING SHALL BE WITHIN AN AREA FUNCED WITH NEITING TO PRIMINE ACCESS BY DOGS.
- B. (1) AN INFECTED CARCASE IS ANY CARCASE OF AN HERBIVORE WHICH IS FOUND TO, OR SUSPECTED OF HAVING, PRESENT THE CYSTS, EITHER LIVING OR DEAD, OF THE WORMS OF DCHINOCOCCUS SPECIES AND OF TAENIA HYDATIDIGENEA.
  - (2) INFECTED CARCASES MUST BE REMOVED FROM THE PLACE OF SLAUG-HTER AND BURNIED TO ASH OR BURNED TO A DEPTH OF AT LEAST THREE FEET ETC.
- C. HERBIVOROUS ANIMALS SHALL INCLUDE CATTLE, SHEEP, HORSES, PIGS, GUANACO, RABBITS, HARES AND ANY OTHER SPECIES SO DETERMINED BY THE GOVERNOR IN COUNCIL.
- D. I RECOMMEND A CHANGE TO DRONCIT AS SOON AS POSSIBLE TO BE USED MONTHLY (OR EVERY SIX WEEKS).

REFF\_AGR/7/12 6974 )35534 3:3.734 22 1976 THANK YOU
FOR OPDERING DRONCIT TOTAL SUPPLYABLE WITHIN 6 WEEKS
AFTER YOUR FINAL CONFIROATION 100 PACKS BY AIR 300 SEAFREIGHTED AT DM 35,-- PER 50 TABS PACK FOR AGAINST
1/C PLEASE ALSO CONFIRM FUTURE CONTROLL CAMPAIGN
QUANTITIES REGARDS VA2
BAYERSEROVET







CABLE&

NNNN







# National Library of Australia

ref:

FD 5/2/5

date

27 January 1977

Canberra ACT 2600 Telephone 621111 Telegraphic Code Address: Natlibaust Canberra Telex Code No. 62100

National Film Collection

The Chief Secretary
The Secretariat
Falkland Island
SOUTH ATLANTIC

Dear Sir

Thank you for your letter of 10 January 1977 (your ref: AGR/7/12) regarding films on hydatidosis. Unfortunately, due to copyright restrictions, we are not able to provide you with the films listed in your letter.

However, two of the films - KILLER ON THE MOVE and FAMILY GROUP - are available for purchase from:

Department of Film Production 64 Brisbane Street HOBART TAS 7000 AUSTRALIA

We bought the former in 1973 for \$A71 and the latter in 1975 for \$A50. The other film - KILL WITH CARE - we do not have in our Collection so I am unable to provide you with any information on it.

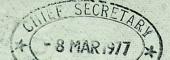
I hope this information helps you in your search for films and wish you every luck with your community education programme.

Yours faithfully

(RAY\_EDMONDSON)

Acting Chief Film Officer

It is requested that the number and date should be quoted.



THE SECRETARIAT,

STANLEY, FALKLAND ISLANDS,

SOUTH ATLANTIC.

7th March 1977

Mr. A. J. P. Monk, Chief Secretary.

Dear Mr. Monk,

I am rather concerned about the delay in the ordering of Droncit from Bayer.

Following our meeting on November 10th 1976 at which it was agreed to proceed, with urgency, with the ordering of an initial year's supply of Droncit, the matter was raised by the Hon. L. G. Blake at an Exco meeting, the minutes of which, I understand, have since been approved.

On the 8th February 1977 a telex was received from Bayer (in response to a letter from your office) saying that the "Total (tablets) supplyable within 6 weeks after your final confirmation".

Although I appreciate that there must be some delay in order to obtain SFC approval for the expenditure, which is greater than that for Scoloban, there are certain points which are pertinent to the urgency of the situation:-

- 1. In expectation of arrival of Droncit, stocks of Scoloban have been reduced in order to save money. These stocks are so low now that there is hardly enough Scoloban for another routine dosing.
  - 2. Further delays will mean that the quantity of Droncit being sent by surface mail will miss the next charter vessel and, therefore, we might have to increase the initial amount sent by air - at further cost.
  - 3. Droncit is so much more effective than Scoloban if used at the correct dose rate and frequency - that any delay in its use could prejudice the safety of some members of the Falkland Island community.

Assuring you of my best intentions in trying to assist in the eradication of this disease.

K. & Whith

Yours sincerely,

R. S. Whitley, MRCVS, Veterinary Officer, G.T.U.

c.c. Hon. L. G. Blake Mr. S. Miller

Now his telly w. whit Mr. is toldyon? N. au him a. g.a. p. 58/3

# CONFIDENTIAL EXECUTIVE COUNCIL

INF 4/77

# INFORMATION MEMORANDUM FOR EXECUTIVE COUNCIL

# Adoption of the drug "Droncit" in connection with the Hydatid Eradication Campaign

Honourable Members will wish to know the present position regarding the use of the new drug "Droncit" in place of the drug "Scolaban" which is presently used in the Colony's Hydatid Eradication Campaign.

- 2. In mid-1976 Mr. R. W. Bostelmann, former Veterinary Officer wrote to Government about a new drug "Praziquantel" (now known as "DRONCIT"), and this information was referred to Mr. R. S. Whitley, the Veterinary Officer, on 6th July 1976.
- 3. In November, the Veterinary Officer recommended adoption of Droncit throughout the Colony, and Council endorsed this recommendation (Min 9 of 16/76 29.11.76) and Government enquired from the suppliers, Messrs Bayer of Germany, about the possibility of entering into a four-year supply contract with them.
- 4. A reply has now been received that our total requirements can be supplied within six weeks of our final confirmation of the amount required. Our requirements are reckoned to be: 20,000 tablets during the first year; and 13,500 tablets during each of the succeeding three years which at DM35.— per 50 tablets, would cost £3,500 for the first year and £2,362.50 for the next three years. An AISE to cover the cost has been submitted to S.F.C. and the drug has been ordered by telegram.
- 5. There is still a supply of Scolaban on hand sufficient for the dosing programme for the next two quarters, and the use of Droncit will therefore be implemented on an appropriate date on advice from the Veterinary Officer in consultation with the Officer in Charge, Agricultural Department.

Secretariat, Stanley.

14th March 1977

Ref: AGR/7/12

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No 51

# CABLE AND WIRELESS

# CABLE AND WIRELESS LIMITED

INCORPORATED IN ENGLAND

CHARGE OFFICE STAMP AN	NUMBER ID DATE	NO. OF WORDS	ORIGIN TE 1/3/77	WORDS	FORWARDED PARTICULARS Agric /7/12
	E NAME AND ADDRESS IF	INSTRUCTIONS  The contrary it will be assumed to CAPITAL LETTERS  THE BAYERSERVOY			nd treated accordingly

Ref yrtel 8th February Droncit Confirm 100 packs required soonest by air parcel post further 300 by sea stop Requirements future control campaign will be 270 packs for next three years stop Payment will be made through Crown Agents London step Confirmatory letter follows

Chief Secretary

I REQUEST THAT THE ABOVE TELEGRAM BE FORWARDED SUBJECT TO THE CONDITIONS PRINTED ON THE BACK OF THIS FORM BY WHICH I AGREE TO BE BOUND.

SIGNATURE AND ADDRESS OF SENDER	TELEPHONE
NOT TO BE TELEGRAPHED	









**Bayer AG** 

PH-Veterinär-Bereich Vertrieb

The Secretariat

Stanley / Falkland Islands

South Atlantic



Ihre Zelchen

Thre Nachricht

Abt./Zeichen

PH-Vet.VZ

Pe/Ju

Telefon-Durchwahl

(02 21) 67 84 . 334

Postanschrift:

Bayer Veterinär-Bereich Vertrieb 509 Leverkusen, Bayerwerk

Buros: Koln-Mülheim, Wiener Platz 2 Telefon: Köln 6784-1 (Vermittlung)

Telex: 8510881

Telegramme: Bayerserovet Leverkusen

Landeszentralbank Köln-Mülhelm 373 08000

5 Köln-Mülhelm

1st March, 1977

Your Order No. AGR/7/12 dated 22/12/76 DRONCIT / 300 x 5 x 10 pcs and 100 x 5 x 10 pcs.

Dear Sirs,

We thank you for your above-mentioned order. Enclosed you will find our order confirmations No. 522 440 and 522 441 dated 10th February, 1977.

Goods will be sent by airmail parcel, because dispatch per seafreight is scarcely possible.

The difference between seafreight- and airmail-parcelcosts is very small.

Yours faithfully,

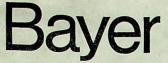
BAYER AG

Peeters)

(Encl.)

Vorsitzender des Aufsichtsrats: Kurt Hansen Sitz der Gesellschaft: Leverkusen Eintragung: Amtsgericht Opladen HRB 1122

Vorstand: Herbert Grünewald, Vorsitzender; Hermann Böker, German Broja, Gerhard Dittmar, Gerhard Fritz, Hans Holtschmidt, Otto Koch, Wilhelm Meyerhelm, Walter Salzer, Dieter Schaub, Hermann-Josef Strenger, Franz-Josef Weltkemper 2453/4-9024 092



THE SECRETARIAT

SOUTH ATLANTIC



Bayer AG

Veterinär-Bereich

522 440 60

/ UE 10.02.77

509 Leverkusen, Baverwerk,

Telefon: Köln 6 78 41 (Vermittlung)

Telegramme: Bayerserovet Leverkusen

Landeszentralbank Koln-Mulheim 373 08000

ORDER CONFIRMATION

YOUR LETTER / ORDER NO AGR /7/12 DATED 22.12.76
WE CONFIRM WITH THANKS HAVING SOLD TO YOU AT OUR GENERAL CONDITIONS OF SALE THE PHARMACEUTICAL PRODUCTS AS PER YOUR ABOVE ORDER .

THE SECRETARIAT # STANLEY / FALKLAND ISLANDS / SOUTH ATLANTIC # AGR /7/12 \$ 522 440

QUANTITY / PRODUCT

STANLEY / FALKLAND ISLANDS

FOB P UNIT DM

300 BOXES 5 X 10 PCS 001 DRONCIT

71344/79 050

35.00 10500.00

DM

10500.00

TERMS OF PAYMENT : CASH AGAINST DOCUMENTS

DATE OF SHIPMENT: APPROX FIRST HALF OF APRIL 1977 EX WORKS

BAYER AG

FOB

DM 10.500,00

+ airmailparcel appr.DM + insurance approx. DM 350,00 125,00

CIF

DM 10.975,00 ----------

Vorstand: Herbert Grunewald, Vorsitzender; Hermann Böker, German Broja, Gerhard Dittmar, Gerhard Fritz, Hans Holtschmidt, Otto Koch, Wilhelm Meyerheim, Walter Salzer, Dieter Schaub, Hermann-Josef Strenger, Franz-Josef Weitkemper

Vorsitzender des Aufsichtsrats: Kurt Hansen Sitz der Gesellschaft: Leverkusen Eintragung: Amtsgericht Opladen HRB 1122

THE SECRETARIAT

SOUTH ATLANTIC



Bayer AG

Veterinär-Bereich

522 441 60

/ UE 10.02.77

509 Leverkusen, Baverwerk,

Telefon: Koln 6 78 41 (Vermittlung)

Telegramme: Bayerserovel Leverkusen

Konto:

Landeszentralbank Köln-Mülheim 373 08000

ORDER CONFIRMATION

YOUR LETTER / ORDER NO AGR /7/12 DATED 22.12.76

WE CONFIRM WITH THANKS HAVING SOLD TO YOU AT OUR GENERAL CONDITIONS OF SALE THE PHARMACEUTICAL PRODUCTS AS PER YOUR ABOVE ORDER .

THE SECRETARIAT & STANLEY / FALKLAND ISLANDS / SOUTH ATLANTIC & AGR /7/12 \$ 522 441

QUANTITY / PRODUCT

STANLEY / FALKLAND ISLANDS

FOB

PUNIT

DM

001 100 BOXES 5 X 10 PCS DRONCIT

71344/79 050

35.00

3500.00

DM

3500.00

TERMS OF PAYMENT: CASH AGAINST DOCUMENTS
DATE OF SHIPMENT: APPROX FIRST HALF OF APRIL 1977 EX WORKS

MODE OF SHIPPING : AND STATE AT A IRMAIL PARCEL

BAYER

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FOB

airmail parcel insurance

DM 3.500,00 DM DM

111,10 40,20

CIF

DM 3.651.30



### TASMANIAN HYDATIDS ERADICATION COUNCIL

G.P.O. Box 407 D, Hobart, Tasmania, 7001, Australia

First Floor: 113c Hampden Road, Battery Point Telephone: 23 2266



The Chief Secretary, The Secretariat Stanley, FALKLAND ISLANDS. SOUTH ATLANTIC



Dear Sir,

Thank you for your letter of 10th January.

Enclosed please find Hydatid disease 35 mm colour slide price list and also lecture commentary for both the 50 and 52 slide lectures. The 70 slide lecture is probably a little long for your purposes and the only difference between the 52 and 50 lectures is explained at the top of the notes.

Sets of these slides have been sent all over the world and a box of 56 slides recently sent to the U.K. cost only \$2.50 airmail.

In many ways a slide lecture is better than a film. A Veterinarian or Doctor can give the commentary and then answer questions after the lecture.

I believe you have recently received the services of a new Veterinary Officer with the Ministry for Overseas Development, to work on your hydatid campaign. I am sure he would be able to present the lecture for you.

Please don't worry about the cost of the airmail postage on this letter and if you want me to send the slides, allow another \$3.00 on top of the cost of the lecture and send a money draft in Australian dollars, and I will send off the slides as soon as I hear from you.

Yours faithfully

I.T. Pickmere

MALKLAND IS.



# TASMANIAN HYDATIDS ERADICATION COUNCIL

#### HYDATID DISEASE

Current list of 35 mm Colour Slides available from T.H.E.C.

(Cost: 25 cents each)
30
Cost of complete lectures

70 slide lecture . \$47.50 21.00 • 50 slide lecture . \$12.50 (5.00 - 52 slide lecture . \$12.00 | 15.60 .

Add 50 cents for airmail & certified



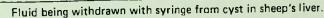
# TASMANIAN HYDATIDS ERADICATION COUNCIL

# Current List of 35 mm Colour Slides available from T.H.E.C. (Cost: 25 cents each)

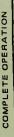
#### SLIDE NUMBER

- 1. Map showing world distribution of hydatid disease.
- Figures for hydatid disease in six worst countries (decade 1950-59).
- Map of Australia and New Zealand showing human cases per 100,000 per annum.
- Life cycle showing final and intermediate hosts.
- Offal disposal pit outside view.
- Offal disposal pit section diagram.
- Intact human hydatid cyst showing hydatid sand.
- Photomicrograph of adult hydatid tapeworm (Echinococcus granulosus).
- 11. Diagram showing passage of embryo through portal vein to liver.
- 11a. Diagram of the circulation, including portal vein. (Coloured)
- 12. Diagram showing passage of embryo from liver to the lungs.
- 12a. Circulation, liver-heart-lungs. (Coloured)
- 13. Chest X-ray with hydatid cysts in each lung.
- 14. Chest X-ray of woman aged 68 showing recent hydatid cyst.
- 15. A list of possible routes of infection from dog to man.
- 16. Chest X-ray showing hydatid cyst pushing the ribs apart.
- Diagram showing formation of daughter cysts. (1)
- 22. (2)
- 23.
- Daughter cysts in liver, photographed at post-mortem.
- Diagram showing return of blood to other side of heart and thence to any part of the body.
- 30. Hydatid cyst in heart muscle of 23 yr. old woman.
- 32. Human kidney completely destroyed by hydatid cyst with daughter cysts.
- 33. Front view of chest scar on boy aged 6.
- 34. Back view of same scar.
- Chest X-ray of same boy showing large hydatid cyst in one lung.
- 36. Surgeon operating (same case).
- 37. Hydatid cyst in lung exposed at operation.
- 38. Cyst being removed after fluid drawn off with suction tube.
- Cavity left after removal of cyst, showing eroded air passages.
- Tying off each open air passage in the lung.
- Testing the lung by inflation after filling the cavity with saline.
- Edge of cavity pulled together and sewn up. 42.
- 43. Surgeon closes enormous wound in chest wall.
- Surgeon holding empty hydatid cyst.
- Offal disposal pit outside view (same as no. 5 only larger).
- List of seven measures of prevention and eradication.

# Series of slides taken in Dept. Zoology A.N.U.



- Sediment being sucked up with a pipette.
- The "Hydatid sand" being placed on the microscope slide.
- Closer view of hydatid sand on microscope slide.
- Photomicrograph of two brood capsules containing 4 & 9 larval tapeworm heads (protoscolices).
- Protoscolices at higher magnification, one brood capsule intact.
- 3 stages in development of protoscolex.
- Coloured diagram showing establishment of worm in dog's intestine. 57.
- (black and white) 57a.
- Photomicrograph of a gravid segment containing eggs (up to 500).
- Life cycle (similar to no. 4) including grave above human head.
- Life cycle with prepared dog foods replacing cyst, and no worm.
- 62. Sketch of dog on chain, attached to long wire from kennel to post.
- Hydatid Inspector giving dog arecoline with dosing gun.
- Hydatid Inspector picking up dog's purge with hygienic precautions.
- Sample being strained after sterilisation by boiling in mobile lab.
- 66. Examining the sample for tapeworms in same laboratory in caravan.
- Dish containing several hundred hydatid tapeworms from one dog. 67.
- Liver of 10 year old boy exposed at operation, showing enlargement, and large white area of hydatid cyst.
- Daughter cysts being removed from the liver at operation.
- 70. Mass of debris including daughter cysts. Removed at operation.
- Dish of hydatid cysts being removed from man's spine.
- 72. Brain operation on 41/2 year old boy showing exposed cysts.
- Same operation as 72 showing dish of daughter cysts removed.
- 74. 2½ year old boy letting a farm dog off the chain.
- 76. Oil-fired incinerator which will burn the offal from seven sheep. Made from 3/16 inch plate, stands 3 ft. high and 30" in diameter.
- 81. Beef heart showing large hydatid cyst.
- 82. One day's ration of prepared dog food (Tomoana Crackers New Zealand).
- Dog eating from sheep carcase. (Comment: "Any loose dog can get offal".)
- 86. Garden gate with netting on top. How to keep a dog at home.
- 87. Dog yard of A.R.C. fabric and netting extension on top of wooden fence.
- 88. Dog in farm utility vehicle with cyclone netting cage.
- Pens for farm dogs built as permanent installation. 89.
- 98. Adult hydatid tapeworm on microscope slide alongside domestic pin.
- 99. Same as above as seen under microscope.
- 100. Same as above more highly magnified showing ripe segment full of eggs.
- 101. Dogs being presented by owner at hydatid testing strip (Tasmania).
- 110. Man with horse and two sheep dogs under control.
- 140. Throwing offal into sawdust burner at local sawmill,



- 141. Sawdust burner close-up showing flames.
- 143. Dog wearing red tag (Positive at hydatid test).
- 149. Sketch of dog with worm, boy handling dog and sheep with cysts.
- 172. Two sheep measles cysts (Cysticercus ovis) in carcase meat next to match head.
- 173. Single sheep measles cyst (Cysticercus ovis) with match head.
- 174. Sheep carcase.
- 175. Young lambs in paddock.
- 176. Lung hydatid operation scar on 4½ year old girl. (Back view)
- 177. Liver hydatid operation scar on same girl as 176 and also showing front of chest scar. (Liver operation performed 10 days after lung operation).
- 178. List of precautions for dog owners and sheep owners.
- 180. Good example of dog-proof farm killing shed.
- 182. Hydatid cysts in sheep's lung and liver.
- 184. Brood capsules and protoscolices (magnified 5 diameters).
- 185. Bags of prepared dog foods.
- 187. Sheep and cattle grazing. ("This is how they pick up hydatid eggs".)
- 188. Dog under control (Alsatian on lead).
- 189. Killing in the open. Man dressing carcase.
- 190. Ditto in the presence of dog. ("Main cause of hydatid infection.")
- 191. Man putting offal into disposal pit.
- 193. Man feeding infected lung to dog at killing in open. (Close-up)
- 194. Same as 193 with small children standing by handling dog.
- 195. Boy washing hands.
- 87/113 Dog pen with message above.
- 26. Hydatid effect on humerus
- 27. Hydatid cyst in pelvis (X-ray)
- 29. Material removed from pelvis
- 196. Dogs on testing strip
- 197. Lamb mauled by dogs (another reason for the necessity of dog control).
- 200. Old Sheep's liver with 47 cysts (39 fertile)
- 201. Killing shed with incinerator and skin drying shed.
- 202. Scars from operation for removal of lung and liver cysts (18 year old).
- 203. Lung exposed. White area shows hydatid cyst.
- 204. Incision in lung surface and ectocyst. Endocyst exposed.
- 205. Cyst being extracted.
- 206. Intact fertile cyst (endocyst) after removal.
- 207. Cavity in lung after removal of cyst.
- 208. Lung after cavity had been sewn up.

LUNG OPERATION

228

# TASMANIAN HYDATIDS ERADICATION COUNCIL

#### COMMENTARY FOR 52 SLIDE LECTURE

(The numbers in brackets are T.H.E.C. reference nos.)

includes: Series showing development of tapeworm in dog's intestine (slides 50-57)

Includes: Tasmanian dog testing (slides 63-67; 101)

Includes: Lung hydatid operation.

# Slide Ref. No.

- 11 (1) World incidence.
- 2 (190) Main cause killing sheep in open in the presence of dogs.
- 3 (193) .... and feeding offal to dogs.
- 4 (3) Australian incidence.
- 5 (4) Life cycle. Explain starting with dog.
- 6 (182) Offal showing cysts in liver and lungs. Only way dog can become infected.
- 7 (63) By dosing a dog with arecoline you MAY see the worms. Tasmanian campaign includes regular testing of all dogs.
- 8 (64) Purge picked up on testing strip after arecoline dose. Some dogs may fail to purge.
- 9 (65) Sample examined in caravan after sleving.
- 10 (67) A dish full of worms. Dog may have up to 20,000 and not be ill. Each worm has up to 500 eggs.
- 11 (51) Let us see how the contents of a hydatid cyst develop into adult tapeworms in the dog's intestine. Cyst in liver cut open and hydatid fluid being drawn into pipette. Baby tapeworm heads (protoscolices) here.
- 12 (52) Putting a drop of fluid containing the protoscolices onto a slide.
- 13 (53) Magnified.
- 14 (54) High power. Brood capsules and protoscolices.
- 15 (55) Head tucked in (invaginated) hooks can be seen.
- 16 (56) Evaginating. See the 36 hooks and 4 suckers.
- 17 (57) Diagram of dog's stomach showing how the tapeworm heads turn and attach themselves to small intestine.
- 18 (100) Adult worm next to shaft of a pin. Ripe segment has up to 500 eggs. Worm only 3/16" long.
- 19 (99) Worm next to pin head magnified.
- 20 (74) How humans become infected. This boy only has to put his hand to his mouth and swallow some eggs.
- 21 (194) Look at these children holding the dog and the father feeding offal.
- 22 (11) Diagram shows what happens when we swallow the hydatid egg. It passes through the human stomach without changing, then when it reaches the intestine it hatches. A small active burrowing creature (called the embryo) proceeds to cut its way through the wall of the intestine and from there it enters the system of veins which carries it to the liver. It stands a very good chance of being caught there and forming a cyst. Some 60% of all hyman hydatid cysts occur in the liver.
- 23 (7) If we swallow an egg it will develop into a cyst like this.
- 24 (35) X-rays pick up some hydatid cysts. THEY CAN ONLY BE REMOVED BY A MAJOR OPERATION.
- 25 (36) Major operation. Patlent being anaesthetised while surgeon opens chest cavity.

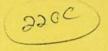
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- 26 (37) Chest opened and lung exposed with hydatid cyst showing.
- 27 (38) Needle inserted and fluid drawn off with suction tubing. Cyst membrane comes away easily.
- 28 (40) Repairing the damage. Stitching up all the air passages eroded by the pressure of the cyst.
- 29 (41) Testing the repair with saline solution to see if it is airtight.
- 30 (42) Closing up the lung cavity.
- 31 (43) Closing up the huge wound.
- 32 (176) Typical scar left after chest operation for hydatids.
- 33 (177) This poor little girl also had another operation ten days later for removal of more cysts in liver. Aged 4.
- 34 (32) Other sites of cysts in humans. Kidney completely destroyed by cyst and daughter cysts.
- 35 (30) Cyst in the heart muscle. Very dangerous place. Patient recovered.
- 36 (73) Brain operation. Often fatal. This boy recovered but died 10 months later from another brain cyst.
- 37 (24) Daughter cysts in the liver at post mortem examination.
- 38 (202) This 18 year old boy had cysts in the lung and in the liver.
- 39 (60) THIS IS WHERE WE BREAK THE CYCLE. WE CAN ONLY STOP THE DISEASE AT THE DOG.
- 40 (45) How. Firstly, when killing dispose of all offal.
- 41 (6) ...in this offal pit. Diagram shows 6 foot hole.
- 42 (76) ... or burn it in incinerator. No dog can get it.
- 43 (180) But equally important. Kill in dog-proof killing shed.
- 44 (61) What a different life cycle. No worm. No cyst.
- 45 (185) Feed dogs only on prepared foods.
- 46 (82) This man is doing this. He feeds his dogs on this food. VERY GOOD. BUT he lets his.....
- 47 (83) ....dog loose at night. THIS IS ASKING FOR TROUBLE.
- 48 (89) So what's the answer. KEEP THEM ALWAYS UNDER CONTROL ...
- 49 (86) ....if you cannot afford dog pens, ensure it can't jump the gate.
- 50 (62) The cheapest method.
- 51 Q How can I keep my dog free from hydatids?
- 52 A Answer.
- 53 (48) Seven measures for the prevention, control and eradication of hydatid disease.

#### Notes for Lecturers

It was essential to provide a specimen commentary because not many of the slides are self-explanatory. The lecturer who is familiar with the subject will prefer to mix these slides with some of his own, changing the order and making his own commentary. In other states and overseas it will be especially desirable for educational impact to remove all slides which look "imported", and to replace them where possible with local slides.

Our experience is that no lay audience ever "gets the story" accurately at the first sitting. Most laymen have difficulty with the life-cycle. Many hours can be spent rearranging this lecture, but we think the main purpose is achieved if the slides convey that this is a serious disease spread by dogs and if they can be presented in a manner which will stimulate discussion.



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# TASMANIAN HYDATIDS ERADICATION COUNCIL

#### COMMENTARY FOR 50 SLIDE LECTURE

Contains: lung hydatid operating and 7 shots of human hydatid sites.

Does not include: series showing development of tapeworm in dog's intestine

(slides 50-57)

Does not Include: Tasmanian Dog Testing slides (63-67; 101)

(The numbers in brackets are T.H.E.C. reference nos.)

# Slide No. 1 (1)

On this map of the world the worst areas for hydatid disease are marked in red.

Since the War the worst figures have been found in parts of South America and some of the countries around the Mediterranean ... but it remains a real health problem in several Australian States and in New Zealand.

Notice that in certain areas, like Britain and the United States, they can raise millions of sheep without hydatids. In those areas, the farmers are sending all their sheep into the city to be slaughtered, so dogs never have access to sheep's offal.

# Slide No. 2 (190)

This picture is typical of what is going on in many parts of Australia, where sheep are killed out of doors in the presence of dogs.

# Slide No. 3 (193)

Not only are sheep killed out of doors, but in many places it is still the custom to feed dogs on the offal, as in this picture. This is how the dog becomes infected with the hydatid tapeworm. To get rid of this disease this practice must stop.

# Slide No. 4 (3)

Against each area the upper figure represents hydatids per 100,000 population per annum (worked out for the <u>total</u> population) and the lower figure shows the same thing worked out for the <u>country people</u> - the people who live and grow up amongst infected dogs. In comparing one region with another, it is more valid to compare the lower figures.

Although New Zealand is not quite the worst area on this map, New Zealand spends over half a million dollars a year to get rid of hydatid disease (not counting <a href="Indirect">Indirect</a> expenditure, such as money spent on controlling stray dogs).

# Slide No. 5 (4)

the dog is the only animal that carries the adult worm. So in Australia the domestic dog and the Australian Dingo are the only animals that can infect us. When a dog is carrying hydatid worms in its intestines, it scatters the microscopic eggs of these worms in its droppings, wherever it goes.

So an infected dog is dangerous. It can give hydatid disease to all the other animals on the right-hand side of the picture, including Man.

When sheep, pigs, cattle or humans swallow one of these hydatid eggs, the parasite gets into the blood-stream and enters a different stage of its life cycle. Eventually it settles in one spot, like the liver, or lung, and forms a bladder of fluid (the hydatid cyst).

The cyst contains young baby worms - the larval stage of the parasite - living in their own private pool, at our expense, sheltered from the outside world, just waiting and growing, waiting - for what? They're waiting for the day when they hope a dog will eat them .... because if a dog eats them they can develop into mature worms in its intestine and lay eggs for the dog to pass out in its droppings and carry on the life-cycle again.

# Slide No. 6 (182)

Let us follow the life-cycle, beginning with the dog. As we have already said, the dog is the only animal that carries the adult worm and it can become infected only through eating offal that contains cysts. These lungs and liver from a sheep are full of hydatid cysts and if a dog eats some of that stuff in 6-8 weeks time it will be passing adult tapeworm eggs in its droppings.

# Slide No. 7 (57)

This diagram shows you what happens in the dog's stomach if it swallows a cyst or the contents of one. The baby tapeworm head passes through the stomach and when it reaches the small intestine it unfolds itself and attaches itself to the wall of the dog's bowel by hooks and suckers. There it lives and develops, absorbing food through its body. Six weeks later it is a mature worm laying eggs to contaminate pastures, streets, pavements, playgrounds - everywhere that the dog may carry them.

# S11de No. B (98)

But this is such a tiny tape-worm that you cannot see it and a dog can carry up to 20,000 of them without looking ill. If you mount a hydatid worm on a microscope slide and fasten an ordinary domestic pin to the slide with sticky tape you will see that the pin is a lot bigger than the worm.

#### Slide No. 9 (99)

Under the microscope you can begin to see some of the details of the worm's body.

# Slide No. 10 (100)

See how the last segment is filled with eggs. It is almost ripe and ready to break off, to be released to the outside world in the dog's droppings. Each adult worm can produce a ripe segment containing 500 eggs about once every 10 days. One egg could give you a hydatid cyst - and put you in hospital.

#### Slide No. 11 (187)

Now let us see how the various intermediate hosts get the cysts. Here you see sheep and cattle grazing and this is where they pick up the hydatid tapeworm eggs passed out by the dog and blown around the pasture, and picked up by grazing animals on the grass.

# Slide No. 12 (74)

How do human beings become infected? By the same method as the grazing animals except that we do not eat grass. But don't forget that those tiny hydatid eggs are all over the coat of an infected dog and this little boy who is handling this dog has only got to put his hand to his mouth and swallow one of those eggs and it may develop into an hydatid cyst somewhere in his body.

# Slide No. 13 (194)

Look at these children playing with these dogs whilst one of them is actually being fed offal from the sheep that their father has just killed. They will almost certainly swallow some hydatid eggs and have to have an operation for removal of hydatid cysts.

#### Slide No. 14 (15)

Here are some other possibilities. We think the commonest route of infection is up there along the top line. A young child eating sticky sweets and playing with an infected pet, with the utter disregard for hygiene which is characteristic of young children, may surely transfer eggs to its mouth in large numbers.

But one could also get the disease from droppings scattered in a city street. It has been shown that flies can carry hydatid eggs; they may feed greedly on some droppings in a shop doorway and fly from there direct to cakes and confectionery exposed for sale.

There are many other possibilities, some of which we have indicated in the rest of the diagram, but it bolls down to the fact that all people living in an Australian State with an hydatid problem are at risk and will remain at risk until the disease is eradicated.

### Slide No. 15 (11)

This diagram shows that happens when we swallow the hydatid egg. It passes through the human stomach without changing, then when it reaches the intestine it hatches. A small active burrowing creature (called the embryo) proceeds to cut its way through the wall of the intestine and from there it enters the system of veins which carries it to the liver.

It stands a very good chance of being caught there and forming a cyst. Some 60% of all human hydatid cysts occur in the liver.

### Slide No. 16 (7)

Here is a cyst taken from a human lung. The surgeon was able to remove this one intact. It is just a thin membrane containing water. Through the thin membrane near the upper part of the picture you can see white spots. Each of these is a small envelope containing 30 or 40 larval worms. When the cyst was disturbed a large number of these broke off and sank to the bottom, where you can see they have collected into about one teaspoonful of sediment, sometimes called "Hydatid sand".

How many larval worms do you suppose there would be in a teaspoonful of "hydatid sand"?

The answer is two million - the population of Sydney in a teaspoon.

Of course all this material, when it is removed in an operating theatre, is safely destroyed by the hospital staff.

#### Slide No. 17 (35)

Some cases are picked up at routine T.B. X-ray checks. In children the X-ray would be taken for some other reason. This little boy had just recovered from an attack of pneumonia. You can see a hydatid cyst on the right-hand side of the picture showing as a large pale circle in one lung.

#### Slide No. 18 (36)

This little boy had to have an operation immediately. You see the surgeon opening his chest while the doctor on the right gives an anaesthetic.

#### Slide No. 19 (37)

The lung is now exposed and the cyst can already be seen, very near the surface.

# Slide No. 20 (38)

The surgeon is drawing off some of the cyst fluid with a hollow needle and suction tubing. It's not stuck to the lung. The cyst simply collapses and can be lifted out.

# Slide No. 21 (40)

Every open air passage, which has been eroded by the pressure of the cyst, must be identified and deliberately closed by tying It off.

If any one of these is left open, the lung will collapse after the operation.

#### Slide No. 22 (41)

To test it, the surgeon fills the cavity with lotion and the anaesthetist inflates the lung.

Bubbles indicate that there is at least one more air passage to be found and tied off.

# Slide No. 23 (42)

The edge of the cavity is now stitched so that it can be pulled together like an old-fashioned purse.

#### Slide No. 24 (43)

The ribs have been brought together and the surgeon can start to repair the enormous opening that he had to make in the chest wall.

# Slide No. 25 (33)

This shows the scar that this little boy will have for the rest of his life.

# Slide No. 26 (34)

.....it goes right round under his shoulder blade.

# Slide No. 27 (24)

Let me show you a few more pictures of parts of the body where hydatid cysts develop. This is a portion of a human liver removed at post mortem, and it shows a hydatid cyst that has multiplied itself, as they sometimes do, forming dozens of smaller cysts called daughter cysts.

# Slide No. 28 (32)

This human kidney has been destroyed by hydatid disease. daughter cysts in this picture are younger and smaller than the ones on the last slide in the liver.

# Slide No. 29 (30)

Here a woman of 23 is having an operation for a hydatid cyst which was lodged in the muscle of the heart. The great danger of a cyst in this situation is that it may rupture and cause sudden death. Fortunately hers was diagnosed in time for major surgery to save her life.

# Slide No. 30 (69)

Here is an operation being performed on a living patient and daughter cysts are being taken from the liver with a surgical spoon.

# Slide No. 31 (70)

The debris removed in an operation like this fills a dish.

# Slide No. 32 (72)

This is the brain of a little boy aged  $4\frac{1}{2}$ . The surgeon has just reached the hydatid cyst.

#### Slide No. 33 (73)

All these daughter cysts were removed. You would wonder how a

child could live with so much material pressing on his brain.

He made a good recovery from this operation but died 10 months later from another hydatid cyst in another part of the brain which killed him before he could be operated on. This little boy had grown up on an Australian sheep farm.

# Slide No. 34 (176)

This little girl, 4 years of age, had to have an operation for the removal of hydatid cysts in the lung and is left with this scar for life. Her father was a stock transport driver and used to have the dog in the front of the truck.

#### Slide No. 35 (177)

Within ten days of that operation she had another for the removal of hydatid cysts in the liver. The following year she had to return again as more cysts had developed in the liver. At the age of 6 she had had 3 operations.

# Slide No. 36 (60)

How can we prevent this disease? We must break the life cycle at the dog. We just prevent the dog eating offal by destroying the offal. We deal with <u>human material</u> hygienically. If the patient lives, the hospital destroys the cysts, and if the patient dies, the undertaker removes the body and either buries it or cremates it. Disposal of bodies prevents the spread of disease. We must do the same thing with the <u>diseased internal organs</u> of the animals we slaughter for food.

Slide No. 37 (61)

Here you see our life cycle again. But what a different picture.

There is no worm and no cyst. If we feed all the dogs on prepared foods there will be no more hydatids.

# Slide No. 38 (185)

There is a large variety of prepared dog foods available today and these are all safe for dogs because in the process of manufacture they have been steam sterilised.

#### Slide No. 39 (82)

Here is a man just about to give his dog some of these prepared dog foods. This is very good. But then he goes on to tell you that he lets the dog out for a run every night.

# Slide No. 40 (83)

All the trouble he has taken to give the dog safe food is wasted if he does not know where the dog is all the time. There are paddocks with sheep in them on the outskirts of every town and dogs have been known to wander away from home up to 10 miles. Would any parents willingly expose their children to a dog that has been allowed to wander loose in sheep paddocks all day, or all night? One meal of infected offal every 2 years can make a dog a permanent source of disease, living in your own home - affectionate, faithful, but possibly more dangerous than a snake.

#### Slide No. 41 (86)

Any person who wants to control his dog's movements can generally find a way of keeping his dog at home. If it jumps the gate, extend the wire.

#### Slide No. 42 (89)

Progressive property owners no longer have surplus dogs hanging around loose. They keep their best sheep dogs, and get rid of the rest.

The best dogs are then looked after well. The dogs you see here are out working all day, strictly under control, and when they come home for the night, they're home - for the night.

#### Slide No. 43 (62)

But you can't afford to build pens like that for one dog and this shows you the cheapest method of keeping the dog at home and still allowing it some exercise.

### Slide No. 44 (45)

On farms and places where people kill sheep, people are realising that they must get rid of the offal. This picture shows the entrance to an offal disposal pit. The 44 gall. drum forms the top of a much deeper hole and prevents the edges from caving in. This is the cheapest and easiest way to dispose of offal.

#### Slide No. 45 (6)

This shows what the offal pit looks like in section. You need a 6-foot hole or deeper if you can get it. All internal organs removed from animals at slaughtering can be thrown in here and will decay by bacterial action and no dog can get at them.

#### Slide No. 46 (76)

The cleanest way of disposing of sheep's offal on a farm is to burn it up in an oil-fired incinerator.

# Slide No. 47 (180)

Sheep killing must be done in a dog proof area. This picture shows an ideal small killing shed and meat hanging room, for a sheep farm. An incinerator is also enclosed in the killing area. Note the 6 ft. high fence. Slide No. 48 (195)

A final warning. Don't handle stray dogs. Wash your hands after handling any dog, as this little boy is doing.

# Slide No. 49 (Question)

By now I hope you have all realised how to prevent your dog becoming infected

Slide No. 50 (Answer)

with hydatids.

You only need to do these two things.

FINAL SLIDE (48) Seven measures for the prevention, control and eradication of hydatid disease.

77

Messrs. Bayer AC, 509 Leverkusen, Bayerwerk, 5 Koln-Muiheim, Germany.

Dear Sire,

#### DRONCIT

This letter is to confirm my telegram dated 11th March 1977, which read -

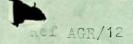
Ref yrtel 8th February Droncit Confirm 100 packs required soonest by air parcel post further 300 by sea. Requirements future centrol campaign will be 270 packs for next three years. Payment will be made through Crown Agents London. Confirmatory letter follows

#### Chief Secretary

- 2. I take this opportunity to acknowledge receipt of your letter PH. Vet. VZ Pe/Ju of 1st March 1977, together with your order confirmations No. 522 440 and 522 441 dated 10th February 1977 which were enclosed therewith. Arrangements are being made with the Crown Agents, 4 Millbank, London SW1 to effect payment for the drug on our behalf.
- 3. I also acknowledge the safe receipt of 400 boxes of 50 pcs of Droncit. Receipt of the product now enables this administration to adopt the use of Droncit in its hydatid eradication campaign at an early date. Your prompt attention to our order is very much appreciated.
- 4. Could I look forward to a renewed contact with you next year in connection with the further supply of Droncit as indicated in my above quoted telegram.

Yours faithfully,

CHIEF SECRETARY



Hydatids Advisory Committee.

Ross House,

Stanley.

March 28th, 1977.

The Chief Secretary, Stanley.



Sir,

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I refer to your letter of 24th March with which was enclosed the lists of transparencies from the Tasmanian Hydatids Eradication Council.

I welcome the action by T.H.E.C. in posting to us all this information and an of the opinion that Government should request the posting by Mr Pickuere of both the 50 slide lecture and the 52 series.

You will make allowances for postages etc as suggested in the T.H.E.C. letter.

In my view these two sets of slides accompanied in their showing with the suggested lecture by our Veterinary Officer will be of more use and contain more information than the purchase and showing of the 16 mm films in which we were originally interested.

As far as I know Mr Whitley has not seen this packet from Mr Pickmers so no doubt you will seek his opinion in addition to this recommendation from sysolf.

Yours faithfully

Lairman. Chairman.

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	AGR /7/1 522 440/ 1-3 522 441/	net weigh 300 boxes 5 x 10 pcs DRONCIT	t : 18,3 kg	35,0	0 10	500	,00
		= 1 parcel, gross-weinet-weigh 100 boxes 5 x 10 pcs DRONCIT	ght: 6,6 kg t : 6,1 kg	35,0	0 3.	500	,00
		THE RESERVE AND THE PARTY OF TH	airmailparcel charge		DM 14. DM	461	,60
	10 10 10 10 10 10 10 10 10 10 10 10 10 1	country of origin:	insuranceif Stanley	•••	DM	160 622	
	The motion as	Payment: Cash against	Documents				
			en and and an				
and green to		en di più de la company de la	ellum og er En yeg				
E:		ng charges and state whether each amount has ded in or excluded from the above:	Amount in currency of exporting country		State if in	cluded	4
	<ol> <li>Inland freightarea or airpo</li> <li>Labour in pa</li> <li>Value of ou</li> <li>If the goods</li> </ol>	ail and/or to docks	DM 30,00 DM 20,00		incl.		
- 00	nio :	20 20 4 3 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3 4 3	ā-ກວອມຂໍາອ <b>າ</b> ວໄ	b at			

If all the goods shown on the invoice have the same country of origin such country need not be shown in a separate column, provided it is clearly indicated in a conspicuous place on the invoice, e.g. "Country of Origin, Great Britain".

Goods admissible under the British Preferential Tariff should not be shown on the same invoice as goods of foreign origin. NOTES — (1)

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(Imperial Economic Conference Form Appendix B)

At the date of printing this is the official form for the following colonies and dependencies:

Anguilla, Antigua, Bahamas, Bermudas, British Guayana, British Honduras,

British Virgin Islands, Cayman Islands, Dominica, Falkland Islands,

Gilbert & Ellice Islands, Grenada, St. Helena, St. Kitts-Nevis, St. Lucia, Malaysia, Montserrat,

New Hebrides, Seychelles, Tobago, Tonga, Trinidad, Turks-Caicos-Islands, St. Vincent

BRITISH GOODS on which preferential treatment is claimed require Certificate of Value and Origin.

	Satisfy real to Paragraph	EUCONTO MOTTURO DE DES 177. P. DO	
	(1) Here insert Manager,		sacka sino
	Chief Clerk or as the	I, (1) Kenzbock, Ass. Manager	TETOTO
	(2) Here insert name of firm or company.	of (2) Bayer AG.	Republic SECREPARIAT*
	(3) Here insert name of city or country.	of (3) Leverkusen-Bayerwerk / Federa	l Republic of Germany
00,	(4) These words should be omitted, when the manufacturer or supplier himself signs the certificate.	manufacturer/supplier of the goods enumerated in this invoice a hereby declare that I (4)]have the authority to make and sign manufacturer/supplier and that I) have the means of knowing at VALUE.  1. That this invoice is in all respects correct and contains actually paid or to be paid for the said goods, and the actual guarantee or understanding affecting the pure or will be made or entered into between the said exporter and pure of them either by, way of discount, rebate, compensation, or in a	a true and full statement of the price lantity thereof the said goods have been rehaser, or by anyone on behalf of either
00,	( [5] Here insert particy- lars of any special	shown on this invoice or as follows:-	The state of the s
	OOO.417 MU		
, 6C	(6) Here_insert, "United Kingdom" or name of beher ipart of British Dominions.	in (6) duced or manufactured duced or manufactured duced or	If 3 (b) is used insert required particulars in 4 and 5.) That every article mentioned in the said tas: been either wholly or partially promanufactured in (6)
916036		4. As regards those articles only partially produced or manufactories.  (a) That the final process or processes of manufactor the British Dominions.  (b) That the expenditure in material produced in (6) and/or labour performed in (6)	ure have been performed in that part of
8	(7) Here insert percentage.	subject to qualification hereunder in each and every art	icle is not less than (7)he factory or works costs of such article
urg — Bo	Sinte to produced	in its finished state* (See note below.)  5. That in the calculation of such proportion of produce or la	
Köhler, Minden - Frankfurt (Main) - Hambu		"Manufacturer's profit or remuneration of any trader, a "the articles in their finished condition; Royalties, cost of "the goods thereinto, any cost of conveying, insuring, or "manufacture".  * NOTE — In the case of goods which have at some stage ent a process of manufacture in a foreign country, only labour a added to, the goods after their return to the United Kingdom sha facture of the United Kingdom, in calculating the proportion of the factory or works cost of the finished article  Dated at Leverkusen-Bayerwerk this 4th day	regent, broker or other person dealing in the outside packages, or any cost of packing shipping the goods subsequent to their ered into the commerce of, or undergone and material which is expended on or all be regarded as the produce or manufunited Kingdom labour and material in
345		Witness AA MIT	v. Kerrobook

# 18. INFORMATION MEMORANDA

2/77

HED/1/2

AGR/1/1

AGR/7/12 /

Council noted the following Information Memoranda:-

STF/2 Memo IMF 1/77 Oversens Service Agreement

Memo IIIP 2/77 Influence Vaccination

Memo INF 3/77 Agriculture in the Falkland Islands

Memo IMF 4/77 Adoption of the drug "Droneit" in connection with the Hydatid Mandication Compaign

Clerk of Council

Our Ref:	
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t, AGR/7/12

Your Ref:

TALKLAND ISLAMOS

Grasslands Trials Unit, Stanley,

> Falkland Islands, South Atlantic.

5th April, 19 77.

Dear Mr. Browning,

Mr. R. Browning, Secretariat.

(220)

Enclosed herewith please find the list of slides sent by THEC.

I am of a similar opinion to Mr. Miller that the 52 and 50 slide series should both be ordered but if a single choice has to be made, then I feel it should be the 52 slide series which can be augmented by the slides in my collection.

I agree that these slides would be of immensely more benefit than a 16 mm film, and an very willing to take them about with me on my travels and show them at as many settlements as possible.

Yours sincerely,

R.S. WHITLEY, M.R.C.V.S.

c.c. Mr. S. Miller.

\* as soon as possible.

Our Ref: .....

Your Ref:

Grasslands Trials Unit,
Stanley,

Falkland Islands, South Atlantic.

6th April, 19 77.

A.J.P. Monk Esq., Chief Secretary.



Dear Mr. Monk.

Yesterday I learned that it was your intention to try to use up the remaining stocks of Scoloban before beginning routine dosing with Droncit.

May I enumerate a few reasons why, in my opinion, we ought to proceed with the introduction of Droncit as soon as possible?

- 1. Scoloban is by far less effective at killing young and adult worms than is Droneit.
- 2. The dosing of dogs with Scoloban is an unpleasant procedure because the pills must be given without any food and have a very bitter tasting centre.
- 3. In many cases, the only way to administer Scoloban is by pushing the pills down the back of the dog's throat an excellent way for the owner or inspector to pick up hydatid infection.
- 4. Droncit is easy to administer and is much more effective.

The remaining stock of Scoloban may be the problem. Personally I think that, in order to ensure greater safety, the Colony ought to be prepared to write off this comparatively small amount of money.

However, if requested so to do, I will undertake to contact the Manufacturers to see if they will accept return of the remaining Scoloban, possibly in exchange for other drugs, or, alternatively, if that fails, I will contact my Veterinary colleagues in UK to see if they will purchase the stock.

Please let me reiterate that it is my firm belief that Droncit should be introduced as soon as possible - for human and canine sakes.

Yours sincerely,

R.S. WHITLEY.

c.c. Mr. S. Miller Mr. L.H. Blake.

see what Esco said.