14. 1987 The Tom Davies Report – Agricultural research and development in the Islands 1969-1986

Tom Davies was the Team Leader of the 1969 Overseas Development Administration (ODA) Team, and he subsequently continued to be involved in agricultural research on the Islands for the next seventeen years. In 1986 he published a survey of the work of various research projects.

In the face of inexorably rising costs (particularly labour and freight charges) and the threat from the man-made fibre industry the 1969 team concluded that profit margins from sheep farming could only be maintained by either cutting costs or increasing output - preferably both. The team tackled the notoriously difficult subject of increasing the survival rate of lambs. They recommended that the '2-pasture system' pioneered by the Hill Farming Research Organisation be adopted. The team proposed that the better areas should be fenced off and used to provide better nutrition at critical times in the ewe's breeding cycle.

Davies noted that in the middle 1970s itinerant shearing gangs had begun to appear on the farming scene. The availability of contract shearers had a profound effect on the farms of the Islands in two major ways. First, it has enabled most farms to reduce their regular labour force drastically - and thus cut costs. This has resulted in the abandonment of remote 'outside' shepherd's house in Camp. 'Thus there has been a further opportunity to cut costs … Whether this trend is in the long-term interests of the Islands is another matter.'[1]

The second major effect of the availability of shearing gangs was to facilitate the policy of splitting large farms into smaller units. Other factors also played a part in the division of the farms; the political will and the availability of government finance were essential, but the advent of contract labour made the division a practical possibility.

One of the first consequences of the sub-division was the urgency for much more fencing. Most of the camps were far too large, and some of the new smaller farms

[1] Davies, T; (1987) *Agricultural Research and Development in the Falkland Islands 1969-1986*; Stanley & London: HMSO; paragraph 1.11.

consisted of only one or two camps. This would have made it impossible to keep different ages of stock separate. Fencing has become much cheaper, and as a result there has been an enormous increase in fencing on Islands farms. Financial assistance from the Government has meant that on many farms, four miles of fencing has been erected for the same price as one mile of traditional fencing.

An agricultural research centre was set up by the ODA in 1976, and it was originally called the Grasslands Trials Unit. In 1981 this became The Falkland Islands Agricultural Research Centre; in 1985 the name was changed to Agricultural Research Centre. In 1992 the research function was subsumed within the Falkland Islands Department of Agriculture.

By 1978 it became apparent that the 2-pasture system had major difficulties when applied to the Islands. There was not enough good quality natural pasture, and what good pasture that was available, was too far spread out to be fenced economically. 'In short, good natural pastures were too few and far between.'[2] Davies concluded that despite all the efforts of pioneering farmers and scientific advisors in the past, nothing of a scientific nature was known about re-seeding under Islands conditions. This is a sad admission of failure in light of all the efforts of the preceding 130 years.

Alongside the effort to increase the numbers of young sheep, considerable research had been carried out to increase understanding of the principal natural grass species of the Islands - Whitegrass (*Cortaderia pilosa*).[3]

The Report outlined the many attempts which have been made to establish leguminous herbage plants in the Islands. 'Their ability to fix atmospheric nitrogen would clearly be of enormous benefit to agriculture.'[4] The Report charted a series of experiments with leguminous plants, but it concluded that the results have been very disappointing.

[2] ibid.; paragraph 2.7.
[3] ibid.; paragraph 2.18.
[4] ibid.; paragraph 8.1.

In discussing the work carried out on natural grasslands Davies admitted that the ARC gave a low priority to research work on Tussac grass for two reasons. Firstly because it currently made little impact on wool production in the Islands, and secondly because the effort necessary to reinstate enough Tussac grass sufficient to make an impact, prior to sub-division, was beyond the scope of most farms. However with the creation of small family farms the prospects for Tussac had changed.[5] Thus, after nearly 200 years of human exploitation, Davies provided the first clear account concerning the difficulties of re-establishing Tussac plantations. Work by D Walton of the British Antarctic Survey and J McAdam of Queens University of Belfast had begun to investigate the problems associated with the establishment of Tussac grass. Their work, which continues, covered such aspects as the spacing of plants, the size necessary of the transplanted 'sets', nitrogen requirements and weed control. The research project included the Tussac of both the Islands and South Georgia.

Davies concluded by noting that one of the important results of the research to date was 'that the effort of reseeding is not worthwhile in terms of extra grass produced unless annual dressings of nitrogenous fertiliser are applied.'[6] Better use must be made of natural pastures; management techniques must be changed in order to utilise whitegrass. The possible use of Tussac grass in appropriate situations needed to be re-examined.

[5] ibid.; paragraph 9.31.
[6] ibid.; paragraph 11.5.