

## 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, STATE AND COMMONWEALTH, 1920.

State.	Area of Forest Reserves.		Total Forest Area.	Percentage of State Area.		Percentage of Commonwealth Area.	
	Permanent. (a)	Temporary. (b)		Specially Reserved.	Total Forest.	Specially Reserved.	Total Forest.
	Acres.	Acres.	Acres.	%	%	%	%
c New South Wales	5,085,050	1,746,069	11,000,000	3.45	5.55	0.36	0.57
Victoria ..	4,092,625	125,500(f)	11,800,000	7.49	20.98	0.22	0.62
Queensland ..	1,122,129	2,671,139	40,000,000	0.88	9.32	0.20	2.10
South Australia	161,027	18,700(f)	3,800,000	0.07	1.56	0.01	0.20
Western Australia	10,008	1,612,000(f)	15,900,000(d)	0.26	2.55	0.09	0.84
Tasmania ..	..	1,028,000	10,000,000	6.13	59.60	0.05	0.53
(e) Commonwealth	10,470,839	7,201,408	92,500,000	..	..	0.93	4.86

(a) Reservations in perpetuity. (b) Reservations which may be cancelled at any time.  
 (c) Inclusive of Federal Area. (d) S.W. Division only. (e) Exclusive of Northern Territory  
 and portion of Western Australia. (f) Figures uncertain.

The actual area of wooded land is probably in all cases much greater than that 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 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 :—

## RELATIVE AREAS OF FOREST LANDS, AUSTRALIA AND OTHER COUNTRIES.(a)

Country.	Total Wooded Area.	Per- centage of Total Area.	Country.	Total Wooded Area.	Per- centage of Total Area.
	Sq. Miles.	%		Sq. Miles.	%
Australia .. ..	144,530	4.86	Rumania .. ..	10,836	21.36
New Zealand .. ..	26,562	25.63	Sweden .. ..	90,241	52.20
United Kingdom .. ..	4,740	3.82	Norway .. ..	26,685	21.50
France .. ..	38,620	18.65	Russia in Europe .. ..	859,375	39.00
Algeria .. ..	10,249	2.98	United States .. ..	860,000	24.08
Germany .. ..	54,015	25.90	Canada .. ..	625,000	17.34
Switzerland .. ..	3,290	20.60	Cape of Good Hope .. ..	537	0.19
Italy .. ..	17,613	15.92	British India .. ..	249,867	22.85
Austria .. ..	37,700	31.66	Japan .. ..	71,890	48.33
Hungary .. ..	34,750	29.30			

(a) Areas as before the war.

2. **Distribution of Timber.**—The characteristics of the forest areas are given in some detail for each State in Official Year Book No. 6, pp. 446–9. 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. In the coastal regions of parts of West and North-West Australia, and along the shores of the Great Australian Bight and Encounter Bay, there is little forest. The areas in the centre of the continent are thinly timbered.

Special articles relating to Australian Eucalyptus timbers will be found in Official Year Book No. 10, pp. 85–98.

## § 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 stated that beneficial consequences follow on the planting of trees on denuded lands, or along eroding coasts, and that a forest covering beneficially regulates 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 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 due, it is believed, to carelessness.

3. **Sylvicultural Nurseries and Plantations.**—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. The locality of these establishments, together with a brief statement of the nature of their activities, is given in previous issues of the Year Book. (Reference may be made to Official Year Book No. 6, pp. 451-3.) Details regarding forest nurseries and plantations are as follows:—

#### FOREST NURSERIES AND PLANTATIONS, 1920.

Particulars.	New South Wales. (a)	Victoria.	Q'land.	South Australia.	Western Australia.	Tasmania.	Commonwealth.
<b>State Forest Nurseries—</b>							
Number .. ..	(b)	6	7	7	1	(d)	21(c)
Area .. (acres)	(b)	40	93	7	17	(d)	157(c)
<b>Plantations—</b>							
Number .. ..	(b)	23	40	..	4	(d)	67(c)
Area .. ..	(b)	21,939	392	..	700	(d)	23,031(c)
<b>Number of persons employed in Forestry Departments—</b>							
Administrative ..	35	27	49	1	1	1	114
Professional ..	6	5	5	1	4	6	27
General .. ..	213	100	257	137	76	3	786

(a) Year ended 30th June. (b) Not available. (c) Exclusive of New South Wales.  
(d) State Forest nurseries and plantations are being established.

4. **Revenue and Expenditure.**—The revenue and expenditure of the State Forestry Departments from 1916-17 to 1920-21, are given below:—

#### REVENUE OF STATE FORESTRY DEPARTMENTS, 1916-17 TO 1920-21.

State.	1916-17.	1917-18.	1918-19.	1919-20.	1920-21.
	£	£	£	£	£
New South Wales .. ..	67,273	70,969	97,592	147,041	190,742
Victoria .. ..	50,615	55,917	57,731	67,298	95,517
Queensland .. ..	60,865	66,660	71,985	100,584	145,802
South Australia .. ..	10,259	14,279	23,880	22,003	23,872
Western Australia .. ..	19,058	23,866	41,015	45,278	58,617
Tasmania .. ..	3,860	3,860	3,860	7,340	20,444
Commonwealth .. ..	211,930	235,582(a)	296,063	389,544	534,994

(a) Including Northern Territory, £31.

#### EXPENDITURE OF STATE FORESTRY DEPARTMENTS, 1916-17 TO 1920-21.

State.	1916-17.	1917-18.	1918-19.	1919-20.	1920-21.
	£	£	£	£	£
New South Wales .. ..	73,762	77,688	121,162	134,997	179,540
Victoria .. ..	53,551	68,557	60,193	64,213	71,386
Queensland .. ..	9,516	13,930	21,877	35,158	72,718
South Australia .. ..	22,571	21,381	21,968	26,404	33,924
Western Australia .. ..	9,807	10,363	23,656	15,331	27,632
Tasmania .. ..	682	1,204	1,204	1,433	2,621
Commonwealth .. ..	169,889	193,123	250,060	277,536	387,821

5. **Instruction in Scientific Forestry.**—Several schools have been established in which, while general scientific instruction is imparted, special attention is paid to forestry. In the classes, theoretical forestry, botany, geology, physics, land surveying, etc., are taught; while in outside work trainees receive practical instruction 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. Courses of lectures are also given at various centres, and, at some of the higher technical schools, members of the forest staffs are afforded opportunities of qualifying in special subjects. Methods of training, etc., are not uniform in the various States, and one of the prime objects of a Conference held in 1916 was the evolution of a system which, while aiming at uniformity, would be sufficiently elastic to provide for special needs in any State.

6. **Forest Congresses.**—Interstate Conferences on Forestry were held in 1911 and 1912, chiefly with a view of securing uniformity of management. An International Forest Congress was held at Paris in June, 1913, when a Professor of South Kensington Imperial College represented the Commonwealth Government. The papers and reports dealt chiefly with the threatened shortage of timber, and the measures necessary to avert the danger. An Imperial Forestry Conference was held in London in the summer of 1920, at which also Australia was represented. Important Interstate Forestry Conferences were held in Adelaide in May, 1916; at Perth in November, 1917; and at Hobart in April, 1920.

### § 3. Commercial Uses of Principal Australian Timbers.

1. **General.**—The uses of the more important of Australian timbers are many and various, and are indicated in previous issues of this work. (See Official Year Book No. 6, pp. 454–6; and Official Year Book No. 10, Section III., § 7 and 8.)

The Commonwealth Government utilises Australian woods for rifle stocks, telephone switch boards, aeroplane parts, etc. Queensland maple (*Flindersia chatawaiana*) is largely used for rifle stocks, and coachwood is available for the same purpose. Australian timber is also seasoned and stored, depots having been established by the Commonwealth Government at Canberra and Newington in New South Wales, and at Maribyrnong in Victoria; by States Governments at the principal centres; and by private enterprise as required.

2. **Uniformity in Nomenclature.**—Unfortunately the vernacular names applied to the gums, ironbarks, etc., in the various States, and even in different parts of the same State, do not always refer to identical timbers. The resulting confusion has not only been productive of loss, but it has, to some extent, prejudicially affected the timber trade. This subject is referred to at some length in the special article, "Australian Eucalyptus Timbers," in Section III., § 7 and 8, in Official Year Book No. 10. At the 1916 Forestry Conference alluded to above, the matter came up for special consideration, and steps were taken to establish a uniform nomenclature.

## § 4. Forestal Industries and Production.

1. **Timber.**—Estimates of the quantity and value of local timber sawn and hewn in each State are given hereunder :—

### QUANTITIES OF LOCAL TIMBER SAWN OR HEWN IN EACH STATE OF THE COMMONWEALTH, 1915 TO 1921.

State.	1915.	1916-17.	1917-18.	1918-19.	1919-20.	1920-21.
	sup. feet.	sup. feet.	sup. feet.	sup. feet.	sup. feet.	sup. feet.
New South Wales	115,201,000	125,243,000	128,745,000	131,617,000	155,114,000	156,112,000
Victoria ..	62,589,000	70,038,000	78,084,000	91,540,000	99,142,000	113,215,000
Queensland ..	144,950,000 <sup>a</sup>	121,851,000 <sup>a</sup>	111,663,000 <sup>a</sup>	118,436,000 <sup>a</sup>	144,389,000 <sup>a</sup>	136,005,000 <sup>a</sup>
South Australia ..	2,348,000	3,729,000	3,425,000	5,223,000	6,178,000	5,588,000
Western Australia	123,494,000 <sup>a</sup>	100,356,000 <sup>a</sup>	85,218,000 <sup>a</sup>	94,990,000 <sup>a</sup>	131,477,000 <sup>a</sup>	137,934,000 <sup>a</sup>
Tasmania ..	47,600,000 <sup>a</sup>	52,019,000 <sup>a</sup>	44,986,000 <sup>a</sup>	49,814,000 <sup>a</sup>	56,809,000 <sup>a</sup>	63,108,000 <sup>a</sup>
Commonwealth	496,472,000	473,236,000	451,096,000 <sup>b</sup>	491,620,000	593,109,000	611,972,000

(a) Year ended 31st December.

(b) Including Northern Territory, 75,000 sup. feet.

2. **Other Forest Produce.**—(i) *General.* No satisfactory estimates of the total value of forest production are available. Large returns are credited to firewood, but these are subject to a wide range of uncertainty.

(ii) *Eucalyptus Oil.* A considerable quantity of eucalyptus oil is produced each year, chiefly in Victoria, the product being used as a drug, and also in connexion with ore flotation processes. Complete information regarding local production and consumption is not available. Oversea exports amounted in 1916-17 to £60,000, in 1917-18 to £77,000, in 1918-19 to £84,000, in 1919-20 to £92,000, and in 1920-21 to £107,000, the bulk of the product being forwarded to the United Kingdom. Large quantities have also been exported to the United States.

(iii) *Tan Barks.* In addition to the wattle bark, mentioned at the close of this section, a valuable tan bark is obtained from the mallet (*E. occidentalis*) of Western Australia. Its exploitation has, however, been so rapid that the available supply is now comparatively small.

## § 5. Oversea Trade.

1. **Imports.**—The quantity and value of timber imports during the four years 1917-18 to 1920-21 inclusive are shewn according to countries of origin in the following tables. The figures in the first table are exclusive of a few items such as veneers, etc. :—

### IMPORTS OF DRESSED TIMBER, COMMONWEALTH, 1917-18 TO 1920-21.

Country of Origin.	Quantity.				Value.			
	1917-18.	1918-19.	1919-20.	1920-21.	1917-18.	1918-19.	1919-20.	1920-21.
	sup. ft.	sup. ft.	sup. ft.	sup. ft.	£	£	£	£
United Kingdom ..	100	20	105,970	4,650	18	3	584	29
New Zealand ..	163,979	9,135	..	..	2,064	206	..	..
Other British Coun-tries ..	40,975	31,564	94,725	109,255	461	358	1,208	..
Norway ..	400	..	9,433,921	34,241,593	2	..	201,593	808,562
Sweden ..	..	532,845	4,251,220	12,883,503	..	9,900	87,757	325,864
United States ..	107,323	73,459	66,863	120,808	2,658	2,621	2,793	4,299
Other Foreign Countries ..	10,838	13,294	2,329	389	207	641	109	10
Total ..	323,615	660,317	13,955,028	47,360,198	5,410	13,729	294,044	1,143,694

The bulk of the imports of dressed timbers normally comes from Norway, Sweden, and the United States. War conditions caused some dislocation of trade during the period covered by the table. Practically the whole of this timber consists of softwoods—deal and pine—used for lining, weatherboards, flooring, shelving, doors, box-making, etc.

IMPORTS OF UNDRESSED TIMBER, INCLUDING LOGS, COMMONWEALTH,  
1917-18 TO 1920-21.

Country of Origin.	Quantity.				Value.			
	1917-18.	1918-19.	1919-20.	1920-21.	1917-18.	1918-19.	1919-20.	1920-21.
	sup. ft.	sup. ft.	sup. ft.	sup. ft.	£	£	£	£
United Kingdom	6,144	800	33,861	205,546	116	3	1,803	4,929
Canada ..	11,737,562	2,204,774	5,766,398	12,361,386	74,959	22,250	90,882	181,072
India ..	109,486	89,436	129,393	639,964	5,113	3,687	8,022	62,094
New Zealand	69,305,936	59,027,859	56,470,627	61,548,649	571,599	632,613	673,922	879,960
Straits Settlements ..	254,325	201,325	817,675	400,625	2,211	1,376	8,147	5,890
Other British Countries ..	275,623	186,607	802,860	1,234,127	1,339	1,382	8,504	10,452
Japan ..	1,988,263	2,927,683	6,362,400	5,727,148	40,843	68,377	188,622	210,152
Java ..	7,495	13,399	578,538 (a)	1,925,464	84	173	6,436 (a)	28,337
Norway ..	..	10,140	44,600	117,142	..	90	836	2,390
Sweden ..	..	..	165,934	2,114,819	..	..	2,609	52,507
United States ..	85,877,463	79,013,943	70,976,919	104,085,707	637,960	1,023,391	1,069,341	2,048,517
Other Foreign Countries ..	94,774	106,666	1,059,665	2,097,200	1,331	3,397	19,781	37,845
Total ..	169,657,075	143,782,637	143,208,872	192,457,777	1,335,555	1,756,739	2,078,906	3,524,145

(a) Including other Dutch East Indian possessions.

By far the larger proportion of the undressed timber imports also consists of softwoods such as yellow pine, redwood, and oregon from the United States and Canada; sauri, rimu, and white pine from New Zealand; pine from Japan, and (prior to the war) red deals from Russia, Norway, and Sweden. Amongst the hardwoods imported the principal are oak from the United States and Japan, and teak from India.

2. Exports.—The quantity and value of undressed (sawn) timber exported from 1916-17 to 1920-21 are given below, the countries of destination being also shewn :—

EXPORTS OF UNDRESSED TIMBER (SAWN), COMMONWEALTH,  
1916-17 TO 1920-21.

Country to which Exported.	Quantity. (a)					Value.				
	1916-17.	1917-18.	1918-19.	1919-20.	1920-21.	1916-17.	1917-18.	1918-19.	1919-20.	1920-21.
	sup. ft.	sup. ft.	sup. ft.	sup. ft.	sup. ft.	£	£	£	£	£
United Kingdom	1,000	1,000	1,000	1,000	1,000	10,118	428	4,458	4,612	181,451
Canada ..	1,478	27	536	374	18,078	3,796	6,504	2,364	1,405	912
Union of S. Africa	260	316	103	59	32	34,935	83,598	43,012	75,314	234,589
Ceylon ..	11,944	6,154	10,925	32,426	34,935	36,041	..	..	10,448	3,316
Egypt ..	5,444	..	..	1,567	340	..	..	..	14,472	55,800
Fiji ..	..	..	..	2,171	6,890	..	..	..	..	..
Hong Kong	839	916	418	739	1,010	8,415	12,614	4,338	11,178	17,202
India ..	..	1	188	272	395	..	8	2,197	2,868	4,954
Mauritius ..	..	..	100	467	10,220	..	..	650	3,500	88,650
New Zealand	..	277	..	458	1,834	..	2,310	..	3,342	22,014
Papua ..	12,666	5,993	5,374	12,263	24,824	109,323	63,802	80,498	168,329	452,690
Straits Settlements	277	132	98	140	181	5,278	1,720	1,861	3,155	10,590
Territory of New Guinea	2	59	20	..	..	34	899	135	..	..
Other British Countries ..	188	99	41	226	158	2,034	1,378	868	4,209	4,227
Belgium ..	510	310	271	664	896	6,211	3,912	4,157	13,728	20,684
China ..	..	..	..	1	2,597	..	..	..	27	24,897
Japan ..	..	..	..	760	3,420	..	..	..	5,996	39,682
Marshall Islands	70	704	105	355	466	702	11,827	2,276	6,921	6,210
New Caledonia ..	2	4	16	..	..	22	53	250	2	..
Other Pacific Islands (Foreign)	25	298	92	155	54	300	3,710	1,502	3,081	1,572
U.S. of America ..	192	154	202	84	139	2,427	1,999	2,992	1,684	3,648
Other Foreign Countries ..	1,433	4,050	2,189	275	668	21,354	75,674	41,867	6,588	17,466
Total ..	2	15	72	1	382	83	223	1,503	13	6,126
Total ..	35,332	19,509	20,750	53,457	107,519	289,738	230,073	227,230	500,148	1,315,515

(a) Exclusive of timber not measured in super. feet.

As the table shews, the bulk of the exports of undressed timber was consigned to South Africa, New Zealand, and (except for latest years) the United Kingdom, and consisted of Australian hardwoods, which have earned an excellent reputation for such purposes as railway sleepers, harbour works, wood paving, etc. There was a notable increase in the quantity supplied to the United States in the later war years.

The quantities of timber imported and exported during the last five years are given in the next table :—

**QUANTITIES OF TIMBER IMPORTED INTO AND EXPORTED FROM THE  
COMMONWEALTH, 1916-17 TO 1920-21.**

Description.	1916-17.	1917-18.	1918-19.	1919-20.	1920-21.
<b>IMPORTS.</b>					
Veneers .. sup. feet	499,514	459,307	509,855	592,434	1,511,566
Dressed .. "	8,014,939	536,124	1,139,401	14,211,023	51,154,260
Undressed .. "	195,830,413	169,378,755	143,754,858	140,516,943	188,388,808
Logs .. "	774,316	278,320	27,779	2,691,929	4,068,969
Pickets .. No.	611,399	688,822	261,886	915,582	775,041
Shingles .. "	2,083,408	2,391,326	567,200	606,186	2,732,953
Staves—					
Dressed, etc. ..	12,764	8,964	2,752	1,035	..
Undressed ..	152,283	575,300	666,036	1,527,357	643,887
Laths for blinds ..	(a)	(a)	..	(a)	(a)
" other ..	11,419,145	17,568,419	6,610,148	8,950,913	14,212,313
Spokes ..	358,438	408,281	227,925	285,869	716,786
Doors ..	300	666	78	371	1,611
Architraves, mouldings, etc. .. lin. feet	..	..	..	2,150	(a)
Wood pulp ..	(a)	(a)	(a)	(a)	(a)
Other ..	(a)	(a)	(a)	(a)	(a)
<b>EXPORTS.</b>					
Veneers .. sup. feet	322,058	297,341	251,041	720,635	4,592,543
Dressed .. sup. feet	35,332,403	19,807,434	20,750,023	53,456,799	107,519,387
Undressed .. "	197,721	298,460	184,398	190,685	698,135
Palings .. No.	603,589	121,506	60,365	120,560	434,652
Pickets .. "	..	..	..	..	4,100
Shingles .. "	..	100,000	7,090	152,675	360,150
Staves—					
Dressed, etc. ..	..	1,230	..	..	6,000
Undressed ..	..	..	..	..	..
Laths for blinds ..	(a)	(a)	(a)	(a)	(a)
" other ..	63,000	92,160	2,111	280,420	..
Spokes, rims, felloes ..	(a)	(a)	(a)	(a)	(a)
Doors ..	(a)	(a)	(a)	(a)	(a)
Architraves, mouldings, etc. .. lin. feet	40,768	48,265	80,186	149,465	867,713
Wood pulp ..	..	..	..	..	..
Other ..	..	..	..	..	..

(a) Quantity not available.

QUANTITIES OF TIMBER IMPORTED AND EXPORTED, ETC.—*continued.*

Description.	1916-17.	1917-18.	1918-19.	1919-20.	1920-21.
EXCESS OF IMPORTS OVER EXPORTS.					
Veneers .. sup. feet	499,514	459,307	509,855	592,434	1,511,566
Dressed .. "	7,692,881	238,783	888,360	13,490,388	46,561,717
Undressed .. "	160,498,010	149,571,321	123,004,835	87,060,144	80,869,421
Logs .. "	576,595	- 20,140	- 156,619	2,501,244	3,370,834
Palings .. No.	- 603,569	- 121,506	- 60,365	- 120,560	- 434,652
Pickets .. "	611,399	688,822	261,886	915,582	770,941
Shingles .. "	2,083,408	2,291,326	560,110	453,511	2,372,803
Staves—					
Dressed, etc. ..	12,764	7,734	2,752	1,035	- 6,000
Undressed ..	152,283	575,300	666,036	1,527,357	643,887
Laths for blinds ..	(a)	(a)	(a)	(a)	(a)
" other ..	11,356,145	17,476,259	6,608,037	8,670,493	14,212,313
Spokes, rims, felloes ..	(a)	(a)	(a)	(a)	(a)
Doors ..	(a)	(a)	(a)	(a)	(a)
Architraves, mouldings, etc. .. lin. feet	- 40,768	- 48,265	- 80,186	- 147,315	- 867,713
Wood pulp ..	(a)	(a)	(a)	(a)	(a)
Other ..	(a)	(a)	(a)	(a)	(a)

(a) Quantity not available. NOTE. The minus sign (—) signifies excess of exports over imports.

The values of the timber imports and exports during the last quinquennium are shewn hereunder:—

## VALUE OF TIMBER IMPORTED INTO AND EXPORTED FROM THE COMMONWEALTH, 1916-17 TO 1920-21.

Description.	1916-17.	1917-18.	1918-19.	1919-20.	1920-21.
IMPORTS.					
Veneers .. ..	£ 25,670	£ 21,613	£ 33,540	£ 39,314	£ 115,516
Dressed .. ..	74,477	6,672	21,309	296,480	1,209,286
Undressed .. ..	1,346,497	1,333,382	1,754,592	2,027,551	3,468,448
Logs .. ..	5,639	2,173	2,147	51,355	55,697
Palings .. ..	..	..	..	..	..
Pickets .. ..	2,174	4,040	3,037	10,626	10,686
Shingles .. ..	3,132	4,569	1,476	2,933	11,573
Staves—					
Dressed, etc. ..	337	260	53	21	..
Undressed, ..	3,538	3,516	6,836	19,296	24,532
Laths for blinds ..	..	..	..	2	8
" other .. ..	9,230	20,729	10,119	18,142	47,000
Spokes .. ..	6,001	6,125	4,234	9,004	26,546
Doors .. ..	103	201	256	101	1,159
Architraves, mouldings, etc. ..	..	..	..	6	..
Wood pulp .. ..	53,459	39,266	49,993	57,253	226,373
Other .. ..	2,030	1,246	938	1,880	1,373
Total value ..	1,532,287	1,443,792	1,888,530	2,533,964	5,208,197



VALUE OF TIMBER IMPORTED AND EXPORTED, ETC.—*continued.*

Description.	1916-17.	1917-18.	1918-19.	1919-20.	1920-21.
EXPORTS.					
Veneers .. ..	£ ..	£ ..	£ ..	£ ..	£ ..
Dressed .. ..	4,804	5,314	6,659	19,234	61,299
Undressed .. ..	289,738	230,073	227,230	500,148	1,315,515
Logs .. ..	1,648	2,345	1,159	2,733	9,563
Palings .. ..	4,176	889	717	1,071	6,093
Pickets .. ..	..	..	..	..	87
Shingles .. ..	..	139	41	265	1,008
Staves—					
Dressed, etc. .. ..	..	127	..	..	355
Undressed .. ..	..	..	..	..	..
Laths for blinds .. ..	29	..	92	241	652
" other .. ..	147	308	12	817	..
Spokes, rims, fellows ..	4,333	5,259	3,562	6,189	15,470
Doors .. ..	354	..	307	1,358	2,419
Architraves, mouldings, etc. .. ..	164	257	608	1,962	9,286
Wood pulp .. ..	..	..	..	..	..
Other .. ..	..	..	..	..	..
Total value .. ..	305,393	244,711	240,387	534,018	1,421,757

## EXCESS OF IMPORTS OVER EXPORTS.

Veneers .. ..	25,670	21,613	33,540	39,314	115,516
Dressed .. ..	69,673	1,358	14,650	277,246	1,147,987
Undressed .. ..	1,056,759	1,103,309	1,527,362	1,527,403	2,152,933
Logs .. ..	3,991	-172	988	48,622	46,129
Palings .. ..	-4,176	-889	-717	-1,071	-6,098
Pickets .. ..	2,174	4,040	3,037	10,626	10,599
Shingles .. ..	3,132	4,430	1,435	2,668	10,565
Staves—					
Dressed, etc. .. ..	337	133	53	21	-355
Undressed .. ..	3,538	3,516	6,836	19,296	24,532
Laths for blinds .. ..	-29	..	-92	-239	-644
" other .. ..	9,083	20,421	10,107	17,325	47,000
Spokes, rims, fellows ..	1,668	866	672	2,815	21,076
Doors .. ..	-251	201	-51	-1,257	-1,260
Architraves, mouldings, etc. .. ..	-164	-257	-608	-1,956	-9,286
Wood pulp .. ..	53,459	39,266	49,993	57,253	226,373
Other .. ..	2,030	1,246	938	1,880	1,373
Total value .. ..	1,226,894	1,199,081	1,648,143	1,999,946	3,786,440

NOTE. The minus sign (—) signifies excess of exports over imports.

A fair amount of sandalwood is exported each year, principally from Western Australia, and to a smaller extent from Queensland. The largest proportion of this product is consigned to Hong Kong, China, and the Straits Settlements.

## EXPORTS OF SANDALWOOD, 1916-17 TO 1920-21.

Country to which Exported.	Quantity.					Value.				
	1916-17.	1917-18.	1918-19.	1919-20.	1920-21.	1916-17.	1917-18.	1918-19.	1919-20.	1920-21.
	cwt.	cwt.	cwt.	cwt.	cwt.	£	£	£	£	£
Hong Kong .. ..	130,314	102,325	124,500	187,260	129,900	71,460	76,093	92,518	174,659	111,730
Straits Settlements ..	10,308	19,576	33,980	81,620	35,860	6,504	12,236	22,063	71,522	35,191
Other British Possessions ..	7,100	2,000	2,440	2,360	8,500	4,429	1,275	1,588	2,245	7,846
China .. ..	9,660	14,785	29,480	26,000	48,380	5,554	9,857	18,767	18,307	39,798
Other Foreign Countries ..	120	1,842	5,420	700	140	102	4,481	4,009	626	136
Total .. ..	157,502	140,528	195,820	297,940	222,780	88,049	103,942	138,945	267,359	194,701

Tanning bark figures both as an export and import in the Commonwealth trade returns, as the following tables shew :—

### EXPORTS OF TANNING BARK, 1916-17 TO 1920-21.

Country to which Exported.	Quantity.					Value.				
	1916-17.	1917-18.	1918-19.	1919-20.	1920-21.	1916-17.	1917-18.	1918-19.	1919-20.	1920-21.
	cwt.	cwt.	cwt.	cwt.	cwt.	£	£	£	£	£
United Kingdom	6,797		1,220	3,700	380	3,103		860	2,561	202
New Zealand	41,098	95,192	27,320	60,900	56,360	20,703	45,007	13,801	37,016	39,356
Other British Possessions	205	208			100	107	72			88
Foreign Countries	11,199	1,745	60	7,780	8,400	5,001	611	14	4,050	7,084
Total	59,299	97,145	28,600	72,380	65,220	28,914	45,690	14,675	44,227	46,730

Prior to the war there was a fairly considerable export of tan bark to Germany and also to Belgium. The exports westward have naturally dwindled away, and at the present time New Zealand receives the largest share of the available export, while there is also some trade with Japan, China, and Java. During recent years the largest proportion of the exports consisted of wattle bark from Tasmania, Victoria and New South Wales.

A comparison of the imports and exports of tanning bark during the last five years is given in the next table :—

### TANNING BARK IMPORTED INTO AND EXPORTED FROM THE COMMONWEALTH, 1916-17 TO 1920-21.

Particulars.	1916-17.	1917-18.	1918-19.	1919-20.	1920-21.
<b>QUANTITIES—</b>	cwt.	cwt.	cwt.	cwt.	cwt.
Imports .. .. .	148,206	71,133	102,480	78,800	48,100
Exports .. .. .	59,299	97,145	28,600	72,380	65,220
Excess of exports over imports	- 88,907	26,012	- 73,880	- 6,420	17,120
<b>VALUES—</b>	£	£	£	£	£
Imports .. .. .	51,461	24,711	43,319	33,733	20,002
Exports .. .. .	28,914	45,690	14,675	44,227	46,730
Excess of exports over imports	- 22,547	20,979	- 28,644	10,494	26,728

NOTE. The minus sign (—) denotes excess of imports.

The imports consist almost exclusively of wattle bark from the plantations in South Africa. One variety of Australian wattle is found to flourish in the sandy belts near the coast, but it is the *Acacia decurrens*, var. *mollis*, which is chiefly relied upon for the production of wattle bark in the South African plantations. Seed has been tried from New South Wales, Tasmania, and Victoria, but it is stated that most of the seed is obtained from the best wattle bark areas in eastern Tasmania and western Victoria.

Two reasons are given to account for the success of the industry in South Africa. (i) It is found that the treeless, grassy highlands of Natal are specially suitable for wattle culture, and the trees can therefore be grown in rows and economically attended to, while the necessary bark sheds and other appurtenances can be placed in the most advantageous positions. (ii) There is an abundance of cheap and efficient Hindoo labour available for employment on the plantations.