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(Formerly)

PROPOSALS FOR LONG TERM

RESEARCH AND EXPERIMENTATION

INTO PASTURE IMPROVEMENT.

CONNECTED FILES.

NUMBER

1 7 6 0

SHEEP FARMING IN THE
FALKLAND ISLANDS.



August 30, 1957.

Dear Arrowsmith,

Many thanks for sending me the copy of the Report of the Agricultural Department 1936 - 1946. As you say there is some sound sense in this about the possibilities of pasture improvement. Now we have to follow up the beginnings that have been made and I think they are quite promising. I spent some time yesterday with Dr. William Davies at the Grassland Research Station, Hurley, where the two young men, Mackintosh and Shaw, who are to tackle the grassland experimental work for the Falkland Islands Company, are taking a short course. Mackintosh, as I think you know, has had a veterinary training which will be an advantage as I think it is likely that the level of nutrition set by the natural herbage is really the key consideration. The trial work which Gilruth has started with the sod seeder seems to promise well and I hear that you are taking a keen interest in the possibility of distributing grass seed from the air on to boggy wet patches.

These trials on the camp backed by small scale experimental plots to test the possibilities of improved grass and clovers and fertilizer treatment in different places should give us valuable information about how to proceed.

We have a meeting at the Colonial Office next week to talk again about the soil survey for the Colony generally. I hope we shall be able to get something moving but not, I am afraid, for the coming summer season.

My wife and I look forward to visiting the Falkland Islands soon after Christmas in the height of your summer.

With kind regards to your wife and yourself,

Yours sincerely,

Anthony Amund

H.E. The Governor,
Government House,
Stanley, The Falkland Islands.



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COLONIAL OFFICE

THE CHURCH HOUSE

GREAT SMITH STREET

S.W.1

Tel.: ABBey 1266

Extension.....

Your Reference.....

My Reference WIS 28/1100/01.

11th September, 1957.

Dear Arrowsmith,

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Will you please refer to my letter to Denton-Thompson of the 1st August about the proposed soil survey and the improvement of permanent pastures in the Falklands. I now enclose a copy of the draft minutes of a meeting held in the Colonial Office on the 4th September, together with a copy of the letter referred to in those minutes which sets out briefly the earlier history.

As you will see, everyone agreed that the proposed soil survey in itself should be merely a supplement of pasture research and that for such research a more qualified man than anyone available in the Colony at present would be required. Provided that there would be no local political repercussions, we think that the best course would be to defer the soil survey until we have found and trained a young pasture agronomist. As we have six surveyors in the pool at present and hope to recruit one more shortly, it should be possible for us to make available a surveyor for a reconnaissance survey without too long a wait when we know when the grassland agronomist will have finished his training.

Naturally you will be concerned with the financial implications and while we cannot commit the Secretary of State in advance, on the basis of

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Reply at 25

E.P. ARROWSMITH ESQ., C.M.G.

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the experience of other territories, we think there is a reasonable certainty of securing a grant of 50% of the cost, both capital and recurrent, from C.D. and W. funds in the central research allocation and if your Government would find it difficult to meet as much as 50%, there would be no harm in asking for C.D. and W. funds to meet 100% of any capital cost and, say, 75% of the recurrent. If you agree that the recommendations are sound, we would advise you to put in an application without delay for a grant towards a scheme providing for the appointment of an agronomist for three years in the first instance, a six months' visit by an experienced agronomist and an 18 months' visit by a soil surveyor. Obviously you will have great difficulty on present information in drawing up any reliable estimates and we suggest that your scheme should provide for the salary of the agronomist for three years, but other charges for the first year only on the basis that a supplementary grant for that purpose would be sought when the advice of the experienced agronomist on the programme of research has been received. You will also have some difficulty over the salary for the agronomist and the surveyor and we will go over this for you when the application is received and let you know if the total is significantly affected.

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We propose that the possible appointment of a student to undertake specific investigation on Clover should be dealt with ad hoc, if Dr. Davies can find a suitable man. We are investigating the possibility of doing pot experiments with Falkland soils and will write to you again about this.

While we will give any C.D. and W. application a fair wind, if your Government feels able to accept the commitment in advance of a C.D. and W. Scheme, it would be a great help to have an immediate indent for the appointment of a grassland agronomist with the option of contract or permanent research branch terms and a salary of up to £1,500. This would give us reasonable scope for negotiation for a suitable man. On the question of permanency, although William Davies advises that the man would be needed for very many years, in the event of C.D. and W. funds no longer being available and your Government feeling unable to continue to finance the post, there would be a very good prospect of transferring the officer to another territory within a reasonably short time. When appointing an officer of this type to the Falklands, we should, in any case, have to promise him that we would consider him for transfer after he had put in a reasonable period of service so that he could go to the territory with better career prospects for a scientist.

79 Pending a reply we are taking no action on your indent for a soil surveyor, sent with savingram No.94 of the 7th May, 1957.

Your sincerely,
M. A. Willis

(M. A. Willis)

Note of a Meeting at the Colonial Office on the 4th September, 1957, to discuss Research on the Improvement of Permanent Pastures in the Falkland Islands.

Present:

Mr. G.E. Lambert (Chairman).

Mr. Anthony Hurd, M.P.,) representing the Falkland Islands
Mr. W.H. Young) Company.

Dr. William Davies.

Dr. Emyln Williams Macaulay Institute of Aberdeen.

Mr. D. Rhind)
Mr. Nye)
Mr. Willis) Colonial Office.
Mr. Kirkman)

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Mr. Lambert said that the events leading up to the meeting had been set out in Mr. Kirkman's letter to Dr. Davies, dated the 15th August, of which copies had been sent to Mr. Hurd and the Macaulay Institute. The Colonial Office were not, however, aware of the details of the work on pasture improvement being undertaken by the Falkland Islands Company and he invited Mr. Hurd to explain what has been done.

Mr. Hurd said that the Falkland Islands Company and other Companies had taken steps to follow-up the recommendations made by Dr. Davies in the report of his visit to the Falkland Islands in 1937 and 1938. The efforts had, however, been sporadic, they had been interrupted by the war and no proper records of experiments had been kept.

The Company had now decided to set aside part of its profits for a programme of investigation. The programme envisaged two lines of approach, the one with experiments on small scale plots with different grasses and fertilizer applications and the other with extensive trials to introduce new grasses with a sod seeding machine. They had evolved a machine suitable for sod seeding in Falklands' conditions from a Cuthbertson machine and an Australian machine and five of the new machines were being supplied. Sod seeding was being done initially with Yorkshire Fog and trials with other grasses would follow. The programme was planned for five years in the first instance. The exper

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directed by two officers. One was a Company's Cadet who had been given some training in England, after acquiring practical experience in the Falklands. The other was newly-appointed and had some veterinary training.

Mr. Lambert then asked Dr. Davies to give his assessment of the problem. Dr. Davies said that the basic problem was to increase the lambing rate from its present low level, which was only sufficient to maintain the size of the flocks and did not allow for culling and a proper breeding programme. While a number of factors might be responsible, he thought it likely that the principal cause was malnutrition of the ewes up to the time of weaning. This was similar to the problem in the Scotch hills which was the subject of research at the Rowett Institute at Aberdeen and the Hill Farming Research organization at Edinburgh. In the Falklands attempts had been made to improve the pastures by the application of phosphates and lime, but without marked responses and in view of the high cost of such material delivered in the Falkland Islands, progress along these lines was unlikely to be fruitful. The grasses in the Falklands were generally of very low nutritional value and various attempts had been made to introduce new grasses. Yorkshire Fog has proved the most easy to establish and although this was a grass of low nutritive value, it was a marked improvement on existing grasses. In addition there was no legume native to the Falklands' pastures and Dr. Davies considered that the establishment of White Clover might prove the key to the problem. Dr. Davies thought that a soil survey might be very valuable to supplement experiments with the pasture, but he suggested that it should take the form of a quick reconnaissance survey in the first instance, the results of which would indicate whether a more detailed survey was necessary.

Dr. Evelyn Williams agreed with Dr. Davies that

first priority should be given to the appointment of a pasture agronomist and that the soil survey should be used to supplement the efforts with pasture improvement. Dr. Davies said that the soil survey could be made particularly valuable if the surveyor worked closely with the pasture agronomist in order to record information of particular relevance to the grassland problems, such as the depth of peat found and the factors relating to the occurrence of "hard camp" and "soft camp". Dr. Williams stressed that the benefit which would result from the soil survey depended on the extent to which it was followed up with experimental work.

There was then some discussion as to whether the investigations planned by the Falkland Islands Company could fulfil the need of the Falkland Islands generally for agronomic research. It was agreed that while the Company's programme would make a substantial contribution to knowledge on this subject, since it did not include the employment of a fully qualified pasture agronomist, it would be necessary for the satisfactory solution of some of the problems to appoint a fully qualified grassland agronomist. The Company were employing Mr. Shaw, who had been trained at the Yorkshire Institute of Agriculture and had already acquired practical experience of the Falklands and had spent a short period of training with Dr. Davies; and Mr. Mackintosh, who had veterinary training but was not a qualified vet., who would assist in investigating the problem of the low lambing rate from the veterinary standpoint. The Company would be spending about £10,000 a year on the investigation, mainly on the salaries of these two officers, the sod seeding machine, seed and fertilizer and shelter belts. About £5,000 had been allowed for seed and £2,000 for fertilizer.

In the light of the information available at the meeting, it was agreed that the Falkland Islands Government should be advised that its primary need was to have a past

agronomist, but his work should be supplemented by a soil survey, starting with a reconnaissance survey. It was thought most unlikely that an experienced pasture agronomist could be found to spend a period of years in the Falkland Islands and Dr. Davies considered that many years' work would be necessary and that results would come slowly. In order to fill the post, therefore, it would be necessary to find a suitably qualified young man and train him for appointment as a pasture agronomist. Depending on his qualifications, he would probably require two years' training and it was unlikely that a man would be found before the summer of 1958, as the 1957 graduates were nearly all placed in employment by this time. Since an officer trained in this way would be lacking in practical experience, it would be advisable to try to find an experienced officer to spend six months in the Falklands to survey the work being done on the farms and draw up a programme for the agronomist. It was considered important that the soil surveyor and the pasture agronomist should be in the territory at the same time in order to get full value from the soil survey. There appeared, therefore, to be two courses open:-

- (a) to send as soon as possible an experienced pasture agronomist for a period of six months to draw up a programme of investigations and to send at the same time a member of the pool of soil surveyors to undertake a reconnaissance survey followed after an interval of possibly two years by the appointment of a young grassland agronomist to undertake the programme of research; or
- (b) to delay the whole programme until the young agronomist had been found and trained and then to send him with the senior officer for the first six months and a member of the pool of soil surveyors at about the same time.

The former course would have the advantage of satisfying the farmers

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and farmers of the Falkland Islands Government that a start was being made on this problem, but it would not result in an earlier solution than the second course. It would have the disadvantage that the pasture agronomist, who would have to carry out the programme would not have the benefit of personal contact with the soil surveyor and the experienced agronomist who drew up the programme. This would be a serious drawback.

The second course would be more satisfactory from the point of view of the scientific work, but would have the disadvantage that the farmers might feel that their problem had again been forgotten while the agronomist was being trained. It was agreed that the alternative courses should be discussed with the Falkland Islands Government.

Dr. Davies suggested that consideration should also be given to appointing a young student for a period of, say, two years to undertake an ad hoc investigation of the problem of introducing White Clover. This would be supplementary to the appointment of a grassland agronomist, but, if a suitable student were found who would be glad of the opportunity to undertake this piece of research, it might give the grassland agronomist a very good start towards practical results in pasture improvement. It was agreed that, if a suitable student could be found, this should be considered. Mr. Hurd thought it very desirable that there should be some action in this field in the Colony before the end of 1958 in order to retain the confidence of the farmers.

There was some discussion as to the subordinate staff and equipment, etc., which might be required by the agronomist. Mr. Hurd thought it advisable for political reasons and to keep down the cost that investigations should be undertaken by the farmers on the advice of the agronomist rather than that the agronomist should set up a permanent research station. Dr. Davies thought that certain experiments could only be undertaken under the direct control of the agronomist and that it would, therefore, be necessary to

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provide him with some equipment and subordinate staff. It was agreed that these matter should be discussed if possible in the light of the first six months' survey by the experienced agronomist and that no immediate decision was necessary. As regards finance it was noted that a project of this nature would be eligible to receive assistance from Colonial Development and Welfare Research funds, though a local contribution would probably also be expected.

Dr. Davies suggested that progress might be made with the problem of White Clover using pot techniques in the Laboratory in the United Kingdom if suitable soil samples could be obtained. It was agreed that this would be investigated.

It was agreed that all these matters would now be discussed with the Falkland Islands Government and that all the parties concerned would be kept informed of the result. Mr. Young agreed that the Company would keep the Colonial Office informed of the results of its own investigations and send copies of reports.

COLONIAL OFFICE,

September, 1957.



provide him with some equipment and materials. It
 was agreed that these matters should be discussed in detail
 in the light of the first six months' survey by the organization
 appointed and that no immediate decision was necessary. It
 was also agreed that a project of this nature
 would be eligible for financial assistance from the
 Government and various Government bodies. Through a local
 committee would probably also be required.

Mail from 93

The various matters that progress might be made
 with the grant of this Government and the organization in the
 laboratory. It was agreed that this would be
 could be obtained. It was agreed that this would be
 investigated.

It was agreed that all these matters would now be
 discussed with the relevant Government and that all
 the parties concerned would be kept informed of the results.
 The Young group over the country would keep the Colonial
 Office informed of the results of its own investigations and
 send copies of reports.

LOCAL OFFICE

September, 1957

WIS.28/1100/01

15th August, 1957.

I spoke to you and to Miss MacIntyre on the telephone about a meeting at the Colonial Office to discuss the proposed soil survey in the Falkland Islands. I asked Miss MacIntyre to note the morning of the 4th September, and I now confirm that the meeting will take place at 11 a.m. on that date in Room 610, Sanctuary Buildings, Great Smith Street, S.W.1. (The time of 10.30 was not convenient for all concerned). In order to put you in the picture for the meeting, it may be helpful if I summarise the events which have led up to it.

At the end of 1956 we received a request from the Falkland Islands Company to assist in their effort to improve their pastures by organising a soil survey of the territory. We consulted the Falkland Islands Government which endorsed the proposal and we offered them as a surveyor a member of the Colonial Pool of Soil Surveyors. This officer had served in the Falkland Islands previously and was considered by Dr. Muir, who had been consulted, to be a suitable officer to conduct the survey. The Government of the Falkland Islands, however, after consulting the Sheep Owners Association representatives, said that there was a strong feeling that the surveyor proposed was not sufficiently experienced. They felt that the Colony might get only a "test-tube" answer and recommendations that might be impractical having regard to the unusual local conditions. This has been the experience of one or two farmers who had

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DR. WILLIAM DAVIES.

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in the past sent soil samples to the United Kingdom. The Government of the Falkland Islands went on to say that what they required was:-

- "(1) A soil survey by an experienced and authoritative surveyor who has had considerable experience of the problems connected with plant chemistry, grasses and pasture.
- "(2) A practical set of recommendations and advice based on the result of the survey as to how soil and pasture may be best and most economically improved.
- "(3) A soil map of the colony that will indicate to farmers the areas most susceptible to improvement and treatment and which will assist them in planning improvement schemes".

This requirement clearly went further than a simple soil survey and the Colonial Office therefore, reconsidered the problem in consultation with the Macaulay Institute which is the parent Institute of part of the Pool of Soil Surveyors.

The advice of the Macaulay Institute is set out below:-

"Having considered all the information which you kindly sent and particularly the report made by Dr. William Davies, I am of

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the opinion that the Falkland Islands Government should be advised that a team will be required for the purpose which has been indicated.

It would appear that, from the information available at present and from the more immediate practical point of view, a detailed pedological soil survey is not a top priority although such a survey would be a necessary complement. Further, in my view, it would be desirable to have, in addition to a soil surveyor, and soil fertility expert, a third expert in the sphere of Grassland or Hill Farm Research".

This advice was considered in the Colonial Office and while not questioning the desirability of an investigation by a team of three, the Secretary of State's Agricultural Adviser doubted whether the size of the industry and the nature of its problem justified the organisation of a research project of this magnitude. Since the ultimate objective is the improvement of permanent pastures, the Secretary of State's Adviser suggested that it would be preferable in the first instance to appoint a grassland agronomist and to consider the matter further in the light of the results from this appointment.

As an example of a soil survey report, Dr. Osmond's report entitled "Report on Some Cyprus Soils" was shown to Mr. Anthony Hurd who has been corresponding with the Colonial Office on behalf of the Falkland Island Company. Mr. Hurd has commented as follows:-

"I have looked through the "Report on Some Cyprus Soils" made by Dr. Osmond. The kind

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of information gathered about the types of soil, their characteristics and composition and the distribution of the soil types throughout the area would be valuable to us in the Falkland Islands. We are not looking for an elaborate report but we do want some basic information about the soils in the Colony so that we shall be able to know to what extent the results already obtained and those we expect to get from experimental areas where fertilizer treatment and the sowing of grass seeds is being tried can be applied on a wider scale. The Falkland Islands Company is doing a certain amount of experimental work and we are to do more this coming summer with sod seeders. Other sheep owners have also made trials and obtained useful results in grassland improvement. We want to know whether what can be done on a small scale can be applied economically on a bigger scale to raise the productive capacity of the grassland in the Colony and so improve the sheep carrying capacity".

When making their recommendation above, the Macaulay Institute were unaware of the plans of the Falkland Islands Company and it seems necessary now to bring all the interested parties together in order to work out the best course of action. We should naturally be most grateful for your help in resolving the problem both in view of the assistance which the Grassland Research Institute might be able to offer and because of your personal experience of this problem in the Falklands, Mr. Lambert of this Office will take the Chair at the meeting on the 4th September and the Falkland Islands Company will be represented by both Mr. Hurd and Mr. W.H. Young, the Manager of the Company; Dr. McArthur may not be able to be present himself, but, if not, he will arrange for the Macaulay Institute to be represented by an appropriate officer.

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If there are any further points on which you would like information before the meeting, please let me know. I am sending a copy of this letter to Mr. Hurd and to Dr. McArthur for their information and in confirmation of the arrangements for the meeting.

(C. A. KIRKMAN)

Y.E.

1 Submit a draft Esbo Memorandum (at b.c). for consideration.

C. G. J.
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2-10-57

MEMORANDUM NO. 43 FOR EXECUTIVE COUNCIL.

Research into the improvement of permanent pastures
in the Falkland Islands.

Attached to this memorandum for the consideration of Members is a copy of the record of a meeting held at the Colonial Office on the 4th September, 1957, to discuss the question of research into the improvement of permanent pastures in the Falkland Islands.

2. It will be observed that arising out of this meeting it has been recommended for the consideration of this Government that a team consisting of an experienced Pasture Agronomist, a young Agronomist who would have to be found and given some preliminary training and a member of the Pool of Soil Surveyors should be appointed to carry out a soil and agronomic survey and a long term programme of research into pasture improvement in the Falkland Islands.

3. The general programme would be to find and train a young Pasture Agronomist who would then be sent out to the Colony with the senior Agronomist (who in turn would come out for a period of some six months and draw up a programme of investigation) and the Soil Surveyor who would carry out a reconnaissance survey of the Colony over a period of approximately 18 months.

4. In a covering letter to this record of the meeting, the Colonial Office have discussed the financial implications of the project. They have expressed a view, but without a definite commitment at this stage, that there is reasonable certainty of securing a grant of 50% of the cost, both capital and recurrent, from Colonial Development and Welfare Funds in the Central Research Allocation and possibly even 100% of any capital cost and 75% of the recurrent cost if this Government found it difficult to meet as much as 50%.

5. The Colonial Office go on to suggest that if the Falkland Islands Government agrees that these proposals are sound, we should submit an application without delay for a grant towards a scheme providing for the appointment of an Agronomist for three years in the first instance, a 6 months visit by an experienced Agronomist and an 18 months visit by a Soil Surveyor. In putting forward this suggestion the Colonial Office have indicated that they appreciate that we should have great difficulty, on present information, in drawing up any reliable estimates and they suggest that the scheme should provide for the salary of the Agronomist for three years (up to £1,500 per annum), but other charges for the first year only on the basis that a supplementary grant for the purpose would be sought when the advice of the experienced Agronomist on a programme of research has been received.

6. The Colonial Office give no indication as to the cost of the salaries of the Senior Agronomist and the Soil Surveyor but have intimated that they would be willing to make any necessary adjustments when the application is received. It appears likely, however, that the Soil Surveyor's salary would be of the order of £1,200 per annum and that it is unlikely that an experienced Agronomist would be obtained for anything much less than £2,000 to £2,250 per annum.

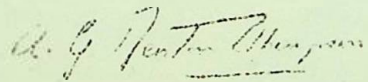
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7. It is extremely difficult to arrive at any firm estimate of costs at this stage as it is not known what equipment and machinery, if any, would be required and it is unlikely that the necessary information would be forthcoming until the senior Agronomist had drawn up a programme of investigation. But assuming that another furnished quarter and a small office combined with a laboratory would in any event be required and by providing for expenditure on such items as passages, means of local transport and office and laboratory equipment it is very probable that the initial outlay would amount to something of the order of £7,500, exclusive of anything in the way of acquisition of land and fencing or the purchase of mechanical equipment, should it be required. Recurrent expenditure would amount to approximately

- (a) £5,000 when all members of the team are working in the Falkland Islands;
- (b) £2,500 when the Agronomist is working on his own (allowing for salary, labour and clerical assistance but excluding provision for running tractors, if required, or the upkeep and maintenance of any land used for research and experiments or any such items as seeds and fertilizers etc.).

8. Finally the Colonial Office have indicated that they are investigating Dr. Davies' recommendation with regard to the possibility of doing pot experiments with Falkland soils and that they propose to approach this Government again on the matter.

9. In the circumstances outlined above Honourable Members are asked to advise as to what action should now be taken by Government.


COLONIAL SECRETARY

AGDT/MC

Note of a Meeting at the Colonial Office on the 4th September, 1957, to discuss Research on the Improvement of Permanent Pastures in the Falkland Islands.

Present:

Mr. C. E. Lambert (Chairman).

Mr. Anthony Hurd, M.P., } representing the Falkland
Mr. W. H. Young } Islands Company.

Dr. William Davies.

Dr. Emlyn Williams Macaulay Institute of Aberdeen.

Mr. D. Rhind.)
Mr. Nye.) Colonial Office.
Mr. Willis.)
Mr. Kirkman.)

Mr. Lambert said that the events leading up to the meeting had been set out in Mr. Kirkman's letter to Dr. Davies, dated the 15th August, of which copies had been sent to Mr. Hurd and the Macaulay Institute. The Colonial Office were not, however, aware of the details of the work on pasture improvement being undertaken by the Falkland Islands Company and he invited Mr. Hurd to explain what has been done. Mr. Hurd said that the Falkland Islands Company and other Companies had taken steps to follow-up the recommendations made by Dr. Davies in the report of his visit to the Falkland Islands in 1937 and 1938. The efforts had, however, been sporadic, they had been interrupted by the war and no proper records of experiments had been kept.

The Company had now decided to set aside part of its profits for a programme of investigation. The programme envisaged two lines of approach, the one with experiments on small scale plots with different grasses and fertilizer applications and the other with extensive trials to introduce new grasses with a sod seeding machine. They had evolved a machine suitable for sod seeding in Falklands' conditions from a Cuthbertson machine and an Australian machine and five of the new machines were being supplied. Sod seeding was being done initially with Yorkshire Fog and trials with other grasses would follow. The programme was planned for five years in the first instance. The experiments were being directed by two officers. One was a Company's Gadoe who had been given some training in England, after acquiring practical experience in the Falklands. The other was newly-appointed and had some veterinary training.

/ Mr. Lambert

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Mr. Lambert then asked Dr. Davies to give his assessment of the problem. Dr. Davies said that the basic problem was to increase the lambing rate from its present low level, which was only sufficient to maintain the size of the flocks and did not allow for culling and a proper breeding programme. While a number of factors might be responsible, he thought it likely that the principal cause was malnutrition of the ewes up to the time of weaning. This was similar to the problem in the Scotch hills which was the subject of research at the Rowett Institute at Aberdeen and the Hill Farming Research organization at Edinburgh. In the Falklands attempts had been made to improve the pastures by the application of phosphates and lime, but without marked responses and in view of the high cost of such material delivered in the Falkland Islands, progress along these lines was unlikely to be fruitful. The grasses in the Falklands were generally of very low nutritional value and various attempts had been made to introduce new grasses. Yorkshire Fog has proved the most easy to establish and although this was a grass of low nutritive value, it was a marked improvement on existing grasses. In addition there was no legume native to the Falklands' pastures and Dr. Davies considered that the establishment of White Clover might prove the key to the problem. Dr. Davies thought that a soil survey might be very valuable to supplement experiments with the pasture, but he suggested that it should take the form of a quick reconnaissance survey in the first instance, the results of which would indicate whether a more detailed survey was necessary.

Dr. Emlyn Williams agreed with Dr. Davies that the first priority should be given to the appointment of a pasture agronomist and that the soil survey should be used to supplement the efforts with pasture improvement. Dr. Davies said that the soil survey could be made particularly valuable if the surveyor worked closely with the pasture agronomist in order to record information of particular relevance to the grassland problems, such as the depth of peat found and the factors relating to the occurrence of "hard camp" and "soft camp". Dr. Williams stressed that the benefit which would result from the soil survey depended on the extent to which it was followed up with experimental work.

There was then some discussion as to whether the investigations planned by the Falkland Islands Company could fulfil

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the need of the Falkland Islands generally for agronomic research. It was agreed that while the Company's programme would make a substantial contribution to knowledge on this subject, since it did not include the employment of a fully qualified pasture agronomist, it would be necessary for the satisfactory solution of some of the problems to appoint a fully qualified grassland agronomist. The Company were employing Mr. Shaw, who had been trained at the Yorkshire Institute of Agriculture and had already acquired practical experience of the Falklands and had spent a short period of training with Dr. Davies; and Mr. Mackintosh, who had veterinary training but was not a qualified vet., who would assist in investigating the problem of the low lambing rate from the veterinary standpoint. The Company would be spending about £10,000 a year on the investigation, mainly on the salaries of these two officers, the sod seeding machine, seed and fertilizer and shelter belts. About £5,000 had been allowed for seed and £2,000 for fertilizer.

In the light of the information available at the meeting, it was agreed that the Falkland Islands Government should be advised that its primary need was to have a pasture agronomist, but his work should be supplemented by a soil survey, starting with a reconnaissance survey. It was thought most unlikely that an experienced pasture agronomist could be found to spend a period of years in the Falkland Islands and Dr. Davies considered that many years' work would be necessary and that results would come slowly. In order to fill the post, therefore, it would be necessary to find a suitably qualified young man and train him for appointment as a pasture agronomist. Depending on his qualifications, he would probably require two years' training and it was unlikely that a man would be found before the summer of 1958, as the 1957 graduates were nearly all placed in employment by this time. Since an officer trained in this way would be lacking in practical experience, it would be advisable to try to find an experienced officer to spend six months in the Falklands to survey the work being done on the farms and draw up a programme for the agronomist. It was considered important that the soil surveyor and the pasture agronomist should be in the territory at the same time in order to get full value from the soil survey. There appeared, therefore, to be two courses open:-

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- (a) to send as soon as possible an experienced pasture agronomist for a period of six months to draw up a programme of investigations and to send at the same time a member of the pool of soil surveyors to undertake a reconnaissance survey followed after an interval of possibly two years by the appointment of a young grassland agronomist to undertake the programme of research; or
- (b) to delay the whole programme until the young agronomist had been found and trained and then to send him with the senior officer for the first six months and a member of the pool of soil surveyors at about the same time.

The former course would have the advantage of satisfying the farmers and the Falkland Islands Government that a start was being made on this problem, but it would not result in an earlier solution than the second course. It would have the disadvantage that the pasture agronomist, who would have to carry out the programme would not have the benefit of personal contact with the soil surveyor and the experienced agronomist who drew up the programme. This would be a serious drawback.

The second course would be more satisfactory from the point of view of the scientific work, but would have the disadvantage that the farmers might feel that their problem had again been forgotten while the agronomist was being trained. It was agreed that the alternative courses should be discussed with the Falkland Islands Government.

Dr. Davies suggested that consideration should also be given to appointing a young student for a period of, say, two years to undertake an ad hoc investigation of the problem of introducing White Clover. This would be supplementary to the appointment of a grassland agronomist, but, if a suitable student were found who would be glad of the opportunity to undertake this piece of research, it might give the grassland agronomist a very good start towards practical results in pasture improvement. It was agreed that, if a suitable student could be found, this should be considered. Mr. Hurd thought it very desirable that there should be some action in this field in the Colony before the end of 1958 in order to retain the confidence of the farmers.

There was some discussion as to the subordinate staff and equipment, etc., which might be required by the agronomist.

/Mr. Hurd

Mr. Hurd thought it advisable for political reasons and to keep down the cost that investigations should be undertaken by the farmers on the advice of the agronomist rather than that the agronomist should set up a permanent research station. Dr. Davies thought that certain experiments could only be undertaken under the direct control of the agronomist and that it would, therefore, be necessary to provide him with some equipment and subordinate staff. It was agreed that these matters should be discussed if possible in the light of the first six months' survey by the experienced agronomist and that no immediate decision was necessary. As regards finance it was noted that a project of this nature would be eligible to receive assistance from Colonial Development and Welfare Research funds, though a local contribution would probably also be expected.

Dr. Davies suggested that progress might be made with the problem of White Clover using pot techniques in the Laboratory in the United Kingdom if suitable soil samples could be obtained. It was agreed that this would be investigated.

It was agreed that all these matters would now be discussed with the Falkland Islands Government and that all the parties concerned would be kept informed of the result. Mr. Young agreed that the Company would keep the Colonial Office informed of the results of its own investigations and send copies of reports.

COLONIAL OFFICE,
September, 1957.

W 230


EXTRACT FROM MINUTES OF MEETING OF MEMBERS OF EXECUTIVE COUNCIL
HELD ON 17TH OCTOBER, 1957.

.....

8. SOIL SURVEY. (Memo. No.43.)

It was agreed that as a preliminary to any subsequent long term project it would be advisable to have a reconnaissance survey, of some four to six months duration, undertaken by an experienced agronomist. Council advised, however, that before any firm arrangements for the survey were made -

- (i) further enquiries should be made as to the cost and the proportion of such cost that would be met from C.D. & W. Research funds;
 - (ii) that having obtained this information, the views of individual members of the Sheep Owners' Association should be obtained.
-


Clerk of the Executive Council.

*Re. file this in chronological order
then Bell the file on 30/11.*

1/11.

J.E.

I am not certain whether you intend making the next move
by telegram or d/po letter to Willis. I have therefore written something
that might serve as a working draft for either. I have assumed J.I.
does not call for a reply.

J.E.
20/1/57.

Government House,
Stanley,
Falkland Islands.

CONFIDENTIAL.

30th October, 1957

Dear Willis,

2 Thank you for your letter WIS 28/1100/01 of the 11th September enclosing a copy of the draft minutes of a meeting held in the Colonial Office on the proposed soil survey and improvement to permanent pastures in the Falklands. We have given much thought to this, and the subject was discussed at length at an Executive Council meeting on the 17th October.

I think it is important that you should appreciate local feeling on this matter. I have the impression from the minutes of the meeting, and particularly from what Hurd said, that the idea may be current that the farming industry in the Colony is "rarin' to go", and to quote Hurd, that it is important that Government should take action as soon as possible "in order to retain the confidence of the farmers". This, however, is by no means the case. The urge in this matter is coming from the London Office of the Falkland Islands Company and that fact alone makes it suspect in the minds of some of the independent farmers. It was noted, for instance, that no independent members of the Sheep Owners' Association attended the meeting in the Colonial Office. Farming opinion in the Colony with regard to the whole matter of pasture research and improvement is at best lukewarm, and, if a programme such as is envisaged is to succeed, our first task is to convince the farmers that it is really necessary and to secure the backing of the majority for our plans.

As you know, some Members of both Executive and Legislative Council are also local directors of the F.I.C. and managers of the Company's farms here. Their position is not particularly easy, for while they have to give heed to the policy of their London Board, they have also to consider the implications of approving a scheme, which would very probably lead to considerable expenditure of Government funds and perhaps to increased taxation to pay for it over the course of years. They are very conscious of this responsibility.

/s/ See much for.....

M. A. Willis, Esq., M.B.E.,
Colonial Office,
Great Smith Street,
London, S.W.1.

See 28
see 32, 52.

30th October, 1957

So much for the background. When we discussed this matter in Executive Council it was decided that the first step should be a visit to the Colony by an experienced pasture agronomist. But before this is finally agreed, it was decided that I should ascertain the proportion of the cost which would be borne by C. D. & W. Funds, and that when this is known the views of the Sheep Owners' Association should be sought on the proposal. No doubt you will gather that the greater the proportion that can be borne by C. D. & W. Funds, the easier it will be to secure support for this visit.

The reasons for recommending a visit by an experienced agronomist as the first step is that any scheme for pasture improvement must be recognised and accepted as a long term proposition. William Davies emphasised at your meeting that "many years' work would be necessary and that results would come slowly". It would be very easy, particularly if wool prices fall, for the farmers to become discouraged at the lack of apparent results and for pressure to be put on Government to close down whatever organisation might be set up here. It might even be that another Governor would regard the whole thing as a waste of time and money, as did Hodson in the case of the Anson farm. It is therefore very necessary that we should be quite clear on the long term implications of a pasture improvement scheme in the way of land, equipment, machinery and labour before we decide to go ahead. It seems inevitable that if an agronomist is to be stationed here he will want experimental plots under his own control together with ancillary staff and equipment; and although most farmers have neither the time nor the labour, and perhaps not the inclination, to embark on experimental projects on their own account, anything in the way of a Government experimental station is widely suspect.

I think everything will depend upon the man who is selected to come here to do the initial survey. He must be enthusiastic, and an expert, and a good salesman; for everything will depend upon his selling the idea to the farmers. We really need a sort of pastoral Billy Graham!

/If an organisation.....

M. A. Willis, Esq.,

- 3 -

30th October, 1957

If an organisation such as is envisaged finally secures local support, I would like to see it tied in the closest possible way to the Macaulay Institute of Aberdeen, and indeed, if it were possible, that it should be regarded as "The Falkland Islands Branch" of the Institute. I do not know how this could be worked, but the idea I have in mind is that the Institute should be responsible for the staffing and organisation of the set-up here in much the same way as the Meteorological Office in the United Kingdom is responsible for their services in the Falkland Islands. This may only be a pipe-dream, but perhaps you could give it some consideration.

I am enclosing under separate cover an application for assistance from C. D. & W. Funds to meet 75% of the cost of a visit to the Colony of an experienced pasture agronomist. If the whole cost could be met so much the better, but I feel that is too much to ask. It will be necessary to secure the approval of the Legislature to pay the Colony's share of the scheme.

Yours sincerely,

E. P. Arrowsmith.

Reply at 33

EPA/AT

F. I. ref: 1836

C. O. ref:

28

SAVING TELEGRAM.

From: The Officer Administering the Government of the Falkland Islands.

To: The Secretary of State for the Colonies.

Date: 30th October, 1957.

No.177. SAVING. COLONY.

25 My demi-official letter No.1836 of 30th October, to Mr. M. A. Willis. Agronomic Survey.

29 I enclose an application for a Colonial Development and Welfare Research grant of £1,620 to finance 75% of the total cost, estimated at £2,160, of an agronomic survey of the Colony.

2. The application, which is self-explanatory, has been prepared on the assumption that -

- (I) the survey would take about eight months in all, inclusive of travelling time, to complete;
- (II) the Agronomists' salary or fee would be of the order or equivalent of £1,800 per annum;
- (III) a local allowance of £1. 0. 0. per day, which would be quite adequate to cover all local expenses such as hotel accommodation if and when required, would be paid;

and that the salary and allowances proposed will prove to be sufficiently attractive for an agronomist of the required experience and standing. I should be grateful if the application may be amended as necessary if you consider it desirable to improve the terms offered, for it is essential that a first-class man should be employed.

3. The Agronomist who undertakes this survey, assuming it is finally agreed that it is to take place, should if possible arrive in the Colony not earlier than late September, 1958, or not later than early October, 1958, with a view to remaining until the following February or March, 1959. This would give him six months of spring and summer for field work. Weather conditions are likely to hamper any serious work of this nature during the Autumn and Winter months.

4. I propose, subject to your approval, to defer a final decision on the appointment and postpone the submission of a staff indent, assuming one is required for this particular appointment, until the outcome of this application is known and until, in the light of its outcome, I have had the opportunity of further discussions with my Executive Council and the Sheep Owners' Association to which I have referred in my letter of the 30th October to Mr. Willis.

GOVERNOR.

AGDT/MC

see 32

FALKLAND ISLANDS.AGRONOMIC SURVEY.Application for a Colonial Development and Welfare Research Grant of £1,620 to finance an Agronomic Survey of the Colony.

The Government of the Falkland Islands and representatives of the sheep farming industry in the Falklands have been considering ways and means of improving the permanent pastures of the Colony which is entirely dependant for its economic existence on the production of wool.

2. Basically there are two main problems facing the sheep farming industry in the Falkland Islands:-

- (i) the need to improve the lambing rate which at its present low level is only barely sufficient to maintain the size of the flocks and which does not provide sufficient scope for culling;
- (ii) the need to improve the sheep carrying capacity of the farms which only carry one sheep to every four or five acres.

3. It is considered that there are a number of factors that hamper or prevent an improvement in the lambing rate but generally speaking the grasses in the Falkland Islands are of low nutritional value and it is thought likely that the principal cause may be malnutrition in the ewes up to the time of weaning.

4. Expert advice has been sought on this question of pasture improvement and as a result of recent discussions at the Colonial Office, the Falkland Islands Government has been advised that its primary need is for a pasture agronomist (whose work would be supplemented by a soil survey) to carry out a long term programme of work and investigation in the Falkland Islands.

5. As a first step, however, it is proposed to invite an experienced pasture agronomist to undertake a reconnaissance survey of the Islands, examine the work that has already been done or that is being done on some of the farms, and on the basis of his findings to draw up detailed recommendations with regard to:-

- (i) a long term programme of investigation and research;
- (ii) any practical measures that can be taken immediately to improve pastures;
- (iii) the staff, facilities and equipment required.

6. It is considered that the services of the Agronomist would be required for a period of approximately eight months of which some six months would be spent in the Colony. On this basis the total cost of the survey is estimated at £2,160 and application is now made for a grant of £1,620 (or 75% of the total cost) from Colonial Development and Welfare Research funds. On the assumption that the Agronomist will arrive in the Colony in October, 1958 and leave at the end of March, 1959, the major proportion of this expenditure will be incurred during the 1958/1959 United Kingdom financial year with some residual expenditure (approximately £500) arising early in the 1959/1960 United Kingdom financial year.

7. The details of estimated expenditure are set out in the memorandum attached to the Financial Summary.

FINANCIAL SUMMARY.

- 1. Administering Authority Government of the Falkland Islands.
- 2. Allocation Falkland Islands.
- 3. Classification Agricultural Research.
- 4. Description of the Scheme Agronomic Survey.
- 5. Total Cost £2,160.
- 6. Colonial Development and Welfare Assistance required (75% grant) £1,620.
- 7. Basis of administration for accounting purposes
 - Personal Emoluments and Allowances £1,380
 - Other charges £ 780

TOTAL £2,160
- 8. Basis of calculation of claims
 - 75% from Colonial Development and Welfare Research Funds up to £1,620.

DETAILS OF EXPENDITURE.

	£
Salary of Agronomist (6 months at the rate of \$1,800 p.m.)	1,200
Local Allowance (payable at the rate of \$1, 0. 0. per day while in the Colony.)	180
Local Transport	150
Passages	600
Secretarial Assistance	50
	<hr/>
	\$2,160
	<hr/> <hr/>

10
Bu. 7/12 (maie)
~~30/11~~
2/11

No mail
N.C.
11/12/57.

No mail
M
11/12/57.

Bu. 11/1/58 (maie)
d
10/12.

DECODE.

TELEGRAM SENT.

32

From GOVERNOR to SECRETARY OF STATE.

Despatched: 4.2.58. Time: 0930 Received: : Time: :

No: 22.

25

My demi official letter to Willis 30th October and savingram No:177.
Agronomic Survey.

28

At the end of his recent visit to the Colony Hurd suggested survey in about two years time would be more valuable than during this year. Reasons are that Falkland Islands Company and a few independent farmers are at present conducting experiments in improving grazing and time is needed to show results. Survey now might not tell us much more than that of Davis but in two years agronomist would be able to assess results of present experiments and be better able to advise on future policy.

I have not yet discussed this suggestion in Executive Council but think it likely that Members will agree. I recommend therefore that no further steps should be taken to obtain Colonial Development and Welfare assistance for visit of agronomist during 1958.

GOVERNOR.

GTC : PT

See 52.

B.W. 11/2 for H.C. to see.
S. 4/2/58

31st December, 1957

Tel.: ABBe

Extension

Your Ref.

My Ref.

RES 136 50/01

Dear Arrowsmith,

25

Thank you for your letter No. 1836 of the 30th October about the improvement of pastures in the Falklands. It is very helpful to have this clear statement of the position and while we are disappointed at the suggestion that a further £2,160 should be spent, virtually to convince the local farmers of the necessity for pasture research, we will do our best to meet your wishes. We would, however, like to receive an assurance before spending any money on this that you are personally satisfied that long term pasture research is needed. We feel that unless you are personally satisfied on this point we should not be justified in agreeing to the expenditure on the proposed visit and we would wish then to examine the matter further with you in correspondence before taking any action.

We discussed your letter with Dr. William Davies who not unnaturally shared our view that the proposed visit would be unlikely to yield anything new on the technical side, since it would involve going over the ground covered by him in 1938/39. He considered that the desired object could be achieved in a very much shorter time than 8 months and regretted that he was unable to spare the minimum time necessary to make another visit to the territory. He has, however, recommended that Dr. Emlyn Williams, who is Head of the Department of Soil Fertility at the Macaulay Institute and who represented the Institute at our discussion at the Colonial Office in September, should be requested to make a visit on the lines proposed by you for a period of three to four months. He considers that although Dr. Williams is not a Pasture Agronomist he has his own special contribution to make to this problem and that he is perfectly capable of carrying out the other purposes of the visit, viz. to assist in selling the idea to the farmers and to draw up a programme of research for the Pasture Agronomist. In drawing up the programme for the Pasture Agronomist Dr. Williams would, of course, collaborate with Dr. Davies and this would be a joint effort. It happens that a Soil Surveyor, Mr. Jeremy Smith, is already working in South Georgia as a Glaciologist in connection with the International Geophysical Year programme, and, in the circumstances, it seems an excellent opportunity to get some work done on the Falkland soils at reasonable costs. We would, therefore, like to try to arrange for him to spend, say, six months in the Falklands to carry out the proposed reconnaissance soil survey. If Dr. Emlyn Williams could then visit the territory during the period when Mr. Smith is working on the survey, you would have the benefit of a team of two from the Macaulay Institute. We have written to the Director of the Institute, putting this idea forward for his consideration but making it clear that it would require your approval and, of course, the approval of the Treasury here before we can make a firm proposal. We would, therefore propose to make a Scheme for both visits which could probably be arranged within the figure of £2,160 suggested in your Savingram No. 177. We would like to accept your offer of a 25 per cent local contribution, but if we find the detailed estimates come to more than the total figure suggested above, in order to avoid embarrassing you locally we might be able to vary the percentage in order to avoid increasing the actual local contribution.

28

The Macaulay Institute does not deal with pasture problems as such, although it does get drawn into them and I fear that there is no possibility of their being able to provide a Pasture Agronomist on a long term basis. I am sure, however, that they will willingly continue to associate themselves with the technical direction of any pasture research in the Falklands with Dr. William Davies who is, of course, the Head of the Grassland Research Institute at Hurley. It may also be desirable to associate the Scottish

/Farm

E.P. ARROWSMITH, ESQ., C.M.G.

File & return early pl

EPA 10.2.58



34.

Farm Research Institute which has to deal with problems very similar to your own.

We shall be glad to have your views as soon as possible and if both you and the Macaulay Institute can agree to what is now proposed we will go ahead with the necessary arrangements.

Yours sincerely,
M.A. Willis

(M.A. Willis)

35

HCS

Pl speak

IRA 11.2.58

Reply at 36.

CONFIDENTIAL



Ray Research Institute which has to deal with problems very similar to your own.

We shall be glad to have your views as soon as possible and if both you and the necessary Institute can agree to what is now proposed we will go ahead with the necessary arrangements.

Handwritten signature
Handwritten signature

(M.A. Williams)

Return at 36

CONFIDENTIAL

1836

19th February, 1958.

D/O

Just before he left for the Dependencies the Governor asked me to reply briefly to your Confidential letter RES 136/50/01 of the 31st December on the subject of pasture improvement. Your letter and the Governor's telegram No. 22 of the 4th February crossed. As you will see it is now suggested that we should defer any further action so far as an agronomic survey is concerned for two years or so. I think the Governor has in mind that the whole question should be discussed again in Executive Council but in the meantime he would be glad if you would take no further action with regard to the C.D.W. research scheme.

33.
32.

A. G. D. T.

M.A. Willis Esq., M.B.E.,
The Colonial Office,
Great Smith Street,
LONDON S.W.1.

Bu. 10/3
20/2/58.

AGDT/SJA

W.S.

37

Would you like this included
on Ex. Co. Agenda as a 'for mention'
item pl?

10:3:58.

W. E. P. ...

Y.E.

L. S. D. C. for the time being?

P.H.P.
10/3/58

33

36

~~21~~ 21 3 4

Bel.
20/19
21/158

Y.E.

Is our policy still to L.S.D. & on this one?

P.H.P.
12/10/58

HCS

Yes. Almost certainly Gidwitz will have discussed with Hurd, & we shall probably hear something when Gidwitz returns.

~~21~~ 13. 10. 58

Bel.
20/19
21/158
7.66

5th February 1960

Dear Tom

Hurd and I discussed the possibility of a visit from Dr. A. R. Wannop, the Director of the Hill Farming Research Organization, to the Falklands next summer. He told me that you were in favour of this idea, and I agree that such a visit would be helpful. I told Hurd that I am sure that we need some one who is a practical man as well as a scientist, and he thinks Wannop would be just the chap.

I intend putting in for a C.D. & W. Research grant to cover 100% of the cost of his visit, and I see no reason why we should not get it. We could help here by giving him free passages by P.I.C.A.S.

(Signed E.P. Arrowsmith)

The Hon. T.A. Gilruth J.P.,
DARWIN.

5th February 1960

Dees

When Hurd was here we discussed the possibility of having some one come out to have a look at the experiments that are being made in the Colony for the improvement of the grazing. I think such a visit might be useful, provided we get a practical man who has had experience of conditions somewhat similar to ours. Hurd says that Dr. A.R. Wannop, the Director of the Hill Farming Research Organization in Scotland, is a very good man, and a practical one, as well as a scientist. Hurd thinks he would welcome a chance of paying a visit to the Falklands for a couple of months or so. He could see what has been done on the various farms, and might be able to give us some new ideas.

Would you let me know what you think of this idea. I do not see that we can lose anything by it, and we might well gain something useful. I understood from Hurd that Tom was in favour of such a visit, and I have discussed it with Bartie, who also thinks it would be a good thing.

I would propose that the entire cost of his visit should be met from a C.D. & W. Research grant, and I really can see no reason why we should not get a 100% grant. We would assist here by giving him free passages by F.I.C.A.S.

(Signed E.P. Brownlie)

The Hon. N.L. Cameron, O.B.E., J.P.,
PORT SAN CARLOS.

5th February 1960

Deo Hyl

When Hurd was here we discussed the possibility of having some one come out to have a look at the experiments that are being made in the Colony for the improvement of the grazing. I think such a visit might be useful, provided we get a practical man who has had experience of conditions somewhat similar to ours. Hurd says that Dr. A. E. Wannop, the Director of the Hill Farming Research Organization in Scotland, is a very good man, and a practical one, as well as a scientist. Hurd thinks he would welcome a chance of paying a visit to the Falklands for a couple of months or so. He could see what has been done on the various farms, and might be able to give us some new ideas.

Would you let me know what you think of this idea. I do not see that we can lose anything by it, and we might well gain something useful. I understood from Hurd that Tom was in favour of such a visit, and I have discussed it with Bertie, who also thinks it would be a good thing.

I would propose that the entire cost of his visit should be met from a C.D. & W. Research grant, and I really can see no reason why we should not get a 100% grant. We would assist here by giving him free passages by F.I.G.A.S.

(Signed E.P. Arrowood)

The Hon. H.C. Harding, J.P.,
CHAIRMAN.

44

EXTRACT OF LETTER RECEIVED FROM THE HON. T. A. GILLRUTH J.P.

DATED 10th FEBRUARY 1960

"Dear Governor,

Thank you for your two letters dated 5th February which arrived here yesterday.

Sir Anthony spoke to me about Dr. Wannop and certainly I am all for having the fellow visit the Islands - it cannot do any harm and might do a great deal of good."

Fox Bay East,
West Falklands.

45

February 15th. 1960.

My dear Governor,

Thank you for your letter of February 5th, received yesterday. I agree that a visit to the Colony by a practical man who has had experience of regrassing Hill Farms might be useful. I know I rather disagreed with this point of view some two years ago, but now that three farms are undertaking extensive experiments with sod seeding, rotovating, and the plough, namely Darwin, Hill Cove and Roy Cove, the advice of a man of the type you suggest could be of value.

May I suggest that it might be a good idea to obtain the general opinion of the Sheep Owners Association on this subject, and this could be done fairly quickly if the Colonial Secretary asked the Secretary of the Association to send a circular letter to each Farm Manager requesting for replies by telegram.

I am going over to San Carlos on the 18th and expect to be back in Stanley towards the end of the month.

With kind regards.

Yours very sincerely,

A. C. Harding

His Excellency,
Sir E.P. Arrowsmith. K.C.M.G.
Government House,
Stanley.

16th February 1960

46

Dear Hugh

Thank you for your letter about the proposal for Warnop's visit. Norman greets the proposal with enthusiasm and Tom and Bartie are also for it. With this, and your support, I really feel I can go ahead and put the proposal to the C.O. I leave here for the South on the 18th, and I am anxious to get my letter away by the 'Darwin' on the 22nd. I should be very surprised indeed if there were any real opposition to the proposal by members of the S.C.A.

I look forward to seeing you when I get back. I wish I could have got round the Camp during this lovely weather, but we seem to have had a steady stream of visitors.

With kind regards,

Yours,

(Sgn E.P. Arrowood)

The Hon. H. C. Harding, O.B.E., J.P.,
PORT SAN CARLOS.

1836

47

16th February 1960

Dear Willis

Would you please refer to the correspondence in your file PFS.136/50/01, and in particular to my telegram No.22 of the 4th February 1958, on the subject of an agronomic survey of the Colony. You will see that at that date it was considered that a visit of an agronomist would be of more value in two years time. Two years have now passed, and in various ways promising results are now being obtained in efforts to improve the grazing. Unavoidably, in the conditions of the Falkland Islands, results are slow and uncertain, but they are certainly worth pursuing.

I am sure it would be helpful and stimulating to further efforts by the sheep farmers, if they could now have the benefit of a visit by some one who knows the recent progress of research work and experiment in the improvement of hill pastures, and the management of sheep in poor moorland country. I believe that the Hill Farming Research Organisation in Scotland is probably the best body in the U.K. to look to for advice, and I understand that Dr. A.R. Wannop, the Director of the H.F.R.O., is well thought of as a practical man, as well as a scientist. He sounds just the sort of man that would go down well with the farmers, and I think it would be most helpful if he were invited to make an advisory visit to the Colony next summer, coming preferably in November or December, for a stay of three months or so.

I think a visit such as this would be very worthy of assistance from C.D. & W. funds as a research grant, and I would hope that a hundred per cent grant would be obtainable. I do not know what Dr. Wannop's salary is, but I should think it would be appropriate if we were to pay his salary and a subsistence allowance. His expenses in the Colony would be small, for managers would put him up when he visits the Camp. On top of this there would be his air or sea passages both ways, and perhaps a small allowance should be made for secretarial assistance should he need it. He will have to travel a lot by air, and the Colony could help by giving him free passages by the Government Air Service. I should imagine that the total cost of the visit would be somewhere in the region of £1,500.

I have discussed this suggestion with Sir Anthony Hurd, who

recently visited the Falklands, and he considers that a visit by Dr. Wannop would be valuable and timely. No doubt he will be mentioning this to the Secretary of State on his return to England.

I suggest that the first move should be an enquiry whether Dr. Wannop would be able to spare the time to pay us this visit, and we could then work out the costs in more detail.

Yours sincerely,

(Signed E.P. Arrowsmith)

M. Willis Esq., M.B.E.,
Colonial Office,
Great Smith Street,
LONDON, S.W. 1.

Tel: ABBey 1266

Extention.....

Your ~~reference~~ ce.....

My Reference RES 136/50/01



THE CHURCH HOUSE

GREAT SMITH STREET

S.W.1

8th March, 1960

My Dear Arrows.

25 In Willis's absence I am writing to you to take up again the question of a visit to the Falklands of an expert to look into the problems of sheep farming and related matters of pastures, last discussed in your letter to Willis of 30th October, 1957.

2. Sir Anthony Hurd recently wrote to the Secretary of State asking if they could meet so that Hurd could discuss the possibility of obtaining some up-to-date technical advice for your sheep farmers. He suggested that the best person for this would be Dr. A. R. Wannop, the Director of the Hill Farming Research Organisation in Scotland, or one of his senior officers, and that arrangements should be made for a visit of about six months' duration.

3. It seems to us that a visit by Wannop or one of his men would be worth while. The Hill Farming Research Organisation has a fund of knowledge of soils and climatic conditions similar to yours and one of their experts should be able to say quite quickly what could probably be done to improve the Falkland Islands pastures and whether the measures would or would not be a paying proposition. He would probably suggest trials, of course, to prove his theories in practice.

32 4. We would be prepared to consider the award of a grant from the Central allocation of C.D. and W. funds being made to meet part of the costs of any visit that might be agreed. We do not know whether Wannop (or an alternative) would be able to make a visit, nor do we know whether Hurd has made an approach to him. It would be useful if we could let the Hill Farming Research Organisation have whatever reports are available (if any) on the experimental trials referred to in your telegram No.22 of 3rd February, 1958, so if you and your Executive Council agree that the proposal is worth pursuing, perhaps you would arrange for them to be sent to us. We understand that Hurd considers that there is no need to await the results of the local experiments and has suggested that the proposed visit might commence in October of this year. It would obviously be necessary to give Wannop all available results of trials so as to get the maximum value from a visit.

Yours ever
Henry

(H. P. Hall)

But
e

Sir Edwin P. Arrowsmith, K.C.M.G.,
Government House,
Stanley,
Falkland Islands

J. E.

Is it rather than me wondering what we go next. I can only suppose we shall have to ask the F.I.C. whether they will arrange for the reports, if any, to be supplied direct on to us for onward transmission. And ask Syd for something? What we really need of course is for someone in the C.O. to get on with it and not play "back to you Charlie."

If we are going to have to find money. then I shall need to ask the Select Committee for a contribution - and advise at some act has figure (e.g. passages - C.D. & Co. paying the rest).

B. G. J. J.

11.4.60

M. G.

The Governor will be discussing this matter in the U.K. B.G. on return pt.

Bu 16.5.60

B. G. J. J.

16.5.60

Tel.: ABBey 1266

Extension

Your Reference

1936

My Reference RES 136/50/01



COLONIAL OFFICE

55

SANCTUARY BUILDINGS

GREAT SMITH STREET

S.W.1

25th April, 1960.

My dear Ann,

47

Thank you for your letter of 16th February about the proposal that Dr. A. R. Wannop, the Director of the Hill Farming Research Organisation, should come out to look at your sheep pastures.

60.

We have now heard from Dr. Wannop that he can manage a visit in the period November, 1960 to March, 1961 and I think I can best put you in the picture by sending you the enclosed copies of Rhind's letter of 21st March and Dr. Wannop's reply.

It seems to us most important that Dr. Wannop should have a chance before he leaves this country to study whatever has been written up about the experimental work which has been carried on in the Falkland Islands in recent years, although it seems unlikely that independent farmers will have done much in the way of writing up results of their own experiments. However, I expect that the Falkland Islands Company could produce a fair amount of information if they were asked to do so. We shall be grateful if you would have this looked into and would send on any reports which the Falkland Islands Company is able and willing to produce.

We have not yet discussed this visit with the Treasury but it is virtually certain that when we do so we shall be requested to press for a local contribution towards the cost. There is clearly a strong case for asking for such a contribution as Dr. Wannop's visit would be of benefit to the Falkland Islands alone and not to any other colonial territory. The Department of Agriculture for Scotland is willing to continue to meet Dr. Wannop's salary during the period of his absence, so the cost of the visit would be air and/or sea passages and subsistence allowance and possibly a little more for expenses in the colony. However, as you say, local expenses are likely to be very small.

/In

SIR EDWIN P. ARROWSMITH, K.C.M.G.



56.

In view of the fact that the cost of the visit would be appreciably less than your estimate of £1,500 (since we shall not have to reimburse Dr. Wannop's salary), I wonder whether the Falkland Islands Government could manage to make a contribution of say, 25 per cent or 30 per cent. We really think that it should do so, if it can, and we have no doubt at all that the Treasury will make much of this point.

Yours ever

M. A. Willis

(M. A. Willis)

HILL FARMING RESEARCH ORGANISATION

DIRECTOR A. R. WANNOP, O.B.E., B.Sc. (Agr.), B.Eng., F.R.S.E.

57

SECRETARY:
R. S. BOYD

PHONE: 22225/6

CAL 3231

48 PALMERSTON PLACE

EDINBURGH 12

YOUR REF.

OUR REF. Gen/f/3

13th April, 1960.

D. Rhind, Esq.,
Colonial Office,
Great Smith Street,
LONDON, S.W. 1.



Dear Mr. Rhind,

Since I wrote you on 30th March saying that I would be willing to go to the Falkland Islands next winter, I have had some correspondence with Sir Anthony Hurd, who is very anxious that I should be in the Falklands not later than the beginning of November, so that I can be there at about the end of the lambing season, or as soon as possible thereafter.

He tells me that there is a boat leaving Montevideo on October 27th, and that I would need to leave here by plane round about the 21st October. In my letter to you I said that I had a commitment at the beginning of November, but I think it would be possible for me at this stage to make alternative arrangements for this, so that I could leave at the time Sir Anthony suggests. It would, of course, mean that I could return here earlier than I envisaged previously.

Yours sincerely,

A. R. Wannop

*RES 136/50/01
Hessland Res
Falklands*

HILL FARMING RESEARCH ORGANISATION

DIRECTOR A. R. WANNOP, O.B.E., B.Sc. (Agr.), B.Eng., F.R.S.E.

958

SECRETARY:
R. S. BOYD

PHONE: 2222222 CAL 3231

YOUR REF. RES 136/50/01

OUR REF. Gen/f/3

J. 653
R < memo.
1/4

48 PALMERSTON PLACE
EDINBURGH 12

30th March, 1960.

D. Rhind, Esq., O.B.E., B.Sc., F.L.S.,
Colonial Office,
Great Smith Street,
LONDON, S.W. 1.

RESEARCH
- 1 APR 1960
1

Dear Mr. Rhind,

(6)

(7)

I have to thank you for your letter of 21st instant, which the Department of Agriculture for Scotland have forwarded to me.

I note that the Governor of the Falkland Islands and Sir Anthony Hurd have suggested that I should be invited to go to the Falkland Islands next winter to investigate from the agronomic standpoint the trials and developments that the Falkland Islands Company and independent farmers have undertaken in recent years in respect of pasture improvement and sheep management, and I am pleased to accept this invitation.

It will be a great advantage to have in due course some details of the trials being carried out, and I will look forward to receiving these. I remember Dr. Davies' report "The Grassland of the Falkland Islands", and though I do not have a copy, I can borrow one from the School of Agriculture library in Edinburgh.

It should be possible for me to devote ten to twelve weeks to the visit, depending on the time taken to travel there and back. I have engagements here during the first days of November, but could leave after the 5th, and I have been invited and have agreed to read a paper to a conference in Paris during the first week of March, 1961. Perhaps I could do the latter on my return journey.

59

If you wish to discuss with me personally any points regarding the visit, I have to be in London on Monday, 29th April, and could call at any hour during the morning.

Yours sincerely,

A. W. Wainwright

6
60

21st March, 1960.

RES 136/50/01.

Dear Dr. Wainop,

I am writing to you at the joint suggestion of Sir Edwin Arrowsmith, the Governor of the Falkland Islands, and Sir Anthony Hard, M.P., of the Falkland Islands Company, about the sheep pastures of the Islands.

As you probably know, sheep form the principal economic asset of the Islands, but the nature of the vegetation which the poor, peaty soil supports exercises a fairly rigid check on the number of head which can be grazed. Dr. William Davies (then of the Welsh Plant Breeding Station, Aberystwyth), conducted a survey of the Islands from November 1937 to March 1938 and you may possibly have seen his report "The Grasslands of the Falkland Islands" published in 1939. He made a number of suggestions about rotational grazing, fencing, soil improvement, the introduction of legumes and so forth, but emphasised that full agronomic investigations should be carried out before major decisions were taken.

Ten years after Dr. Davies' visit these matters were discussed again and it was generally agreed that an experienced pasture agronomist should be invited to spend about eight months in the Falkland Islands carrying out a reconnaissance survey and, in particular, studying the trials and varieties in traditional practices which were being undertaken by the Falkland Islands Company and a few independent farmers. However, the people in the Islands then had second thoughts and proposed that such a visit would be better deferred until they had made further progress with their own trials. There the matter now rests.

It is now considered that the time is ripe for a visit from someone who knows the recent progress of research work and experiment and the management of sheep in poor moorland country. Your name has been specifically mentioned and we would, therefore, be grateful if you would consider whether you (or, if you could not manage it, one of your senior officers) could go to the Falkland Islands in November or December this year and stay there for about three months.

We have told Sir Edwin Arrowsmith that if a visit by you or another expert can be arranged, it would be as well if you had some knowledge of the trials which have been carried out before going out there, so I hope that we would be in a position to send you a report well before the end of the year.

If you cannot lay your hands on a copy of Dr. William Davies' "The Grassland of the Falkland Islands", we have one copy here in the Colonial Office Library which we could arrange to have lent to you.

/This letter

DR. A. R. WAHNOP, O.B.E., B.Eng., F.R.S.E.,

This letter is being passed to you through the Department of Agriculture for Scotland, with whom we would of course discuss the terms on which you would make the visit if you were free to go. We are also sending a copy to Sir William Slater, who has expressed the personal hope that you would be able to undertake this task.

Yours sincerely,

D. Rhind.

mail from 55.

bu. 16. 6. 60 for H₂

62.

no. 1.

54 and 55. file submitted accordingly

Stm.
16. 6. 60.

63

J.F.

You will want to record the outcome of your discussions
on Dr Wannop's visit. Do we need funds?

D.G.J.F.
16.6.60

64

H. C. S.

64

I met Mr. Wannop in the Colonial Office on the 26th May. He is planning to arrive here in the 'Darwin' of the 31st October, and leave again in the 'Darwin' early in January. I was most impressed by him, and I feel sure he will go down well with the farmers here.

I cannot yet say whether we will be required to pay part of the cost of his visit. I said that I considered our share should be limited to his return fare from Montevideo in the 'Darwin', and that we would provide free transport for him while in the Colony. I hope we may be able to get away with this.

Mr. Wannop asked if we would work out a programme for him, and the visit of the farmers for the S.O.A. would be a good occasion for doing this.

EPA/MW
17th June 1960

64

BA.

Let us be sure to get him to do a
broadcast before he leaves.

B.U. 29.6.60.

D.G.J.F.
17.6.60.

65

Y.E.

You will want this by you
for discussion with Solo members.

et/7/1
29. 6. 60.

~~27A.~~
8.7.60

BU 13.9.60
BU 24.7.60
m...



S A V I N G

From the Secretary of State for the Colonies.

To the Governor, FALKLAND ISLANDS.

Date June, 1960.

17 JUL 1960



No. 57 Saving.

Proposed Visit by Mr. A.R. Wannop
Director of the Hill Farming Research Organisation

As agreed during your recent discussions in the Colonial Office, a Colonial Development and Welfare Scheme has been made to provide a grant to meet the major part of the cost of a visit by Mr. Wannop to the Falkland Islands later this year.

67-69

2. The Number of the Scheme is R. 1168 and copies of the Scheme Memorandum, Estimates and Financial Summary are enclosed.

3. Arrangements are being made for Mr. Wannop to arrive in Montevideo in time to leave for Stanley on 27th October, 1960.

ASCT

SECEP.

See 27

RES 136/50/01

C.D.W.(R) No.992

Proposed grant of £675 from the
Central Research allocation of Colonial
Development and Welfare funds in favour
of the Falkland Islands' government towards the
cost of a visit by Mr. A. R. Wannop.

1937/38? Sheep form the principal economic asset of the Falkland Islands, but the nature of the vegetation which the poor, peaty soil supports exercises a fairly rigid check on the number of head which can be grazed. However, a survey conducted in 1947/48 by Dr. William Davis (then of the Welsh Plant Breeding Station, Aberystwyth) made it clear that the introduction of rotational grazing, fencing, soil improvement and leguminous crops held promise of an increase in the carrying capacity of the pastures. He recommended that his suggestions should be tried out in the field.

2. A series of field trials have been carried out by several sheep farmers (in particular by the Falkland Islands Company) during the past decade and it is now considered that the time is ripe for the results to be assessed by an expert in the management of sheep in poor moorland country. With the concurrence of the Department of Agriculture for Scotland and of Sir William Slater, Secretary of the Agricultural Research Council and Chairman of the Committee for Colonial Agricultural Animal Health and Forestry Research, an approach has accordingly been made to Mr. A. R. Wannop, O.B.E., B.Eng., F.R.S.E., Director of the Hill Farming Research Organisation. Mr. Wannop would be available for a visit of about nine weeks at the end of this year, and the Department of Agriculture for Scotland would not require his salary to be reimbursed.

3. The financing of the proposed visit has been discussed with the Governor of the Falkland Islands and it has been agreed, subject to Treasury concurrence, that a grant from the Central Research allocation of Colonial Development and Welfare Funds would be made to meet the cost of Mr. Wannop's return air passage from London to Montevideo, his journey from Scotland to London and back and of his subsistence for the duration of his visit. The latter item should be relatively small, owing to the Falkland Islands custom of offering hospitality to visitors. The Falkland Islands government has offered to provide the cost of Mr. Wannop's return sea passage from Montevideo to Stanley and of his transport, largely by government aircraft, within the Falkland Islands.

68
69

4. Estimates of expenditure and a Financial Summary are attached.

Colonial Office,
Great Smith Street,
London, S.W.1.

10th June 1960.

Visit by Mr. A. R. Wannop to the
Falkland Islands.
Estimate of Expenditure.

	£
Travel in U.K.	15
Return air passage to Montevideo	510
Return sea passage Montevideo - Stanley	55
Transport within Falkland Islands	170
Subsistence	100
Contingencies	50
	<hr/>
	£900
	<hr/>

Financial Summary

- | | | |
|--|---|------|
| 1. Administering Authority: | Government of the Falkland Islands. | |
| 2. Allocation: | Central Research | |
| 3. Classification: | Agriculture. | |
| 4. Description of Scheme: | Visit to the Falkland Islands by
Mr. A. R. Wannop. | |
| 5. Total Cost: | £900. | |
| 6. Colonial Development and
Welfare Assistance
required: | £675. | |
| 7. Basis of Administration for
Accounting purposes: | | £ |
| Single Head | | 900 |
| 8. Basis of calculation of claim | | |
| C.D. and W. funds to meet
approximately 75% of the total
cost up to a maximum of | | 675. |

225 claim
675 total
£900

70.

A.G.C.T.,

To see from f. 66, pl.

Ed
for C.S.
25.7.60.

Hon. B. S.

71.

Expenditure will have to be approved
by B. S. S. - I suggest a memo asking for
their written approval.

A. C. T.

A. C. T.

26.7.60.

72

29th July 1960

Dear Mr. Wannop,

We are much looking forward to your arrival here in October, and I have booked accommodation for you in the R.M.S. 'Darwin', leaving Montevideo on the 27th October. We are planning for you to spend most of November on the East Falkland, and December on the West.

I wonder if you ride? In the Summer it is possible to get about very largely by Landrover, but some riding may be necessary if you are to see everything. For this, you will not need special kit, and most of the farmers ride in corduroys and wellingtons. As I mentioned in London, wellingtons can be bought locally. As to the rest of your gear, I should think you would need the same sort of kit as you would wear when visiting hill farms in Scotland in the Autumn. I have a heavy, rough waterproof coat I could lend you for when you are in the Camp.

You will be meeting some of the farmers on your trip down in the 'Darwin'. A.G. Barton, C.B.E., one of the local Directors of the Falkland Islands Company, and its Manager in Stanley, is now at home on leave. I am sure if there is anything else you would like to know, he would be only too glad to tell you. You can get hold of him c/o The Falkland Islands Company, 120, Pall Mall, S.W.1.

I hope you will have a good trip out, and that we shall have some fine weather to welcome you to the Falklands.

Yours sincerely,

Edwin Arrowsmith

Mr. Wannop Esq., O.B.E., B.Eng., F.R.S.E.,
Hill Farming Research Organisation,
48, Pinnerston Place,
EDINBURGH, 12.

*KIV accommodation
in MV
Sept 6th Oct*

For written
reply please

Ref: 1836, . . .
2nd August, 1960

MEMORANDUM NO. 4 FOR STANDING FINANCE COMMITTEE

Visit of Mr. A.R. Wannop Director of the Hill
Farming Research Organisation

Information has been received from the Colonial Office to the effect that arrangements have been made for Mr. A.R. Wannop, Director of the Hill Farming Research Organisation to visit the Falklands this summer, to investigate and evaluate the trials and developments undertaken in recent years in respect of pasture improvement and sheep management. Mr. Wannop will arrive on the 31st October and will stay for approximately 9 weeks.

2. Her Majesty's Government have made a grant of £675 from the Central Research Allocation of the Colonial Development and Welfare Fund towards the cost of Mr. Wannop's visit.

74
3. An estimate of the expenditure together with a financial summary is enclosed from which it will be seen that the Colony will be required to meet expenditure of the order of £225. The Scottish Department of Agriculture will not require reimbursement for the payment of Mr. Wannop's salary.

4. The above financial arrangements are eminently suitable and Honourable Members are asked to signify in writing their approval of the expenditure of funds totalling £900 made up of £675 from Colonial Development and Welfare Funds and £225 from Colony Funds.

Alfred M. ...

COLONIAL SECRETARY.

DRM/FH

Visit by Mr. A.R. Wannop to the
Falkland Islands.

Estimate of Expenditure

	£
Travel in U. K.	15
Return air passage to Montevideo	510
Return sea passage Montevideo - Stanley	55
Transport within Falkland Islands	170
Subsistence	100
Contingencies	50
	<u>£900</u>

Financial Summary

- | | |
|--|---|
| 1. Administering Authority: | Government of the Falkland Islands |
| 2. Allocation: | Central Research |
| 3. Classification: | Agriculture |
| 4. Description of Scheme: | Visit to the Falkland Islands
by Mr. A.R. Wannop |
| 5. Total Cost: | £900 |
| 6. Colonial Development and
Welfare Assistance required: | £675 |
| 7. Basis of Administration for
Accounting purposes: | £ |
| Single Head | 900 |
| 8. Basis of calculation of claim | |
| C.D. and W. funds to meet approximately
75% of the total cost up to a maximum | 675 |

Bu 29.8.60

Y. E.

May we publish the following in the Monthly Review?
Or perhaps you would wish to alter it or add to it. I
have taken the information from our file.

fm
16/8/60

15th August, 1960.
RHDM/FH

Improved Grazing

Most of our readers will know that several sheep farmers
have during the past ten years been experimenting in methods
of increasing the carrying capacity of our pastures. It is
now considered that the time has come for the results to be
assessed by an expert in the management of sheep in poor
moorland country. It has therefore been arranged for
Mr. A. R. Wannop, O.B.E., B. Eng., F.R.S.E., Director of the
Hill Farming Research Organisation to visit the Falklands.
He is due to arrive on October 31st and it is hoped that he
will be with us till January. ~~We are grateful to His
Excellency the Governor for arranging for this visit when he
was in England and to the Department of Agriculture for
Scotland for lending us the services of Mr. Wannop, and we~~
are also grateful for the grant of £675 towards the expenses of
the visit from the Central Research allocation of Colonial
Development and Welfare funds. We welcome Mr. Wannop to the
Falklands and hope that his visit will be pleasant for him
and profitable to us.

We are grateful

Hes

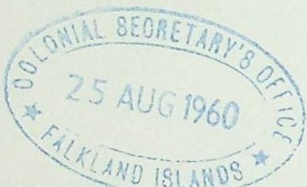
I've just made a minor amendment.

BA 16.8.60

Envelope marked Confidential.

77.

Stanley.
24th August, 1960.



Sir,

STANDING FINANCE COMMITTEE.

13

With reference to your memorandum No. 4 (1836) of the 2nd August, 1960, I agree to the provision of a total of £900 which is required to cover the cost of Mr. A.R. Wannop's visit to this Colony.

I am,

Sir,

Your obedient servant,

[Handwritten signature]
Member,

[Handwritten mark]

Standing Finance Committee.

The Honourable,
The Colonial Secretary,
STANLEY.



78
Fitzroy
August 24th. 1960

The Colonial Secretary,
Stanley.

73
Dear Sir,

I have to acknowledge your Memorandum No 4 for Standing Finance Committee, Ref.1836 2nd Aug. 1960.
SUBJECT : Visit of Mr A.R. Wannop etc.

1) I understand that it is estimated that a total of £900 will be required to cover the cost of this visit

2) The sum of £900. 0. 0. will be made up of a grant of £675. 0. 0. from Colonial Development and Welfare Funds and £225. 0. 0. from Colony Funds.

3) I agree ~~to this~~ that the sum of £900. 0. 0. be voted for Mr. Wannop's visit and that the proportions should be as stated in (2) above.

Yours faithfully,

Member of Legislative Council

See for further
reply on 15.9.60

4th Sept. 1960.

The Honourable.
The Colonial Secretary.
Stanley.

Dear Sir,

13 In reply to Memorandum No 4 for Standing Finance Committee dated 2nd August. 1960, I would like to query the following points.

1. Transport in the Colony. I presume that the figure of £170 is the estimated cost of transporting Mr. Wannop by air. Is it not possible at that time of the year, for him to be driven from place to place by Rover or Jeep? I feel sure that the majority of farm managers would co-operate and therefore reduce this figure.
2. Subsistence. Mr. Wannop is expected to be in the Colony for a period of nine weeks, this therefore gives an estimated weekly subsistence figure of £11. I feel this figure is too high, as no doubt Mr. Wannop will be received and treated as a guest when visiting farms.

I have made the above queries with the sole purpose of reducing the Colony's expenditure for this visit. I believe that the estimates for the above two items are too high and therefore I do not approve of the expenditure from Colony Funds.

I am Sir,

Your obedient servant,

L. Bedford

Extract from a letter to the Colonial Secretary from Mr. Monk of Pebble Island dated the 5th September, 1960. Original filed in 0664/IV.

.....

Memorandum No. 4 for Standing Finance Committee.

With regard to the visit of Mr. A. R. Wannop. In view the large grant from Colonial Development and Welfare Funds for this purpose I approve the expenditure of £900 (Nine-hundred pounds) to finance this visit as per the enclosed estimate. I would like to place on record that I don't attach much importance to his visit. I realise he is a very able man and in the right circumstances could show us a lot, he has however made his improvements in a country which has cheap Lime and Slag available and, a big Government Subsidy available on top of that. Compared with the very large areas to tackle out here he has operated on a very limited scale. We all know how we could improve Grassland or if we don't we ought not to be here, the point is how can we improve enough economically to materially affect our stocking capacity. I don't think Roy Cove has the answer to this, I think theirs is a costly business far more costly than in fact their accounts show because I don't think they have taken all factors into consideration. I think the only answer out here is Subdivision and more Subdivision so that the Stock can be concentrated for short periods on every piece of ground and the grounds spelled in between times. When the place is divided into small grounds and the Stock have made their improvements which they surely will and, you have extra stock on the place as a result of these improvements to bring more income then, and only then, break up these small grounds and complete the job. I am convinced that is the only policy and I am starting here, we are putting up 14 miles of new Fencing here, subdividing 3 Camps, this year. I don't think Mr. Wannop's visit will do anything more than confirm this opinion.

I don't want to convey the impression that I don't want Mr. Wannop to come here or anywhere else now that his visit is arranged, I certainly do want him to come here and hope he confirms my views. Anyway I will give him every assistance though I would take some convincing that I am on the wrong path.

81
HCF 79 came in the day you were away.

82.
Notes & disturbed with
16.9.60

ACT. He will be to enter
10 in the before he
83
Bu 25 9 60

17/9/60

fh

Company Falkland Islands Trading Co. Ltd.,
120 Pall Mall, S.W. 1.

M/ DATE 84
Administration 1-9-60

Falkland Islands

Account Falkland Islands
(C.D.&W. Scheme R/1168

Appointment N/A R/L etc.

Special Visit.

A.R. WANNOP, Esq., O.B.E.,
B.Sc. (Agr), B.Eng., F.R.S.E.,
48 Palmerston Place,
Edinburgh 12,
SCOTLAND.

Departure Notices to:—

Colonial Secretary,
Port Stanley,
Falkland Islands.

Maclean & Stapledon
Casilla de Correo
193,

MONTEVIDEO,
G.W. Thom, Esq.,
Research Department
Colonial Office,
Great Smith Street,
S.W. 1.

Passage to Montevideo via

for Mr. A.R. WANNOP, O.B.E., B.Sc. (Agr.), B.Eng.,
F.R.S.E.

by DARWIN - berth guaranteed

leaving Montevideo

on 27th October, 1960.

The Crown Agents have booked accommodation as shown. Special notes for Administrations or their Agents appear in Section 5 below.

The Passenger has been advised as follows

It is understood that hotel accommodation in Montevideo has been booked for you by B.O.A.C. at the request of the Colonial Office.

The Company has been advised as follows

Mr. Wannop is booked to Montevideo by flight BA 663 leaving London on 20th October, 1960. He is spending less than six months in the Falkland Islands and, therefore, will not require the usual X-Ray certificate.

Your attention is drawn to the following

Maclean & Stapledon. - For information only.

Colonial Secretary, Falkland Islands. - This passage has been booked at the request of the Colonial Office.

See 86.

KIV 2A

Hen. S. S.,

95

£675 from S. D. 11 funds at £225
from biology funds was approved by S. S. S.
on 27th Sept., 1960.

A.C.T.

A.C.T.

29.10.60.

bu. 7. 10. 60
to send telegram

GOVERNMENT TELEGRAPH SERVICE

FALKLAND ISLANDS

SENT

86

W. A. S. LTD.

Number	Office of Origin	Words	Handed in at	Date
				7.10.60.
To				
Macstaple Montevideo			(H.o. A/c)	

No. 25. Reference Crown Agents Departure Notice M/LA/W/VAR
1/9/60 Mr. Wannop stop Accommodation arranged by BOAC but
grateful you meet Mr. Wannop and render any assistance required

Colonial Secretary

Time DRM/IM.

Ben 15. 10. 60

H. C. S.

Re Wannop's visit. I think it would be most useful if, when he arrives here, we could give him a list of the various farms with their Managers, and the approximate number of sheep they run. He would also find a small map useful, and I believe the F.I.C. may have some of these to spare.

7th October 1960

PA

bu 29.10.60

88

G. S. Herrewin list of farms & map also book
 "The Grasslands of the Falkland Islands" which
 Mr. W. ought to have got already. I do not think
 he should be given this book as it is a bit personal.
 But he might find something interesting in 1760
 and have 49 of 1760 has reference to a lot of files.
 If he would like to bring down at any of those in the
 list and they have not been covered in the file
 we will get them.

I think he should see 80 of this file so that he
 can see what the other side thinks.

8th 28/10/60

89.

Ret'd: L.H.E.

8th 29/10/60

RES 136/50/01



89A

Pay Department (Falkland Islands),
Crown Agents for Oversea Governments
and Administrations

Visit of Mr. A.R. Wannop to the Falkland Is.
C.D. and W. Scheme R.1168

Mr. A.R. Wannop, O.B.E., B.Sc. (Agr.) B.Eng., F.R.S.E.,
Hill Farming Research Organisation, 48 Palmerston Place,
Edinburgh 12, is leaving on 21st October for an official
visit to the Falkland Islands.

Please pay to Mr. Wannop the sum of £50 as an advance
of subsistence allowance and debit Falkland Islands
Government funds (C.D. and W. Scheme R.1168).

(G.W. Thon)
Research Department

Colonial Office,
London, S.W.1.

13 October, 1960.

~~KIV 88~~

90

A.C.S.

To see 89 file.

14.11.60

91.

Hen. G. S.

Seen, thank you.

A.C.S.

A.C.S.

15.11.60.

16/11/60

A.C.S.

This is the Wainwright file

file

92

Some notes given to A.C.S. to-day


19/11/60


93

Record

Mr. W. is now at Teal Inlet.
He will be conveyed by T.I. Boat to
Runican Grande on 21/22 Nov. & from
there will proceed to Port Louis & Green
Patch. At Green Patch, he will be
picked up by George Stewart on
28.11.60 & brought to Stanley.

Stewart discussed today & agreed.

 19.11.60

 21.11.60

DECODE.

TELEGRAM.

94

From Colonial Secretary

To Manager Pebble, repeated Manager Hill Cove & Manager Roy Cove

Despatched : 21st November 19 60 Time : 0015

Received : 19 Time :

H. V. Love

Wannop due return Stanley 28th. Tentative programme proposed for West, fly Pebble 1st or 2nd, by boat to Hill Cove 5th, thence Roy Cove, Chartres, Port Howard, Fox Bay West, fly Port Stephens and back to Fox Bay East for Christmas. After Christmas hope there will be opportunity for him to visit some islands in Darwin. Grateful if you could consult each other and other Managers and let me know if above programme suitable.

Reply from Mr. Miller at 97
" " " Blake at 99

P/L : MW

File ~~pc.~~

BU 10.12.60

95

Secretary of

For Mr. Wannip's file

~~23~~ · 23 · 11 · 60

Tel. : ABBey 1266

Extension.....

Your Reference.....

My Reference RES.136/50/01



COLONIAL OFFICE

THE CHURCH HOUSE
GREAT SMITH STREET
S.W.1

11 October, 1960.

My dear Arrows.

A.R. Wannop, the Director of Hill Farming Research Organisation, who is shortly coming out to visit you, has asked us for information about subsistence allowances during his journey and we had to tell him that we did not quite know what he could expect as the United Kingdom Treasury laid down no rates for United Kingdom Civil Servants, but we assured him that the hospitable customs of the Islands would ensure that he was put to very little expense. We also added that the rate of allowance for United Kingdom Civil Servants stopping in Montevideo was 95 pesos per night, which is approximately £10, but that we did not know whether a similar rate was paid by the Falkland Islands Government.

I do not know whether Wannop attaches much importance to these matters but I hope that you can ensure that he will be no worse off during his stay in Montevideo than he would have been if he had been travelling under our auspices. I shall also be grateful if he could be put in the picture about allowances when he arrives.

This will probably be the last you will hear from me on official matters.

Best wishes.

Yours ever
Maurice Willis
(M.A. Willis)

SIR EDWIN ARROWSMITH, K.C.M.G.,
GOVERNMENT HOUSE,
PORT STANLEY, FALKLAND ISLANDS.

DECODE.

No. 202.

TELEGRAM.

From Miller, Roy. Cove.....
'Phoned to Private Secretary 3.15 p.m./24th
To Colonial Secretary, Stanley.....

Despatched : 24th November, 19 60. *Time* : 0900
Received : 24th November, 19 60. *Time* : 1500

94

Wannop's visit suggested dates and itinerary
entirely suitable for us.

Miller

98

P/L : LH

Record P/S advised

fa.

DECODE.

99

TELEGRAM.

From Blake, Hill Cove.

To Colonial Secretary, Stanley.

Despatched : 26th November, 19 60. *Time* : 0900.

Received : 27th November, 19 60. *Time* :

97 managers

Wannop itinerary entirely convenient here and
Roy Cove have not consulted other managers.

Blake.

TELEGRAM

TELEGRAM

100

Record Mr. Wainwright's air passage to Hill
Ray Core booked for 1st December today

29.11.60

Colonial Secretary
Stanley



Handwritten: Hill Cove
C. Bertrand

Carcass Island

21st Nov 1960

Handwritten: 101
Handwritten: Put him in letter
Handwritten: P. W. Wannop
Handwritten: 29/11/60

Dear Sir,

We were very interested in the broadcast talk by the grass expert, Mr. Wannop. We would greatly appreciate a visit from him of at least two or three days, if he could manage it before he leaves the Colony.

We wondered if you would be kind enough to pass on to him a most cordial invitation to visit us and also to let him know the following-

At least two thirds of Carcass is high land and extremely poor grazing, there is also considerable erosion in the shape of large clay patches. We have endeavoured to improve the pasture by reducing the stock, fencing, and broadcasting Yorkshire Fog, Brown Top and clover seed. We hope within the next two or three years to do more but expert advice would be warmly welcomed.

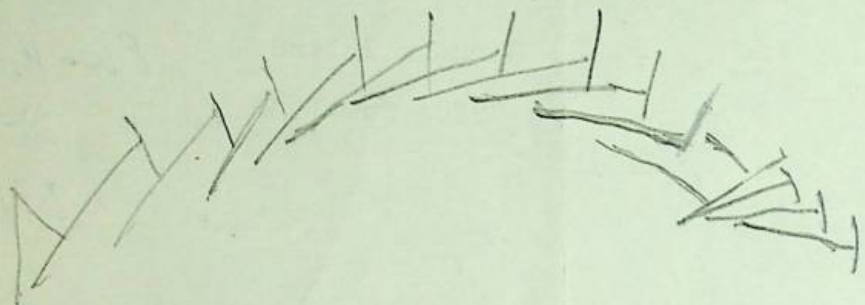
We could easily land Mr Wannop at Hill Cove or Roy Cove if he could manage to fly here, or else pick him up from one of these farms, whichever was the most convenient.

It would be impossible to show him anything of the island if he came on a round voyage of the "Darwin" as she is only here an hour or so and both my wife and I are then too fully occupied to take anyone round the island.

Yours faithfully

Handwritten signature: C. Bertrand

Handwritten: Ack'd
Handwritten: 25/11/60



GOVERNMENT TELEGRAPH SERVICE

102

FALKLAND ISLANDS

SENT

Number	Office of Origin	Words	Handed in at	Date
				29.11.60.
To Manager Pebble			(H.o. A/c)	

I now find Carcass particularly anxious to see Wannop and have revised order of itinerary as follows stop Fly Roy Cove December 1st thence by boat to West Point Carcass and Hill Cove stop Further arrangements will then be made in consultation with you

Colonial Secretary

Time HLB/IM

103

GOVERNMENT TELEGRAPH SERVICE

FALKLAND ISLANDS

SENT

W. & S. LTD.

Number	Office of Origin	Words	Handed in at	Date
				29.11.60
To				
	Manager Hill Cove		(H.o. A/c)	

Repeated Westerns stop Following amended programmes Mr Wannop stop Fly Roy Cove 1st December thence by boat to West Point Carcass and Hill Cove stop Further arrangements in consultation with Mr. Monk stop Grateful you let me know earliest if this arrangement suitable

Colonial Secretary

Time HLB/IM

Reply at 105

GOVERNMENT TELEGRAPH SERVICE

104

FALKLAND ISLANDS

SENT

W.A.S.L.

Number	Office of Origin	Words	Handed in at	Date
				29.11.60.
To				
Westers Fox Bay			(H.o. A/c)	

Addressed Manager Hill Cove repeated to you for information stop Following amended programme Mr. Wannoy stop Fly Roy Cove 1st December thence by boat to West Point Carcass and Hill Cove stop Further arrangements in consultation with Mr. Monk stop Grateful you let me know earliest if this arrangement suitable

Colonial Secretary

Time HLB/IM

Reply from Colonel at 108.

BU 11260.

DECODE.

105

TELEGRAM.

From Blake, Hill Cove.

To Colonial Secretary, Stanley.

Despatched : 30th November, 19 60. Time : 0900.

Received : 30th November, 19 60. Time : 1430.

103 refers.

Arrangements suitable.

Blake.

(Intld.)

DM

ACS

106

No reply from Mr. Miller yet.

[Handwritten signature]

1. 12. 60

s/c

I discussed with Mr. Miller also West Point + Carcross
on R/T yesterday. All is now arranged as far
as Hill Cove.

107

[Handwritten signature] 1. 12. 60

P/L : IM

DECODE.

108

TELEGRAM.

From Clement, Fox Bay

To Colonial Secretary, Stanley.

Despatched : 1st December, 19 60. *Time* : 0900.

Received : 1st December, 19 60. *Time* : 1415.

Your telegram Wannop programme you suggest
quite suitable thank you,

Clement.

P/L : IM

File 10 12 60

GOVERNMENT TELEGRAPH SERVICE

FALKLAND ISLANDS

RECEIVED

(W. & S. Ltd.—250 Pd/7/59).

Number	Office of Origin	Words	Handed in at	Date
37	Pebble Island	9	1000	3/12
To Colonial Secretary Stanley				

Repair to motor boat completed now

Manager

Could he find out where
Mr Warrick lives?

8
7/12

Time PW

2

Y.H.

I spoke with Mr. W. on R/T this afternoon. He is now at Hill Cove having visited Roy Cove, west Point & Carcass. He will arrange transport to Pebble with Mr Monk & then onwards from Pebble to Port Howard & Fox Bay, Charles & Pr. Stephens. He is Christmasing at F. B. East.

111
See
8

9.12.60

10/12/60

112

BU 21.12.60

Record

Information from W/T operator given on 22.12.60: Mr. W. now at P. Howard & will be going down to Fox Bay by handover tomorrow.

22.12.60

BU 7.1.61

DECODE.

113

TELEGRAM.

From Mr. Wannop, Port Howard.

To Colonial Secretary, Stanley.

Despatched : 22nd December, 19 60. *Time* : 0900.

Received : 22nd December, 19 60. *Time* : 1445.

Going Fox Bay tomorrow. Will join "Darwin"
at Fox Bay and visit Port Stephens Weddell New Island
and Chartres fly to Stanley from Chartres January 5th
or 6th please arrange passages.

Wannop.

114

Sea and air passages arranged today.
PS informed

HLB

22.12.60

(Intld.)

DM

Reply at 115

P/L : IM

TELEGRAM

1960

115

sfe

P. aek. Say sea + air passages have been arranged.

Get the bus file for Jan 4th to confirm if Danni has called at Charles by that date.

|||

23/12/60

GOVERNMENT TELEGRAPH SERVICE

FALKLAND ISLANDS

SENT

116

W. A. S. LTD.

Number	Office of Origin	Words	Handed in at	Date
				23. 12. 60.
To				
Wannop Fox Bay			(H.o. A/c)	

113

Your telegram 22nd stop Sea and air passages arranged

Colonial Secretary

Time

DRM/IM.

See 4-1-61(115)

116A

NOTICE TO FARM MANAGERS

Mr. Wannop is expected to return to Stanley towards the end of the week and will be sailing in the "Darwin" on the night of January 12th. If any Farm Managers or owners are able to spare the time to come to Stanley to hear Mr. Wannop's impressions of his tour of the farms they would be most welcome and a meeting will be arranged for the morning of January 10th. Would any Farm Managers or owners who would like to attend such a meeting please inform the Colonial Secretary as soon as possible.

Stanley.

1st January, 1961.

DECODE.

TELEGRAM.

117

From Miller, Roy Cove.

To Colonial Secretary, Stanley.

Despatched : 2nd January, 19 61. *Time* : 0900.

Received : 19 *Time* :

Please count me as definite to listen to
Mr. Wannop 10th.

Miller.

P/L : IM

DECODE.

TELEGRAM.

From Blake, Hill Cove,

To Colonial Secretary, Stanley.

Despatched : 3rd January, 19 61. *Time* 0900.

Received : 19 *Time* :

Coming in for Wannop's meeting grateful book
me fly in Saturday back Wednesday.

Blake.

Booking made p.m. today

HLB
3/1/61.

P/L : IM

119

GOVERNMENT TELEGRAPH SERVICE

FALKLAND ISLANDS

RECEIVED

(W. & S. Ltd.—250 Pd/7/59).

Number	Office of Origin	Words	Handed in at	Date
9	Pebble Is.,	29	0930	3/1

To
Colonial Secretary Stanley

Regarding Mr Wannop Stanley talk stop Visit Stanley impossible for me at this time and probably for most other managers stop suggest you record it

Monk

[Handwritten signature]

Time BRS *[Handwritten mark]*

120

GOVERNMENT TELEGRAPH SERVICE

FALKLAND ISLANDS

RECEIVED

(W. & S. Ltd. 50 Pd/7/59).

Number	Office of Origin	Words	Handed in at	Date
1	Carvass Is.,	35	0845	3/61

To

Colonial Secretary Stanley

Regret very much I unable to attend Mr Wainwright's talk stop is there any possibility of meeting being broadcast or failing that I would be most grateful for a written copy regards

Bertrand

Time :

SR 9

1209



PORT STANLEY
FALKLAND ISLANDS

47 Fitzroy Road,
3rd Jan 1961.

Dear Sir,
With reference to your Broadcast Notice, refering
to Mr Wannop's Talk.

I would be glad to attend this Meeting,
but regret our Manager will be unable to be present at this
time.

I would be grateful if a copy of Mr Wannop's
talk could be sent to our Farm Manager, at Port Louis.

Yours Faithfully,

Richard Robson

Supervisor,
Estate T. Robson,
Port Louis.

Hon Colonial Secretary,
Secretariat,
Stanley.

5-

Acld
JH
4/1/61

GOVERNMENT TELEGRAPH SERVICE

FALKLAND ISLANDS

RECEIVED

121

fr

(W. & S. Ltd.—250 Pd/7/59).

Number	Office of Origin	Words	Handed in at	Date
28	West Point	18	0900	5/1

To

Colonial Secretary Stanley

Unable to attend Mr Wannops talk grateful if you could have it
broadcast to camps

Napier

Time Sks

2

Hon C.S

Since the issue of 116A Six
owner/managers have indicated their willingness
to attend & other requests have been received for
a recording or a copy of proceedings to be supplied.

Perhaps we could arrange for the discussion
to be recorded?

5.1.61

Note

Persons wishing to attend:-

- Mr. Greenshield (Dangle Station)
- " Clement (Fitzroy)
- " Blake (Tree Cove)
- " Miller (Log Cove)
- " R.L. Robson (Stankla - P. Lewis)
- " R. Hills (Moody Valley)
- " None.

Other enquiries are at 119-121.

5.1.61.

S.E. submitted

6/1/61



SAN CARLOS SHEEP FARMING CO. LTD.

(Successors to JOHN BONNER. GEORGE BONNER & CO. LTD.)

FOUNDED 1861

SAN CARLOS,

FALKLAND ISLANDS. (VIA MONTEVIDEO)

Personal.

5

9th January 1961.

Dear Mr. Manders,

I would be grateful if you would express to Mr. Waanoy my regret at not being able to get to Stanley to attend his conference. Though at present not knowing I really cannot run the risk of getting stuck in Stanley at this time of year.

I shall be very grateful for any written reports or memoranda that he may make on his impressions and views.

All the Best to you Both

Yours sincerely

Christopher Bonner.

A I will attend

B as note

12/1

Reply at. +33.

GOVERNMENT TELEGRAPH SERVICE

FALKLAND ISLANDS

RECEIVED

(W. & S. Ltd.—250 Pd/7/59).

124
125

Number	Office of Origin	Words	Handed in at	Date
96	Roy Cove	25	1445	9/1
To Colonial Secretary Stanley				

Very much regret owing to delay in getting to Stanley and pressure of sheep work am now obliged to cancel flight

Miller.

Time

A

GOVERNMENT TELEGRAPH SERVICE

FALKLAND ISLANDS

RECEIVED

475
126

(W. & S. Ltd. - Pd/7/59).

Number	Office of Origin	Words	Handed in at	Date
134	Pebble Is.,	p	0940	12/1

To
Colonial Secretary Stanley

Has Mr Wamop's talk been recorded

Monk

XIV 124

Time 5.15

[Handwritten mark]

DECODE.

127

TELEGRAM SENT.

From GOVERNOR to SECRETARY OF STATE

Despatched : 13.1.61

Time : 1200

Received :

Time :

N . 11

66 Your Savingram 57 1st July 1960. Wannop arrives London
Airport January 19th by Comet flight BA 662. His visit
has been an outstanding success.

GTC : MW

Hones, 128

Do you wish to reply
personally to 124 pl

18.1.61

I would like to send ¹²⁹ the notes to

all persons. I will send a covered

letter to Mr B

5/21/66

EXTRACT FROM MINUTES OF MEETING OF EXECUTIVE COUNCIL
HELD ON THE 11TH 12TH & 13TH JANUARY, 1961.

1836

2. DISCUSSION WITH MR. WANNOP

An informal discussion was held with Mr. Wannop Director of the Hill Farming Research Organisation and several points of interest arising from his recent tour of East and West farms were noted.

CLERK OF THE EXECUTIVE COUNCIL

Mrs C Bertrand
Carcass Island

10th Jan 1969

131.

The Hon. R.H.D. Manders O.B.E.
Sullivan House
Stanley

Dear Sir,

When the "Darwin" was here lately Mr deVilliers accidentally left a rock hammer behind which he has since asked me to return to you. I have sent it under separate cover.

I should like to take this opportunity to thank you on behalf of my husband and myself for arranging for Mr. Wannop to visit this island. We are most grateful and found him very helpful, we both regret that we cannot be in Stanley for his talk but hope that it can be broadcast to the camp.

Yours faithfully

Kitty Bertrand

Reply at 133.

20th February, 1961.

Dear

1385

Thank you so much for helping over the Wannop broadcast. I enclose for what they are worth, some notes made at the meeting at the Secretariat admittedly by a layman. It has taken a long time to get them out as they had to be vetted by the Agricultural Officer who has been otherwise engaged.

Yours

(Sgd.) David Manders

Yours sincerely

(Sgd.) R.H.D. Manders

J.T. Clement, Esq., FITZROY.
W.W. Blake, Esq.,
HILL COVE.

RHDm/LH

20th February, 1961.

Dear

131, 124

135.

Thank you for your letter. I hope you managed to hear the Broadcast of Mr. Wannop's discussion with Messrs. Clement and Blake. Here are some notes made at the meeting at the Secretariat admittedly by a layman. It has taken a long time to get them out as they had to be vetted by the Agricultural Officer who has been otherwise engaged.

Yours sincerely

(Sgd.) R.H.D. Manders

(Sgd.) David Manders

C. Bertrand, Esq.,
CARCASS ISLAND.

The Honourable
G.C.R. Bonner, J.P.,
SAN CARLOS.

FJIDE/LH

20th February, 1961.

Dear

I hope you managed to hear the Broadcast of Mr. Wannop's discussion with Messrs. Clonont and Blake. Here are some notes made at the meeting at the Secretariat admittedly by a layman. It has taken a long time to get them out as they had to be vetted by the Agricultural Officer who has been otherwise engaged.

135

Yours sincerely

(Sgd.) R.H.D. Manders.

~~The Supervisor,
Potato M. Robson,
STANLEY.~~

D.M. Pole-Evans, Esq., J.P.,
PORT HOWARD.

R. Napier, Esq.,
WEST point ISLAND.

~~The Manager,
PORT LOUIS.~~ slit.

The Honourable
A.B. Monk, J.P.,
PEBBLE ISLAND.

S. Miller, Esq.,
BOY COVE.

M.H. Clement, Esq., J.P.,
FOX BAY EAST.
MHDM/LH

Rec 135

NOTES ON DISCUSSION WITH MR. WANNOP IN THE SECRETARIAT
CONFERENCE ROOM ON WEDNESDAY 11TH AT 10 O'CLOCK

Mr. Wannop pointed out that although there were possibilities of improving the pasture of the Falklands, progress in such improvement must necessarily be slow owing to the following factors: that the soil was geologically poor and that some of the factors contributing to the nature of the surface soil were not geological but sprang from such factors as rotting vegetation: that for practical purposes the country must be considered as comparatively dry, drier than the rainfall figures would indicate owing to the great evaporation caused by the wind. Improvements to pasture would tend in the first instance to improve flesh rather than wool. But improvement to the pasture should certainly improve the low lambing percentage which was partly due to malnutrition of the ewes. Ploughing was good in the hard camp such as Roy Cove but was not suitable for exposed positions owing to the danger of loss of soil through it being powdered and blown away by the wind. Ordinary ploughing was less effective in white grass because when the white grass was turned up it did not rot away, in such cases a rotovator had good results; sod seeding at three foot intervals had been practised in some places but the results could not yet be judged. It was remarked that in other parts of the world where sod seeding was done it had been possible to apply phosphates which gave the new seed a chance to assert itself against what was there before. As regards the grass to be sown, Yorkshire fog was perhaps best outside the settlements but when the soil had been improved by Yorkshire fog it might possibly be followed up by better grasses e.g. red fescule. If Yorkshire fog was sown with some other grass the Yorkshire fog would dominate the other grass but it would not dominate white grass. Mr. Wannop made it clear that when he spoke of improvement by ploughing and sowing this could only be done in parts of the camp. It could not be done everywhere. At Port Howard red fescule was now dominant in places. The question of burning was discussed and Mr. Wannop said that on the whole he had been opposed to burning but he noted that at Port Howard burning had not got rid of the fine grass to the extent that he would have expected. He would admit that perhaps burning might be beneficial sometimes but he thought it should only be done at long intervals. He did not advocate lupins and thought that marram grass was better. The reason the white grass did not rot as he had explained before was owing to lack of nitrogen and nitrogen could be got from clover. When soil samples were sent home and the addition of chemicals was recommended it must be remembered that grass can tolerate more acidity than other things. He was definitely in favour of ditching. Asked whether it was good to keep cattle with sheep he said that it was but it was a matter of expense. It was advisable to keep ewes in improved pasture before lambing. If fertilisers were applied they must be balanced; you could not apply nitrogen without applying other fertilisers. As regards pre-lambing shearing the advantage of this was that as the ewe was feeling cold it would have to find a sheltered place for itself which would at the same time give shelter for the lamb but in practice it appeared that it would not be possible to drive the pregnant sheep for the distances which prevail in this country to be shorn and it was thought that you would have to shear in August or September.

As regards the question of subdivision Mr. Wannop said that if camp was continually grazed without being rested it would tend to deteriorate to an extent which would be imperceptible over short periods. Ideally he would advocate dividing camps into 4 but thought that in the first instance they might be divided into two.

Finally Mr. Wannop said that we must always remember that farming was never static; unless we were constantly looking for ways of forging ahead we should find ourselves drifting backwards.

Ref: 1836

RHDM/LH

S/C I think there is a report from Mr. W. read this memo?
Not read by me c/KW 2/3/61
KW 129
1/3/61
P.A.

136

HILL FARMING RESEARCH ORGANISATION 43

DIRECTOR: A. R. WANNOP, O.B.E., B.Sc. (Agr.), B.Eng., F.R.S.E. 51

SECRETARY:

R. S. BOYD, F.C.G.S.

TELEPHONE: CAL 3231/2

48 PALMERSTON PLACE

EDINBURGH 12

YOUR REF.

OUR REF.

Gen/f/5

13th February, 1961.

R. H. Manders, Esq.,
Colonial Secretary,
PORT STANLEY,
Falkland Islands.

Dear Mr. Manders,

I promised to let you have a summary of what I said at the Farmers' Meeting in Stanley in January and I forward herewith some notes, which I hope are suitable for your monthly news sheet. They may be on the long side, but I found it difficult to deal with the subject more briefly.

Since my return I have been extremely busy trying to get up-to-date with my normal work, but I hope that I can now start a report on my visit to the Falklands, which the Colonial Office will expect.

Yours sincerely,

A. R. Wannop

Enc.

Recd at 137.

4th March, 1961.

Dear Mr. Wannop,

136 refers

akb c

Thankyou so much for your very interesting notes for our Monthly Review which will be most welcome. I hope you had a nice voyage home.

Yours sincerely,

R.H.D. Manders.

A.R. Wannop, Esq.,
Director of Hill Farming Research Organisation,
48, Palmerston Place,
Edinburgh, 12,
SCOTLAND.

RHDM/IM.

fa

Extract from letter from The Hon. A.B. Monk of 3rd March, 1961.

(Original filed in: 0825/0)

134

With reference your letter 1836 dated the 20th February. Thank you for the letter and the notes - I was very interested. I heard Mr. Wannop broadcast and was very pleased that he so strongly supported my own views on sub-division. I hope Mr. Wannop will prepare a written report when he has time to sum everything up properly.

Geo
W-6 filed
8/22/7/61

1836

139

BERTRAND & FELTON LTD.

ROY COVE,

FALKLAND ISLANDS



March 17th 1961

The Hon,
 The Colonial Secretary.
 Stanley.

Sir,

134

I have to acknowledge your letter of 20th February and the attached copy of some notes made on Mr Wannop's discussion held at the Secretariat on January 11th 1961.

It is difficult to understand why any such notes require to be 'vetted' by the present Agricultural Officer. Mr Stewart, though able in many ways, has no practical experience of any form of land improvement and has therefore no competence whatsoever to be in any position to give an opinion on this highly professional matter.

With regard to the Notes themselves - if Mr Wannop did really make one or two of the downright statements attributed to him, then he has done considerable harm and will cause any future farmers who may have been contemplating extensive pasture improvement to change their minds. If this were to prove correct then a serious setback has been given to real progress in the only industry of this Colony.

It is known that the state of the land in the Falklands has been deteriorating very slowly for some 60 years; lambings are lower and death rates, though not actually on the increase to any marked degree are not improving. The only hope for the industry is in improving the state of our pastures by re-grassing where possible and one or two of us have already indicated, with complete success, in what direction this can be done; and considering the very high dividends that are paid annually to farm shareholders throughout the Colony, even in the present time of low wool prices, there is money to spare to undertake such improvement.

It is not correct for Mr Wannop to say that ploughing was not suitable in exposed positions; from my long experience here and in the last three seasons of extensive improvement soil does not become so powdered as to blow away. and as we have now ploughed and re-sown over 1,600 acres (quite a lump of ground) in the last 3 years, and about one third of this on hard ridges, the fact speaks for itself.

It is not correct for Mr Wannop to say that ploughing is possible only in parts of the camp. The only parts where it is neither possible nor useful are in rocky ground or pure clay. Hard diddle-dee ground and white grass camp are ploughable, the only difference being in the manner of subsequent breaking up of the upturned furrow.

I am sorry to appear so heavily critical of the notes on the statements by Mr Wannop but ever since we started at Roy Cove to improve our pasture, and so far with considerable success I have always hoped that sooner or later other farmers who could appreciate the only hope for the future of our industry, would start to follow suit in one way or another and I feel that such interpretation of any comments of Mr Wannop as shown in these notes is bound to make the 'sitters on the fence' to hold back.

Yours faithfully,

[Handwritten signature]
 P.T.O.

*Ack'd.
 28.3.61.*

140.
I should also like to confer with
the Wainwright article for the Review

for
29/3/61

141.

y. s. I have dictated something for myself to send as a reply
if y. s. approves
to 139, and will send it up as soon as it is typed.
I thought that you would like to see the pp as soon
as possible.

The point at issue in my letter is really
that Mr. Miller thinks that the entire sound is
suitable for resowing. Please see the article sent for
the Review. He does not certainly say in that
part certain areas are unsuitable but he implies that
we would do it, ^{only} in suitable areas. I am almost certain
that he did say that you cannot improve all the
camps though in my draft I end by saying that perhaps
he did not to avoid further argument at this stage

sm
7/4/61

Roy Cove.

W. Falblan d.

142

March 17th 1961

Dear Mr Edwin,

Many thanks for your letter of Feb. 25th.
It has indeed been another terribly dry season
with us here. Grass sown in December came away
well and is well established but later January
sowing is almost non-existent in appearance; it
may come later but if it does not it means
we have wasted 50-60 bags of seed and will
have to re-sow next year some 200 acres.

A great disappointment as otherwise the job
has gone so well this season. The two operators
have worked very long days and worked a
very large acreage - we have put down this
season over 700 acres - quite a heap.

The Col. has just sent me a copy
of some notes made (by him?) on the discussion
with Mr Wainip at the Secretariat on January 11th.

I do think these notes are terribly misleading
& that would be pasture improvers. If Mr Wainip
really made the points outlined in these notes
he has done considerable harm in my opinion.
He was not here long enough to make to many

hard & fast statements - Ploughing can be done anywhere in the Falklands - the after breaking up differs that is all - And ploughing is safe in exposed positions as we have known so well that the soil does not blow away - we have had studies on all our ridges, though not so good as the valleys because the latter hold the soil and the hard ridges do not.

Sub. division also depends to so very definitely on each camp - Some of our camps if subdivided would contain blocks of country that would not support sheep in large numbers for very long.

It is disappointing - with regard to the Sea Trout - I would have liked to see some sent into our Herbert stream this year - getting fish overland from Charleston would not be easy and would entail a terribly slow journey to save bruising the fish as well as displacing the water out of the containing tank.

Looking forward to seeing you in May.

Yours sincerely

Lydney Mather

1836
143A

HILL FARMING RESEARCH ORGANISATION

DIRECTOR: A. R. WANNOP. O.B.E., B.Sc. (Agr.), B.Eng., F.R.S.E.

SECRETARY:

H. S. BOYD, F.C.C.S.

TELEPHONE: CAL 3231/2

48 PALMERSTON PLACE

EDINBURGH 12

YOUR REF.

Gen/f/5

OUR REF.

22nd March, 1961.

H.E. Sir Edwin P. Arrowsmith, K.C.M.G.,
Government House,
FALKLAND ISLANDS.

Dear Sir Edwin,

My conscience is troubling me very much. I should have written you before this and I hope that Lady Arrowsmith and yourself will forgive my apparent discourtesy.

When I got back I had the very best intentions and thought that I should be able to get my report ready in a month or so, when I would write you and enclose a copy. Unfortunately I got back to such an accumulation of work, including the preparation of our triennial research report, that I have only been able to work on odd occasions at my report on my Falkland Islands visit. It is making some progress, but I cannot delay any longer in sending a note to express my appreciation of all that Lady Arrowsmith and yourself did for me. I very much valued being your guest in Government House. Both of you were extremely kind, made me feel at home and were charming and delightful hosts.

I must also thank you personally for the arrangements you and your staff made for me. My trip round the Islands went well and there was obviously a lot of good will and co-operation among all concerned.

As I think I mentioned to you, we are giving Syd. Miller's boy work on our stations for 6 months and he tells me that reports from Roy Cove talk of a shortage of rain and a continuing dry spell. I trust it has not been too dry again for the reseeded programme.

Now the rush of work on my return has diminished, I should get down to my report more systematically and I hope to let you have a copy before long.

With kind regards,

Yours sincerely,

A. R. Wannop



H.E. Sir Edwin P. Arrowsmith, K.C.M.G.,
Government House,
FALKLAND ISLANDS,
South Atlantic.

↑ First fold here ↓

← Second fold here →

Sender's name and address: A. R. Wannop,
Hill Farming Research Organisation,
48 Palmerston Place,
EDINBURGH, 12,
Scotland.

AN AIR LETTER SHOULD NOT CONTAIN ANY ENCLOSURE:
IF IT DOES IT WILL BE SURCHARGED
OR SENT BY ORDINARY MAIL.

10th April 1961

(Dear Syd)

Thank you for your letter of March 17, and also for your one about my cup. I am glad that the Sports went off so well, and that the race for the cup was such a good one.

1429143

I understand that the Colonial Secretary is going to send you a note by Mr. Wannop entitled 'Impressions of Falkland Islands Farming'. He hopes to publish this in the Monthly Review in due course, and we shall also, no doubt, be receiving a more detailed report from Wannop. The C.S. will also be sending a copy of these impressions to all the other recipients of his notes of the meeting in the Secretariat.

I have now seen a copy of these notes. With regard to Wannop's remarks on ploughing, he was very complimentary about your efforts at Roy Cove, and you will see that in his own impressions he makes no mention of the danger of ploughing in "exposed" places. He did say, however, that he thought the best results from ploughing would be obtained in selected areas, and I think he did mention a low promontory somewhere (? Douglas), which he did not think would be suitable for ploughing owing to its very exposed position. He also said that in his opinion in white grass camp, breaking up the ground by rotovation would be a better method than ploughing.

I am quite sure the last thing that Wannop would want to do would be to discourage imitators

S. Miller Esq., J.P.

./...

of your methods, as you will see from the concluding paragraph of his impressions. At the meeting he constantly qualified his remarks by saying, of course he has only been out here for a short time.

I do hope the rains we have had lately have helped your January sowings to become established before the winter frosts. It was disappointing to have had such a very dry season again.

I am getting some more 'Kashmir' boxes made here for salmon and sea trout ova if we get some again this year. I think we are likely to see better results by attempting to hatch ova out in boxes planted direct in the streams, rather than by trying to produce fry in the hatchery here, and I would very much like to get some into the Herbert Stream for you.

With kind regards,

Yours sincerely,

(signed) Edwin Arrowsmith

HCS

We spare. Copy of my letter to
Mr. Miller at 144x5.

~~SFC~~ 10.4.61

Shote 147

We will send copies of the 'Impressions' to all
who can be original notes. The
Miller's copy will of course go with
my covering letter.
a copy also to Joe King to be in the review.

SR 10/4/61

SFC

148

This can now be done. we shall have to
stencil the "Impressions"

12/4/61

stencil impressions by the way

IMPRESSIONS OF FALKLAND ISLANDS' FARMING

A.R. Wainwright 2
1961 11
4

In one respect Falkland Islands' farming is unique. It is almost entirely a wool economy. Other countries which export wool also export mutton and lamb or have a local industrial population which consumes significant quantities of sheep meat. This fact has a bearing on land improvement, since the healthy sheep's response to improved vegetation is to convert it into more flesh, a larger skeleton and more wool. Only the Merino grows more wool as a first priority, though the Corriedale and the Polwarth, having Merino blood, favour wool as much as meat. Because of this, recovering the cost of land improvement through wool is most effective when the improvement leads to increased sheep numbers. There can, of course, be other advantages, such as reduced losses from ill-health or under nutrition.

Otherwise the Falklands have much in common with other wool producing and sheep-ranching countries. A low lambing percentage is common to them all, but is more serious in the Falkland Islands with its high mortality rates, especially in young sheep. Too many stations have to maintain numbers either by keeping ewes well past their optimum breeding age with too many ewes in proportion to wethers or by buying stock from the few stations lucky enough to be able to cast sheep at a regular age.

A better lamb crop is a real need, which means that losses at lambing and afterwards must be reduced. I formed the impression that nine out of ten ewes are in lamb, though only six or seven of these rear lambs. The others lose theirs at birth or in the first month of rearing. Undoubtedly some losses at all ages are due to ditches, and some of these can hardly be avoided, though there might be fewer in late winter and early spring if by grazing control the sheep could be kept in better condition and therefore more vigorous. The present concentration on selecting for freedom from wool blindness should also result in fewer sheep falling into ditches.

Losses of lambs at birth might be reduced if ewes could be prevented from losing too much condition during winter, when they are pregnant. Ewes which lose too much weight have smaller, less vigorous lambs and less milk to nurse the lamb. Our U.K. experiments on mountain grazings, many much inferior to those of the Falklands, have shown that if we can improve the nutritional level for the last four to six weeks of pregnancy we can raise lamb crops previously at 65% to levels of 75 to 80% and if we bring the flocks into a smaller area for lambing, though still on the mountain, we can get 85% lambs and more. Methods applicable to one country are not necessarily applicable elsewhere and in the Falklands, this improvement in diet could only come from pastures specially rested and managed for late winter and spring grazing.

Apart from improving lamb crops better feeding in late pregnancy would also improve wool fibres and minimise the marked variation in rate of growth of the fibre. South Atlantic climatic conditions are such that uniform growth of wool throughout the year is impossible, but a better nutritional level in late winter would narrow the existing variation.

I know it is wrong to form definite conclusions about any country after a short visit, but I did get the impression that many camps though not overstocked, were nevertheless overgrazed and very much in need of a rest. The profusion of unpalatable White Grass gives the impression of abundant herbage, but many of the finer grasses which sheep like are being grazed out and being replaced by small but less useful plants. This is a feature of set stocking wherever it is practised in the world. Extensive grazing all the year round by sheep without any rest invariably leads to pasture deterioration. The sheep concentrate on the more nutritious and palatable grasses, and the uneaten less palatable plants whether large or small become more dominant. If any grass is to continue to produce good herbage it must have a rest periodically. If its leaves are continually being removed by sheep it cannot build up

the reserves it needs especially to bring it through winter and to start growth in spring, and in time its unpalatable competitors like White Grass gradually take its place.

In the Falklands this is aggravated by the large size of the camps. Sheep running at one to three or five acres in a camp of five thousand acres or more always tend to overgraze parts and undergraze others. It would be a real advantage to the Falklands if camps could be divided at least in two and preferably into four. The stock could be confined in a section of the camp for a spell, resting the remainder. As can be seen on some stations already heavy stocking during the main growing period punishes the White Grass and encourages the good sheep plants which benefit from the heavier treading and grow all the better when the sheep are moved on to the next section. Moreover, it makes shepherding easier, though fences have to be good.

A fencing and grazing policy of this kind also allows areas to be saved for grazing at special periods, for example the later stages of pregnancy and the early spring. Ewes could be brought to lambing in better condition, produce more vigorous lambs and milk them better. This would surely lead to a better marking count.

Subdivision of camps and grazing control is, I think, the policy most likely to bring the best return for the expenditure involved. Fencing costs money, which must be recovered by reduced mortality and by more wool being sold. Though the benefits would be small in the first year or two they would increase each year as the camp swards improved. Better lamb crops would provide more scope for selecting ewe stocks, for casting sheep at more suitable ages, and in time to heavier wool clips. Though on economic grounds one wants to get more wool from the same number of sheep, I doubt if the weight of individual fleeces can be increased much under Falkland Island conditions, and more wool will be easier obtained through increased sheep numbers. New Zealand farmers maintain that fencing and managed grazing alone, without any

fertilisers, has doubled the sheep carried on hill pastures, but that is on mineral soils with a much greater potential than the peaty soils of the Falkland Islands. Nevertheless, the same policy would enable an increase more than enough to cover the fencing costs.

There are sheep stations in the Falklands already going ahead with some form of camp subdivision, and they are to be commended. Equally creditable are the efforts of those improving their swards by introducing grass seeds. On several stations Yorkshire Fog seed has been scattered for many years on well eaten swards, sometimes after surface harrowing or scratching. In some cases there has been an excellent take, in others it has been disappointing, and in some the seed has germinated, plants have become established and then disappeared after three or four years. The latter may be because either the area treated was too small a part of a camp grazed all the year round and the sheep, especially in spring, concentrated on the more palatable Yorkshire Fog and gradually ate it out, or the area treated was so inherently poor that it could not maintain plants demanding a higher nutritional level than that available. Though Yorkshire Fog has the great advantage for the Falklands that it will grow better at lower levels of fertility than the more demanding grasses such as Ryegrass, Cocksfoot and Timothy, it has nevertheless minimum requirements below which it will not thrive.

Naturally a better response is got when the existing vegetation is destroyed by ploughing or rotovation and new plants can grow without competition. At Roy Cove there is a big ploughing programme, which is most impressive. Here the conditions favour ploughing as there is a friable soil under the diddle dee and the surface vegetation and undecayed mat can be turned out of sight under conditions where it will rot away. On the other hand, ploughing is not the best way to destroy a White Grass turf, which has not only a dense mat, but such a penetration of roots below that

the furrow slice goes over as a solid lump, which does not rot away for years. A more satisfactory method for White Grass camp is in use at Hill Cove. This involves going twice over the ground with a rotovator, which pulverises the turf and the bits of grass bog die quickly. There is thus no competition for the young seedlings from the grass seed, which is sown afterwards when the ground is heavily rolled. As Falkland Islanders know too well, reasonable rainfall is essential to ensure success in reseeding any area, but good consolidation is equally important. On a smaller scale other people are trying to improve suitable areas and at Douglas a home made scrubber seemed highly effective in removing diddle dee so that seeds can be drilled into the ground without any further operations.

When one reseeds by these methods and spends from seventy to a hundred shillings per acre, the improvement must be maintained as long as possible and the cost recovered in reasonable time. If this is to be done the improved area should not be a minor unfenced part of an extensive camp but be fenced off and grazed and rested seasonally, otherwise it will soon deteriorate. Fenced it can be utilised for special purposes, for example for ewes in late pregnancy and the early stages of rearing lambs. Yorkshire Fog needs controlled grazing management just as much as any higher grade grass if it is to be highly productive. This is especially so at height of summer when it will run to seed if not well stocked. An occasional seeding may help to spread it, but if it seeds every year, it quickly becomes less useful as a grazing sward.

The other method of sward improvement being tried in the Falklands is the sod-seeding done by the Falkland Islands Company. Over some years several thousand acres have been sod-seeded, a most valuable experiment. This is a less expensive operation than ploughing or rotovation and the same results cannot be expected. Nor do the rows of Yorkshire Fog seedlings at three feet intervals look so impressive among the old grass as a complete new bright

green sward. The success of sod-seeding in Australia and New Zealand is well known, but in both countries fertiliser is combined with the seed and the young seedlings are thus helped to compete with the old turf. In the Falklands the cost of fertilisers prevents this being done on a large scale, so similar results cannot be expected. So far the effects seem to me to be very varied and more time must be allowed to see what is achieved by the sod-seeding of 1959-1960.

I hope that these pioneering efforts by enthusiasts will not only continue, but will have imitators. There are certainly many with a keen desire to improve, and progress will be greatest when the most promising techniques are tried under a wide variety of conditions. A small improved area may seem slightly absurd when compared with the immensity of the camp, but from a small area the technique of successful improvement can be acquired and the economics of large scale ventures worked out. Though fencing sub-division and grazing control is likely to effect the most economical improvement of camp swards, land improvement of selected areas is an equally necessary development.

See 155.

17th April, 1961.

Dear

149-154.

In continuation of my letter of the 20th February, 1961. I now enclose a copy of the notes sent by Mr. Wannop himself. These will be published in the Monthly Review.

Yours sincerely

(Sgd.) R.H.D. Manders

*See
all action taken
or
22/4/61*

The Honourable
J.T. Clement,
FITZROY.

RHDM/LH

- W.W. Blake, Esq., HILL COVE.
- C. Bertrand, Esq., CARCASS ISLAND
- Hon. G.C.R. Bonner, SAN CARLOS.
- D.M. Pole-Evans, Esq., J.P., PORT HOWARD.
- R. Napier, Esq., WEST POINT ISLAND.
- Manager, Port Louis.
- Hon. A.B. Monk, J.P., PEBBLE ISLAND.
- W.H. Clement, Esq., J.P., FOX BAY EAST.

*See for official report
BU 10.5.6.*

26th April, 1961.

Dear Mr. Miller,

Please excuse me answering your letter of March 7th demi-officially, as it seems easier to explain the position in a demi-official letter. I think there has been a little misunderstanding and I am sorry that the notes have annoyed you.

I was present at the meeting which Mr. Wannop addressed and made some notes partly for my own interest, but I thought that I should send copies of them to those people who had answered the notice about the meeting either by saying that they could not come but would like to have some notes and to those, who, like you, had intended to come but in the end were prevented from doing so. The only reason I had mentioned the Agricultural Officer was to explain the delay in getting out the notes. The reason I consulted him was because, if one is making notes on a subject about which one knows very little, one is liable to misinterpret some of the points, and I thought that if I had done this the Agricultural Officer would spot it and, although I naturally take a tremendous interest in these matters and I think I know slightly more about it now than I did when I wrote the notes I cannot pretend to be anything but a layman. I do hope that you had a good reception when the discussion between Mr. Wannop and Mr. Clement and Mr. Blake was broadcast and I am sure that what was said then would be more useful than what was recorded in my brief notes. I also send you now a copy of the report Mr. Wannop has written for the Review. His official report will arrive in due course and that will of course be the official record of his findings.

I do think that he referred at the meeting to the danger of the soil being blown away if we ploughed in very exposed places but I suppose it is a matter of degree as to what we regard as a very exposed place. Anyhow he does not refer to this in his article for the Review.

I wrote some time ago to thank you for your extremely interesting article which you offered to the Monthly Review but the letter went to the wrong Mr. Miller!

/I wish.....

S. Miller, Esq.,
ROY COVE

RHM/MJ

157

- 2 -

I wish very much that our Monthly Review was a big enough concern to publish this, but on going into it carefully Mr. King and I decided that we could not really do it justice. All our type has to be hand set and so we are confined to our present small size which limits us to very short articles. What I had thought at first was that we could condense short chapters and put one in each month, but I realised that it would be gross impertinence to try to do this and that we could not do it without spoiling it completely. Were there a normal press in this country they would no doubt be able to publish your "book", if I may so describe it, in serial form, but there is not really room in our Review to do this.

I now return your articles which I myself have read with very great interest.

Yours sincerely,

R. H. D. Manders.

Colonial Secretary.

8

Bu 6. 6. 61
for official reports



West Point Is
Falkland Islands
14 May 1961

Dear Sir

Thank you so much for sending the copies
of Mr Wannop's notes, also of course the
copy you sent on the 20th February 1961.
We were very pleased to get them, and found
them of much interest.

Yours Sincerely
R B Napier

A handwritten flourish or signature mark consisting of a single, elegant, sweeping stroke that loops back to the right.

Bu. 6.16.61

Box 17. 7. 61 (trans)

151
g. E 149, ~154 reexamined

Σ 2/2/61

100

~~PA~~

16.6.61

Bu. 17/7/61.

101

HILL FARMING RESEARCH ORGANISATION

DIRECTOR: A. R. WANNOP, O.B.E., B.Sc. (Agr.), B.Eng., F.R.S.E.



SECRETARY:
R. S. BOYD, F.C.C.S.
TELEPHONE: CAL 3231/2

48 PALMERSTON PLACE
EDINBURGH 12

YOUR REF.
OUR REF. Gen/f/5



21st June, 1961.

H.E. Sir Edwin Arrowsmith,
Government House,
PORT STANLEY,
Falkland Islands.

Dear Sir Edwin,

162

At last I have been able to complete my brief report on my visit to the Falkland Islands. I am sorry that it has been so long delayed, but this has been a very congested spring and I simply could not get down to it earlier. I enclose two copies of the signed report I have sent to the Colonial Office, but if I have heard correctly they may not reach you before you leave for your visit to the U.K.

I saw Norman Cameron and his wife two or three weeks ago and tomorrow I hope to lunch with the Sheep Owners' Association at their annual "spree".

With kind regards to Lady Arrowsmith and yourself.

Yours sincerely,

A. R. Wannop

Encs.

REPORT ON VISITS TO FALKLAND ISLANDS SHEEP STATIONS

Farming in the Falkland Islands is based today on the production and export of wool. Sheep are the dominant live stock, but there is very little export of mutton or live sheep, the only utilisation of the sheep for food being the consumption within the Islands of mutton obtained from five year old wethers. There are at present no pastures suitable for fat lamb production.

The sheep of the Islands are primarily Romneys or Corriedales or admixtures of the two. Their numbers appear to be still declining, though less rapidly than formerly, from the peak of 807,000 reached in 1898. This has, however, been offset by an increase in the average annual wool clip per sheep. The annual export of wool, though rather less than that of 50 years ago, is greater than it was 30 years ago. For the quinquennial period 1955-1959 the average individual fleece weight based on wool exported and total sheep numbers was 7.42 lb. If based on sheep shorn the average was 8.37 lb., but, in addition to the shorn wool, camp wool from dead sheep and skins from slaughtered sheep, all included in exports, must be considered so that the actual average fleece weight was likely to be between the two. In either case it shows a significant increase during the last twenty years.

As is common in all countries where wool is the dominant farm product, cattle are as a rule unpopular. They are maintained primarily to ensure a supply of milk and butter for farm residents and the provision of some beef in winter. The beneficial effects of cattle grazing on the sheep pastures, though real, are secondary interests. Cattle number approximately 12,000, compared with about 620,000 sheep.

The system of sheep husbandry is extensive grazing, in the main set stocking, though slight modifications of this have been introduced on a few stations in recent years. Over the Islands as a whole there is one sheep to approximately five acres, but this covers a range from one to two acres or less on some of the smaller island units, to one to ten acres or more on the poorer or higher lying areas covered with undrained peat or extensive stone runs. The general level of sheep nutrition tends to be low, and is definitely low in winter. All animals mature slowly, and it is customary for ewes to produce their first lambs at three years of age.

Many stations have difficulty in maintaining sheep numbers and in too many cases ewes are kept beyond normal culling age to augment the total lamb crop. This is necessary because of two main weaknesses in the industry - low lamb crops and high mortality. The majority of lamb crops, as counted in early November at the lamb marking and based on ewes mated, are between 60% and 65%. On good stations they may reach 70% or over, but some drop to around 50%. This is a reflection of nutritional levels and of the difficulties at lambing of shepherding large flocks in enormous enclosures. At this level of lamb production, maintenance and selection of stock are difficult, and are rendered more so because mortality in young sheep and at all ages is high. Thus losses around 15% are common in hoggets between weaning and first clipping 10-11 months later. In the best cases they are around 10% but in the worst they rise to over 20%. General flock mortality naturally varies according to locality but on the average is between 10% and 12%.

Much of the mortality is due to drowning in the open drainage ditches and will be difficult to reduce except in so far as the ditches can be improved and better winter nutrition can maintain increased vigour and sheep may be more able to survive until rescued, if they cannot get out of a ditch themselves. There appears to be no major disease responsible for any significant proportion of the losses. Symptoms described indicated some losses from pregnancy toxæmia and pulpy kidney disease, but the number of cases is too few to justify remedial measures under the husbandry system. Cobalt deficiency has been established on some stations and it is possible that other trace elements may be deficient and may cause debility and some mortality in sheep. The majority of flocks have access to sea shores, but where they do not they show a marked craving for seaweed if the opportunity occurs. Under the management system provision of minerals is difficult to arrange and gatherings for frequent regular dosing of sheep would be impossible. For this reason the cobalt bullet type of treatment is a very great advantage.

A reduction in flock mortality should result from the policy of breeding for clean faced sheep, free from wool blindness. While wool blindness is a serious problem in any country and is held by many to be associated with reduced lamb crops, it is even more serious in the Falkland Islands where ditches are a hazard. Blind sheep cannot avoid ditches. In breeding for wool and importing rams from countries where high fleece weights are important, the Falkland Islands sheep have in the past suffered severely from an excess of face wool, but in recent years there has been a systematic effort to select for clean faces and this is having a definite effect. It does, however, take a long time before such a defect is eliminated and from 12-15 years is necessary before a flock can be considered reasonably free if selection is rigorous.

The majority of rams used are bred in the Falkland Islands. For the main flock on most stations rams are usually bred in a stud flock of selected ewes, and rams for these stud ewes may be home bred or partly obtained from other stations. A small number of stations have specialised in ram breeding and supply neighbours. One or two stations have a small pedigree flock for breeding elite rams to be used in a stud flock of the best ewes selected from the main flock. The stud flock breeds rams for the latter. It is the practice of the bigger stations to import a small number of rams periodically from Kent or Australia or New Zealand and on occasions from South America. If from Kent or South America it is usual for them to be inspected for type and for freedom from wool blindness before purchase, but this is difficult in the case of Australia and New Zealand. Though high prices are paid and a specification of requirements given most rams imported in this way have proved to be more or less wool blind.

Importation of rams should not, however, be necessary any longer. There are sufficient sheep in the Falkland Islands of the right type for the selection of special breeding flocks which could produce a number of elite rams bred in the local environment. Animals bred locally and having the right characters would be more effective sires than imported sires of the same quality bred in a different environment. The essentials of success in such a breeding policy are concentration on one desirable character (at the most two, but preferably one), ruthless culling from the elite flock of all sheep not up to the set standard and a reliable but simple system of recording for the elite flocks.

SETTLEMENT FIELDS

At nearly all settlements and frequently at outlying shepherds' houses there are a number of fields used for grazing cattle or horses or stud flocks and sometimes for growing hay crops, either of grass

or oats. Most of these were created earlier this century, but some are still being made by enclosing and ploughing part of a holding paddock or a camp. On new fields one or two crops of oats for hay may be taken and then grass and clover seeds sown, using typical British seed mixtures. The sown grasses and clovers appear in the sward for the first year or two, but only a small proportion persist long, the determining factor being the amount of fertiliser used. Though lacking in vigour Cocksfoot appears to survive better in more settlement fields than other sown grasses, but is seldom seen in pastures eight to ten years of age. Timothy also survives for two or three years, but Perennial Ryegrass is disappointing. In older swards Yorkshire Fog and *Agrostis* are usually dominant, but where Red Fescue has been included it may become the principal survivor. Thus at Port Howard where the settlement fields give a stronger impression of an upland British farm than at any other station, the swards are now very largely Red Fescue, except in recent seedings. These fields have had occasional dressings of fertiliser and the results here and elsewhere confirm the recommendation of Dr. Wm. Davies that Creeping Red Fescue should be included with the normal Ryegrass, Cocksfoot and Timothy grasses in a seeds mixture for settlement fields. Recent British trials have shown the value of the Aberystwyth bred S59 Red Fescue, which can stand heavier grazing than the more common strains.

Many of these settlement fields contain some wild white clover, though it seldom shows vigorous growth. It may be widespread throughout the sward, but even where the grazing pressure is only moderate the plants remain dwarf in size, and when inoculation of the seed has been carefully carried out, there is only a little nodulation.

Under present policy the incentive to improve settlement fields is not great. They could be made to grow better grass by accepted British methods, though investigation might show more appropriate techniques, but the better grazing or improved hay crops could only be used to produce more milk and butter or to produce older wethers or cattle in better condition for slaughter. This might improve social standards, but would not lead to an increase in anything that could be sold for cash, an essential to meet the high cost of raising soil fertility. A smaller area would, of course, produce the same dairy produce or meat, but in relation to the large size of the stations this is not of material importance.

If there were a possibility of exporting lamb to the United Kingdom market then improvement would assume a different aspect. Improved settlement fields could be used for breeding lambs for slaughter from selected or older age ewes, using rams of a breed with appropriate carcass quality. Experiments over a period of years would be essential to develop the most suitable pastures and ewe and lamb management, and some financial assistance would be necessary until the numbers produced were adequate to enable slaughtering and transport costs to become competitive. On a small scale, sending sample consignments, these would be more than individual stations could be expected to bear for the period of years that would elapse before success or failure could be determined. Some such development might well be the means of utilising the freezing plant at Ajax Bay, but it can only be based on the export of lamb carcasses. As indicated later, lime and fertiliser costs are high, and the creation of lamb fattening pastures is unlikely to approach the cost range of similar pastures in New Zealand, at present the main exporter of lamb to Britain, unless a source can be obtained much nearer than the United Kingdom.

THE NATURAL PASTURES

Valuable though the settlement fields may be, the core of the sheep husbandry system is the camps where the flocks must live throughout the year. In "The Grasslands of the Falkland Islands" (1939), Dr. William Davies described the grassland vegetation. His account is still applicable and no attempt is made here to give a similar description. The dominant species is White Grass (Cortaderia pilosa) with the prostrate shrub Diddle Dee (Empetrum rubrum) the next most common. Legumes are absent. White Grass is ubiquitous, and as Dr. Davies showed is unpalatable to sheep and tends to be high in fibre and low in nutritive value. Both it and Diddle Dee are probably increasing, the latter being little eaten except for its fruits, the seeds of which are dispersed by both sheep and birds. Dr. Davies gave the botanical analyses of several areas which he examined in detail. Twenty years later it is not always possible to ensure that the same areas are seen, but when Dr. Davies' tables are compared with my own observations, the impression is that the unpalatable White Grass and Diddle Dee are becoming even more dominant and that there is also an increase, on those parts of the grazings where sheep have concentrated, of annual grasses such as Poa annua and Aira praecox.

The natural pastures on which the sheep graze, usually referred to as camps, are large enclosures. Though a small number may be 1,000 acres or less, the great majority range from 5,000 to 15,000 acres, with a few between 20,000 and 30,000 acres. Under such conditions, with one sheep to 5 acres, sheep can exercise marked preferences in respect of the plants they eat. Obviously they take the most palatable first and only turn to the less palatable when compelled. This is natural sheep behaviour on all extensively grazed set stocked pastures. In spring and early summer they persistently nibble off all the young succulent leaf shoots of the palatable grasses, thus preventing them building up in their roots and stem bases the food reserves they need to survive the following winter and start growth early the next spring. Plants so treated become progressively less vigorous and in time are exhausted and disappear, a process accelerated by the shading effect of the coarse grasses which are uneaten in summer when making their maximum growth. Where nothing is done either to rest the palatable plants from this continuous denudation of leaf or to stimulate them with supplementary plant food in the form of fertiliser there is only one possible trend, a gradual deterioration of the sward due more to the increase in coarse herbage than to any decline in soil fertility.

Under such conditions there is a greater contrast between the summer and winter nutrition of sheep than there is on pastures where different grazing management is practised. In a normal winter, growth is at a stand still and the sheep, having eaten all the palatable herbage, must turn to White Grass and similar coarser plants which were uneaten during the previous summer and so are overgrown, very fibrous and low in feeding value. Sheep not only dislike fibrous grass and restrict what they eat of it, but they cannot digest it efficiently. The rumen bacterial organisms that attempt to digest fibre need adequate protein supplies to function effectively, and these they cannot get from fibrous grass. If Falkland Islands sheep could be given supplementary protein they would not only benefit from the protein but would eat and deal with more White Grass. Under existing camp conditions, however, there are very great difficulties in providing any supplementary food. While these winter conditions are a handicap to any sheep they are especially so to ewes which at the time they are advancing in pregnancy and preparing for parturition and lactation are forced on to a steadily declining and inadequate diet.

This is the principal reason for thin ewes in spring, weakly lambs at birth, high mortality and low lamb crops.

Falkland Islands natural grazings appear to provide ample evidence that there has been much deterioration of this kind, but without knowing personally the character of the pastures say fifty years ago it is impossible to indicate the extent of this process, but if they have not declined they are unlike others in the world that have been subjected to the same type of grazing management. The presence in many areas of goose grass (*Aira praecox*), an annual grass species able to persist because a part of its life is spent in the seed stage, is an indication of continuous overgrazing of these parts. Where it occurs in coastal belts and is dominant, other species have been displaced by continuous overgrazing by sheep, augmented by the trampling and dunging of sea birds and animals, which also initiate some erosion. Its presence amongst White Grass is an indication that the finer grasses formerly growing between the White Grass bogs have been exhausted and the ground thus left vacant has been colonised by goose grass. Though these natural pastures are not really overstocked they are definitely overgrazed in parts.

Without some change in grazing management there is likely to be a further, even though slow, decline in the quality and in the productive capacity of the camps. Though only parts are heavily grazed, they are nevertheless like all pastures, in need of rest periods. It is well established that without periodic rest pasture does decline in productivity. With rest periods quality can be maintained and production increased. Fortunately several Falkland Islands' managers have become convinced of the need for resting their camps and are developing a technique of permitting this, to which reference is made later.

Along certain coastal strips, as well as in some inland parts of the West Falkland, there are, and have been, cases of erosion arising most probably from a combination of wind erosion and overgrazing. Some such cases are still spreading, but the methods of combating erosion by planting Marram grass (*Ammophila arenaria*) are well demonstrated on several stations, very good work of this kind being seen at Fox Bay East and Fox Bay West. It cannot, however, be stressed too strongly that the true Marram grass is much superior to others and is worth the extra trouble and cost involved in procuring it.

Dr. Davies stressed the value of Tussac (*Poa flabellata*) plantations, and rightly advocated their extension and careful fencing and control. The sheep station visited with the heaviest rate of sheep stocking is able to put all its flock on to Tussac grazings during winter, thus benefiting the normal camps. To provide Tussac plantations for some of the very large flocks would be impracticable, but they might well be considered for select groups or for younger ages.

CAMP IMPROVEMENT

Improvement of the camp as a whole, or even of parts of it, is a difficult problem under Falkland Island climatic and geographical conditions. The existing fertility level is low. Nearly all swards show a band of undecayed organic matter on the soil surface, indicating poor bacterial action due to shortage of lime and nitrogen. Indications of the need for phosphate can also be seen, as well as evidence of its effect. Thus, at Darwin, there is an acre plot which was given 1 ton Ground Mineral Phosphate in 1937. Though the effects were wearing off, this plot can still be seen as being rather greener, better eaten and with a better proportion of finer grasses. At North Arm a strip ten yards wide

dressed recently with Ground Mineral Phosphate was distinctly greener and the White Grass was recovering more quickly after burning. Though no special evidence of potash deficiency was obvious it may be in short supply, especially on soils such as those of Lafonia, derived from felspar. Deficiencies of lime, phosphate and potash most probably account for the lack of vigour in the white clover which is commonly found near settlements, where it has the benefit of heavier concentrations of animals with more animal excreta and greater consolidation.

Though everyone agrees that lime and fertilisers would be beneficial for selected areas, little is used, except in settlement fields, because of their cost. Some organic fertiliser may be obtained from South Georgia, but as a rule supplies have to be obtained from the northern hemisphere, and actual prices paid showed the cost of lime on sheep stations as just under twenty times the price, less subsidy, in Britain, and that of fertilisers as between $2\frac{1}{2}$ and 3 times the net cost to the British farmer. These prices are due to the freight charges.

Costs of this order make the raising of soil fertility extremely difficult, more particularly when the outlays have to be recovered through the sale of wool and not of meat. On an improved diet the Merino is the only breed that tends to give first priority to producing more wool rather than more meat. Others tend to put on meat first and wool second, though those like the Corriedale and Polwarth, with some Merino ancestry, may apportion the extra food more or less equally between meat and wool.

Without experimental evidence to the contrary it seems that economic camp improvement can only be brought about either by introducing other grasses at existing fertility levels or by altered grazing management, or a combination of both. Various methods of achieving the former have been tried, including aerial distribution of seed. Perhaps the most widespread has been broadcasting the seed on the surface, either with or without some surface harrowing or discing. Sod-seeding, ploughing and reseedling and rotavation are also being tried. Whenever grass seeds such as Yorkshire Fog and *Agrostis* (Brown Top) have been scattered on well eaten swards there is ample evidence that they have established, even if slowly. Other grasses (Ryegrass, Cocksfoot, Timothy), which demand a higher level of fertility, may have germinated but have either not survived or have produced plants lacking in vigour. White clover has sometimes established on well consolidated ground alongside roads and paths, but has not been successful enough to justify its use. One or two cases were seen where it was stated that Yorkshire Fog seed has been sown six years or more ago following surface discing or harrowing, and it had germinated and produced plants which only survived for about three years. Invariably these areas were covered with unpalatable native vegetation and there had been no grazing control following seeding. As the seeded areas were only a minor part of the camps concerned, the sheep would undoubtedly concentrate in spring on the more palatable Yorkshire Fog plants and exhaust them. To ensure survival controlled grazing is essential, especially at low fertility levels. An outstanding example of this is the Grave Cove Point (Roy Cove Station), to which Dr. William Davies referred in his report. Over twenty years later it is said to be still an outstanding grazing, but the secret of its success appears to be that it is grazed intensively by sheep for a short spell each year, being rested, apart from a small number of cattle and horses, for the rest of the year.

Sod-seeding has been tried in Lafonia and at Hill Cove. The Falkland Island Company have sod-seeded 12,000 acres, a most

commendable effort, have tried various seeds, with and without fertiliser, and have modified the seeding machines to give a method of seeding more appropriate to the Falkland Islands soil and climate. It is still too early to assess the full results of this seeding technique, and though the first results are not so spectacular as those attained by other methods, the cost is very much lower. Without the use of some fertiliser, however, sod-seeded plants have much more difficulty in establishing themselves, since they have to suffer competition from the plants of the existing sward in respect both of shading and for the available plant nutrients in the soil. Where the young seedlings have a supply of fertiliser adjacent to their roots, they can compete more successfully and establishment is greatly enhanced.

In Lafonia there was also to be seen throughout some camps an extensive scheme of ploughed strips five yards or so wide and seeded with Yorkshire Fog. When seen from the air these presented a fascinating pattern, and it was interesting to observe the concentration of ewes and lambs (early January, just before weaning) on these strips, in preference to the native vegetation of the camp. On examination these strips, some of which had been ploughed several years previously, showed the very slow decay of the White Grass turf. This may be due partly to the difficulty of turning the furrow slice completely when there is so much wiry herbage to bury, with the result that air is not excluded, but it also indicates a lack of lime and nitrogen necessary for the organisms which decompose organic matter. As a result there were cases where the old turf was growing and competing with the new grass.

A more satisfactory method of dealing with White Grass than ploughing was seen at Hill Cove where in the past two seasons 300-400 acres have been rotavated. After the rotavator has gone over the ground twice the White Grass bogs are sufficiently disintegrated to die so that when subsequently seeded with Yorkshire Fog all the available fertility is at the disposal of the new grass seedlings. At Hill Cove seeding is done in a combined operation in which one tractor hauls a flat roller, a broadcast seed drill, a Cambridge roller and a light harrow in tandem. When first seen the areas seeded in the previous season were not looking well because prolonged drought had restricted growth and on some parts germination, but when seen later following rain the promise was much better. Undoubtedly this technique can lead to much improved grazing.

Though rotavation seems more promising for White Grass camps, normal ploughing is quite satisfactory for Diddle Dee areas where the soil beneath the surface mat is invariably more friable and free of the penetrating and binding roots of White Grass. Ploughed areas of Diddle Dee were seen at Roy Cove, Douglas Station and Teal Inlet. At Roy Cove it was anticipated that the ploughing and reseedling of 1,500 acres would have been completed by February, 1961. The herbage being ploughed down is primarily Diddle Dee and Christmas bush (Baccharis magellanica) and after earlier trials with various grasses the ploughed areas are now all being seeded with Yorkshire Fog at either 12 lb. per acre of dressed seed or 30 lb. of undressed seed. After ploughing the ground is disced twice, then Cambridge rolled, followed by a Danish seed drill modified to sow at 3 inch spacings, after which it is again rolled. These successive operations give a fine and reasonably firm seed bed.

The reseeds seen at Roy Cove were most impressive, even though those sown in the dry summer of 1959-60 were struggling to survive in the desiccating winds of November 1960, and some areas needed resowing. Subsequent rain ensured their success. It was stated

that the cost of these reseeds was between 90/- and 100/- per acre. Also seen at Roy Cove were resceded areas of Yorkshire Fog, to be harvested for seed, and which had received a complete fertiliser (N.P.K.) dressing at $1\frac{1}{2}$ cwt. per acre with cross dressings of $1\frac{1}{2}$ cwt. per acre Nitro-chalk and Muriate of Potash. When seen, the dominant effect was that of the additional Nitrogen, which appeared to be producing extra seed heads more than adequate to cover the cost. Later the value of the phosphate and potash may be more obvious. On a settlement field reserved for hay and seeded to good grasses in 1940 the effects of fertiliser on the yield and persistence of good grasses were obvious.

There was unanimity on the question of the most suitable grass seed to sow for camp improvement, Yorkshire Fog being used almost exclusively. It has the advantage that it will stand a considerable degree of acidity, and does not require high fertility conditions. Where it is uneconomic to use lime and fertilisers, it is difficult to suggest alternatives, more particularly in view of its success where tried and managed for survival. It was interesting to examine some of the areas where seeds were sown in 1935 and 1936 in trials designed by the Welsh Plant Breeding Station and reported by Dr. Wm. Davies. In most of them Yorkshire Fog is the only grass originally sown that has survived, though in some even it was absent. Sometimes, as at Darwin, wild white clover was still present though lacking in vigour and not having spread outside the original plots which had phosphate. Where clover did survive, however, it was in plots on settlement fields that had been cultivated. On West Point Island where the plots were placed in the camp, there was one very small surviving white clover plant. This island is the most intensively stocked sheep station in the Falklands, and the camp herbage is not normally permitted to become overgrown so that clover would have a better chance of survival here than in camps elsewhere.

Reference has already been made to the large size of the sheep camps and to the practice that has developed on four or five stations which now arrange for certain camps to have a two to three months rest between shearing (December/January) and dipping (March), the sheep concerned being concentrated during this period on a high lying area which has no sheep for the rest of the year, but which during this short period may carry sheep at from 10 to 15 times the normal stocking rate for the station. This has the double advantage of resting the regular camp and of improving the herbage of the short term camp through the blitz grazing it receives, the White Grass being eaten in a way that never occurs except by such intensive stocking. The additional hooves, even though for two to three months only, have a beneficial effect in consolidating the turf, and three such areas seen after a few years of this treatment were greener and obviously providing more palatable herbage. White Grass dislikes heavy grazing and consolidation and there would appear to be a case for introducing grass seeds into one of these camps after the sheep have sufficiently reduced the surplus herbage. If, where circumstances permit, the seeds could be broadcast towards the end of the three month grazing period the sheep would trample them into the sward and encourage better germination with ultimately a better quality pasture.

On the stations where this short term concentrated stocking has been practised there is already evidence that there is benefit to the sheep as well as the pastures. Increased fleece weights and reduced mortality have been evident, and there are clear indications that more sheep can be carried. Where hoggets have been concerned they have grown better and suffered fewer losses.

Though the several methods of camp improvement being tried are all deserving of praise, they are unlikely to give their maximum result unless combined with some grazing control. In fact,

in the existing condition of the camps the greatest return from expenditure on improvement is likely to be obtained from money invested in subdivision. It is well established that wherever it is possible to alternate grazing and rest periods this not only prolongs the effectiveness of a grazing but can if well controlled actually lead to its rejuvenation. Nearly every camp seen was in real need of a rest from grazing, but this will only be possible with fencing and subdivision. It would lead to genuine camp improvement if each were divided into at least four. This would enable the sheep to be concentrated in one area with better grazing of all the herbage, especially of the coarse grass, while the other areas would be rested and the finer grasses get a chance to recuperate. Movement from one area to the next would be when necessary. Some areas could be deliberately reserved for the ewes to go into three weeks or so before lambing, which would put the ewes in better condition for lambing and for nursing their lambs. It would also mean that greater concentration of ewes at lambing would make shepherding easier and save lambs, while at mating the rams would be better able to contact ewes and leave fewer ewes barren. The full benefits would only be seen after two or three years when the sheep were accustomed to the changed management. Even dividing each camp into two would be better than nothing, though the benefits that would result would in time encourage further subdivision. Such a policy must, of course, be carried out by people with local knowledge who know the topography of the terrain and the direction of prevailing winds that bring snow.

Controlled grazing of this kind is just as essential for the camp areas now being reseeded to Yorkshire Fog. Where these are only a minor part of a large camp and are unfenced they will be subject to continuous selective grazing. Moreover, sheep will tend to graze the reseed but lie elsewhere at nights and by leaving their droppings off the improved area transfer fertility from the reseed. With lime and fertiliser this would not be serious but in their absence it will lead to a quicker deterioration and exhaustion of the new grasses. Fencing of the reseed permits them to be grazed and rested whenever they need it and prevents the transfer of fertility from areas where it is vitally necessary if the expenditure on improvement is to bring a satisfactory return.

As was frequently pointed out, fencing and fence maintenance are costly both in money and labour. In camp improvement, however, fencing is likely to bring a better return than any other possible expenditure, through better herbage, better utilisation of herbage, fitter ewes in winter, better lamb crops and more wool from more sheep. Five per cent more lambs per year could result in around ten per cent more sheep in five years, and twenty-five per cent more in ten years.

At the present time fences in the Falkland Islands cost about £250 per mile. It might be possible to reduce this by the use of the New Zealand type wind generated electric fence, which in that country has reduced fencing costs from about £500 to £150 per mile. New Zealand fences must cope with greater cattle and sheep pressure than is required for Falkland Island conditions where £100 to £120 might provide the necessary fence, though smaller camps need better fences.

Controlled grazing and more sheep would also remove the need for burning White Grass. This is a most controversial topic amongst station managers. Normally burning is a process that leads to some fertility loss and to a greater dominance of coarse herbage, the finer grasses suffering more from the effects of fire. Under extensive stocking, however, White Grass cannot be kept in check by grazing and after some years the accumulation of uncut herbage is

such that in a dry period it is in itself a fire hazard. Controlled periodic burning every four or five years is in these circumstances necessary. On the other hand many shepherds and one or two station managers burn with greater frequency than this. What they do certainly creates more green shoots of White Grass for sheep grazing, but they do run a danger of eliminating grasses such as the natural Fescues, and allowing inferior ones to take their place. So long as grazing is as at present practised, some burning is necessary but is best not to be overdone.

THE FUTURE

The future of sheep farming under the conditions of the Falkland Islands deserves most serious consideration. An economy based on wool production only is vulnerable in conditions under which artificial fibres may in the future become highly competitive and force prices down. Methods of reducing the cost of wool production should, therefore, be continually under review, as well as the means of ensuring continued productivity under a system which is a form of extractive farming, since nothing is done at present to replace the materials removed annually in the form of wool and slaughtered sheep. Nitrogen and potash are probably the principal sufferers, since wool is the exported commodity.

It is possible that, as in other countries where extensive grazing is practised, the numbers of sheep are now such that the annual loss of minerals in wool and carcasses is in rough balance with the annual increment available by natural processes. There is, however, nothing stable in nature and even where there is, this approximate balance productivity continues to decline for reasons other than those of declining soil fertility. This makes the need for investigation of the means of improving productivity all the more urgent.

In the Falkland Islands a major contribution to reducing costs would be made if lamb crops could be increased and mortality reduced. Better grazings providing better nutrition would lead to this and should produce earlier maturity in the sheep, whereby ewes could produce their first lambs at two years instead of three. An extra crop of lambs before the ewe reaches a normal casting age of six and a half years would mean fewer ewe hoggets necessary for flock maintenance and so permit a higher standard of selection. Subdivision of camps with controlled grazing rather than selective grazing by sheep is the obvious first step to this end, and one which can be taken immediately by any sheep station. It should, however, be accompanied by an active experimental programme into the techniques of securing economic improvement of the natural pastures through the correction of mineral deficiencies and the introduction of better grass and legume species.

As mentioned earlier, several sheep stations have been and are still attempting to improve the cropping potential of settlement fields and the grazing potential of paddocks and camps, but the technical problems that need investigation if more productive swards are to be possible on an economic basis are such that they require an investigator who can give his whole attention to them and who is not subject to the duties and distractions that are the lot of station managers. Twenty years ago the Department of Agriculture was so staffed that it could, in addition to its regulatory duties, undertake some experimentation and it showed that lime and phosphate were essential for the satisfactory spread of white clover and for greater persistence of improved grasses. They concluded that while this might be economically sound in smaller enclosures it could not be so in the camps.

Though subdivision of camps and controlled grazing will undoubtedly lead to more sheep and more wool, the question of

raising the fertility and thereby the productivity of the natural pastures to any marked extent will still remain. This will involve changing the character of the herbage and replacing the dominant grasses by something more palatable and more flexible in use. Even Yorkshire Fog, though having value as a first step in improvement and being suitable at low levels of fertility, is not a grass on which a satisfactory long term policy can be based. It does not associate satisfactorily with a legume, an essential character in a grass to be used for permanent improvement. The need for nitrogen is definite, but the only practicable means of providing it is by a legume which will fix atmospheric nitrogen. From its presence round the settlements it appears that white clover is probably the most suitable legume, but an active experimental programme is necessary to determine this.

The experiments of the agricultural staff twenty years ago showed the effectiveness of the then conventional and heavy dressings of lime and phosphate in establishing clover and maintaining grass in a more palatable and persistent state. Since then there have been marked advances in the technical knowledge of soil and pasture improvement in many parts of the world and the applicability of these to Falkland Island conditions should be investigated. For instance, the value of molybdenum in reducing the need for heavy dressings of lime in establishing clover in parts of New Zealand, the need for copper for successful clover growth on peat in New Zealand, the necessity for sulphur in establishing clover on certain soils in Australia are examples of experimental results that have brought outstanding changes in areas previously thought unimprovable on an economic basis. In recent years in South America, local scientists working with the regionally based staff of F.A.O. and the Inter-American Institute of Agricultural Science have shown that on some soils the calcium requirements of clover nodulation can be met by merely dusting the seed with lime, a result similar to that in parts of New South Wales where 1 cwt. lime resulted in successful subterranean clover establishment, whereas there was complete failure without lime. In Scotland sod-seeding white clover on peaty hill soils has not been satisfactory when done with fertiliser only, whereas with both lime and fertiliser, down separate spouts, success has been obtained.

Perhaps none of these techniques may be applicable on Falkland Island soils, but they are all methods of improvement that should be investigated, along with trials of grass and legume species. To do so requires a young trained investigator, who has already a few years' active research experience, and who could spend a three to five years period in the colony. In the early stages this work would not require more than small areas for pilot trials on the main soil and camp types, but once the initial work has thrown up the most appropriate lines, these would need large scale investigation. It is obvious that station managers would be extremely willing to co-operate at all stages in this work.

ACKNOWLEDGEMENTS

The extensive tour undertaken to the sheep stations mentioned in the attached sheet would not have been possible without the careful planning of H.E. Sir Edwin Arrowsmith and members of his Secretariat and the ready co-operation of station managers and others in facilitating visits and travel between stations. To them all for their cordial reception and the unfailing hospitality received in their homes, I wish to extend my sincerest appreciation.

Edinburgh
June, 1961

A. R. WANNOP.

SHEEP STATIONS VISITED

October, 1960 - January, 1961

Oct. 31 Arrived Stanley

Oct. 31 - Nov. 2 At Government House. Discussions with H.E. The Governor, officials, and some station managers.

Nov. 2 - 5 Fitzroy

" 5 - 6 Darwin

" 6 - 7 North Arm

" 7 - 11 Darwin and Goose Green

" 11 - 12 San Carlos

" 12 - 16 Port San Carlos

" 16 - 18 Douglas Station

" 18 - 21 Teal Inlet

" 21 - 24 Rincon Grande

" 24 - 26 Port Louis

" 26 - 28 Green Patch

" 28 - Dec. 2 At Government House. Further discussions with H.E. The Governor and officials.

Dec. 2 - 6 Roy Cove

" 6 - 8 Carcass Island

" 8 - 9 West Point Island

" 9 - 12 Hill Cove

" 13 - 17 Pebble Island

" 17 - 24 Port Howard

" 24 - 27 Fox Bay East

" 27 - 29 Fox Bay West

" 30 Port Stephens and New Island

" 31 Weddell Island

" 31 - Jan. 10 Chartres

Jan. 10 - 12 At Government House. Discussions with H.E. Governor. Meetings with members Executive Council and general meeting with sheep owners and others.

DECODE.

TELEGRAM SENT.

From GOVERNOR to SECRETARY OF STATE

Despatched : 21.7.61 Time : 1445 Received : Time :

No. 88. Following for Governor.

Wannop's report sent to Colonial Office copy received here addressed to you. Shall I roneo and send to all farms and members of the Executive Council?

Officer Administering the Government

Reply at 164

G.T.C.
DRM/LH

Ba 2.8.61

DECODE.

No. 9.

TELEGRAM SENT.

From SECRETARY OF STATE to GOVERNOR

Despatched : 24.7.61 Time : 1703 Received : 25.7.61 Time : 1045

163

No. 66. From Governor. Your No. 88. Wannop report.
Please distribute as suggested plus members of the Legislative
Council.

Secretary of State

G.T.C. : IM

(Encld.) IM

Office
165
Stencil pl.
D.P.
26.7.61

166.

Hq. A.C.S.

The Report has been stencilled and copies sent to the persons named in #163-4. Spare copies are held in in Record Room.

EB

8.9.61.

Del. 18.9.61 for the

167.

Y.S. I think you have a copy².

8
13/9/61

1686

19th September 1961

(My dear Wannop)

I wish I could have been longer in England, and been able to come up to Scotland to see you, but Syd Miller has given me glowing reports of the very interesting time he spent with you.

I have been most interested in your report, as have the farmers here, and are most grateful to you for it. At the end you mention the possibility of investigations in the Falkland Islands by "a young trained investigator". I wonder if you would be kind enough to expand on this in more detail? In other words, just what do you recommend he should do to start with, and where to you suggest he should do it? I do not know where we would be likely to get hold of the right man, and what we would have to pay him, and perhaps you could help me with this too. I have in mind putting up a scheme for assistance from Colonial Development and Welfare Funds, and all the information you can give me about the best way of setting about such a project would be most useful. I do apologise for asking you to do this donkey work, busy as I know you are, but there is really no one here who can give me this as you can.

With kind regards from us both,

Yours sincerely,

(signed Edwin Arrowsmith)

Reply at 176.

BUL 29.10.61

A. R. WANNOP ESQ.

169



Fox Bay West,
West Falkland.
September 23rd 1961.

The Colonial Secretary,
Secretariat,
Port Stanley.

Dear Sir,

162

I managed to have a look through the article, about Mr Wannop's visit to the Islands.

This article I found most interesting and useful. The article was shown to me, by the Manager of this section.

I was wondering if it would be possible that there is a spare copy. This I would like for my own reference.

I am Sir Your Obedient Servant,

P. J. Blake.

*Put in file pl
with prices for duplicated
pamphlets*

*Ack'd
dtl 29/9/61.*

*Report + record on 7 pages @ 2d per page = 1/2d
a copy?
Reply at 172.*

170

HCS

169 Duplicated work is normally
sold at 2d per page. The report will
be 1/2.

W.P.

2.10.61

171

+ history / matter? P1 tell him. Also we should
make known through news table a review

2/10/61

3rd October,

61.

Sir,

169

I am directed to refer to your letter of the 23rd September, 1961, and to enclose a copy of Mr. Wannop's Report. I am to request you to remit the sum of 1/2d.

I am,

Sir,

Your obedient servant,

(Sgd.) D.R. Morrison

for COLONIAL SECRETARY.

162

Mr. P.J. Blake,
FOX BAY WEST.

FRIDAY NEWSLETTER

Duplicated copies of Mr. Wannop's Report entitled "Visits to Falkland Islands Sheep Stations" may be obtained from the Secretariat. Price 1s/2d.

Colonial Secretary's Office,
Stanley, Falkland Islands.

3rd October, 1961.

Hold for
letter from Blake

8/11.61
Recd 29. 10. 61. (168)



Fox Bay West,
West Falkland.
1st. November 1961.

The Colonial Secretary,
The Colonial Secretary's Office,
Port Stanley.

Dear Sir,

I herewith enclose a cheque of 4/8,
which is to cover, the report that I had from
you, on Mr. Wannop's visit to the Islands.

I was wandering, if it would be possible,
for me to obtain three more copies. You will
notice that the cheque, has been made out so that
it will cover this amount.

I am, Sir,
Your obedient servant,

A handwritten signature in dark ink, appearing to read "P. J. Blake".

P. J. Blake.

Sent Receipt No: 77709 ✓ 4 8. 11. 61.
Howgate.

511.
29. 11. 61
(164)

November 13, 1961

You will remember that at the end of his report on his visit to the Falklands, Mr. Wannop suggested the need for further experimental work. I wrote to him to ask just what he had in mind, and just before I left for the West I received his reply, a copy of which I enclose. I mentioned this to the farmers during my visit, and I am sure they would co-operate in any scheme of this sort. It is a matter which we shall have to discuss in Executive Council.

Everything would, I think, depend on the man we could get to take charge. If we do decide to go ahead on such a scheme, I would certainly try to get C.D. & W. assistance for it as a research grant. I am seeing if I can extract anything from the Secretariat on the working of F.A.O.

The Hon. A.G. Barton, C.B.E., J.P.

&

The Hon. H.C. Harding, O.B.E., J.P.

HILL FARMING RESEARCH ORGANISATION

DIRECTOR: A. R. WANNOP. O.B.E., B.Sc. (Agr.), B.Eng., F.R.S.E.

SECRETARY:

R. S. BOYD, F.C.C.S.

TELEPHONE: CAL 3231/2

48 PALMERSTON PLACE

EDINBURGH 12

YOUR REF.

10th October, 1961.

OUR REF. Gen/f/5

Dear Sir Edwin.

168

Thank you very much for your letter of 19th September. I am sorry you could not come to Scotland this summer, but hope this may be possible on a future visit. It was a pleasure to have Syd Miller and his wife and son with us in July. The weather was good for combining farming and sight-seeing and they seemed to enjoy the round tour we did.

When I spoke of "a young trained investigator", I had in view someone of 25 or 26 at least, who had already had a minimum of three or four years' experimental experience and could, therefore, get down to planning investigations without delay. He would know the techniques and also have knowledge of the snags to look for, especially in drawing conclusions. Such a person will not be easy to get, though it might be possible to get a secondment for say three years of an Assistant Grassland Adviser from the National Agricultural Advisory Service of the Ministry of Agriculture, Fisheries and Food, or from one of the Scottish Agricultural Colleges. Such a person would have been concerned with investigating local grassland problems in this country, though these are very different from yours. It might be that there is someone suitable at the Grassland Research Station. An approach to the Ministry of Agriculture or to the Agricultural Research Council would be the best line.

Anyone who could be seconded and with this experience would at present be somewhere on a salary scale running from about £1,000 to £1,400. A New Zealander would be worth consideration. Their salary scales are lower than ours, though some inducement would be necessary. Australian scales are much better than ours. We lose good young men to Australia because of this.

H.E. Sir Edwin Arrowsmith.

I think the first line of investigation should be a study of the factors affecting the establishment of white clover and the suitability of other possible legumes. White clover establishes near settlements but lacks vigour. Some of the first points to resolve are the following. Are there better strains of Rhizobia being developed in Australia or New Zealand with which clover seed could be inoculated? How little lime can be used in getting satisfactory clover establishment? Are phosphate and potash necessary for better clover establishment and in what quantity? On peaty soils, would copper as copper sulphate assist clover establishment? Would molybdenum help to reduce the need for heavy dressings of lime?

Concurrently with this there should be initiated a trial of introduced grass species to see which are most suitable both with and without a legume. Such trials should include the normal British species and strains, but also others being tried in similar latitudes, e.g. Patagonia.

I am not sure of the obligations of F.A.O. in this respect, but there is an F.A.O. office in Monte Video in which there are grassland specialists, who advise grassland experimenters in South America on possible lines of investigation and on techniques. I called there on my way home from the Falkland Islands and talked to the head, Mr. T. R. G. Moir. (His address is Food and Agriculture Organisation, Rincon 487 - Esc. 503, Monte Video.) He is closely in touch with all the work in South America, and if you can arrange for an investigator, I am sure that Moir would be glad to make suggestions about his programme of research. I found him very interested in what I told him, and he talked of trying to take a holiday trip in the Darwin.

If these investigations begin, they should be conducted on both peaty and mineral soils. I feel they should start on small areas at say five or six centres. Assuming the man makes his headquarters at Stanley, he would need a small area there for detailed work and then another on peat at Darwin or Fitzroy, with one on mineral soil at Roy Cove. The outstations will be best where there is an Assistant Manager or good cadet, who could assist in laying down the trials, make observations and keep records, thus cutting down on unnecessary travelling and also letting the investigator cover a wider field of topics. If young Alan Miller is going as Assistant to Fox Bay East, that might be a good centre, while the Bill Blake/Tim Blake combination at Hill Cove also has possibilities. Port Howard, San Carlos, Port San Carlos, Douglas Station and Fox Bay West are all interested. He

would need the use of a farm tractor and equipment for cultivating the small areas of land involved, which would also need to be fenced, but the farm managers would provide these. I envisage areas of not more than half an acre at the start. Most of the cultivations would be done mechanically, but there would be considerable manual work in sowing seeds and distributing materials on small plots. Once the trials indicate likely lines of development, rather bigger areas of a few acres would be needed, but none of them more than any station would willingly supply.

Some provision would have to be made for small equipment, and for seeds, fertilisers and chemicals. A hand operated Bean Seed Drill as used by market gardeners would be desirable for sowing legume and grass seeds. Other small tools should be available at the stations. Possibly £250 per year would be necessary for all requirements. Being unfamiliar with your full freight charges I am somewhat at sea, but this sum should be adequate. In the first year more would be spent on equipment and in later years on materials, as in the first season it might not be possible to get more than three centres started.

It is possible to argue that his main location should be say Darwin and not Stanley, but there are also advantages in having him nearer the secretariat.

I hope these suggestions are what you wanted and are helpful, and if I can answer any more queries, I shall be only too pleased.

With kind regards to Lady Arrowsmith and yourself.

Yours sincerely,

Arthur Wainman

H.E. Sir Edwin Arrowsmith

3.

10th October, 1961.

JK

DECODE.

No. 5.

TELEGRAM SENT.

From SECRETARY OF STATE to GOVERNOR

Despatched: 13.11.61 Time: 1305 Received: 14.11.61 Time: 1000

Setec No. 14. Do you need additional copies of Wanhops report on Visits to Falkland Islands Sheep Stations have up to fifty available.

Secretary of State

Reply at 183.

P/L : IH

53 copies downstairs

180

ACJ

We have 53 reports.

25/6/61

14.11.61

181

G. E. The functions of FAO are given at 229
in the file and appear on page 11 of that booklet.

There are circulars in the files 1275 about the
procedure for obtaining the services of an officer
under the UNESCO scheme, but for the sort of help &
advice envisaged by Mr. Wainwright I should think we could
write direct to Mr. Moir. I envisage our investigator
being trained in the first instance by Mr. Wainwright &
getting further advice & suggestions from Mr. Moir
perhaps in writing before he came out or verbally on his
way through & also perhaps maintaining contact with
Mr. Moir while he is here.

(as regards 179 & 180 we appear to have enough
copies but any copies for which they have volume could be sent
here.

g
16/11/61

182

HCS

Thank you. I had thought that Mr Cameron
& Mr Gilbert might see Mr Moir in Monte,
but there is scarcely time for them to
do so, and I don't know where to get
in touch with them.

g

16.11.61

F. I. ref: 1836

CETEC. ref:

103

SAVING TELEGRAM.

From: The Officer Administering the Government of the Falkland Islands.

To: The Secretary for Technical Co-operation.

Date: 20th November, 1961.

No.13. SAVING. COLONY.

179

Your telegram Setec No. 14 of 13th November, 1961.

Wannop Report.

I should be grateful if the fifty available copies of this Report could be forwarded to this office if not required by you.

Seen by HCS

GOVERNOR

ACI
to file to be bran
up for further work
20
28

10th October 1961.

When I spoke of "a young trained investigator", I had in view someone of 25 or 26 at least, who had already had a minimum of three or four years' experimental experience and could, therefore, get down to planning investigations without delay. He would know the techniques and also have knowledge of the snags to look for, especially in drawing conclusions. Such a person will not be easy to get, though it might be possible to get a secondment for say three years of an Assistant Grassland Adviser of Agriculture, Fisheries and Food, or from one of the Scottish Agricultural Colleges. Such a person would have been concerned with investigating local grassland problems in this country, though these are very different from yours. It might be that there is someone suitable at the Grassland Research Station. An approach to the Ministry of Agriculture or to the Agricultural Research Council would be the best line.

Anyone who could be seconded and with this experience would at present be somewhere on a salary scale running from about £1,000 to £1,400. A New Zealander would be worth consideration. Their salary scales are lower than ours, though some inducement would be necessary. Australian scales are much better than ours. We lose good young men to Australia because of this.

I think the first line of investigation should be a study of the factors affecting the establishment of white clover and the suitability of other possible legumes. White clover establishes near settlements but lacks vigour. Some of the first points to resolve are the following. Are there better strains of Rhizobia being developed in Australia or New Zealand with which clover seed could be inoculated? How little lime can be used in getting satisfactory clover establishment? Are phosphate and potash necessary for better clover establishment and in what quantity? On peaty soils, would copper as copper sulphate assist clover establishment? Would molybdenum help to reduce the need for heavy dressings of lime?

Concurrently with this there should be initiated a trial of introduced grass species to see which are most suitable both with and without a legume. Such trials should include the normal British species and strains, but also others being tried in similar latitudes, e.g. Patagonia.

I am not sure of the obligations of F.A.O. in this respect, but there is an F.A.O. office in Montevideo in which there are grassland specialists, who advise grassland experimenters in South America on possible lines of investigation and on techniques. I called there on my way home from the Falkland Islands and talked to the head, Mr. T.R.G. Moir (His address is Food and Agriculture Organisation, Rincon 487 - Esc. 503, Montevideo). He is closely in touch with all the work in South America, and if you can arrange for an investigator, I am sure that Moir would be glad to make suggestions about his programme of research. I found him very interested in what I told him, and he talked of trying to take a holiday trip in the 'Darwin'.

If these investigations begin, they should be conducted on both peaty and mineral soils. I feel they should start on small areas at say five or six centres. Assuming the man makes his headquarters in Stanley, he would need a small area there for detailed work and then

and on Darwin

another on peat at Darwin or Fitzroy, with one on mineral soil at Roy Cove. The outstations will be best where there is an Assistant Manager or good cadet, who could assist in laying down the trials, make observations and keep records, thus cutting down on unnecessary travelling and also letting the investigator cover a wider field of topics. If young Alan Miller is going as Assistant to Fox Bay East, that might be a good centre, while the Bill Blake/Tim Blake combination at Hill Cove also has possibilities. Port Howard, San Carlos, Port San Carlos, Douglas Station and Fox Bay West are all interested. He would need the use of a farm tractor and equipment for cultivating the small areas of land involved, which would also need to be fenced, but the farm managers would provide these. I envisage areas of not more than half an acre at the start. Most of the cultivations would be done mechanically, but there would be considerable manual work in sowing seeds and distributing materials on small plots. Once the trials indicate likely lines of development, rather bigger areas of a few acres would be needed, but none of them more than any station would willingly supply.

Some provision would have to be made for small equipment, and for seeds, fertilisers and chemicals. A hand operated Bean Seed Drill as used by market gardeners would be desirable for sowing legume and grass seeds. Other small tools should be available at the stations. Possibly £250 per year would be necessary for all requirements. Being unfamiliar with your full freight charges I am somewhat at sea, but this sum should be adequate. In the first year more would be spent on equipment and in later years on materials, as in the first season it might not be possible to get more than three centres started.

It is possible to argue that his main location should be say Darwin and not Stanley, but there are also advantages in having him nearer the Secretariat.

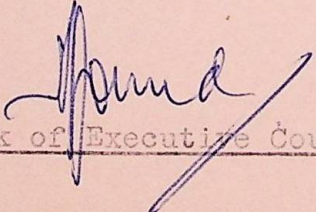
I hope these suggestions are what you wanted and are helpful, and if I can answer any more queries, I shall be only too pleased.

EXTRACT FROM MINUTES OF MEETING OF EXECUTIVE COUNCIL

HELD ON THE 23RD NOVEMBER, 1961.

Grassland Research

His Excellency informed Council that he had recently received a letter from Mr. Wannop suggesting the appointment of an Agricultural Research Officer or Grassland Adviser to carry out experimental grass improvement and it was decided as a first step to refer the suggestion to the Sheep Owners' Association for comment.


Clerk of Executive Council.

Discussed with Mr. Harding.

He suggests that we omit all the portions which I have marked with a square bracket in ink. He points out that the need for four or five plots including heavy or mineral soils is mentioned & thinks that at this stage it is not necessary to go beyond that in discussing location.

He thinks that we might include the para about F.A.O. a small omission which I would suggest is the first few words of the para "I am not sure - but"

Mr. H. suggests that we write direct to the farmers to save time and not through S.O.A. We should ask for their views early.

Also that we refer to the possibility of C.D. or W assistance.

All managers have had a copy of Mr. W's report & we can refer to it in our covering letter.

gm

24/11/61

RA

24.11.61

gm

Ref. 1836.

1st December, 1961.

187

From: The Colonial Secretary,
STANLEY.

To: All Farm Managers.

I am directed to refer to the Report issued by Mr. A.R. Wannop and now enclose an extract from a letter recently received from Mr. Wannop in which he enlarges on his suggestion that Government should now enlist the assistance of a trained investigator to study local grassland problems and carry out experiments on different soils.

2. I should be pleased if you would let me know as soon as possible what your views are on the desirability of importing such an officer. There is a possibility of assistance from Colonial Development and Welfare Funds.

Robert Anderson.

COLONIAL SECRETARY.

HLB/IM.

*See 209 in
Vol II*

183
188

EXTRACT FROM LETTER RECEIVED FROM MR. A. WANNOP

10th October, 1961.

When I spoke of "a young trained investigator", I had in view someone of 25 or 26 at least, who had already had a minimum of three or four years' experimental experience and could, therefore, get down to planning investigations without delay. He would know the techniques and also have knowledge of the snags to look for, especially in drawing conclusions. Such a person will not be easy to get, though it might be possible to get a secondment for say three years of an Assistant Grassland Adviser of Agriculture, Fisheries and Food, or from one of the Scottish Agricultural Colleges. Such a person would have been concerned with investigating local grassland problems in this country, though these are very different from yours. It might be that there is someone suitable at the Grassland Research Station. An approach to the Ministry of Agriculture or to the Agricultural Research Council would be the best line.

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If these/.....

126
189

If these investigations begin, they should be conducted on both peaty and mineral soils. I feel they should start on small areas at say five or six centres. The out-stations will be best where there is an Assistant Manager or good cadet, who could assist in laying down the trials, make observations and keep records, thus cutting down on unnecessary travelling and also letting the investigator cover a wider field of topics. He would need the use of a farm tractor and equipment for cultivating the small areas of land involved, which would also need to be fenced, but the farm managers would provide these. I envisage areas of not more than half an acre at the start. Most of the cultivations would be done mechanically, but there would be considerable manual work in sowing seeds and distributing materials on small plots. Once the trials indicate likely lines of development, rather bigger areas of a few acres would be needed, but none of them more than any station would willingly supply.

Some provision would have to be made for small equipment, and for seeds, fertilisers and chemicals. A hand operated Bean Seed Drill as used by market gardeners would be desirable for sowing legume and grass seeds. Other small tools should be available at the stations. Possibly £250 per year would be necessary for all requirements. Being unfamiliar with your full freight charges I am somewhat at sea, but this sum should be adequate. In the first year more would be spent on equipment and in later years on materials, as in the first season it might not be possible to get more than three centres started.

I hope these suggestions are what you wanted and are helpful, and if I can answer any more queries, I shall be only too pleased.

Notes:

Copies sent to all farm managers today.
A. See list of names below. B. 4.12.61

- ✓ The Manager, ^{Pebble} Fitzroy.
- ✓ The Manager, Darwin.
- The Manager, North Arm.
- ✓ The Manager, San Carlos.
- ✓ The Manager, Port San Carlos.
- ✓ The Manager, Port Louis.
- The Manager, Johnson's Harbour.
- ✓ The Manager, Rincon Grande.
- ✓ The Manager, Douglas Station.
- ✓ The Manager, Teal Inlet.
- The Manager, Salvador.
- The Manager, Bleaker Island.
- The Manager, Lively Island.
- The Manager, Speedwell Island.
- The Manager, Fox Bay East.
- The Manager, Fox Bay West.
- The Manager, Port Stephens.
- The Manager, Weddell Island.
- The Manager, New Island.
- ✓ The Manager, West Point Island.
- ✓ The Manager, Carcass Island.
- The Manager, Saunders Island.
- ✓ The Manager, Hill Cove.
- ✓ The Manager, Roy Cove.
- ✓ The Manager, Chartres.
- ✓ The Manager, Port Howard.
- The Manager, Bluff Cove.
- The Manager, Sea Lion Island.
- R. Hills, Stanley.
- The Hon. H. Bennett, J.P., (as for agent for Mullet Creek.) ✓
- C. Bundes, Stanley.

ACJ
This is not
wanted for anything
else other than
reply ✓
4.12.61

s/c Have we covered all? I wd. have thought
Richard Hills wd have been interested perhaps
H. Bennett as agent for Brownings of M/creek.

~~Bureau~~ 4.12.61

Bundes etc.
5.12.61

4.12.61

BP for replies 12/1/62

Ref: 1836.



1st December, 1961.

From: The Colonial Secretary,
STANLEY.

To: All Farm Managers.

I am directed to refer to the Report issued by Mr. A.R. Wannop and now enclose an extract from a letter recently received from Mr. Wannop in which he enlarges on his suggestion that Government should now enlist the assistance of a trained investigator to study local grassland problems and carry out experiments on different soils.

2. I should be pleased if you would let me know as soon as possible what your views are on the desirability of importing such an officer. There is a possibility of assistance from Colonial Development and Welfare Funds.

Richard Anderson

COLONIAL SECRETARY.

192 A

HLB/IM.

I much doubt whether we require "a young trained investigator". Generally speaking, the young man thinks that he knows all the answers at the very outset - whereas, an older man has more sense. Therefore, if we are to get anyone at all - he should be a man with considerable experience.

L. A. Gillett
6/12/61

See
answer to pers.

14/12/61

BW 7.1.62

DEAN BROTHERS.

PEBBLE ISLAND,

FALKLAND ISLANDS.

18th Dec 1961

The Hon. Col. Secretary
Govt Secretariat
Stanley - F.I.

Dear Sir

Dr

187

In reference to memorandum
No 1836 regarding a letter recently received
from Mr Wannop. I note what you write and
would support the proposal to impart an
office to study Falkland problems provided if
the entire cost could be recovered by Feb. Dec
and before period of. The man was a very energetic
and knowledgeable person.
If of above was not the
Case I would not support it.

173 in
0110/II
Extracted
to 0110/II

In reference
Memorandum No 114 to the Standing Finance
Committee re. Registrar Supreme Court. I
should approve the addition to Mr H. Bennett's
Salary.

Yours faithfully

A.B. York

Bu 71.6

CHARTRES SHEEP FARMING CO. LTD.,



CHARTRES

FALKLAND ISLANDS

12th December, 1961

Sir,

187

Reference your circular 1st inst.

I think it is now essential that Government now secure the services of a trained investigator to carry out experiments into grassland problems in these islands. A soil survey has been talked about in the past and I think some form of this is essential. This farm, for one, has its own problem in that even Yorkshire Fog will not flourish in most areas and Mr Wannop thought it was lack of fertility in most cases. Whilst one cannot think in terms of fertilisers generally a small amount of what the land requires might help. That can only be ascertained by an expert.

It is surely time that Colonial Development and Welfare did rather more for this colony than they have done to date.

I am, Sir

Yours faithfully

The Hon. Colonial Secretary

Stanley

Bu. 7/1/62

JAMES LOVEGROVE WALDRON
LIMITED.



Port Howard.
West Falkland Islands.

Telegraphic Address:
HOWARD, FOXBAY, FALKLANDS.
BENTLEY'S CODE USED.

December 19th, 1961.

The Colonial Secretary,
Stanley.

Dear Sir,

187

We thank you for your circular Ref. 1836 of December 1st.

We would give our support to "a young trained investigator" to study local grassland problems. Should you wish to establish trials here we would give as much help as possible.

Yours faithfully,

JAMES LOVEGROVE WALDRON LTD.

Alan Pole-Evans.

FALKLAND MANAGER.

bu 7/1/62

Ref: 1836.



1st December, 1961.

From: The Colonial Secretary,
STANLEY.

To: All Farm Managers.

I am directed to refer to the Report issued by Mr. A.R. Wannop and now enclose an extract from a letter recently received from Mr. Wannop in which he enlarges on his suggestion that Government should now enlist the assistance of a trained investigator to study local grassland problems and carry out experiments on different soils.

2. I should be pleased if you would let me know as soon as possible what your views are on the desirability of importing such an officer. There is a possibility of assistance from Colonial Development and Welfare Funds.

M. J. Anderson

COLONIAL SECRETARY.

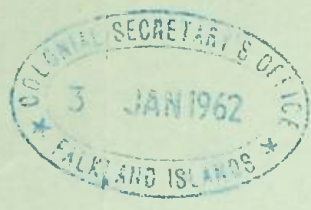
196 A.

HLB/IM.

Clearly it all depends on the chap, but the very great benefits that might ensue from the importation of a good one justifies the risk of drawing a dud. We must have the strongest possible claims to assistance from Colonial Development and Welfare.

M. J. O. Carr

Dec 7/1/62



Colonial Secretary
Port Stanley.

R.B. Napier
West Point Island
Falkland Islands
South Atlantic
28 December 1961

Dear Sir.

158

In reply to your letter of 1 December
1961.

I think a trained investigator to study local
grassland problems etc, would be of great
value to the colony.

Of course a small farm like West Point Island
would not be able to plough up plots of
land etc, as so far as I am aware none
of these small Island farms have the
equipment needed to carry out these investigations.

Yours faithfully.
R.B. Napier

Ack'd
JH.
3.1.62.

Bu 8162

December 27th 1961

The Colonial Secretary,
Stanley.

Sir,

I have to acknowledge your letter of 1st December referring to the suggestion by Mr A.R. Wannop that Government seek the appointment of a grasslands investigator to study local pasture improvement problems.

I would like to advise you that this farm would certainly support any such efforts but I also think a very strenuous effort should be made by Government to have a very large part of the expenses of any such appointment, if not all of the cost, met from Colonial Development and Welfare funds, of which this Colony has not had a very large share in the past in comparison with other Colonies.

I think that the usefulness of any such officer will depend mainly on the type of man selected; he must not come out here with too much bigoted ideas on scientific procedure in other parts of the world where the use of fertiliser and expensive grass seeds form the major part of any improvements.

Any use of farm machinery and implements would readily be made available here, likewise the necessary experimental areas required by this officer and Government can rely on very real and total support from the management of this farm.

I am, Sir,

Yours faithfully,

A handwritten signature in dark ink, appearing to read "Rodney Buller".

Manager.

Ack'd.

TB. 4-1-62

C & K Bertrand
Carcass Island
1st January 1962



Colonial Secretary
Stanley.

188

Dear Sir,
We have just received your circular reference number
I836 dated 1st December 1961.

We are very interested in the suggestion of enlisting
a trained investigator to study local grassland problems. We
are willing to co-operate in any way within our means should you
decide to import such an officer.

We have a a Bristol caterpillar tractor and also a spike harrow
which could be used if the officer wished to carry out an experiment
here and we would be quite prepared to fence in half an acre for
the purpose. As we only employ one man we would not be able
to give any assistance during the shearing season but no doubt
some arrangement regarding the time such work would be carried
out could be decided when the officer was in the Colony.

Yours faithfully

For C & K Bertrand

Ack'd.
TB. 4.1.62

HOLMESTED BLAKE & COMPANY, LIMITED

DIRECTORS: R. BLAKE, H. S. HOLMESTED, E. G. MATHEWS, A. L. BLAKE, MRS. C. A. E. STRONACH

LONDON OFFICE:
120. PALL MALL,
LONDON, S.W.1
TELEPHONE: WHITEHALL 8077/8



HILL COVE,
FALKLAND ISLANDS

CABLES: "BLAKE FOXBAY"

The Honourable Secretary
Stanley

2nd January 1962

Dear Sir

188 With reference to your circular 1836 dated 1st December I am in favour of importing a trained investigator such as Mr Wannop suggests, if, repeat if, a suitable man can be obtained. Any applicant should be vetted by someone who knows the Falklands, such as Mr Wannop or Dr Davies. I think the right type of man is more likely to come from Scotland than New Zealand.

I feel that such a man's energies are liable to be wasted if his experimental areas are widely scattered. Half his time will be spent waiting for the 'plane. If it is agreed that he should have a permanent Camp base from which to radiate, we should be glad to have him at Hill Cove and would offer every cooperation. There is the advantage here that practically every type of Camp is represented on the farm.

Yours faithfully

H. S. Holmsted
manager

Ack'd.

TB. 4.1.62

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