Pastoral research - 'Munda" Field Day demonstrates real progress in the Port Hedland area

W. M. Nunn

Follow this and additional works at: https://researchlibrary.agric.wa.gov.au/journal_agriculture3

Recommended Citation

This article is brought to you for free and open access by Research Library. It has been accepted for inclusion in Journal of the Department of Agriculture, Western Australia, Series 3 by an authorized administrator of Research Library. For more information, please contact jennifer.heathcote@agric.wa.gov.au, sandra.papenfus@agric.wa.gov.au, paul.orange@dpird.wa.gov.au.
PASTORAL RESEARCH

“Munda” Field Day Demonstrates Real Progress in the Port Hedland Area

By W. M. NUNN, B.Sc. (Agric.), Officer-in-Charge, North-West Branch

WHEN a programme of research was first put in hand at Abydos Research Station in 1951, it was generally thought that an almost impossible task was being undertaken—that of demonstrating that sheep might still be carried profitably on country which had been abandoned after years of occupation as commercial sheep stations.

Some half-dozen stations, comprising about 3,000,000 acres, had been abandoned in the early nineteen forties after flocks of 15,000 and 20,000 sheep had dwindled to mobs of a few thousand or less. Why had the carrying capacity decreased so alarmingly, and could the trend be reversed to enable the country to be occupied once again?

These were the questions as they were asked in 1946 when the then Premier (Mr. F. J. S. Wise) directed that the Abydos and Woodstock leases be vested in the Department of Agriculture for development as a Pastoral Research Centre.

The task was rather a frightening one, especially as at that time the Department of Agriculture had no staff trained for pastoral area investigations, and no advisory personnel in the lease-hold regions.

It is not to be wondered that subsequent governments baulked a little at embarking on a research programme, and turned hopefully to the Commonwealth Scientific and Industrial Research Organisation for consultation. C.S.I.R.O. declined even more firmly. Here was a field where lengthy and costly research could go on for years and still produce nothing. Agricultural graduates were hard to obtain for positions much easier to fill than that of research worker at such an isolated post as Abydos.

And so, for a few more years, the region remained neglected, and the leases were simply maintained in working condition against the time when research might become a practical possibility.

In 1950, impetus was given to the Department of Agriculture’s interest in northern
areas, by the formation of a North-West Branch, grouping the Gascoyne, Kimberley and Abydos Research Stations and making provision for the appointment of Agricultural Advisers to work from each of these three centres. One of them, Mr. Hank Suijdendorp, was prepared to accept the hardship of residence in spinifex isolation.

The next bewildering problem was—"How do we start, and whatever do we do first in this great sea of prickly and uninviting spinifex, which sheep were said to eat though we couldn't imagine why?"

The initial trials were, naturally, ill-designed in the absence of any basic information concerning the forages that had provided the earlier carrying capacity, but Mr. Suijdendorp turned out to be an astute observer and a hard worker, and he soon made adjustments necessary to direct trials toward the main objective.

Really remarkable results were obtained during 1952 and 1953. So much so that a field day was arranged for April 3, 1954, when pastoralists were shown trial areas of country carrying an attractive stand of perennial grasses where spinifex alone had been in evidence for years. By simply managing his grazing on a deferred rotational system Mr. Suijdendorp had converted a pure stand of spinifex into a mixed stand of grass and spinifex, and had carried a sheep to three acres throughout the year while doing so.

These results have been written up in earlier issues of "The Journal of Agriculture," and are available in leaflet form for distribution to interested readers—see particularly:—"Station Management—The Value of Deferred Grazing," Leaflet 2194, by W. M. Nunn and H. Suijdendorp, and "Changes in Pastoral Vegetation can provide a Guide to Management," Leaflet 2302, by H. Suijdendorp.

This does not mean that Abydos goes straight back into operation as a wool-
producing station. We have dealt with only one of the soil types which go to make up the area. The next, now under attack, consists of country rather less fertile, where grasses do not flourish and where the edible types of spinifex have been replaced by a complete stand of quite unpalatable and useless woolly spinifex (*Triodia lanigera*). This type may be very much slower to respond, but since one of the best of the palatable spinifexes (*Plectrachne schinzii*) is represented, the objective is to try to induce it to spread at the expense of its less useful relative.

In the meantime, work of this nature is not confined to Abydos. The Port Hedland group of the Pastoralists' Association is too lively a body to allow that to happen in their district. They have turned up in force to two field days at Abydos—the first in April 1954, the second in April 1955, and on Saturday, April 14, 1956, the third Pastoral Field Day was held, this time at Mundabullangana Station.

This station is owned by the Mundabullangana Pastoral Co., and managed by Mr. R. Lukis, who is also President of the local branch of the Pastoralists' Association.

A truly remarkable degree of co-operation has existed between Mr. Lukis and Mr. Suijdendorp, since the latter commenced his studies in the Port Hedland area. "Munda." is one of the outstandingly successful stations of the area, and its facilities and manpower have virtually been placed at Mr. Suijdendorp's disposal for research purposes, with the result that trials on the different types of country here available have been carried out just as if it were a Government research station.

The field day on April 14, was a triumph in local organisation as well as an outstanding success in its value as an extension function. Pastoralists travelled from stations up to 450 miles distant to be present, and there were very few stations within a 200 mile radius which were not represented.

The Munda. shearing quarters provided better accommodation than has been available in earlier years at Abydos, and the Richardson Bros. did their usual excellent job of volunteer catering.

Although Munda, is an excellently-run station in a favoured coastal location, this has not spared it from the ills of overgrazing in the earlier years of continuous stocking at high levels, which seems to have characterised all pastoral regions.
The same excessive stocking practice, which at Abydos resulted in the replacement of grasses by spinifex on Type 1, and of palatable soft spinifex by inedible woolly spinifex on Type 2, has, on Munda., brought about the formation of thousands of acres of bare claypan where high production grasslands were originally established. On another type, the continuous stocking procedure of earlier days has resulted in the invasion of grasslands by poverty bush (*Acacia translucens*) to such a degree that the more seriously affected regions had become virtually useless for grazing purposes, while areas totalling probably 150,000 acres were affected to various lesser degrees.

**RECOVERY OF CLAYPAN AREAS**

Work on these areas commenced in 1951, and visitors were able to inspect sections which had been furrowed at different times since that year with a variety of agricultural implements. Most success had been obtained using a 3-furrow mouldboard plough with the middle share removed. This left two parallel deep furrows, with soil thrown up in a cloddy condition. The rougher the obstruction left in this way the better, as the objective is to check the velocity of ground level winds and bring about the collection of seed, soil and debris in those furrows.

Areas treated this way in 1952, with half-chain spacings between furrows, had been virtually covered over with a complete sward of grasses.

Perhaps the most telling part of the demonstration, so far as visitors were concerned, was the drive through thousands of acres of recently-furrowed claypan. This is no longer a trial treatment of uncertain outcome to Mr. Lukis. It is a routine station practice, and his plant is busy applying the treatment on a paddock-wide basis wherever these bare areas exist.

Deferred grazing is, of course, an essential part of the recovery programme. The furrows catch the seed and windborne soil particles. Deferment ensures that the plants produce and mature their seed for the densening of the cover in later years.

**RECOVERY OF POVERTY BUSH AREAS**

Only a few seasons back, when the first light seemed to be coming from the Abydos trials, where spinifex was disposed of by burning and grazing was deferred to promote grasses, the author inspected these poverty bush areas with Mr. Lukis and Mr. Suijwendorp. We felt that as an invader the bush should be capable of elimination, and if this could be arranged, then simple deferment should bring back the grasses. But poverty bush consists of a relatively loose tangle of sticks with an evergreen
S. D. S. 
COLLOIDAL CATTLE DIP 
and SPRAYING SOLUTION 
10% DIELDRIN 
For the control of CATTLE TICK 
One gallon of S.D.S. Cattle Dip Concentrate 
makes 200 gallons of dipping fluid of .05 per cent. Dieldrin. 
PRICE £5 0 0 per gallon 
(F.O.R. Fremantle) 

S. D. S. 
COLLOIDAL SHEEP DIP 
and JETTING FLUID 
4% BENZINE HEXACHLORIDE 
10% DIELDRIN 
Plus Antiseptics 
ONE treatment gives sheep protection against Ked, 
Lice and BLOWFLIES. 
One gallon of S.D.S. Sheep Dip Concentrate makes 
400 gallons of dipping fluid. 
POURS STRAIGHT INTO DIP, REQUIRES NO AGITATION OR REINFORCEMENT DURING DIPPING. 
PRICE £5 5 0 per gallon 
(F.O.R. Fremantle)
PRICES REDUCED
AS FROM MAY 14th, 1956

NOW — STRONGEST . . . AND CHEAPEST

Implement Sheds—
20 ft. and 30 ft. Span
in 10 ft. Bays

SHEARING SHEDS TO YOUR OWN REQUIREMENTS

Hay Barns—
20 ft. and 30 ft. Span
12 ft., 14 ft. or 16 ft. High
on R.S.J. Columns

WRITE FOR NEW PRICE LIST

TERMS can be arranged

WRITE . . . PHONE . . .
or call and see us with your problem.

UTILITY BUILDINGS PTY. LTD.
83 ST GEORGE TERRACE PERTH • 82250 BF1674

Please mention the "Journal of Agriculture, W.A." when writing to advertisers
layer of foliage two or three feet above ground. The sheep can get in and keep down the few grasses that survive under this degree of competition. It is almost impossible then to muster them, and the bush won't carry a fire.

This seemed to be a stalemate at the time, because there could certainly be no means other than by fire of economically removing a hundred thousand acres of poverty bush.

However, the answer was there to be seen on April 14, by the 54 interested visitors. Sheep had been removed from the paddocks in question for the growing period during two consecutive summers, to obtain a build up of inflammable material in the form of grass and spinifex below
the poverty bush. A rotary slasher was used to cut down lines a few chains apart to provide starting points for fires (Mr. Lukis now thinks a light scrub roller would be better), and at the appropriate time that poverty bush went up in a blaze.

Another deferment during the growing season following the fire, and those thousands of acres presented a picture of perennial grasses with only some black sticks to show that the poverty bush had once held sway.

In all, Mr. Lukis burned 40,000 of his 150,000 acres of poverty bush last summer. Jeeps dragging burning motor tyres over the accumulated material in hot summer overcame the final reluctance of the poverty bush to carry a fire.

Of course the poverty bush would return again if earlier continuous grazing methods were resumed, but the position is much clearer now, thanks to Mr. Suijendorp's studies, and Munda. will make sure that grasses are given their opportunity to mature and drop seed. This is all the help they need to enable them to beat the slow growing poverty bush.

Illustrating the value of this work to Munda., Mr. Lukis stated that the 40,000 acres treated this year might have carried a sheep to 15 to 20 acres, but was rapidly going further downhill. Since recovery he now rates it as a sheep to five acres.

Once again it has been demonstrated that research carried out on a practical basis pays high dividends. There is call for more and more of this class of investigation throughout the pastoral regions.

---

**BINDING OF JOURNALS**

To keep your journals clean, orderly and readily accessible, have each volume of six issues strongly bound in a durable and attractive cover.

- 29/- for completed binding including cover.
- 24/- with cover supplied by customer.
- Packing and postage is FREE.

Please enclose name and address and cost of binding with journals, and send to:

A. PRITCHARD,
General Bookbinders,
130a Murray Street,
PERTH, W.A.

SATISFACTION GUARANTEED
WHALING RELIC AS WATER-TROUGH

This massive cast-iron cauldron which now serves as a water-trough for pedigreed Hereford cattle was once a try-pot used for boiling down blubber in the early whaling days of Western Australia.

It is on the property of J. and C. Barbetti, Waterloo, and appears to have been on the property for 50 years or more. As far as can be ascertained, it was brought from Bunbury by a previous owner of the property. Despite its great age, it still appears to be in excellent condition.

WATER SAMPLES FOR ANALYSIS

Samples of water for stock, irrigation and domestic purposes, are analysed by the Government Chemical Laboratories, Adelaide Terrace, Perth, on compliance with the following:—

A. Each sample should—

(a) Be approximately one pint of water in a clean container which has been previously rinsed with the water to be tested.

(b) Be clearly marked with the sender's name, address and date of sampling.

(c) Be securely packed and addressed to the Government Chemical Laboratories.

B. At the same time, a letter should be forwarded stating:—

(a) That the applicant is a bona fide farmer, market gardener, grazier, etc., and that the analysis is required in connection with his business as such.

(b) The source of the sample, e.g., bore, well, spring, etc., and its depth, and the location number of the property from which the sample was obtained.

(c) Enclosing the fee of 7s. per sample. This fee applies only to those who qualify under paragraph B (a) otherwise the fee is £1 1s. per sample.

Should the analysis be required very urgently, this should be stated in the letter and the cost of a telegram added to the fee, when a telegram will be sent immediately the analysis is completed.
A convict was Australia's first farmer

James Ruse was a convict. He could not spell, but wrote his epitaph and carved his own tombstone.

He is remembered in Australian history because he was our first farmer. He sowed our first wheat. Born in Cornwall, England, in 1760, James Ruse arrived in New South Wales in 1788. The following year he was selected to carry out an experiment which had far-reaching results.

Ruse was given property at Rose Hill, near Sydney, to find out how long it would take a man to support himself. He cleared the allotment, planted 1 1/2 acres of wheat, half an acre of maize, and some vegetables. Two years later he was self-supporting. Subsequently, 44 convicts, 31 marines, 9 seamen, and a superintendent were granted about 4,000 acres of land, and Australia's farming industry was born.

When James Ruse died in 1837, he was buried at Campbelltown cemetery. His epitaph claims

"My Mother reared me Tenderly With Me She Took Much Pains And When I Arrived in This Coelney I sowed the First Grain and Now With My Heavenly Father I Hope For Ever to Remain."

James Ruse and his fellow-farmers of the 1790's would be astonished to see the service Shell are providing to farmers today.

A variety of products derived from petroleum are helping the man-on-the-land to boost production and reap richer dividends.

These products include weed-killers, insecticides, soil fumigants, hormone sprays, lubricants, and oil based solvents used in making drugs to fight stock diseases.

SHELL is the farmer's friend!