

1918.

QUEENSLAND.

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DEPARTMENT OF PUBLIC LANDS.

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ANNUAL REPORT

OF THE

DIRECTOR OF FORESTS

FOR THE

YEAR 1917.

QUEENSLAND.

APPENDIX

TO THE

ANNUAL REPORT OF THE DIRECTOR OF FORESTS, 1917.

(TO BE ATTACHED TO THE REPORT.)

FORESTRY.

RETURN OF TIMBER RESERVES IN THE STATE ON 31ST DECEMBER, 1917.

Land Agent's District.	Number of Reserves.	Area in Acres.	New Area Proclaimed, 1917, included in Previous Column.
		Acres.	Acres.
Atherton ... ..	6	23,744	...
Bowen ... ..	6	75,383	...
Brisbane ... ..	46	209,932	...
Bundaberg ... ..	17	71,065	2,210
Cairns ... ..	3	72,340	...
Charters Towers ... ..	1	125,000	...
Clermont ... ..	2	164,350	...
Cooktown ... ..	4	411,080	...
Dalby ... ..	19	304,074	...
Gayndah ... ..	6	21,978	138
Gladstone ... ..	13	142,296	...
Gympie ... ..	35	235,852	15,600
Herberton ... ..	3	14,890	5,790
Ingham ... ..	4	101,578	...
Inglewood ... ..	10	94,138	...
Innisfail ... ..	1	18,000	...
Ipswich ... ..	22	67,000	...
Mackay ... ..	12	196,186	...
Maryborough ... ..	24	107,613	...
Nanango ... ..	9	40,725	...
Port Douglas ... ..	5	209,876	...
Rockhampton ... ..	5	36,307	...
Roma ... ..	1	4,165	...
Springsure ... ..	1	3,240	...
Toowoomba ... ..	7	16,209	...
Warwick ... ..	11	37,706	...
Windorah ... ..	1	240	...
Totals ... ..	274	2,804,967	23,738

FORESTRY.

RETURN OF STATE FORESTS AND NATIONAL PARKS IN THE STATE ON 31ST DECEMBER, 1917.

Land Agent's District.	State Forests.		National Parks.	
	No. of Reserves.	Area in Acres.	No. of Reserves.	Area in Acres.
		Acres.		Acres.
Atherton ... ..	4	4,384	...	...
Brisbane ... ..	14	36,110	2	47,324
Bundaberg ... ..	5	64,516	...	...
Dalby ... ..	3	338,980	...	...
Dalby and Nanango ... ..	...	...	1	22,500
Gladstone ... ..	5	38,427	...	...
Gympie ... ..	8	59,457	1	106
Herberton ... ..	1	596	1	270
Ipswich ... ..	4	64,937	...	...
Maryborough ... ..	5	252,175	1	100
Nanango ... ..	10	56,572	...	...
Rockhampton ... ..	2	48,320	1	216
Springsure ... ..	1	69,000	...	...
Toowoomba ... ..	1	8,260	...	...
Warwick ... ..	1	27,400	2	3,235
Totals ... ..	64	1,069,134	9	73,751

## COLLECTIONS UNDER THE TIMBER AND QUARRY REGULATIONS FOR THE YEAR 1917.

Place.	Licenses.			Sales of Timber.			Sales of Confiscated Timber.			Totals.			
	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	
Aramac	4	13	6	2	12	8	...	...	...	7	6	2	
Atherton	5	6	0	1,885	5	9	...	...	...	1,890	11	9	
Banana	2	17	0	...	...	...	...	...	...	2	17	0	
Barcaldine	9	18	6	8	8	1	...	...	...	18	6	7	
Birdsville	...	...	...	...	...	...	...	...	...	...	...	...	
Blackall	13	9	4	8	15	4	...	...	...	22	4	8	
Boulia	6	6	0	1	0	6	...	...	...	7	6	6	
Bowen	41	15	6	67	0	11	...	...	...	108	16	5	
Brisbane	12	8	0	2,060	18	9	5	0	0	2,078	6	9	
Bundaberg	35	15	0	1,144	19	5	...	...	...	1,180	14	5	
Burketown	2	5	6	1	5	10	...	...	...	3	11	4	
Cairns	23	10	6	724	0	3	...	...	...	747	10	9	
Camooweal	1	5	0	...	...	...	...	...	...	1	5	0	
Charleville	12	10	6	19	9	5	...	...	...	31	19	11	
Charters Towers	56	14	0	636	5	10	...	...	...	692	19	10	
Chillagoe	0	5	0	...	...	...	...	...	...	0	5	0	
Chinchilla	...	...	...	...	...	...	...	...	...	...	...	...	
Clermont	4	0	0	873	6	1	...	...	...	877	6	1	
Cloncurry	204	17	6	697	0	3	...	...	...	901	17	9	
Cooktown	7	19	0	152	18	9	...	...	...	160	17	9	
Coen	...	...	...	...	...	...	...	...	...	...	...	...	
Croydon	8	4	0	25	1	6	...	...	...	33	5	6	
Cunnamulla	4	9	6	2	15	4	...	...	...	7	4	10	
Dalby	9	2	6	440	19	6	...	...	...	450	2	0	
Emerald	6	3	6	335	1	0	...	...	...	341	4	6	
Gayndah	5	10	0	71	9	2	...	...	...	76	19	2	
Georgetown	0	18	0	2	12	0	...	...	...	3	10	0	
Gladstone	13	12	6	933	18	2	...	...	...	947	10	8	
Goondiwindi	6	8	6	85	19	11	...	...	...	92	8	5	
Gympie	25	19	0	15,831	12	4	...	...	...	15,857	11	4	
Herberton	2	12	6	210	10	10	...	...	...	213	3	4	
Hughenden	39	13	0	225	0	8	...	...	...	264	13	8	
Hungerford	...	...	...	...	...	...	...	...	...	...	...	...	
Ingham	15	6	6	81	8	7	...	...	...	96	15	1	
Inglewood	9	10	6	550	5	10	...	...	...	559	16	4	
Innisfail	6	13	6	160	11	0	...	...	...	167	4	6	
Ipswich	5	15	0	11,520	4	9	...	...	...	11,525	19	9	
Isisford	2	5	0	...	...	...	...	...	...	2	5	0	
Jundah	7	19	0	...	...	...	...	...	...	7	19	0	
Kynuna	1	15	0	...	...	...	...	...	...	1	15	0	
Longreach	14	12	6	16	19	6	...	...	...	31	12	0	
Mackay	22	5	6	452	4	10	...	...	...	474	10	4	
Mackinlay	1	19	6	...	...	...	...	...	...	1	19	6	
Maryborough	30	13	0	4,285	15	2	...	...	...	4,316	8	2	
Maytown	...	...	...	...	...	...	...	...	...	...	...	...	
Mitchell	2	12	6	1	0	6	...	...	...	3	13	0	
Mount Morgan	3	0	0	...	...	...	...	...	...	3	0	0	
Mount Perry	0	17	6	...	...	...	...	...	...	0	17	6	
Muttaborra	5	7	6	...	...	...	...	...	...	5	7	6	
Nanango	12	5	6	17,679	10	3	...	...	...	17,691	15	9	
Nerang	0	2	0	...	...	...	...	...	...	0	2	0	
Normanton	3	18	0	32	5	6	...	...	...	36	3	6	
Pentland	...	...	...	...	...	...	...	...	...	...	...	...	
Port Douglas	6	15	0	120	17	9	...	...	...	127	12	9	
Ravenswood	8	7	0	36	15	7	...	...	...	45	2	7	
Rockhampton	52	14	0	2,300	1	0	...	...	...	2,352	15	0	
Roma	4	12	0	219	4	4	...	...	...	223	16	4	
St. George	1	10	0	7	5	0	...	...	...	8	15	0	
St. Lawrence	0	7	6	46	10	1	...	...	...	46	17	7	
Springsure	2	17	0	44	11	6	...	...	...	47	8	6	
Stanthorpe	7	7	6	12	3	7	...	...	...	19	11	1	
Stonehenge	0	2	0	...	...	...	...	...	...	0	2	0	
Surat	0	17	6	5	6	1	...	...	...	6	3	6	
Tambo	9	5	6	24	10	4	...	...	...	33	15	10	
Taroom	3	12	0	23	17	7	...	...	...	27	9	7	
Thargomindah	0	6	0	...	...	...	...	...	...	0	6	0	
Thornborough	0	15	0	...	...	...	...	...	...	0	15	0	
Thursday Island	27	12	0	319	0	5	...	...	...	346	12	5	
Toowoomba	10	10	0	1,057	7	7	...	...	...	1,067	17	7	
Townsville	24	3	6	70	6	1	...	...	...	94	9	7	
Warwick	1	12	6	225	14	6	...	...	...	227	7	0	
Windorah	2	5	0	1	6	0	...	...	...	3	11	0	
Winton	14	7	6	16	3	4	...	...	...	30	10	10	
Totals	£	895	5	4	65,759	14	11	5	0	0	66,660	0	3

## COLLECTIONS UNDER THE TIMBER AND QUARRY REGULATIONS FROM 1910 TO 1917.

LAND AGENTS' DISTRICTS.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Atherton	2,297 16 5	3,105 6 11	2,444 15 3	1,252 2 3	867 1 2	1,227 13 0	941 13 6	1,890 11 9
Banana	0 5 0	2 0 0	1 15 0	6 9 4	8 1 9	0 15 0	...	2 17 0
Barcaldine	22 1 3	33 19 6	76 2 8	62 9 0	63 1 8	42 1 11	21 19 1	25 12 9
Blackall	7 3 4	32 4 6	26 15 6	17 12 11	24 1 0	18 1 4	11 12 5	22 4 8
Boulia	12 0 0	7 2 0	2 14 0	6 17 6	5 16 9	7 8 4	6 4 9	7 6 6
Bowen	156 8 4	424 1 10	479 6 9	97 12 11	183 1 6	156 0 11	190 6 4	108 16 5
Brisbane	3,664 7 6	5,101 9 0	6,748 1 2	6,026 4 5	3,908 15 11	2,698 16 1	2,052 10 10	2,078 8 9
Bundaberg	1,402 3 7	2,297 13 7	2,444 14 0	2,358 9 2	2,988 11 4	2,155 11 1	1,126 11 0	1,181 11 11
Burketown	8 13 3	130 14 9	23 5 0	2 5 1	4 5 0	2 10 0	4 12 2	4 16 4
Cairns	1,312 4 7	842 14 5	1,402 0 4	1,190 6 7	1,286 12 8	1,036 18 4	895 10 5	748 10 9
Charleville	30 17 8	72 15 1	43 6 3	46 11 10	25 19 5	26 14 9	19 3 8	31 19 11
Charters Towers	1,139 13 7	1,252 10 3	1,650 12 11	982 3 4	1,263 6 8	1,108 16 8	916 5 0	692 19 10
Clermont	555 4 11	488 17 7	1,150 6 6	901 13 8	1,276 12 7	1,185 10 0	628 16 9	877 6 1
Cloncurry	97 8 10	176 7 0	124 5 5	520 7 2	424 10 11	627 2 9	760 7 3	901 17 9
Cooktown	385 6 3	80 19 11	87 1 7	67 13 4	143 8 6	190 7 0	88 16 8	160 17 9
Cunnamulla	10 16 11	30 0 2	51 7 6	50 6 0	42 16 2	4 12 6	19 8 9	7 4 10
Dalby	1,128 3 8	3,561 12 7	3,569 9 0	3,040 0 8	2,639 8 7	2,103 18 2	838 1 10	450 2 0
Gayndah	56 18 4	71 2 5	221 17 4	260 16 9	79 10 5	74 13 2	93 8 1	76 19 2
Georgetown	37 2 9	32 8 6	246 7 0	6 11 6	3 2 0	6 12 7	6 0 6	3 10 0
Gladstone	1,704 0 1	2,057 6 10	1,569 13 9	1,410 0 11	1,527 11 7	1,040 17 9	772 13 11	947 10 8
Goondiwindi	89 6 1	88 9 5	37 5 0	136 18 2	94 16 1	19 2 5	14 14 0	92 8 5
Gympie	4,971 19 10	6,882 4 3	9,570 15 1	8,451 18 5	10,635 4 11	14,975 7 2	16,628 5 11	15,857 11 4
Herberton	300 5 3	319 18 1	1,612 5 0	858 11 4	1,285 0 4	487 0 5	358 3 9	213 3 4
Hughenden	118 0 4	189 5 2	383 7 1	310 11 2	488 6 0	446 17 6	375 11 10	264 13 8
Ingham	487 4 0	396 13 10	337 6 7	525 0 3	634 10 4	574 18 11	283 10 11	96 15 1
Inglewood	1,605 10 9	998 2 8	1,469 6 1	1,616 15 11	917 8 10	1,258 2 4	734 2 2	559 16 4
Innisfail	422 5 2	583 7 11	387 19 3	276 19 4	238 1 1	271 1 11	378 17 8	167 4 6
Ipswich	2,172 16 1	4,386 8 5	3,122 15 9	5,234 15 9	9,073 11 11	10,422 12 9	8,792 5 6	11,525 19 9
Isi-ford	2 8 6	3 14 6	7 16 8	6 18 6	7 1 0	4 15 6	8 16 4	2 7 0
Jundah	1 3 6	4 5 6	58 12 8	8 4 0	7 17 9	6 17 0	4 2 0	7 19 0
Longreach	30 8 4	107 18 3	67 11 10	73 18 10	51 9 8	42 6 6	26 5 10	36 19 6
Mackay	282 4 9	596 2 10	739 9 1	536 7 6	597 13 0	609 19 3	441 12 8	474 10 4
Maryborough	1,936 15 4	1,996 3 8	2,957 14 4	2,918 0 2	3,433 14 9	2,940 9 7	3,554 15 3	4,316 8 2
Nanango	6,637 10 4	11,323 3 0	12,676 15 7	17,692 8 10	23,547 12 10	19,110 10 0	15,934 19 1	17,691 15 9
Normanton	10 17 11	4 2 0	40 19 0	31 2 7	16 10 2	49 11 9	96 13 6	69 9 0
Port Douglas	217 7 5	137 13 4	37 11 6	194 17 8	174 0 2	115 2 2	163 5 0	127 12 9
Raven-wood	33 4 9	191 8 5	199 15 2	86 4 5	212 16 11	200 3 4	188 5 1	45 2 7
Rockhampton	1,451 5 1	1,290 5 7	1,669 2 6	2,070 2 1	2,947 15 7	2,918 12 8	1,668 16 7	2,355 15 0
Roma	242 12 11	697 14 3	944 13 3	381 17 8	703 4 6	345 19 10	190 16 3	227 9 4
St. George	120 14 0	115 10 2	139 16 3	240 19 8	317 16 11	105 5 11	49 15 2	8 15 0
St. Lawrence	1 13 9	...	2 0 0	12 15 6	2 5 6	1 15 7	30 19 5	46 17 7
Springsure	186 5 8	202 6 10	387 11 9	424 13 11	467 5 9	357 13 10	388 2 4	388 13 0
Stanthorpe	11 8 3	18 5 7	0 11 6	14 14 7	20 3 8	24 4 1	14 6 2	19 11 1
Surat	10 19 1	3 5 0	10 15 9	7 12 6	12 19 3	20 8 2	5 9 0	6 3 7
Tambo	11 19 11	17 18 0	21 15 4	32 2 7	18 12 8	17 11 9	8 16 1	33 15 10
Taroom	17 1 9	16 16 2	22 17 9	47 2 5	35 9 4	38 1 9	53 5 7	27 9 7
Thargomindah	2 3 6	1 7 0	229 10 6	3 0 0	1 9 0	0 18 0	0 12 0	0 6 0
Torres	188 4 1	122 10 3	73 14 10	127 1 4	167 1 4	281 0 8	277 5 11	346 12 5
Toowoomba	3,350 13 8	2,239 5 9	1,637 16 7	771 10 3	1,609 2 5	642 13 1	351 8 11	1,067 17 7
Townsville	28 17 6	170 19 0	340 15 10	264 12 8	457 11 6	419 1 3	208 5 10	94 9 7
Warwick	687 0 8	903 14 2	1,859 4 7	1,263 17 1	344 14 3	253 6 8	215 4 5	227 7 0
Windsorah	16 2 4	...	0 2 0	5 1 7	...	...	2 5 3	3 11 0
Winton	19 17 6	30 2 2	35 7 8	39 13 3	30 16 9	14 1 6	20 12 0	34 5 4
Totals	39,645 4 3	53,840 8 0	63,446 16 8	62,973 4 3	75,317 19 9	70,690 14 7	60,864 10 4	66,660 0 3

# REPORT OF THE DIRECTOR OF FORESTS.

## TEMPORARY TIMBER RESERVES.

The area temporarily reserved at the end of the year was 2,804,967 acres, this being a decrease of 82,679 acres on the figures for the preceding year. This decrease was caused by the transference of 55,885 acres from the temporary to the permanent list, and the excision of 52,291 acres for the purposes of land settlement, while a total of 1,759 acres was gained as a result of recomputations and the more definite location of boundaries by land and forest surveys. On the other hand, new reserves to the extent of 23,738 acres were proclaimed, so that the area excised for settlement exceeded the new area by 28,553 acres.

The areas released for alienation comprised, amongst others, 34,000 acres of sparsely timbered hardwood country in the districts of Dalby, Clermont, and Inglewood, together with nearly 11,000 acres in the Maryborough district, consisting for the most part of rough grazing country of no present value for forestry purposes. Two other areas, of about 3,000 acres in all, located in the Nanango district, consisted of cut out pine lands which were excised in view of the permanent reservations made at the same time in the same district.

The most important of the new reservations is one of 15,600 acres of hardwood country on the Gympie goldfield. This area was cut over for mining and general purposes in earlier days and has since been subjected to unsystematic operations and fierce fires, with the result that it deteriorated considerably. A general inspection showed that considerable forestry possibilities still existed, and it was reserved temporarily pending the result of a linear valuation, which has since shown the suitability of the area for permanent reservation. Action towards that end is now being taken. The only other area of much importance is one of about 5,800 acres in the Herberton district, some distance beyond the terminus of the Ravenshoe Railway. It consists for the most part of hardwood country and contains also a small area of cedar and maple.

## STATE FORESTS AND NATIONAL PARKS.

The total area of permanent reserves—viz., 1,142,885 acres—shows an increase of 62,305 acres on the figures for the preceding year, ten new State forests having been proclaimed, of which eight were dealt with in the last report. The remaining two are situated in the Atherton and Nanango districts, the former, containing 1,570 acres on both sides of the Barron River, being adapted to the growth of cedar, maple, and kauri pine. At one time it yielded large supplies of mature cedar, isolated trees of which still exist and are being retained for seed purposes. The soil is composed, in places, of decomposed granite, on which the kauri thrives, but for the most part it is volcanic and overlain with basalt boulders which render regeneration except by seed impossible. The Nanango Reserve is on the rough northern slopes of the Bunya Mountains, and contains approximately 10,000,000 feet of overgirth pine, besides a considerable stand of undergirth.

Various other areas have been recommended for permanent reservation during the year, but submission of the proposals for approval is being withheld until plans of other areas adjoining are received, or until doubtful points can be settled by further inspections by higher officers.

## FOREST VALUATIONS AND FEATURE SURVEYS.

Three survey camps, acting under the Surveyor-General, and two forest valuation camps were engaged on this work, one of the latter having been established during the second half of the year, while the remainder were occupied more or less continuously throughout the year. All parties, with the exception of the last formed, were located in extremely rough mountainous country, and being, in addition, much hampered by wet weather, were consequently unable to make rapid progress.

The most difficult work of all was met with in the jungle-covered ranges of the Atherton district, where in one reserve the average number of wet days per month was about twenty. No new belts of mature red cedar were discovered, but promising areas of both young red beech and young red cedar were located on Reserve 310, Gadgarra, where the inspecting surveyor reported favourably on the possibilities of securing good natural reproduction of red beech and silky oak under forestry treatment. In that part of the high mountainous country which was inspected between Kuranda and the Atherton tableland fair stands of kauri pine and silky oak were recorded, but only a scanty though fairly even distribution of red beech and silkwood was observed. Much expensive road construction will be necessary before this part of the district can be operated in.

In the Southern part of the State, by far the most important area surveyed was the hoop pine belt on the heads of Boonara and Planted Creeks, in the parish of Grongah. This reserve contains a very fine stand of hoop pine of all ages, but is at present inaccessible to teams. An engineering survey of the proposed road of access is now being made, it being imperative that the more distant reserves be tapped, if the Maryborough mills are to be kept supplied with pine.

The forestry camps were engaged almost entirely on hardwood country, about 12,500 acres of which were deemed unfit for reservation, while the remainder—50,500 acres—is to be held. About 16,000 acres were found to contain mostly undersized trees and saplings, while, on the whole area thought fit for reservation, the estimated stand of overgrowth hardwood was approximately 103 million superficial feet, most of which, however, it will not be possible to extract for many years.

The total area of country reported on by the various camps during the year was about 127,000 acres, while in addition a linear valuation of 67,000 acres was carried out by the forest officer in the Clermont district.

#### REVENUE AND EXPENDITURE.

The collections on account of sales of timber and issue of licenses during the year amounted to £65,764 14s. 11d. and £869 5s. 4d. respectively, making a total of £66,660 0s. 3d. Refunds of guarantee deposits and excess payments made on previous sales amounted to £448 17s. 8d., leaving a gross revenue of £66,211 2s. 7d., which exceeded the corresponding amount for the previous year by £5,809 6s. 6d. Of the total collections, the Southern Division yielded £55,458 16s. 6d. or 83.2 per cent.; the Central Division, £4,788 0s. 5d., or 7.2 per cent.; and the Northern Division £6,413 3s. 4d., or 9.6 per cent. The most important forest districts of the State—viz., Brisbane, Ipswich, Gympie, Nanango, and Maryborough, together yielded £51,470—i.e., 93 per cent. of the total for the Southern Division, or 77 per cent. of the collections for the whole State, as against 93 per cent. and 77 per cent. respectively for the preceding years.

The increased revenue shown above, which was due in a large measure to the higher prices received in Nanango and Ipswich districts, would have been considerably greater but for protracted spells of wet weather during the last three months of the year, haulage conditions having been thus rendered difficult, while the exceptionally dry season during the winter months also had an ill effect. Pine operations were considerably restricted also owing to the lack of sufficient shipping to supply the quantities available for Southern markets.

District increases were recorded in numerous instances, the most important of which were Ipswich, £2,734; Nanango, £1,751; Atherton, £949; Maryborough, £762; Toowoomba, £716; and Rockhampton, £687. The amounts collected for Maryborough and Ipswich were the highest yet recorded for those districts in the history of the State. The principal decreases were Gympie, £771; Dalby, £388; Charters Towers, £223; and Innisfail, £212; while Cairns, Herberton, Ingham, and Inglewood have maintained the steady decline of recent years.

The expenditure for the year amounted to £13,930 1s. 10d. as compared with £9,473 1s. 6d. for the previous year. Salaries absorbed £4,224 11s. 2d. (£3,815 7s. 8d.); forest surveys and sylvicultural operations, £5,242 9s. 1d. (£2,157 14s. 2d.); clearing, fencing, and water supply, £534 5s. 8d. (Nil); opening and construction of roads, £2,150 15s. 9d. (£1,299 15s. 3d.); and travelling allowances and incidentals, £1,778 14s. The expenditure on roads covered construction and repairs, not only in reserves, but also on surveyed roads in timber districts, and in addition to the above, £3,500 was applied to the construction in new districts of roads which, though not forest roads, led to the increase in value of timber on Crown lands being prepared for settlement. The road construction work was carried out almost entirely by the Public Estate Improvement Branch, the Forestry Staff not yet being numerous enough to undertake the necessary control. (Figures in parentheses are the corresponding amounts for 1916.)

#### OUTPUT OF CROWN TIMBER.

The cutting returns show a still further decrease in many of the classes of timbers dealt with, the decrease being particularly noticeable in the case of railway timbers. This is, of course, largely due to the decreased railway construction and the earlier accumulation of supplies, but if the output of recent years is to be maintained in the future, it is becoming increasingly apparent that it can only be by the utilisation for sleepers of such timbers as turpentine and scrub box. For some years past, in order that the growing timbers may develop sufficiently to provide material for superstructures and rolling-stock, sales of ironbark telegraph poles in the southern coastal reserves have not been allowed, while similar action has been taken with regard to ironbark sleeper blocks. At the present time the supply of girder timber on the Benarkin State Forest is rapidly approaching exhaustion, this being due primarily to the fact that about six or seven years ago practically the whole of the large pole stand was cut for sleeper blocks.

As nearly as can be ascertained from the figures supplied by the district land agents, the Crown timber cut on which royalty was payable was as follows (figures in parentheses being the quantities cut in the preceeding year):—Kauri pine, 1,174,000 superficial feet (1,420,000); cypress pine, 1,214,000 superficial feet (840,000); hoop and bunya pine, 34,645,000 superficial feet (34,200,000); log hardwood, 7,390,000 superficial feet (8,250,000); red cedar, 173,000 superficial feet (90,400); other milling timbers, 658,000 superficial feet (780,000); sleepers and transoms, 226,230 pieces (564,130); piles, girders, &c., 71,940 lineal feet (226,640); telegraph poles and house stumps, 99,520 lineal feet (158,200); posts, rails, and palings, 82,530 pieces (74,000); fuel, 50,570 tons (34,000); sandalwood, 454 tons (396); mangrove bark, 21 tons (166). The principal districts yielding hoop and bunya pine were Nanango with 10,681,000 superficial feet (11,260,000); Gympie, with 10,266,000 superficial feet (11,480,000); and Ipswich with 9,248,000 superficial feet (7,550,000); the only other districts in which the cut exceeded 1,000,000 feet being Brisbane and Maryborough. The bulk of the milling hardwood cut was as usual in Maryborough, where 3,450,000 superficial feet (3,300,000) were disposed of, chiefly from Fraser Island, while no other district yielded as much as 1,000,000 feet. Charters Towers and Rockhampton provided over 70 per cent. of the mining timber cut.

## ROYALTY RATES RECEIVED.

The prices received for hoop pine, on which the timber revenue is very largely dependent, were generally well maintained, and in one or two districts showed satisfactory increases. There was as usual very little competition for the smaller lots disposed of, though, on the other hand, in a few isolated cases competition ran wild and prices beyond the true market value were offered. The highest rate was obtained in the Gympie district, where for one small lot on the Brooloo State Forest 7s. 7d. was offered for logs over 70 inches mid girth and 6s. 10d. for logs 60 inches to 70 inches. The next best prices—viz., 7s. 1d. and 6s. 7d. were obtained in the Nanango district at Blackbutt, where rates generally have been satisfactory for some time past. Sales on the Benarkin State Forest yielded the highest prices yet obtained in the Ipswich district, ranging from 5s. to 6s. 7d. for logs of all sizes. The maximum price realised in Toowoomba was 4s. 6d. and in Brisbane 3s. 6d.

Hardwood sales were as usual very restricted, and prices in most cases low, though 2s. 9d. was obtained for one small lot in Springsure, 2s. 6d. in Brisbane, and 2s. 1d. in Maryborough. The practice which has been instituted in the south-eastern districts, of selling girder timber on the basis of the log value of the tree, has proved very satisfactory, having led to a much more thorough utilisation of the trees felled, while the Department has received something approaching its fair revenue as opposed to the almost nominal values previously obtained.

Although the demand for red cedar improved somewhat, the prices realised have not reached the level of a few years ago, competition having been lacking and sales effected at the upset rates. The highest price—viz., 20s.—was obtained in both the Atherton and Cairns districts, while 7s. 6d. only was realised in Brisbane. Kauri pine sold generally at from 1s. to 2s., but 3s. 6d. was obtained for one lot in Atherton. Red beech sales, at generally from 1s. to 2s. with a maximum of 2s. 6d., were small and of little importance, the bulk of the supplies of this species having been derived from selected lands. Northern silky oak, when saleable, brought from 6d. to 1s., but Crown supplies of this species are not within the easy haulage distance which its low log value on trucks requires. Cypress pine sold mostly at 1s. 6d., reaching as high as 2s. 6d. in the Inglewood district.

## SYLVICULTURE.

**HOOP PINE.**—The year was an eventful one, in that a prolific crop of fertile hoop pine seed was shed, this being the first general seed year experienced in the South-eastern districts since the Forestry Branch assumed control of the forests. Splendid seeding rains accompanied the fall of seed in the Gympie district, with the result that abundant reproduction ensued. These favourable conditions were followed, however, by a protracted dry spell, which lasted until the spring and caused a heavy mortality in the young crop. In the Ipswich and Nanango districts such good seeding rains were not experienced, and the reproduction was correspondingly less. Every opportunity possible was taken to make observations on the behaviour and general requirements of the seedlings, and much useful information obtained, particularly by the officers of the Gympie and Nanango districts, acting under Inspector Swain. Mr. Swain reports hopefully on the prospects of securing satisfactory regeneration by natural means, but so long as the utilisation of minor species remains as incomplete as at present, it appears that planting must also play an important part in regeneration. Two small areas on the Brooloo State Forest were cleared and planted with hoop pine and other species in order to obtain a basis for the comparison of natural with artificial regeneration. Of the coniferous species tried, hoop pine proved by far the most hardy and satisfactory, its superiority over exotic species being very marked and its rate of growth for the first year being distinctly good, annual shoots up to 3 feet having been recorded. The most disquieting factor was the luxuriant growth of weeds, which in future may have to be suppressed by raising an agricultural crop during the first year.

**RED CEDAR.**—Pending the collection of information relative to the control of the twig borer, extensive planting of this species is not being undertaken. A valuable note on the pest was received from the President of the Indian Forest Research Institute at Dehra Dun, and the experience gained in India is now being examined to determine to what extent it is applicable to Queensland conditions. An additional small plantation was made near the Atherton Nursery, and a crop of maize raised between the cedar, with a view to suppressing inkweed. Considerable damage was done by working bullocks which broke into the plantation, and the financial return from the corn was consequently unsatisfactory. The results, however, were such as to indicate that the raising of an agricultural crop will probably be satisfactory when operations on a large scale are undertaken. A small area of red cedar was also planted on the experimental plot on the Brooloo State Forest, and the results there confirmed the experience gained in Atherton—viz., that the growth of tall weeds should not be interfered with much, as they offer considerable protection against the ravages of the twig borer.

**OTHER SPECIES.**—The growth of the small kauri pine plantation established near Atherton in 1916 continues to be highly satisfactory, heights up to and even exceeding 10 feet having been obtained in two years, and this species may now be regarded as offering considerable promise for future work. Operations in 1917 were very restricted, as, owing to the exceptionally humid season, it was impossible to obtain a satisfactory burn of the felled area. The trial planting of red beech proved as unsatisfactory as in previous years, this species being difficult to handle in plantation. Good natural reproduction was, however, reported, and attention is now being concentrated on the regeneration of beech areas by natural means. The same applies to Northern silky oak.

**FRASER ISLAND.**—The trial areas of blackbutt and cypress pine mentioned in last year's report continue to develop very satisfactorily, the best specimens of blackbutt having attained a girth of 22 inches, and a height of 45 feet, in less than four years after sowing. The growth of the local cypress pine still excels that of all other conifers tested, though considerable promise is shown by *Pinus Taeda*, single

specimens of which reached a height of 7 feet 6 inches within two years after planting. In the arboretum, which has been established, the latter species and *Taxodium distichum* are two exotics which are developing satisfactorily.

In the hardwood forests no general seed year was experienced, but tallowwood flowered heavily, giving promise of a good seed year in 1918. About 200 acres of cutover country were brushed and felled preparatory to burning in readiness for sowing, but the rainfall was too heavy to admit of a satisfactory fire.

#### MANAGEMENT.

In consequence of the increased vote granted, road construction was proceeded with at a greater rate than previously, the most important roads undertaken being one on R 124 Glastonbury, one on R 235 Amamoor, and two in R 135 Brooloo. Owing to the lack of forest officers, the work has been entrusted to the Public Estate Improvement Branch, but the volume of work ahead is such as to justify the creation of a forestry road staff.

The appointment of residential officers to the Brooloo, Yandina, Bunya, Benarkin, and Good Night Scrub State Forests was approved, and the erection of quarters on the four first named entrusted to the Department of Public Works. In addition, offices, which are to serve also as a training establishment for forest officers, are being erected on the Brooloo State Forest, where a large nursery, with irrigation plant, has been laid out. Towards the end of the year, Forester M. H. Simon was appointed to the Maryborough district, the control of which is to be placed under the Forestry Branch, while six other new officers were appointed to various positions; of these, one of the most important is that concerned with the Western cypress pine areas which are reported to be recovering from the disastrous effects of earlier years.

A motor-boat was purchased for the use of the officer in charge of Fraser Island, and is expected to improve the conditions of residence on the Island and increase the efficiency of the work.

A reclassification scheme, involving the improvement of the status of the service, was submitted for approval, but has been held in abeyance owing to the negotiations entered into between the Government and the Professional Officers' Association.

Development is still greatly handicapped by the impossibility of obtaining officers with even an elementary knowledge of forestry, and in consequence an Instructor in Forestry has been appointed to take charge of the training of officers at the Imbil Forest Station. The date of his arrival is, however, uncertain, as he is still at the Front.

#### UTILISATION.

A marked improvement was noticeable in the extraction of pine tops in the Ipswich and Nanango districts, while in Gympie also limited sales were made. This was due largely to the Southern demand for case timbers, and the rise in price of clear logs caused by the demand for three-ply and match making. Pine tops within easy haulage distance of the railway may now be classed as a marketable commodity.

The arrangement entered into between the Government and the Queensland Pine Company had not resulted, by the end of the year, in the manufacture of wood pulp, but operations, which have commenced since, are decidedly promising.

The trial of a bulk sample of the Fraser Island red wattle made in Mr. Gibson's tannery at Kedron, was not very satisfactory. Mr. Gibson stated that the bark was of mediocre quality only, and no business has yet resulted. Samples of the bark of dark yellow-wood are now being tested.

Three Queensland barks, two from the South and one from the North, have been tested and found suitable for use as foam barks in place of imported Quillaya, and small supplies from the Southern species have been marketed.

With a view to encouraging the utilisation of turpentine, picked trees on Fraser Island, which had been ringbarked and allowed to stand for twelve months, were sawn up under arrangement with Messrs. Hyne and Son, Maryborough. The behaviour of the sawn material, three months after sawing, was satisfactory.

The utilisation of miscellaneous scrub woods has made slight progress, occasional sales having been made in Gympie and Nanango districts. In the construction of the engine-shed and toolhouse at the Imbil Station, Inspector Swain used scrub box and ironwood for weatherboards, and crow's foot elm for flooring, with encouraging results, the ironwood weatherboards being particularly good.

#### GENERAL.

During the year the preparation of "Forestry Bulletins" was undertaken, and three were issued, viz. :—

- No. 1. The Structure and Identification of Queensland Woods.
- No. 2. Notes on the Principal Timbers of Queensland.
- No. 3. (Part 1.) Sylvicultural Notes on Forest Trees of Queensland.

At the Interstate Forestry Conference, held in Perth in November, this State was represented by the Director of Forests. The deliberations of the conference disclosed that the timber resources of Australia are very much less than is generally supposed, and that there will be very grave difficulty in



securing even 25,000,000 acres of valuable reserves for the whole of Australia. I have repeatedly drawn attention to the fact that the resources of Queensland have been greatly overestimated, and in this, my last report, I would again emphasise that settlement should no longer be allowed to encroach on any land which is fit for the production of valuable forests.

During the year the Service suffered a severe loss through the sad and untimely death of Mr. W. T. McCreery, who for ten years was clerk in charge of the Brisbane office. Mr. McCreery had a thorough knowledge of the office procedure and all forestry records and was highly esteemed by the officers of the Department and those of the general public with whom he came in contact; his loss is greatly regretted by all. The vacancy thus caused was filled by the well-deserved promotion of Miss Maskrey, who has since carried out the duties with great zeal and care.

In conclusion, I wish to express my high appreciation of the work performed by the members of the staff, who have worked consistently and enthusiastically throughout the year, and to emphasise again that the Forestry Service should be adequately rewarded by increased remuneration and improved status.

N. W. JOLLY,  
Director of Forests.

TABLE No. 1

## PROGRESS OF THE SAWMILLING INDUSTRY FROM 1912 TO 1917.†

	1912.	1913.	1914.	1915.	1916.	1917.
Number of sawmills in operation ...	258	- 247	252	247	230	227
Number of hands employed... ..	4,753	4,621	4,359	4,311	3,734	3,441
Value of machinery, plant, land, &c. £	551,811	565,474	601,119	568,458	567,356	545,184
Soft woods cut ... { Super. feet	107,780,777	98,620,299	101,112,427	89,726,215	75,231,339	70,465,436
... { Value, £	829,617	778,084	838,713	769,164	657,289	641,117
Cedar cut ... { Super. feet	885,791	882,092	668,997	433,536	290,738	197,783
... { Value, £	19,850	15,964	14,329	11,085	6,343	3,893
Hardwood cut ... { Super. feet	55,160,910	57,131,224	66,674,215	54,790,162	46,328,581	40,999,378
... { Value, £	478,015	510,967	614,853	531,981	491,903	435,427
Planing, Moulding, &c. ... £	148,506	154,778	33,786	49,682	35,748	107,279
Value per 100 sup. feet*—	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
Soft woods ... ..	15 5	15 8	16 7	17 2	17 6	18 3
Cedar ... ..	44 10	36 5	42 10	51 3	43 8	39 4
Hardwood ... ..	17 4	17 11	18 5	19 5	21 3	21 3

\* The prices are the average local prices for all classes of the timber referred to.

† These figures, supplied by the State Government Statistician, refer to timbers cut in the State, both on Crown and private lands.



Ironbark Girders.



Prevent Forest Fires.



Bunya Pine, showing One Season's Growth, in Plantation, Imbil.



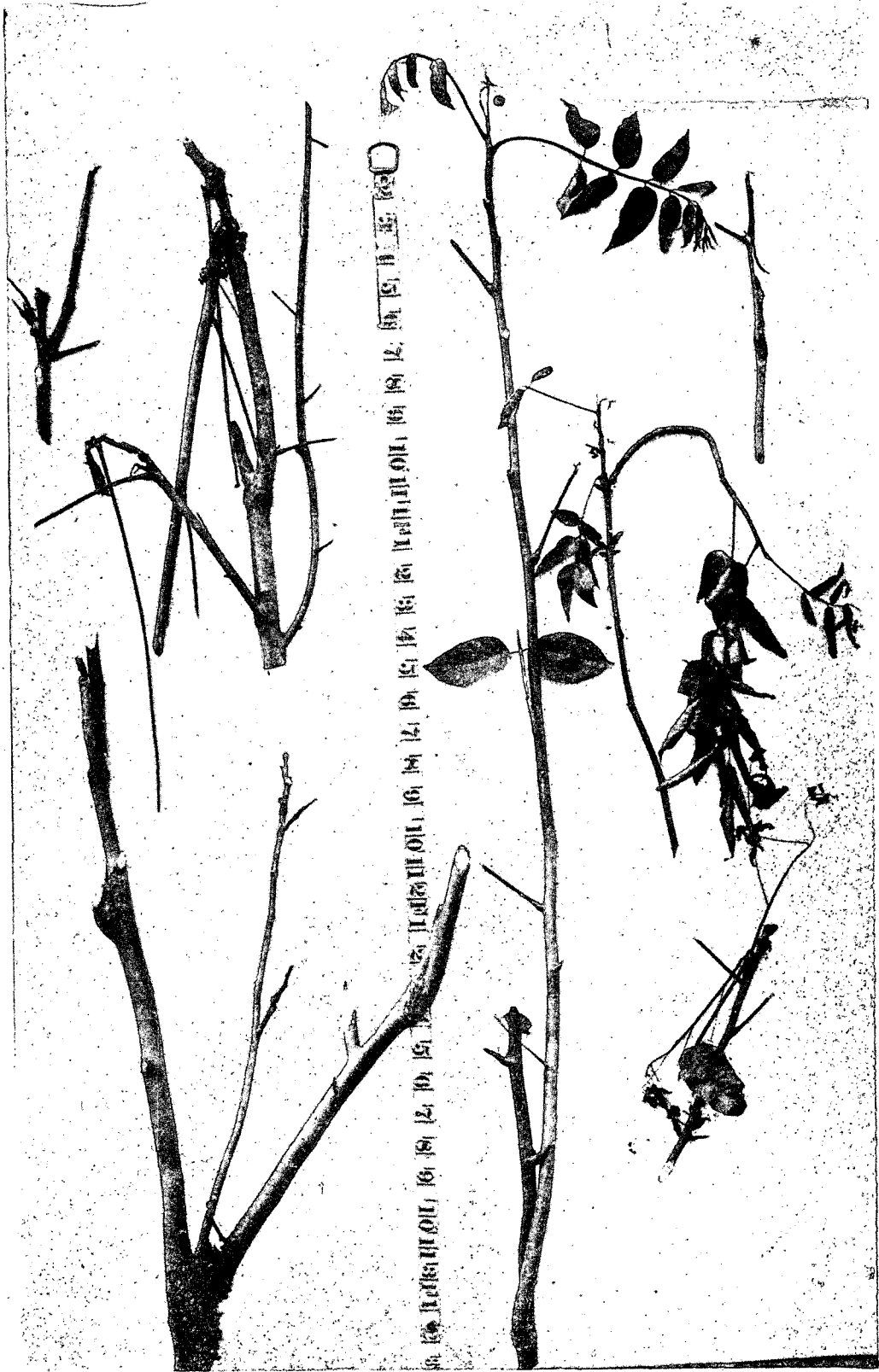
14-O Hoop Pine Seedling, Showing First Nine Months' Growth, in Plantation, Imbil.



Hoop Pine Forest, Bunya Mountain.



Stripping White Foam Bark.



*Cedrela Australis* Attacked by Twig Borer.