

## 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, 1916.

State.	Area of Forest Reserves.		Total Forest Area.	Percentage of State Area.		Percentage of Commonwealth Area.	
	Perman-ent. (a)	Tempor-ary. (b)		Specially Reserved.	Total Forest.	Specially Reserved.	Total Forest.
	Acres.	Acres.	Acres.	%	%	%	%
New South Wales*	3,117,579		15,000,000	1.57	7.57	0.16	0.79
Victoria ...	4,128,306	125,500	11,800,000	7.56	20.98	0.22	0.62
Queensland ...	1,080,590	2,887,646	40,000,000	0.92	9.32	0.21	2.10
South Australia ...	128,294	20,235	3,800,000	0.03	1.56	0.01	0.20
Western Australia	9,908	1,611,698	20,400,000†	0.26	3.27	0.09	1.07
Tasmania ...	...	1,028,000	11,000,000	6.13	65.56	0.05	0.58
Commonwealth‡	14,137,746		102,000,000	—	—	0.74	5.36

(a) Reservations in perpetuity. (b) Reservations which may be cancelled at any time.

\* Inclusive of Federal area. † S.W. division only. ‡ Exclusive of Northern Territory.

In the case of Victoria the figures for area of permanent reserves include 3,381,905 acres reducible only by Act of Parliament, and 746,401 acres by resolution of both Houses of Parliament.

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 148,000,000 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, to the latest available date, are shewn in the table on the next page.

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

Country.	Total Wooded Area.	Percentage of Total Area.	Country.	Total Wooded Area.	Percentage of Total Area.
	Sq. Miles.	%		Sq. Miles.	%
<b>Commonwealth</b> ...	<b>159,375</b>	<b>5.36</b>	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			

2. **Distribution of Timber.**—The characteristics of the forest areas are given in some detail for each State in the 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 caused, it is believed, through 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

silvicultural 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 reserves, nurseries, and plantations are as follows:—

#### FOREST RESERVES AND NURSERIES, 1916.

Particulars.	New South Wales.*	Victoria.	Q'land.	South Australia.	Western Australia.	Tasmania.	Commonwealth
State Forest Reserves—							
Number (for area see page 410) ...	829	317	344	41	334	65	1,930
State Forest Nurseries—							
Number ...	4	3	3	7	1	1	19
Area ... (acres) ...	25	54	2	7	17	20	125
Plantations—							
Number ...	7	19	3	...	2	...	31
Area ...	1,072	20,740	90	...	594	...	22,496
Number of persons employed in Forestry Departments—							
Administrative ...	33	11	3	1	1	1	50
Professional ...	11	5	2	1	1	2	22
General ...	118	126	25	141	32	7	449

\* Including Federal Territory area.

4. **Revenue and Expenditure.**—The revenue and expenditure of the State Forestry Departments from 1912-13 to 1916-17 are given below:—

#### REVENUE OF STATE FORESTRY DEPARTMENTS, 1912-13 to 1916-17.

State.	1912-13.	1913-14.	1914-15.	1915-16.	1916-17.
	£	£	£	£	£
New South Wales ...	96,145	99,333	87,386	68,107	67,273
Victoria ...	51,146	57,746	70,834	59,189	50,615
Queensland ...	63,467	62,973	75,318	70,691	60,865
South Australia ...	5,609	6,868	5,588	5,981	10,259
Western Australia ...	33,805	48,236	53,904	45,726	19,058
Tasmania ...	4,414	4,659	4,224	3,615	3,860
Commonwealth ...	254,586	279,815	297,254	253,309	211,930

#### EXPENDITURE OF STATE FORESTRY DEPARTMENTS, 1912-13 to 1916-17.

State.	1912-13.	1913-14.	1914-15.	1915-16.	1916-17.
	£	£	£	£	£
New South Wales ...	42,154	44,828	47,207	50,531	73,762
Victoria ...	56,899	58,007	65,219	65,142	53,551
Queensland ...	5,397	7,386	7,654	7,416	9,516
South Australia ...	22,858	22,832	24,217	24,892	22,571
Western Australia ...	10,469	11,463	12,068	8,870	9,807
Tasmania ...	760	760	1,204	683	682
Commonwealth ...	138,537	145,276	157,569	157,534	169,889

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 the Conference of 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 Professor Percy Groom, 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. In May, 1916, an Interstate Forestry Conference was held at Adelaide.

### § 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 is experimenting with Australian woods for rifle stocks, telephone switch boards, aeroplane parts, etc. Queensland maple (*Flindersia chatawaiana*) is at present largely used for rifle stocks, and supplies of coachwood are being accumulated at Lithgow for the same purpose. Money has also been made available for the seasoning and storing of Australian timber, and depôts have been established at Canberra and Newington in New South Wales, and at Maribyrnong in Victoria. Timber seasoning depôts have also been established by States Governments at the principal centres, and from these, contractors may obtain timber at scheduled rates. Other timber seasoning works have been established by private enterprise.

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 a resolution was passed affirming the desirability of establishing a uniform nomenclature. It was further resolved that committees should be appointed in each State to take the necessary steps to give practical effect to that resolution.

### § 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 DURING THE YEARS 1912 to 1916.**

State.	1912.	1913.	1914.	1915.	1916.
	sup. feet.	sup. feet.	sup. feet.	sup. feet.	sup. feet.
New South Wales ... ..	162,604,000	164,899,000	140,940,000	115,201,000	125,243,000
Victoria ... ..	60,000,000	81,770,000	84,374,000	62,589,000	70,039,000
Queensland ... ..	163,828,000	156,634,000	168,456,000	144,950,000	121,851,000
South Australia ... ..	1,775,080	1,899,000	2,306,000	2,026,000	2,824,000
Western Australia ... ..	217,696,000	218,908,000	227,297,000	123,494,000	100,356,000
Tasmania... ..	63,243,000	60,780,000	52,182,000	47,890,000	52,019,000
Commonwealth ... ..	669,146,000	684,890,000	675,555,000	496,150,000	472,332,000

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 connection with ore flotation processes. Complete information regarding local production and consumption is not available. Oversea exports amounted in 1913 to £40,000, in 1914-15 to £21,000, in 1915-16 to £36,000, and in 1916-17 to £60,000, 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 1913 to 1916-17 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, 1913 to 1916-17.**

Country of Origin.	Quantity.				Value.			
	1913.	1914-15.	1915-16.	1916-17.	1913.	1914-15.	1915-16.	1916-17.
	sup. ft.	sup. ft.	sup. ft.	sup. ft.	£	£	£	£
United Kingdom ... ..	3,537	12,834	265	1,109	191	211	23	51
New Zealand ... ..	4,427	25,719	117,929	70,317	32	355	1,663	1,070
Other British Poss. ... ..	2,344	...	78,622	22,230	26	...	718	252
Germany ... ..	66,737	447,678	...	...	1,106	3,383	...	...
Norway ... ..	56,251,228	46,289,602	16,858,100	3,245,724	399,899	334,459	145,895	32,711
Sweden ... ..	23,571,012	11,699,062	7,690,606	...	137,988	95,994	66,729	...
United States ... ..	1,938,088	1,438,799	717,003	481,603	19,658	14,628	7,295	8,023
Other For. Countries ... ..	634,072	4,530	2,711	20,727	4,460	132	73	398
Total ... ..	82,471,445	59,918,224	25,465,236	3,841,710	613,360	449,162	222,396	42,505

As the table shews, the bulk of the imports of dressed timbers comes from Norway, Sweden (except in 1916-17) and the United States. 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, 1913 to 1916-17.

Country of Origin.	Quantity.				Value.			
	1913.	1914-15.	1915-16.	1916-17.	1913.	1914-15.	1915-16.	1916-17.
	sup. ft.	sup. ft.	sup. ft.	sup. ft.	£	£	£	£
United Kingdom	65,342	236,396	91,707	56,459	1,189	2,238	1,336	438
Canada	12,263,586	1,484,840	73,166	752,571	54,369	5,368	532	4,479
India	682,724	858,999	831,939	228,601	18,490	26,550	17,924	6,618
New Zealand	64,489,843	71,000,372	75,138,381	77,557,033	433,798	469,063	479,454	536,608
Straits Settlements	281,155	194,255	217,450	282,300	1,454	1,182	1,203	1,586
Other British Poss.	2,723	50,273	8,719	766,230	61	558	158	4,135
Japan	16,011,418	12,576,157	12,796,031	7,178,349	72,095	64,713	83,876	115,930
Java	45,890	6,239	48,599	4,683	1,312	41	1,345	136
Norway	6,204,961	2,857,057	1,557,451	69,695	42,162	22,086	12,279	570
Russia	10,516,517	3,301,910	211,931	...	66,434	20,795	1,212	...
Sweden	5,905,476	2,276,154	1,653,468	36,500	44,696	19,108	14,119	604
United States	256,331,192	171,222,415	138,033,305	109,620,926	1,418,760	943,834	792,888	680,077
Other For. Countries	317,975	265,236	951,732	51,382	2,771	3,465	6,140	955
Total	373,118,892	266,330,303	231,613,879	196,604,729	2,157,591	1,579,001	1,412,465	1,352,136

By far the larger proportion of the undressed timber imports also consists of soft-woods such as yellow pine, redwood, and oregon from the United States and Canada; kauri, 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 1912 to 1916-17 are given below, the countries of destination being also shewn :—

### EXPORTS OF UNDRESSED TIMBER (SAWN), COMMONWEALTH, 1912 to 1916-17.

Country to which Exported.	Quantity.*					Value.				
	1912.	1913.	1914-15.	1915-16.	1916-17.	1912.	1913.	1914-15.	1915-16.	1916-17.
	1000 sup. ft.	1000 sup. ft.	1000 sup. ft.	1000 sup. ft.	1000 sup. ft.	£	£	£	£	£
United Kingdom	11,325	20,222	20,185	5,741	1,478	79,940	140,082	143,698	45,286	10,118
Canada	456	619	67	19	260	5,693	8,028	990	321	3,796
Union of S. Africa	39,544	33,793	34,403	23,100	11,944	270,282	233,762	241,139	162,788	83,598
Ceylon	576	1,926	5,307	30	5,444	4,153	12,923	36,142	203	36,041
Egypt	...	...	7	†413	...	...	...	149	†3,638	...
Fiji	2,359	1,421	1,534	780	839	17,342	12,939	17,238	5,830	8,415
India	31,477	23,960	13,130	...	...	209,312	160,977	87,290	...	...
Mauritius	225	235	555	655	...	1,501	1,587	4,366	4,368	...
New Zealand	21,061	38,586	25,517	15,912	12,666	162,518	278,975	202,398	140,507	109,323
Ocean Island	446	347	241	197	...	3,682	3,139	1,690	1,873	...
Papua	614	598	192	205	277	6,410	6,184	2,026	2,412	5,278
Straits Settlements	18	88	12	10	2	505	478	118	100	34
Other British Poss.	15	249	504	599	510	184	2,151	4,714	4,987	6,211
Argentina Repub.	667	1,584	...	...	...	4,447	10,558	...	...	...
Belgium	2,727	2,429	...	...	...	19,193	17,146	1,378	...	...
China	1	1	2,582	...	...	2	2	17,764	...	...
Egypt	50	56	...	...	...	333	377	49	...	...
Germany	1,774	1,762	177	...	...	17,394	14,293	1,365	...	...
Japan	90	86	7	1	70	771	890	73	15	702
Kaiser Wilhelm L.	98	131	28	...	...	891	1,522	297	3	10
Marshall Islands	140	211	6	5	2	1,366	2,227	81	59	22
Netherlands	...	...	...	...	...	...	...	...	...	...
Bismarck Archip.	611	...	282	41	188	6,231	5,100	3,258	580	2,024
New Caledonia	232	201	96	33	25	2,017	2,123	800	417	300
Philippine Islands	61	63	...	...	...	414	449	...	...	...
Port'ese E. Africa	380	3,106	24	606	...	3,890	21,775	239	4,039	...
U.S. of America	942	1,295	294	469	1,433	11,182	13,379	3,891	6,826	21,354
Uruguay	1,754	668	...	...	...	11,689	...	4,518	...	...
Other For. Count.	1,692	1,836	256	124	193	16,814	13,752	2,581	1,398	2,512
Total	119,401	134,805	106,376	48,940	35,332	858,357	964,938	778,122	385,650	289,738

\* Exclusive of timber not measured in super. feet. † Previously included with foreign countries.

As the table shews, the bulk of the exports of undressed timber was consigned to South Africa, New Zealand, and 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.

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, 1912 to 1916-17.**

Description.	1912.	1913.	1914-15.	1915-16.	1916-17.
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**IMPORTS.**

Veneers ... Sup. feet	1,815,917	1,959,436	1,438,272	430,060	499,514
Dressed ... "	76,513,670	83,849,002	62,789,849	28,653,427	8,014,939
Undressed ... "	350,052,617	349,680,896	255,897,777	223,278,433	195,830,413
Logs ... "	18,901,739	23,437,906	10,432,526	8,335,446	774,316
Palings ... No.	...	...	...	...	...
Pickets ... "	2,065,145	2,302,748	923,155	808,342	611,399
Shingles ... "	1,242,720	1,526,994	1,067,060	2,677,620	2,083,408
Staves—Dressed, etc. ... "	920	...	73,609	67,380	12,764
Undressed ... "	2,181,121	3,639,969	2,535,831	591,750	152,283
Laths for blinds ... "	*	*	*	*	*
" other ... "	29,631,746	46,337,501	18,544,270	17,629,168	11,419,145
Spokes, rims, felloes ... "	*	*	*	*	*
Doors ... "	12,172	1,410	1,611	1,925	300
Architraves, mouldings, etc. ... Lin. feet	35,106	80,398	2,313	6,202	...
Other ... "	*	*	*	*	*

**EXPORTS.**

Veneers ...	...	...	...	...	...
Dressed ... Sup. feet	975,679	716,621	742,844	498,074	322,058
Undressed ... "	119,401,434	134,805,222	106,375,692	48,939,938	35,332,403
Logs ... "	1,913,973	1,899,474	411,204	226,400	197,721
Palings ... No.	630,670	487,094	462,705	322,240	603,569
Pickets ... "	5,335	1,411	1,350	800	...
Shingles ... "	21,332	31,800	...	...	...
Staves—Dressed, etc. ... "	...	...	...	...	...
" Undressed ... "	...	...	840	...	...
Laths for blinds ... "	...	*	*	*	*
" other ... "	406,980	7,190	284,521	111,600	63,000
Spokes, rims, felloes ... "	*	*	*	*	*
Doors ... "	*	*	*	*	*
Architraves, mouldings, etc. ... Lin. feet	125,327	107,664	99,152	41,673	40,768
Other ... "	...	...	...	...	...

\* Quantity not available.

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

Description.	1912.	1913.	1914-15.	1915-16.	1916-17.
EXCESS OF IMPORTS OVER EXPORTS.					
Veneers ... Sup. feet	1,815,917	1,959,436	1,438,272	430,060	499,514
Dressed ... "	75,537,991	83,132,381	62,047,005	29,148,072	7,692,881
Undressed ... "	230,651,183	214,875,674	149,522,085	173,345,776	160,498,010
Logs ... "	16,987,766	21,538,432	10,021,322	8,109,046	576,595
Palings ... No.	—630,670	—487,094	—462,705	—232,240	—603,569
Pickets ... "	2,059,810	2,301,337	921,805	807,542	611,399
Shingles ... "	1,221,388	1,495,694	1,067,060	2,677,620	2,083,408
Staves—Dressed, etc. ... "	920	...	73,609	67,380	12,764
" Undressed ... "	2,181,121	3,639,969	2,534,991	591,750	152,283
Laths for blinds ... "	*	*	*	*	*
" other... ... "	29,224,766	46,330,311	18,259,749	17,517,568	11,356,145
Spokes, rims, felloes ... "	*	*	*	*	*
Doors ... "	*	*	*	*	*
Architraves, mouldings, etc. ... Lin. feet	—90,221	—27,266	—96,839	—35,471	—40,758
Other ... "	*	*	*	*	*

\* Quantity not available.

Note. — 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,

1912 to 1916-17.

Description.	1912.	1913.	1914-15.	1915-16.	1916-17.
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## IMPORTS.

	£	£	£	£	£
Veneers ...	42,379	55,374	43,625	20,610	25,670
Dressed ...	578,427	625,032	468,025	243,155	74,477
Undressed ...	2,061,666	2,036,330	1,534,188	1,383,140	1,346,497
Logs ...	99,939	121,261	44,813	29,326	5,639
Palings ...	...	...	...	...	...
Pickets ...	10,270	8,497	3,406	4,030	2,174
Shingles ...	1,892	2,208	1,654	3,487	3,132
Staves—Dressed, etc. ...	14	...	1,607	1,907	337
" Undressed ...	15,744	22,870	16,440	11,164	3,538
Laths for blinds ...	26	4	...	...	...
" other ...	26,436	40,131	24,676	14,809	9,230
Spokes, rims, felloes ...	21,616	13,993	21,228	11,239	6,001
Doors ...	3,616	445	591	910	103
Architraves, mouldings, etc. ...	145	250	31	22	...
Other ...	1,043	81	156	90	2,030
Total value	2,863,213	2,926,476	2,160,440	1,723,889	1,478,828



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

Description.	1912.	1913.	1914-15.	1915-16.	1916-17.
EXPORTS.					
Veneers ... ..	£ ...	£ ...	£ ...	£ ...	£ ...
Dressed ... ..	11,542	8,160	9,327	7,190	4,804
Undressed ... ..	858,357	964,938	778,073	385,650	289,738
Logs ... ..	14,950	25,325	4,020	1,716	1,648
Palings ... ..	3,734	2,688	2,403	1,225	4,176
Pickets ... ..	66	40	20	7	...
Shingles ... ..	106	42	...	...	...
Staves—Dressed, etc. ... ..	...	...	...	...	...
Undressed ... ..	...	...	22	...	...
Laths for blinds ... ..	363	297	367	152	29
„ Other ... ..	495	11	246	245	147
Spokes, rims, felloes ... ..	12,214	8,039	6,769	6,570	4,333
Doors ... ..	1,053	960	482	554	354
Architraves, mouldings, etc. ... ..	723	541	457	152	164
Other ... ..	...	...	...	...	...
Total value ... ..	903,603	1,011,041	802,186	403,461	305,393

## EXCESS OF IMPORTS OVER EXPORTS.

Veneers ... ..	42,379	55,374	43,625	20,610	25,670
Dressed ... ..	566,885	616,872	458,698	235,965	69,673
Undressed ... ..	1,203,309	1,071,392	756,115	997,490	1,056,759
Logs ... ..	84,989	95,936	40,793	27,610	3,991
Palings ... ..	—3,734	—2,688	—2,403	—1,225	—4,176
Pickets ... ..	10,204	8,457	3,386	4,023	2,174
Shingles ... ..	1,786	2,166	1,654	3,487	3,132
Staves—Dressed, etc. ... ..	14	...	1,607	1,907	337
Undressed ... ..	15,744	22,870	16,418	11,164	3,538
Laths for blinds ... ..	—337	—293	—367	—152	—29
„ other ... ..	25,941	40,120	24,430	14,564	9,083
Spokes, rims, felloes ... ..	9,402	5,954	5,417	4,669	1,668
Doors ... ..	2,563	—515	109	356	—251
Architraves, mouldings, etc. ... ..	—578	—291	—426	—130	—164
Other ... ..	1,043	81	156	90	2,030
Total value ... ..	1,959,610	1,915,435	1,349,212	1,320,428	1,173,435

Note. — signifies excess of exports over imports.

A fair amount of sandalwood is exported each year, principally from Western Australia, and to a much smaller extent from Queensland. The largest proportion of this product is consigned to Hong Kong and China, while small quantities are taken chiefly by the Straits Settlements and India.

## EXPORTS OF SANDALWOOD, 1912 to 1916-17.

Country to which Exported.	Quantity.					Value.				
	1912.	1913.	1914-5.	1915-6.	1916-7.	1912.	1913.	1914-5	1915-6	1916-7
	cwt.	cwt.	cwt.	cwt.	cwt.	£	£	£	£	£
Hong Kong ... ..	22,854	91,054	98,600	96,949	130,314	11,567	41,476	48,338	51,087	71,460
Straits Settlements ... ..	2,390	17,835	15,985	10,620	10,308	1,034	5,931	9,854	6,410	6,504
Other British Possessions...	7,863	10,760	11,333	8,576	7,100	3,455	4,560	6,426	4,602	4,429
China ... ..	36,755	13,540	50,845	18,850	9,660	16,619	5,593	27,544	9,316	5,554
Other Foreign Countries ...	233	486	386	120	120	225	387	273	76	102
Total ... ..	70,095	133,675	177,149	135,115	157,502	32,900	57,947	92,435	71,493	88,049

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

## EXPORTS OF TANNING BARK, 1912 to 1916-17.

Country to which Exported.	Quantity.					Value.				
	1912.	1913.	1914-15.	1915-16.	1916-17.	1912.	1913.	1914-15	1915-16.	1916-17.
	cwt.	cwt.	cwt.	cwt.	cwt.	£	£	£	£	£
United Kingdom ... ..	605	3,078	218	3,018	6,797	197	1,010	102	1,434	3,103
New Zealand ... ..	73,667	45,013	57,873	51,138	41,098	34,224	20,559	24,604	23,574	20,703
Other British Poss. ... ..	1,684	621	1,006	714	205	802	307	382	371	107
Belgium ... ..	40,180	36,250	7,256	...	...	15,520	14,281	2,688	...	...
France ... ..	...	...	...	...	...	...	...	...	...	...
Germany ... ..	49,849	58,011	3,256	...	...	20,630	23,653	1,109	...	...
Other For. Countries ...	2,060	1,379	8,049	39,598	11,199	755	601	3,140	16,354	5,001
Total ... ..	168,045	144,352	77,658	94,465	59,299	72,128	60,411	32,025	41,733	28,914

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 an increasing trade with Japan and Java. During recent years the largest proportion of the exports consisted of wattle bark from Tasmania and Victoria.

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, 1912 to 1916-17.

Particulars.	1912.	1913.	1914-15.	1915-16.	1916-17.
<b>QUANTITIES—</b>	cwt.	cwt.	cwt.	cwt.	cwt.
Imports ... ..	119,253	77,689	66,136	122,188	148,206
Exports ... ..	168,045	144,352	77,658	94,468	59,299
Excess of exports over imports	48,792	66,663	11,522	-27,720	-88,907
<b>VALUES—</b>	£	£	£	£	£
Imports ... ..	50,920	27,987	24,924	47,698	51,461
Exports ... ..	72,128	60,411	32,025	41,733	28,914
Excess of exports over imports	21,208	32,424	7,101	-5,965	-22,547

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 was 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 have been given to account for the success of the industry in South Africa. (1.) It was found that the treeless, grassy highlands of Natal, were specially suitable for wattle culture, and the trees could therefore be grown in rows and economically attended to, while the necessary bark sheds and other appurtenances could be placed in the most advantageous positions. (2.) There was an abundance of cheap and efficient Hindoo labour available for employment on the plantations.