

1931.

WESTERN AUSTRALIA.

REPORT

ON THE OPERATIONS OF

The Forests Department

FOR THE

YEAR ENDED 30th JUNE, 1931.

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

[FIRST SESSION OF THE FOURTEENTH PARLIAMENT.]

PERTH :

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1931.

KEY TO DISTRICTS AND SUB-DISTRICTS.

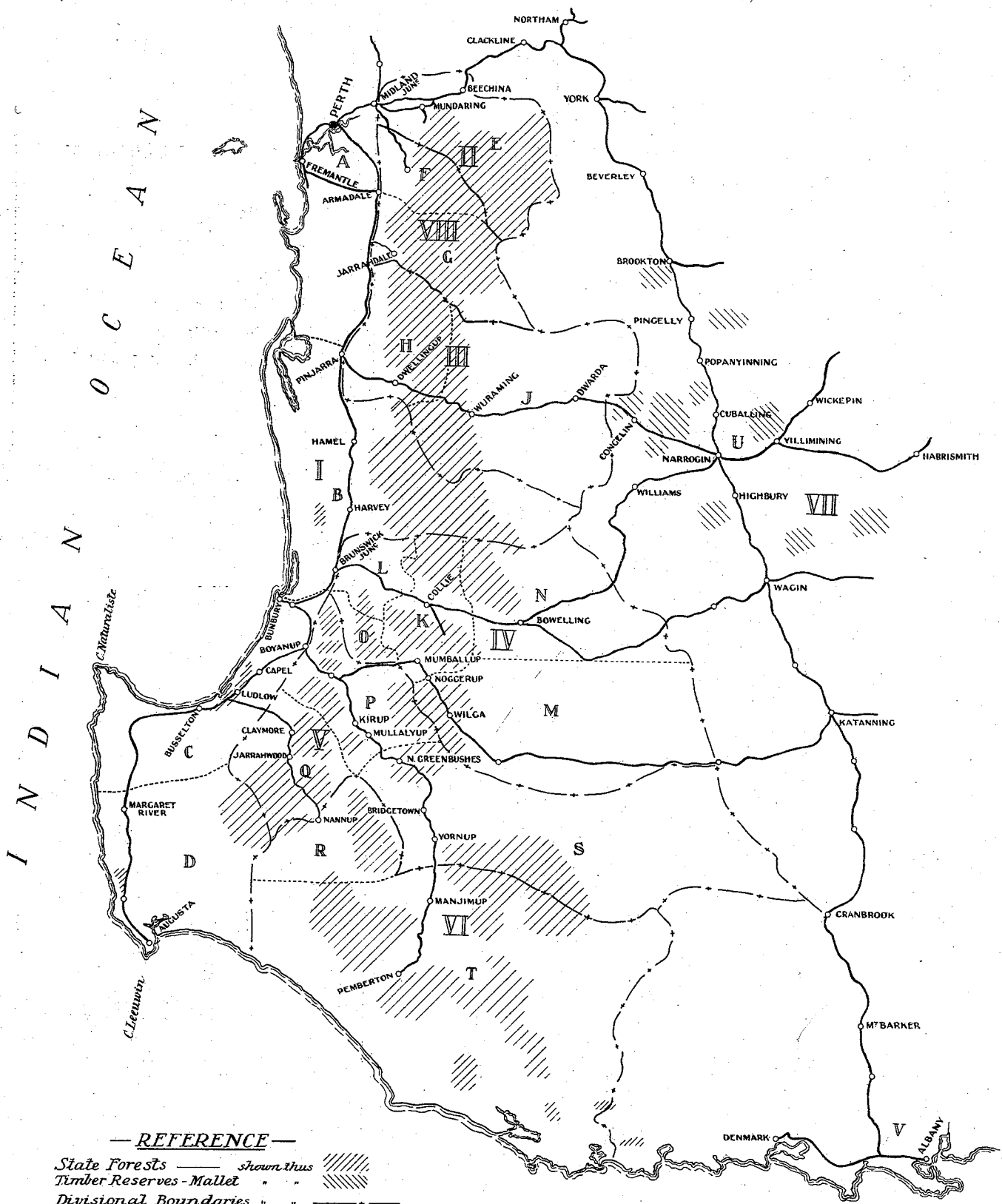
Division.				District or Sub-district.
I.	...	...	...	A Metropolitan.
				B Yarloop.
				C Busselton.
				D Margaret.
II.	...	...	...	E Mundaring.
III.	...	...	...	H Dwellingup.
				J Wuraming.
IV.	...	...	...	K Collie.
				L Worsley.
				M Noggerup.
				N Muja.
				O Wellington.
V.	...	...	...	P Kirup.
				S Bridgetown.
VI.	...	...	...	Q Jarrahwood.
				R Nannup.
VII.	...	...	...	T Manjimup.
				U Narrogin and balance of Crown Lands in Agricultural Area.
				V Albany.
VIII.	...	...	...	G Jarrahdale.
				F Karragullen.

LIST OF BOTANICAL NAMES OF LOCAL SPECIES REFERRED TO IN THIS REPORT.

Jarrah (<i>Eucalyptus marginata</i>).
Karri (<i>Eucalyptus diversicolor</i>).
Wandoo (<i>Eucalyptus redunca</i> , var. <i>ela'a</i>).
Tuart (<i>Eucalyptus gomphocephala</i>).
Tingle Tingle (<i>Eucalyptus Jacksoni</i>).
Sandalwood (<i>Santalum spicatum</i>).
North-West Sandalwood (<i>Santalum lanceolatum</i>).
Brown Mallet (<i>Eucalyptus astringens</i>).
Blackboy (<i>Xanthorrhoea Preissii</i>).

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— REFERENCE —

- State Forests ——— shown thus
- Timber Reserves - Mallet " "
- Divisional Boundaries " "
- District " " "

Forests Department,

Perth, 24th August, 1931.

The Honourable Minister for Forests.

Sir,

I have the honour to transmit herewith my Report on the operations of the Department for the year ended 30th June, 1931.

I have the honour to be,

Sir,

Your obedient servant,

S. L. KESSELL,

Conservator of Forests.

Annual Report on the Operations of the Forests Department for the Year ended 30th June, 1931.

INTRODUCTORY REMARKS.

The general trade depression has seriously affected all branches of the timber industry. The production of sawn and hewn timber dropped thirty per cent. during the year, and at present many mills are idle and others working part time. During recent years the Eastern States of the Commonwealth have been the principal buyers of our timber, but last year they dropped back to fourth place, taking only £62,300 worth, compared with £217,700 in the previous year.

It is satisfactory to note that sales during recent months have been slightly in excess of current production, and this fact, coupled with the excellent response by sawmillers to an invitation from the Department to meet in conference to discuss ways and means of promoting timber sales, both locally and overseas, and measures for improved marketing generally, gives ground for hopes that the position of the industry may begin to show some improvement. Following this conference, at which representatives of every sawmill cutting for export were present, two committees were appointed. One committee is dealing with definite proposals for sending abroad one or more representatives to investigate the possibilities of increased sales in countries which use our hardwoods and have not been so severely affected by the world-wide trade depression as Australia. The majority of the principal sawmilling interests have indicated their approval of the preliminary report of this committee, and steps are already in hand to prepare a working agreement and to select a representative to proceed to South Africa.

The other committee is working on the preparation of improved grading rules for Jarrah and Karri. Standards acceptable to both sawmillers and overseas purchasers have been built up by honest trading extending over many years, but with efforts to develop new markets and to reduce costs by improved and simplified practice, the necessity for a careful examination and revision of existing specifications and trade customs has been endorsed by the whole industry.

The immediate position with regard to the hewing industry is less satisfactory. Over seventy per cent. of Jarrah sleepers hewn during the year have been obtained from private property over which the Department has no control. Overseas countries have been supplied with considerable quantities of Jarrah sleepers at below cost of production. In some cases the principal consideration has been a desire on the part of the seller to clear accumulated stocks cut several years ago in anticipation of orders, but in many other cases the sleeper have been obtained by exploiting foreign cutters working on private property. With a view to limiting the activities of speculators who have already brought oversea sleeper values to a ruinously unprofitable level, the Government has decided that the control of timber cutting on Group Settlement holdings shall continue with the Forests Department when the Crown Grants are issued. The settler will be credited with the value of timber sold, but conditions similar to those applying to hewing operations on Crown land will be imposed in future.

The position of the timber industry has been reflected in the falling revenue of the Department, and in consequence the amount credited to the Reforestation Fund has been the smallest since 1921. The balance remaining in the Fund on 30th June, 1931, was only £3,402. There were two contributing factors outside falling timber production which have combined to bring about this serious position. In an Act assented to on the 22nd December, 1930, Parliament decided that not only should the proportion of sandalwood revenue for 1930-1931 financial year be not paid into the Reforestation Fund, but that an amount of £22,358 credited to the Fund in the previous year, should also be transferred to Consolidated Revenue, so that practically the whole reserve in the Fund, which would have served to tide the Department over the present difficult period, was taken away, and secondly, to assist sawmillers to meet difficult trade conditions and explore new markets, a twenty per cent. rebate on sawmilling royalties and a twenty-five per cent. rebate on inspection fees on sawn timber have been allowed on all payments since 1st May 1931. The Department is therefore without reserve funds, and while the temporary suspension of reforestation projects may be accepted as inevitable until trade conditions improve, the problem of protecting the large areas of young forest already established from total destruction during the summer months is a matter of grave concern.

In an endeavour to meet the position thus created every possible measure has been taken to reduce expenditure; heavy retrenchments have been effected, and the balance of the overseers and resident casuals are employed only half time. A heavy strain has been thrown on the depleted staff in the supervision of the part-time employment of men in receipt of sustenance in many centres in the South-West, in addition to the organising of camp for carrying out of both reforestation and afforestation operations on a basis of rationed work. De spite the fact that up to 1,000 men have been cared for in this way on widely scattered works, involving many transport difficulties, no trouble has been experienced, and the sustenance workers have, almost without exception, given willing and useful service.

The volume of work accomplished during the year has been a record for the Department, and probably for Australia. Reforestation operations have been extended over a further area of 49,000 acres of first quality forest, principally Jarrah. On approximately half of this area a new crop has been secured by natural regeneration, and on the balance, which is already carrying sapling, pile and pole growth following exploitation by sawmilling and hewing in past years, the young trees have been thinned and freed from the domination of useless species and over-mature and useless members of the original stand.

A further 850 acres of softwoods were planted during the 1930 planting season, and, with improved nursery and planting practice, satisfactory results have been secured in all centres.

To date 123,350 acres of cut-over indigenous forest have been restocked by natural regeneration, and 4,950 acres of softwood plantation established. Fire losses during the 1930-31 fire season amounted to only 741 acres of natural regeneration, and occurred on compartments which had been treated for regeneration three to five years previously, and had not been given a satisfactory "final burn." No difficulty will be experienced in restocking these areas.

While sustenance workers and unemployed camps may continue to carry out useful and necessary works, and assist to some degree to overtake the leeway in the reforestation of cut-over forest areas, the major problem of fire control and the protection of plantations and of natural regeneration in its early stages, must remain the responsibility of resident staff. The overseers and other resident workers have loyally accepted the necessity of half-time employment, and can be relied upon to do their utmost for the protection of the areas under their control at all times, but, in view of the value of State property at stake and in fairness to the men themselves it is essential that the majority of these workers resident in the forest be constantly at work during the most dangerous months of the summer.

The administration of the Timber Industry Regulation Act was transferred to the Minister for Forests, with the Conservator of Forests as Controlling Officer, in September, 1930, and a report dealing with the work of this branch is included at page 21.

CHAPTER I.

THE FOREST AREA.

The policy of recommending for excision from State Forest any sufficient areas of agricultural land located in the course of forest assessment work, topographical survey or compartment subdivision, or following application received direct or through the Lands Department, has been continued. The sanction of Parliament to the excision of 4,976 acres has been obtained, and the control of these areas has reverted to the Lands Department. A further list comprising some 9,000 acres is in course of preparation and will be submitted to Parliament at an early date.

(1) STATE FORESTS (FORESTS ACT, 1918).

	June, 1930.	June, 1931.	Decrease.
	acres.	acres.	acres.
Jarrah	2,425,032	2,419,626	5,406
Karri	151,780	151,567	213
Jarrah and Karri (Mixed)	372,292	370,055	2,237
Tuart	5,932	5,932	...
Tingle Tingle	13,967	13,967	...
Sandalwood	1,930	1,930	...
Pine Planting	4,835	4,835	...
Total	2,975,768	2,967,912	7,856

Of the total decrease in the area held under State Forest as compared with last year's figure—2,880 acres is accounted for by adjustment of the area of State Forest No. 4. The balance represents excisions from State Forests 4, 5, 11, 14, 15, 21, 22, 26, 27, 29, 36 and 38 of areas released for selection under the Land Act.

(2) TIMBER RESERVES (FORESTS ACT, 1918).

	June, 1930.	June, 1931.	Increase or Decrease.
	acres.	acres.	acres.
Jarrah	36,302	36,279	— 23
Other Species—			
Sandalwood	27,105	27,105	...
Pine Planting	5,331	5,331	...
Mining Timber, Firewood, etc. ...	1,354,807	1,361,647	+ 6,840
Total	1,423,545	1,430,362	+ 6,817

Three additional reserves were declared during the year—93/25 and 94/25 (Jarrah) West of Jardee, and 92/25 (Other Species) Meekatharra District, the total area being 7,168 acres. Reserve 60/25 in Margaret District was partially revoked to excise areas comprising 351 acres for settlement purposes.

CHAPTER II.

REVENUE.

The revenue of the Department amounted to only £94,895, compared with last year's collections of £173,219.

In an endeavour to assist the sawmillers to reduce their costs, with a view to increasing their output, Cabinet approved, in May last, of a 20 per cent. royalty rebate on log timber, and a 25 per cent. rebate on inspection fees payable on sawn timber.

It will be seen from the following statement that "Logs for sawmilling" and "Sandalwood" are responsible for practically the whole of the revenue shortage. Royalty on piles and poles increased from £1,195 to £2,877, and inspection fees remained about the same as last year.

PRINCIPAL SOURCES OF REVENUE FOR THE PAST TWO YEARS.

Year.	Royalties.		Inspection fees.	Sawn Tuart.	Sandalwood.	Firewood, fencing, and mining timber.	Miscellaneous.	Total.
	Logs for sawmilling.	Hewn timber.						
1929-30	£ 111,416	£ 2,957	£ 6,704	£ 1,706	£ 41,375	£ 1,714	£ 7,347	£ 173,219
1930-31	70,611	3,625	6,868	54	5,380	1,190	7,167	94,895

TIMBER PRODUCTION.

PRODUCTION OF TIMBER FOR YEAR ENDED 30TH JUNE, 1931 (EXCLUSIVE OF MINING TIMBER, FIREWOOD AND PILES AND POLES).

No. of Division.		MILL LOGS.					HEWN TIMBER.				Grand Total.	
		Jarrah.	Karri.	Other.	Total.		Jarrah.	Wandoo.	Total.		In Log.	In Square.
					In Log.	Recovery of Sawn Timber.			In Log.	In Square.		
		cub. ft.	cub. ft.	cub. ft.	cub. ft.	cub. ft.	cub. ft.	cub. ft.	cub. ft.	cub. ft.	cub. ft.	cub. ft.
1	Crown Lands ...	2,294,195	862	37,673	2,352,730	816,387	97,608	40,491	690,495	138,099	3,023,225	954,486
	Private Property ...	28,726	...	44,711	73,437	25,703	227,695	243,171	2,354,330	470,866	2,427,767	496,569
2	Crown Lands ...	...	...	15,141	15,141	5,299	5,471	...	27,355	5,471	42,496	10,770
	Private Property ...	...	...	...	...	...	1,539	18,027	97,830	19,566	97,830	19,566
3	Crown Lands ...	5,575,637	...	1,001	5,576,638	1,951,823	61,940	9,331	358,355	71,771	5,935,493	2,023,594
	Private Property ...	100,000	...	3,762	103,762	36,317	76,468	193,737	1,351,025	270,205	1,454,737	306,522
4	Crown Lands ...	791,937	...	874	792,811	277,484	144,120	14,512	793,160	158,632	1,585,971	436,116
	Private Property ...	182,833	...	9,567	192,400	67,358	426,818	188,204	3,075,110	615,022	3,267,560	682,380
5	Crown Lands ...	1,469,918	...	...	1,469,918	514,471	56,322	...	281,610	56,322	1,751,528	570,793
	Private Property ...	15,837	...	...	15,837	5,543	357,267	...	1,786,335	357,267	1,802,172	362,810
6	Crown Lands ...	1,297,037	3,154,743	...	4,451,780	1,305,744	152,295	...	761,475	152,295	5,213,255	1,458,039
	Private Property ...	2,776	782,046	...	784,822	212,124	298,408	2,776	1,505,920	301,184	2,290,742	513,308
7	Crown Lands ...	1,302	...	10,336	11,638	4,073	40	4,496	22,630	4,536	34,318	8,600
	Private Property ...	...	...	153	153	54	57,473	101,582	795,275	139,055	795,428	139,109
8	Crown Lands ...	1,150,556	...	1,212	1,151,768	403,119	16,905	...	84,525	16,905	1,236,293	420,024
	Private Property ...	8,163	...	...	8,163	2,857	812	...	4,060	812	12,223	3,669
Totals ...	Crown Lands ...	12,580,582	3,155,605	66,237	15,802,424	5,278,400	534,701	69,330	3,020,155	604,031	18,822,579	5,882,431
	Private Property ...	338,385	782,046	58,193	1,178,624	349,956	1,446,480	747,497	10,969,885	2,193,977	12,148,509	2,543,933
Grand Total ...		12,918,967	3,937,651	*124,430	16,981,048	5,628,356	1,981,181	816,827	13,990,040	2,798,000	30,971,088	8,426,364

* Includes 58,585 cub. ft. Pine, 38,648 cub. ft. Tuart, 14,161 cub. ft. Sheoak, 10,621 cub. ft. Wandoo, 1,273 cub. ft. Blackbutt, 1,130 cub. ft. Marri, 12 cub. ft. River Banksia.

(Factors for conversion of round to squared: Sawn Karri, 27 per cent.; Other Sawn, 35 per cent.; Hewn, 20 per cent.)

SAWMILLING AND HEWING ON STATE FORESTS AND CROWN LANDS.

The quantity of sawn and hewn timber produced during the year amounted to 8,425,364 cubic feet, valued at approximately £1,056,000. Compared with the output for the previous year, these figures show a reduction of 4,390,600 cubic feet in output and £544,000 in value.

To produce this volume of marketable timber 30,971,000 cubic feet of logs were removed from the forests of the State.

The respective quantities obtained from Crown lands and private property during the past two years are set out in the following statement:—

Year.	From Crown Lands.			From Private Property.		Estimated Value of timber obtained.
	Sawn timber other than sleepers.	Sawn sleepers.	Hewn timber.	Sawn timber including sleepers.	Hewn timber.	
1929-1930	cub. ft. 9,642,119	cub. ft. 257,651	cub. ft. 454,386	cub. ft. 338,467	cub. ft. 2,124,342	£ 1,600,000
1930-1931	4,827,781	450,619	603,643	349,956	2,193,977	1,056,000

With the cessation of building and other developmental work throughout Australia, and the falling off of overseas orders, many of the mills that had closed during the previous year failed to re-open, and others found it necessary to close down. At the end of the financial year only twenty-four mills were operating on Crown lands. The number of men employed in forest sawmills has fallen from 3,500 in December, 1929, to 1,300 at the end of June, 1931, and many of these are only working part time. Of 16,981,000 cubic feet of mill logs from all sources converted into sawn timber during the past year, 15,802,000 cubic feet were obtained under sawmilling permits from Crown lands. The Department received for this timber an average royalty of four shillings and sixpence per load, or 1.08 pence per cubic foot.

The quantity of hewn timber obtained during the period under review totalled 2,798,000 cubic feet, being an increase of 220,000 cubic feet on last year's operations. Of this quantity 604,000 cubic feet came from Crown lands, and 2,194,000 cubic feet from private property. Hewing on Crown lands has been confined to natural born or naturalised British subjects, and the majority of sleepers obtained from this source have been supplied to the Western Australian Railway Department. Owing to the number of hewers out of employment the Government introduced a scheme of unemployment relief cutting in October last for old experienced hewers, under which small monthly orders have been rationed out by this Department for the supply of sleepers to the Railway Department. Under this scheme approximately 1,800 monthly orders have been issued and an average of 250 hewers have been employed in cutting about 20,000 sleepers monthly.

In addition to sleepers for the local Railway Department, sleepers were supplied to the Commonwealth Government, South African Union, Ceylon, New Zealand and China. The bulk of the sleepers for the export trade came from private property, where practically the whole of the hewing is in the hands of Southern Europeans, who have forced the old experienced hewers out of the export business and created difficult problems for the inspection branch referred to later in this report.

The quantity of hewn wandoo sleepers obtained represented 28 per cent. of the total hewn timber, the remainder being jarrah. The whole of the wandoo sleepers were supplied to the Railway Department in this State.

TIMBER EXPORTS.

Timber to the value of £533,997 was exported from the State during the year. This amount is £278,115 less than for the previous year, and is due almost entirely to the falling off in the quantities purchased by the Eastern States of Australia and the South African Union. In 1930 our exports of undressed timber to the Eastern States were valued at £217,679, and to South Africa at £166,321, whereas, during the past twelve months, only £62,333 and £52,260 respectively were received for undressed timber from these sources.

For some years past, the Eastern States of Australia have been the largest buyers of our hardwoods, but during the past year, they have been replaced by Great Britain, who bought 933,567 cubic feet, or 23 per cent. of the timber exported from the State. Our other principal buyers were New Zealand, 905,908 cubic feet; Ceylon, 855,205 cubic feet; Eastern States of Australia, 489,469 cubic feet; South African Union, 423,882 cubic feet; and China, 300,875 cubic feet. A detailed statement of exports is given in Appendix 2a.

TIMBER IMPORTS.

The value of timber imported to this State for the year amounted to £76,533, which is £120,099 less than in the previous year. Unfortunately this large decrease in the consumption of imported soft-woods is due to a cessation of building operations rather than any marked effort to use local timbers for a wider range of uses.

TIMBER INSPECTION.

During the year under review 3,483,023 cubic feet of sawn and hewn timber were inspected by officers of the Department, an increase of 187,797 cubic feet on the previous year's operations. In addition, 10,931 cubic feet of hewn beams and 34,809 lineal feet of piles and poles were inspected. The revenue from this branch of the work amounted to £6,799. Although the quantity of timber submitted for inspection is much greater than the previous year, the revenue only shows an increase of £95. This is partly due to the fact that from the 1st May the Department has allowed a special discount of 25 per cent. in the inspection fees on sawn timber.

The hewing of export sleepers by Southern Europeans on private property has led to several complaints from overseas countries despite the greatest care on the part of the inspectors, and a high percentage of rejects at time of inspection. The standard of hewing is frequently far from satisfactory, but the greatest trouble is the class of tree from which sleepers are cut in paddocks which have been worked through several times. For example, fast growing young trees are cut into sleepers, which immediately after hewing may appear perfect, but with rapid seasoning are liable to develop serious cracks. In view of the greater time necessary to properly inspect such sleepers, and the number of delays occasioned by inefficiency and at times deliberate interference by foreign turners, consideration is being given to increasing the charge for the inspection of sleepers from private property.

SANDALWOOD.

The revenue received from Sandalwood for the financial year amounted to £5,380, which is £35,995 less than for the previous year. The industry at the present time is handicapped by the accumulated stocks of sandalwood in this State and in South Australia, amounting to approximately 8,500 tons. The low value of the silver coinage in China, and the unsettled conditions in the interior, have had a serious effect on sandalwood sales, with the result that only 1,606 tons were exported from this State during the year.

The quantity of sandalwood obtained from Crown lands and private property for export amounted to only 115 tons.

The Prospectors' and Sandalwood Getters' Boards met on two occasions during the year as one Board, with one representative each from the prospectors, the sandalwood getters, and the Department, and dealt with all applications for orders. In view of the unemployment existing throughout the State, the number of applicants for sandalwood orders was considerably in excess of previous years, and, with a very limited quantity of wood available for distribution, the Board had a difficult task in making their recommendations. Orders were placed with a view to relieving distress as far as possible amongst getters and prospectors who had previously been engaged in the industry.

Two conferences were held with the South Australian Government in this connection during the year, and close co-ordination has been maintained between the two States in all matters relating to the export of sandalwood.

The quality of the sandalwood coming down under recent orders has shown a steady deterioration, and complaints by distillers and exporters have been numerous. The majority of these complaints refer to the small size of logs and the unsatisfactory manner in which the wood is cleaned. This may, to some extent, be due to the placing of small orders which do not offer sufficient inducement to pullers to penetrate far enough from railway lines to obtain wood of fair average quality.

Although only approximately 450 tons of logs were obtained, the Department was called upon to inspect and assess the value of 166 tons of wood below f.a.q. Reductions in the price to be paid for this wood were authorised ranging from 10s. to £5 per ton. Taking these reductions into account, the average price paid to the puller for sandalwood logs supplied was £14 18s. 9d. per ton.

A number of requests from the holders of Conditional Purchase Leases for permission to pull the sandalwood on their properties which had been reserved to the Crown were granted. It was not possible to arrange orders for this wood, but, under special arrangements effected with the Australian Sandalwood Coy., Ltd., a number of settlers who had been waiting for some time to dispose of their wood were made an advance of £6 per ton on rails Fremantle. The wood is to be held on a special site in the name of the Conservator pending final payment for the wood when the Company is authorised to dispose of it.

Sandalwood from Private Property.

No sandalwood was obtained from private property for export during the year; 114 tons of old roots and stumps were supplied to distillers in Perth from Hampton Plains.

OTHER FOREST PRODUCE.

The increased activity on the Goldfields resulted in an increase in the consumption of mining firewood from 200,000 tons in 1929/30 to 266,000 tons during 1930/31.

Three thousand six hundred and fifty-seven tons of tanning bark, principally mallet, valued at £35,333, were shipped overseas during the year. The average value per ton of this bark was £9 12s. 8d., or £1 per ton less than the declared value for the previous year. Germany has always been the largest buyer of our tanning barks, and on this occasion purchased 41 per cent. of the quantity exported; 25 per cent. went to the Eastern States of Australia, and 22 per cent. to the Netherlands.

FOREST PRODUCE NOT ELSEWHERE INCLUDED IN PRODUCTION TABLES DURING YEAR ENDED 30TH JUNE, 1931, AND REPORTED TO THE DEPARTMENT.

Description of Forest Produce.	SOUTH-WEST DIVISION AND AGRICULTURAL AREAS.								Central and Eastern Divisions.	North-West and Kimberley Divisions.	Total.
	Forest Division No.										
	1	2	3	4	5	6	7	8			
Mining Timber tons	...	...	...	2,841	...	...	200	...	6,460	...	9,201 tons
Do. do. lin. ft.	...	...	...	...	...	...	...	...	648	† 15,525	16,173 lin. ft.
Sleepers for Goldfields Wood	...	...	...	...	...	...	...	...	...	...	...
Lines No.	...	...	...	...	...	...	...	...	25,768	...	25,768 No.
Firewood including Charcoal * ... tons	108,385	13,000	14,000	...	804	54	10,450	25,000	119,601	...	291,294 tons
Mining Firewood ... .. "	...	...	...	...	375	...	2,450	...	259,050	† 4,918	266,793 tons
Piles and Poles * lin. ft.	9,111	255	15,232	7,458	7,774	12,249	778	803	...	...	53,660 lin. ft.
Fencing Posts and Rails ... No.	3,850	...	1,150	120	1,700	10,227	10,861	1,000	8,060	...	36,968 No.
Blackboy tons	222	...	...	...	...	...	8	...	...	...	230 tons
Mallet Bark * ... .. "	...	...	...	...	...	...	2,004	...	...	...	2,004 tons
Wattle Bark "	26	...	...	...	...	...	...	...	...	...	26 tons

* From Crown lands and private property. † Figures for Meekatharra District only.

NOTE.—Except where otherwise stated, this statement includes only forest produce obtained from Crown lands under permit or license.

FOREST OFFENCES.

During the year 41 forest offences were reported by District Forest Officers, and in five cases the offenders were prosecuted and convictions obtained, resulting in fines amounting to £40 being imposed. In one instance, damages amounting to £10 were awarded in addition to fine and costs.

Forest produce to the value of £886 was seized for various breaches of the Act or Regulations. This amount includes sandalwood value at £834, out of which compassionate payments amounting to £158 were subsequently paid to offenders.

CHAPTER III.

1. EXPENDITURE.

A reduction of £4,585 in the cost of administration was shown, the amount expended from Consolidated Revenue Fund during the year being £18,511, compared with £23,096 for the previous year.

As the amount available in the Reforestation Fund is dependent on the revenue collected, which last year fell from £170,128 to £93,945, it was necessary to reduce the expenditure from this fund to an absolute minimum, as rapidly as works in hand would permit.

The average expenditure of £9,550 per month was, therefore, reduced to £2,000 before the close of the year, to effect which it became necessary to dispense with the services of the majority of employees, while overseers and resident employees were reduced to half time.

With this substantial reduction in expenditure, the monthly disbursements still exceed the monthly credits to the fund, which represent three-fifths of the net revenue collected during the period, and at the close of the year the balance available in the fund was £3,402, compared with £55,023 at the close of the previous financial year.

Retrospective legislation (see page 13) involved a refund to Consolidated Revenue of £22,345, representing three-fifths net revenue derived from sandalwood and credited to the Reforestation Fund during the financial year 1929-30. This unforeseen charge against the fund is responsible for the very inadequate balance now remaining, and it appears certain that, unless revenue shows a very substantial increase, assistance will be required from some other source to enable fire protection and other essential services to be maintained.

The total expenditure from the Reforestation Fund for the year (exclusive of the £22,345 referred to above) was £71,541, compared with £114,618 for 1929-30, the saving effected being £43,077.

The following statement shows the position of the Reforestation Fund (Sec. 41 "Forests Act, 1918") at the close of the financial year:—

	£	£
Revenue for 1930-31		93,945
Less Sandalwood not apportioned		5,380
		88,565
Consolidated Revenue Expenditure	18,511	
Less Sandalwood	1,379	
	17,132	
Interest on Loan	3,459	
Sinking Fund	158	
Special Acts	1,080	
Audit Fees (2 years)	297	
Expenditure adjustment	16	
		22,142
Net Revenue		£66,423

After crediting three-fifths of the above amount to the Reforestation Fund, the position at the close of the year was as shown hereunder:—

	£	£
Balance at 1st July, 1930		55,023
3/5ths of net revenue transferred	39,854	
Financial Agreement Act adjustment	204	
		40,058
Sundry Recoups		2,207
		97,288
Less Expenditure, 1930-31	71,541	
Less Proportion of Sandalwood Revenue credited in 1929-30 and refunded to Consolidated Revenue Fund	22,345	
		93,886
Balance available at 1st July, 1931		£3,402

2.—REFORESTATION OPERATIONS.

(A) FOREST MANAGEMENT.

SUMMARY OF WORK CARRIED OUT DURING YEAR.

District.	Topographical Survey.	Assessment Survey.	Roads and Tracks cleared.	Telephone Lines constructed.
	acres.	acres.	miles.	miles.
DIVISION 1:				
Metropolitan ... ..	...	...	...	...
Yarloop ... ..	...	11,500	15½	...
Busselton	4,200	29,900	...	...
Albany ... ..	...	...	...	...
DIVISION 2:				
Mundaring ... ..	...	34,500	2	...
DIVISION 3:				
Dwellingup	} 217,000 {	39,400	13½	...
Wuraming ... ..		...	6½	...
Huntly		8,000	11½	2½
DIVISION 4:				
Collie ... ..	...	...	3½	...
Collie South ... ..	...	3,260	...	16½
DIVISION 5:				
Kirup ... ..	...	4,000	17½	11½
Jarrahood ... ..	...	...	...	...
Bridgetown ... ..	...	...	...	...
DIVISION 6:				
Manjimup ... ..	...	36,350	...	...
Nannup	20,000	13,100	9½	...
DIVISION 7:				
Narrogin ... ..	...	10,500	9	...
DIVISION 8:				
Karragullen	6,000	22,500	10	...
Jarrahdale ... ..	...	...	5¾	2¾
Totals	247,200	213,010	103¾	33

FOREST SURVEYS.

Survey work was carried out during the first six months of the year by two camps using the Forester's compass and one camp with theodolite. These operated in the Dwellingup and Nannup Districts on cut-over bush. These camps are now closed down. In the Margaret River district 4,200 acres were surveyed to enable developmental work in pine planting to be carried out.

ASSESSMENT AND CLASSIFICATION.

In the Yarloop, Huntly, Collie and Kirup Districts about 66,000 acres of cut-over first quality Jarrah forest were mapped out in preparation for reforestation operations. Extensive classifications of timber types were undertaken in the Margaret River, Manjimup and Nannup Districts, where the problem of land alienation is receiving detailed attention.

In the Kulyaling mallet area, a further 10,500 acres were classified. Reservations of mallet country will be based on these plans.

Large scale maps showing soil and timber types in detail have been prepared for pine plantations at Mundaring.

The practice of preparing detailed compartment stock maps before commencing regeneration operations was extended.

WORKING PLANS.

A number of Working Plans are due for revision and consolidation, but the necessary trained staff have not been available for the work.

PERMANENT ESTABLISHMENTS.

No houses were erected or bought during the year. The Noggerup and Kirup Districts were linked up by telephone and the Collie system extended to Mumballup.

New forest roads were opened up in the Mornington, Hoffman and Nanga Brook areas, to permit access to areas of fine young pole and pile stands in need of thinning. Old bush tramlines and whim tracks form the skeleton for these road systems. This work was done chiefly by men in the neighbourhood of the mill towns receiving Government relief.

(B) SILVICULTURE.

(a) Jarrah.

SUMMARY OF OPERATIONS FOR THE YEAR.

District.	Top Disposal.	Treated for Regeneration.	Thinning.	Improvement Work.	Tree-marking.	
					Sawmilling.	Hewing.
DIVISION 1— Yarloop	acres. 1,831	acres. ...	acres. 530	acres. 230	acres. ...	acres. ...
DIVISION 2— Mundaring ... ..	...	388	304	...	...	...
DIVISION 3— Dwellingup Wuraming Huntly	2,712 5,481 670	3,121 2,103 5,644	3,361 2,510 785	... ... ...	4,701 1,052 1,012	1,488
DIVISION 4— Collie Collie South ... ..	... 3,347	1,501 1,770	1,626 120	102 2,558	167 2,111	1,242 937
DIVISION 5— Kirup Jarrahwood Bridgetown	1,673 4,315 ...	1,309 2,695 2,321	5,019 1,482 71	12,185 5,975 1,995	1,735 1,146 ...	1,900 ... 244
DIVISION 6— Nannup	93	2,290	...	436	...	...
DIVISION 8— Karragullen Jarrahdale	3,090 1,381	3,910 549	142 400	513 ...	1,673 1,183	1,008 ...
Totals	24,593	27,601	16,350	23,994	14,780	6,819

The continued slackness in the sawmilling industry is shown by the greatly reduced area on which trade cutting took place. 24,500 acres were cut over for mill logs, compared with 39,000 acres in 1929-30, 47,600 acres in 1928-29, and 59,800 acres in 1927-28.

In direct contrast to the foregoing, silvicultural operations were extended to a marked degree, approximately 47,500 acres of forest being brought under a course of treatment and protection during the twelve months.

A comparison between the figure for the area cut over and that of the area given treatment since the General Working Plan for jarrah came into being in 1928-29 is interesting. The plan aims at the area treated annually being at least equal to that cut over for mill logs. The figures are—

Cut-over (1929-31)	.. .. .	63,500 acres.
Treated	.. .. .	78,070 "

Thus the provisions of the plan are being carried into effect.

* N^o 6 is Manjimup

That the area afforded treatment during the year was increased was largely due to two factors. Firstly, the unemployed workers from mill towns and other centres in the jarrah belt were engaged at sustenance rates by the Department, working in co-operation with the Child Welfare Department. Up to 230 men, mostly experienced bush workers, were absorbed by this scheme. Secondly, an arrangement between the Department and the Unemployment Relief Board gave work to a further 180 men, both married and single, recruited from the Metropolitan area and country centres. In the majority of cases work was on a piecework basis.

The programme of thinning sapling and pole stands of jarrah was extended during the year, new centres being started at Mornington, Nanga Brook and Upper Murray.

The area which received a preliminary treatment to eliminate competition from useless over-mature trees was greatly increased, especially in the Kirup-Jarrahwood District and at Worsley and Lyall's Mill, where special camps of relief workers were established.

The total area of jarrah bush which has been brought under treatment for regeneration and tending is now 123,348 acres.

(b) *Other Species.*

KARRI.

A second crop of Karri is being established by natural regeneration and tended at two centres, Big Brook and Boranup.

At Boranup further thinning of the fine young stand of regrowth was carried out and an adequate system of firebreaks was laid out. To date 2,366 acres have received treatment.

At Big Brook work consisted of slashing scrub and burning patches which were missed in the final burn of 1929-30, final ringbarking over 60 acres, spot sowing approximately 320 acres of thinly stocked Karri country, and the improvement and maintenance of the system of firebreaks.

MALLET.

Operations in the mallet areas in the Narrogin District were again extended. The type of fire-break in use was improved. Thinning and stripping for bark took place over 477 acres (231½ acres in 1929-30), 403 acres were spot sown on cleared areas, and about 650 acres have been cleared and are being held to await a burn-off before sowing next season.

The area now thinned is 756 acres, and the area sown 1,444 acres.

(C).—FIRE CONTROL.

District.	Area under Fire Control.	Area afforded Complete Protection.					
		Indigenous Forest.			Pine Plantation.		
		In course of Treatment.	Regenerated and tended to 15th June, 1930.	Fire Losses.	Being Cleared for Planting.	Planted Area.	Fire Losses.
DIVISION No. 1—	acres.	acres.	acres.	acres.	acres.	acres.	acres.
Metropolitan	3,078	...	...	...	1,613	897	...
Yarloop... ..	6,130	530	...	...	542	684	...
Busselton	9,000	1,430	982	...	234	1,074½	...
DIVISION No. 2—							
Mundaring	30,000	688	1,935	...	921	1,618	...
DIVISION No. 3—							
Dwellingup	} 200,000 {	4,421	9,351	...	...	...	...
Wuraming		3,490	9,669	...	...	...	...
Huntly		8,308	5,374	...	...	...	...
DIVISION No. 4—							
Collie	} 155,000 {	7,982	15,580	...	23	392½	...
Collie, South							
DIVISION No. 5—							
Kirup	89,500	13,585	9,065	...	...	...	...
Jarrahwood	122,600	8,738	10,080	...	...	...	...
Bridgetown	13,900	3,818	3,348	378	...	...	...
DIVISION No. 6—							
Nannup	5,800	3,659	1,738	...	...	68½	...
Manjimup	7,562	1,760	4,730	363	120	99	...
DIVISION No. 7—							
Narrogin	50,000	2,280	1,320	...	...	...	...
Albany	360	...	...	...	254	106	...
DIVISION No. 8—							
Karragullen	24,500	7,570	6,694	...	...	...	...
Jarrahdale	7,000	820	2,946	...	...	...	...
Totals	724,430	69,079	82,812	741	3,707	4,940½	...
		151,991					

Weather conditions on the whole were not unduly severe in forest districts during the past fire season, November, 1930, to April, 1931.

Despite the fact that all centres under fire control systems were working with depleted staffs, the loss from fire was low, 0.5 per cent. of country under complete protection, and 0.1 per cent. of country under fire control being lost. No loss was incurred in pine plantations. These facts gain more importance when it is realised that approximately 16,000 acres of treated jarrah bush was in readiness for a final burn, and had to be completely protected until a suitable opportunity arose.

Improved methods are largely responsible for these gratifying results. The skeleton staff retained, all workmen resident in the forest, are now well trained in fire control and conversant with the problems of control on the areas under their immediate supervision. Moreover, the increased programme of improvement work and thinning, and burning the tops as soon as possible afterwards, has rendered tracts of country less liable to severe fires, and eased the task of controlled burning.

The existing system of fire lines and scraper tracks within compartment boundaries, and fire-breaks of green timber, was increased by 313 miles of fire lines and 8,082 acres of firebreaks.

The problem of standardising the practice in the controlled "final burning" in treated compartments has been receiving attention, and a scheme has now been evolved which, with modification to suit local conditions, is used throughout the jarrah bush. As a fierce fire is required, a suitable hot day with a steady wind in the right quarter is chosen, and the burning carried out systematically in successive strips or belts.

3.—AFFORESTATION.

AREAS PLANTED DURING THE MONTHS OF JUNE, JULY, AND AUGUST, 1930.

Planting Area.	Area established prior to 1930.	Area Planted, 1930.				Total.
		<i>Pinus radiata.</i>	<i>Pinus pinaster.</i>	Other Species.	Total.	
	acres.	acres.	acres.	acres.	acres.	acres.
Myalup	343½	1	79	12	92	435½
Harvey Weir	162	14	21½	4	39½	201½
Gnangara	240½	...	77	...	77	317½
Applecross	250	...	117	...	117	367
Collier	195½	...	17	...	17	212½
Mundaring—Helena	518½	...	8½	16½	25	543½
Greystones	488½	7½	23	21½	52	540½
Beraking	165½	21½	...	35½	57	222½
Mudros	199¾	...	...	...	...	199¾
Darkin	58	26½	23	4½	54	112
Ludlow—Coolilup	841¼	...	...	10	10	851¼
Stirling	128	...	90½	5	95½	223½
Collie—Mungalup	66½	...	...	...	...	66½
Proprietary	203	...	58	...	58	261
Hamel	47	...	...	...	...	47
Bowelling	60½	2¾	...	2½	5	65½
Nannup	65¼	...	2¼	1¼	3½	68¾
Big Brook	53	7	...	39	46	99
Pardelup	Nil	102½	3½	...	106	106
Totals	4,085¾	182¾	520¼	151½	854½	4,940¼

The total area of State Pine Plantations is now 4,940¼ acres. The chief areas planted are Mundaring 1,618 acres, Ludlow 1,074¾ acres, Metropolitan district 897 acres, and Harvey district 637 acres.

During the planting season ended August, 1930, the chief species planted were *Pinus pinaster* (520¼ acres), and *Pinus radiata* (182 acres), *Pinus pinaster* superseding *Pinus radiata* as chief planting stock. The increase in the use of *Pinus pinaster* took place in the Metropolitan, Myalup, Ludlow and Collie districts, where poor types of sand plain country, unsuitable for purposes of more intensive cultivation, are being put to productive use.

Other species on an experimental scale, including *Pinus canariensis*, *Pinus palustris*, *Pinus ponderosa*, *Pinus laricio*, *Pinus taeda*, *Pinus caribaea*, *Pinus Jeffreyi*, *Pinus Coulteri*, *Pinus Banskiana*, *Pinus echinata*, *Pinus muricata*, *Pinus Lambertiana*, *Pinus longifolia*, *Pinus patula*, *Pinus strobus*, *Pinus sylvestris*, *Pinus Massoniana*, *Pinus luchuensis*, *Taxodium distichum*, *Taxodium mucronatum*, *Sequoia sempervirens*, *Picea sitchensis* and *Pseudotsuga taxifolia*, were planted to the extent of 151½ acres—an increase in the 1929 figure. The chief centres for the establishment of these exotics are Mundaring and Big Brook, near Pemberton.

At Pardelup Prison Farm 106 acres of *Pinus radiata* have been established by prison labour working under the supervision of this department. In addition, 115 acres have been prepared for planting this season (1931) and 134½ acres are now cleared for future planting.

For about six months of the year (December to June) extra clearing for planting at Gwangara, Myalup and Mundaring Weir has been carried out as an unemployment relief scheme. About 100 men were transported weekly from Blackboy Camp to Mundaring Weir to engage in clearing up after "burning off" and in preparing ground for planting. At Myalup and Gwangara 377 acres and 1,000 acres respectively have been cleared for future planting, the labour (unemployed) being taken from the Metropolitan district, and work being on piece work basis.

The demand for locally grown softwood for case wood production has increased. At Mundaring Weir a nine-year old stand of *Pinus radiata* gave in thinnings a return of 15,141 cubic feet from approximately 20 acres. A city case factory utilised these thinnings for box wood. A peg factory at Bunbury took 12,951 cubic feet of *Pinus radiata* thinnings from Hamel, while the clearing of *Pinus radiata* at Ludlow realised 16,577 cubic feet.

During the year the total amount of locally-grown softwood (chiefly *Pinus radiata*) cut from both Crown lands and private property amounted to 58,585 cubic feet—an increase of 25,384 cubic feet on last year's figure.

4. SANDALWOOD REFORESTATION.

No sowings of sandalwood were carried out during the year, as it was considered advisable to await results of previous experimental work.

The result of last year's insect attack is now apparent. Numbers of badly attacked trees have died, and many have been left with dead branches or dead tops according to the severity of the attack. There seems little doubt that this class of insect attack is responsible for the large percentage of dry-sided and dead-topped sandalwood trees.

5. RESEARCH AND INVESTIGATION.

In the past twelve months activities have covered a very wide range in the general field of Forest Products Research. Lack of staff has, however, limited investigation on many problems that have cropped up.

Close touch has been maintained with the Forest Products Division of the Council for Scientific and Industrial Research, a considerable amount of work having been done in co-operation with that body.

A very satisfactory development has been the erection by Messrs. Bunning Bros., Ltd., of a modern internal fan kiln at their West Perth yard. This kiln was installed to season high-class joinery requirements and was largely instrumental in securing contracts for the timber work in the new Commonwealth Bank. The design was based on one by the Council for Scientific and Industrial Research for drying *Pinus radiata* modified in the matter of control of external circulation and a few other details by this Department.

Under a working plan drawn up by the Council for Scientific and Industrial Research, treatment of a parcel of wheat-belt timbers was carried out at Ghooli. These have been erected in a fence line, and their behaviour will be closely watched over a period of years.

Extensive tests have been carried out in co-operation with the State Saw Mills, to prove the merits of local hardwoods for cases, and these indicate that the hardwood case is quite equal to the softwood for most purposes.

A considerable amount of preliminary work has been done in connection with the preparation of grading rules to cover Western Australian timbers. A Committee of Sawmillers is now working on this problem in co-operation with the Department.

6. ARBORICULTURE.

168,691 trees were distributed from Hamel Nursery during the year ending 31st August, 1930. 51,254 were sold to the public, 3,800 were issued free to public bodies, charitable institutions, etc., and 113,637 were sent to Departmental plantations and arboreta.

The number of trees sold was below the average, but the number of individual orders supplied was greater than usual.

Eucalyptus cladocalyx (Sugar Gum), of which 9,200 were sold, proved the most popular tree, followed by *Pinus pinaster* and *Pinus radiata*.

CHAPTER IV.

1. LEGISLATION.

Forests Act Amendment Act, 1930.—An amendment to the Forests Act, 1918, which provides for the exclusion of sandalwood revenue from the provisions of Subsection (2) of Section 41, was assented to on the 22nd December, 1930. The amendment was made retrospective to the 1st July, 1929, and continued in operation until the 30th June, 1931.

During the years 1924 to 1928, inclusive, annual amending Acts were passed, which provided for £5,000 from sandalwood revenue being paid into a special fund to be used for sandalwood reforestation and the promotion of the sandalwood industry generally, and for the payment of the balance of the

revenue from this source to Consolidated Revenue. In 1929 a Bill similar in effect to the Amendment Act of 1930 was introduced, but, on that occasion, Parliament decided that three-fifths of the net revenue from sandalwood should be paid to the reforestation fund. This decision resulted in the fund being credited during 1929-1930 with £22,358, but, as a result of the last amendment, this sum, together with the sandalwood revenue for 1930-31, amounting to £5,380, had to be transferred to Consolidated Revenue.

Sandalwood Act Amendment Act, 1930. The Sandalwood Act, 1929, was to continue in operation until the 31st day of December, 1932. In order to bring the period of this legislation into line with similar legislation enacted in South Australia, an amendment was assented to on 22nd December, 1930, extending the duration of the Act until the 31st December, 1934.

2. INDUSTRIAL.

In accordance with the terms of the respective agreements governing overseers and forests employees, the Department applied for variations to provide a 48-hour working week and the discontinuance of the payment of a district allowance at the rate of 6s. per week.

The objects in seeking such amendments were to bring the Departmental employees into line with those of other Government departments to which similar adjustments had already been applied, and to effect economies demanded by the position of the Reforestation Fund.

As the union would not agree to the suggested amendments, application was made to the Arbitration Court, and the case was duly heard by the members of the court sitting as an Arbitration Board, this course being necessary owing to the union not being registered under the Arbitration Act.

A favourable decision having been received from the board, the amendments were brought into operation as from the 29th June.

3. ADMINISTRATION.

During the financial year, the following changes took place in the staff of the Department:—

(a) *Professional Division.*

Having been selected as recipient of the Russell Grimwade Prize, entitling the holder to a refresher course at the Imperial Forestry Institute, Oxford, and a visit to the forests of Germany and France, in order to study European methods, Mr. T. N. Stoate, Senior Assistant Conservator, obtained leave of absence for 12 months, and left Western Australia on the 25th August, 1930.

Mr. J. O'Donnell completed the Diploma course at the Australian Forestry School, Canberra, at the end of 1930, and then entered the Waite Agricultural Research Institute, Glen Osmond, South Australia, for six months' special training in soil survey work.

(b) *Field Staff.*

Mr. Keith L. Doig, a capable young "C" grade Assistant Forester, was accidentally killed by a falling tree near Bridgetown on the 12th July, 1930. Mr. Doig joined the Department as an apprentice on the 18th August, 1921. Two "D" grade Assistant Foresters were appointed, and two "C" grade and four "D" grade Assistant Foresters were retrenched. Three survey camps were disbanded and the officers in charge retrenched.

(c) *Head Office Staff.*

Three draftsmen were retrenched and five clerks and a typiste were transferred to other Departments.

In conclusion, I have pleasure in recording that the large increase in the amount of reforestation work accomplished under difficult conditions has been made possible by the active co-operation and hard work of all members of the reduced staff.

S. L. KESSELL,
Conservator of Forests.

Forests Department,
Perth, 24th August, 1931.

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APPENDIX 1a.

General Statement of Revenue and Expenditure for the Year ended 30th June, 1931.

Dr.		£ s. d.		30th June, 1931.		£ s. d.		Cr.		£ s. d.	
30th June, 1931.				By							
To	Log Royalty from all sources	70,611	9 9	Salaries charged against Con- solidated Revenue Fund ...	14,348	0 0					
„	Sandalwood Revenue	5,379	14 10	„ Travelling and Forage Allow- ances	1,676	0 0			16,024	0 0	
„	Miscellaneous Royalties	8,476	18 11	„ Maintaining State Nursery ...	70	3 3					
„	Inspection Fees	6,867	14 4	„ Library	27	14 5					
„	Rents	1,267	16 4	„ Postage and Telephones ...	130	18 2					
„	Sales	1,474	1 8	„ Stationery and Printing ...	138	17 1					
„	Miscellaneous Revenue	817	19 8	„ Advertising	39	13 6					
				„ Timber Inspection	208	14 3					
				„ Acquiring Sandalwood illegally pulled	28	18 5					
				„ Sandalwood Control	20	7 1					
				„ Extra Remuneration, Reg. 79... Workers' Compensation Fund	17	14 3					
				„ Premiums	246	17 5					
				„ General Equipment	27	3 11					
				„ Allowances	744	4 7					
				„ Freight and Fares	199	14 1					
				„ Travelling Allowances	256	15 6					
				„ Sandalwood Board	35	4 11					
				„ Felling and Disposal of Pines ...	171	0 10					
				„ Miscellaneous	122	13 11			2,486	15 7	
				„ Balance—Excess of Revenue ...					75,433	7 0	
									£93,944	2 7	
									£93,944	2 7	

APPENDIX 1b.

Statement of Forest Improvement and Reforestation Fund for the year ended 30th June, 1931.

DR.		£ s. d.		£ s. d.		CR.	
30th June, 1931.		£ s. d.		£ s. d.		£ s. d.	
To Reforestation Operations—							
Division No. 1:							
Ludlow ... ..	...	1,309	11 3				
Boranup ... ..	...	451	14 0				
Myalup ... ..	...	960	12 0				
Harvey Weir ... ..	...	558	1 10				
Top Disposal Operations	...	336	16 6	3,616	15 7		
" Division No. 2:							
Mundaring District ...	...	3,647	8 4				
Gnangara Plantation ...	...	1,107	10 4				
Collier Plantation ...	...	562	9 3				
Applecross Plantation ...	...	1,114	4 6				
General ... ..	...	1,274	10 8	7,706	3 1		
" Division No. 3:							
Dwellingup District ...	...	5,266	14 5				
Huntly District ...	...	7,171	13 10				
Wuraming District ...	...	2,747	16 3				
General ... ..	...	2,762	18 11	17,949	3 5		
" Division No. 4:							
Collie District ... ..	...	3,771	0 8				
Collie South ... ..	...	2,120	1 5				
General ... ..	...	1,158	19 9	7,050	1 10		
" Division No. 5:							
Jarrahwood District ...	...	2,974	0 5				
Kirup District ... ..	...	4,125	19 9				
Greenbushes ... ..	...	1,175	17 9				
General ... ..	...	1,695	4 1	9,971	2 0		
" Division No. 6:							
Manjimup ... ..	...	775	14 4				
Nannup ... ..	...	1,899	13 0	2,675	7 4		
" Division No. 7:							
Narrogin District ... ..	...			4,276	16 6		
" Division No. 8:							
Jarrahdale District ...	...	1,069	0 6				
Karragullen ... ..	...	4,346	11 2				
General ... ..	...	1,082	10 5	6,498	2 1		
Training of Staff ... ..	...			469	6 5		
Research and Investigation ...	...			537	16 11		
Topographical Survey ... ..	...			3,232	14 0		
General Silviculture ... ..	...			103	19 3		
Salaries and Allowances ... ..	...			5,181	14 2		
General Equipment ... ..	...			2,152	1 2		
Proportion of Sandalwood Revenue credited in 1929-30 and Refunded to Consolidated Revenue Fund ...	...			22,344	12 0		
Balance carried forward ... ..	...			3,402	3 10		
				£97,167	19 7		
						£97,167	19 7

APPENDIX 2a.

Exports of Timber, Tanning Barks, Sandalwood and Essential Oils for the Year ended 30th June, 1931.

Item and Country of Destination.	Quantity.	Value.	Item and Country of Destination.	Quantity.	Value.
<i>Timber Dressed, N.E.I.—</i>	cubic feet.	£			£
Great Britain	21,371	2,643	<i>Staves, Undressed—</i>		
Ceylon	4,765	583	Commonwealth of Australia	...	393
British Malaya	1,556	220			
South African Union	87	11	Total Timber Exports	...	533,997
Denmark	14	2			
Egypt	45	6	<i>Sandalwood—</i>	cwt.	
Netherlands East Indies	1,305	159	British Malaya	520	770
Siam	51	7	Ceylon	220	330
Total	29,194	3,631	Hong Kong	26,274	37,179
			India	1,500	2,250
<i>Timber, Undressed—</i>			China	3,486	3,081
Commonwealth of Australia	489,469	62,333	Netherlands East Indies	120	180
Great Britain	912,196	112,847	Total	32,120	43,790
British Malaya	8,544	1,147			
Ceylon	850,440	103,610	<i>Tanning Barks—</i>		
India	2,631	316	Commonwealth of Australia	18,329	10,709
Mauritius	84,750	10,160	Belgium	8,042	3,506
New Zealand	905,908	108,904	Germany	30,059	14,097
New Guinea	335	40	Italy	608	270
South African Union	423,795	52,260	Netherlands	16,095	6,751
Africa, Portuguese East	4,533	544	Total	73,133	35,333
Belgium	43,729	5,692			
China	300,875	36,105	<i>Essential Oils—</i>		
Germany	39,220	5,507	Commonwealth of Australia	...	3,266
Italy	1,782	214	Great Britain ... ..	...	43,787
Netherlands	30,445	4,071	Ceylon ... ..	...	113
Spain	10	1	Hong Kong ... ..	...	1,249
Total	4,098,662	503,751	British Malaya ... ..	...	477
			South African Union ... ..	...	62
<i>Casks and Shooks—</i>			China ... ..	...	598
*Commonwealth of Australia	...	21,406	Germany ... ..	...	1,655
Great Britain ... ..	...	221	Japan ... ..	...	4,000
Total ... ..	...	21,627	Netherlands East Indies ... ..	...	945
			Philippine Islands ... ..	...	18
<i>Wood Manufactures, N.E.I.—</i>			Total ... ..	...	56,170
*Commonwealth of Australia	...	4,573	Total, all Exports ... ..	...	£669,290
Great Britain ... ..	...	5			
South African Union ... ..	...	17			
Total ... ..	...	4,595			

* A very large proportion of this amount represents empty returns.

APPENDIX 2b.

Imports of Timber, Tanning Substances and Essential Oils for the Year ended 30th June, 1930.

Item and Country of Origin.	Quantity.	Value.	Item and Country of Origin.	Quantity.	Value.
<i>Timber, Dressed, N.E.I.—</i>	cubic ft.	£	<i>Clothes Pegs—</i>		£
Commonwealth of Australia	...	1,783	Commonwealth of Australia	...	1,334
Great Britain	10	8	Sweden ... ..	...	25
Japan ... ..	...	15	Total ... ..	...	1,359
Norway	5,529	583			
Sweden	28,863	3,092	<i>Doors of Wood—</i>	No.	
United States of America ...	...	164	Commonwealth of Australia	210	109
Total ... ..	...	5,645	Norway	20	3
			Total	230	112
<i>Timber, Undressed, N.E.I.</i>			<i>Oars and Sculls—</i>		
Commonwealth of Australia	42,412	7,806	Commonwealth of Australia	...	172
British Malaya	15	5	Great Britain ... ..	...	3
Great Britain	2	4	Japan ... ..	...	17
Siam	99	77	United States of America ...	...	229
Canada	17	1	Total ... ..	...	421
Sweden	568	187			
New Caledonia	83	40	<i>Picture and Room Mouldings—</i>		
Japan	358	100	Commonwealth of Australia	...	617
Norway	52	1	Great Britain ... ..	...	57
United States of America ...	43,213	4,420	Total ... ..	...	674
Total	86,819	12,641			
			<i>Plywood and Veneers—</i>		
<i>Timber for making Boxes and Doors—</i>			Commonwealth of Australia	...	7,335
Commonwealth of Australia	...	310	Great Britain ... ..	...	94
British Malaya	8,462	777	China ... ..	...	497
United States of America ...	67,894	6,572	Japan ... ..	...	132
Japan	133	44	United States of America ...	...	26
Latvia	15,906	1,337	Total ... ..	...	8,084
Netherlands	163	120			
Netherlands East Indies ...	142	37	<i>Wood Manufactures, N.E.I.—</i>		
Norway	21,749	2,711	Commonwealth of Australia	...	8,958
Sweden	22,391	2,488	Great Britain ... ..	...	4,396
Total	136,840	14,396	British Malaya ... ..	...	4
			Canada ... ..	...	328
<i>Architraves and Mouldings—</i>			India ... ..	...	1
Commonwealth of Australia	...	621	Ceylon ... ..	...	1
Germany ... ..	...	5,045	Austria ... ..	...	1
Total ... ..	...	5,666	Belgium ... ..	...	1
			Czecho-Slovakia ... ..	...	8
<i>New Zealand Pine—</i>			France ... ..	...	40
New Zealand	1,033	127	Germany ... ..	...	363
Numea	58	27	Netherlands ... ..	...	9
Total	1,091	154	Italy ... ..	...	2
			Palestine ... ..	...	1
<i>Spokes, Dressed—</i>	No.		Sweden ... ..	...	3
Commonwealth of Australia	1,493	61	Switzerland ... ..	...	41
United States of America ...	1,250	43	Norway ... ..	...	52
Total	2,743	104	Japan ... ..	...	29
			United States of America ...	...	474
<i>Barrels, Casks, etc. —</i>			Total ... ..	...	14,712
Commonwealth of Australia	...	6,007	Total, Timber Imports	...	76,533
<i>Brushmakers' Woodware and Wood Tool Handles—</i>					
Commonwealth of Australia	...	4,098			
Great Britain ... ..	...	130			
Germany ... ..	...	1			
Norway ... ..	...	216			
Sweden ... ..	...	101			
United States of America ...	...	2,012			
Total ... ..	...	6,558			

APPENDIX 2b—continued.

Item and Country of Origin.	Quantity.	Value.	Item and Country of Origin.	Quantity.	Value.
<i>Tanning Barks—</i>			<i>Essential Oils—</i>		£
Commonwealth of Australia	cwt. 2,610	£ 1,490	Commonwealth of Australia	...	1,975
<i>Tanning Extracts—</i>			Great Britain	...	151
Commonwealth of Australia	...	515	Ceylon	...	545
Great Britain	...	117	India	...	2
South African Union	...	206	South African Union	...	1
Italy	...	257	Madagascar	...	2
Germany	...	53	Bulgaria	...	23
France	...	117	France	...	113
Norway	...	39	Switzerland	...	4
Argentina	...	1,160	Germany	...	9
Turkey	...	31	Italy	...	175
United States of America	...	62	Greece	...	2
Jugo Slavia	...	98	Spain	...	5
Total	...	£2,655	Netherlands	...	71
			Hungary	...	2
			China	...	12
			Japan	...	13
			United States of America	...	47
			Total	...	3,160
			Total, all Imports	...	£83,838

APPENDIX 2c.

Summary of Exports of Forest Produce since 1836.

Year.	Timber.		Sandalwood.		Year.	Timber.		Sandalwood.		Tanning Bark.	Essential Oils.*
	cub. ft.	Value.	Tons.	Value.		cub. ft.	Value.	Tons.	Value.	Value.	Value.
1836 ^a	10,000	£ 2,500	...	...	1885	848,150	£ 67,850	4,527	£ 36,216	...	...
1837	...	...	...	...	1886	626,150	50,092	3,431	27,450	...	...
1838	...	...	...	...	1887	354,800	23,334	4,317	34,533	...	...
1839	...	...	...	...	1888	525,750	42,060	4,470	35,525	...	...
1840	...	...	...	...	1889	788,500	63,080	6,385	57,465	...	...
1841	...	...	...	...	1890	1,172,200	32,052	5,136	61,355	...	...
1842	...	...	...	...	1891	1,273,950	89,179	3,760	37,600	...	...
1843	...	...	...	...	1892	1,082,650	73,419	5,716	42,870	...	...
1844	b	...	...	...	1893	512,950	33,888	3,893	32,160	...	...
1845	...	...	4	40	1894	1,063,700	74,304	2,784	23,430	...	...
1846	2,550	£ 255	32	320	1895	1,255,250	83,146	3,851	30,863	...	...
1847	12,200	1,120	370	4,444	1896	1,545,600	116,420	6,848	65,800	...	...
1848	3,350	333	1,335	13,353	1897	2,393,300	192,451	5,852	49,490	...	...
1849	...	...	...	...	1898	4,086,150	326,195	4,349	31,812	...	...
1850	10,500	1,048	...	...	1899	6,913,550	553,198	4,034	29,719	...	...
1851	1,250	268	219	1,593	1900	5,725,400	458,461	5,095	39,038	...	...
1852	7,050	806	...	...	1901	7,150,600	572,354	8,864	73,931	...	...
1853	52,200	5,220	...	...	1902	6,256,750	500,533	7,995	61,771	...	...
1854	58,500	7,023	...	...	1903	7,748,450	619,705	4,406	37,913	...	...
1855	76,900	12,076	...	...	1904	8,072,300	654,949	4,510	35,417	32,876	...
1856	70,500	9,671	...	...	1905	8,709,500	689,943	5,521	38,517	154,087	...
1857	69,200	9,449	280	2,524	1906	8,830,700 ^c	708,993	8,848	70,958	140,720	...
1858	29,250	2,340	745	7,455	1907	6,409,550 ^c	511,923	9,212	65,999	98,773	...
1859	67,250	6,051	1,278	17,259	1908	9,869,500 ^c	813,591	9,564	76,668	79,934	...
1860	54,300	4,932	1,687	16,360	1909	10,830,450 ^c	867,419	4,803	37,456	59,633	...
1861	27,750	2,497	2,558	24,945	1910	12,074,100 ^c	972,698	8,228	70,775	93,733	...
1862	68,800	7,151	2,393	21,541	1911	12,449,500 ^c	986,341	6,907	65,506	83,470	...
1863	32,900	2,983	2,307	25,265	1912	11,297,100 ^c	903,396	3,154	27,533	49,094	...
1864	58,300	5,508	2,724	24,520	1913	13,619,350 ^c	1,089,431	6,260	47,539	47,377	...
1865	183,950	15,693	1,686	13,490	1914 ^d	6,279,750 ^c	502,153	4,702	39,800	18,197	...
1866	85,650	6,849	2,965	23,722	1915 ^e	9,968,500 ^c	808,392	8,375	78,926	6,127	331
1867	56,750	4,541	2,305	18,442	1916 ^e	5,432,100	441,991	6,271	61,351	10,208	1,102
1868	8,000	638	3,256	26,045	1917 ^e	3,890,650	310,893	7,230	72,669	18,959	2,060
1869	179,900	14,273	4,124	32,998	1918 ^e	3,436,250	274,141	6,504	81,834	16,886	3,995
1870	157,200	17,551	6,112	48,890	1919 ^e	4,135,750	344,119	8,998	117,072	13,875	3,987
1871	218,500	15,304	3,366	26,926	1920 ^e	5,065,300	487,666	14,355	240,579	12,121	3,704
1872	37,000	2,590	3,942	31,536	1921 ^e	9,816,250	1,162,735	10,839	181,801	23,073	10,107
1873	68,150	4,771	6,292	62,916	1922 ^e	8,309,750	1,063,475	3,990	54,769	13,328	6,878
1874	345,600	24,192	7,057	70,572	1923 ^e	7,911,310	1,009,831	7,623	102,012	21,161	20,075
1875	342,350	23,985	6,646	66,465	1924 ^e	11,126,861	1,379,022	14,081	348,713	29,606	39,877
1876	219,050	23,743	6,577	65,772	1925 ^e	11,844,303	1,491,925	6,243	166,775	40,136	42,057
1877	336,150	36,979	4,247	51,851	1926 ^e	12,001,384	1,533,030	7,771	238,203	15,056	47,819
1878	580,900	63,902	4,675	35,064	1927 ^e	12,580,262	1,659,876	6,321	199,754	15,818	26,454
1879	627,250	69,742	4,667	35,001	1928 ^e	10,384,784	1,274,432	4,829	147,426	27,662	39,131
1880	662,550	66,252	5,197	51,970	1929 ^e	7,635,237	967,038	7,532	225,208	35,850	63,307
1881	792,750	79,277	7,716	77,165	1930 ^e	6,579,743	812,112	943	22,223	40,628	77,510
1882	936,500	93,650	9,605	96,050	1931 ^e	4,127,856	533,997	1,606	43,790	35,333	56,170
1883	997,000	79,760	7,031	56,250	TOTAL	302,422,590	£29,086,865	408,053	£4,819,193	£1,249,530	£444,619
1884	861,700	68,936	2,620	20,960							

^a The exports up to the year 1834 consisted only of supplies to shipping of which no record is kept. ^b Not available. ^c Approximate figures only.
^d Six months ended 30th June. ^e Year ended 30th June. * Principally Sandalwood Oil.

APPENDIX 3.

TIMBER INDUSTRY REGULATION ACT, 1926.

Annual Report, 1930.

As from the first of September, 1930, this Act has been administered by the Hon. Minister for Forests with the Conservator of Forests as Controlling Officer.

Owing to a number of the mills closing down, there was not sufficient work to justify the employment of three inspectors, consequently the staff was reduced during the year to one District Inspector, who is assisted by District Officers of the Forests Department.

At the close of the 12 months' period covered by this report and ending on the 31st December, 1930, there were 59 sawmills subject to the provisions of the Act. 400 inspections of timber holdings were carried out by the inspectors, as a result of which 87 requisitions were served requiring attention to 156 defects or dangers. In two cases owners failed to take the necessary measures as directed to remedy defects, and prosecutions were launched against them, which resulted in fines totalling £9 and costs being imposed. Owners and managers have in almost every case shown their willingness to comply readily with the requisitions and every assistance has been given to inspectors in carrying out their duties.

Four hundred and ninety-one accidents were reported and investigated during the year—a decrease of 210 on the previous year's operations. The number of accidents that occurred to every 100 persons employed fell from 22.8 in the previous year to 21 during the year under review. The average period of incapacity was 20.2 days per person injured. Only one fatal accident was reported and, in this case, a verdict by the Coroner of accidental death was returned, no blame being attachable to anyone.

Since July last particulars have been kept to show the personal cause of accidents as determined by the inspectors, and it has been found that in the majority of cases the accidents were caused as a result of lack of care and concentration on the part of the injured person or other employees.

The provisions of the Act and regulations are operating satisfactorily to all parties concerned.

Returns as listed hereunder have been prepared, but, under present circumstances, the cost of printing these tables is not considered justified:—

- (1) Number of notifiable accidents reported in accordance with Section 14, according to months, and indicating the nationality and age of the person injured, the period of incapacity, the number of occasions on which the first aid outfit was used, and the monthly fatigue symbol during the year ending 31st December, 1930.
- (2) The number of notifiable accidents reported during the year 1930, according to months and days of the week on which the accidents happened.
- (3) By months, the time at which the notifiable accidents occurred.
- (4) The number of hours worked on the day and up to the times of sustaining the accidents by persons injured.
- (5) The number of accidents reported during the year 1930, classified according to the cause of accident and location of injury.
- (6) The number of accidents reported during the year 1930, classified according to the cause of accident and nature of injury.
- (7) The number of accidents reported during the year 1930, classified according to the location and nature of injury.
- (8) The personal cause of the accidents reported during the half year ended 31st December, 1930, as determined by the District Inspector.

Perth, 24th August, 1931.

S. L. KESSELL,
Controlling Officer.