

1945

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WESTERN AUSTRALIA

REPORT

on the operations of

THE FORESTS DEPARTMENT

for the

YEAR ENDED 30th JUNE, 1945

by

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DEPUTY CONSERVATOR OF FORESTS

PERTH

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1945

Annual Report on the Operations of the Forests Department for the Year ended 30th June, 1945.

INTRODUCTION.

War conditions have continued to limit the operations of the Department to a maintenance schedule. Shortage of manpower has meant that no developmental works in forest management and silviculture were undertaken and the work of the staff has been concentrated on fire control, utilisation projects, and a minimum of maintenance work.

The production of timber amounted to 8,761,304 cubic feet in the square, valued at £1,500,000. Of this quantity, 1,440,461 cubic feet was from private property. In 1938 the corresponding total volume was 14,294,192 cubic feet, but during the war years there has been a progressive reduction in output in Western Australia due to lack of manpower and machinery. It is anticipated that a peak production will again be reached in the early post-war years.

Figures relating to export of Forest Produce have not been published for some years due to Security Regulations, but appear in this report as Appendix 2c. It is seen that the annual value of timber exports during the war years has been approximately equal to that of the immediate pre-war years, but fell to the comparatively low figure of £570,028 for the year under review.

A welcome trend is to be seen in the steady increase in value of the annual exports of Essential Oils and Tanning Extracts which together for the year 1945 reached £210,000.

The General Working Plan for Jarrah and Karri was revised during the year, while a special plan was prepared for the first time for Sleeper Sawmilling. The term of these plans is for 10 years, but tentative provision has been made for 30 years in the case of general milling. For the post-war period when there will be adequate manpower to run the mills at full strength, the cut of the general mills will be 30,000,000 cubic feet in the round per annum. This cut will yield 10,000,000 cubic feet in the square which with 1,250,000 cubic feet from 25 sleeper mills and other timber from fruit case and private property mills will mean total production of 12,500,000 cubic feet in the square for the first 10 years. After that, the output from private property and sleeper mills will be comparatively small, but the cut of 10,000,000 cubic feet per annum by the general purpose mills can be more or less maintained for 30 years.

Australia as a whole faces a shortage of timber and imports must be relied upon to meet one-third of this requirement, only two-thirds being obtainable in Australia. Western Australia is one of the two States, Tasmania being the other, which have a surplus of production above their own requirements.

With full production on the return of Service personnel and others to their normal occupations, there should be a substantial balance available for export.

During the war the main activity of the Department has been the protection of the forests from fire. This has permitted the unhampered operations of the sawmilling industry in cutting for Defence purposes, and has protected the valuable young forest now growing, thus safeguarding the timber industry of the future.

Roads, tracks and trafficable firelines now requiring maintenance total 11,000 miles, and protective burning is carried out each year over a large mileage of firebreaks of five chains or more in width, in addition to the early burning of large areas of mill tops, marginal forest and waste land.

The greatest problem facing forestry in Western Australia, as in all Australia, still remains the fire problem. Greater losses were sustained during the past summer, which occurred at the end of a period of dry years, than in any previous season in recent years, although it was still under 0.9 per cent. of the protected forest in A Zone. In addition to the very dry summer experienced, shortages of staff, manpower, and motor transport were contributing factors. The Department was fortunate in obtaining, towards the end of the summer, power pumping units which must now be completed with transport to provide mobile units, the value of which has already been demonstrated.

During the past year the Department continued to provide assistance in sawmilling and other rural industries in a variety of undertakings not normally its function. The supplies of firewood to the Metropolitan Area, chiefly for domestic requirements, were again maintained. The aim of the Department's operations as before was to supplement the greatly reduced quantities reaching Perth from other sources and cutting was governed by immediate demands. In addition it was found necessary to increase the supplies for industrial purposes, requirements being met from Donnybrook to the Goldfields Pumping Stations at Merredin.

The Civil Aliens Corps was disbanded towards the close of the year and the men, under Manpower direction, became employees of the Department with no change in their occupation. A Prisoner of War (Italian) Hostel was opened in October, 1944, and was kept with a strength of 100 to 150.

Potato digging under Forests Department direction resulted in 7,811 tons being dug in the Spring and Autumn crops.

Bean sticks were required in large quantities to raise beans for canning for supply to the Services, and 685,000 had to be cut by the Department.

Included as an appendix is a brief report on the administration of the Timber Industry Regulation Act. During the year ended 31st December, 1944, 278 inspections of timber holdings were made by the District Inspector. 512 notifiable accidents were investigated. The average period of incapacity was 21 days per person injured, but it is regretted that four fatal accidents occurred during the year.

There were approximately 2,793 persons employed on timber holdings, showing a slight increase over 1943. Sawmills registered totalled 118, of which 42 operated on private property.

THE FOREST AREA.

The total area of State Forest as at June, 1945, was 3,392,926 acres, which is a decrease of 105 acres compared with the area as at June, 1944. During the year additions totalling 130 acres were made to State Forest, whilst 234 acres were excised with the approval of Parliament and reverted to the Lands Department, to be made available for selection.

TIMBER RESERVES (FORESTS ACT, 1918).

No alterations occurred during the year to the areas of the existing Timber Reserves, the total remaining at 1,778,111 acres.

REVENUE.

The gross revenue of the Department for the financial year ended 30th June, 1945, amounted to £265,034, compared with £227,350 for the previous

year. Revenue for Sandalwood amounted to £2,352, as compared with £53 for the previous year, the increase being due to an increased demand for wood for oil distillation purposes.

Goldfields Revenue amounted to £7,349, as compared with £6,705 for previous year. This represents royalties on firewood and mining timbers for Goldfields areas.

Territorial revenue covering royalties on Forest Products, excluding Goldfields Revenue, amounted to £129,256, an increase of £8,328, as compared with the previous year.

REVENUE FROM FIREWOOD OPERATIONS.

Approximately 65,000 tons of firewood was supplied to the Metropolitan Area and industrial concerns, and 18,000 tons to Goldfields Water Supply Pumping Stations. Revenue from this source amounted to £87,376.

REBATES OF INSPECTION FEES.

The rebate of 25 per cent. on inspection fees on all sawn timber, including sleepers for export, was continued and amounted to £1,141 3s. 11d.

SAWMILLING AND HEWING.

Log timber produced totalled 26,279,568 cubic feet, exclusive of mining timber, and from this 8,761,304 cubic feet of sawn and hewn timber was recovered. This represents the lowest production for many years and is slightly below the production for the year ending June, 1944.

TIMBER PRODUCTION.

Production of Timber for Year ended 30th June, 1945 (exclusive of Mining Timber, Firewood, Piles and Poles).

	Mill Logs.					Hewn Timber.				Grand Totals.	
	Jarrah.	Karri.	Other.	Total.		Jarrah. in sq.	Wandoo in sq.	Total.		In Log.	In Square.
				In Log.	Recovery of Sawn Timber.			In Log.	In Square.		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Crown Lands	cub. ft. 16,789,834	cub. ft. 4,368,982	cub. ft. 683,586	cub. ft. 21,842,402	cub. ft. 7,295,322	cub. ft. 25,036	cub. ft. 485	cub. ft. 127,605	cub. ft. 25,521	cub. ft. 21,970,007	cub. ft. 7,320,843
Private Property	2,727,416	726,991	790,314	4,244,721	1,427,493	10,730	2,238	64,840	12,968	4,309,561	1,440,461
GRAND TOTALS	19,517,250	5,095,973	*1,473,900	26,087,123	8,722,815	35,766	2,723	192,445	38,489	26,279,568	8,761,304

Figures in columns (1), (2), (3), (4), (8) and (10) are in the round based on full volume measures. Figures in columns (5), (6), (7), (9) and (11) are the volumes of sawn or hewn timber measured in the square.

* Comprises:—658,516 cubic feet Wandoo; 267,079 cubic feet Marri; 224,619 cubic feet Pine; 143,926 cubic feet Blackbutt; 142,952 cubic feet Sheoak; 12,560 cubic feet Morrell; 8,120 cubic feet River Banksia; 6,564 cubic feet Tuart; 3,727 cubic feet Peppermint; 2,903 cubic feet Mallet; 2,503 cubic feet Yate; 260 cubic feet Bullich; 171 cubic feet Karri Oak.

Pine timber produced within the State totalled 224,619 cubic feet, of which 70,000 cubic feet were supplied from Departmental plantations and State Forest.

Table 2 sets out the quantities of sawn and hewn timber produced from Crown Lands and private property for the past two years.

The number of sleeper hewers registered for the year was 11 on Crown Land and one on private property.

The average number of men employed in the sawmilling industry throughout the year was 2,793, an increase of 75 on last year; 118 sawmills continued to operate, of which 76 were on Crown Lands.

TABLE 2.

Year.	From Crown Lands.				From Private Property.				Estimated value of Timber obtained.
	Sawn timber other than sleepers.	Sawn Sleepers.	Hewn Sleepers.	Other hewn timber.	Sawn timber other than sleepers.	Sawn Sleepers.	Hewn Sleepers.	Other hewn timber.	
1943-44	cub. ft. 5,599,833	cub. ft. 1,697,019	cub. ft. 50,735	cub. ft. 88	cub. ft. 1,295,217	cub. ft. 149,354	cub. ft. 14,168	....	£ 1,490,000
1944-45	5,537,637	1,757,685	25,355	166	1,174,329	253,164	12,968	....	1,576,000

Of the total of 26,279,568 cubic feet, 4,309,561 came from private property.

The production of timber by hewing was further reduced from the 1944 figure of 64,991 cubic feet to 38,489 cubic feet in the square. The increasing use of the sleeper sawmill is gradually eliminating hewing as a means of production of sleepers.

FIREWOOD PRODUCTION.

The consumption of firewood in the main centres of W.A. for the past year is estimated at approximately 650,000 tons. Of this quantity, 210,000 tons were used within the Metropolitan Area, 220,000 tons on the Goldfields, 132,000 at bush sawmills, and 33,000 tons at Goldfields Water Supply Pumping Stations, country towns accounting for the balance.

It was again necessary for the Forests Department to assist in meeting the firewood requirements of the Metropolitan area and some country centres. Firewood supplied by the Department for the year totalled 75,334 tons including 18,871 tons delivered to the Goldfields Water Supply Pumping Stations. The bulk of the wood produced departmentally, however, was supplied to woodyards, hospitals, and institutions in the Metropolitan Area.

Firewood camps at which Civil Aliens were employed under the control of the Department were maintained throughout the year and a prisoner of war camp was established near Jarrahdale in September last. Large reserves of firewood were accumulated during the summer months, which enabled supplies to be kept up during the peak periods of the winter. Thirty-one thousand tons of wood were produced at Aliens Camps and 16,600 tons by prisoners of war. The remainder was produced by Forests Department employees and contractors.

The available rail transport was insufficient to maintain regular deliveries of wood to the Metropolitan Area and the Department found it necessary to bring nearly 60 per cent. of its supplies by road.

Stocks of firewood held in the bush at the close of the year totalled 16,000 tons.

During the year 54,100 tons of mill waste were sold by sawmillers as firewood and 132,000 tons used as fuel by the mills.

In addition to mill waste and firewood produced by the Department, supplies were further augmented by permit holders operating under Forests Department permits on Crown lands who produced 91,200 tons principally for Metropolitan and military requirements.

Firewood produced on the Goldfields, including G.W.S. Pumping Stations Nos. 3-8, amounted to

233,272 tons, being 18,726 tons greater than for the previous year. Practically the whole of this wood was obtained on Crown lands.

TIMBER INSPECTION.

Sawn and hewn sleepers inspected throughout the year amounted to 1,676,547 cubic feet, while sawn timber other than sleepers submitted for inspection totalled 308,140 cubic feet.

One thousand, one hundred and one piles and poles containing 34,540 lineal feet were inspected.

OTHER FOREST PRODUCE.

Mining timber supplied from Crown lands and private property in the Collie and Goldfields Divisions amounted to 17,350 tons, slightly less than last year.

The production of sleepers for the Goldfields wood lines totalled 24,688 cubic feet—a 25 per cent. increase on last year.

Charcoal production from State Forest and Crown Lands remained at a low figure of only 3,399 tons. Most of this produce is now obtained by private enterprise on country not held under lease or license from this Department.

Piles and poles obtained from Crown Lands and private property totalled 8,967, giving 198,779 lineal feet, a further reduction on the figures for previous years. Of this number, approximately half came from private property. The number of fencing posts and rails increased from 44,354 to 94,692. Some boat knees were obtained under permit.

Supplies of mallet bark for tannin extraction were difficult to maintain, and the total stripped was 528 tons, compared with 366 tons last year. Supplies are now almost exhausted but thinnings from plantations can be expected within a few years. Mallet timber was supplied to a factory for turning axe handles.

Wandoo logs used in the production of tannin extract amounted to 37,806 tons, mostly from private property.

Tuart logs amounting to 6,564 cubic feet were obtained by the W.A. Government Railways and all of this was supplied by the Forests Department.

Pine thinning in the Mundaring Weir and Ludlow Plantations was continued and thinning commenced at Gngalara, and 70,000 cubic feet of logs were made available, principally for case manufacture.

Twenty-five thousand W.A. willow canes, approximately 6 feet long, have been supplied to the W.A. School for the Blind for use in basket making.

Sandalwood production amounted to only 197 tons, which was an increase on the 52 tons produced for the previous year. The export trade, however, has completely ceased.

Bean sticks totalling 684,956 were supplied for use in production of beans for canning for the Services.

FOREST OFFENCES.

Forty-seven Forest Offences were reported to Head Office by Field Officers, etc., during the year.

In seven cases proceedings were taken against the offenders and convictions were recorded and fines and costs amounting to £32 imposed.

Warnings were issued in twelve cases and the remainder were dealt with by the collection of royalty, forfeiture of deposit, or confiscation of the timber illegally cut. The amount received by the Department in this way totalled £234.

EXPENDITURE—1944-45.

The expenditure from Consolidated Revenue Fund covering cost of general administration of the Forests Act and Regulations amounted to £31,372, as compared with £29,272 for the previous year.

In addition to this, an amount of £140,018 was provided from Consolidated Revenue Fund to meet expenditure on firewood cutting for Goldfields Water Supply Pumps and Metropolitan industrial and domestic requirements, mallet bark stripping, potato digging, bean stick cutting and other wartime emergency demands.

An average number of 280 wages employees were engaged on general forest work and bushfire fighting during the year, together with an average number of 170 Civil Aliens Corps personnel and 150 prisoners of war were employed on firewood cutting and potato digging throughout the year.

Three-fifths of the net revenue of the Department amounted to £28,049 14s. 5d., and this amount was transferred to the Reforestation Fund in accordance with the provisions of section 41 of the Forests Act, 1918.

The following table sets out the position of the Reforestation Fund as at 30th June, 1945:—

	£	s.	d.	£	s.	d.	£	s.	d.
Revenue for Year 1944-45	...	...	...	265,034	6	2			
C.R.F. Expenditure	171,389	14	9						
Less Timber Industry Regulation Salaries and Incidentals	1,165	15	8						
				170,223	19	1			
Plus adjustment under Statement of Expenditure previous year				460	3	4			
				170,684	2	5			
Interest on Loans				45,238	15	1			
Sinking Fund				2,261	18	0			
Audit Fees				100	0	0			
				218,284	15	6			
Net Revenue				£46,749	10	8			

REFORESTATION FUND.

	£	s.	d.	£	s.	d.
Balance as at 30th June, 1944	...	...	...	68,401	13	10
Three-fifths net revenue transferred	28,049	14	5			
Treasury Grant	15,000	0	0			
Direct Credits, Rents, etc.	4,395	1	4			
				47,444	15	9
Recoups, Expenditure—						
Beanstick Cutting	2,082	12	6			
Assistance to Sawmills	3,250	12	0			
Salaries—Officers on loan to Commonwealth	1,881	6	6			
Potato digging	288	13	0			
Firewood cutting	2,024	13	4			
Pine Conversion	2,000	0	0			
Federal Aid Roads Grant	6,000	0	0			
				17,627	17	4
Total Credits to Reforestation Fund				133,474	6	11
Less Expenditure, 1944-45—						
Reforestation and Afforestation	109,423	0	2			
Assistance, Sawmills, Roads, etc.	17,627	17	4			
				127,050	17	6
Balance in Fund, 30th June, 1945				£6,423	9	5

MOTOR VEHICLE DEPRECIATION ACCOUNT.

	£	s.	d.
Balance in Fund at 30th June 1944	189	16	3
Transfer of Depreciation on Vehicles, Year 1944-45	2,029	8	1
Balance in Fund, 30th June, 1945	£2,219	4	4

Treasury Department Accounts combine both Reforestation Fund and Motor Vehicle Depreciation Account and show a total credit of £8,642 13s. 9d. as at 30th June, 1945.

REFORESTATION.

For the period of the war, operations have been of necessity kept to a maintenance basis. No developmental works in management and silviculture were undertaken. These have all been reserved for attention in the post-war years and a lengthy programme of essential works continues to be built up. Maintenance of roads and firelines essential to the adequate protection of and access to the forests was undertaken as far as possible but these works have fallen seriously into arrears with a consequent danger to this national asset, unless an accelerated post-war programme is possible.

Roads and firelines were extended by 231 miles and a total of 11,362 miles, nearly all of which are trafficable, have now been built by this Department but at least an extra 5,000 miles are necessary to develop and manage additional areas of forest.

An additional 15 miles of single wire earth return telephone line was erected, and the necessary maintenance repairs and adjustment to the 1,254 miles of line now in use was carried out wherever required.

No regeneration operations in either Jarrah or Karri were undertaken and the areas regenerated are the same as reported last year.

Soil survey work was carried out over 500 acres. Type mapping and assessment of a further 447 acres were completed. 798 chains of permanent line plots were completed, and 7 miles of assessment line work. There is a need for a large extension of this work as soon as staff and funds are available.

AFFORESTATION.

Mallet.

Only 339 acres were sown to Brown Mallet (*Eucalyptus astringens*) in the Narrogin Division. The total area of this species now established is 17,034 acres.

Conifers.

Planting activities were restricted to refilling failed areas and small extensions, totalling 17 acres, to existing plantations. The total area of plantations is now 13,609 acres and the annual programme of 1,000 acres for the State is seriously in arrears due to the war.

Thinning operations were continued at the Mundaring Weir and Ludlow Plantations, and by a small Departmentally controlled mill at Gnangara for the purpose of milling thinnings from that plantation of *Pinus pinaster*. The total volume of thinnings removed and marketed from Departmental plantations was 69,788 cubic feet.

Assessments of the Metropolitan plantations were made with the aid of air photos which prove of great assistance and reduce the number of man days usually taken up on this work.

RESEARCH AND INVESTIGATION.

At Dwellingup and Pemberton the operations of the fire weather stations were continued and daily recordings of the recognised fire weather elements were made. From this data, together with additional information regarding the general weather movements provided daily by the Divisional Meteorologist, the usual fire weather forecasts were prepared and disseminated to district officers over the Departmental telephone system and by broadcasting.

Regulations prohibiting the regular broadcasting during the war were relaxed and daily forecasts again instituted. These forecasts not only govern the daily organisation of the Department, but serve an ever increasing function in guiding generally in their burning-off operations and are of considerable value to farmers and others in the South-West.

The Forest Products Utilisation Panel, established within the Department to report on matters relating to the utilisation of forest products, continued to function.

Consideration has been given to extending the use of Western Australian timbers for paper pulp, handles, plywood, furniture and minor purposes such as clothes pegs and smokers' pipes. In addition, the commercial possibilities of local fibres and barks have also been given attention. The possible production of Eucalyptus and Tung oils has also been explored.

Schools of instruction in fire control organisation and technique were held during the early summer and attended by staff officers and overseers.

Data resulting from experiments laid down by the Department of Agriculture were examined by the Statistical Branch of this Department.

Investigation into pine thinning and further observations on the taper in *Pinus pinaster* were continued.

Remeasurement of earlier experiments in the field of pine nutrition were carried out and data recorded for future publication.

Detailed assessments of areas cut over by various sawmilling companies were continued, as opportunity offered, to provide information regarding tree marking standards, volume of timber remaining, and data for future working plan provisions.

The use of air photos in assessment calculations is increasing and preliminary work, limited by lack of staff, has been carried out.

FIRE CONTROL.

The fire season of 1944-45 followed two abnormally dry years, with the result that fires began to run earlier than usual, and the rate of spread was naturally increased by the dry forest fuels involved.

In the northern forest regions fire suppression began in earnest in early October and lasted until almost the end of April. The Karri country had, as usual, a somewhat shorter season, but a relatively long one for that area.

In addition to the very dry summer experienced, shortages of manpower and motor transport were other factors contributing to the unusually difficult season.

Sources outside the usual scope of the Department were again availed of in order to overcome the manpower shortage in some measure. The Department of the Army again co-operated in the supply of a number of troops for early preventive burning in spring in both the Jarrah and Karri forest, and members of the Civil Alien Corps were also employed both in controlled burning and in actual fire suppression.

Employees of the sawmillers were again a most valuable form of manpower in fire control, being of very great assistance during the season. In some cases mill production had to be suspended temporarily as a result.

It seems clear that future assistance from the Department of the Army and from the Civil Alien Corps will have to be drastically curtailed, if not dispensed altogether, and the timber companies concerned will no doubt be called upon more than ever to assist in the practice of forest fire control, the successful application of which will have such a marked effect on actual future timber production.

From the point of view of systematic fire suppression in the height of the season, the Department again placed a great deal of reliance on the early preventive burning of thousands of miles of especially prepared firebelts surrounding areas of good quality forest, and dangerous focal points known to be vulnerable as far as fire occurrence is concerned.

The experience of the previous season was repeated in that the various contributing causes already mentioned, operated to reduce the controlled burning programme considerably.

Fire detection measures were continued as usual throughout the seven month period by means of a chain of look-out towers from Mundaring in the north to Pemberton in the south.

Suppression technique again demonstrated the powerful effect of water supplies from mobile transport equipped with power pumps. Although a number of pumpers were secured late in the season, limited numbers earlier and lack of transport made it impracticable to use pumping equipment at many fires.

The season's records in the hardwood forests disclose that no less than 363 fires were attended by Departmental gangs, and of this total 101 were responsible for burning over 8,973 acres of good quality forest, represented by .86 per cent. of the total area (1,040,460 acres) of forest in Zone A. In addition to this, 105 fires occurred in B Zone, a forest so designated because it is as yet not so closely controlled, more difficult of access, and not so well subdivided by tracks and burnt fire belts.

The remaining 157 fires did not result in any forest loss.

The causes of fires were as follows, and do not show any marked variation in cause from the experience of previous years:—

W.A.G.R. locomotives	33
Mill locomotives	62
Bush workers	20
Mill navy gang	5
Hunters and fishers	35
Travellers in the forest	36
Stock owners and lease holders	5
Private property	60
Firewood cutters	1
Lightning	3
Deliberately lit	15
Escaped from Controlled Burning by	
Departmental employees	30
Mill surroundings	3
Mine surroundings	4
Employees of other Government De-	
partments	4
Mill employees	4
Householders	3
Children	4
Gas producers	11
Military operations	1
Unknown	24
	363

It is unfortunate that during the year planted pine forest should have suffered a great deal more than usual. Two plantations, Boranup and Pardelup, were practically totally destroyed, which involved the loss of 540 acres of pine forest. Both these areas are comparatively small and isolated pine stands, and the principal loss suffered was the fruit of much patient experimental work in pine nutrition designed to assist the establishment of *P. pinaster* on poor coastal sands.

The effective age of the two areas was low, and consequently the actual timber loss was small.

Two other small areas of plantation, one at Munding (25 acres) and one at Collie (43 acres) also were burnt during the year. The total area of plantation in the State is at present 13,609 acres.

Throughout the season, the Police Department again rendered valuable assistance wherever it was desired to go beyond a Departmental inquiry into the cause of a fire.

ARBORICULTURE.

Despite the very dry winter and consequent unfavourable planting conditions experienced in 1944, the distributing season which closed on August 31st was a comparatively busy one. Although tree planting by local authorities and other public bodies was still considerably below the pre-war scale the demand by private persons was well maintained and sales showed a decided increase over the figures for the two preceding years.

During the season 37,350 trees were distributed and of these 31,118 were disposed of by sale. The balance were supplied to other Departmental centres mainly for ornamental or experimental planting. No large quantities of pines were raised for Departmental planting.

Of the trees sold, Sugar Gum (*Eucalyptus cladocalyx*) continued to hold its place as the most popular tree and was closely followed by Monterey Pine (*Pinus radiata*) and Maritime Pine (*Pinus pinaster*). Victorian Ti-tree (*Leptospermum laevigatum*) was next in demand and this shrub has now completely replaced the Cupressus and Pittosporum as a popular hedge subject. Other trees for which there was a good demand were Brush Box (*Tristania conferta*), Pepper Tree (*Schinus molle*) and Kurrajong (*Sterculia diversifolia*).

STAFF.

Mr. F. Gregson, Utilisation Officer, was seconded to the Commonwealth as Assistant to the Deputy Controller of Timber in W.A., having previously been on part-time duties on the same work.

Mr. J. O'Donnell, Fire Control Officer, resigned to take up the position of Assistant Conservator of Forests in Tasmania.

Mr. H. James, Assistant Forester, who held the rank of Lieutenant Colonel in the Army, on being discharged from the forces, resigned without resuming duty with the Department.

Two overseers were promoted to the rank of "D" Grade Assistant Forester.

In Head Office, one clerk resumed duty after three years' service in the Australian Military Forces, and another was granted indefinite military leave to serve in the Royal Australian Navy.

A junior typist and a junior machinist were promoted to the permanent staff.

Necessary adjustments were made by employment of clerks and typists to replace those who had resigned or been transferred to other departments during the year.

The progressive loss of trained staff both permanently or temporarily on loan to Commonwealth Departments, has thrown additional work and responsibility on the remaining experienced officers. The year has been even more difficult in this respect than the previous one, and I desire to place on record my appreciation of the loyal co-operation of all in their endeavours to maintain efficiency in the circumstances.

It is with the greatest regret that I have to record the death on duty of Mr. R. M. Skitch, Forest Assistant, who was killed in a motor cycle accident in the forest near Collie.

T. N. STOATE,
Deputy Conservator of Forests.

Perth,
15th September, 1945.

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APPENDIX 1A.

CONSOLIDATED REVENUE FUND.

Consolidated Statement of Revenue and Expenditure for year ended 30th June, 1945.

DR.				CR.	
		£	s. d.		£ s. d.
To Log Royalties—General Mills ...	...	101,422	6 4	By Salaries ...	25,909 5 11
Sleeper Mills ...	...	15,643	1 3	Incidentals ...	3,079 9 5
Hewn Timber Royalties ...	...	629	18 5	Firewood, Goldfields Pumps ...	12,716 6 4
Sandalwood Royalty ...	...	2,352	1 8	Metropolitan Firewood, Potato Dig-	
Pile and Pole Royalties ...	...	1,598	0 11	ging, etc. ...	127,301 6 1
Miscellaneous Royalties ...	...	7,610	13 2	Timber Industry Regulations ...	383 7 0
Goldfields Revenue ...	...	7,348	10 3	Pine Conversion Costs ...	2,000 0 0
Rents ...	...	1,235	1 9		
Inspection Fees ...	...	3,153	0 1	Total C.R.F. Expenditure ...	171,389 14 9
Sales Pine Timber ...	...	3,158	7 2	Excess Revenue over Expenditure ...	93,644 11 5
Sales Firewood—Metropolitan ...	...	70,408	9 8		
Goldfields Pumps ...	...	16,967	13 7		
Miscellaneous Sales ...	...	1,757	10 11		
Potato Digging Charges ...	...	18,349	6 7		
Alien Canteen and Mess ...	...	10,599	17 4		
Miscellaneous Receipts ...	...	2,800	7 1		
		£265,034	6 2		£265,034 6 2

APPENDIX 1B.

Consolidated Statement Afforestation and Reforestation Expenditure for year ended 30th June, 1945.

DR.				CR.	
		£	s. d.		£ s. d.
To Division No. 1 ...	...	6,727	0 11	By Reforestation Fund ...	109,423 0 2
Division No. 2 ...	...	4,253	19 9	Federal Aid Road Grant ...	6,000 0 0
Division No. 3 ...	...	12,330	1 8	Pine Conversion Costs ...	1,616 6 3
Division No. 4 ...	...	10,299	12 11	Cash Orders Outstanding, 30th June,	
Division No. 5 ...	...	10,625	15 9	1944 ...	343 7 5
Division No. 6 ...	...	12,887	5 6		
Division No. 7 ...	...	6,227	17 0		
Division No. 8 ...	...	6,073	7 10		
Division No. 9 ...	...	5,567	13 5		
Division No. 10 ...	...	11,139	14 10		
Division No. 11 ...	...	7,280	1 7		
Total Divisional Expenditure ...	...	93,412	1 2		
To Training of Staff ...	...	239	7 9		
Research and Investigation ...	...	663	16 4		
Preparation of Working Plans	...				
and Topo Surveys ...	...	1,174	13 11		
Salaries and Allowances ...	...	6,956	19 11		
General Equipment and In-	...				
cidental ...	...	5,134	6 3		
General Silviculture, Arbori-	...				
culture and Forest Pro-	...				
tection ...	...	356	13 10		
Motor Vehicle Depreciation ...	...	1,999	8 1		
Purchase Fire Equipment ...	...	4,092	2 9		
Pay Roll Tax ...	...	823	18 10		
Purchase Motor Vehicles (4) ...	...	2,529	5 0		
		23,970	12 8		
		£117,382	13 10		£117,382 13 10

APPENDIX 2A.

Exports of Timber, Tanning Substances, Sandalwood and Essential Oils during the Year ended 30th June, 1945.

Item and Country of Destination.	Quantity.	Value.	Item and Country of Destination.	Quantity.	Value.
TIMBER.			WOOD MANUFACTURES.		
<i>Architraves, Mouldings, and Skirtings of any Material, including Picture and Room Mouldings</i>	lin. ft.	£	<i>Furniture—</i>		£
	<i>Nil</i>	<i>Nil</i>	Commonwealth States:		
<i>Palings—</i>			N.S.W.	533	
Commonwealth States:			Vic.	615	
No.	£		S.A.	47	
S.A. 150	3	150	United Kingdom		1,195
			Ceylon		1,240
<i>Pickets—</i>					2,598
Commonwealth States:					5,033
No.	£		<i>*Casks—</i>		
Vic. 4,622	66	4,622	Commonwealth States:		
			N.S.W.	653	
<i>Railway Sleepers—</i>			Vic.	2,201	
Commonwealth States:			Qld.	252	
c. ft.	£		S.A.	15,973	
N.S.W. 18,399	3,726	486,372	Tas.	266	
Vic. 4,722	959	44,909			19,345
S.A. 413,251	83,475	337	<i>Wood Manufactures, Other—</i>		
Union of South Africa		481,618	Commonwealth States		
Egypt		101,710	N.S.W.	141	
			Vic.	1,821	
<i>Shooks—</i>			S.A.	961	
Commonwealth States:			U.S.A.		2,923
S.A.		3,844			6
<i>Staves—</i>					2,929
Commonwealth States:			Total Wood Manufactures		27,307
N.S.W.	£		TOTAL TIMBER AND WOOD MANUFACTURES		597,335
Vic.	3,267				
Qld.	227		<i>Sandalwood</i>	cwt.	<i>Nil</i>
S.A.	562	4,222		<i>Nil</i>	<i>Nil</i>
<i>Tongued and/or Grooved, including Weatherboards—</i>			<i>Tanning Bark—</i>		
Commonwealth States:			Commonwealth States:		
S.A.		168	N.S.W.	cwt. £	
			Vic.	201 136	
<i>Undressed, Sawn, N.E.I., Boards, N.E.I., and Planks not exceeding 2 in. in thickness—Hardwood—</i>				3,664 2,659	3,865 2,795
Commonwealth States:			<i>Tanning Extract—</i>		
c. ft.	£		Commonwealth States:		
N.S.W. 67,361	11,426	1,008,596	N.S.W.	cwt. £	
Vic. 228,205	38,814	50,845	Vic.	23,769 35,470	
S.A. 713,030	112,149	23,810	Qld.	1,400 2,112	
United Kingdom		3,735	S.A.	2,633 3,963	
New Zealand		1,086,986	United Kingdom		38,925 58,244
Union of South Africa		181,734			34,520 48,640
					73,445 106,884
<i>Undressed Sawn N.E.I. Beams, Baulks, Joists, and all other Sawn Timber—Hardwood—</i>			ESSENTIAL OILS.		
Commonwealth States:			<i>Patchouli</i>	gal.	<i>Nil</i>
c. ft.	£			<i>Nil</i>	<i>Nil</i>
N.S.W. 101,370	16,007		<i>Sandalwood—</i>		
Vic. 274,025	51,415		Commonwealth States		
S.A. 450,872	80,096		N.S.W.	gal. £	
United Kingdom		826,267	N.S.W.	66 855	
New Zealand		215,794	Vic.	165 811	
Union of South Africa		69,797	S.A.	102 1,330	
Egypt		142,330	United Kingdom		383 2,996
		2,865	Union of South Africa		720 10,476
					24 306
					1,077 13,778
			<i>Essential Oils—Other—</i>		
			Commonwealth States:		
			N.S.W.	gal. £	
			Vic.	10,577 44,176	
			Qld.	4,002 37,017	
			S.A.	55 707	
				296 3,561	
			Union of South Africa		14,930 85,461
					364 2,366
					15,294 87,827
			<i>Eucalyptus</i>		
			Union of South Africa		
					742 1,450
			Total Essential Oils		103,053
<i>Other Undressed Timber</i>		<i>Nil</i>	Total Value of Exports shown on this Return		810,069
Total Timber Exports		570,028			

APPENDIX 2B.

Imports of Timber, Tanning Substances and Essential Oils during the Year Ended 30th June, 1945.

Item and Country of Origin.	Quantity.	Value.	Item and Country of Origin.	Quantity.	Value.
TIMBER.			Tool Handles (including Axe)—		
<i>Architraves, Mouldings, N.E.I., and Skirtings of any Material—</i>	cub. ft.	£	Commonwealth States :		£
Commonwealth States—			N.S.W.		4,927
N.S.W.		45	Vic.		1,024
Vic.		360	Qld.		21
			S.A.		1,453
			Tas.		549
<i>Undressed and Dressed : for making Boxes—</i>		405	United States of America		7,979
Commonwealth States—					143
cub. ft.					8,122
N.S.W.	4,254	1,786	Wood Manufactures, N.E.I.—		
Vic.	824	495	Commonwealth States :		£
Qld.	3,000	914	N.S.W.		10,259
Tas.	1,782	908	Vic.		32,895
	9,860	4,103	Qld.		8,361
<i>Timber Undressed, N.E.I.—</i>			S.A.		3,059
Commonwealth States :			Tas.		1,099
cub. ft.		£	United Kingdom		55,673
N.S.W.	2,720	1,230	India		9
Vic.	6,401	3,189	United States of America		243
Qld.	23,147	7,414	China		17
S.A.	4,639	2,967			67
Tas.	15,335	3,289			56,009
*Commonwealth of Australia	52,242	18,089	TOTAL WOOD MANUFACTURES		
Canada	525	47			122,731
Guatemala	18,470	2,550	TOTAL TIMBER AND WOOD MANUFACTURES		
New Caledonia	70	256			148,838
United States of America	576	484			
West Indies—Other	2,620	58			
	31	115			
	74,534	21,599	Tanning Bark—	cwt.	
TOTAL TIMBER		26,107	Commonwealth States	Nil	Nil
			Union of South Africa	1,302	654
WOOD MANUFACTURES.			Tanning Extract—		
<i>Barrels and Casks—</i>			Commonwealth States :		
Commonwealth States :			cwt.	£	
N.S.W.		370	N.S.W.	60	194
Vic.		2,413	Vic.	975	2,848
Qld.		65	Africa, British East		1,035
S.A.		11,609	India		299
		14,457	Union of South Africa		3,955
<i>Clothes Peys—</i>					2,703
Commonwealth States :					7,992
N.S.W.		25			8,610
Vic.		1,490	ESSENTIAL OILS.		
Tas.		2,477	Commonwealth States :		£
		3,992	N.S.W.		27,207
<i>Furniture—</i>			Vic.		8,917
Commonwealth States :			S.A.		527
N.S.W.		1,079	United Kingdom		36,651
Vic.		4,873	Ceylon		43
S.A.		5,639	India		2,727
United Kingdom		9	West Indies, British		5,633
United States of America		95	Madagascar		1,209
		11,745	Soviet Union		8,349
<i>Plywood and Veneers—</i>			Spain		8
Commonwealth States :			United States of America		1,708
N.S.W.		3,926			19,121
Vic.		8,026			
Qld.		16,344	TOTAL ESSENTIAL OILS		75,449
S.A.		110			
		28,406	TOTAL VALUE OF IMPORTS SHOWN ON THIS RETURN		£233,551

* Produce of Australia, previously Exported, now returned to this State.

APPENDIX 2C.

Summary of Exports of Forest Produce since 1836.

Year.	Timber.		Sandalwood.		Year.	Timber.		Wood Manu- factures.	Sandalwood.		Tanning Bark.	Essential Oils.*	Tanning Extracts.
	Cub. ft.	Value.	Tons.	Value.		Cub. ft.	Value.		Value.	Tons.			
1836a	10,000	2,500	.....	.....	1891	1,273,950	89,179	.....	3,760	37,600	.....	.....	.....
1837	.....	.....	.....	.....	1892	1,082,650	78,419	.....	5,716	42,870	.....	.....	.....
1838	.....	.....	.....	.....	1893	512,950	33,888	.....	3,893	32,160	.....	.....	.....
1839	.....	.....	.....	.....	1894	1,063,700	74,804	.....	2,784	23,430	.....	.....	.....
1840	.....	.....	.....	.....	1895	1,255,250	88,146	.....	3,851	30,863	.....	.....	.....
1841	.....	.....	.....	.....	1896	1,545,600	116,420	.....	6,848	65,800	.....	.....	.....
1842	.....	.....	.....	.....	1897	2,393,300	192,451	.....	5,852	49,480	.....	.....	.....
1843	.....	.....	.....	.....	1898	4,086,150	326,195	.....	4,349	31,812	.....	.....	.....
1844	b	163	.....	.....	1899	6,913,550	553,193	.....	4,084	29,719	.....	.....	.....
1845	.....	.....	.....	.....	1900	5,725,400	458,461	.....	5,095	39,038	.....	.....	.....
1846	2,550	255	4	400	1901	7,150,600	572,354	.....	8,864	73,931	.....	.....	.....
1847	12,200	1,120	32	324	1902	6,256,750	500,533	.....	7,995	61,771	.....	.....	.....
1848	3,350	333	370	4,444	1903	7,748,450	619,705	.....	4,406	37,913	.....	.....	.....
1849	.....	.....	1,335	13,353	1904	8,072,300	654,949	.....	5,521	25,417	.....	.....	.....
1850	10,500	1,048	.....	.....	1905	8,709,500	689,943	.....	5,521	38,817	.....	.....	.....
1851	1,250	268	219	1,593	1906	c 8,336,700	708,993	.....	8,848	70,958	.....	.....	.....
1852	7,050	806	.....	.....	1907	c 6,409,550	511,923	.....	9,212	65,999	.....	.....	.....
1853	52,200	5,220	.....	.....	1908	c 9,869,500	813,531	.....	9,564	76,668	.....	.....	.....
1854	58,500	7,023	.....	.....	1909	c 10,830,450	887,419	.....	4,805	37,456	.....	.....	.....
1855	76,900	12,076	.....	.....	1910	c 12,074,100	972,698	.....	8,228	70,775	.....	.....	.....
1856	70,500	9,671	.....	.....	1911	c 12,449,500	986,341	.....	6,907	65,506	.....	.....	.....
1857	69,200	9,449	280	2,524	1912	c 11,297,100	903,396	.....	3,154	27,533	.....	.....	.....
1858	29,250	2,340	745	7,455	1913	c 13,619,850	1,089,481	.....	6,260	47,589	.....	.....	.....
1859	67,250	6,051	1,278	17,259	1914d	c 6,279,750	502,153	.....	4,702	39,800	.....	.....	.....
1860	54,800	4,932	1,687	16,360	1915e	c 9,968,500	808,392	.....	8,375	78,926	.....	.....	.....
1861	27,750	2,497	2,558	24,945	1916e	5,432,100	441,991	.....	6,271	61,381	.....	.....	.....
1862	68,800	7,151	2,393	21,541	1917e	3,890,650	310,893	.....	7,280	72,669	.....	.....	.....
1863	32,900	2,963	2,807	25,265	1918e	3,436,250	274,141	.....	6,504	81,834	.....	.....	.....
1864	58,300	5,508	2,724	24,520	1919e	4,135,750	332,584	11,535	8,998	117,072	.....	.....	.....
1865	183,950	15,693	1,686	13,490	1920e	5,065,300	465,731	21,935	14,355	240,579	.....	.....	.....
1866	55,650	6,849	2,965	23,722	1921e	9,816,250	1,187,819	24,916	10,839	181,801	23,073	10,107	.....
1867	56,750	4,541	2,305	18,442	1922e	8,309,750	1,041,047	22,248	3,990	54,769	13,328	6,878	.....
1868	8,000	638	3,256	26,045	1923e	7,911,810	997,454	12,377	7,623	102,912	21,161	20,075	.....
1869	179,900	14,273	4,124	32,998	1924e	11,126,861	1,367,517	11,505	14,081	348,713	29,606	39,877	.....
1870	157,200	17,551	6,112	48,890	1925e	11,844,303	1,477,997	13,928	6,243	186,775	40,136	42,057	.....
1871	218,500	15,304	3,366	26,926	1926e	12,001,384	1,522,958	10,072	7,771	238,203	15,056	47,819	.....
1872	37,000	2,590	3,942	31,536	1927e	12,580,262	1,651,149	8,727	6,821	199,754	15,818	26,454	.....
1873	65,150	4,771	6,292	62,916	1928e	10,384,784	1,265,383	7,783	4,829	147,426	27,662	39,131	.....
1874	345,600	24,192	7,057	70,572	1929e	7,635,237	960,435	6,603	7,582	225,208	35,850	63,307	.....
1875	342,350	23,965	6,646	66,465	1930e	6,579,743	807,425	4,687	943	22,228	40,628	77,510	.....
1876	219,050	23,743	6,577	65,772	1931e	4,127,856	507,382	26,615	1,606	49,790	25,333	56,170	.....
1877	336,150	36,979	4,247	31,851	1932e	3,062,673	361,700	85,488	1,386	40,546	42,016	59,301	.....
1878	580,900	63,902	4,675	35,064	1933e	2,235,540	262,617	80,332	3,068	83,846	33,352	26,331	.....
1879	627,250	69,742	4,667	35,001	1934e	4,060,830	487,248	76,107	2,508	75,424	20,904	26,720	.....
1880	662,550	66,252	5,197	51,970	1935e	5,326,117	636,466	65,494	2,223	66,474	15,284	35,363	.....
1881	792,750	79,277	7,716	77,165	1936e	5,598,180	679,522	50,665	1,592	44,916	12,237	27,526	13,657
1882	936,500	93,650	9,605	96,050	1937e	5,673,903	699,684	52,338	2,513	75,670	14,491	38,185	15,514
1883	997,000	79,760	7,031	56,250	1938e	7,545,744	932,420	47,934	747	22,884	13,865	35,123	53,294
1884	861,700	68,936	2,620	20,960	1939e	5,704,250	722,310	43,518	1,106	34,571	17,842	25,550	43,329
1885	848,150	67,850	4,527	36,216	1940e	5,049,585	634,859	62,796	1,058	41,596	19,485	47,736	69,899
1886	626,150	50,092	3,431	27,450	1941e	6,091,187	790,876	74,935	1,167	47,613	13,686	59,367	99,445
1887	354,800	28,384	4,317	34,533	1942e	5,224,634	700,474	64,454	400	17,481	6,896	74,904	146,511
1888	525,750	42,060	4,470	33,525	1943e	3,516,566	605,327	32,426	2	80	1,598	70,253	113,324
1889	788,500	63,080	6,385	57,465	1944e	3,645,354	613,994	25,324	.....	.....	1,294	72,704	126,659
1890	1,172,200	82,052	5,136	51,355	1945e	2,851,475	570,028	27,307	.....	.....	2,795	103,055	106,884
Total	.....	.....	.....	.....	Total	368,008,628	37,599,963	972,229	425,823	5,375,294	1,465,325	1,147,242	787,516

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,
1926-37.

Annual Report for the year ended 31st December,
1944.

At the close of the year there were 118 mills subject to the provisions of the Act and receiving periodic inspections from the District and Workmen's Inspectors. In all 278 inspections of Timber Holdings were made, and 512 notifiable accidents were investigated and reported upon by the Inspectors.

The average number of persons employed on timber holdings throughout the year was 2,793, or 75 more than last year. The number of accidents that occurred to every 100 persons employed was 18.5 as against 20.7 last year. The total period of incapacity as a result of accidents was 10,718 days or an average of 21 days per injured person.

Of the accidents reported, four proved fatal, one from complications which set in following an injury in the bush when barking logs, one while loading logs at a bush landing, and two caused by falling limbs during falling operations.

Returns as listed hereunder have been prepared, but are not included in this report:—

1. Number of notifiable accidents reported in accordance with section 14 of the Act, according to months, and indicating the age and nationality of the injured person, the period of incapacity, the number of cases on which the first-aid outfit was used, and the monthly fatigue symbol.
2. The number of accidents reported during 1944, and their classification according to location and nature of injury.
3. The number of accidents classified according to cause of accident and location of injury.
4. The number of accidents classified according to cause of accident and nature of injury.
5. The number of accidents classified according to the months and days of the week on which the accident occurred.
6. The number of hours worked on the day and up to the time of injury, by the person injured.
7. A return showing by months the time at which the notifiable accidents occurred.
8. A return showing the personal cause of accidents as determined by the Inspectors.

T. N. STOATE,
Acting Controlling Officer.

15th August, 1945.