THE MERINO SHEEP IN THE EAST KIMBERLEY

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I. INTRODUCTION

Research work at Kimberley Research Station in the period 1947 to 1964 has shown that two of the most serious dangers to successful development of an irrigated agriculture in this dry tropical region are the build-up of weeds (van Rijn 1962) and insects (Richards 1964). There is little direct evidence of a lowering of soil fertility from continued cropping, but there is some indirect evidence that this does occur (Thomson, personal communication; Beech, personal communication). Following the failure of cultivation to control weeds there is an increasing reliance on herbicides for weed control and heavy spray schedules are needed for insect control. Despite these costly measures only partial control has been achieved. Cotton is expensive to grow and small losses of production can make profits marginal. However, apart from considerations of cost, the continued heavy application of chemicals presents some danger to the human population and by destroying birds and amphibians may change the biological balance.

Sheep could be of great value in this environment by cleaning up fallows, destroying crop aftermath and maintaining weed-free channels, drains and verges. The destruction and disturbance of plant growth would eliminate habitats for carryover of insect pests and disease.

The present possible sources for the supply of sheep to farmers are unsuitable because:

(a) Cast-for-age sheep from West Kimberley are too wild and transport costs are high in relation to life expectancy.

(b) Sheep from the southwest would have to be acclimatised and transport costs would be high.

(c) The establishment of farm breeding flocks within the irrigation area, where land is limited, is not warranted because the sheep are to be employed for a specific purpose and the farmers are specialists in agriculture.

As these alternatives lack flexibility, is it possible for the East Kimberley to be the source of sheep?

II. HISTORY OF SHEEP IN THE KIMBERLEYS

The Merino sheep was introduced to the West Kimberley at Beagle Bay in 1879. The coastal areas were shown to be unsuitable due to flooding and sheep flocks moved further east. The expansion continued up to Noonkanbah on the Fitzroy and then stabilised (Bolton 1954). The industry in the West Kimberley has had two periods of decline and at present appears stagnant. Competition by grazing marsupials for the available herbage limits further expansion (Fitzgerald, personal communication).

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Two Victorian squatting companies landed sheep in the North Kimberley in 1885. They commenced activities with 3,000 sheep at Forrest and Roe Rivers. Trouble with the aborigines, scurvy and sickness amongst the white employers and the unsuitability of the area caused abandonment by 1888. Lacy (personal communication) reports that some of these sheep survived until the mission was established at Forrest River. The missionaries at Kalumburu on the north coast imported sheep (Merinos and Romney Marsh) from Noonkanbah and the south. These sheep “did well as regards lambings, the meat was good and fat” (Common, personal communication). Grass seed was troublesome, but the greatest problem was the dingo which attacked sheep even in the night yard. A mob of Merinos was inspected by Ion Idriess (1937) at Merry’s station north of the Leopolds. These had been overlanded from Noonkanbah and had survived and grown fat. Their fate has not been determined, but they probably were killed out or neglected during the war.

In the South Kimberley, F. G. Taylor had a mob of 1,100 Merinos at Rockhole Station (Anon. 1929). They had been bred by Mr. Taylor and were of average frame, good staple and wool quality, and produced about 6 lb (2.7 kg) per head per annum. These sheep were running on 16,000 acres. Mr. Essy was another small holder in this area. It appears these flocks were in existence up to the war years and probably faded out at this time. The missionaries also have a flock at Balgo Hills on the borders of the desert. These sheep do well but losses are heavy from dogs and spearing by desert aborigines.

In the central Kimberleys sheep were run at Moola Bulla between the years 1928 and 1940 (Anon. 1928; Anon. 1940). These sheep prospered but there are no further data available. A small household flock was shepherded at Bow River Station on the Turkey Creek Road for several years and increased under closed flock conditions. The flock was finally transferred to Balgo Hills (Mrs. S. Lilley, personal communication).

Sheep are reported to have been grazed as a household flock at Ord River Station in the 1920’s. Argyle Downs on the Behn has had a small flock for many years. Lacy (personal communication) states that the original sheep may have come from Forrest River. The lessees of Argyle had a sheep stud in the south west (Behn-Ord) and importations were made from this source. The last ram was imported in 1928 (Davidson, personal communication). We inspected this flock several times in 1961 to 1963. The sheep are strong framed, open faced, plain bodied with bare points and carry a fleece estimated at 5 lb (2.3 kg). The average weight of the rams and ewes is 143 and 102 lb (65 and 46 kg) respectively. The flock appears likely to fail due to an uneven sex ratio; the Department of Agriculture has now acquired these sheep for experimental purposes.

III. REPORTS OF EXPERT COMMITTEES

The Government of Western Australia sent an expedition under F. S. Brockman, Senior Surveyor, to inspect the North Kimberley in 1901. He reported, “The whole of the district north from the Leopold Range contains between seven and eight million acres of valuable pastoral country. Since most of this country carries fine grasses and is situated at considerable altitude above sea level I consider it is eminently suitable for sheep” (Anon. 1902).
Lefroy and Evans (Anon. 1929) inspected the country about Halls Creek, Wyndham, Argyle, Newry, Auvergne, Victoria River Depot, Victoria River Downs, Inverway and Flora Valley and reported on its suitability for sheep. They classified the sheep lands in the Northern Territory and Western Australia as follows:

Class 1. Coastal lands, rainfall 30 in. (760 mm), subject to flooding, growing wet rank grass with much grass seed; this land was considered unsuitable for breeding but suitable for wethers. Examples are Kimberley Research Station, Forrest River.

Class 2. Mountainous (hilly) lands, rainfall 25 in. (635 mm); growing spinifex and other bunch grasses with much grass seed. An example is Bow River.

Class 3. Mitchell and mixed bunch grass pastures-rainfall 25 in. (635 mm). This country was thought to have a potential carrying capacity of one sheep to four or five acres. Examples are Argyle, Newry, Rosewood, Ord River, Northern Victoria River Downs.

Class 4. Undulating plains and hilly country growing Mitchell and short grasses, 20 in. (510 mm) rainfall. Described as true Merino country. Examples are Victoria River Downs, Sturt Creek, Upper Ord River.

These land classes are essentially graziers’ evaluations. The pastures of Classes 3 and 4 resemble the Mitchell grass country of Perry’s (1960) classification. The commissioners considered the costs of fencing, water and grass seed infestation on Class 1 and 2 lands, and the dingo would be problems associated with development.

In 1937, Payne and Fletcher (Anon. 1937) examined the Northern Territory and inter alia reported on the suitability of the Kimberley side for sheep. The areas examined were Classes 3 and 4 above. They estimated that 13 million acres of land in the East Kimberley and the north west of the Northern Territory were suitable for sheep, with an average carrying capacity of one sheep to seven acres. They thought the dingo and grass seed would be of minor importance.

IV. EXPERIENCE WITH SHEEP AT KIMBERLEY RESEARCH STATION

In April, 1962, 25 cast-for-age wethers were obtained from the Derby area. These sheep were very wild and facilities for their care were minimal. During the following year the sheep were yarded at night when practicable; when the sheep were not yarded losses from dingo attack were heavy.

A measure of the problem is shown by the 15 dogs poisoned and found on the baited area. Five fleeces were submitted for appraisal; four averaged 6.6 lb (3 kg) and one from a very old sheep weighed 3.3 lb (1.5 kg). The quality was average but there was some colouration. Examination of the fleeces of sheep killed by dingoes showed similar growth and condition. These sheep were on a low plane of nutrition at the end of the dry season and during the wet season grazed on a waterlogged black soil paddock. Losses were due to dingo attack and accidents.

V. DISCUSSION

Despite the suitable environment, a sheep industry has not been developed in East Kimberley. The reasons may be found in the pattern of settlement and economic development in the region. In brief these are:
(a) The original pioneers were Queensland cattlemen.
(b) The best potential sheep lands were the best cattle lands.
(c) The original pioneers held their leases for long periods.
(d) When the leases were sold they were purchased by companies engaged in
the manufacturing side of the beef industry.
(e) The problems of geographical isolation were too great to overcome.

All available evidence indicates that an extensive Merino grazing enterprise
could be established in the East Kimberley. Breeding could be carried out on the
headwaters of the Ord (Class 3 and 4 lands), and drafts of sheep could be for-
warded to the irrigation area for agricultural purposes. Much of the Class 3 and 4
lands has been devastated by uncontrolled cattle grazing and perhaps by drought
(Fitzgerald 1960). This country is now being fenced and reseeded and is to be
grazed by cattle under supervision. However, many years will elapse before these
lands can be grazed with safety and the costs of treatment are high in relation to
the return from a range cattle industry. The easier management of sheep, coupled
with higher returns, make the establishment of a sheep industry attractive. Some
fencing costs for dingo control would be higher but internal fencing could take
the form of cheap “pony” fences.

The value of sheep in the agricultural enterprise has been demonstrated in
southern Australia. Sheep can be used to remove unwanted plant growth whilst
maintained on a low plane of nutrition. They give a return in wool, and may be
rapidly fattened for slaughter. Cununurra clay is self-mulching and there should
be minimal change in the physical character of this soil from trampling by sheep.
Concentration of sheep on channel banks during wet periods should aid in con-
solidation of banks. There is some danger of sheep spreading weeds, but this could
be overcome by management. The sheep should be used at a stocking rate sufficient
to prevent weeds from seeding, and yarding at night for 12-14 hr would further
reduce spread. Weed seeds are spread rapidly by irrigation, rain water and agricu-
tural machinery in this area.

The East Kimberley is now on the threshold of a new period of development
associated with irrigated agriculture at Kununurra. This agriculture can aid the
cattle industry by provision of supplements (Auty 1964). It appears that some of
the cattle lands could be withdrawn and used for sheep grazing as a direct aid to
regeneration on the Ord catchment and an indirect aid to irrigated agriculture.
There are many problems associated with the establishment of a sheep industry
but with research and planning they should be readily overcome.

VI. REFERENCES

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