

1913.

—
WESTERN AUSTRALIA.

ANNUAL REPORT

OF THE

WOODS AND FORESTS DEPARTMENT

FOR THE

YEAR ENDED 30TH JUNE, 1913,

BY

C. G. RICHARDSON,

ACTING INSPECTOR GENERAL OF FORESTS.

Presented to both Houses of Parliament by His Excellency's Command.

PERTH:

BY AUTHORITY: A. CURTIS, ACTING GOVERNMENT PRINTER.

—
1913.

No. 20.

APPROXIMATE COST OF PAPER:
Printing (520 copies), £7.

WOODS AND FORESTS DEPARTMENT.

REPORT BY THE ACTING INSPECTOR GENERAL OF FORESTS.

Woods and Forests Department,
Perth, 20th September, 1913.

The Hon. the Minister for Lands.

Sir,—

I have the honour to submit my fourteenth Annual Report upon the operations of the Woods and Forests Department for the financial year ended 30th June, 1913.

I have, etc.,
C. G. RICHARDSON,
Acting Inspector General of Forests.

REVENUE AND EXPENDITURE.

The following statement shows the revenue and expenditure of the Department since its inception in 1895:—

Year.	Revenue.	Expenditure.
	£ s. d.	£ s. d.
1st January to 31st December, 1895	3,175 5 2	1,108 5 5
1st January to 31st December, 1896	4,838 11 2	2,020 11 5
1st January to 31st December, 1897	12,320 6 4	3,489 14 4
1st January to 31st December, 1898	30,150 6 3	3,356 5 7
1st January to 31st December, 1899	16,999 11 3	2,438 7 5
1st January to 31st December, 1900	15,525 19 2	2,648 11 10
1st January to 31st December, 1901	18,477 16 2	2,747 6 3
1st January to 31st December, 1902	18,752 11 7	4,301 6 1
1st January to 31st December, 1903	20,478 9 1	3,789 3 4
1st January to 31st December, 1904	20,018 19 4	4,192 16 9
1st January to 31st December, 1905	18,479 18 6	5,089 18 6
6 months, 1st January to 30th June, 1906	10,973 18 4	3,385 1 9
1st July, 1906, to 30th June, 1907	22,783 1 5	6,207 15 2
1st July, 1907, to 30th June, 1908	23,498 13 3	8,801 14 3
1st July, 1908, to 30th June, 1909	29,484 3 8	9,030 12 6
1st July, 1909, to 30th June, 1910	31,549 6 11	8,531 0 9
1st July, 1910, to 30th June, 1911	37,477 3 5	8,862 16 8
1st July, 1911, to 30th June, 1912	44,560 10 10	10,469 4 10
1st July, 1912, to 30th June, 1913	48,236 14 0	11,463 2 11
	427,781 5 10	101,933 15 9

From the above statement it will be seen that to the 30th June, 1913, the revenue exceeded the expenditure by the large sum of £325,847 10s. 1d.

Revenue and Expenditure for the Year ended 30th June, 1913.—The revenue derived from the forests of the State for the year under review amounted to the large sum of £48,236 14s., which is an increase of £3,676 3s. 2d. over that of the previous year, and is the highest revenue ever collected from timber during the history of Western Australia.

With the present prosperous condition of the timber industry and the opening up in the near future of large areas of forest country by the State mills, now in course of erection, there is every prospect of the revenue derived from timber being considerably higher next year.

It is contended by many that the State should derive a greater revenue from its forests than at present, and that the royalty should be increased.

This could easily be done, and the revenue might possibly be doubled, but when it is remembered that the forest lands are not held under the same conditions, that the big timber companies hold areas under lease while the permit holders and hewers have to pay so much per load for the timber cut, it will be seen that the royalty cannot be increased at present without causing an injustice to many.

The details of the revenue are as follows:—

	£	s.	d.
Rent on timber leases	11,542	5	0
Timber licenses, royalty on timber and sandalwood	32,467	3	2
Timber inspection fees	4,227	5	10

The total expenditure of the Department for the period above referred to amounted to £11,463 2s. 11d.

PINE PLANTING.

An additional area of 140 acres was planted with pines during this season at the Ludlow Plantation on the Boyanup-Busselton Railway line.

This plantation now embraces between six and seven hundred acres of land, has so far been a great success, and is one which is most encouraging for future planting.

Not only has the numerical result been satisfactory, but the growth of the trees has been really astonishing.

As regards height, the best results have been obtained from the Remarkable Pine (*Pinus insignis*). Trees of this species occupying the oldest portion of the plantation are now 20 feet in height, although only planted five years ago.

The total number of pines planted this season at the Ludlow Plantation was 95,200.

STATE NURSERY.

The State Nursery at Hamel now presents a very fine appearance and is well worth visiting.

A fine stock of trees has been grown there this year for distribution to the public, the various kinds and numbers of which are shown in the subjoined list:—

List of Trees and Shrubs raised in the State Nursery.

Agonis flexuosa	Peppermint (W.A.)	546
Acacia Baileyana	Silver Weeping Wattle (N.S.W.)	3,576
Acacia decurrens	Black Wattle (N.S.W.)	1,308
Acacia dealbata	Silver Wattle (Queensland)	3,108
Acacia pycnantha	Golden Wattle	3,528
Araucaria Bidwilli	Queensland Pine	
Araucaria excelsa	Norfolk Island Pine	2,936
Ceratonia siliqua	Carob Bean	2,416
Cupressus (of sorts)	Cypress	8,837
Eucalyptus citriodora	Lemon-scented Gum (Queensland)	1,134
Eucalyptus corynocalyx	Sugar Gum (S.A.)	9,828
Eucalyptus ficifolia	Red-flowering Gum	1,787
Ficus Australis	Pt. Macquarie Fig	
Ficus macrophylla	Morton Bay Fig	4,500
Lagunaria Pattersonii	Pyramid Tree	792
Phoenix dactylifera	Date Palm	219
Pittosporum undulatum	Cheese Wood	1,116
Schinus molle	Pepper Tree	6,530
Grevillea robusta	Silky Oak	714
Thuya occidentalis	Northern White Cedar (Arbor vitae)	1,016
Laurus Camphora	Camphor Laurel	2,114
Sterculia	Kurrajong	2,960
Robenia Pseudo Acacia	False Acacia	4,266
Melia Adzedarach	Pride of India	
Salix Aurea	Basket Willow	
Populus fastigata	Lombardy Poplar	
Platanus orientalis	Plane Tree	1,071
Populus Alba	Silver Poplar	103
Pinus insignis	Remarkable Pine	99,972
Pinus halipensis	Aleppo Pine	
Alberia Caffra	Kei Apple	3,700
	Texas Umbrella Tree	4,104
Acacia Melanoxylon	Blackwood	
Morus Alba	White Mulberry	
Salix Babylonica	Weeping Willow	
Tamarix Gallica	Tamarisk	
Sterculia Acerifolia	Queensland Flame Tree	419
Eucalyptus Globulus	Blue Gum	4,368
Dracaena Draco	Dragon's Blood	416
Syncarpia laurifolia	Turpentine	
	Hakeas	240
Quercus Hodgkinsonii	Evergreen Oak	
Fraxinus Excelsior	English Ash	
Agave rigida	Sisal Hemp	300
		177,924

The cost of the maintenance of the Nursery for the year under review only amounted to £695 5s. 9d. This is a comparatively small sum, and when it is stated that something like £3,000 worth of trees raised at the Nursery this year have been distributed throughout the State, I think it will be admitted that the money has been well spent.

DISTRIBUTION OF TREES.

During the year ended the 30th June last, 1,021 applications were received for trees for planting in State school grounds, public parks, cemeteries, Government reserves, municipalities, etc., and from settlers and residents of the Goldfields for shade and shelter purposes.

The following list shows the number of trees and the various public bodies to which same were supplied during the planting season:—

Name.	Country Districts.	Goldfields and Nor'-West.
Australian Natives' Association	4,250	
Board of Health	710	
Churches	5770	
Convents	225	
Cemeteries	120	150
Government Institutions	1,089	332
King's Park	5476	
Municipalities	8,691	912
Old Men's Home	134	
Progress Associations	4,392	600
Parliament House	518	
Roads Boards	15,457	2,050
Railways	2,962	480
Recreation Reserves	490	
Sanatorium, Woorlool	1,620	
Schools	4,601	452
Wireless Station	140	
Zoological Gardens	2,777	
Settlers	38,377	394
	87,799	5,370

From the above list it will be seen that during this season the total number of trees distributed throughout the State amounted to 93,169. This is 14,691 in excess of those distributed last year and shows that the public are becoming more interested in arboriculture every year.

TIMBER IMPORTS.

Through the courtesy of the Collector of Customs I am enabled to furnish the following figures showing the timber imports and exports for the years ended the 30th June, 1912 and 1913.

The value of the timber of various species and sizes imported into Western Australia during the year ended the 30th June, 1912, amounted to £97,663, and for the year ended the 30th June, 1913, the value of the imports came to £119,970, being an increase of £22,307 as compared with the previous year.

While it is to be regretted that such a large quantity of foreign timber has been imported into the State, when our local hardwoods might be used instead, it is satisfactory to note that although during the year ended the 31st December last our exports of timber decreased, the output at the mills showed an increase of 18,719,967 super. feet, being evidence that our indigenous timbers have been used to a greater extent for local purposes.

TIMBER EXPORTS.

The following returns, kindly supplied by the Collector of Customs, Fremantle, show the quantity and value of the timber exported beyond the Commonwealth during the years ended the 30th June,

1912 and 1913, respectively, and the various countries to which same was exported:—

Return showing quantity and value of Timber exported to Countries beyond the Commonwealth during the year ended 30th June, 1912.

Countries to which exported.	Quantities in sup. ft.	Value.
Timber, undressed (other)—		£
United Kingdom	8,632,525	57,559
India	41,514,618	275,781
Natal	6,173,059	40,281
Portuguese East Africa .. .	310,423	2,070
Java	132,216	882
Ceylon	415,830	2,839
Philippines	1,584,792	10,565
Germany	261,708	1,887
New Zealand	12,914,009	86,104
Cape Colony	20,123,062	135,868
Egypt	57,771	385
Uruguay	1,777,140	11,848
Argentina	2,603,112	17,352
China	2,137,404	14,249
Mauritius	448,428	2,990
Belgium	2,643,772	18,222
Total	101,729,874	678,882
Logs (not sawn)—		
India	803,170	5,360
Natal	103,200	688
New Zealand	6,020	42
Argentina	85,800	572
Philippine Islands	1,200	8
Total	999,390	6,670
Grand Total	102,729,264	685,552

As no record is kept by the Customs Department of the timber shipped to the Eastern States, I am unable to give details of such exports for the year ended the 30th June, 1912.

Through the courtesy, however, of the Government Statistician I am enabled to give the value of the timber exported to the Eastern States for the above-mentioned period, viz., £312,442.

As the foregoing return only includes timber exported beyond the Commonwealth, the value of the shipments to the Eastern States, viz., £312,442, should be added to it. This brings the total value of the exports for the year ended the 30th June, 1912, up to the large sum of £997,994.

Return showing quantity and value of Timber exported to Countries beyond the Commonwealth during the year ended 30th June, 1913.

Countries.	Quantity.	Value.
Timber, Undressed (Other)—		£
United Kingdom	11,297,082	66,070
Ceylon	937,606	6,494
India	24,492,165	163,161
New Zealand	10,544,588	70,298
Egypt	49,851	333
Mauritius	229,800	1,532
Natal	18,714,310	126,598
Italy	21,756	145
Uruguay	1,163,892	7,756
Belgium	3,258,520	22,173
Germany	317,381	2,109
Portuguese East Africa .. .	2,006,472	13,376
Cape Colony	20,910,203	141,293
Java	720	5
Straits Settlements	24,996	169
Total	93,969,342	621,512
Logs not sawn and Spars (in the rough)—		
Natal	11,700	78
India	2,376,008	2,009
Egypt	47,035	314
Total	2,434,743	2,401
Grand Total	96,404,085	623,913

The above return, also for the reason mentioned, only shows the timber exported beyond the Commonwealth for the year ended the 30th June, 1913. Through the courtesy of the Government Statistician, however, I am able to give the shipments to the Eastern States. These amounted to 51,481,096 super feet, valued at £340,984, thus bringing the value of the total exports for the year ended the 30th June last up to £964,897.

From a comparison of the foregoing two returns, it will be seen that during the year ended the 30th June, 1912, the total value of the timber exported amounted to £997,994, and that for the year ended the 30th June, 1913, the total exports amounted to £964,897, being a decrease of £33,097.

SANDALWOOD EXPORTS.

The following returns show the quantity and value of the Sandalwood exported from Western Australia during the years ended the 30th June, 1912 and 1913, respectively:—

Return showing quantity and value of Sandalwood exported to Countries beyond the Commonwealth during the year ended 30th June, 1912.

Countries to which exported.	Quantity.	Value.
	cwts.	£
Singapore	4,903	1,956
China	12,415	4,966
India	7,201	3,213
Hong Kong	69,651	33,219
Total	94,170	43,354

Return showing quantity and value of Sandalwood exported to Countries beyond the Commonwealth during the year ended 30th June, 1913.

Countries to which exported.	Quantity.	Value.
	cwts.	£
China	24,340	11,653
Singapore	17,833	5,934
India	9,490	4,184
Hong Kong	51,383	19,216
Total	103,046	40,987

From the foregoing statement, it will be seen that for the year ended the 30th June, 1912, the value of the sandalwood exported from the State amounted to £43,354, while the exports for the same period ended the 30th June, 1913, amounted to £40,987.

The revenue derived from royalty on sandalwood during the year under review amounted to £551 14s. 9d.

MALLET BARK EXPORTS.

The following returns show the quantity and value of the mallet bark exported during the years ended the 30th June, 1912 and 1913.

No record being kept by the Customs Department of the shipments to the Eastern States, these returns only show what was exported beyond the Commonwealth:—

Return showing quantity and value of Mallet Bark exported to Countries beyond the Commonwealth during the year ended 30th June, 1912.

Countries to which exported.	Quantity.	Value.
	cwts.	£
Germany	73,640	30,533
Belgium	34,680	14,034
New Zealand	100	43
Total	108,420	44,610

As the above return only includes the bark exported beyond the Commonwealth, the value of the shipments to the Eastern States must be added.

This, I have ascertained through the courtesy of the Government Statistician, amounted to £13,902, and brings the total value of the exports for the year ended the 3th June, 1912, up to the large sum of £58,512.

Return showing the quantity and value of Mallet Bark exported to Countries beyond the Commonwealth during the year ended 30th June, 1913.

Countries to which exported.	Quantity.	Value.
	cwts.	£
Germany	65,059	26,934
Belgium	42,930	16,424
New Zealand	205	52
Total	108,194	43,410

As the above return also only includes the bark exported beyond the Commonwealth, the value of the shipments to the Eastern States must be added to it.

This, I am informed by the courtesy of the Government Statistician, amounted to £10,642, and makes the total value of the exports for the year ended 30th June, 1913, £54,052, being a decrease of £4,460 as compared with the previous year.

INTERSTATE CONFERENCE ON FORESTRY.

During the year under review an Interstate Conference on Forestry was held in Melbourne, at which representatives from Victoria, New South Wales, South Australia, Tasmania, and this State attended.

Many important questions were discussed dealing with the present and future development of forestry in the various States, and the following papers were read:—

- The identification of indigenous timbers.
- Economisation of waste material.
- Brief notes on mixed planting of eucalypts.
- The forest wealth of Tasmania.
- The indigenous conifers of Tasmania.
- The forest wealth of Western Australia.
- Encouragement of tree planting for economic and shelter purposes in treeless districts.
- Forest and River Red Gum of Australia.

Visits of inspection were made to the Nursery, pine and spruce plantations at Creswick, and the State seasoning kilns and Railway Workshops at Newport.

TEMPORARY TIMBER RESERVES.

Up to the end of the year under review the area reserved for timber amounted to about one million acres.

Unfortunately, in spite of all my recommendations, this area is only temporarily reserved, and it is a regrettable fact that to-day there is not one permanent reserve for timber in Western Australia.

No permanent or successful system of forestry can be founded in this or any other State until forest reserves are permanently set apart and dedicated to forestry for all time, and it should be one of our first duties to set apart sufficient areas of such permanent reserves.

Under the present conditions all our forest reserves are open to selection, are never safe from the inroads of the selector, and are continually being reduced in size.

Fifteen years ago I had numerous reserves set apart for the preservation of timber along the Great Southern Railway, the Eastern Railway, the Yilgarn Railway, and the Midland Railway, and, with the exception of one or two, they have all been alienated in the interests of settlement.

This is the great difficulty that is experienced in every young country in reserving large areas of forest lands, and which we are experiencing here to-day. It is most difficult to retain them intact, as the public will not recognise the national and vital importance of the matter and refrain from agitating for them to be thrown open to selection.

It is, however, not too late to remedy this unfortunate state of affairs, and I again strongly recommend the permanent reservation of large areas of forest country.

The timber is the most valuable crop that will ever grow on a large proportion of the land, particularly that within the jarrah belt, and it is obviously the most absolute folly to allow country with a crop of timber on it worth £50 per acre to be alienated under conditional purchase for 20s. or 30s. per acre.

I know, of course, the difficulties that will be raised and that it will be held to be inadvisable, at this stage of the country's progress, to lock up large areas of land against selection; but while admitting the importance of developing the agricultural resources of the State, upon which to a great extent our prosperity depends, I must at the same time point out the vital necessity of arresting any improvident and unnecessary inroads upon our forest areas.

Western Australia has now arrived at the stage when it is sheer folly to sacrifice the forests of the State even in the interests of land settlement, and it is to be hoped that in the future a more vigorous policy of reserving permanently large areas of forest country will be possible.

The people of to-day hold the forests in trust for the generations to come after them, and if we are to profit by the lessons of the past, it is for us to look beyond the present to the future.

FORESTRY MUSEUM.

Recognising the importance of advertising the hardwoods indigenous to this State, the late Conservator of Forests, Mr. Ednie Brown, in 1896 established a Forestry Museum in which were exhibited samples and specimens of our native timbers.

Many of these exhibits included portions of the buildings, stockyards, bridges, and other structures erected by the early settlers, and were of very great value in illustrating the wonderful durability, etc., of our timbers.

As time went on this museum was increased, and contained some very handsome exhibits of carved jarrah, etc. etc., and attracted considerable attention, not only among residents of the State, but also amongst visitors from abroad.

Unfortunately, however, owing to inadequate office accommodation, this museum has ceased to exist, and there is now no place where the public can see one of the most important products of Western Australia.

In the Eastern States and every part of the civilised world, where Forest Departments exist, museums of economic forestry are attached to them, and it is much to be regretted that in Western Australia, where there is such a wealth of timber, and where the industry is such an important one, that the museum should not be kept up.

The proper place for the display of proper products is, of course, a museum attached to a Forestry Department, as it is naturally there that information as regards the durability, strength, uses, etc., of our timbers would be sought.

It is to be hoped, therefore, that in the near future proper office accommodation will be provided so that a museum can be re-established where the many handsome and valuable timbers of this State can be again exhibited to the public, and where those who have spent many years in acquiring a knowledge of their economic uses can give information regarding them.

INSPECTION OF TIMBER FOR EXPORT.

The following return shows the quantity of railway sleepers, scantling, etc., inspected and branded for export by the various timber inspectors during the year under review, and the different countries to which same were exported:—

Country to which exported.	Sleepers.	Scantling, etc., in loads.
Commonwealth of Australia ..	143,094
India and Ceylon	749,717	7,673 22/50
London	23,353
New Zealand	252,095	1,045 10/50
South Australia	165,097	1,621 20/50
South Africa	1,171,197	481 22/50
South America	10,259
Victoria	1,734	275 23/50
	2,616,546	11,096 47/50

From the above return it will be seen that 2,616,546 sleepers and 11,096 loads of scantling were inspected.

CLASSIFICATION OF THE FORESTS.

One of the most important steps in connection with forest conservation, viz., the classification of our timber areas, has engaged the attention of the Department for some years past, and is now approaching completion.

During the year under review approximately 1,053,000 acres of forest country have been classified by the forest rangers and surveyors working in conjunction, and the various belts of valuable jarrah and karri have now been clearly defined.

The indiscriminate selection of forest country carrying first-class timber has, in the past, resulted in the State losing large areas of forests, but now that the country is surveyed and classified before selection is permitted, there will be less chance of the alienation of valuable timber.

The classification of our forests is the most important step that has been taken by the Government

in the history of forestry in Western Australia, and will result in the saving of hundreds of thousands of pounds to the State.

It must be borne in mind, however, that if any good is to result from this classification the belts of valuable timber must be permanently reserved and dedicated to forestry for all time.

EXPERIMENTAL RE-AFFORESTATION OF JARRAH.

The small reserve of culled forest near Waroona, which was cleaned up for the encouragement of new growth some few years ago, now has a second crop of healthy, vigorous young jarrah on it.

Unfortunately, the cost of carrying out this kind of work was found to be too great to allow of large areas being re-afforested, and only a small area was experimented with.

Before re-afforestation can be carried out upon extensive lines, it will be necessary to permanently reserve and dedicate to forestry large areas from which all the timber of commercial value has been removed, and it is to this cut-out country that we must confine our operations for the encouragement of new growths.

At the present time, however, it is difficult to undertake re-afforestation work of any magnitude in this State, not only because of the great expense that would be entailed, but also because of the difficulty of finding any extensive tracts of country which have been altogether depleted of all marketable timber, and which could be closed against all cutting.

NATURAL RE-AFFORESTATION OF KARRI.

Mention was made in my last year's report of the reproductive powers of Karri and of the many striking instances of the regeneration by natural means of this species throughout the Karri belt.

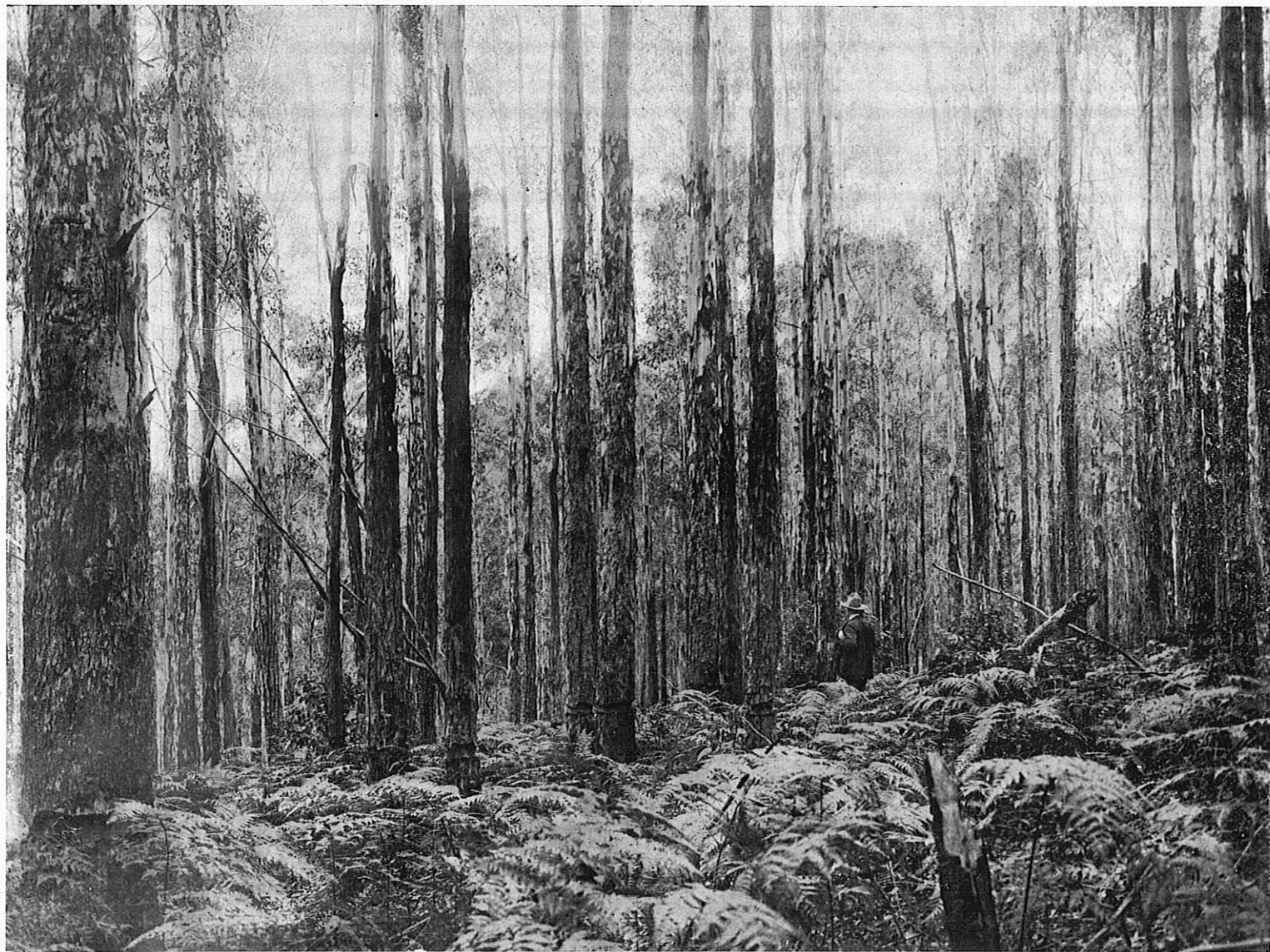
Most of the Eucalypts possess in a marked degree the powers of natural reproduction. So much so, that in the Eastern States it is considered altogether unnecessary to do more than assist Nature by destroying the over mature trees and removing the useless ones.

Karri, in common with all the other Eucalypts, possesses in a very marked degree this power of natural reproduction, and, in addition, is a very rapid grower, so that the problem of re-afforestation in the Karri forests is a comparatively easy one.

The accompanying plate shows the natural re-growth of Karri on portion of an abandoned selection on the Donnelly River, and illustrates how rapidly this valuable species will reproduce itself by natural means.

This area was cleared, trenched, and planted with vines about 35 years ago, was afterwards abandoned, and became overgrown with Karri, as shown in the illustration referred to above.

Unfortunately, the land has been recently re-selected, and this fine young growth was ring-barked a few months before the photograph was taken.



Nature's re-afforestation of Karri.
This block was cleared, trenched, and planted with vines 35 years ago and subsequently abandoned.

SAWMILL PERMITS.

The following return shows the Sawmill Per mits in existence up to 30th June, 1913:—

Name.	No.	Area.	District.
Whittaker Bros.	1/11	20,000	Murray
Ferguson, J. M., Limited	3/11	2,370	Wellington
Bunning, Robert	8/11	4,700	do.
Bunning Bros.	9/11	10,000	do.
Vincent, R. P., and Vincent, W. N.	10/11	19,800	Nelson
Swan Saw Mills, Limited	13/11	2,633	Preston
Do. do.	14/11	9,000	do.
Bunning, Robert	15/11	5,300	Wellington
Adelaide Timber Co., Ltd.	16/11	12,000	do.
Swan Saw Mills, Limited	19/11	1,000	do.
Bunning Bros., Limited	25/11	10,000	do.
S.W. Timber Hewers' Co-O. Society, Ltd.	26/11	17,000	Collie
Do. do. do.	27/11	20,000	do.
Bethell, George Moore	30/11	10,000	Nelson
Port, Honey, & Co., Ltd.	34/11	28,510	Murray
The Timber Corporation, Ltd.	35/11	6,800	Nelson
Bunning Bros., Ltd.	36/11	10,000	Wellington
Lewis, J., and Reid, F. W. S.	37/11	19,730	do.
Wilgarrup Karri and Jarrah Co., Ltd.	42/11	23,000	Nelson
Buckingham Bros.	44/11	18,000	Wellington
Sexton, Walter B.	58/11	15,000	Nelson
S.W. Timber Hewers' Co-O. Society, Ltd.	60/11	38,000	Wellington
The Kauri Timber Co., Ltd.	61/11	58,000	Nelson
Bunning, Robert	63/11	8,000	Wellington
Gull, Hubert E. B.	66/11	75,000	Kimberley
Hon. Minister for Public Works	67/11	17,267	Nelson
Mann, Arthur S.	68/11	32,000	Collie
S.W. Timber Hewers' Co-O. Socy., Ltd.	69/11	5,000	Murray