

SECTION X.

FORESTS, FORESTRY, AND FORESTAL PRODUCTS.

§ 1. The Forests of Australia.

1. **Extent of Forests.**—Although no definite survey of forest lands has been made on a uniform basis for the different States of Australia, the following table gives the results of careful estimates made for each State :—

FOREST RESERVES AND FOREST AREAS, STATES AND COMMONWEALTH, 1911.

State.	Specially Reserved for Timber.	Total Forest Area.	Percentage of State Area.		Percentage of Commonwealth Area.	
			Specially Reserved.	Total Forest.	Specially Reserved.	Total Forest.
	Acres.	Acres.	%	%	%	%
New South Wales	*7,379,395	15,000,000	3.72	7.55	0.39	0.78
Victoria	4,160,342	11,800,000	7.40	20.98	0.22	0.62
Queensland	3,714,919	40,000,000	0.87	9.32	0.19	2.10
South Australia	161,004	3,800,000	0.03	0.66	0.01	0.20
Western Australia	11,148,487	20,400,000	17.85	3.27	0.58	1.07
Tasmania	†1,000,000	11,000,000	5.95	65.56	0.05	0.58
Commonwealth	27,564,147	102,000,000	—	—	1.44	5.35

* Inclusive of 6,730 acres within the Federal area. † Approximate.

The actual area of wooded land is probably in all cases much greater than shewn above. For example, that of Western Australia is estimated at 97,900,000 acres; Queensland has probably 143,000,000 acres; and Victoria has a considerable extent of "Mallee" country not included in the above estimate. The basis of estimation for each State in any case cannot be regarded as quite identical. Considerable areas not included as forest lands possess timber of local value.

The absolute and relative forest areas of Australia and other countries are shewn in the table on the next page.

In each of the States areas have been set apart as State forests and "timber reserves," in some cases the reservation being made in perpetuity, in others for a definite period; in others again the reservation may be cancelled at any time. The characteristics of the forest areas of the different States are referred to seriatim.

RELATIVE AREAS OF FOREST LANDS, AUSTRALIA AND OTHER COUNTRIES, 1910.

Country.	Total Forest Area.	Percentage of Total Area.	Country.	Total Forest Area.	Percentage of Total Area.
	Sq. Miles.	%		Sq. Miles.	%
Commonwealth ...	159,375	5.35	Rumania ...	10,836	21.36
New Zealand ...	26,678	25.65	Sweden ...	90,241	52.20
United Kingdom ...	4,800	3.96	Norway ...	26,685	21.50
France ...	36,005	17.58	Russia in Europe	859,375	43.04
Algeria ...	10,249	2.98	United States ...	860,000	24.08
Germany ...	54,015	25.90	Canada ...	836,000	22.33
Switzerland ...	3,290	20.60	Cape Colony ...	537	0.19
Italy ...	15,796	14.29	British India ...	126,858	11.55
Austria ...	37,700	31.66	Japan ...	29,003	19.64
Hungary ...	34,750	29.30			

2. **Characteristics of State Forest Areas.**—(i.) *New South Wales.* Great diversity exists in the more dense distribution of timber trees in the coastal region, between the Great Dividing Range and the Pacific Ocean. The areas of natural forest, however, are found in nearly every part of the State except the wide plains of the Murrumbidgee, Lachlan, and Darling districts, the level surface of which is chiefly covered with salt bush, scrub, and indigenous grasses, while the tree-growth is, as a rule, confined to belts of red gum, box, sheoak, and myall along the courses of the rivers and their tributaries, and to groves of cypress pine at intervals. The tree-clad regions of the State may be divided into open, brush, and scrub forests. The first class has the widest distribution, being found in every geological formation, and including some of the finest timbers, such as many species of eucalyptus, angophora, and other genera of the natural order of myrtles. Among the hardwoods, red gum usually marks the courses of streams, while on the rough and stony mountain and hill ridges, with their sheltered gorges, are found several varieties of ironbark, blackbutt, tallowwood, spotted gum, grey box, red mahogany, forest red gum, Sydney blue gum, and turpentine. The brush or jungle forests occupy a considerable tract of country between the Dividing Range and the coast. In this region, interspersed occasionally with large Moreton Bay and other figs, fern trees, cabbage trees, and palms, grow some of the most beautiful timbers known for cabinet work and veneers, such as the red cedar, rosewood, silky oak, beech, red bean, beefwood, tulipwood, and coachwood. In addition to these, there are considerable supplies of the colonial or hoop pine, and the brown or berry pine. The scrub forests are represented by the red or black and white varieties of the cypress pine, and many species of acacia and eucalyptus. These are chiefly situated in the western portion of the State, and although the pines and some of the eucalypts are useful for local building and fencing, the bulk of the timber is of little commercial value.

(ii.) *Victoria.* The mountain ranges, principal of which are the Dividing Range and the Australian Alps, constitute the true forest regions of the country, the trees attaining considerable height and girth, and the brush or scrub growth great luxuriance. The lower elevations of the ranges, remote from settlement, are densely wooded to their summits, but the peaks above the winter snow-line are either bare or covered only with dwarfed vegetation. Dense and luxuriant forests characterise the Otway Ranges and Gippsland, south of the Main Divide. The tree-growth in the Grampians consists chiefly of stringy-bark, white gum, grey and yellow box, and white ironbark, with some red gum and wattle. In the Pyrenees there are more valuable hardwoods, chiefly blue gum and messmate, with stringy-bark, grey and yellow box, red and white ironbark on the lower levels. In Wombat Forest, extending along both sides of the Dividing Range

from Creswick to Mount Macedon, the timber is almost wholly young messmate of good quality, with peppermint and swamp gum. Further eastward along the range messmate and stringy-bark prevail, with grey and yellow box and ironbark on the low country. In Delatite, and in the lower ranges of the Australian Alps generally, the timber increases in height and girth, and includes blue gum, messmate, and peppermint of fine quality, with ribbon gum, woollybutt and silvertop on the higher levels, and grey and yellow box with stringy bark along the lower slopes and valleys. The northern plains, extending westward from Wodonga to the Grampians, are thinly covered with open forests, the limits of the prevailing trees being defined in clearly-marked belts. Thus the main belt of red gum follows the course of the Murray and extends along the valleys of its tributaries, but is interspersed at intervals near the river with sand ridges bearing grey box and cypress pine. Southward of this belt, and between the streams, the prevailing trees are grey or yellow box, with red and white gum and stringy-bark on the low ridges. From Chiltern a line drawn westward through Rushworth, Heathcote, Bendigo, Dunolly, and St. Arnaud marks a long belt of ironbark, of both red and white varieties, interspersed with stringy-bark and grey or yellow box. In the north-west, between the Wimmera Plains and the Murray, the dwarf eucalypt known as the mallee scrub covers the plains, with belts of cypress pine at intervals, and red gum and box along the courses of streams and lakes. The south-west is poorly timbered, the prevailing trees being stringy-bark, with red gum along the streams, and white gum, box, lightwood, and honeysuckle on the plains and undulating country. In the Otway district are valuable timber forests; over 280 square miles are covered with blue gum, spotted gum, messmate, and mountain ash or blackbutt of fine quality, with some stringy-bark and white gum, while the valleys between the ridges bear valuable timber of fine grain such as blackwood, beech, satin box, olive, sycamore, and pencil cedar. Eastward of Melbourne, and on the watershed of the Yarra, there is another fine forest region, the trees consisting of spotted gum, mountain ash, messmate, and white gum, with blackwood, beech, sassafras, and silver wattle in the valleys. The ranges of Southern Gippsland bear blue gum, spotted gum, mountain ash, and yellow stringy-bark, while in the western and northern portions of the same district grow the mountain stringy-bark, spotted gum, blackbutt, and the Gippsland mountain ash or silvertop, with woollybutt and ribbon gum on the higher elevations of the Main Divide. In the eastern part of the district, stretching from the Lakes towards the Genoa River, are found the Bairnsdale grey box, the Gippsland mountain ash or silvertop, white and yellow stringy-bark, red ironbark and bloodwood. The prevailing timber in this part of Gippsland is the white stringy-bark, which forms large forests from the foothills of the Divide to the sea-coast.

(iii.) *Queensland.* The extensive forests of Queensland yield a great variety of woods, esteemed for their strength, durability, and beauty. The principal merchantable timbers lie between the eastern seaboard and the Great Dividing Range, which runs roughly parallel to, and about 200 miles from, the coast. At about the 21st parallel of south latitude, a spur runs westward nearly to the South Australian border, and bears on its crests and slopes much valuable timber. Forests are also found on the Denham, Johnstone, and Gilbert Ranges. The principal eucalypts are ironbark, grey, spotted, and red gum, blackbutt and turpentine; Moreton Bay, brown, and Bunya Bunya pines represent the conifers; and red cedar, beech, tulipwood, rosewood, red bean, and black bean are among the brush timbers of fine grain. On the extensive plateaux west of the Divide there is but little timber; and towards the vast basin of the interior, the low ridges and banks of the short water-courses bear a growth of stunted eucalypts such as the gimlet gum, the desert sheoak, acacias, and mallee.

The chief supply of mill timber (eucalypts, Moreton Bay pine, etc.) is in the southern coastal region, from the New South Wales border as far north as Gladstone. In the regions between Rockhampton and Ingham the supply is not so plentiful; but northward of the latter town, the red cedar, kauri pine, and black bean are luxuriant. Large

supplies of these valuable trees are found on the Barron Valley reserves, and in other localities between Ingham and Port Douglas. Inland from this zone of heavy forest is another, less densely timbered, bearing cypress and other pines, ironbarks and acacias. In the south-western regions of the State the cypress pine flourishes.

(iv.) *South Australia.* The principal forest districts of South Australia proper are restricted largely to the hill ranges in the neighbourhood of Adelaide and Spencer Gulf. The trees, however, have not the fulness and lofty growth of those of the eastern and south-western borders of Australia. Red gum is widely distributed, though never far from water; and there are belts of timber where, from the general appearance of the surrounding country, they would hardly be expected. The stringy bark has its habitat principally in the hills, and is but rarely seen on the plains; other useful hardwoods are the white and blue gum and peppermint. Blackwood (in demand for cabinet work) is common in the south-east and along the eastern border, but is rare near Adelaide. Wattle also is cultivated for its gum and bark. Sheoak appears in districts less thickly forest-clad, and ti-trees inhabit low, damp situations. The sandalwood trees grow luxuriantly in Yorke Peninsula. On the great plains of the interior there is little vegetation, patches of forest country being occasionally found, while here and there fertile spots of grass land, but generally not of large extent, are met with. Groups of stunted shrubs, and small scattered trees—sheoak, eucalyptus, and wattle—mostly of limited extent, rise from the plains like islands.

(v.) *Northern Territory.* In Central and Northern Australia there is little forest, until the hills where the waters of the northern river system take their rise are encountered. On the plains to the north of the McDonnell Ranges there is a thin clothing of mulga scrub, with gum trees marking the water-courses. Occasionally patches of heavier gum forests are met with. Stirling Creek is lined with the bean tree. The mulga scrub thickens, and with stunted and mallee gums furnishes a uniform vegetation as far north as Powell's Creek. Here, with red gum still lining the water-courses and flooded gums on the flats, the vegetation becomes more varied. On the ranges pines, fig trees, and orange trees (*Capparis*) occur. Heavy timber clothes the uplands about the Roper River, and the tableland which stretches across the territory at a distance from the coast of from 30 to 100 miles bears large paperbark trees, Leichhardt pines, and palms. On the higher steppes there is also abundance of bloodwood and other varieties of eucalyptus, besides other kinds of trees. Many prominent fibre plants are native to the territory.

(vi.) *Western Australia.* The coastal timber belt runs along the western shore from the Murchison River to the Leeuwin, and along the southern shore from that point to beyond Albany, clothing with trees the Victoria, Herschel, Darling, and Stirling Ranges. Pre-eminent among the trees of this State for strength and durability are the jarrah and karri. A great belt of the former stretches eastward of the Darling Range to upwards of 100 miles in breadth, with a length of 350 miles. Between this region and the coast are two well-marked belts of tuart and red gum. In the extreme south-west of the State the main karri belt stretches from Augusta to Albany. Eastward of the jarrah belt a strip of white gum encloses a narrow belt of York gum, its southern extremity almost reaching the coast, while its northern limit extends even beyond that of the jarrah tract. Still further east the forest thins, a poorer growth of white gum giving place to brushes, scrub, and dwarf trees. Along the shores of the Great Australian Bight there are stunted eucalypts, with casuarinas and wattle. In the north-west, on the King Leopold and St. George's Ranges, there are forest areas, but from Dampier Land to below Shark Bay there is no coastal forest, and in many cases the stunted bush and scrub lands infringe on the sea-coast.

(vii.) *Tasmania*. The Tasmanian forest consists chiefly of eucalypts, widely distributed over the island; and of conifers, such as the Huon, the King William, and the celery-top pines, flourishing in the western and southern parts. The principal hardwoods of the eucalypt family are the blue gum, stringy bark, peppermint, and silvertop iron-bark, while among woods of fine grain are the blackwood, beech or myrtle, sassafras, native cherry, and sheoak. Black and white wattles also flourish in various parts of Tasmania.

3. Distribution of Timber in the Commonwealth generally.—The more conspicuous timber regions of Australia as a whole are the eastern and southern portions, including Tasmania, and, again, the south-western portion northwards and eastwards from Cape Leeuwin. In regard to distribution, on the eastern side of the continent the largest timber is found on the crests and coastal slopes of the mountain ranges, but in the south-west, in addition to the vegetation between mountains and sea, a large area of forest stretches inland from the coastal ranges. The hills encircling Adelaide and Yorke and Eyre Peninsulas also bear good forest. The Kimberley district is timbered, and in the Northern Territory and round the shores of the Gulf of Carpentaria there are considerable forest areas. But the coastal regions of West and North-West Australia, except in the case of the districts named, and the shores of the Great Australian Bight and Encounter Bay, are devoid alike of mountains and forests. The interior of the continent is thinly timbered, or almost destitute of vegetation, an occasional limited area of forest, generally in connection with mountain systems though these themselves are scarce), acting as a relief in the landscape.

§ 2. Forestry.

1. Objects.—Economic forestry, aiming at the conservation of forestal wealth by safeguarding forests against inconsiderate destruction, and by the suitable re-afforestation of denuded areas, is essential to the preservation of industries dependent upon an adequate supply of timber, and to the perpetuation of a necessary form of national wealth. Though in Australia large areas of virgin forests still remain, the inroads made by timber-getters, by agriculturists, and by pastoralists—who have destroyed large areas by “ring-barking”—are considerable; and it is not unlikely that climatological changes are caused thereby. It is asserted that variations in climate, and alternating periods of drought and flood, desiccation and erosion of soil, with loss or diminution of fertility, have resulted from forest denudation in countries bordering the Mediterranean. In many of the States of America diminished rainfall is said to have followed the destruction of large forest areas, and in Mauritius, timber-clearing in the hills destroyed the even distribution of rainfall, causing floods and soil denudation. Moreover, beneficial consequences appeared to have followed on the planting of trees on denuded lands, or along eroding coasts, and it is obvious that a forest covering tends to beneficially regulate the effects of rainfall.

Successful planting of exotics in various parts of the Commonwealth has demonstrated that the Australian climate is suitable for the cultivation of a large number of the most valuable and beautiful of the world's timber trees.

2. Forestry Departments.—Each State of the Commonwealth, excepting Tasmania, has organised a separate forestry department or branch of service specially charged with forestal matters. Forest improvement work is carried on, areas of young forest being cleaned up by the felling and removal of stunted, diseased and suppressed growth, the

burning of debris and the making of fire breaks. Provision is made for effective patrols in forest districts, to check the ravages caused by fires, often, it is believed, caused through carelessness. The following table gives a comparative indication of the attention paid to the subject, the particulars being those for 1911:—

STATE FORESTRY DEPARTMENTS, 1911.

Particulars.	N.S.W.	Victoria.	Q'land.	Sth. Aust.	West. Aus. Tas
Designation of officer in charge	Director of Forests	Conservator of Forests	Director of Forests	Conservator of Forests	Insp.-Gen. of Forests. *
Salaries of persons engaged in administration and control	£ 2,761	3,152	603	1,157	938 { 250†
Salaries of technical experts, forest rangers, etc. ...	£ 12,521	14,524†	1,020	2,150	7,566 {
Incidental expenses ...	£ 9,840	548	1,302	570	1,813 { ...
No. of persons forming office staff	14	16	4	6	6 { *
No. of persons forming field staff	75	68	6	26	32 {

* Administered by Lands Department. † Including allowances. ‡ Salary of Forestry Expert, who is also the Fruit Expert. In addition, there are two men employed at 7/- per day each.

The revenue and expenditure of the State Forestry Departments from 1907-8 to 1911-12 are given below:—

REVENUE OF STATE FORESTRY DEPARTMENTS, 1907-8 to 1911-12.

State.	1907-8.	1908-9.	1909-10.	1910-11.	1911-12.
	£	£	£	£	£
New South Wales ...	56,048	57,593	66,080	87,618	95,231
Victoria ...	29,013	40,678	37,992	43,886	45,077
Queensland ...	22,236	27,880	35,200	39,645	53,840
South Australia ...	3,474	3,416	3,089	3,756	4,849
Western Australia ...	23,500	29,484	31,549	23,985	23,456
Tasmania ...	3,841	3,871	3,840	4,366	3,800
Commonwealth ...	138,112	162,922	177,700	203,256	226,253

EXPENDITURE ON STATE FORESTRY DEPARTMENTS, 1907-8 to 1911-12.

State.	1907-8.	1908-9.	1909-10.	1910-11.	1911-12.
	£	£	£	£	£
New South Wales ...	19,545	20,169	24,510	26,695	34,408
Victoria ...	18,754	27,066	27,230	46,448	41,686
Queensland ...	6,940	4,652	5,000	8,000	2,954
South Australia ...	7,542	10,171	16,411	20,968	23,296
Western Australia ...	6,271	8,755	10,110	8,572	8,874
Tasmania ...	424	1,492	260	240	220
Commonwealth ...	59,476	72,305	83,521	110,923	111,438

3. Sylvicultural Nurseries and Plantations.—The growing recognition of the necessity for systematic sylviculture has led to the creation in most of the States of a number of sylvicultural nurseries and plantations.

(i.) *New South Wales.* In this State a small forest nursery is maintained at Gosford, between Sydney and Newcastle, from which young trees are widely distributed throughout the State, the bulk being issued to municipal councils and farmers, and for planting in parks, town reserves, hospital grounds, and cemeteries. Large sums have been distributed by the State in improvement fellings and the thinning out of young timber, principally in the Bogan, Narrandera, and Murray River districts. Over a quarter of a million acres of pine forest and red gum have been so treated.

A nursery has been established at Acton Homestead, which has been resumed by the Commonwealth Government. Excellent progress is being made. It is considered likely that in the near future there will be a plentiful supply of young trees and shrubs for planting out in the new Federal Capital city.

(ii.) *Victoria.* In Victoria there are three forest nurseries, situated at Macedon, Creswick, and Frankston. At Macedon the arboretum contains many fine specimens of the conifers and deciduous trees of Europe, America and Asia. While the bulk of the yields are retained for the State plantations, there are considerable distributions for public parks and recreation reserves, "arbor-day" planting of streets and roads, municipal councils and water trusts, mechanics' institutes and libraries, cemeteries, State schools and other institutions, and farmers and private persons, the applications of those in dry districts receiving first consideration.

Among the principal native hardwoods raised and distributed are blue gum, sugar gum, and tallowwood, with some jarrah for the plantations; among conifers, the Monterey, Corsican, Black Austrian, Canary Island, Maritime, and Aleppo pines, the blue pine of India, the American white and yellow pines, with several spruces; and among other exotics, peppers, Indian cedars, oaks, elms, planes, silver poplars, sycamores, and chestnuts. Great success has attended the establishment of a nursery for conifers at Creswick.

The principal forest plantation is along the lower slopes of the You Yangs, near Geelong, where about 1000 acres have been enclosed and planted with eucalyptus and conifers. Good results have attended the cultivation of the broad leaf and feather leaf wattles.

At another plantation, viz., at Sawpit Gully, among the foothills of the Dividing Range, near Creswick, conifers are chiefly grown. Minor plantations of blue gum and sugar gum are established at Havelock and Majorca, near Maryborough; and at Mount Macedon, the principal species of oak, elm, ash, plane, sycamore, pine, spruce, eucalyptus, and willows are planted. In recent years additional planting of conifers has been carried out at Creswick, Frankston, and Warrnambool, and a large area has been sown with tan-yielding wattles at the You Yangs.

The principal work in forest reserves and plantations is improvement thinning and felling, planting, fencing, and construction of dams. The planted area of some of the older plantations has been enlarged.

Officers of the Lands and Forest Departments have made joint inspections of portions of reserved forests, to discover what areas, suitable for settlement, can be excised from the forest and made available. As a result, the forests will suffer a further loss of 20,000 acres. The officers have also recommended the addition of large areas to the State reserves.

Recent legislation makes provision for the stricter control of grazing in forests, and for more efficient protection from fire.

(iii.) *Queensland.* In Queensland there is a forest plantation of 500 acres. The questions of replanting and further reservation have lately been attracting attention, and the prominence given to them will probably greatly influence forest policy.

(iv.) *South Australia.* In this State there are several plantations, the most important being at Bundaleer and Wirrabarra, situated some 150 and 190 miles respectively to the north of Adelaide in the direction of Spencer Gulf. Of the reserved area, a very small proportion has borne timber of commercial value, the remainder having been covered for the most part with stunted vegetation. Owing to the absence of high mountain ranges and dryness of the climate, the forests are not dense. Special attention has been given in South Australia to silviculture, and great success has been achieved in clothing areas of treeless plain and hillslope with belts of young trees, such as blue, sugar and red gum, and white ironbark. In some parts the Tasmanian blue gum (*E. globulus*) flourishes, but great success has also been attained with the sugar gum (*E. corynocalyx*), a tree indigenous to the State itself. It is found chiefly in the Flinders Range, and used for railway sleepers, telegraph poles, coachbuilding, and in wharf and jetty construction. Two other eucalypts found in South Australia, the white ironbark (*E. leucozydon*), known locally as "blue gum," and the grey box (*E. hemiphloia*) furnish strong, tough, and durable timber, inlaid in grain and suitable for the same purposes as sugar gum. The common flooded variety of red gum, which has a fairly wide distribution, being found on clay flats and along streams and water-courses, has also been grown in the plantations, but not with the same success as sugar gum. Among conifers which have been grown with fair success are the Monterey, the Maritime, Aleppo, and Stone pines. The Monterey pine (*P. insignis*) outstrips all other trees in growth, and its timber, though softer than other first-class pines, has been utilised for deal tables, packing cases, picket fencing, shelving, and generally for purposes where common deal is useful. The Maritime, Aleppo, and Stone pines are naturally of slower growth. In Europe they furnish useful timber, but in these plantations have not yet reached an age suitable for utilisation. The upright poplar (*P. fastigiata*) growing well over a large area, serves for packing cases, flooring boards, etc. The locally-grown American ash (*Fraxinus americana*) has been used in coachbuilding work, and compares well in quality with the imported American ash. The area suitable for its cultivation in South Australia is, however, very limited, as it requires favourable conditions of soil and climate.

During the last twenty-eight years the Forest Department has issued very large numbers of young plants to the public free of charge, for wind breaks, avenues, and for the shelter of homesteads and buildings generally, over eight million trees having been so distributed. Formerly, bounties were paid under the Forest Act for the encouragement of private planting of timber trees.

A substantial increase in the amounts voted for recent years has enabled great progress to be made in planting forest reserves, and a much larger area is now planted than has been the case for many years past. It is anticipated that on completion of the planting season nearly a thousand acres will have been planted. Re-afforestation by natural regeneration of a large area in the Penola State forest, under a thorough system of fire protection, has been undertaken.

(v.) *Western Australia.* A State silvicultural nursery is established at Drake's Brook, on the south-western railway, the site chosen being a ti-tree swamp, exotic trees of temperate climates being raised. The planting of the Monterey, Maritime, Aleppo, and Canary Island pines, the blue pine of the Himalayas (*P. excelsa*), the Indian cedar, Lawson's cypress, several kinds of poplar, the Virginian catalpa, white cedar, and American ash has been successful. A large number of pepper trees and sugar gums were raised, chiefly for shade purposes. The trees are sold or given away to settlers, being distributed chiefly in the goldfields region and other districts having little natural forest.

There are also two forest plantations where conifers, acacias, and sandalwood are cultivated, the trees making very healthy growth.

(vi.) *Tasmania*. There are at present only two small experimental plantations. In the State nursery a considerable area is being planted with softwoods.

Particulars regarding nurseries and plantations in 1911 are given hereunder:—

SYLVICULTURAL NURSERIES AND PLANTATIONS, 1911.

Particulars.	New South Wales.*	Victoria.	Q'land.	South Australia.	Western Australia.	Tasmania.
Expenditure on plantations and upkeep of sylvicultural nurseries	£1,066	£9,216	nil	£19,411	£636	£250
No. of persons engaged in nurseries	11	22	nil	20	5	2
No. of sylvicultural nurseries ...	1	3	nil	7	1	1
Area of sylvicultural nurseries ...	85 ac.	54 ac.	nil	7 ac.	17 ac.	5 ac.
No. of forest plantations ...	3	11	1	107	2	...
Area of forest plantations ...	180 ac.	19070 ac.	500 ac.	9684 ac.	300 ac.	...
Extent of public distribution of trees or number of trees issued ...	39,000	30,000	†	516,000	58,000	5000

* A small nursery has also been established at Acton, Federal Capital Territory.

† There are no forest nurseries issuing trees in Queensland, but a small number of economic and ornamental trees are issued by the Department of Agriculture.

4. **Instruction in Scientific Forestry.**—A Forestry School, with adequate grounds, has been established at Creswick, in Victoria. The site is near the State plantation and nursery. General class-teaching is given at the school, but the principal aim of the Forest Department is to keep practical work in the foreground. The principal class subjects, in addition to theoretical forestry, are botany, geology, physics, and land surveying, while in outside work trainees will have regular teaching and experience in the preparation of seed-beds, seed-sowing, propagation, planting out, pruning, the general care and improvement of plantations and natural forests, and the employment of timber to the best advantage. The desire is to give the prospective forester a thorough training in all branches of the work. Facilities are also afforded to members of the present forests staff to qualify in special subjects by attending winter classes. The school was opened early in 1911.

In September, 1910, an Instructor of Forestry was appointed by the South Australian Government, to assist the Conservator in forest inspection, and particularly to conduct a course in forestry at the Adelaide School of Mines.

Courses of lectures have also been given at various centres.

5. **Interstate Conference of Australian Foresters.**—In November, 1911, the first Australian Conference on Forestry was held at Sydney. All the States, except Western Australia, were represented. Regarding forest policy and forest legislation, it was resolved that special enactments were necessary to provide for the conservation, maintenance, and planting of forests; that such enactments, to be effective, should provide for the creation of permanent and inalienable reserves; that for efficient management, the appointment of a permanent authority, vested with statutory powers for administration and control, was demanded; and that the administration of forest and game laws could sometimes be combined with advantage and economy. Upon the subject of the education and training of forest officers, it was resolved that a high standard was essential for the successful pursuit of forestry; and that courses to give such training be held at schools founded for this purpose, and authorised to issue recognised diplomas and certificates. The resolutions regarding waste lands declared that the clothing of heath and moor lands, areas of inferior natural vegetation, etc., should be viewed as a national work; and that each State should make annual appropriations for most profitably carrying on the work. It was stated to be advisable that an association for the advancement of forestry, to be styled "The Australian Forestry League," should be formed. Other resolutions declared the necessity for immediate and concerted action in

connection with the establishment of plantations of coniferous trees and the maintenance of existing coniferous forests. Attention was also invited to the general inadequacy of the laws regarding protection of forests from fire. The preservation under permanent forest cover of all high mountain ranges which formed the sources of streams and springs was stated to be a matter of first national importance, owing to the irregular rainfall in many parts of Australia; and the Conference recommended that all high ranges which were still crown lands should be dedicated as permanent forests, strictly maintained under forest cover, and controlled under forest law.

§ 3. Commercial Uses of Principal Australian Timbers.

The uses of the more important of Australian timbers are many and various. Four varieties of ironbark, viz., white or grey (*E. paniculata*), narrow-leaved (*E. crebra*), broad-leaved (*E. siderophloia*), and red (*E. sideroxylon*) are largely used for public works, preference being given to the white and narrow-leaved varieties. These timbers are used extensively in the building of bridges and culverts, for railway sleepers and fencing posts, and for framing, naves, spokes, poles and shafts in carriage and waggon building. Ironbark beams are of great strength, hence it is largely employed for girders and joists of upper floors, especially in stores for heavy goods.¹ Another red ironbark (*E. leucoxydon*), heavy, dense, and strong, is greatly valued for bridge beams and piles. Tallowwood (*E. microcorys*) is strong, heavy, very durable, not easily split, and turns and planes well. It is used for bridge-decking, house-flooring (being peculiarly suitable for ballrooms), girders, piles, and fencing posts, and especially for paving blocks, giving even and regular wear under heavy traffic. Even better in this latter regard is blackbutt (*E. pilularis*), a fine hardwood for house and ship building, as well as street paving. Grey gum (*E. propinqua*), makes excellent railway sleepers, and is used for felloes and spokes in coach building. It makes very durable fencing posts, and is also sometimes split for shingles. Murray red gum (*E. rostrata*), the common river gum of all the eastern States, is one of the best hardwoods for use in contact with the ground, being largely used for poles, house foundations, wood paving, and railway sleepers. It is also extensively cut for mining shafts and public and municipal works. The forest variety of red gum (*E. tereticornis*) serves the same purpose as the river red gum. White mahogany (*E. acmenoides*) is used for posts, poles, girders, and similar classes of work, being an exceedingly durable timber. Red mahogany (*E. resinifera*) is largely employed for general building work, street paving, fencing, and weatherboards. It is very durable and hardens greatly with age. Grey box (*E. hemiphloia*) is very durable in contact with the ground, and is hence used for railway sleepers (lasting from thirty to thirty-five years in the track), telegraph poles, mine props, fence posts, piles, girders, and for heavy framing and naves, wheel cogs, shafts, dray poles, spokes, etc. Bairnsdale grey box (*E. bosistoana*) serves similar purposes. Brush box (*Tristania conferta*), another hard and durable wood, is used for tram rails, bullock yokes, tool handles, planes, etc. Sydney blue gum (*E. saligna*) is greatly valued by shipwrights and wheelwrights, and furnishes ships' planks, felloes of wheels, etc. It is also used for buildings, and makes very durable paving blocks. Woollybutt (*E. longifolia*) is used for house building, fencing, felloes, spokes, and wheelwrights' work generally. Being durable in contact with the ground, and resistant to heavy traffic, it is also used for street paving. Spotted gum (*E. maculata*) is one of the best hardwoods for bending, even when cold, and is therefore specially valuable in wheelwrights' and coachbuilders' work for poles, shafts, crosspieces, naves, and spokes; also for framing and house building, tram rails, ship planking, decking of bridges, and wood paving. Turpentine (*Syncarpia laurifolia*) is of a great durability in the ground or under water, being used for piles or jetties, wharves, bridges, pillars and girders of buildings, wood paving, and hewn posts and rails. Yellow stringy-bark (*E. muelleriana*) is chiefly used

1. Ironbark girders do not burn rapidly and often stand a fire when iron girders yield through the effect of the heat.

for jetty and pier work, and for fencing posts. Blue gum (*E. globulus*) is a valuable timber with straight, symmetrical bole, used for upper timbers and decking in jetty and bridge work, bridge piles, shafts, felloes, spokes and frame work of vehicles, and in general building and construction. Spotted gum (*E. goniocalyx*) furnishes a hard, heavy, and durable timber, similar in appearance to blue gum, and serving the same purposes. Yellow box (*E. melliodora*) bears a large quantity of blossom, and hence is a favourite tree with beekeepers. Its timber is used for piles and posts, squared beams, and stringers for bridges. Messmate (*E. obliqua*) is largely sawn by mills for weatherboards, studs, rafters, joists, etc., and is also used for railway sleepers and fencing posts. Stringy-barks (*E. macrorrhyncha*, *E. capitellata*, *E. piperita*) are sawn by mills into ordinary building timber, and split by settlers into posts and rails and rough building material. Mountain ash (*E. amygdalina regnans*) is sawn into building material, and is also split into palings, shingles, rails, and mining laths. Silvertop (*E. sieberiana seu virgata*)—called also Gippsland mountain ash, green top, and white ironbark—is used for ordinary building purposes, and for fencing rails and rough construction. Sugar gum (*E. corynocalyx*) is held in high repute on account of its toughness and durability, and is chiefly used for railway sleepers, telegraph poles, coach building, and in wharf and jetty construction. White or manna gum (*E. viminalis*) is not a good weather timber, but is suitable for interior construction, such as house frames and floors.

The pre-eminent timber trees of the West are jarrah (*E. marginata*) and karri (*E. diversicolor*). Jarrah is in great request for piles in jetty and bridge construction, and for railway sleepers and street paving. It also furnishes a favourite material for boat-building, fencing, and rough furniture, and makes excellent charcoal. Karri is heavy, dense, elastic, and tough, not so easily wrought as jarrah, and is used for bridge-decking, flooring, planking, spokes, felloes, shafts, and street paving. Tuart (*E. gomphocephala*) is exceedingly strong and tough, suitable for the framework of railway waggons, bridge supports, buffers, keelsons, shafts, wheelwrights' work, and generally for all purposes where great strength and hardness are necessary. The red gum (*E. calophylla*) is a fine shade tree, and is valued for the shelter it affords to cattle and sheep. Its timber, however, is not held in much esteem; but in short lengths it is employed for wheelwrights' work and agricultural implements. Its gum or kino has medicinal properties, and is also used locally for tanning hides. Wando (*E. redunca*) is used for fencing, wheelwrights' work, and railway buffers and sleepers. The blackbutt (*E. patens*), York gum (*E. loxophleba*), and yate (*E. cornuta*) of the West are largely used for fencing, building, and rough construction.

The Moreton Bay or hoop pine (*Araucaria cunninghami*) is used for interior work (flooring, ceiling, and lining boards) and for packing cases and butter boxes. Brown pine (*Podocarpus elata*) is also used for interior work, and for bridge, jetty and pier piles. Cypress pine (*Callitris*), including red or black pine (*C. calcarata*); Murray pine (*C. verrucosa*), Port Macquarie pine (*C. macleayana*), and the Richmond River cypress pine (*C. columellaris*) are used for buildings liable to attacks of white ants, being strongly resistant to these pests. Cypress pine is also suitable for bridge decking and makes good fuel. Red cedar (*Cedrela australis*) furnishes timber of great beauty; it is easily worked and very durable, and is used for furniture and cabinet-making, doors, panelling, and interior fittings generally. Rosewood (*Dysoxylon fraserianum*) is easily wrought, and is used for furniture, turnery, carving, cabinet work, mouldings, planes, window joints, house fittings, and wine casks. Red bean (*Dysoxylon muelleri*) has a finely-figured grain and is an excellent furniture wood. White beech (*Gmelina leichhardtii*) is durable and easily worked, and is in great request for decks of vessels, furniture, picture frames, carving, flooring, house-fittings, vats, casks, and general coopers' work. Silky oak (*Grevillea robusta* and *Orites excelsa*) is also in request for coopers' work, and makes handsome furniture and wainscoting. The silky oak has also been used for butter kegs, buckets, churns, etc., and makes good butter boxes for the local markets. Black bean (*Castanospermum australe*), or Moreton Bay chestnut, is used for furniture, cabinet-making, and gun stocks. Tulip-wood (*Harpulia pendula*) is highly esteemed for

cabinet-work, being used for door panels, dadoes, and billiard tables. Coachwood (*Ceratopetalum apetalum*) is suitable for boat-building, cabinet-work, and coach-building. Kauri pine (*Agathis palmerstoni*) gives a light, strong, and durable timber, and is used for general building and construction, wainscoting, furniture and joinery, railway carriages, and ship-decking. Blackwood (*Acacia melanoxylon*) is very strong and durable, diminishing, however, greatly in weight in seasoning, though shrinking very little in volume. Figured blackwood is a beautiful timber; it is used for furniture, such as billiard tables, chairs, secretaires, casings of pianofortes and organs, and general cabinet work; dadoes, panelling of railway carriages, boat-building, picture frames, wheel naves, gun stocks, walking sticks, and a great variety of useful and ornamental purposes; it is also split into staves for wine and tallow casks. Evergreen beech (*Fagus cunninghami*) yields also a handsome timber, used for furniture, sashes and doors, light joinery, wood-carving, picture frames, and cog-wheels. Huon pine furnishes a fine, strong, and light timber; it is almost indestructible in water, and hence is largely used for boat planking; its beautiful grain brings it into request for furniture, panelling, and wainscoting. The King William variety is very tough, being used for racing sculls; it is also a favourite timber in joiners' work. Celery-top pine is strong and heavy, suitable for furniture, flooring, house frames, coopers' work, and masts. Other Australian brush timbers of minor importance are sassafras (*Atherosperma moschatum*), used for saddletrees and boot lasts; and satin box, sycamore, olive, and pencil-wood, giving woods of beautiful grain for parquetry, veneers, carving, and picture frames. The sandalwood of Western Australia (*Santalum cygnorum*) is a very valuable forest product, and has been exported in varying amounts during the last fifty years.

As aids in the development of Commonwealth industries, the Government is experimenting with Australian woods for rifle stocks, telephone switch boards, etc. It has also made available a sum of money for the seasoning and storing of Australian timber. It is intended to establish seasoning depôts at the Federal Capital, and also at the principal centres in the various States, whence contractors will be able to obtain timber at scheduled rates. Other timber seasoning works have been established by State and private enterprise.

§ 4. Forestal Industries and Production.

1. **Timber.**—Estimates of the quantity and value of timber cut and sawn have been prepared by the States Forestry Departments, and are as follows :—

QUANTITIES OF LOCAL TIMBER SAWN OR HEWN IN EACH STATE OF THE COMMONWEALTH DURING THE YEARS 1907 to 1911.

State.	1907.	1908.	1909.	1910.	1911.
	Sup. feet.	Sup. feet.	Sup. feet.	Sup. feet.	Sup. feet.
New South Wales	122,996,000	123,152,000	134,070,000	139,845,000	142,358,000
Victoria	55,873,000	54,602,000	50,000,000	51,000,000	53,000,000
Queensland	91,752,000	100,760,000	108,391,000	116,438,000	138,896,000
South Australia	143,000	436,000	240,500	210,000	217,000
Western Australia	110,395,000	165,766,000	171,825,000	174,528,000	191,114,000
Tasmania	35,228,000	44,335,000	45,035,000	54,933,000	66,061,000
Commonwealth	415,389,000	489,051,000	509,561,500	535,954,000	591,646,000

The only States for which annual returns are furnished of the value of locally sawn or hewn timber are South Australia and Tasmania. The values returned for South Australia for the years 1907 to 1911 are respectively, £815; £1084; £411; £330; and £383.* For Tasmania the values for the years 1907 to 1910 are respectively, £110,689; £93,762;

* It is, of course, evident that the value of production was much greater than this.

£138,492; and £194,106. The estimate for New South Wales for 1907, is £1,440,000; for 1908, £763,241; for 1909, £801,456; and for 1910, £891,111. For Victoria, the output of timber, from forest sawmills only, was £181,590 in 1907; £177,460 in 1908; £189,130 in 1909; £248,315 in 1910; and £265,990 in 1911. The output of Western Australian sawmills was valued at £763,241 in 1908; £1,105,108 in 1909; £681,213 in 1910; and £852,128 in 1911. For Queensland the value for 1908 was £665,350; for 1909, £736,578; for 1910, £858,741; and for 1911, £1,098,173.

2. **Forest Produce.**—Estimates made of the total value of forest production must be regarded as mere approximations. Many of the items are not available. Large returns are credited to firewood, but these are subject to a wide range of uncertainty.

§ 5. Oversea Trade.

1. **Imports.**—The quantity and value of timber imports during the four years 1908 to 1911 inclusive are shewn according to countries of origin in the following tables:—

IMPORTS OF DRESSED TIMBER, COMMONWEALTH, 1908 to 1911.

Country of Origin.	Quantity.*				Value.			
	1908.	1909.	1910.	1911.	1908.	1909.	1910.	1911.
	sup. ft.	sup. ft.	sup. ft.	sup. ft.	£	£	£	£
United Kingdom ...	11,853	14,603	12,012	6,350	334	298	409	177
New Zealand ...	32,704	...	2,304	6,291	432	...	30	36
Other British Poss. ...	...	49,598	39,489	46,375	...	602	633	227
Norway ...	35,655,292	41,759,024	48,465,404	59,396,352	228,322	258,061	338,924	446,180
Sweden ...	7,623,737	12,104,559	13,648,238	27,249,978	50,356	84,752	100,968	201,142
United States ...	1,661,590	1,361,253	1,747,748	1,812,295	20,079	15,985	21,510	23,099
Other For. Countries	220,821	541,804	231,960	399,696	2,000	4,757	4,280	3,855
Total ...	45,205,997	55,830,241	64,147,155	88,917,237	301,523	364,455	466,754	674,716

* Exclusive of timber not measured in super. feet.

IMPORTS OF UNDRESSED TIMBER, INCLUDING LOGS, COMMONWEALTH, 1908 to 1911.

Country of Origin.	Quantity.*				Value.			
	1908.	1909.	1910.	1911.	1908.	1909.	1910.	1911.
	sup. ft.	sup. ft.	sup. ft.	sup. ft.	£	£	£	£
United Kingdom ...	40,848	54,075	65,420	97,485	750	902	738	1,509
Canada ...	8,612,606	16,999,515	15,585,078	25,806,593	36,020	74,133	68,308	110,238
India ...	343,674	77,674	483,635	826,240	11,085	2,613	13,604	15,373
New Zealand ...	82,034,209	69,959,470	70,604,559	85,383,540	498,087	458,456	416,630	571,979
Straits Settlements ...	135,871	231,025	295,525	313,443	745	1,254	1,799	1,658
Other British Poss. ...	62,858	111,592	75,033	267,545	1,447	1,086	909	2,922
Japan ...	9,199,839	6,990,717	7,138,554	13,218,773	34,429	28,590	29,127	62,552
Java ...	805,284	479,055	64,459	324,630	12,999	1,959	1,244	5,765
Norway ...	5,007,451	3,894,852	6,104,204	5,798,584	31,997	26,228	43,065	45,165
Russia ...	8,851,925	6,597,627	14,878,825	21,641,285	51,045	37,147	83,408	136,645
Sweden ...	4,229,960	4,741,846	6,506,762	6,093,004	29,693	44,187	44,378	40,459
United States ...	147,463,309	101,434,431	156,219,083	193,949,570	754,780	531,116	835,614	987,016
Other For. C'tries	259,737	233,204	653,617	507,182	2,508	2,020	3,354	4,011
Total...	267,047,561	211,805,063	278,674,754	354,227,874	1,465,585	1,209,691	1,542,176	1,965,292

* Exclusive of timber not measured in super. feet.

2. **Exports.**—The quantity and value of undressed (sawn) timber exported from 1907 to 1911 is given below, the countries of destination being also shewn.

The year 1907 shewed considerable decrease in comparison with previous years, both in quantity and value, but the export was again heavy in subsequent years.

EXPORTS OF UNDRESSED TIMBER (SAWN), COMMONWEALTH, 1907 to 1911.

Country to which Exported.	Quantity.*					Value.				
	1907.	1908.	1909.	1910.	1911.	1907.	1908.	1909.	1910.	1911.
	1000 Sup. ft.	1000 Sup. ft.	1000 Sup. ft.	1000 Sup. ft.	1000 Sup. ft.	£	£	£	£	£
United Kingdom...	14,156	20,760	21,689	10,879	10,436	88,010	139,223	151,724	77,003	77,070
Canada ...	368	1,314	492	610	546	4,240	13,143	5,267	7,038	6,640
S. African Union ...	6,503	1,104	3,768	11,687	19,243	36,693	7,234	24,712	80,223	132,094
Ceylon ...	21	3	2,335	303	611	211	23	14,864	1,833	4,110
Fiji ...	1,899	1,523	1,305	1,994	1,900	12,144	10,783	7,950	13,392	12,416
India ...	40,304	39,995	55,387	44,852	52,254	266,801	276,821	364,430	300,411	353,488
Mauritius ...	6	241	8	525	278	66	1,606	75	3,533	2,138
New Zealand ...	22,212	36,664	25,424	20,766	27,137	151,985	248,636	172,705	147,314	199,666
Ocean Island ...	705	974	416	268	120	5,579	7,914	3,296	1,605	768
Papua ...	94	...	160	357	435	899	1,146	1,366	3,497	4,223
Straits Settlements	254	1,838	601	52	52	1,909	9,943	3,877	320	380
Other British Pos.	506	4,743	4,022	2,643	103	2,777	30,282	29,702	19,651	774
Argentine Repub.	1,142	1,590	1,134	3,007	2,474	7,618	10,594	7,499	19,797	16,492
Belgium ...	1,286	2,515	1,820	3,535	2,887	7,659	19,618	12,154	24,870	21,665
China ...	2,845	2,373	7,263	409	2,138	19,397	12,370	26,595	2,693	14,250
Egypt ...	91	7,831	10,176	15,708	7,289	635	52,207	62,096	104,600	48,594
Germany ...	2,199	4,616	2,027	1,944	1,829	19,824	37,354	17,987	18,555	18,122
Japan ...	527	333	73	26	36	5,329	2,889	494	317	354
Kaiser Wilhelm L.	65	26	75	43	79	475	199	556	333	648
Marshall Islands...	562	460	162	229	226	4,177	3,770	1,325	1,643	2,023
Netherlands ...	869	245	35	...	3	2,854	1,660	256	...	26
Neu Pommern ...	170	204	311	562	372	1,242	1,454	2,504	4,838	3,498
New Caledonia ...	147	190	118	441	355	912	1,415	949	3,511	3,096
Philippine Islands	10,589	4,818	306	3,282	2,941	64,426	30,849	3,372	21,132	19,608
Port'gese E. Africa	825	1,296	3,539	4,720	2,639	5,039	7,720	24,230	31,036	17,416
South Sea Islands (so described) ...	421	248	337	388	631	3,233	2,069	2,965	3,247	5,520
U.S. of America ...	799	416	659	2,501	4,907	7,248	3,633	7,703	12,693	25,032
Uruguay ...	4,815	9,300	3,894	6,240	1,888	32,073	62,003	25,963	41,596	12,589
Other For. Count.	967	334	648	4,863	2,715	6,669	2,642	5,164	29,674	16,948
Total ...	115,347	145,954	148,064	142,834	146,524	760,124	999,200	981,770	976,355	1,019,648

* Exclusive of timber not measured in super. feet.

QUANTITIES OF TIMBER IMPORTED INTO, AND EXPORTED FROM, THE COMMONWEALTH, 1907 to 1911.

Description.	1907.	1908.	1909.	1910.	1911.
IMPORTS.					
Veneers ... Sup. feet	...	235,319	296,801	599,178	994,575
Dressed ... "	62,431,784	48,104,666	57,924,923	65,609,803	90,672,708
Undressed ... "	207,579,407	250,465,749	200,469,213	257,007,893	324,325,658
Logs ... "	12,451,619	16,581,812	11,335,870	21,666,861	29,902,216
Palings ... No.	...	...	...	...	...
Pickets ... "	1,106,364	1,461,726	1,226,082	2,123,398	1,523,849
Shingles ... "	2,079,041	830,960	1,270,476	690,710	937,270
Staves—Dressed, etc. "	1,470,765	62,804	4,600	600	5,440
Undressed ... "	...	1,610,571	2,390,888	3,929,063	3,363,457
Laths for blinds ... "	19,966,870	*	*	*	*
Spokes, other ... "	...	21,660,183	25,692,686	38,564,512	30,213,094
Spokes, rims, felloes ... "	...	1,595,127	659,298	835,400	1,916,045
Doors ... "	975	386	4	2	234
Architraves, mouldings, etc. ... Lin. feet	65,581	34,175	29,725	9,045	23,601
Other ... "	*	*	*	*	*

* Quantity not available.

QUANTITIES OF TIMBER IMPORTED AND EXPORTED, ETC.—Continued.

Description.	1907.	1908.	1909.	1910.	1911.
EXPORTS.					
Veneers ...	...	...	...	...	...
Dressed ... Sup. feet	669,647	701,801	1,280,703	990,924	1,071,683
Undressed ... "	115,347,179	145,953,614	148,063,541	142,833,520	146,262,683
Logs ... "	4,261,379	3,326,259	4,254,472	2,195,219	3,252,115
Palings ... No.	730,825	826,900	718,550	608,602	942,220
Pickets ... "	7,147	6,050	3,000	19,570	6,628
Shingles ... "	38,312	47,100	12,944	100,540	35,790
Staves—Dressed, etc. "	...	*	90	5,000	1,300
" Undressed "	...	911	...	1,267	...
Laths for blinds ...	1,571,705	*	*	*	*
" other ...	...	1,056,781	14,240	677,280	110,900
Spokes, rims, felloes ...	...	*	*	*	*
Doors ...	1,338	*	*	*	*
Architraves, mouldings, etc. ... Lin. feet	50,616	46,848	90,458	94,054	92,162
Other ...	*	...	...	...	...

EXCESS OF IMPORTS OVER EXPORTS.

Veneers ...	...	235,319	296,801	599,178	994,575
Dressed ... Sup. feet	61,762,137	47,402,865	56,644,220	64,618,879	89,601,025
Undressed ... "	92,232,228	104,512,135	52,405,672	114,174,373	178,062,975
Logs ... "	8,190,240	13,255,553	7,081,398	19,471,642	26,650,101
Palings ... No.	—730,825	—826,900	—718,550	—608,602	—942,220
Pickets ... "	1,099,217	1,455,676	1,223,082	2,104,428	1,517,221
Shingles ... "	2,040,729	783,860	1,257,532	590,170	901,480
Staves—Dressed, etc. "	...	*	4,510	—4,400	4,140
" Undressed "	1,470,765	1,609,660	2,390,798	3,927,796	3,363,457
Laths for blinds ...	18,395,165	*	*	*	*
" other ...	...	20,603,402	25,678,446	37,897,232	30,102,194
Spokes, rims, felloes ...	...	*	*	*	*
Doors ...	—363	*	*	*	*
Architraves, mouldings, etc. ... Lin. feet	14,965	—12,925	—60,733	—85,009	—68,561
Other ...	*	*	*	*	*

* Quantity not available.

Note. — signifies excess of exports over imports.

VALUE OF TIMBER IMPORTED INTO AND EXPORTED FROM THE COMMONWEALTH, 1907 to 1911.

Description.	1907.	1908.	1909.	1910.	1911.
IMPORTS.					
Veneers ...	£ ...	£ 8,289	£ 8,778	£ 14,814	£ 25,795
Dressed ...	376,605	324,997	376,732	478,162	683,430
Undressed ...	1,141,199	1,388,224	1,158,445	1,432,301	1,819,832
Logs ...	34,966	77,361	51,246	109,877	165,460
Palings ...	...	...	...	...	...
Pickets ...	3,748	6,174	4,117	8,804	5,622
Shingles ...	2,987	913	1,873	851	1,280
Staves—Dressed, etc. "	13,326	1,173	342	145	131
" Undressed ...	...	14,215	18,178	24,542	20,417
Laths for blinds ...	18,118	44	83	24	38
" other ...	...	16,547	20,970	28,397	23,181
Spokes, rims, felloes ...	...	35,976	12,408	17,297	40,047
Doors ...	438	251	1	1	137
Architraves, mouldings, etc. ...	489	156	59	29	65
Other ...	40,617	20,271	588	136	129
Total value ...	1,632,493	1,894,591	1,653,820	2,115,380	2,785,564

VALUE OF TIMBER IMPORTED AND EXPORTED, ETC.—Continued.

Description.	1907.	1908.	1909.	1910.	1911.
EXPORTS.					
Veneers	£ ...	£ ...	£ ...	£ ...	£ ...
Dressed	6,603	7,438	12,104	11,396	12,599
Undressed	760,124	999,200	981,770	976,355	1,016,510
Logs	22,475	18,611	23,690	16,768	23,024
Palings	3,541	4,227	3,449	3,106	4,931
Pickets	66	52	26	176	84
Shingles	108	125	29	210	91
Staves—Dressed, etc. ... ..	...	111	1	52	16
Undressed ... ..	...	17	...	68	...
Laths for blinds	1,706	1,073	1,179	1,136	946
" Other ... ..	...	1,139	20	708	105
Spokes, rims, felloes ... ..	...	6,131	5,191	8,687	9,989
Doors	1,027	732	991	759	743
Architraves, mouldings, etc.	354	258	511	623	589
Other	9,129	...	...	...	...
Total value	805,133	1,039,114	1,028,961	1,020,044	1,069,627

EXCESS OF IMPORTS OVER EXPORTS.

Veneers ... ..	...	8,289	8,778	14,814	25,795
Dressed	370,002	317,559	364,628	466,766	670,831
Undressed	381,075	389,024	176,675	455,946	803,322
Logs	12,491	58,750	27,556	93,109	142,436
Palings	—3,541	—4,227	—3,449	—3,106	—4,931
Pickets	3,682	6,122	4,091	8,628	5,538
Shingles	2,879	788	1,844	641	1,189
Staves—Dressed, etc.	13,326	1,062	341	93	115
Undressed ... ..	...	14,198	18,178	24,474	20,417
Laths for blinds	16,412	—1,029	—1,096	—1,112	—908
" other ... ..	...	15,408	20,950	27,689	23,076
Spokes, rims, felloes ... ..	...	29,845	7,217	8,610	30,058
Doors	—589	—481	—990	—758	—606
Architraves, mouldings, etc.	135	—102	—452	—594	—524
Other	31,488	20,271	588	136	129
Total value	827,360	855,477	624,859	1,095,336	1,715,937

Note. — signifies excess of exports over imports.

The exports of sandalwood were:—

EXPORTS OF SANDALWOOD, 1907 to 1911.

Country to which Exported.	Quantity.					Value.				
	1907.	1908.	1909.	1910.	1911.	1907.	1908.	1909.	1910.	1911.
	cwt.	cwt.	cwt.	cwt.	cwt.	£	£	£	£	£
Hong Kong	140,586	158,444	54,387	141,646	120,432	50,903	65,037	25,546	71,672	62,566
Straits Settlements	7,284	1,484	12,890	7,378	13,783	2,542	589	5,036	3,319	5,967
Other British Possessions	4,593	14,680	5,163	15,223	5,687	1,809	5,604	2,358	6,301	2,506
China	31,637	17,560	31,649	19,399	7,140	10,886	6,238	12,180	7,332	2,348
Other Foreign Countries	312	...	...	...	6	103	...	...	...	9
Total	184,412	192,168	104,089	183,646	147,048	66,237	77,468	45,120	88,624	73,396

Tanning bark is largely exported from the Commonwealth, as the following table shows:—

EXPORTS OF TANNING BARK, 1907 to 1911.

Country to which Exported.	Quantity.					Value.				
	1907.	1908.	1909.	1910.	1911.	1907.	1908.	1909.	1910.	1911.
	cwt.	cwt.	cwt.	cwt.	cwt.	£	£	£	£	£
United Kingdom ...	35,806	5,878	19,424	12,159	3,154	12,976	1,782	8,188	4,674	1,195
New Zealand ...	67,541	72,933	69,137	55,838	66,574	29,160	31,637	31,414	25,036	29,105
Other British Poss. ...	462	1,655	1,745	1,866	1,868	214	793	902	860	921
Belgium ...	27,011	25,154	15,910	40,556	29,100	10,241	9,432	5,966	15,815	11,576
France ...	424	328	206	837	204	192	167	105	319	101
Germany ...	223,740	142,362	114,128	179,119	148,490	78,352	53,329	43,063	70,442	60,121
Other For. Countries ...	3,181	12,034	5,322	5,239	4,166	1,207	5,270	2,307	2,108	1,627
Total ...	358,167	260,364	225,872	295,616	253,556	132,342	102,410	91,945	119,254	104,646

**QUANTITIES AND VALUES OF BARK IMPORTED INTO, AND EXPORTED FROM,
THE COMMONWEALTH, 1907 to 1911.**

Particulars.	1907.	1908.	1909.	1910.	1911.
QUANTITIES—	cwt.	cwt.	cwt.	cwt.	cwt.
Imports ...	344	38,711	28,020	12,648	72,447
Exports ...	358,167	260,364	225,872	295,616	253,556
Excess of exports over imports	357,823	221,653	197,852	282,968	181,109
VALUES—	£	£	£	£	£
Imports ...	156	16,289	12,774	5,461	31,253
Exports ...	132,342	102,410	91,945	119,254	104,646
Excess of exports over imports	132,186	86,121	79,171	113,793	73,393