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QUEENSLAND.

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ANNUAL REPORT

OF THE

SUB-DEPARTMENT OF FORESTRY

FOR THE

YEAR 1955-56.

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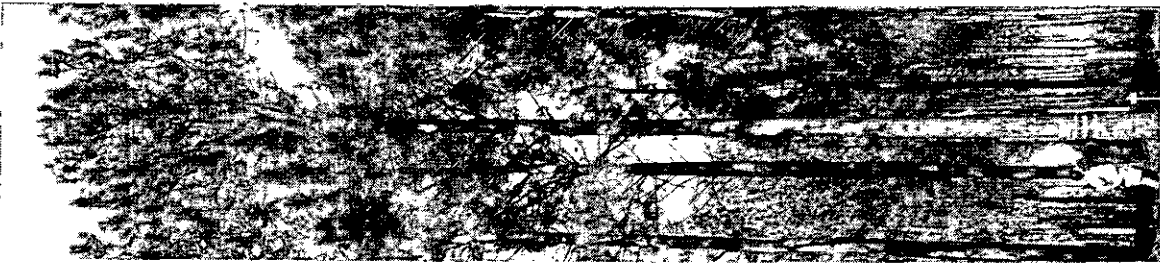
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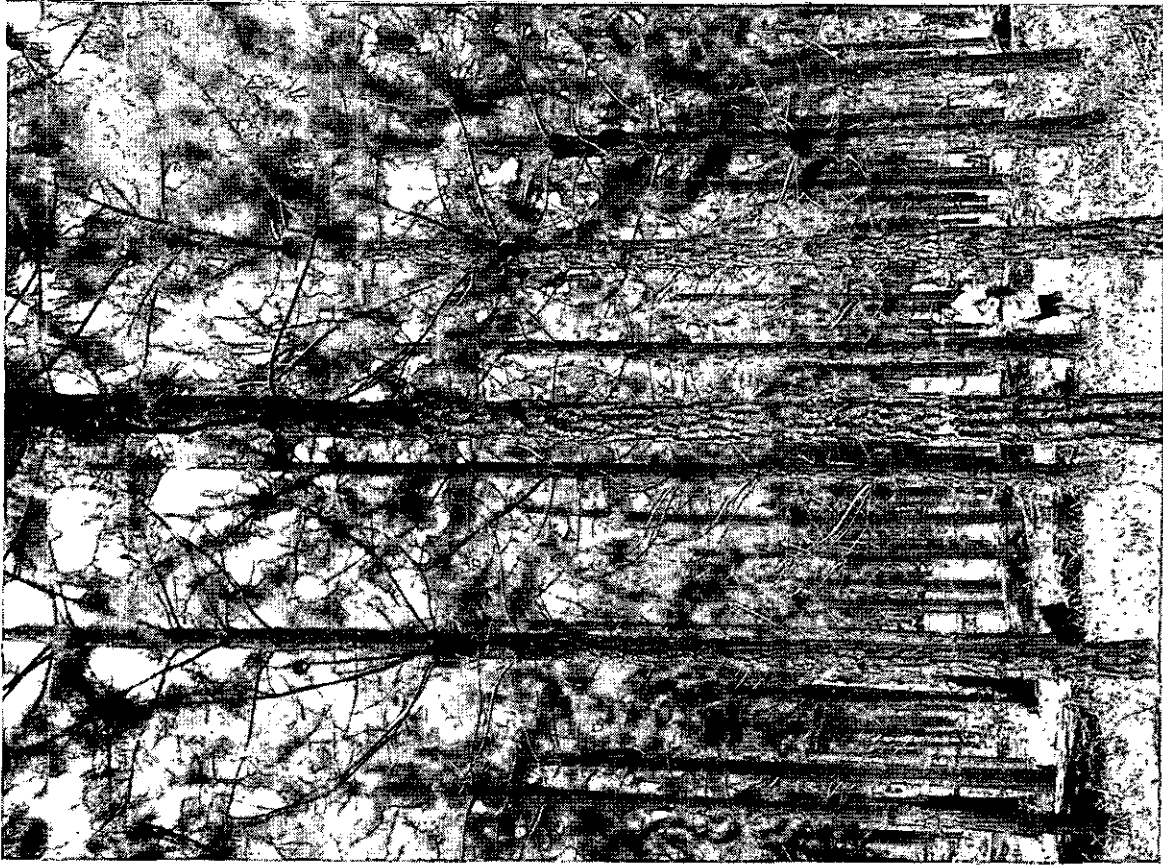
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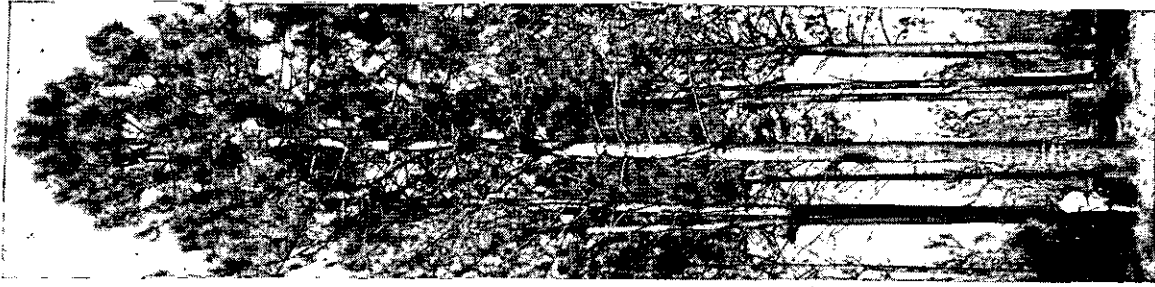
TREE BREEDING PAYS DIVIDENDS IN BIGGER AND BETTER TREES.



Elite Tree C.B. 74.  
25 years old.



This excellent plantation of Slash Pine is from seed obtained from controlled pollination of the Elite Trees C.A. 12 and C.B. 74. Trees were cross-pollinated in 1942, seed was sown in 1945, and trees were planted out 10' x 10' in 1946. Age 10 years.



Elite Tree C.A. 12.  
24 years old.

# Report of the Director of Forests for the Year ended 30th June, 1956.

## INTRODUCTION.

The highlight of the year's activities was the establishment of 6,198 acres of plantations, easily a record for any one year since regular planting first commenced. Of this 6,182 acres were planted with softwoods.

On previous occasions I have stated that 250,000 acres of soft-wood plantations will be needed to meet the State's requirements of 50 years hence. With the present trend of rapid population increase in Queensland this objective may be conservative. To the end of the year just closed 70,708 acres had been established, leaving an area of approximately 180,000 acres still to be planted before the goal which the Department has set itself is reached.

Since the second world war the progress in plantation establishment has been satisfactory although, at times, it has been maintained at the expense of reduction of work on the natural regeneration areas, i.e., the hardwood and the Cypress Pine forests.

The following figures of plantations, all species, established since 1949-50 indicate the progress which has been made in recent years:—

	Acres.
1949-50 .. .. .	5,225
1950-51 .. .. .	5,277
1951-52 .. .. .	4,565
1952-53 .. .. .	4,649
1953-54 .. .. .	5,091
1954-55 .. .. .	5,095
1955-56 .. .. .	6,198

It is hoped that, over the years, funds will continue to be available to permit this programme of work to go forward without any serious setbacks. It is unfortunate that there is a forced reduction of programme for 1956-57 because of lack of funds. The long-term nature of the forest crop makes assured appropriation very desirable for sound continuity of operations. If the timber resource of the State is to be properly cared for in the most economic manner it is necessary to develop long-term programmes for each and every area permanently dedicated to the production of wood.

Any disruption of this programme decreases efficiency—and serious reduction of funds can mean that established assets of high value are inadequately cared for and protected. Even when reserves are fully staffed it is not unusual to have a handful of forestry employees charged with the treatment and protection of readily negotiable assets which would be valued in terms of hundreds of thousands of pounds.

Forestry is one of the main primary industries of Queensland. It is a form of land settlement upon which small rural centres of population depend for existence, apart altogether from the large employment made available in the secondary industries which depend on the forests for their supply of raw materials.

From an economic point of view it should be borne in mind that timber is a product which can be grown more cheaply than it can be imported. There will always be a local demand for the product of our forests and there will be no need to depend on a problematical overseas market. At present Queensland is a nett importer of wood and during the immediate future the necessity to import will increase.

Another feature of the year's work worthy of special mention is the fact that the greatest increase in log cut for the past year occurred in the pine plantation thinnings where the output jumped by 5,500,000 superficial feet to 19,740,000 superficial feet. To date over 100,000,000 superficial feet of logs have been cut from these plantations, representing a substantial contribution to Queensland's under-supplied softwood demand. This is most significant and an indication of the wisdom of the plantation programme instituted back in the 1920's. With a continuation of the present planting programme, the annual output of the plantations should be of the order of 120,000,000 superficial feet within 20 years. This is most heartening, particularly in view of the fact that the native Hoop Pine is now a fast vanishing resource.

I should also like to make reference to the necessity for placing the timber industry in North Queensland on a permanent basis, self-supporting for its log supply. The high reputation, both here and overseas, of such northern timbers as Walnut, Maple, Ash, and Oak is well known.

The log demand from the northern mills is very strong and is expected to increase. Last year there was a record cut of 65,000,000 superficial feet from Crown areas. It is estimated that in the not too distant future the local industry could readily market the product of 150,000,000 superficial feet of logs per annum.

This important industry, so vital to the economy of North Queensland, must be sustained. An industry which gives direct employment in logging and milling to over 3,000 men, quite apart from the many more employed indirectly, and the annual production of which exceeds £4,000,000, is worthy of very special consideration.

This industry can only be sustained on a permanent basis by setting aside sufficient areas of land to be managed in perpetuity for the production of timber. The Department has developed satisfactory techniques for the treatment of the North Queensland forests to improve the representation of the high-quality species and to increase the overall production. This work can only be carried out on areas that are permanently reserved for timber production. The Department must be sure that the economic value of its productive work will not be lost by the diversion of this land to other uses. It is, therefore, pleasing to record that in the past year there was an increase of approximately 40,000 acres in the area of State Forests in North Queensland. The proper procedures will be initiated on them as soon as possible.

But the State Forest area in this region is still inadequate and I stress the need for greater permanent timber reservations of the high-quality forest areas, so that the North Queensland timber industry, employing thousands of men, supporting thousands of families and, what is very important, producing a product urgently needed by the local market at rates below world parity, may look forward to the future with confidence.

There is still a continuous flow of applications for new sawmill licenses or for increases in the capacity of existing sawmills.

In view of the critical position regarding log supply, both from Crown and private lands, that exists throughout the State for the already licensed sawmills, the bulk of these applications can only arise out of ignorance of the true position on the part of the applicant. Sawmilling ventures cannot be economically sound unless there is a reasonably assured supply of logs. Yet in areas where existing sawmills are competing strongly for the inadequate supplies available, and where existing mills are even closing down because of lack of supplies, there is no dearth of applications for new licenses by would-be sawmillers. Generally, these applications are supported by statements that the applicant has supplies of timber available, often described as "unlimited," or by proposals to operate on timber supplies which the Department knows from experience would be unsuitable for the products intended. There could be no stronger evidence that the applicant has little knowledge of the industry.

It is in the interests of the State, the timber industry, the timber using public and the applicant alike to refuse the bulk of these applications.

## REFORESTATION.

### Management.

It is very pleasing to record a softwood planting of 6,182 acres for the year which is 1,000 acres larger than the previous highest figure.

Even so, though the total softwood plantings now exceed 70,000 acres, it will take another 30 years, at this record planting level, to reach the minimum objective of 250,000 acres.

This is far too long.

Further, on present basis it can only be achieved at the sacrifice of the vast amount of fire protection and silvicultural treatment waiting to be done on the natural forests.

Assured and regularly increasing appropriations of funds are essential for the proper planning of such long term projects as forestry.

The raising of the total thinning yield from plantations to the first 100,000,000 superficial feet was also noteworthy. Further thinning sales made during the year have raised the annual required cut to 25,000,000 superficial feet and a monthly yield of 2,000,000 superficial feet is now regular.

Apart from some leeway in the Brisbane Valley, first merchantable thinnings are, in most centres, close to schedule and second thinnings are now being cut in several areas.

Forest management inventory survey work on permanent plot basis is being pushed ahead as fast as limited survey personnel allows.

The total area of natural forest covered to date is—

	Acres.
Cypress Pine and inland hardwood .. .. .	829,000
Coastal hardwood .. .. .	157,000
Rain forest .. .. .	22,000

Prescribed cuts on a sustained basis have been laid down for all areas so covered.

In addition, all softwood plantings older than 12 years have been permanently sampled.

No work along the prescribed detailed lines of the national forestry inventory has been possible, but work has been initiated using aerial photos and field reports on a wider basis designed, in the first place, to prepare an atlas of merchantable forest cover throughout the State.

Fire protection works were maintained at about the same scale as for the past few years.

It has become clear that the costs of maintaining breaks on some coastal hardwood areas cannot be sustained and a review of the system generally is proposed for the near future.

The fire season was not a bad one but there was a period in late October and early November that caused concern.

It was during this period that the first fire loss in the extensive exotic softwood plantations in the Beerburum area was sustained. Sparks from a fire fanned by a 60+ m.p.h. westerly wind were blown 15 chains over the top of prepared breaks. Though the total area burnt over was 60 acres the trees have recovered over a fair area and the net loss was little more than 20 acres. The fact that loss was confined to such a small area was due to a particularly fine effort by the Department's employees.

The fire originated from a burning stump in private property and which presented no hazard under the conditions then prevailing.

The sudden appearance of winds of such high velocity indicates the importance of forecasting their happening with maximum notice and the Research Officer appointed to the Meteorological Bureau on fire weather forecasting has been asked to give this the highest priority.

### Silviculture.

Reference to the Annual Report for last year indicates that 1954-55 was an abnormal year from the point of view of weather, with rainfalls well above average. These abnormal conditions have continued through 1955-56 and, although total rainfalls are not as high as for the previous year, the amount of rain received in the last six months was considerably greater than for the same period of 1954-55. For example, the rainfall at Yarraman for 1955-56 totalled 4,812 points and of this 3,538 points, or almost 74 per cent., fell in the last six months. For 1954-55, of a total fall of 5,283 points 3,046 points, or 57 per cent., was received in the last six months. Similar conditions prevailed at other centres.

The year's rainfall of 4,812 points is at least 18" above the average for Yarraman whilst the Beerwah figure of 8,195 points is 20" above the average. This excessive amount of rain, following on the abnormal falls of 1954-55, has hampered all reforestation operations and has been responsible for some major landslides in Hoop Pine plantations of up to 20 years of age as well as in the natural Hoop Pine scrubs. Plantation roads have suffered severely and weed growth has been prolific.

For the first six months of the year rainfall was below average for August and November, normal for December and above average for July, September and October; however, the falling and burning of areas for plantations was not unduly hampered, although it was impossible to burn one area on Toolara State Forest.

The above-average rainfall for the last six months of the year resulted in excellent planting conditions for exotic species, but greatly delayed work generally and the resulting weed growth in both new and old areas increased tending costs. In addition, water-logged lower slopes were difficult to plant in both Hoop Pine and exotic areas, and the sodden condition of plantation roads made transportation of plants and planting gangs most difficult.

Despite these difficulties the programme of work completed during the year compares more than favourably with the previous year.

Details of the work performed for 1954-55 and for 1955-56 are as follows:—

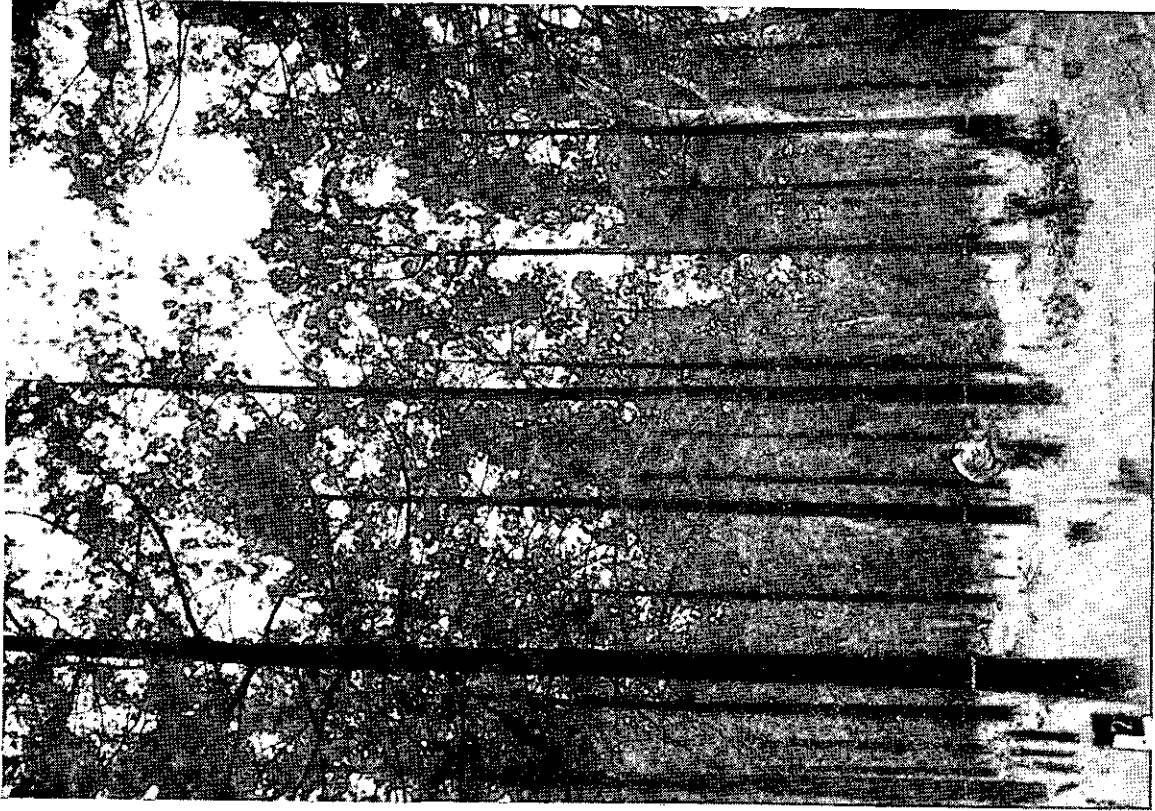
	1954-55.	1955-56.
	Acre.	Acre.
Area of natural forest treated .. .. .	28,792	25,345
Area of plantations established .. .. .	5,095	6,198
Area covered in pruning .. .. .	8,038	6,961
Area tended .. .. .	40,095	53,520
Area thinned merchantably .. .. .	2,500	2,576
Area thinned unmerchantably .. .. .	1,932	1,986

A cut of almost 20 million superficial feet of plantation thinnings was recorded for the year and, in view of the climatic conditions, this must be regarded as most creditable. Details of the quantities cut are:

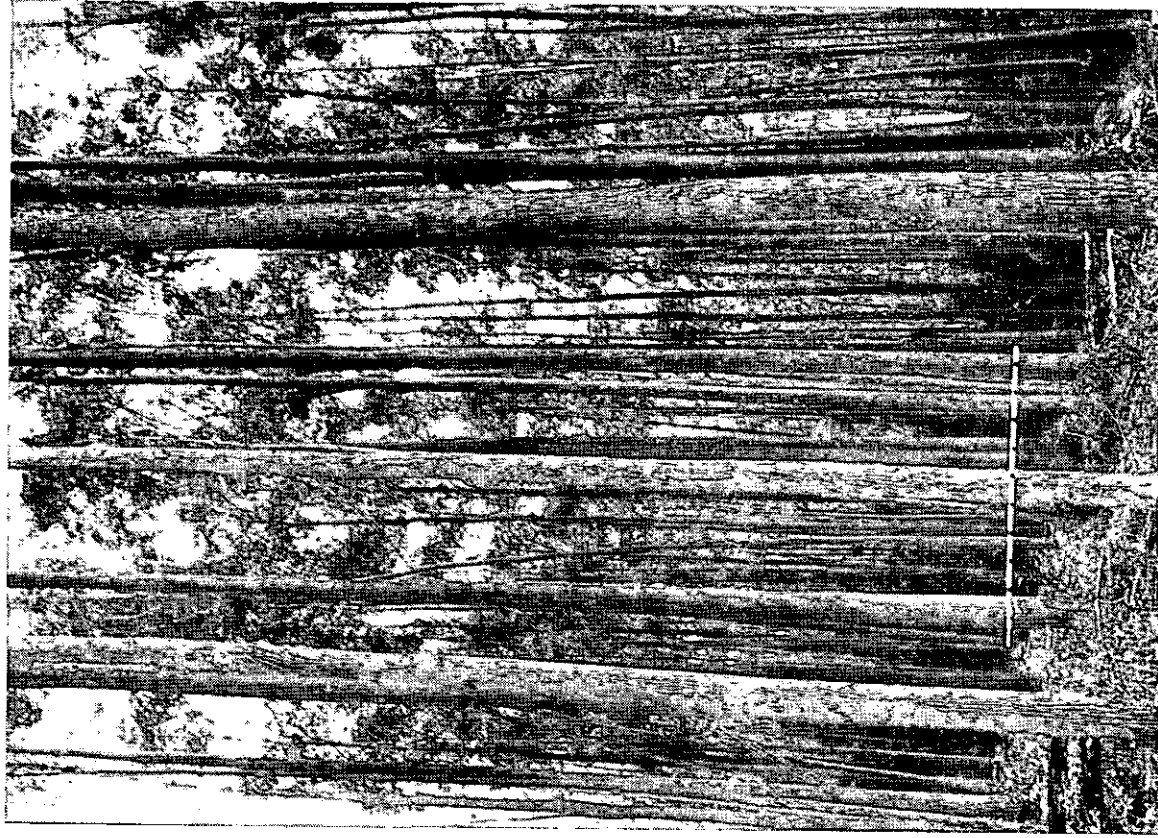
	1954-55.	1955-56.
	Sup. ft.	Sup. ft.
Native Conifers .. .. .	9,080,019	13,988,449
Exotic Conifers .. .. .	4,999,186	5,738,130
Other species .. .. .	31,886	13,453
	<u>14,111,091</u>	<u>19,740,032</u>

It will be noted that the bulk of the increase is represented by native conifers. The cut of Hoop Pine increased from 8,890,355 superficial feet for 1954-55 to 13,153,386 superficial feet for the present year. The total cut of plantation thinnings now becomes 102,913,659 superficial feet.

MILL LOGS OF THE FUTURE.



A thinned stand of Cypress Pine natural regeneration. During the year 8,440 acres were given natural regeneration and improvement treatment, bringing the total area so treated to 220,883 acres.



Pole stand of natural regeneration of Blackbutt, 31 years old. 3,819 acres of hardwood forest were given natural regeneration treatment in the past year. Total now treated, 328,724 acres.



*Plantations.*

Appendix I. shows, by districts and species, the areas planted from 1st April, 1955, to 31st March, 1956. The total area planted for the year was 6,198 acres made up as follows:—

	Acres.
Native Conifers (chiefly Hoop Pine) .. .. .	1,865
Exotic Conifers (mainly Slash Pine, <i>P. patula</i> and <i>P. radiata</i> ) ..	4,312
Broadleaved species .. .. .	5
Eucalypts .. .. .	16
	6,198

This is the first year on record during which the area of new plantations established has exceeded 6,000 acres. Survival generally has been excellent and the very favourable weather conditions also resulted in good early growth. Much credit is due to the district staffs in achieving this record planting despite difficulties brought about by high rainfalls and labour troubles. The total area of effective plantations, all species, established to date is 73,471 acres of which native conifers account for 39,358 acres and exotic conifers for 29,959 acres.

In contrast to last year's difficulties, burns this year were generally successful, in fact in many cases considerable damage was done to scrub edges. The cost of falling and burning these damaged edges is very high and every effort will be made in future to reduce this damage to a minimum. With respect to the exotic areas it was not possible to burn one area of 380 acres at Reserve 1004 Toolara.

Again difficulty was experienced in securing sufficient experienced contractors for scrub and forest falling and in the Brisbane Valley a trial area of 5 acres was first brushed by day labour and the remaining standing timber pushed by a D6 tractor fitted with a pusher bar in addition to the usual dozer blade. This proved to be most successful and it is intended to give machine clearing a trial on a much larger scale during 1956-57.

The rat damage to Hoop Pine plantations sustained during the winter of 1954 was again experienced during the winter of 1955 but on a slightly reduced scale. Rat population during the early winter months of 1956 was still high, but with early patrols and early baiting with "1080" it is hoped to considerably reduce the amount of rat damage.

Tending work was intensified during the year in an endeavour to cope with the prolific weed growth resulting from the good rains of 1954-55. The high rainfall of 1955-56 has not made the position any easier. Lantana is still the most troublesome of all plantation weeds and the early discovery of some means of biological control is to be greatly desired. The Mexican Rubber Vine is still a problem in the Brisbane Valley and, to date, no effective means of eradicating this weed has been found—it is most resistant to selective weedicides. It has been possible, however, to keep it under control in all other districts.

The total area tended for the year was 53,520 acres, an increase of approximately 13,000 acres on the area covered during 1954-55.

The pruning position is still satisfactory and is up to date in all districts. Details are as follows:—

	Acres.
First operation .. .. .	2,137
Second operation .. .. .	2,204
Third operation .. .. .	1,024
Fourth operation .. .. .	875
Combined third and fourth operations .. .. .	67
	6,307

In addition 654 acres of plantations were covered for the removal of epicormic shoots.

Previously confined to the large scale plantings of exotic pines in the coastal belt and to plantings of *Pinus patula* at Pechey the principle of unmerchantable thinning in exotic pines is now applied to frost area plantings of *Pinus patula* in the Hoop Pine areas and to plantings of *P. radiata* at Passchendaale. In all, 1,986 acres were unmerchantably thinned during 1955-56.

#### Seed Collection and Stocks.

(A) *Araucaria cunninghamii*—A small collection of Hoop Pine seed was made from plantation trees in the Brisbane Valley. Trees were from 19 to 27 years of age but the L.G.C. percentage was low (13 per cent.)—attributed to poor pollination conditions in 1953-54. Indications are that a heavy and fertile crop will mature in 1957-58.

During the year a quantity of seed with less than 20 per cent. L.G.C. (mostly 1950 collection) was discarded to provide storage space for seed not stored in the Department's cold room.

Germination tests indicated that this seed had deteriorated in viability by approximately 5 per cent. during the year.

At 30th June, 1956, stocks of Hoop Pine seed held in storage were:—

L.G.C.	Amount. Lb.
— 20 per cent. . . . .	3,786
20-30 per cent. . . . .	13,302
30-40 per cent. . . . .	8,514
40-50 per cent. . . . .	19,971
50-60 per cent. . . . .	37
60 per cent. . . . .	1,957
	<hr/>
	47,567

An average annual Departmental sowing of Hoop Pine seed absorbs about 8,000 lb., so that, at present, the necessary reserve stocks are in hand.

A considerable outside demand continued for Hoop Pine seed and during the year well over 2,000 lb. was exported.

(B) *Pinus species*.—Collection for the year was 571 lb. made up as follows:—

<i>Pinus elliottii</i> . . . . .	515 lb. including 33 lb. from specially selected trees; remainder crop trees.
<i>Pinus radiata</i> . . . . .	56 lb. including 3 lb. from Diplodia resistant trees; remainder ex trees of good form and health.
<i>Miscellaneous species</i> . . . . .	1 lb.

A small amount of two species only was imported. A total of 164 lb. was exported.

Stocks of *Pinus elliottii*, the most important species, were 1,070 lb. at 30th June, 1956 (including some 370 lb. in moist cold storage for 1956-57 sowing). Policy is to hold in stock at least sufficient seed for one year's sowing and export requirements.

Average annual Departmental sowings of *Pinus species* absorbs about 470 lb. of seed.

(C) *Eucalypts*.—Collection amounted to 14 lb. comprising 16 species. A steady demand was maintained by overseas and local buyers, 18 lb. of seed being exported.

*Euc. grandis*, which is used as cover crop for Hoop Pine in frosted areas, was the major species in Departmental sowings of Eucalypts.

Stocks at 30th June, 1956 were 101 lb. comprising more than 40 species.

(D) *Miscellaneous species*.—Seed of a large number of species was obtained during the year for use in production of stock for ornamental, shade, windbreak and fodder purposes as well as for normal Departmental use. A total of 1,179 lb. was collected by the Department, which included 450 lb. Bunya Pine seed and 126 lb. of Maple (poor viability). Included in seed supplied by overseas countries was 30 lb. of Khaya species from Africa.

Departmental sowings of miscellaneous species were made up chiefly of Maple, Bunya Pine, and Khaya species.

SEED MOVEMENTS, 1955-56.

Species.	Intake.						Distribution.						Stock 30-6-56.									
	Department Collection.		Private Sources.		Other States.		Overseas.		Department Nurseries.		Brisbane Nursery.			Private Persons.		Other States.		Overseas.		Viability Tests.		
	Lb. oz.	Lb. oz.	Lb. oz.	Lb. oz.	Lb. oz.	Lb. oz.	Lb. oz.	Lb. oz.	Lb. oz.	Lb. oz.	Lb. oz.	Lb. oz.		Lb. oz.	Lb. oz.	Lb. oz.	Lb. oz.	Lb. oz.	Lb. oz.	Lb. oz.	Lb. oz.	
<i>Araucaria cunninghamii</i>	704 0	..	..	..	..	..	..	..	7,904 0	..	..	..	0 8	0 8	2,017 0	32 0	47,557 0	..	..	..	..	
<i>P. elliptica</i>	515 8	..	..	..	..	..	..	..	391 9	..	..	..	14 5	42 12	36 0	2 8	1,070 0	..	..	..	..	
<i>P. caribaea</i>	..	..	..	..	..	..	..	..	7 12	..	..	..	0 2	1 0	2 0	0 6	49 3	..	..	..	..	
<i>P. patula</i>	..	..	..	..	..	..	..	..	9 13	..	..	..	1 11	3 3	4 8	..	13 13	..	..	..	..	
<i>P. radiata</i>	55 2	..	..	..	..	..	..	..	34 4	..	..	..	16 10	..	1 0	..	34 0	..	..	..	..	
<i>P. taeda</i>	..	..	..	..	..	..	..	..	18 15	..	..	..	0 2	7 11	9 0	2 0	612 2	..	..	..	..	
Miscellaneous—																						
Pinus species	1 0	..	..	..	..	..	..	..	2 12	0 14	..	..	20 2	20 2	5 0	0 11	222 10	..	..	..	..	
Eucalypts	13 6	..	..	..	..	..	..	..	4 12	..	..	..	2 12	2 12	14 9	1 10	101 1	..	..	..	..	
Miscellaneous species	1,179 0	..	..	..	..	..	..	..	459 14	35 4	..	..	2 12	2 12	58 0	2 9	1,365 3	..	..	..	..	
Totals	2,468 0	6 11	3 7	36 2	8,833 11	95 13	43 3	80 12	2,147 1	41 12	51,035 0											

### Nurseries.

The high shade Hoop Pine nursery in North Queensland was completed during the year and is capable of producing Hoop Pine stock for an annual planting programme of 150 acres. The number of nurseries in production remains at 29 of which 20 produce Hoop Pine stock, 7 exotic pine stock, 1 Eucalyptus stock and one, i.e. Rocklea, stock of various species for supply to the public.

In the last annual report it was stated that the use of filter press for the maintenance of bed fertility had become standard practice in the exotic pine nurseries and that its use should help to reduce weeding costs. Weeding costs for three of the large exotic pine nurseries for 1954-55 and 1955-56 have been ascertained and these reveal a drop from £1,956 to £1,432—a saving of £524. Portion of the saving must be attributed to the use of white spirits as a pre and post emergent weed control but it is evident that quite an appreciable saving has resulted from the use of filter press in place of cow dung.

The quality of the stock produced by all nurseries continued to be most satisfactory.

The number of plants on hand at the 30th June totalled 7,380,000 while during the year 4,140,100 were despatched to plantations, school forest plots and supplied to the public.

### Regeneration Treatment of Natural Forest.—

It is the desire of the Department to treat as large an area as possible of the natural forests but, unfortunately, the large Cypress Pine and western Hardwood forests are situated in areas remote from the larger towns and the isolation renders it most difficult to hold staff at a level high enough for the carrying out of treatment work on a large scale in these areas. In addition, the extremely wet conditions of the past year have greatly interfered with transport.

Details of the work carried out during 1954-55 and this year are as follows:

	1954-55.	1955-56.
	Acres.	Acres.
Hardwoods .. .. .	15,664	12,710
Cypress Pine .. .. .	12,145	11,845
Tropical Rain Forest .. .. .	608	790
Natural Hoop Pine .. .. .	375	..
	<u>28,792</u>	<u>25,345</u>

It will be noted that there has been a reduction of some 3,000 acres in the total acreage.

Work on the treatment of tropical rain forest has continued and, although there has been a slight increase in the acreage covered, the total is still far short of what is desired. The principal bars to the extension of this work are the difficulty of securing utilisation of small dimension logs and the lack of skilled labour to carry out the necessary tree marking and silvicultural treatment work.

### Supply of Trees to Public.

Sales to the public totalled 225,007 distributed as follows:—

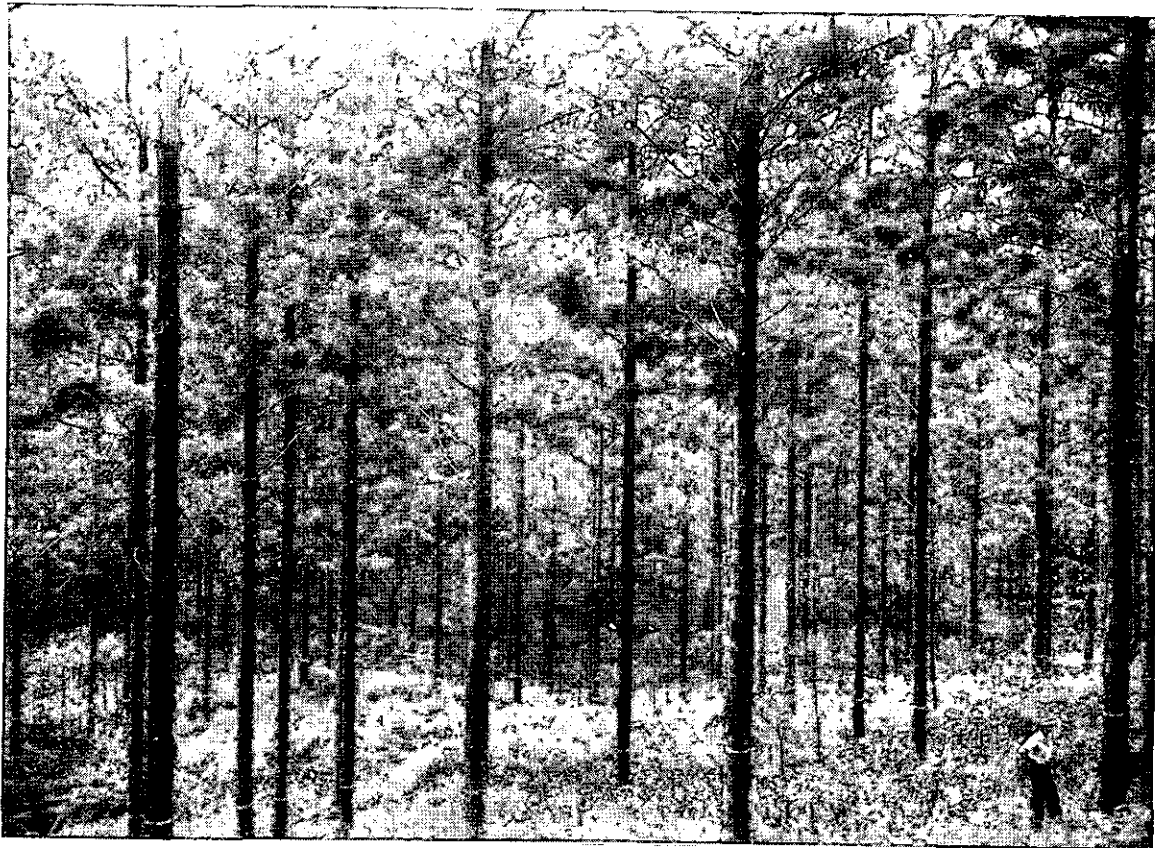
By Species.		By Purchasers.	
Slash Pine .. .. .	101,402	Farmers .. .. .	157,385
<i>P. taeda</i> .. .. .	15,857	Schools .. .. .	4,976
<i>P. patula</i> .. .. .	9,643	Private .. .. .	52,170
<i>P. radiata</i> .. .. .	17,580	Government Departments	10,476
Hoop Pine .. .. .	42,228		
Miscellaneous .. .. .	38,297		
	<u>225,007</u>		<u>225,007</u>

### Silvicultural Research.

*Staff.*—During the year the number of trained officers engaged full time within the Department on Silvicultural research was 10. This represents a drop of one on the number in the previous year and is due to the absence in the United States of America of the officer engaged in Tree-breeding work. The supervision of this work has been maintained by the officer engaged in Hardwoods research.

The location of trained officers who are full time research officers is—North Queensland (3), Mary Valley (1), Beerwah (2), Brisbane Valley (1), Dalby (1), Head Office (2).

HIGH QUALITY TREES AS PARENTS OF FUTURE PLANTATIONS.



This is the best part of one of the best plantations of Hoop Pine. It has been heavily thinned for maximum production of seed. Age 26 years.  
Last year a record area of 8,182 acres of pine plantation was established, increasing the area to 70,709 acres.

THE VALUE OF TREES ON THE OPEN PLAINS.



Athel Tree (*Tamarix aphylla*), 4 years old.  
The Department is carrying out experiments to determine the best species for planting on our treeless plains.

In addition, one of the Department's trained officers is engaged in work on the nutrition of *Pinus taeda*, under a Scholarship from the Canteen Fund. The Department is co-operating in this work.

*Research Notes.*—The past year saw the issue of the first copies of Research notes prepared by members of the staff and the reports issued are as follows:—

The Influence of Spacing on Seed Production and its Application to Forest Tree Improvement.

Progress Report on Thinning in Even Aged Blackbutt.

The Development of Thinning Schedules for Plantations of Slash and Loblolly Pines in Queensland.

The Effect of Phosphate on Slash and Loblolly Pines in Queensland.

Observations on the Dispersion of Pollen from a Slash Pine Plantation. Its Possible Effects in Contaminating a Slash Pine Seed Orchard.

The use of 2,4-D and 2,4,5-T for Killing Small Eucalypts.

Caribbean Pine (*Pinus caribaea*)—Notes on its Development and Characteristics in Central America and on its Behaviour and Potentialities in Queensland.

*Field Work.*—(i.) *North Queensland.* The scope of the work on the Natural Regeneration of Tropical Rain Forests was extended by the establishment of further plots treated to the revised prescription referred to in last year's report. Regeneration present in the earliest plots established has reached the stage where it can be used to afford information on the most desirable follow up treatment to apply. To permit such treatment to be applied it is necessary to control the development of Stinging tree (*Laportea moroides*) and in this regard most promising results have been obtained from the use of "United" Selective weed killer (a 2,4-D preparation) in strengths ranging from .067 per cent. to .2 per cent. With young stinger up to 6 inches in height a complete kill was obtained whilst there was no observed kill of small seedlings of a number of desirable species present on the treated plots.

The development of a technique for bud grafting of Maple (*Flindersia brayleyana*) using scions from mature trees has opened the way for the propagation of trees which exhibit outstanding figure. During the year 13 successful grafts (a 33 per cent. take) were obtained from an outstanding tree logged in the Ravenshoe district and, in June, material was collected from another such tree. It remains to be shown that figure in Maple is genetically controlled but, in view of the strong likelihood that such is the case, it is proposed to proceed with the formation of a seed orchard. The parent trees have been followed through the mill and samples of the timber are held.

Successful grafts were made also with Red Cedar (*Cedrela australis*) and work is proceeding with this species in the hope that it may be possible to locate a strain which will prove resistant to the attacks of the Twig Borer.

*Pinus caribaea* continues to make outstanding growth in trial plots established in well drained open forest sites in coastal North Queensland. The oldest plots are now 6 years old and heights of 40 feet with g.b.h. of 20 inches have been attained. These plantings have experienced each year the normal winter-spring dry period with under 10 inches of rain from May to November and the species may be regarded as well adapted to the local climate. A series of plots established on T.R. 343 Glenbora, just north of Cardwell, in 1953 show sufficient promise to warrant investigation of this area as a plantation proposition. Plot 1 in this series had *P. caribaea* up to 20 feet in height 3 years from planting.

(ii.) *Coastal Central Queensland (Bowenia—23 degrees South Latitude.)* Existing experiments on ploughing poorly drained sites have been maintained but it is not proposed to extend the work along these lines until the development of the trees already established gives some indication of the potential of such sites. To date *Pinus elliottii* is superior to *Pinus caribaea* in these poorly drained types whereas on well drained soils there is a marked advantage to *Pinus caribaea* in rate of growth.

(iii.) *South Queensland (a) Tree Breeding—Slash Pine.*—The seed orchard was extended by the planting of 200 successful grafts from the 1955 grafting season. This is approximately the same number as in the previous year and represents about the same percentage take. The figure is depressed because of the complete failure of all side veneer grafts attempted in the lath house. Bottle grafts in both the glass house and lath house and side veneer grafts in the glass house gave an 80 per cent. take and this figure is well up on that obtained in previous years. The improved take in this regard is attributed to having the stock in better condition (more vigorous) and to doing the work later in the season. Tests conducted in connection with the 1955 work showed that July-August is the most favourable time for grafting of Slash pine. Provision has been made for full utilisation of space in the glass house and in the lath house in July-August, 1956. As far as possible scions suitable for making bottle grafts will be selected and all side-veneer grafts will be set out in the glass house.

Air layering of Slash Pine was carried out on a series of trees 23 and 24 years of age covering a wide seasonal range. Best results showed a 10 per cent. production of roots but in view of the success that can be achieved with grafting under ideal conditions further work along these lines is not intended.

A Provenance study was established in the field at Beerwah, Tuan, Bowenia, and Passchendaele. In all, stock from seed from 12 American sources was used, together with a standard of stock raised from a seed batch of Beerwah collection.

*Caribbean Pine.*—Successful grafts from the plus trees referred to in last year's report were planted at Bowenia in April, 1956. In view of the restricted field which was available for selection of these trees this planting is regarded as a possible source of a plus stand. It has been isolated by a wide strip of Slash Pine. The work is being repeated this year and will continue until an area is established adequate to supply seed requirements of this species until a seed orchard is productive. Action to select Elite trees for seed orchard material awaits the development of the more extensive recent plantings to the stage where sound form assessment is possible.

A Provenance study involving stock from seed of the five sources was transferred to the field in February, 1956. Plantings were made at Beerwah, Tuan, and Bowenia using stock from the following localities:—

British Honduras—3 sources.  
Republic of Honduras.  
Isle of Abaco, Bahamas.

*Loblolly Pine.*—No fresh work was undertaken on this species but seed from earlier controlled pollination was collected and resultant stock transferred to the field.

*P. radiata.*—In exchange for scions from Slash Pine in Queensland there were received from the New Zealand Forest Service a number of scions and rooted cuttings of Elite trees of *P. radiata*. Grafts made with this material failed but the rooted cuttings have been established in the field at Passchendaele and, in a few years, will provide scions for local grafting.

*Kauri Pine.*—Improvements were effected in the technique of handling root cuttings to produce vigorous stock from tubed plants which have rooted into the nursery beds.

To bring Elite trees into the nursery, work was continued on air layering and a further large scale trial made with cuttings from old plantation trees. With air layering up to 30 per cent. establishment in the glass house was obtained with northern Kauri, but with southern Kauri the air layered branches were quickly thrown. Earlier work on cuttings showed the autumn to be the most promising season and in May a large scale trial was set out. However, this year the material was not in very good condition and has deteriorated rapidly. About 30 per cent. remained green in July.

*Hoop Pine.*—The earlier success with grafting of this species reported last year has been repeated using scions from old trees on stock in better condition than in the previous year. In preparation for an expansion of work with this species plans are in hand for the construction of a glass house at Imbil and plantations are being combed for the location of possible Elite trees. It is still not known whether the grafts from second order branches can be induced to form normal apical shoots.

(b) *Exotic Pines.*—Experiments on the use of white spirits as a post emergent spray with Slash Pine showed that night spraying gave a higher mortality of both plants and weeds than did early afternoon spraying in full sunlight. They also indicated that size of plant has an important influence on mortality following post emergent spraying. This is shown by the following figures obtained from spraying with white spirits at the rate of 50 gallons per acre under full sunlight on 31st August, 1955.

Mortality—Average as % of Number in Each Class.

Weeks Sown prior to Spraying.	Size Class.					
	Germinating.	Testa on.	Testa Shedding.	Cotyledons only.	Juvenile foliage $\frac{1}{4}$ -1 inch.	Juvenile foliage 1 inch +.
5 and 6 weeks .. ..	38	60	57	63	30	Nil
7 and 8 weeks .. ..	20	100	62	87	18	Nil
9 and 10 weeks .. ..	30	50	28	61	2	Nil

These figures suggest a critical point between  $\frac{1}{4}$  and 1 inch of juvenile foliage.

In 1951 a series of experiments were established with the object of collecting information on the relationship between standing basal area per acre and basal area increment. Figures for Experiment 163 Beerwah are presented below. This experiment is in an area planted in 1937 at a 7' x 7' spacing. The species is Slash Pine and 8 plots are involved. Four basal areas have been adopted with two plots to each. The aim is to thin at two or three yearly intervals and maintain the adopted basal area as an average over the period between thinnings. One plot in each basal area was thinned to normal prescription with the object of conferring maximum benefit on the select high pruned trees, while in the other plot, after the dominance of the select stems was assured, the required basal area was retained in the best stems available.

Initial thinning was in 1951 and the second in 1954. Plots will be thinned again in 1956. Basal area increments for periods between thinnings are set out in the following table:—

Basal Area Control.	Normal Thinning.					B.A. Retained in Best Stems.				
	Plot.	Number of Stems per Acre 1954-56.	B.A. Increment square feet.			Plot.	Number of Stems per Acre 1954-56.	B.A. Increment square feet.		
			1951-54.	1954-56.	1951-56.			1951-54.	1954-56.	1951-56.
80 sq. ft. . . . .	3	353	15.6	13.5	29.1	5	289	15.4	12.8	28.2
100 sq. ft. . . . .	1	429	18.2	13.8	32.0	8	314	17.9	13.2	31.1
130 sq. ft. . . . .	4	572	18.7	14.4	33.1	6	529	18.0	15.6	33.6
160 sq. ft. . . . .	*2	640	21.0	13.6	34.6	7	692	19.3	13.2	32.5

\* Thinning in plots at 160 square feet was first applied in 1954 and dominance of all select stems is not yet assured. Hence in each of the 160 square feet plots thinning has the same direction up to the present.

The agreement in basal area increment between plots is reasonably close and does not indicate that the difference in direction of thinning has had any effect on basal area increments.

The figures for basal area increment in the years 1954-56 period are consistent with what a general consideration of other experiments would lead one to expect under normal conditions.

From these experiments is emerging a mass of data which indicates that—

- There is a close relationship between basal area standing per acre and basal area increment per acre.
- On any given site the basal area increment that a fixed standing basal area will produce decreases with increasing age.
- That any fraction of the stand (such as the select high pruned stems or final crop trees) puts on B.A. increment directly proportional to its representation in the stand, i.e., B.A. inct. (fraction) : B.A. inct. (whole) = B.A. (fraction) : B.A. (whole).

It is considered that these factors supply very strong support for Craib's contention on the subject of early thinning. For example, with Slash Pine 110 square feet standing basal area will give near maximum basal area increment per acre. There are 160 select stems per acre and a very heavy thinning schedule can have 110 square feet per acre in this fraction by age 18 years on an average site. At age 18 years in an average year a maximum of 7.5 square feet basal area increment may be expected. With a moderate thinning regime under the same conditions 110 square feet will be attained by the select fraction at age 25 years when the maximum increment for an average year is only 5.5 square feet.

The 57-acre compartment sprayed with 2,4,5-T in May, 1954, prior to planting with Slash Pine required tending for the first time in January, 1956. Adjacent untreated areas have required two tendings in this period. Comparative costs are set out below:—

(a) Treated with 2,4,5-T	
Spraying May, 1954 . . . . .	Materials 32s. per acre
	Labour 21s. per acre
	<u>Total 53s. per acre</u>
Tending January, 1956 . . . . .	37s. per acre
Total tending costs to date . . . . .	<u>90s. per acre</u>

(b) Average of 7 adjacent untreated compartments	
First Tending April to July, 1955 . . . . .	37s. 9d. per acre
Second Tending January, 1956 . . . . .	45s. 3d. per acre
Total Tending Costs to date . . . . .	<u>83s. 0d. per acre</u>



Addition of overhead to the labour costs would more than compensate for the difference in on-the-job costs. At the last inspection there was far less eucalypt coppice on the treated compartment and, as a consequence, lighter tending costs should obtain for some years to come.

Two further large scale trials were initiated in April, 1956, one on a normal planting area, the other on an area of extremely dense wattle.

Elimination of eucalypt coppice from plantation firelines is desirable in order to prevent recurring brushing costs, and to encourage growth of grass. Excellent results have been achieved during the year in an experiment in which one of the treatments consisted of spraying the coppice twice in one year with a 1 per cent. solution of 2,4,5-T ester. Following a burn in June, 1955, these plots were sprayed in September, when coppice was still small and soft, and again in December when regrowth was about 2 feet in height. Each treatment used only 5-6 gallons per acre, and the plots given the two treatments are now almost free of coppice.

(c) *Hoop Pine*.—As with *Slash Pine* a series of experiments has been established at Imbil and Yarraman to be thinned to a basal area control. Figures for basal area increment are quoted in respect of Experiment 1332 Yarraman which was first thinned in November, 1951, and again in August, 1954. It is listed for 3rd thinning in winter 1956. Figures are the average of two plots to each treatment. Age in 1956 was 19½ years.

Standing Average B.A. per acre	60 sq. ft.	80 sq. ft.	100 sq. ft.	130 sq. ft.	Unthinned B.A. Increased from 139 sq. ft. in 1952 to 177 sq. ft. in 1956
B.A. Inct. 1952-54	15.0 sq. ft.	17.4 sq. ft.	16.4 sq. ft.	17.8 sq. ft.	
B.A. Inct. 1954-56	17.0 sq. ft.	18.5 sq. ft.	21.1 sq. ft.	23.8 sq. ft.	22.0 sq. ft.
B.A. Inct. 1952-56	32.0 sq. ft.	35.9 sq. ft.	37.5 sq. ft.	41.6 sq. ft.	38.3 sq. ft.

Corresponding figures for the Select fraction (160 stems per acre) are:—

B.A. Inct. 1952-54	13.0 sq. ft.	11.2 sq. ft.	8.1 sq. ft.	7.1 sq. ft.	6.6 sq. ft.
B.A. Inct. 1954-56	17.0 sq. ft.*	14.7 sq. ft.	12.3 sq. ft.	11.5 sq. ft.	8.8 sq. ft.
B.A. Inct. 1952-56	30.0 sq. ft.	25.9 sq. ft.	20.4 sq. ft.	18.6 sq. ft.	15.4 sq. ft.

\* Since 1954 plots thinned to 60 sq. ft. carry only 140 stems per acre.

At June, 1956, prior to the third thinning, the percentage of the standing basal area in the select stems was:—

Standing Average B.A.	60 sq. ft.	80 sq. ft.	100 sq. ft.	130 sq. ft.	Unthinned 177 sq. ft.
B.A. per cent. in Select Stems	100	80	58	45	38

Taken together these figures present a very strong argument for heavy and early thinnings where production of quality wood on high pruned select stems is the aim.

Experiments with "Crag" Herbicide No 1, mentioned in the previous report, were repeated during the year at Yarraman and Imbil, but results were disappointing, only a slight degree of weed control being achieved. Since the price of this material would make treatment very inexpensive, work will be continued. It is also intended to initiate preliminary experiments with several recently developed compounds which show similar effects as pre-emergence weedicides in established seedlings.

Work on the chemical control of *Araujia albens* (Rubber Vine) in the Brisbane Valley has continued. It has been established that 2,4-D and 2,4,5-T formulations will control the vine for a short period only, even with repeated applications. Amizol (3-amino-1, 2, 4 triazole) continues to show promise, and a large scale trial was initiated. It has also been shown that Amizol is translocated very readily in *Araujia*, with the result that costly brushing of the vine from trees prior to treatment may be avoided, even with low-volume applications.

Observations have been continued on the regeneration plots established in connection with the 1953 seed crop of Hoop Pine on R. 169 St. Agnes. These have confirmed earlier indications that the natural regeneration of Hoop Pine in mature rain forest is a most difficult problem. Climatic conditions since the 1953 seedfall have been particularly good, with rainfall above average and well distributed. Treatments in the mature rain forest were brush and burn prior to seedfall, brush only prior to seedfall, control and, after regeneration was obtained, brushing and treatment with 2,4,5-T and control. Treatments prior to seedfall all gave improved germination but by August, 1955, all seedlings had failed on treated and control plots. In the plots established after regeneration had been obtained, the survival has dropped to 1.3 per cent. (500 per acre) in the brushed 2,4,5-T plot and to 13.8 per cent. (8,700 per acre) in the control.

In the transition forest the pre-seedfall treatments outlined above were repeated and here the germination and survival have been much better. In general, survival is better in the controls but in all plots stocking is satisfactory, ranging from 275 per acre to 50,000 per acre.

Further underplanting of the rain forest with Hoop Pine has been carried out but wallaby damage is still a major problem. Trials have been initiated with an animal repellent based on zinc dimethyldithio carbamate-cyclohexylamine complex, although this material was ineffective in a preliminary trial at Yarraman. The use of 2,4,5-T to control scrub regrowth in the liberation of established plants was confined to an experiment dealing with season and method of application of several formulations.

(d) *Coastal Hardwoods*.—The two prescribed burning experiments in the Maryborough district have been remeasured, and a further burn carried out at R. 958 Gundiah. The proportion of the compartment burnt has shown a slight increase over the previous year:—

Year.	Percentage of Area Burnt.
1952 .. .. .	90
1953 .. .. .	65
1954 .. .. .	45
1955 .. .. .	55

Girth increments during 1955-56 for the principal species involved in the experiment are as follows:—

Species.	G.B.H. Increment 1954-55—Inches.	
	Unburnt.	Burnt.
Spotted Gum .. .. .	.27	.34
Grey Ironbark .. .. .	.41	.60
Red Ironbark .. .. .	.57	.32

Height increments on stems up to 40 feet in height for the same period are:—

Species.	Height Increment 1955-56 (feet.) for Height Classes as shown.							
	0-10 feet.		10-20 feet.		20-30 feet.		30-40 feet.	
	Unburnt.	Burnt.	Unburnt.	Burnt.	Unburnt.	Burnt.	Unburnt.	Burnt.
R. 958 Gundiah—								
Spotted Gum .. .. .	0.05	-0.72	1.12	0.54	0.93	1.03	1.17	0.62
Grey Ironbark .. .. .	0.41	-0.44	0.98	0.48	1.45	1.03	1.40	1.25
Red Ironbark .. .. .	0.12	0.50	0.80	0.12	2.00	0.10	1.62	0.67

Girth increments continue to show an advantage in the burnt areas, but it is obvious that height increment of the smaller stems has suffered as a result of annual burning.

As mentioned in the previous report a form study has been undertaken following the conflicting trends in girth and height increment. Girth increments at breast height and 15 feet for Spotted Gum are set out in the table below:—

	Girth Increments (inches) 1955-56 by G.B.H. Classes as shown.				
	0-12 inches.	12-24 inches.	24-36 inches.	36-48 inches.	48 inches. +
<b>At Breast Height (4 feet 3 inches)—</b>					
Unburnt .. .. .	.15	.24	.33	.32	.41
Burnt .. .. .	.16	.34	.36	.42	.43
<b>At 15 feet—</b>					
Unburnt .. .. .	.15	.20	.25	.37	.35
Burnt .. .. .	.08	.19	.26	.32	.28

Present indications are that the apparent increase in G.B.H. increment on the burnt area may result from increased butt swell.

The effect of annual burning on stems 0-20 ft. in height at the inception of the experiment is shown in the following table:—

1952.		September 1955.		
Height Class.	Number in Class.	Remain in Class.	Advanced to Higher Class.	Reverted to Lower Class.
<b>Unburnt—</b>				
0- 5 feet .. .. .	43	29	13	1 (dead)
5-10 feet .. .. .	103	42	59	2
10-20 feet .. .. .	92	44	48	0
<b>Burnt—</b>				
0- 5 feet .. .. .	39	34	0	5 (dead)
5-10 feet .. .. .	91	17	28	46
10-20 feet .. .. .	132	61	53	18

Examination of data in the 5-10 ft. class indicates that there is little likelihood of stems less than 8 ft. in height in the compartment burnt annually progressing to the higher classes.

No further burning has been carried out at R. 57 St. Mary since the initial burn in 1952. The fire resulted in the destruction of a large proportion of dense undergrowth, and in this respect might be considered as an undirected tending which was not applied to the unburnt area.

As a result of this, and with four years of subsequent protection, increments on the burnt area have been higher in all classes. However, it is considered that these results should be treated with reserve for the present, and detailed figures are not presented at this stage.

A further series of prescribed burning experiments is proposed, involving relatively small areas, so that specific points arising out of the large scale investigation may be dealt with in detail.

The information obtained to date in the use of 2,4,5-T in the thinning of Blackbutt regeneration has been summarised for issue as a Research Note, and attention is now being directed towards the effects of suppression of coppice development with 2,4,5-T on the increment of the stems retained. G.B.H. increments for one such experiment are as follows:—

Treatment.	G.B.H. Increment
	(inches) 1955-56.
Routine (no 2,4,5-T) .. .. .	1.71
0.5 per cent. 2,4,5-T amine on stumps .. .. .	1.76
5 per cent. 2,4,5-T ester injections .. .. .	2.00

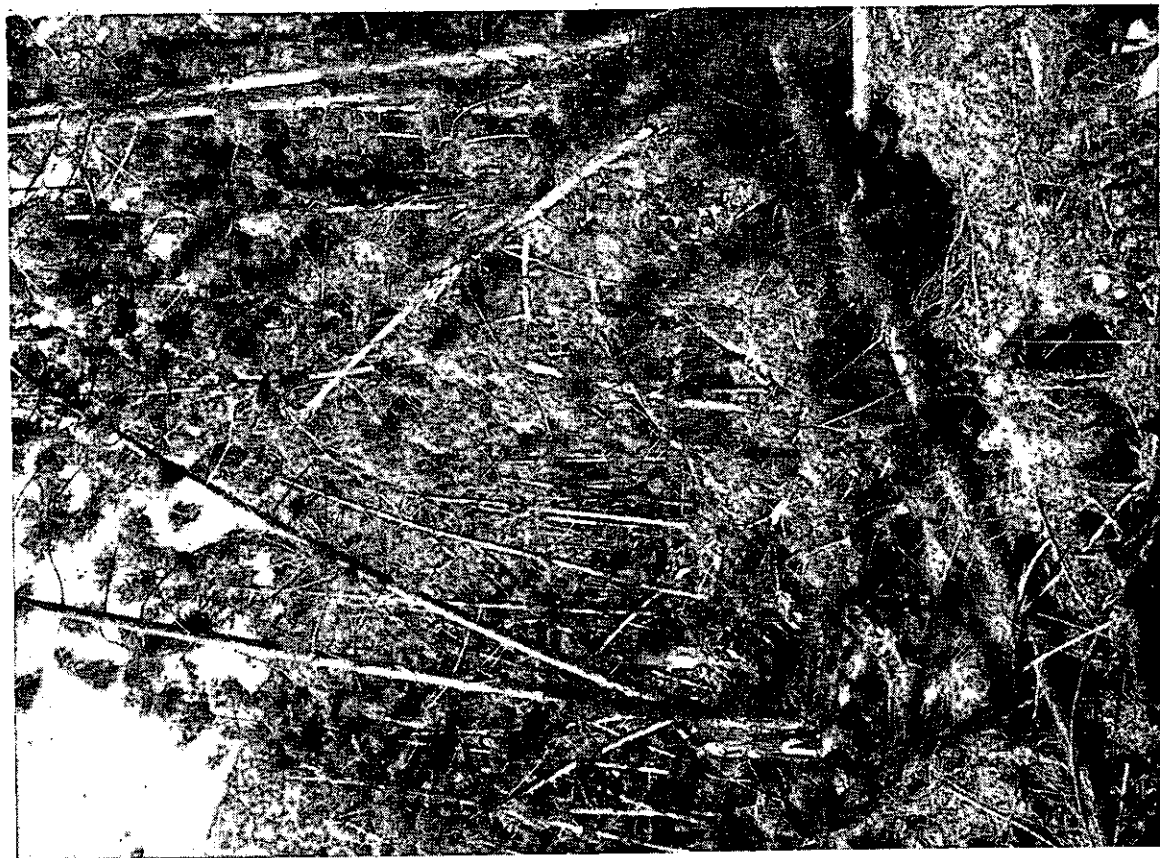
A further comprehensive experiment, which will provide more precise information on this aspect, has been established.

(iv.) *South West Queensland.*

The Cypress pine volume table was issued during the year and work is proceeding on the preparation of a summary of results from thinning experiments and detailed yield plots of Cypress pine.

A research note dealing with the establishment of wind breaks, shelter belts and shade trees on the black soil plains of South West Queensland is nearly complete.

DAMAGE CAUSED BY WEATHER EXTREMES.



Land slides in Hoop Pine plantations.  
Following two very wet years 12 acres of plantation on easy slopes were affected  
by land slides.



Fire destroyed 22 acres of young Slash Pine.  
The small loss from fire over the years is a tribute to the work of the staff and  
the efficiency of the protection system.

**Protection.**

A continuance of comparatively wet conditions during the year again reduced the risk of serious fires, but, on the other hand, a succession of wet seasons is reflected in increased maintenance of fire roads.

Details of firebreak construction and maintenance work carried out during the year are as follows:—

CLEARED BREAKS—PLANTATIONS.						
Construction—						Miles.
Temporary Breaks	..	..	..	..	..	55.0
Clear	..	..	..	..	..	102.1
Rotary Hoe	..	..	..	..	..	7.3
Grade	..	..	..	..	..	42.5
Scrub Break Improvements	..	..	..	..	..	39.1
Maintenance—						
Chip	..	..	..	..	..	64.0
Burn	..	..	..	..	..	140.9
Rotary Hoe	..	..	..	..	..	171.5
Grade	..	..	..	..	..	720.2

CLEARED BREAKS—WESTERN FORESTS.						
Construction—						Miles.
Cut and Grub	..	..	..	..	..	82.9
Improvements—						
Grub Roads	..	..	..	..	..	47.8
Grade	..	..	..	..	..	108.1
Stump	..	..	..	..	..	14.6
Green Strips	..	..	..	..	..	195.0
Maintenance—						
Sucker and Burn	..	..	..	..	..	274.1
Grade	..	..	..	..	..	1,097.9
Rotary Hoe	..	..	..	..	..	349.8

GREEN BREAKS—COASTAL HARDWOOD AREAS.						
Construction—						Miles.
Fell dangerous trees	..	..	..	..	..	16.0
Stack and Burn	..	..	..	..	..	18.0
Improvements	..	..	..	..	..	20.3
Roads	..	..	..	..	..	49.8
Maintenance—						
Chip and/or Plough	..	..	..	..	..	967.9
Burn	..	..	..	..	..	875.3
Roads	..	..	..	..	..	132.5
Grade	..	..	..	..	..	544.2

**Capital Improvements.**

During the year, a further 13 barracks were constructed and few single men have now to be housed in temporary accommodation.

The main improvements constructed during the year were as follows:—

Item.	Completed 1955-56.					
Barracks (8 man)	..	..	..	..	..	1
Barracks (6 man)	..	..	..	..	..	10
Barracks (4 man)	..	..	..	..	..	2
Ranches	..	..	..	..	..	2
Garages	..	..	..	..	..	17
Storerooms and/or Offices	..	..	..	..	..	8
Sheds	..	..	..	..	..	18
Galley-Shower-Laundries	..	..	..	..	..	15
Bridges	..	..	..	..	..	12
Culverts and Grids	..	..	..	..	..	42
Fire Lookout Towers	..	..	..	..	..	4
Telephone Lines	..	..	..	..	..	22 miles
Explosive Magazines	..	..	..	..	..	8

**Expenditure and Labour.**

Expenditure on reforestation works was £1,526,829, an increase of £123,000 on that for 1954-55. Details are shown in Appendix H, but under major headings expenditure was as follows:—

	£
Plantations .. .. .	309,364
Natural Regeneration .. .. .	37,022
Nursery expenses .. .. .	44,586
Research .. .. .	24,631
Surveys .. .. .	16,579
Protection .. .. .	277,518
Capital Improvements .. .. .	107,909
Tools, tents, supervision, &c., .. .. .	318,750
Wet time, holidays, leave .. .. .	182,157
Cartage of rations .. .. .	15,728
Camping allowance .. .. .	114,147
Pay Roll Tax .. .. .	28,918
Workers' Compensation .. .. .	34,841
Seed collection and storage .. .. .	2,331
Miscellaneous .. .. .	12,348
	£1,526,829

	£
Loan .. .. .	1,486,481
Trust .. .. .	40,348
	£1,526,829

The wages staff engaged on reforestation work increased from 1,582 at the commencement of the year to 1,677 at the close.

**ACQUISITION OF LAND.**

During the year 1955-1956 an amount of £12,331 17s. 1d. was expended on the acquisition of land for Forestry purposes, as follows:

	£	s.	d.
Purchase of land .. .. .	5,586	2	0
Compensation paid for Resumptions .. .. .	5,134	14	9
Survey and Real Property fees .. .. .	1,180	9	9
Miscellaneous .. .. .	430	10	7
	£12,331	17	1

Ten properties, covering an area of 3,822 acres 1 rood 38·8 perches, were purchased and six properties totalling 2,281 acres 0 roods 21·4 perches were resumed for Forestry purposes.

**FIRES.**

During the year 105 fires were reported as on or threatening forest reservations. Below is a summary of the magnitude of these fires:

½ acre or less.	½ acre to 10 acres.	10 acres to 100 acres.	Over 100 acres.	Unknown.
4	27	27	24	23

*Causes*—In 59 cases cause unknown, 14 cases deliberate burning, 7 cases from lightning, 5 cases sparks from trains, 4 cases fire escaped from burning firebreaks, 4 cases fire spread from adjoining properties, 3 cases from burning rubbish, 2 cases from billy fires, 2 cases from burning logs, 2 cases from sawdust heaps at sawmills, 1 case from grass fire, 1 case from dropped cigarette butt, 1 case fire escaped from clearing operations on main road; total 105.

**FOREST SURVEYS.**

Nine fully-equipped camps operated during the year, but two of these were closed down in December. Five small camps were also occupied with district surveys as occasion demanded.

Total expenditure for survey work amounted to £40,347 5s. 8d. of which £23,768 3s. 3d. was chargeable to Harvesting and Marketing projects and the balance, £16,579 2s. 5d. against reforestation projects.

As a result 81,028 acres were assessed (Class 2 and 3); 90,941 acres were subjected to either firebreak, compartment, or soil survey; 137,744 acres were covered by forest inventory survey, entailing the establishment of 305 plots; 13 plots were re-measured and 5 detailed yield plots laid down, while 8,010 acres were closely inspected (Class 1, Survey).

Mileage completed was:—

	Mls.	Chs.
Theodolite and chain .. .. .	46	34
Compass and chain .. .. .	629	11
Strip Survey .. .. .	1,072	33
Old Boundaries .. .. .	27	50
Road Investigation .. .. .	45	05

Briefly, operations in each district were:—

**Atherton**—Two camps operated in North Queensland practically throughout the year.

One camp completed compartment and assessment survey of Reserve 310 Gadgarra (Western Section) an area of 4,176 acres being subdivided into 13 Compartments on Tree, Toohey and part of Pressley Logging Areas. Two roads were traversed and six others located.

In October, approximately 2,640 acres were assessed on R. 19 Garioch and, in addition, road surveys were effected on R. 755 Bartle Frere, R. 353 Ongera, R. 251 and R. 438 Ravenshoe. Old boundary lines were re-opened on Portion 323 Bellenden Ker and also on a small section of the boundary of National Park 226 Sophia.

The second camp's operations were wholly confined to road locations on Culpa Lands, Bankton, R. 755 Bartle Frere, R. 353 Meunga, R. 461 Glenbora, R. 96 Garrawalt, R. 268 Water-view and Alexandria—Bailey's Creek, involving 20½ miles of road traverse and 34 miles of investigation survey.

**Mackay**—Assessment survey of the Blackdown Tableland was completed by plot method. Plot lines were run at intervals of 40 chains and 45 plots established 2 x 2½ chains at 40-chain distances along the plot lines, Reserves 5 Mimosa and 57 Wattle being dealt with. Reserve 10 Mimosa was stripped and assistance was also afforded to Road Engineer in pushing access road survey through.

Assessment surveys were completed on Portions in the Parishes of Eastbrook, Wooroona, Coomooboolaroo, Knebworth, Nulalbin, and Alberta.

A second small camp operated mainly in the Baralaba area and assessments of cypress pine made on areas in the Parishes of Blackboy, Wright, Little, and Nulalbin. In addition, firebreak surveys were also effected on R. 20 Maryvale.

**Maryborough**—At Tuan. (S.F. 915 Tahiti and Bidwell), main camp continued soil survey, covering 10,246 acres, plus approximately 2,000 acres of wallum hard-pan type covered by 40-chain strips. Gross area of 4,940 acres was compartmented, of which 2,573 acres were found to be plantable. A further 26 miles 22 chains of theodolite control was also run and marked. A type survey and timber estimate was also carried out, covering 4,000 acres in the parish of Dunmora.

The district camp operated, in the main, in the Bundaberg area carrying out soil surveys of vacant Crown land in the parishes of Bingera and Kolan, timber reserves 532 and 832 North Kolan and Stanton. Five portions in the parishes of Eureka, Gundiah and Barnes were also assessed, while roads, firebreaks and falling lots on reserves 97, 99, and 138 Manumbar and Kilkivan, 154 and 298 Gallangowan were also completed.

**Gympie**—Soil and compartment survey at Toolara (State Forest 1004) operated intermittently throughout the year, but no camp has been available since early April. In all, approximately 3,000 acres were covered and 11 miles 33 chains of theodolite control run. During September and October intensive soil surveys were made of possible planting areas on State Forest 997 Noosa. Miscellaneous district surveys were carried out on Reserves 124, 435, 82, 392, and 575 as required.

The second camp, which was engaged on type survey of part of State Forest 135, completed this work by October.

**Dalby**—Forest Inventory Survey was completed on R. 93 Nudley, R. 266 Canaga and R. 61 (part), a total of 27 plots being established. Camp then shifted to R. 154 Western Creek at the end of August where 13 plots were re-measured and 27 detailed plots dealt with. The Officer-in-charge did not report for duty after the Christmas closure and camp was closed down.

**Warwick**—Forest Inventory was continued on Reserve 122 Inglewood and completed in April. Seventeen miles of compartment survey were run and 177 plots established. Camp was then shifted to R. 134, Bringalilly, where Forest Inventory Survey is proceeding. At the end of the report period, 47 miles of compartment boundary had been run and 13 plots established.

**Many Peaks**—Forest Inventory Survey of State Forest 28, Coominglyah, was completed early in December, camp then transferred to the Brisbane District. With 180 plots established last year, a further 136 plots were established, also 5 detailed plots, the total area dealt with being 37,272 acres on 32 compartments.

A small district camp operated as required on State Forest 67, Bulburin (Mosman Logging Area) and State Forest 95, New Cannindah (Roffey and Hunting Logging Areas). An area of approximately 10,000 acres in the Parish of Dawes (Portions 79, 80, 81, and 84) was also dealt with by Class 1 Survey.

**Brisbane**—The main work was the continuation of soil and compartment survey on State Forest 611, Beerwah, where an area of 1,157 acres was completed. Soil survey covered 2,000 acres on R. 700 Canning. Other work included species survey on State Forest 753 Durundur (Crohamhurst) and Portions 16v &c., Beerwah. Miscellaneous surveys dealt with required detail on Reserves 638, 561, 108, 442, 173, and 60.

A small camp at Jimna completed firebreak, scrub-falling, road, species and frost area surveys for Davies Logging Area (R. 207), together with firebreak surveys on R. 637 Kilcoy (Shalleross Logging Area). Miscellaneous surveys included Hoop Pine survival, rat damage and predominant heights on R. 207. This camp also effected required survey for breaks, species and planting on Compartments 2, 3, 4, and 5, R. 359 Palen (Prison Farm).

The transferred Many Peaks camp commenced Forest Inventory Survey in the Woodford area in January. Work completed and plots established up to the end of the report period included R. 173 (64 plots) R. 60 (18 plots) and R. 313 (13 plots).

**Brisbane Valley**—District surveys for scrub-falling, roads, compartment boundaries, firebreaks, overburns, species, frost areas and old boundaries were carried out by local staff throughout the year, as required, on Reserves 258, 289, 120, 509, 283, 257, 379, 299, and 245.

## NATIONAL PARKS.

It might be appropriate in this report to reiterate the purpose of National Park reservations in Queensland and the policy adopted by the Department in their administration.

In this connection, the policy of the National Parks Service of the United States of America—the most advanced in the world—has been followed, generally, in Queensland, namely, to reserve for all time in their primeval condition areas of outstanding scenic, scientific, historic and recreational interest.

Freeman Tilden of America, writing on "The National Parks—What they mean to you and me," stated—

"National Parks are really national museums. Their purpose is to preserve, in a condition as unaltered as is humanly possible, the wilderness that greeted the eyes of the first white men who challenged and conquered it. It is to insure that the processes of nature can work, without artifice, upon all the living things, as well as the earth forms, within their boundaries. It is to keep intact in the wilderness areas all the historic and prehistoric evidences of occupation by our predecessors. And in doing these things, the extra reward of recreational value emerges."

National Parks are national domains belonging to all the people. They are not the special property of any particular section or locality.

In the National Parks of Queensland there is no harvesting of timber, no hunting of wild animals, no shooting of birdlife, no gathering of flora, no beautification of areas, no introduction of any plant, animal or bird life not indigenous to the particular locality. There are no "shows" or "amusements." In short, these areas are retained as God made them.



Again quoting from Freeman Tilden—

“This scheme of land use, so far removed from the average person’s economic experience, may glancingly seem strange and remote. And so it is. It is a new theory in the world of management of the public land for a superior kind of pleasure and profit; for the perpetuation of the country’s natural and historic heritage, untarnished by invasion and depletion other than that of invincible time.”

There have been times, particularly in the early stages of the development of the National Parks ideal in this State, when it has been difficult to withstand the claims of other interests to these reservations and at such times the administration has been fortified by public sentiment, often expressed through organisations, such as the National Parks Association, that are alert to the value of the National Parks. There is also the very important factor that there is now a more general understanding by the whole people of the meaning of the parks and of their value to the community.

During the year a most interesting letter was received by the Hon. the Minister from Mr. Fred M. Packard, Executive Secretary of the National Parks Association, Washington D.C. The following extract from this letter is of particular interest—

“It was kind of you to send us a copy of your address, which we have read with interest. We are gratified that the precedent set long ago in this country has borne such splendid results in your beautiful continent, which is, we believe, an example of the comity that should exist between nations.

We were especially pleased to note that your national parks are founded on the principle of inviolate protection and we are frank to say that, in some regards, you appear to have profited by the problems that have arisen here, to the advantage of your parks.”

Such praise from such an eminent overseas authority on National Parks is, indeed, very heartening.

The following letter, recently received by the Department, is indicative of the appreciation of fellow Australians for the work being done—

“My wife and I have seen and admired the National Forests in Springbrook, Lamington, Tamborine and Cunninghams Gap and we both feel that we must express to you our compliments and most sincere thanks for the splendid work done by your Department. As lovers of nature we do appreciate very much the pains and care taken to open up these beauty spots. As to the quality of the work done may it suffice to say that my mother-in-law, who is 78 years of age, found no difficulties in negotiating the graded tracks.”

At the 1955 Brisbane Exhibition a National Park exhibit was featured by the Department. It was eminently successful and was most effective in impressing on the public the fundamental principle of preservation and protection of these areas in their natural condition.

During the year an amount of £51,288 19s. 6d. was expended on National Parks, bringing the total expenditure on such areas to £424,573 9s. 6d. An average of 51 men has been employed throughout the whole year.

Some features of the year’s work were:

**Tracks**—New track construction totalled 8 miles 17 chains, bringing the grand total to 232 miles 75 chains. Maintenance work was carried out on all tracks.

**Signs**—Alcove signs, housing ornamental cedar direction signs, have been erected at Lamington, Palm Grove, Maiala and Cunninghams Gap.

Attention is being given, generally, to erection of direction signs at entrances and along tracks.

**Lamington**—West Canungra Creek-Border track loop was completed, giving through access to some of the tallest rain forest and most striking fern tree groves in the area.

Commencement was made on a track into Moran’s Creek below the falls.

**Tamborine**—Track is under construction from The Knoll to Sandy Creek. Ornamental entrance was completed at Palm Grove and shelter shed and conveniences constructed at Cedar Creek Falls. Attractive signs were erected along roadway, Joalah National Park.

**Springbrook**—Conveniences were erected at Gwongorella. A number of outlooks with safety fences were built. At Goomoolahra a picnic shelter shed, with tables and seats, was erected. Work was carried out on the canyon parade frontage track system. The enthusiastic expressions of appreciation from visitors regarding the sheer beauty of this walk and its views are very encouraging.

**Bunya Mountains**—Conveniences and ornamental entrance were erected at Dandabah picnic ground. Concrete foot-bridge was built at Festoon Falls. Work was carried out on Wescott-Koondai lookout track providing a lovely view over Koondai Valley.

**Mount Glorious**—Through track link between East and West Boombana was completed, providing a 2½ mile walk through varied rain forest. An attractive new shelter shed is under construction.

**Ravensbourne**—1½ mile circuit of rain forest and creek-side palms and fern trees was almost completed. Improvements were carried out to picnic ground and water laid on.

**Kondalilla**—A new entrance track to connect to the recently acquired picnic ground was commenced.

**Cunninghams Gap**—West Gap Creek track connecting picnic grounds with the Gap was completed except for creek crossings. Fireplaces, tables and seats were provided at picnic grounds.

**Magnetic Island**—A commencement was made on track construction, 152 chains being built.

**Long, Hayman, Lindeman and South Molle Islands**—New tracks were constructed on all these islands, which are frequented by the public. New camps for employees on Lindeman and Hayman Islands have been commenced.

**Tully Falls**—Shelter shed was reconstructed and water supply attended to.

**Lake Eacham**—New public septic system was installed.

**Green Island**—Cyclone "Agnes" caused damage to the jetty which was repaired at a cost of £508.

The increasing number of visitors, each year, to the National Parks reflects the better access provided for the public to see these areas at first hand. There is a more general recognition by the public of both the aesthetical and practical values of our National Parks.

Bus loads of students from schools and colleges frequently have field days at the Parks.

Official and unofficial organised week-end patrols were made by Honorary Rangers and to them the Department's thanks are due.

It is with the deepest regret that the death is recorded of Ted McKeown, who passed away on 2nd November, 1955. For 20 years Ted carried out, with courage and distinction, the administration of National Parks in North Queensland.

#### HARVESTING AND MARKETING.

**General.**—A total of 223,538,000 superficial feet of log timber was cut from Crown lands during the year, almost equalling the cut of the preceding year. Weather conditions were, again, generally unfavourable for haulage.

The cut of naturally grown Hoop and Bunya Pine fell by a further 9,000,000 superficial feet, yielding 35,540,000 superficial feet in the year under review as compared with 44,984,000 superficial feet in 1954-55 and 60,269,000 superficial feet in 1953-54.

The high quality of this timber, from which much of the joinery and ply requirements of the State are supplied, is recognised in log pricing. Hoop Pine and cabinetwoods have stumpage values much higher than those of the remaining species which comprise the major part of the total timber cut. The effect on revenue of the reduction in the pine cut is, therefore, considerable.

VIRGIN FOREST REMNANTS.



Hoop Pine—a vanishing resource.  
The cut last year fell to 35,500,000 s. ft. but the output of young Hoop Pine plantations increased to 13,000,000 s. ft.



Heavy stand of Blackbutt.  
The total log cut from Crown lands was 223,500,000 s. ft. of which 87,700,000 s. ft. was hardwood.

Taking into consideration the remaining stands of Hoop and Bunya Pine a cut of 40,000,000 superficial feet might be anticipated for 1956-57, given reasonable haulage conditions, but, as has been frequently pointed out, this cut cannot be long sustained.

The drop in natural Hoop and Bunya Pine was offset by increases in the cut of a number of the other groups. Scrub hardwoods increased by 2,000,000 superficial feet, cabinetwoods by 3,000,000 superficial feet and miscellaneous timbers also by 3,000,000 superficial feet.

The cut of plantation thinnings also increased by 5,000,000 superficial feet to a total of 19,740,000 superficial feet, a figure which can be expected to steadily increase as the plantations become older.

The hardwood cut remained stationary, but, due to weather conditions, the cut of Cypress Pine was down by nearly 6,000,000 superficial feet.

Log timber removals in North Queensland reached a record figure of 65,000,000 superficial feet. The general adoption there of haulage plants of heavy capacity enables the logging industry to make full use of breaks in the weather.

Sales of constructional, round, split and hewn timbers were maintained at the levels of the previous year. The extension of electricity services creates an active demand for poles and pressure for unrestricted cutting of this class of product. However, the poles of to-day are the piles, girders and mill logs of tomorrow. To ensure balanced and continuous production by the forest of all these essential items it is necessary to control cutting by the marking of trees which, because of relative spacing or maturity, may be cut without adversely affecting production.

The Department's rules for tree-marking in hardwood forests were revised and reissued during the year.

The marking for logging in the Northern rain forests presents many difficulties, but marking rules under trial have proved satisfactory. If the proportion of high quality species in the North Queensland rain forests is to be maintained and increased, and if full utilisation of the many species is to be secured, tree-marking is essential. Progress was made towards extending tree-marking to all State Forests in North Queensland as it is imperative that these areas, permanently dedicated to timber production, should be managed to procure the best economic results on a long term basis.

Depot prices for all species of log timber were increased by 9d. per 100 superficial feet in October, 1955, to cover increased costs of extraction.

Hardwood log timber rates at Brisbane were increased by an additional 3s. per 100 superficial feet at the same time to equate log price with sawn hardwood prices operating at the time.

**Mill Logs Cut—Crown and Private Lands.**—This table shows logs cut by all mills in the State, annually, for the periods indicated.

Year.	Queensland Grown.							Imported.	Total.
	Hoop and Bunya Pine.	Kauri Pine.	Plantation Thinnings.	Cypress Pine.	Hardwood.	Cabinet Woods.	Miscellaneous.		
	(1,000 superficial feet.)								
1950-51	47,681	5,558	11,925	34,736	229,510	21,211	54,365	8,552	413,538
1951-52	56,416	7,741	15,319	46,167	271,222	22,263	62,334	5,778	487,240
1952-53	64,374	6,327	6,322	52,834	275,491	24,913	37,148	2,735	470,144
1953-54	62,289	5,825	11,117	59,067	259,764	29,315	45,878	6,628	479,883
1954-55	48,894	5,159	14,266	54,334	250,743	26,911	49,588	14,002	463,897
1955-56 (estimated).	37,000	4,600	20,000	44,000	240,000	27,000	55,000	16,000	443,600

**Mill Logs—Crown Lands.**—The following are the annual quantities of logs obtained from Crown lands as from 1944-45:—

1944-45 .. .. .	193,000,000	1950-51 .. .. .	187,000,000
1945-46 .. .. .	190,000,000	1951-52 .. .. .	238,000,000
1946-47 .. .. .	220,000,000	1952-53 .. .. .	206,000,000
1947-48 .. .. .	204,000,000	1953-54 .. .. .	240,000,000
1948-49 .. .. .	208,000,000	1954-55 .. .. .	224,000,000
1949-50 .. .. .	202,000,000	1955-56 .. .. .	223,000,000

A comparison of quantities of the various species of log timber cut from Crown forests during the past five years is illustrated hereunder:—

Year.	Hoop and Bunya Pine.	Kauri Pine.	Cypress Pine.	Forest Hardwoods.	Scrub Hardwoods.	Cabinet Woods.	Miscellaneous.	Plantation Timbers.
(1,000 superficial feet.)								
1951-52 .. ..	57,680	7,677	25,883	70,227	9,809	18,406	32,991	15,666
1952-53 .. ..	60,755	5,577	25,151	62,063	10,228	19,385	17,728	5,121
1953-54 .. ..	60,269	5,821	31,259	71,251	12,258	24,914	23,510	11,455
1954-55 .. ..	44,984	4,799	28,129	76,090	9,455	21,185	25,712	14,111
1955-56 .. ..	35,540	4,660	22,483	76,249	11,463	24,507	28,896	19,740

### The Timber Business.

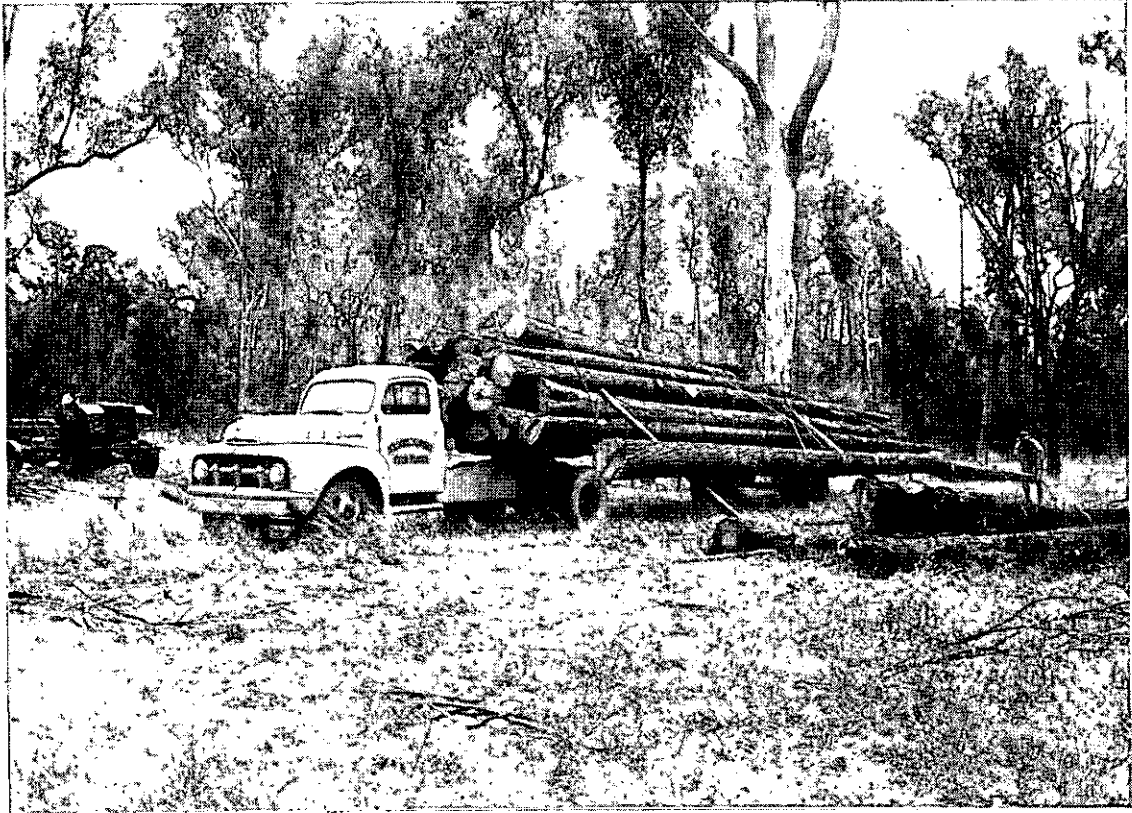
(a) Mill Logs—	1954-55.	1955-56.
Hoop and Bunya Pine ..	44,984,000 super. feet	35,540,000 super. feet
Forest Hardwoods ..	76,090,000 super. feet	76,249,000 super. feet
Scrub Hardwoods ..	9,455,000 super. feet	11,463,000 super. feet
Cypress Pine .. ..	28,129,000 super. feet	22,483,000 super. feet
Kauri Pine .. ..	4,799,000 super. feet	4,660,000 super. feet
Cabinet Woods .. ..	21,128,000 super. feet	24,372,000 super. feet
Miscellaneous Species ..	25,712,000 super. feet	28,896,000 super. feet
Plantation Timbers ..	14,111,000 super. feet	19,740,000 super. feet
Stumps and Fitches ..	58,000 super. feet	135,000 super. feet
<b>Total Crown Mill Logs ..</b>	<b>224,466,000 super. feet</b>	<b>223,538,000 super. feet</b>

(b) Construction Timbers—	1954-55.	1955-56.
Headstocks, Transoms, Crossings, Braces ..	347,817 super. feet	509,811 super. feet
Sleepers .. ..	649,818 pieces	760,261 pieces
Girders, Corbels, Piles, Sills and Girder Logs	90,879 lineal feet 368,943 super. feet	97,600 lineal feet 509,878 super. feet
Poles .. ..	578,732 lineal feet	584,208 lineal feet
House Blocks .. ..	286,457 lineal feet	222,949 lineal feet
Mining Timbers .. ..	300,924 lineal feet	348,266 lineal feet
Mining Timbers .. ..	49,404 pieces	80,391 pieces
Gross Receipts from Timber Sales .. ..	£2,046,786	£1,866,436
Net Revenue .. ..	£1,205,318	£1,091,959

**Logging.**—During 1955-56 the following quantities were hauled by, and payment made to, contractors to the Department:—

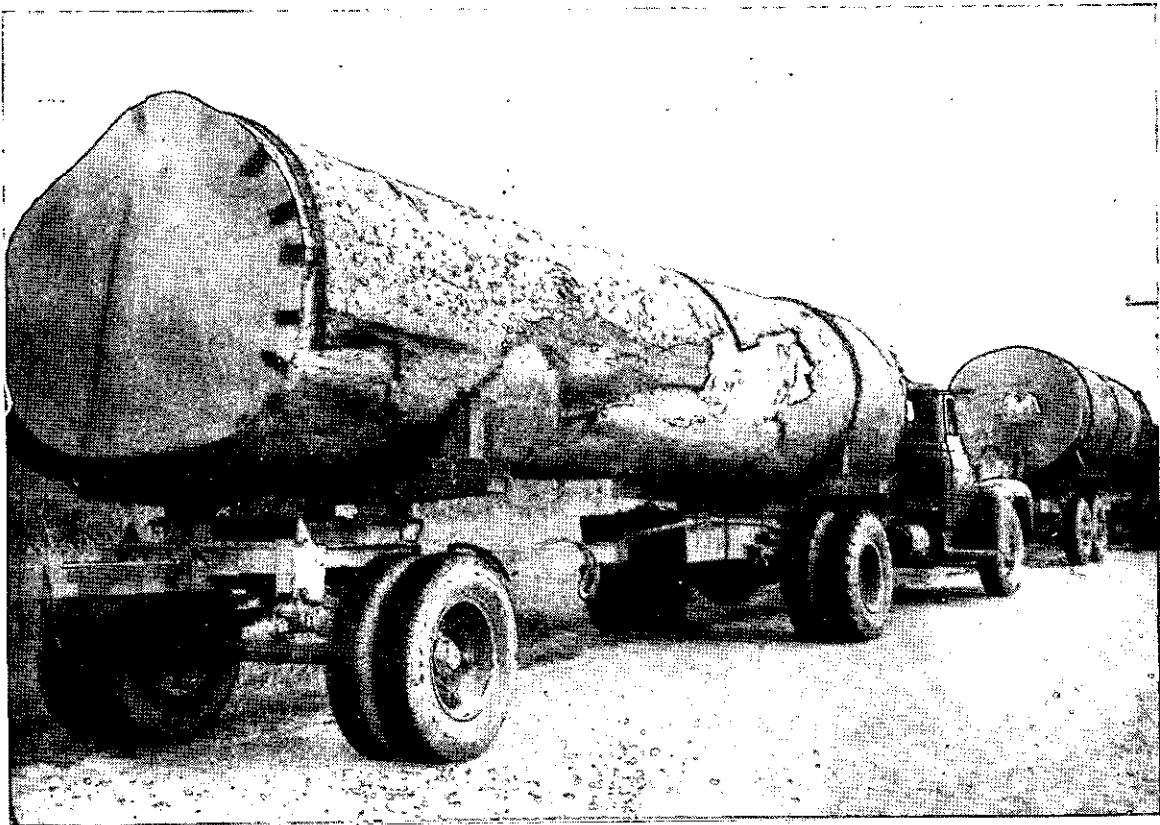
Class.	Quantity.	Expenditure.		
	Super. feet.	£	s.	d.
<b>South Queensland—</b>				
Hoop and Bunya Pine .. ..	16,523,870			
Forest Hardwoods .. ..	809,458			
Scrub Hardwoods .. ..	113,391			
Miscellaneous .. ..	200,356			
Cedar .. ..	6,847			
	17,653,922	150,993	19	5
<b>North Queensland—</b>				
Kauri Pine .. ..	54,324			
Cabinet Woods .. ..	4,298,082			
Forest Hardwoods .. ..	340,510			
Scrub Hardwoods .. ..	709,002			
Miscellaneous .. ..	2,422,621			
Cedar .. ..	82,621			
	7,907,160	75,437	2	7
<b>Totals .. ..</b>	<b>25,561,082</b>	<b>226,431</b>	<b>2</b>	<b>0</b>

TO KEEP THE WHEELS OF AN IMPORTANT INDUSTRY TURNING.



Loading Cypress Pine logs.

In recent years the value of this versatile species has become more fully appreciated.



10,000 s. ft. of Kauri Pine, North Queensland.

The Department is taking action to perpetuate this high-quality species in its reforestation programme.

**Sandalwood and Rosewood.**—The following figures show the position regarding supply and sale of Rosewood and Sandalwood during the year:—

Rosewood.	T. C. Q.
In Stock at 1st July, 1955 .. .. .	215 9 0
Purchased during year .. .. .	.. .. .
Exported to Hong Kong .. .. .	106 8 1
On hand at 30th June, 1956 .. .. .	109 0 3

No Sandalwood was purchased or exported during the year.

**The Plywood Industry.**—Manufactured deliveries from plywood and veneer mills for this year, as compared with the previous twelve months, were as follows:—

	1954-55.	1955-56.
	Square feet.	Square feet.
Through the Southern Board .. .. .	75,336,255	76,154,901
Through the Northern Board .. .. .	55,852,374	64,185,327
	131,188,629	140,340,228

Distribution of production was as follows:—

	Southern Board.	Northern Board.	Total.
	Sq. ft.	Sq. ft.	Sq. ft.
Queensland .. .. .	18,663,797	20,392,481	39,056,278
Interstate .. .. .	57,225,105	43,792,846	101,017,951
Overseas .. .. .	265,999	..	265,999
Total .. .. .	76,154,901	64,185,327	140,340,228

**Timber Felling and Timber Getting Award—State.**—During the twelve months under review the basic wage under the above award was varied as follows:—

	£ s. d.	£ s. d.
On 1st August, 1955 .. .. .	11 11 0	to 11 13 0
On 24th October, 1955 .. .. .	11 13 0	to 11 15 0
On 23rd April, 1956 .. .. .	11 15 0	to 11 19 0

**Hewn Timber Prices.**—Increased award rates also affected the price of hewn timbers as follows:—

Class of Timber.	As at 1-7-55.	As at 1-11-55.	As at 1-5-56.
	£ s. d.	£ s. d.	£ s. d.
Sleepers—squared 7 feet per 100 pieces .. .. .	61 5 0	62 0 0	64 10 0
Sleepers—hogback 7 feet per 100 pieces .. .. .	51 5 0	51 16 9	62 5 0
Crossing timbers per 100 super. feet .. .. .	4 2 6	4 3 2	4 3 2
Transoms per 100 super. feet .. .. .	4 12 6	4 13 3	4 13 3
Braces per 100 super. feet .. .. .	4 5 0	4 5 9	4 5 9
Headstocks per 100 super. feet 12 inches by 6 inches .. .. .	4 17 6	4 18 3	4 18 3

**Constructional Timbers—Departmental Contracts.**—A comparison of supply of constructional timbers from Crown lands with the two previous years is given hereunder:—

Class of Timber.	1953-54.	1954-55.	1955-56.
Sleepers .. .. .	559,786 pieces	412,742 pieces	457,659 pieces
Crossings .. .. .	280,601 super. feet	115,805 super. feet	193,614 super. feet
Transoms .. .. .	130,326 super. feet	125,058 super. feet	113,154 super. feet
Bridge timber (round) .. .. .	16,658 lineal feet	37,259 lineal feet	34,685 lineal feet
Bridge timber (square) .. .. .	16,154 super. feet	31,086 super. feet	51,336 super. feet

**Logging Roads—1955-56.**

Expenditure by Main Roads Department:—

	£
Construction .. .. .	78,076
Maintenance .. .. .	59,109

Forestry Department road programme for the year constituted 129 miles of construction. Location and working surveys covering 103 miles were carried out.

Expenditure from Forestry votes was as follows:—

	£
Construction .. .. .	145,470
Maintenance .. .. .	41,593
Subsidies to Shire Councils .. .. .	19,450
Workers' Compensation .. .. .	5,948
Pay Roll Tax .. .. .	1,652
Investigation Surveys .. .. .	1,789
Fares and Freight .. .. .	1,111
	<u>£217,013</u>

**SAWMILLS LICENSING.**

The policy of fully examining all applications for sawmill licenses and for increases in capacity was continued during the year. The principal factor in determining whether new licenses would be recommended is the log supply available. New licenses, or increases in capacity of existing licenses, are only recommended when the supplies proposed for operation are surplus to the requirements of already existing licensed sawmills. As the timber cut throughout most of Queensland is greater than can be permanently supported by the forests it is only on rare occasions that the issuance of new licenses can be recommended.

For several years after the war there was no attempt to restrict the operations of sawmills to their licensed capacity. The supply position has now become so critical, especially in south-eastern Queensland, that action along these lines has become an urgent necessity. Consequently, sawmills have been advised that in any future case of a sawmill frequently overcutting the licensed capacity, prosecution will be considered.

The following table sets out the position with regard to sawmill licenses as at 30th June, 1956:—

*Number of Licenses at 30-6-55.	Sawmill Classification.	New Licenses Issued.	Licenses not Renewed.				Current Licenses at 30-6-56.	Total 30-6-56.
			Refused.	Relinquished.	Under Consideration.	Working—No Application.		
982	General mills ..	2	23	3	103	8	847	958
30	Case mills ..	..	2	1	4	..	23	27
39	Sleeper mills ..	2	2	..	4	1	34	39
17	Other restricted ..	3	1	..	2	..	17	19
55	Resaw and dressing	3	..	..	..	..	58	58
			28	4				
1,123	..	10	32		113	9	979	1,101

\* Numbers amended to include formerly granted Licenses under consideration but not renewed at 30th June, 1955.

It will be observed that there are still a number of operating sawmills that have not applied for renewal of their licenses. It is a requirement under the Act that applications for the renewal of licenses be made before they expire on 30th September each year. Yet, despite reminder, there were still 9 operating mills that had not applied for renewal to 30th September, 1956, by the end of June, 1956. It may be necessary to take action against some offenders to draw the attention of sawmillers, generally, to the provisions of the Act.

There is also considerable dilatoriness on the part of sawmillers in the submission of quarterly returns, which by Regulation under the Act should be lodged within 14 days of the end of each quarter. These returns are essential for the compilation of vital timber statistics and their unnecessary delay is the cause of both expense and inaccuracies. Furthermore, the absence of returns can react against the licensee when renewal of license is receiving consideration, as in their absence there is no evidence that the mill concerned is working. In this case also it may become desirable to take action to ensure compliance with the Regulations.



### OFFENCES.

During the year ended 30th June, 1956, officers reported on 244 cases of breaches of Acts and Regulations administered by the Department.

Proceedings were successfully instituted against 23 persons. Of these, 14 were proceeded against for unauthorised cutting or removal of timber, 5 were prosecuted for unauthorised fires, 2 for unauthorised ringbarking, and 2 for breaches of the Timber Users' Protection Act. Fines totalling £1,010 17s. were imposed.

In addition, the police instituted proceedings against 2 persons for stealing Crown timber, fines of £52 being imposed.

In 106 cases of unauthorised timber operations, where it was considered offences did not warrant proceedings, the value of the timber was collected and warnings issued.

In 10 cases of unauthorised ringbarking, appropriate action was taken.

As a result of action in all cases an amount of £5,015 was recovered by the Crown in timber revenue.

The number of complaints received from householders under the Timber Users' Protection Act in respect of the use of lyctus susceptible timber showed a slight decrease on last year's figures, 72 cases being investigated by officers of the Department as against 81 cases in the previous year.

The Department continued its policy of endeavouring to get the builder to remedy the position and in 37 of the complaints investigated the defects have been attended to.

In 2 cases it was necessary to take proceedings and fines totalling £110 were imposed.

In 15 instances it was found that complaints were either of a minor nature, out of time for action to be taken, or not within the scope of the Act. The remaining cases are receiving attention.

### FOREST PRODUCTS RESEARCH BRANCH.

Extension activities in sawmill and plymill practice, seasoning and preservation, sawmill economics and studies of the physical properties of plantation conifers have again formed the major portion of the year's activities. Research essential for the proper development of the wood-using industries has been limited severely by the difficulty in recruiting properly qualified staff for this work.

Co-operation with the Division of Forest Products, C.S.I.R.O., other state Departments and the Standards Association of Australia has been maintained. The assistance given by these organisations, trade associations and individual mills is freely acknowledged.

#### Engineering and Sawmill Economics.

Extension activity and research in this field was carried on with difficulty due to the resignation of trained staff. It has not been possible to obtain satisfactory recruitment to fill the vacancies. Special sawing projects required for investigation of physical properties of plantation conifers were undertaken, together with studies of various theoretical sawing schedules and their relation to recovery of sawn product. Prediction of stumpage values which might be obtained as a result of the application of various thinning schedules for Slash Pine (*P. elliotii* var *elliotii*) was completed. The calculations have been based on data secured from mill studies of production costs, outturn, and grade of sawn timber at present day costs and prices. The comparisons effected provide a basis for judgment of the relative desirability of the various thinning schedules, particularly having regard to total yield of converted product and financial return. Four mill studies were carried out during the year, viz.:

**Mackay Rain Forest Species.**—Determination of sawn recoveries and production rates obtained from Red and White Eungella Satinash (*Eugenia* species).

**Brush Box.**—A special study was made of the effect of heart and other defects on mill door log value. As a result of this, adjustments were made in the method of allowance for defect to compensate for increase in manufacturing cost as compared with the other forest hardwoods.

**Hardwoods.**—A special study was made of a group of defective logs to determine the adequacy of standard measuring rules governing allowances for defect. The standard rules were confirmed.

**Red Bloodwood.**—Utilisation of this species is affected by the frequent presence of gum veins. The study aimed at determining the effect of these and other defects on sawn grade and recovery. Results indicated that sawn grade was generally lower than other hardwoods.

### Seasoning and Timber Physics.

Efforts in seasoning were again directed to the maintenance of extension work. No research was possible due to staff limitations, the available staff being concentrated on investigation of physical properties of plantation conifers and related anatomical work.

**1. Seasoning.**—Climatic conditions were even more unfavourable to air seasoning than last year. High level of moisture content of allegedly seasoned material found in samples submitted for test is a clear indication of the need for industry to get down to serious work in seasoning. The position is reflected in the receipt of 2,830 samples for moisture content test—double the number of last year.

Coupled with the installation of hot presses in the plywood industry interest in rapid and efficient drying of veneers is reflected in the installation of a number of C.S.I.R.O. screen driers, and mechanical driers of German origin. Preliminary design of a number of standard cross shaft internal fan kilns for sawn timber was commenced for mills in South and North Queensland. It should not be necessary to stress, continually, the necessity for widespread adoption of good seasoning practice. The results of many years' research by forest products laboratories in Australia are freely available and should be widely known in industry. It is the duty of industry to apply the results in every day commercial practice to a much greater extent than it is now doing.

**2. Timber Physics.**—Because of its important bearing on the Department's tree breeding programme investigation of the physical properties of plantation grown trees has been given priority in the research programme. The species concerned are:—

- Hoop Pine (*Araucaria cunninghamii*)
- Slash Pine (*Pinus elliottii* var. *elliottii*)
- Loblolly Pine (*Pinus taeda*)
- Honduras Pine (*Pinus caribaea*)
- Patula Pine (*Pinus patula*).

In addition, preliminary investigation of plantation grown Red Cedar (*Cedrela toona*) has been commenced.

Some interesting results from the year's work are described briefly below:—

**Hoop Pine.**—Two groups of 25 and 10 trees from plus stands of this species are under test. Each group is from one age class and exhibits wide variance in rate of growth. All experimental observations required have been completed and analysis is proceeding.

Some results worthy of mention are:—

- (a) *Basic density.*—The mean of samples taken 1' from ground level is independent of rate of growth. The mean basic density of all samples was  $29.38 \pm 0.34$  lbs. per cu. ft. and lies well within the range obtained from old growth rain forest trees. It shows no significant difference from the latter.
- (b) *Shrinkage.*—In samples 1 foot from ground level longitudinal, radial, and tangential shrinkage are independent of rate of growth. Mean values obtained are set out in the following table and compared with values usual in old growth rain forest trees.

Shrinkage.	Plantation trees aged 28 years.	Old growth trees.
Longitudinal .. .. .	0.157% $\pm$ 0.012	0.14 (av. only.)
Radial .. .. .	4.85% $\pm$ 0.13	4.7% $\pm$ 0.12
Tangential .. .. .	5.77% $\pm$ 0.11	6.7% $\pm$ 0.16

- (c) *Stability of Sawn Product.* All trees were sawn to a standard pattern, the sawn product air seasoned and graded. Twist and spring were used as the basis of grading and a stability rating developed which reflects the extent of occurrence of these defects in each tree. The results are illustrated in the graph facing page 28.

It is apparent that at the one age mean stability decreases with increasing height in the tree, and is better in the trees of larger g.b.h.o.b. Girths at breast high ranged from 17.2" to 35.3" in 28 years. It appears that slow growth can have substantial adverse effects on the stability of the sawn products.

INSTABILITY RATING

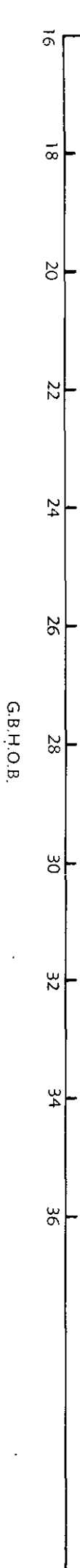
HOOP PINE-ARAUCARIA CUNNINGHAMII.

28 yr. old Plantation Trees.

INSTABILITY RATING  
BASED ON TWIST AND SPRING.

SHOWN IN SEASONED SAWN OUTTURN

SAWN GRADE I	0 - 0.833
" "	0.834 - 1.667
" "	1.668 - 3.333



36'-48"  
24'-36"  
12'-24"  
0-12' } HT. FROM GROUND.

Further work is proceeding, but these observations show no indication that fast grown plantation trees of this species will produce wood of any poorer stability, density or shrinkage characteristics than the old growth rain forest trees.

**Pinus Species.**—Work along similar lines to Hoop Pine is in progress. In all, 23 trees, representing four species, are being studied; major attention being paid to *P. elliotii* var *elliotii*. Samples from two trees of this species from New Zealand plantations show considerable differences in basic density and percentage of summerwood from material grown in Queensland, values being much lower in each case.

Preparations are in hand to test all trees of *P. elliotii* var *elliotii* selected for tree breeding and seed garden establishment along these lines.

### Wood Anatomy and Utilisation.

**1. Utilisation.**—Demand for identification increased and over 4,000 wood specimens, covering a wide variety of species, were received for identification.

Five hundred botanical specimens were received for identification by the Government Botanist. Suitable specimens were added to the Department's reference herbarium. Extension services in utilisation were maintained, inquiries on the quality and uses of a wide variety of native and imported species being received. Co-operation with Standards Association of Australia was continued and various draft Australian Standards relating to sawn timber and plywood were considered. Efforts to encourage the correct use of certain hardwood species were continued and substantial agreement reached on this matter and standard profiles of dressed flooring and sheeting at a conference of sawmillers, housing authorities, architects, and master builders. An advisory leaflet on wooden flooring was prepared for public information, and a leaflet setting out suitable Queensland species and the general requirements for external joinery is ready for publication.

In view of interest shown in establishment of hardboard mills in Queensland a survey of quantity and location of sawmill waste suitable for this purpose was commenced.

The very wet climatic conditions of the latter half of the year have increased the number of complaints of swelling and buckled flooring attributable to inadequate under-floor ventilation in low set buildings with enclosed brick or concrete foundations. In some cases fungal decay had already commenced in floors less than five years old.

It cannot be too strongly emphasised to practising architects and builders that in a tropical climate particular attention must be paid to this problem in design and construction.

**2. Anatomy.**—Observations of fibril angle and tracheid length were commenced on three plus trees of *Pinus elliotii* var *elliotii*. The aim of these observations was to determine the value of these characteristics in the latewood of each annual ring at various levels throughout the tree, and possible correlation with longitudinal shrinkage, rate of growth and age. The observations are in the nature of scout tests and it is proposed to extend them to all trees selected for breeding purposes.

There are indications in the work already done that a strong correlation exists between—

- (a) Fibre length and longitudinal shrinkage.
- (b) Fibre length and age.
- (c) Fibre length and fibril angle.

Any correlation between fibre length and rate of growth (as expressed by width of annual ring) appears to be of a low order.

The ultimate aim of this work is the setting up of suitable standards to be applied in the selection of plus trees for breeding.

### Wood Chemistry and Preservation.

**1. Preservation.**—Eleven new treatment plants for immunisation against attack by *Lyctus brunneus* Steph. were approved during the year and a further three were under construction. At the year's end a total of 68 plants, with an annual capacity of over 25,000,000 super. feet, had been approved under the provisions of "The Timber Users' Protection Act, 1949 to 1955."

Plant operators were given instruction in operation and solution analysis and a regular check has been maintained of solution strengths and treatment schedules. Erratic shipping facilities from U.S.A. and import licensing procedures have contributed to recurrent shortages of borax and boric acid which are used universally for treatment against *Lyctus*.

Observations were continued on existing service tests of preservative-treated railway sleepers. A major test covering 644 sleepers installed in the metropolitan area in 1950 has been critically examined.

The results to date are:—

1. Treatment by open tank hot-cold diffusion with a 50-50 solution of creosote (K55 standard) and fuel oil has reduced degrade on the upper surface of the sleepers.

2. This treatment has had no effect on rail seat "cut," but has minimised end splitting.

3. Sleepers of Turpentine (*Syncarpia laurifolia*), Brush Box (*Tristania conferta*) and Brown Bloodwood (*Eucalyptus trachyphloia*) given this treatment are in many cases in better condition than standard untreated species which have a much higher natural durability rating.

4. Only two sleepers have failed—both untreated species of low natural durability.

Supply of standard sleepers for proposed high pressure impregnation experiments has been arranged and the sleepers are now stacked for seasoning prior to despatch to Division of Forest Products, C.S.I.R.O., Melbourne, for treatment.

A survey of condemned sleepers withdrawn from service was continued and results confirmed last year's conclusion that, in the metropolitan area, spike kill and splitting were the prime causes of failure. Survey of a limited number of sleepers in the coastal belt of North Queensland, however, shows a much higher incidence of failure through fungal decay.

Established graveyard stake tests covering various oil-borne preservatives were inspected. Failures have occurred only in untreated controls to date.

Inspections of sawn *Pinus radiata* experimentally treated in New Zealand against blue stain attack and shipped to Brisbane were made for the New Zealand Forest Service.

A lengthy wet season in North Queensland was coincident with heavy attacks by shot hole and pin hole borers on reserve log stocks held at mills. Attack extended to freshly sawn material held in block stack. This latter was controlled by normal stripping for seasoning, but it is apparent that control of the economic loss caused by attack in log dumps is worthwhile. Proper sanitation of mill yards and spraying of logs with suitable insecticides is essential. Severity of attack is closely related to mill yard cleanliness.

The special committee representative of the Department, Queensland Housing Commission and Department of Agriculture and Stock continued its activities in determining the extent of attack on imported prefabricated houses by the European House Borer (*Hylotrupes bajulus*). It has recommended whole house fumigation with methyl bromide in an endeavour to eradicate the infestation which is, at present, very localised in extent. Arrangements have been made to call tenders for the work required. Initially it is proposed to treat some 800 houses forming one housing project.

**2. Plywood and Veneer.**—Introduction of hot pressing and the generally low standard of seasoning have raised many production difficulties for the plywood industry, resulting in an increasing demand for technical service from the Department. The most prevalent cause of low-grade production in hot pressing is high and non-uniform veneer moisture content. Until this is removed the industry cannot expect to reach satisfactory efficiency, nor can it take advantage of modern production methods. Manufacture of water-proof plywood has increased, with a consequent increase in the use of phenolic and fortified urea glues. Casein glue is still widely used in the industry but, in some instances, the quality of samples submitted for analysis of conformity to Australian Standard left much to be desired.

Pilot tests of Polyvinyl acetate adhesives were made but were not completely satisfactory in edge jointing of veneers. Preparation of experimental glue block trials with Eucalypt hardwoods was completed and blocks are awaiting shear tests.

**3. Laboratory.**—Existing space and facilities in the laboratory are insufficient, placing many difficulties in the way of efficient organisation of work.

Over 3,300 analyses were handled during the year.

Micro-analysis for zinc, copper, and pentachlorophenol was investigated to determine satisfactory methods for control and analysis of experimental preservative treatments.

**4. Timber Users' Protection Act.**—Seventy-two complaints were received and investigated during the year. Two hundred and forty buildings under construction were inspected, builders and contractors being advised of their responsibilities under the Act.

**Experimental Yard.**—Operations for the year were satisfactory. Carriage-feed equipment was provided for the band saw used in experimental sawing. Custom dressing and kiln drying for Department of Public Works kept plant and equipment in operation in otherwise idle time, providing income against the overall cost of maintaining the yard.

The fancy-wood section again handled only sawn material resulting from experimental work, no stocks being purchased from other sources.

#### **STAFF.**

At 30th June, 1956, there were 312 salaried officers on the staff, the same number as at 30th June, 1955. The number of wages men increased from 1,900 to 1,985.

There were twenty-eight resignations of permanent officers during the year, including those of Messrs. W. R. Suttie and R. B. Dreghorn, both from the Atherton District. Mr. Suttie, District Forester, Atherton, who joined the Department in 1928 as a Cadet Forester, resigned to take up a position with the Department of Forests, Papua and New Guinea. Mr. Dreghorn resigned after thirty-five years of efficient service, during which he rose from the rank of workman to that of Forester.

Three officers were retired on 30th June, 1956, after long and meritorious service—Forester D. A. Markwell (Fraser Island), Forest Ranger J. T. Carlin (Mackay) and Forest Ranger W. D. Flitcroft (Passchendaele).

It is with regret that the death is recorded of National Parks Ranger E. McKeown, Tully, who had given many years' valuable service to the Department.

#### **ACKNOWLEDGMENT.**

To all my staff, whose efforts are reflected in these pages, I desire to express my thanks.

V. GRENNING,  
Director of Forests.

## Appendices.

### APPENDIX A.

#### Return of Timber &c., Removed from Crown Lands during the year ended 30th June, 1956.

Species	Quantity.	
	Super. feet.	Super. feet.
<b>Milling Timber—</b>		
<b>Hoop and Bunya Pine—</b>		
Ply .. .. .	4,405,318	
Logs .. .. .	17,183,543	
Tops .. .. .	13,951,217	
		35,540,078
Kauri Pine .. .. .	4,659,855	
Cypress Pine .. .. .	22,482,839	
Forest Hardwoods .. .. .	76,248,917	
Scrub Hardwoods .. .. .	11,462,567	
Cabinet Woods .. .. .	24,371,737	
Miscellaneous Species .. .. .	28,896,510	
Limb Logs, Head Logs, Stumps and Flitches .. .. .	135,070	
		168,257,495
<b>Plantation Thinnings—</b>		
Hoop Pine .. .. .	13,153,386	
Bunya Pine .. .. .	13,061	
Kauri Pine .. .. .	822,002	
Slash Pine .. .. .	1,835,773	
*Loblolly Pine .. .. .	3,109,863	
Silky Oak .. .. .	7,179	
<i>Pinus patula</i> .. .. .	753,939	
<i>Pinus radiata</i> .. .. .	38,555	
<i>Pinus spp.</i> .. .. .	1,209	
<i>Cedrela mexicana</i> .. .. .	3,786	
<i>Callitris glauca</i> .. .. .	210	
<i>Cupressus benthami</i> .. .. .	595	
<i>Cupressus lusitanica</i> .. .. .	474	
		19,740,032
		223,537,605

\* Referred to as *P. taeda* in earlier reports.

Expressed as  
Superficial Feet  
(Hoppus) Log Measure.

Other Classes—			
Sleepers .. .. .	418,034 pieces	14,536,582	
Sleeper Blocks (as sleepers contained) .. .. .	342,227 pieces	12,320,172	
Transoms, Crossings, Headstocks, Longitudinals .. .. .	509,811 superficial feet	815,698	
Girders, Corbels, Piles, Sills, Kerb Logs .. .. .	97,600 lineal feet	1,756,800	
Girder Logs .. .. .	509,878 superficial feet	509,878	
Poles .. .. .	584,208 lineal feet	4,089,456	
House Blocks, Round Posts .. .. .	222,949 lineal feet	1,337,694	
Fencing Material—Split .. .. .	378,353 pieces	3,405,177	
Fencing Material—Round .. .. .	245,339 lineal feet	613,347	
Hewn and Bridge Timbers .. .. .	19,337 superficial feet	30,939	
Mining Timbers—Split .. .. .	80,391 pieces	321,564	
Mining Timbers—Round .. .. .	348,266 lineal feet	696,532	
Stakes .. .. .	2,025 pieces	16,200	
Miscellaneous Sawn Timber (offcuts) .. .. .	700 superficial feet	1,120	
		40,451,159	
Fuel .. .. .	68,555 tons		
Charcoal .. .. .	1,536 bags		
Trees and Plants (Number) .. .. .	225,007		
Sand, Gravel, Soil, &c. .. .. .	263,131 cubic yards		
Rosewood .. .. .	106 tons		
Lawyer Cane .. .. .	20 tons		
Shell Grit .. .. .	190 tons		
Staghorns and Ferns .. .. .	115 pieces		
Peat .. .. .	47 bags		
Distilled Oil .. .. .	185 lbs.		

### APPENDIX B.

#### Annual Cut—Pine—Financial Year ended 30th June, 1956.

Forestry District.	Ply.	Logs.	Tops.	Total.
	Super. feet.	Super. feet.	Super. feet.	Super. feet.
Brisbane .. .. .	47,330	2,554,237	1,639,494	4,241,061
Brisbane Valley .. .. .	2,777,636	7,633,068	6,863,472	17,274,176
Gympie .. .. .	117,102	1,394,273	776,197	2,287,572
Mackay .. .. .		30,578	19,405	49,983
Maryborough .. .. .	1,133,794	4,078,056	3,385,852	8,597,702
Monto .. .. .	329,456	1,202,026	1,099,478	2,630,960
Warwick .. .. .		291,305	167,319	458,624
	4,405,318	17,183,543	13,951,217	35,540,078

## APPENDIX C.

Receipts under the State Forests and Timber and Quarry Regulations for the Year ended  
30th June, 1956.

DISTRICTS.	TOTALS.	
	£	s. d.
Group 1—South Queensland (Brisbane, Bundaberg, Gympie, Maryborough, Monto, Toowoomba, Yarraman)	898,363	11 7
Group 2—Goondiwindi, Inglewood, St. George, Stanthorpe, Warwick	74,194	17 5
Group 3—Dalby	86,942	1 10
Group 4—Charleville, Cunnamulla, Roma, Quilpie	376	17 9
Group 5—Barcaldine, Blackall, Jundah, Longreach, Muttaburra, Stonehenge, Winton, Aramac, Isisford, Jericho	560	15 7
Group 6—Clormont, Emerald, Springsure	4,543	12 2
Group 7—Gayndah, Gladstone, Taroom, Theodore, Mundubbera	596	7 7
Group 8—Rockhampton	5,136	6 4
Group 9—Mackay	11,867	18 11
Group 10—Bowen	1,933	19 2
Group 11—Townsville	12,673	6 5
Group 12—Charters Towers, Ravenswood	296	18 4
Group 13—Hughenden	111	0 5
Group 14—Cloncurry, Boulia, Kynuna, Mackinlay	170	17 7
Group 15—North Queensland (Atherton, Herberton, Cooktown, Port Douglas, Cairns, Innisfail, Ingham)	505,706	1 2
Group 16—Burketown, Coen, Croydon, Georgetown, Normanton, Thursday Island	2	1 6
	£1,603,476	13 9
Receipts—Forestry and Lumbering	237,202	18 6
Sale of Plants, Material, &c.	20,225	16 9
Licenses* (See note after Appendix D)	2,390	7 11
Rents and Grazing Dues	7,275	2 10
	£1,870,570	19 9
Less Treasury Refunds	4,134	5 8
	£1,866,436	14 1

## COMPARISONS WITH TOTALS OF PREVIOUS YEARS.

1951-52.	1952-53.	1953-54.	1954-55.	1955-56.
£2,182,406	£2,541,904	£2,513,058	£2,046,786	£1,866,437

## APPENDIX D.

## Proceeds of Sales of Timber, &amp;c., for the Period 1st July, 1952, to 30th June, 1956.

Districts.	1952-53.		1953-54.		1954-55.		1955-56.	
	£	s. d.	£	s. d.	£	s. d.	£	s. d.
Group 1	1,311,804	7 9	1,362,611	3 2	1,110,093	13 4	898,363	11 7
Group 2	43,160	10 1	60,107	9 8	74,412	3 8	74,194	17 5
Group 3	37,932	1 7	44,163	14 11	73,585	13 9	86,942	1 10
Group 4	485	15 1	712	3 2	287	3 10	376	17 9
Group 5	905	9 5	508	9 3	728	16 6	560	15 7
Group 6	2,556	8 10	3,750	7 4	4,123	14 7	4,543	12 2
Group 7	62	2 8	39	13 8	774	1 11	596	7 7
Group 8	2,403	14 7	1,937	16 2	1,664	7 2	5,136	6 4
Group 9	7,478	19 0	7,206	7 4	10,535	14 1	11,867	18 11
Group 10	3,239	19 3	4,637	9 8	3,142	17 3	1,933	19 2
Group 11	8,037	19 4	14,317	14 8	3,964	12 6	12,673	6 5
Group 12	450	2 1	137	19 11	236	14 5	296	18 4
Group 13	380	17 7	120	15 6	95	9 2	111	0 5
Group 14	220	13 2	211	10 4	202	19 1	170	17 7
Group 15	549,294	2 4	705,698	2 7	538,278	6 4	505,706	1 2
Group 16	1	10 0	..	..	4	4 0	2	1 6
	1,968,414	12 9	2,206,160	17 4	1,822,130	11 7	1,603,476	13 9
Receipts—Forestry and Lumbering	558,492	1 7	289,912	3 2	197,526	17 2	237,202	18 6
Sale of Plants, Material, &c.	13,296	7 11	10,920	8 4	19,165	15 7	20,225	16 9
Licenses*	Not recorded	..	2,374	8 5	2,186	14 3	2,390	7 11
Rents and Grazing Dues	6,078	2 7	6,426	0 5	6,934	16 5	7,275	2 10
	2,546,281	4 10	2,515,793	17 8	2,047,944	15 0	1,870,570	19 9
Less Treasury Refunds	4,377	2 10	2,735	9 11	1,159	1 6	4,134	5 8
Total	2,541,904	2 0	2,513,058	7 9	2,046,785	13 6	1,866,436	14 1

\* Includes the following license fees :—Fuel, Quarry, Royalty, Brand, Sawmill, Apiary, Forest Products.



## APPENDIX E.

The following Schedule illustrates the market price of logs during the year 1st July, 1955, to 30th June, 1956:—

Species—Standard Trade Names. (Botanical Names and Common Names in Brackets).	Log Class.	Delivery.	Price per 100 super. feet (Hoppus measure).	
			As at 1-7-55.	From 1-10-55.
Red Tulip Oak ( <i>Argyrodendron peralatum</i> )	8 ft. plus	F.o.r. Cairns	s. d. 35 5	s. d. 36 2
Red Cedar ( <i>Cedrela toona</i> )	8 ft. plus	F.o.r. Townsville	35 5	36 2
North Queensland Kauri Pine ( <i>Agathis palmerstoni</i> )	6 ft. plus	F.o.r. Brisbane	73 4	74 1
Queensland Walnut ( <i>Endiandra palmerstoni</i> )	8 ft. plus	F.o.r. Cairns	55 5	56 2
Northern Silky Oak ( <i>Cardwellia sublimis</i> )	8 ft. plus	F.o.r. Townsville	55 5	56 2
Queensland Maple ( <i>Flindersia brayleyana</i> )	8 ft. to 8 ft. 11 in.	F.o.r. Cairns	46 4	47 1
Black Pine ( <i>Podocarpus amara</i> )	8 ft. plus	F.o.r. Townsville	46 4	47 1
Silver Silkwood (Putts Pine) ( <i>Flindersia acuminata</i> )	8 ft. plus	F.o.r. Cairns	55 5	56 2
White Beech ( <i>Gmelina leichhardtii</i> ) ( <i>Gmelina fasciculiflora</i> )	8 ft. plus	F.o.r. Townsville	55 5	56 2
Hickory Ash (Hickory) ( <i>Flindersia iflailana</i> )	6 ft. plus	F.o.r. Brisbane	58 4	59 1
Northern Silver Ash (White Ash) ( <i>Flindersia pubescens</i> )	8 ft. plus	F.o.r. Cairns	45 5	46 2
Queensland Silver Ash (Ash) ( <i>Flindersia bourjotiana</i> )	8 ft. plus	F.o.r. Townsville	55 5	56 2
Bolly Silkwood (Tarzali Silkwood) ( <i>Cryptocarya oblata</i> )	8 ft. plus	F.o.r. Cairns	55 5	56 2
Satin Sycamore ( <i>Ceratopetalum succirubrum</i> )	8 ft. plus	F.o.r. Townsville	35 5	36 2
Yellow Walnut ( <i>Beilschmiedia bancroftii</i> )	8 ft. plus	F.o.r. Cairns	35 5	36 2
Hardwoods	8 ft. plus	F.o.r. Townsville	35 5	36 2
Hardwoods	6 ft. plus	F.o.r. Brisbane	30 5	31 2
Hardwoods	6 ft. plus	F.o.r. Warwick	30 5	31 2
Hardwoods	6 ft. plus	F.o.r. Maryborough, Bundaberg	29 11	30 8
Hardwoods	6 ft. plus	F.o.r. Rockhampton	34 7	35 4
Hardwoods	6 ft. to 6 ft. 11 in.	F.o.r. Townsville	32 11	33 8
Hardwoods	6 ft. plus	F.o.r. Mackay	33 2	33 11
Hoop Pine Ply	7 ft. plus	F.o.r. Brisbane	81 9	82 6
Hoop Pine "A" Quality Logs	7 ft. plus	F.o.r. Brisbane	66 1	66 10
Bunya Pine Logs	7 ft. plus	F.o.r. Brisbane	64 7	65 4
Hoop Pine "C" Quality Logs	7 ft. plus	F.o.r. Brisbane	42 10	43 7
Hoop Pine "D" Quality Logs	7 ft. plus	F.o.r. Brisbane	40 6	41 3
Bunya Pine Tops	7 ft. plus	F.o.r. Brisbane	40 6	41 3
Cypress Pine—1st Class	28 in. plus	F.o.r. Brisbane	34 7	35 4
		F.o.r. Gympie, Maryborough, and Bundaberg	31 7	32 4
South Queensland Scrubwoods—				
Case and Building Timbers Group (a)	6 ft. plus	F.o.r. Brisbane	33 7	34 4
Common Cabinetwoods Group (b)	6 ft. plus	F.o.r. Brisbane	35 6	36 3
Special Purpose Timbers Group (c)	6 ft. plus	F.o.r. Brisbane	37 5	38 2

(a) Case and Building Timbers Group includes the following species :

Southern Satinash (Red Apple) ( <i>Eugenia brachyandra</i> )	Brown Tulip Oak (Crowsfoot Elm) ( <i>Argyrodendron trifoliolatum</i> )
Blush Coondoo ( <i>Planchonella laurifolia</i> )	Rose Walnut (Domatia Tree) ( <i>Endiandra discolor</i> )
Rose Satinash (Watergum) ( <i>Eugenia francisii</i> )	Blush Walnut (Hard Bolly Gum) ( <i>Beilschmiedia obtusifolia</i> )
Mararie (Marara) ( <i>Pseudoweinmannia lachnocarpa</i> )	Red Almond (Red Ash) (Sarsparilla) ( <i>Alphitonia excelsa</i> )
Pink Poplar (Blush Cudgerie) (Maiden's Blush) ( <i>Euroschinus falcatus</i> )	Bennetts Ash ( <i>Flindersia bennettiana</i> )
Tulip Plum (Burdakin Plum) ( <i>Pleio gynium cerasiferum</i> )	Southern Penda (Luya's Hardwood) ( <i>Xanthostemon oppositifolius</i> )
White Evodia ( <i>Evodia micrococca</i> )	

(b) Common Cabinetwoods Group includes the following species :

Brown Alder (Rose-Leaf Marara) ( <i>Ackama paniculata</i> )	Rose Mahogany (Rosewood) ( <i>Dysoxylum fraserianum</i> )
Southern Silky Oak ( <i>Grevillea robusta</i> )	Miva Mahogany (Red Bean) ( <i>Dysoxylum muelleri</i> )
Brush Mahogany (Red Carrobean) ( <i>Geissois benthami</i> )	White Birch (White Cherry) ( <i>Schizomeria ovata</i> )
Silky Beech (Soap Box) (Churnwood) ( <i>Charissa moorei</i> )	Blush Alder (Blush Carrobean) ( <i>Sloanea australis</i> )
	Bollywood (Bolly Gum) (Brown Beech) ( <i>Litsea reticulata</i> )

(c) Special Purpose Timbers Group includes the following species :

Crow's Ash ( <i>Flindersia australis</i> )	Southern Silver Ash (Bumpy Ash) ( <i>Flindersia schottiana</i> )
Ivorywood ( <i>Siphonodon australe</i> )	Yellow Boxwood ( <i>Planchonella pohlmanniana</i> )
Yellowwood ( <i>Flindersia xanthoxyla</i> )	

## APPENDIX F.

## Constructional Timber supplied during Financial Year 1955-56 under Forestry and Lumbering Operations.

Class of Timber.	Quantity.	Sales Value.	
		£	s. d.
Sawn Crossings .. .. .	23,681 superficial feet	1,011	17 3
Hewn Crossings .. .. .	169,933 superficial feet	7,753	15 9
Headstocks, Longitudinals and Braces .. .. .	51,336 superficial feet	2,559	3 7
Hewn Transoms .. .. .	109,418 superficial feet	5,281	10 7
Sawn Transoms .. .. .	3,736 superficial feet	178	6 11
Girders—Dressed .. .. .	11,405 lineal feet	7,146	12 4
Piles .. .. .	21,881 lineal feet	6,875	17 1
Sills .. .. .	87 lineal feet	41	12 6
Poles .. .. .	1,312 lineal feet	200	12 2
Round Posts .. .. .	284 lineal feet	40	2 5
Split Posts and Rails .. .. .	70,849 pieces	11,023	2 10
Hewn Sleepers .. .. .	70,339 pieces	40,351	3 2
Sawn Sleepers .. .. .	45,093 pieces	24,788	17 7
Sleeper Blocks (as sleepers contained) .. .. .	342,227 pieces	136,068	16 9
Total .. .. .	..	£243,321	10 11

## APPENDIX G.

## Comparative Statement of Expenditure for Years 1954-55 and 1955-56.

	1954-55.	1955-56.
	£	£
Revenue—		
Salaries .. .. .	243,803	282,639
Travelling and Incidentals .. .. .	28,701	36,767
Extra Living Allowances .. .. .	1,722	..
Fares, Printing, Stores, &c. .. .. .	6,872	5,950
Cash Equivalent Extended Leave .. .. .	1,244	2,278
National Parks .. .. .	45,199	51,289
Access Roads .. .. .	138,271	..
Purchase of Plant .. .. .	117,712	..
Loan—		
Reforestation .. .. .	1,371,656	1,486,481
Acquisition of Land for Forestry Purposes .. .. .	9,645	12,332
Access Roads .. .. .	..	152,962
Purchase of Plant .. .. .	..	67,504
Trust—		
Hardwood Supplies to Railway Department and Others .. .. .	190,886	233,431
Harvesting and Marketing Timber .. .. .	540,675	436,648
Access Roads—Maintenance and Subsidies .. .. .	77,698	64,051
Maintenance of Capital Improvements .. .. .	32,208	40,348
Total .. .. .	£ 2,806,292	2,872,680

APPENDIX H.  
Summary of Reforestation Expenditure, 1955-56.

Reserve.	Reforestation.				Surveys.	Protection, Firefighting, &c.	Maintenance of Capital Improvements.	New Construction of Nurseries, Buildings, &c.	Overhead Expenses.				Pay-Roll Tax.	Reserve Total.
	Plantations.	Natural Regeneration.	Nursery Working and Maintenance.	Forest Experiment.					Stores, Fodder, Supervision, &c.	Holidays, Wet Time, &c.	Cartage of Rations, &c.	Camping Allowance.		
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
BRISBANE WORKING PLAN AREA.														
Reserve 69	..	284 7 6	..	..	..	861 18 8	154 0 6	..	316 17 11	408 10 1	46 12 4	8 9 0	..	2,030 15 7
Reserve 215	..	..	..	..	..	1,639 7 1	4 9 8	..	25 11 9	234 3 4	3 5 0	71 3 6	..	1,378 1 2
Reserve 309	..	108 0 9	..	..	..	2,697 11 5	4 16 6	56 6 5	1,767 6 1	925 2 11	94 13 4	217 2 4	..	5,865 19 11
Reserve 326	..	..	..	..	..	..	..	..	21 6 1	..	4 11 0	..	..	37 8 6
Reserve 370	..	..	..	..	92 7 1	..	..	..	15 19 0	2 14 4	..	11 1 0	..	1,122 1 5
Reserve 494	..	279 17 8	..	..	..	643 5 11	14 11 0	..	264 3 11	231 10 4	78 1 4	..	..	1,627 18 4
Reserve 571	..	..	..	..	44 5 4	1,574 6 8	62 11 9	89 6 3	848 8 2	415 15 9	116 8 2	..	..	3,361 19 5
Reserve 593	..	..	..	..	..	108 1 6	..	..	214 15 9	184 7 9	10 14 6	..	..	651 7 9
Reserve 667	..	..	..	..	..	173 1 0	..	..	170 2 4	139 11 4	..	..	..	808 6 7
Reserve 702	..	..	..	..	2 2 4	1,676 15 4	91 15 3	519 8 3	700 7 11	822 18 1	30 2 11	556 15 9	..	4,886 3 0
Reserve 727	..	..	..	..	..	230 9 8	..	..	104 18 10	116 14 1	..	4 4 6	..	756 1 11
Reserve 1355	..	..	..	..	..	..	..	..	11 4 7	..	..	..	..	11 17 5
Reserve 1370	..	..	..	..	..	585 1 3	..	..	99 8 3	234 4 4	..	..	..	1,516 6 6
Reserve 1520	..	..	..	..	..	1,014 10 0	..	..	639 4 10	519 2 11	9 6 1	27 19 0	..	2,967 0 2
Reserve 1655	..	..	..	..	..	234 5 5	..	..	141 1 3	66 6 9	1 11 10	..	..	443 5 3
Administration	..	..	..	..	..	..	..	..	363 13 3	..	..	..	..	363 13 3
Firefighting and Patrol	..	..	..	..	..	1,416 2 10	..	..	..	..	..	..	..	1,416 2 10
Experiments	..	..	..	..	..	..	..	..	..	..	..	..	..	139 6 0
Miscellaneous Surveys	..	..	..	..	5 9 0	..	..	..	..	..	..	..	..	5 9 0
Drum Account	..	..	..	..	..	..	..	..	175 4 8	..	..	..	..	175 4 8
	1,154 2 0	2,992 18 0	..	130 6 0	144 3 0	12,357 2 7	332 4 8	665 0 11	5,969 14 7	4,201 2 10	278 18 4	1,329 14 3	..	20,564 8 8
KILCOY WORKING PLAN AREA.														
Reserve 137/207	..	..	3,485 8 5	..	850 13 0	4,105 4 2	369 8 8	2,479 17 11	12,392 7 2	9,953 3 1	1 10 5	6,580 3 6	..	57,382 12 6
Reserve 274	..	..	..	..	11 7 3	2 11 0	..	..	5 0 0	..	..	..	..	18 18 8
Reserve 370	..	385 3 9	..	..	6 3 11	1,748 0 7	34 19 0	830 10 5	1,080 2 5	557 1 4	25 13 0	401 1 2	..	5,071 15 7
Reserve 434	..	..	..	..	32 7 3	..	..	..	..	..	..	..	..	32 7 3
Reserve 454	..	..	..	..	3 18 1	..	..	..	1 6 1	..	..	..	..	5 4 2
Reserve 480	..	..	..	..	3 18 1	..	..	..	..	..	..	..	..	3 18 1
Reserve 480	..	..	..	..	64 16 5	332 3 11	16 9 6	2,828 0 5	1,961 9 0	1,015 15 8	188 14 8	1,124 6 3	..	13,533 8 0
Reserve 637	..	..	..	..	51 1	119 14 3	140 16 11	..	140 16 11	45 11 10	..	..	..	791 8 10
Reserve 753	..	..	..	..	..	3,872 16 9	151 19 8	407 16 6	1,179 13 2	1,070 17 3	236 10 6	603 17 6	..	8,419 17 11
Reserve 893	..	499 2 7	..	..	..	..	..	..	..	..	..	..	..	1,382 18 3
Pay Roll Tax	..	..	..	..	..	..	..	..	1,077 18 0	..	..	..	..	1,077 18 0
Administration	..	..	..	..	..	1,038 10 9	..	..	..	..	..	..	..	1,038 10 9
Firefighting and Patrol	..	..	..	..	..	..	..	..	..	..	..	..	..	169 16 4
Experiments	..	..	..	..	..	..	..	..	..	..	..	..	..	169 16 4
	17,104 15 5	..	3,485 8 5	169 16 4	1,024 6 4	11,219 1 5	572 16 10	6,546 5 3	17,888 12 9	13,242 0 2	455 8 2	8,777 13 5	1,382 18 3	88,928 14 8

APPENDIX H—continued.

Reserves.	Reforestation.				Surveys.	Protection, Firefighting, &c.	Maintenance of Capital Improvements.	New Construction of Nurseries, Buildings, &c.	Overhead Expenses.				Pay-Roll Tax.	Reserve Total.				
	Plantations.		Nursery Working and Maintenance.						Stores, Fodder, Supervision, &c.	Holidays, Wet Time, &c.	Cartage of Rations, &c.	Camping Allowance.						
	£	s. d.	£	s. d.											£	s. d.	£	s. d.
Reserve 60	372	12 2	..	..	239	17 3	1,214	7 7	650	12 4	..	..	13	0 0	3,182	9 1		
Reserve 108	..	..	..	..	107	8 4	683	17 3	122	14 2	..	..	91	10 0	1,275	17 0		
Reserve 178	..	..	..	..	299	8 9	2,540	8 0	745	11 3	71	18 1	142	5 0	6,469	17 4		
Reserve 249	..	..	..	..	..	..	668	7 7	143	6 2	..	..	..	..	1,153	6 10		
Reserve 313	55	19 7	..	..	..	..	39	1 10	..	..	..	..	68	11 6	931	2 1		
Reserve 318	..	..	..	..	5	14 3	516	8 10	74	9 8	0	14 1	..	..	5,987	16 4		
Reserve 319	254	4 9	..	..	61	7 3	2,106	14 5	1,311	18 5	249	4 6	457	5 6	81	7 3		
Reserve 445	..	..	..	..	..	..	..	..	892	1 9	0	2 3	19	10 0	4,523	3 9		
Reserve 446	..	..	..	..	206	2 3	3,168	5 1	3,694	11 10	0	3 6	1,305	16 0	16,116	8 6		
Reserve 447	1,716	10 6	..	..	2,039	2 3	20,347	12 8	5,216	4 5	..	..	6,973	6 6	101,574	16 3		
Reserve 700	33,853	10 11	..	..	385	8 6	..	..	19,251	4 6	..	..	..	..	386	8 6		
Reserve 877	..	..	..	..	..	..	..	94	16 7	..	..	..	..	..	94	16 7		
Portland Reserve & Reserve	..	..	..	..	..	..	..	..	..	..	..	..	39	13 0	391	19 2		
Pay Roll Tax	42	0 7	..	..	..	..	239	15 4	..	..	..	..	..	..	2,783	6 6		
Administration	..	..	..	..	..	..	..	..	..	..	..	..	..	..	676	9 10		
Firefighting and Patrol	..	..	..	..	..	..	..	..	..	..	..	..	..	..	10,205	2 1		
Expenses	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8,470	16 4		
Miscellaneous Surveys	..	..	..	..	161	8 7	..	..	..	..	..	..	..	..	161	8 7		
	35,924	15 4	1,005	1 8	3,505	17 5	44,454	3 8	3,122	13 0	4,070	3 0	27,112	4 7	322	2 5	164,395	12 0

**NORTH COAST WORKING PLAN AREA.**

Plantations.		Nursery Working and Maintenance.		Surveys.	Protection, Firefighting, &c.	Maintenance of Capital Improvements.	New Construction of Nurseries, Buildings, &c.	Overhead Expenses.				Pay-Roll Tax.	Reserve Total.					
£	s. d.	£	s. d.					£	s. d.	£	s. d.			£	s. d.			
Reserve 120	10,850	18 3	..	230	13 8	3,067	9 8	86	8 8	1,780	3 2	13	11 11	4	11 0	21,182	16 5	
Reserve 151	469	1 9	..	..	..	823	12 8	90	12 2	288	2 3	150	2 11	383	4 6	3,324	2 5	
Reserve 245	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Reserve 257	11,129	3 2	..	7	15 6	2,118	12 0	2,099	12 4	4,021	4 11	31	16 1	2,718	18 6	33,863	4 5	
Reserve 258	3,874	0 4	..	64	7 11	1,472	7 3	1,744	17 9	1,653	3 10	390	12 6	1,213	18 6	5,476	0 13	
Reserve 283	19,710	14 7	..	237	13 1	5,520	18 0	1,894	13 6	2,960	13 11	66	15 0	5,031	18 3	57,769	18 9	
Reserve 289	4,940	9 7	..	417	15 0	1,430	0 1	693	11 7	4,398	2 8	107	8 0	2,330	18 0	28,213	9 2	
Reserve 316	10,849	17 7	..	126	6 1	3,069	0 11	509	14 5	4,145	9 11	..	..	2,353	13 0	35,702	17 9	
Reserve 328/9/474	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Reserve 379	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Reserve 509	5,198	13 1	..	26	14 4	1,803	2 8	9	0 2	655	17 2	35	5 0	69	4 6	1,079	6 11	
Reserve 510	2,849	1 0	..	43	19 2	1,938	14 0	34	10 0	2,479	0 11	12	14 11	289	18 0	9,023	6 11	
Reserve 575	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Pay Roll Tax	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Administration	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Firefighting and Patrol	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Experiments	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Drum Account	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
	69,939	14 5	651	18 5	1,405	17 9	23,951	7 6	7,902	13 5	5,392	1 7	46,930	6 10	1,092	9 11	222,376	11 6

**BRISBANE VALLEY WORKING PLAN AREA.**

APPENDIX H—continued.

Reserves.	Reforestation.			Surveys.	Protection, Firefighting, &c.	Maintenance of Capital Improvements.	New Construction of Nurseries, Buildings, &c.	Overhead Expenses.				Pay-Roll Tax.	Reserve Total.
	Plantations.	Natural Regeneration.	Nursery Working and Maintenance.					Forest Experiment.	Stores, Fodder, Supervision, &c.	Holidays, Wet Time, &c.	Cartage of Rations, &c.		
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Reserve 4	..	..	..	..	2,410 17 5	109 17 7	1,050 18 0	906 18 7	537 2 3	489 17 0	593 11 6	..	6,049 2 10
Reserve 16 Ballon	..	..	..	..	7,153 3 5	87 15 1	3,054 4 6	3,961 18 1	1,745 17 11	717 0 0	2,187 5 6	..	18,917 4 6
Reserve 16 Malcolin	..	..	..	..	7,376 0 9	263 16 10	177 18 0	4,883 14 3	2,206 11 10	976 9 4	2,829 18 6	..	21,596 5 11
Reserve 21	..	..	..	..	..	..	..	18 7 10	..	..	..	..	18 7 10
Reserve 78, &c.	..	..	..	..	1,018 4 0	120 19 6	472 18 9	4,017 3 4	1,655 0 10	811 4 3	1,550 2 6	..	15,200 17 0
Reserve 83/106	..	..	..	..	3,053 1 4	13 3 2	133 18 1	1,143 4 4	638 5 7	247 1 1	558 0 6	..	5,040 10 10
Reserve 93	..	..	..	..	2,010 18 11	77 6 6	624 8 6	1,591 7 7	579 9 2	242 6 10	696 7 6	..	6,959 5 3
Reserve 126	..	..	..	..	710 18 5	..	12 8 9	1,422 16 4	129 17 10	65 7 2	108 17 6	..	1,465 9 0
Reserve 150	..	..	..	..	4,326 18 11	189 17 8	148 4 11	1,411 2 5	816 19 2	109 13 2	822 11 6	..	8,021 7 9
Reserve 154	..	..	..	..	5,388 16 10	405 0 6	343 18 7	3,063 4 1	1,839 9 4	623 18 0	1,892 14 5	..	15,409 12 2
Reserve 155	..	..	..	..	2,037 11 2	106 9 6	44 0 9	1,512 14 3	563 6 2	272 5 5	688 13 6	..	6,600 4 5
Reserve 101	..	..	..	..	92 0 6	204 0 10	583 8 8	317 1 2	78 10 0	20 15 1	127 6 6	..	1,423 2 9
Reserve 184	..	..	..	..	..	..	139 15 5	384 19 9	185 18 2	8 6 5	160 4 6	..	1,448 4 0
Reserve 389	..	..	..	..	552 15 6	..	..	..	..	..	..	2,145 3 10	2,145 3 10
Pay Roll Tax	..	..	..	..	..	..	..	784 10 6	..	..	..	..	784 10 6
Administration	..	..	..	..	3,827 1 9	..	..	..	..	..	..	..	3,827 1 9
Firefighting and Patrol	..	..	..	..	..	..	..	..	..	..	..	..	1,109 9 6
Experiments	..	..	..	..	..	..	..	6 0 0	..	..	..	..	1,109 9 6
Drum Account	..	..	..	..	..	..	..	..	..	..	..	..	6 0 0
	12,374 0 3			53 5 11	41,338 8 11	1,591 19 8	6,786 3 5	24,415 2 6	10,376 8 3	4,534 3 9	11,715 13 11	2,145 3 10	117,039 19 11

DALBY WORKING PLAN AREA.

FRASER ISLAND WORKING PLAN.

Reserve 3/12	435 15 9	440 8 8	..	18 8 9	1,032 12 2	1,131 17 11	539 10 7	2,465 6 11	954 10 1	288 18 0	1,011 8 0	169 0 3	9,219 5 10
Pay Roll Tax	..	..	..	..	..	..	..	73 12 4	..	..	..	..	169 0 3
Administration	..	..	..	..	125 14 6	..	..	..	..	..	..	..	73 12 4
Firefighting and Patrol	..	..	..	..	..	..	..	..	..	..	..	..	125 14 6
Experiments	..	..	..	3 8 11	..	..	..	..	..	..	..	..	79 12 1
Miscellaneous Surveys	..	..	..	..	..	..	..	42 0 0	..	..	..	..	3 8 11
Drum Account	435 15 9	440 8 8	..	21 17 8	2,058 6 8	1,131 17 11	539 10 7	2,580 19 3	954 10 1	288 18 0	1,011 8 0	169 0 3	9,712 13 11

APPENDIX H—continued.

Reserves.	Reforestation.				Surveys.	Protection, Firefighting, &c.	Maintenance of Capital Improvements.	New Construction of Nurseries, Buildings, &c.	Overhead Expenses.				Pay Roll Tax.	Reserve Total.
	Plantations.	Natural Regeneration.	Nursery Working and Maintenance.	Forest Experiment.					Stores, Fodder, Supervision, &c.	Holidays, Wet Time, &c.	Cartage of Rations, &c.	Camping Allowance.		
Reserve 82/242	8,408 4 10	..	848 9 6	..	21 5 10	2,690 16 0	127 15 3	2,993 11 11	4,023 14 9	258 15 8	2,315 9 2	..	26,032 4 0	
Reserve 124	6,723 9 0	..	1,165 3 7	..	146 13 6	2,295 2 5	247 13 7	1,822 10 7	3,746 0 9	221 14 1	2,068 12 6	..	21,084 14 1	
Reserve 234	..	538 8 9	..	..	..	2,027 13 0	16 16 5	1,059 7 8	665 5 6	14 15 11	237 1 6	..	4,579 8 9	
Reserve 392	3,248 19 7	..	..	..	22 1 3	1,457 17 10	89 1 9	610 1 5	2,075 13 9	128 1 6	800 9 6	..	11,352 13 3	
Reserve 393	..	774 8 0	..	..	4 6 5	2,538 4 0	57 13 2	977 1 8	1,848 5 11	197 15 2	910 6 6	..	9,965 2 2	
Reserve 451	..	..	..	..	..	1,828 4 8	27 6 0	235 10 9	1,476 4 3	72 0 0	658 2 6	..	6,908 15 7	
Reserve 502	138 1 4	327 13 11	..	..	..	..	..	..	..	..	..	..	0 17 4	
Reserve 559	..	..	..	..	..	..	..	..	..	..	..	..	0 17 0	
Reserve 572	..	..	..	..	15 17 7	11 13 10	..	..	..	..	..	..	0 13 0	
Reserve 575	..	..	..	..	..	1,070 8 1	46 0 10	437 2 1	1,270 15 10	17 3 0	363 7 0	..	6,812 3 5	
Reserve 627	..	1,112 0 0	..	..	..	31 10 4	..	..	..	..	..	..	33 7 8	
Reserve 628	..	..	..	..	..	..	..	..	..	..	..	..	1 6 0	
Reserve 700	..	..	..	..	..	..	..	..	..	..	..	..	1 8 0	
Reserve 906	..	..	..	..	..	..	..	..	..	..	..	..	24 11 7	
Reserve 932	..	..	..	..	..	10 15 9	..	..	..	..	..	..	11,907 1 10	
Reserve 952	383 3 10	453 16 5	280 9 10	..	..	6,088 10 1	262 15 3	135 12 3	1,836 14 10	6 3 0	255 2 6	..	6,003 11 7	
Reserve 959	..	..	..	..	..	2,594 2 0	49 0 7	1 4 6	1,193 2 1	22 19 6	48 10 3	..	442 0 16	
Reserve 963	..	..	..	..	..	316 12 2	13 13 2	7 5 11	307 2 11	20 9 2	75 1 6	..	1,353 7 11	
Reserve 983	..	..	..	..	..	574 18 3	83 17 5	..	713 0 1	46 2 6	414 1 0	..	4,562 15 9	
Reserve 997	423 9 8	..	..	..	298 3 0	1,780 16 9	38 7 5	..	848 12 4	..	..	..	71,082 8 0	
Reserve 1004	17,991 3 9	..	2,576 12 2	..	687 15 10	12,606 15 2	548 14 0	4,530 19 5	7,831 14 3	146 15 0	5,664 3 0	..	3,856 8 11	
Pay Roll Tax	..	..	..	..	..	..	..	..	2,257 11 1	..	..	3,856 8 11	..	
Administration and Patrol	..	..	..	..	..	7,909 11 3	..	..	..	..	..	..	7,969 11 3	
Firefighting and Patrol	..	..	..	..	3 9 0	..	..	..	..	..	..	..	8 9 0	
Miscellaneous Surveys	..	..	..	..	..	..	..	..	..	..	..	..	1,113 2 8	
Experiments	..	..	..	..	..	..	..	..	..	..	..	..	1,113 2 8	
Drum Account	..	..	..	..	..	..	..	..	..	..	..	..	1,113 2 8	
	37,311 12 0	3,206 7 10	4,870 15 1	1,113 2 8	1,199 12 5	46,856 11 2	1,808 14 11	10,121 0 6	27,940 10 8	1,152 14 6	13,839 17 11	3,856 8 11	197,239 17 1	
Reserve 135	32,770 16 1	..	1,816 11 5	..	243 9 4	5,820 5 0	5,155 11 9	1,257 13 4	16,637 0 10	244 8 6	9,212 14 6	..	96,428 0 0	
Reserve 135/274	10,766 12 11	..	782 13 5	..	..	1,090 0 4	1,862 12 8	581 6 1	4,119 11 1	462 9 6	3,041 16 6	..	27,321 7 3	
Reserve 256	2,037 10 4	..	..	..	..	1,163 9 4	130 15 10	474 9 1	6,330 14 5	272 16 8	4,534 7 6	..	3,979 10 9	
Reserve 435	11,662 11 7	..	1,044 19 3	..	43 4 6	2,377 6 9	1,237 9 0	1,567 10 1	..	..	..	..	39,203 0 8	
Reserve 546	..	..	..	..	..	..	213 12 6	..	..	..	..	..	381 4 11	
Pay Roll Tax	..	..	..	..	..	..	..	..	..	..	..	8,711 7 11	3,711 7 11	
Administration	..	..	..	..	..	..	..	..	..	..	..	..	1,143 2 2	
Firefighting and Patrol	..	..	..	..	..	2,199 11 6	..	..	..	..	..	..	2,199 11 6	
Experiments	..	..	..	..	..	..	..	..	..	..	..	..	3,083 16 0	
	57,237 10 11	..	3,654 4 1	3,063 16 0	286 13 10	13,029 12 11	7,400 1 9	4,160 18 7	27,087 6 4	983 4 0	16,788 18 6	3,711 7 11	177,401 10 2	

GYMIE WORKING PLAN AREA.

MARY VALLEY WORKING PLAN AREA.









APPENDIX H—continued.

Reserves.	Reforestation.						Surveys.	Protection, Firefighting, &c.	Maintenance of Capital Improvements.	New Construction of Nurseries, Buildings, &c.	Overhead Expenses.				Pay-Roll Tax.	Reserve Total.																										
	Plantations.	Natural Regeneration.	Nursery Working and Maintenance.	Forest Experiment.	INGLEWOOD WORKING PLAN AREA.						Stores, Fodder, Supervision, &c.	Holidays, Wet Time, &c.	Cartage of Rations, &c.	Camping Allowance.																												
					£	s.											d.	£	s.	d.	£	s.	d.	£	s.	d.																
Reserve 48	179	7	5	..	..	..	157	12	1	68	12	7	416	13	2	134	10	10	266	1	3	129	7	0	1,533	12	6															
Reserve 49	991	10	11	..	..	..	841	5	6	208	5	5	1,006	11	11	482	8	2	490	1	8	427	10	6	4,512	3	7															
Reserve 51	109	4	0	..	..	..	3,443	14	9	224	13	7	1,504	7	6	529	15	6	258	13	10	358	15	0	6,604	1	8															
Reserve 101	412	2	11	..	..	..	434	18	1	42	7	9	339	16	8	216	15	5	190	12	0	168	4	0	1,821	4	11															
Reserve 120	..	..	..	..	..	..	123	12	1	..	..	..	29	8	3	..	..	..	..	..	..	29	19	6	1,179	19	10															
Reserve 122	923	3	7	..	..	..	1,619	0	0	54	7	5	649	4	9	454	15	3	162	8	2	508	14	0	4,447	8	3															
Reserve 132	..	..	..	..	..	..	149	2	0	..	..	..	27	16	10	17	2	1	..	..	..	83	15	0	4,233	10	11															
Reserve 134	507	5	11	..	..	..	887	13	3	46	12	4	381	8	10	281	11	2	194	19	11	270	1	6	2,709	6	11															
Pay Roll Tax	..	..	..	..	..	..	..	..	..	..	..	..	585	6	10	..	..	..	..	..	..	..	..	..	411	19	4															
Administration	..	..	..	..	..	..	481	8	7	..	..	..	6	0	0	..	..	..	..	..	..	..	..	..	..	..	..															
Firefighting and Patrol	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..														
Experiments	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..													
Drum Account	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..												
Totals	3,212	14	9	..	..	..	8,138	6	4	447	6	10	4,946	14	9	2,128	18	5	1,562	16	10	2,082	7	0	411	19	4	23,679	14	7												
Pay Roll Tax	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..											
Experiments	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..										
Radio Equipment	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..									
Photo, Prints and Maps	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..									
Miscellaneous Surveys	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..									
Salsbury	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..									
Depot Stock	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..								
Storeroom Expenses	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..								
Nursery Construction	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..							
Totals	309,364	1	6	37,021	18	2	4,585	17	10	24,630	10	7	16,579	2	5	277,517	11	8	39,094	12	2	68,814	10	0	318,750	0	10	182,156	18	9	15,728	2	1	114,147	2	6	28,917	18	4	1,477,308	6	10

SOURCES OF FUNDS.

	£	s.	d.
Loan	..	..	..
Trust	..	..	..
Administration	..	..	..
Fares and Freight	..	..	..
Workers' Compensation	..	..	..
Collection and Storage of Seed	..	..	..
Totals	1,486,480	15	4
	40,348	2	0
	1,526,828	17	4

## APPENDIX I.

## Net Area of Plantation Established 1st April, 1955, to 31st March, 1956.

Species.	North Queensland.	Brisbane.	Brisbane Valley.	Gympie.	Mackay.	Maryborough.	Monto.	Warwick.	Queensland Totals.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
<i>Softwoods.</i>									
A. Native Conifers—									
Hoop Pine .. .. .	25.0	270.0	689.1	400.0	..	215.0	166.6	..	1,765.7
Bunya Pine .. .. .	..	..	34.9	52.0	..	0.5	1.2	..	88.6
Other Native Conifers .. .. .	..	..	..	11.0	..	..	..	..	11.0
B. Exotic Conifers—									
<i>P. elliotii</i> .. .. .	..	828.0	..	1,099.9	231.3	1,281.1	3.9	50.5	3,494.7
<i>P. taeda</i> .. .. .	..	58.0	..	..	..	3.0	..	4.0	65.0
<i>P. patula</i> .. .. .	..	..	195.2	..	..	0.2	2.7	..	198.1
<i>P. caribaea</i> .. .. .	..	..	..	3.7	165.9	5.6	1.0	..	176.2
<i>P. radiata</i> .. .. .	..	..	19.0	..	..	..	..	322.0	341.0
<i>P. palustris</i> .. .. .	..	..	..	0.6	..	..	..	..	0.5
Others .. .. .	..	10.0	2.8	0.6	18.2	1.1	0.5	2.5	35.7
C. Broadleaved Softwoods—									
Silky Oak .. .. .	..	..	..	..	..	..	..	..	..
Maple .. .. .	..	..	..	..	..	..	..	..	..
Red Cedar .. .. .	..	..	..	..	..	..	..	..	..
Others .. .. .	..	..	..	5.0	..	..	..	..	5.0
Total Softwoods .. .. .	25.0	1,166.0	941.0	1,572.8	415.4	1,506.5	175.9	379.5	6,182.1
<i>Eucalypts.</i>									
<i>Euc. saligna</i> .. .. .	..	6.0	..	8.0	..	..	..	..	14.0
Other Eucalypts .. .. .	..	2.0	..	..	..	..	..	..	2.0
Total—Eucalypts .. .. .	..	8.0	..	8.0	..	..	..	..	16.0
Total—All Species .. .. .	25.0	1,174.0	941.0	1,580.8	415.4	1,506.5	175.9	379.5	6,198.1

## APPENDIX J.

## Net Area of Effective Plantation Classified into Forestry Districts to 31st March, 1956.

Species.	North Queensland.	Brisbane.	Brisbane Valley.	Gympie.	Mackay.	Maryborough.	Monto.	Warwick.	Fraser Island.	Queensland Totals.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
<i>Softwoods.</i>										
A. Native Conifers										
Hoop Pine .. .. .	599.2	2,575.8	13,645.2	13,720.4	15.4	4,401.0	2,005.7	..	126.1	37,088.8
Kauri Pine .. .. .	285.0	1.7	..	1,460.6	0.7	..	..	..	69.7	1,817.7
Bunya Pine .. .. .	0.8	23.8	42.9	294.4	1.7	15.3	1.2	..	0.7	380.8
Others .. .. .	0.6	4.9	0.4	56.4	0.6	1.1	..	..	0.6	64.6
B. Exotic Conifers										
<i>P. elliotii</i> .. .. .	7.8	8,209.3	916.4	4,509.9	1,413.4	5,265.8	70.5	494.0	6.7	20,893.8
<i>P. taeda</i> .. .. .	13.7	3,282.6	41.4	102.1	9.8	87.9	1.0	224.7	2.4	3,765.6
<i>P. patula</i> .. .. .	43.6	67.3	2,489.6	22.2	7.6	80.0	25.2	667.3	3.4	3,406.2
<i>P. caribaea</i> .. .. .	..	..	..	6.4	400.0	17.0	1.0	..	..	424.4
<i>P. radiata</i> .. .. .	..	..	234.5	..	..	..	..	741.4	..	975.9
<i>P. palustris</i> .. .. .	..	246.2	2.6	1.8	5.8	1.0	..	8.7	..	266.1
Others .. .. .	8.1	82.2	23.4	13.0	54.3	11.1	2.6	25.8	6.8	227.3
C. Broadleaved Softwoods										
Silky Oak .. .. .	31.7	..	675.5	175.9	..	32.1	..	..	..	915.2
Maple .. .. .	202.3	..	..	48.0	..	..	..	..	..	250.3
Red Cedar .. .. .	29.2	..	..	12.5	..	..	..	..	..	41.7
Others .. .. .	92.2	0.1	..	96.3	..	1.2	..	..	0.4	190.2
Total Softwoods .. .. .	1,314.2	14,493.9	18,071.9	20,519.9	1,909.3	9,913.5	2,107.2	2,161.9	216.8	70,708.6
<i>Eucalypts.</i>										
<i>Euc. saligna</i> .. .. .	0.7	42.2	215.7	900.2	..	33.7	..	..	..	1,192.5
<i>Euc. paniculata</i> .. .. .	35.6	230.3	459.3	216.2	..	75.3	..	..	..	1,016.7
<i>Euc. microcorys</i> .. .. .	27.7	215.4	28.7	17.5	..	..	..	..	..	289.3
<i>Euc. pilularis</i> .. .. .	0.2	160.9	..	..	..	..	..	..	..	161.1
Other Eucalypts .. .. .	4.0	19.6	12.7	66.9	..	..	..	..	..	103.2
Total—Eucalypts .. .. .	68.2	668.4	716.4	1,200.8	..	109.0	..	..	..	2,762.8
Total—All Species .. .. .	1,382.4	15,162.3	18,788.3	21,720.7	1,909.3	10,022.5	2,107.2	2,161.9	216.8	73,471.4

## APPENDIX K.

## Net Area of Plantation Effective at 31st March, 1956, Classified into Five-yearly Establishment Periods.

(Calendar year planting includes areas established to 31st March of succeeding year.)

Species.	1920 and Earlier.	1921-25.	1926-30.	1931-35.	1936-40.	1941-45.	1946-50.	1951-55.	Total.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
<i>Softwoods.</i>									
A. Native Conifers—									
Hoop Pine .. ..	21.0	184.5	1,784.5	4,320.5	9,611.6	2,238.7	10,697.8	8,230.2	37,088.8
Kauri Pine .. ..	7.1	55.0	18.7	125.2	1,137.5	237.4	224.8	23.0	1,828.7
Bunya Pine .. ..	6.0	28.8	74.8	0.9	123.9	..	2.3	144.1	380.8
Others .. ..	..	3.7	42.6	2.4	4.6	..	..	0.3	53.6
B. Exotic Conifers—									
<i>P. elliotii</i> .. ..	..	6.7	48.1	1,991.6	1,130.8	506.5	3,683.4	13,526.7	20,893.8
<i>P. taeda</i> .. ..	..	..	32.5	561.3	550.1	453.0	1,284.7	884.0	3,765.6
<i>P. patula</i> .. ..	..	1.0	21.0	160.1	462.4	189.0	1,356.7	1,216.0	3,406.2
<i>P. caribaea</i> .. ..	..	..	..	..	..	..	2.1	422.3	424.4
<i>P. radiata</i> .. ..	..	0.4	67.8	151.9	1.9	..	131.5	622.4	975.9
<i>P. palustris</i> .. ..	..	..	0.2	28.1	108.7	44.1	45.8	39.2	266.1
Others .. ..	..	1.6	18.8	38.5	20.5	1.0	47.3	99.6	227.3
C. Broadleaved									
Softwoods—									
Silky Oak .. ..	..	3.1	538.8	286.7	86.6	..	..	..	915.2
Maple .. ..	0.8	11.9	49.1	93.6	63.4	..	14.0	17.5	250.3
Red Cedar .. ..	9.0	..	4.0	0.6	0.6	0.5	..	27.0	41.7
Others .. ..	0.7	14.7	106.0	35.1	5.7	8.8	1.7	17.5	190.2
Total—Softwoods	44.6	311.4	2,806.9	7,796.5	13,308.3	3,679.0	17,492.1	25,269.8	70,708.6
<i>Eucalypts.</i>									
<i>Euc. saligna</i> .. ..	..	..	1.0	1.2	145.0	129.3	756.7	159.3	1,192.5
<i>Euc. paniculata</i> .. ..	..	..	1.4	532.1	402.1	77.3	1.8	2.0	1,016.7
<i>Euc. microcorys</i> .. ..	..	..	5.3	90.0	194.0	..	..	..	289.3
<i>Euc. pilularis</i> .. ..	..	..	0.2	97.9	56.9	..	6.1	..	161.1
Other Eucalypts .. ..	..	..	0.5	6.4	22.7	9.4	35.1	29.1	103.2
Total—Eucalypts	..	..	8.4	727.6	820.7	216.0	799.7	190.4	2,762.8
Total—All Species	44.6	311.4	2,815.3	8,524.1	14,129.0	3,895.0	18,291.8	25,460.2	73,471.4

APPENDIX L.  
Areas of Natural Forest Treated.

A.—Eucalypts.

Working Plan Area.	Reserve No.	Treated 1955-56.	First Treatment 1955-56.	Total as at 30th June, 1956.
		Acres.	Acres.	Acres.
Brisbane .. .. .	69	115		1,535
	1,376	368		1,450
	215			925
	702	215		2,060
	494	167		934
	446			1,094
	667	162		914
	309/1526	610	435	3,508
	1,355		1,625	
	727	270		976
		1,907	435	15,021
Brisbane Valley and Nanango .. .. .	283			1,881
	257			125
	299			50
	527/8/9	368		5,476
		368		7,532
Bundaberg .. .. .	80	378		9,298
	723			564
	832/837	1,454	789	15,903
		1,832	789	25,765
Clermont .. .. .	117			10,820
	127			19,284
				30,104
Dalby .. .. .	93	379		18,998
	4			11,063
	83			4,876
	78 &c.			1,130
	34			1,270
	16 M			6,576
	16 B			2,004
	106	81	71	1,275
		460	71	47,192
Fraser Island .. .. .	3/12	210		18,363
Gympie .. .. .	393	400		3,020
	234	207		1,730
	502	260		1,568
	627	413		2,423
	700			3,672
	124			770
	959	128	128	1,215
	950/1			1,160
		1,408	128	15,558
Inglewood .. .. .	101			8,512
	81			7,490
	132			207
	120			298
				16,507
Kilcoy .. .. .	370	152	152	3,428
	893	156		3,195
	637			1,168
		308	152	7,791
Kilkivan .. .. .	221			2,414
	12/24	582	582	15,981
	424/7			80
		582	582	18,475

APPENDIX L—*continued.*  
Areas of Natural Forest Treated—*continued.*

Working Plan Area.	Reserve No.	Treated 1955-56.	First Treatment 1955-56.	Total as at 30th June, 1956.			
Many Peaks .. .. .	28	Acres. 1,046	Acres. 1,046	Acres. 8,220			
	150	..	..	1,811			
		1,046	1,046	10,031			
Maryborough .. .. .	958	1,301	..	15,926			
	57	..	..	23,720			
	12	45	..	5,426			
	8	140	..	14,483			
	27	..	..	7,124			
	1	..	..	1,632			
	191/864	970	..	13,155			
		2,456	..	81,466			
Mary Valley .. .. .	135	..	..	159			
North Coast .. .. .	318	}	}	8,960			
	445						
	583						
	313						
	249				100	100	1,650
	60				143	..	1,185
	108				25	..	1,555
	173				289	..	1,772
	531				..	..	3,135
	351				..	..	200
689	..	..	580				
		557	100	340			
		557	100	19,377			
North Queensland .. .. .	194	..	..	175			
	243	..	..	1,457			
	245	..	..	339			
	343	..	..	200			
	438	490	490	2,067			
	461	60	60	1,328			
		550	550	5,566			
Warwick .. .. .	444	66	66	4,511			
	574	960	..	5,306			
		1,026	66	9,817			
Total—Eucalypts .. .. .		12,710	3,919	328,724			

## B.—Cypress Pine.

Working Plan Area.	Reserve No.	Treated 1955-56.	First Treatment 1955-56.	Total as at 30th June, 1956.
Bundaberg .. .. .	278	Acres. 88	Acres. 88	Acres. 1,154
Dalby .. .. .	93	736	316	2,291
	4	..	..	280
	78 &c.	4,701	3,886	59,506
	34	..	..	2,496
	150	..	..	6,344
	16 M	2,272	2,272	31,291
	127	..	..	710
	126/135	15	..	3,740
	154	1,077	1,077	29,185
	155	520	520	3,029
	106	81	71	346
		9,402	8,142	139,218
Fraser Island .. .. .	3/12	..	..	4,424
Inglewood .. .. .	79	875	..	31,824
	122	642	..	18,300
	101	224	..	540
	134	408	..	14,790
	81	80	80	5,415
	48	130	130	4,703
	120	..	..	515
			2,354	210
Total—Cypress Pine .. .. .		11,844	8,440	220,883



## APPENDIX M.

## Summary of Forest Survey Work, Year ended 30th June, 1956.

Reserve or Portion.	Parish.	Area in Acres.
CLASS 1—INSPECTIONS OF VACANT CROWN LANDS AND TIMBER RESERVES.		
Portions 79, 80, 81, 84, 85 .. .. .	Dawes .. .. .	8,010
CLASS 2—ASSESSMENT SURVEYS.		
Reserve 19 (part) .. .. .	Garioch .. .. .	2,640
Reserve 10 (part) .. .. .	Mimosa .. .. .	1,100
Reserve 12 .. .. .	Wooroonah .. .. .	1,020
Portions 18, 20 .. .. .	Alberta .. .. .	5,359
Portion 2 .. .. .	Knebworth .. .. .	15,621
Portions 1, 2 .. .. .	Nulalbin .. .. .	8,754
Portion 6 .. .. .	Coomooboolaroo .. .. .	5,327
Portions 1v, 2v .. .. .	Eastbrook .. .. .	999
Portion 9 .. .. .	Eastbrook .. .. .	5,011
Portions 6v, 4v .. .. .	Eastbrook .. .. .	2,149
Portions 86, 87, 89 .. .. .	Eureka .. .. .	1,920
Portion 945 .. .. .	Barnes .. .. .	500
Portion 178 .. .. .	Glenbar .. .. .	640
Portion 146v .. .. .	Brooyar .. .. .	320
Portion 1 .. .. .	Blackboy .. .. .	800
Portions 1, 2, 3 .. .. .	Wright .. .. .	90
Portions 2, 4 .. .. .	Little .. .. .	6,700
Portion 1 .. .. .	Little .. .. .	800
Portion 5 .. .. .	Nulalbin .. .. .	1,000
Portions 3, 4 and CR24 .. .. .	Nulalbin .. .. .	20,287
	Total .. .. .	81,028

## FOREST INVENTORY SURVEY.

Reserve.	Parish.	Area in Acres.
93 .. .. .	Nudley .. .. .	11,000
28 .. .. .	Coominglah .. .. .	37,272
122 .. .. .	Inglewood .. .. .	33,740
134 .. .. .	Bringalilly (proceeding) .. .. .	..
154 .. .. .	Vignoles (re-measure) .. .. .	..
173 .. .. .	Durundur (proceeding) .. .. .	..
60 .. .. .	Wararba .. .. .	2,071
313 .. .. .	Durundur .. .. .	1,790
5 .. .. .	Mimosa .. .. .	46,720
57 .. .. .	Wattle .. .. .	5,151
	Total .. .. .	137,744



## APPENDIX M—continued.

## COMPARTMENT, FIREBREAK AND SOIL SURVEYS.

Reserve.	Parish.	Type.	Area in Acres.
915 .. .. .	Tahiti, Bidwell, Poona ..	Soil .. .. .	10,246
915 .. .. .	Tahiti, Bidwell, Poona ..	Compartment .. .. .	4,940
1,004 .. .. .	Toolara .. .. .	Soil .. .. .	3,000
611 .. .. .	Beerwah .. .. .	Compartment .. .. .	1,157
700 .. .. .	Canning .. .. .	Soil .. .. .	2,000
135 .. .. .	Brooloo .. .. .	Type .. .. .	5,745
997 .. .. .	Noosa .. .. .	Soil .. .. .	4,165
753 .. .. .	Durundur .. .. .	Species .. .. .	124
Portion 16v, &c. ..	Beerwah .. .. .	Species .. .. .	306
60 .. .. .	Wararba .. .. .	Roads, Breaks .. .. .	..
207 .. .. .	Monsildale .. .. .	Firebreaks, Falling .. .. .	..
207, 137 .. .. .	Monsildale, Yabba .. .. .	H. P. Survival .. .. .	658
207, 137 .. .. .	Monsildale, Yabba .. .. .	Predominant .. .. .	118
637 .. .. .	Kilcoy .. .. .	Falling, &c. .. .. .	226
359 .. .. .	Palen .. .. .	{ Species .. .. .	145
		{ Compartment .. .. .	66
310 .. .. .	Gadgarra .. .. .	Compartment .. .. .	4,176
108 .. .. .	Bribie .. .. .	Roads .. .. .	..
561 .. .. .	Bribie .. .. .	Compartment .. .. .	..
732 and V.C.L. ..	North Kolan .. .. .	Soil .. .. .	1,690
Portions 86, 87, 89 ..	Eureka .. .. .	Type .. .. .	1,919
{ 832 and V.C.L. ..	Electra, Bingera .. .. .	Soil .. .. .	45,000
{ 840, 108 .. .. .	Gregory, Takalvan .. .. .		
Vacant Crown Land ..	Dunnora .. .. .	Type .. .. .	4,000
97, 99, 138 .. .. .	Kilkivan, Manumbar .. .. .	Roads .. .. .	..
154, 298 .. .. .	Gallangowan .. .. .	Firebreaks, &c. .. .. .	1,260
257, 258, 289, 379 ..	Cooyar .. .. .	Falling, &c. .. .. .	..
299 .. .. .	Avoca .. .. .	Falling, &c. .. .. .	..
120 .. .. .	Neumgna .. .. .	Falling, &c. .. .. .	..
283 .. .. .	Colinton .. .. .	Falling, &c. .. .. .	..
509 .. .. .	Crow's Nest .. .. .	Compartment .. .. .	..
245 .. .. .	Monsildale .. .. .	Road .. .. .	..
124 .. .. .	Glastonbury .. .. .	Miscellaneous .. .. .	..
435 .. .. .	Amamoor .. .. .	Miscellaneous .. .. .	..
82 .. .. .	Brooyar .. .. .	Miscellaneous .. .. .	..
242 .. .. .	Widgee .. .. .	Miscellaneous .. .. .	..
370 .. .. .	Durundur .. .. .	Roads .. .. .	..
575 .. .. .	King .. .. .	Miscellaneous .. .. .	..
95 .. .. .	New Cannindah .. .. .	Compartment, &c. .. .. .	..
67 .. .. .	Bulburin .. .. .	Compartment, &c. .. .. .	..
20 .. .. .	Maryvale .. .. .	Firebreak .. .. .	..
		Total .. .. .	90,941

## APPENDIX N.

## State Forests, Timber Reserves and National Parks at 30th June, 1956.

Land Agent's District.	State Forests.			Timber Reserves.			National Parks.		
	No.	Area.		No.	Area.		No.	Area.	
		A.	R. P.		A.	R. P.		A.	R. P.
Atherton .. .. .	15	68,106	0 3	7	46,469	2 26	7	3,574	2 27
Bowen .. .. .	1	35,860	0 0	7	55,020	0 0	36	118,587	0 0
Brisbane .. .. .	69	274,539	0 15	41	30,033	2 22	43	79,299	1 28
Bundaberg .. .. .	16	169,585	3 39	33	155,047	2 5	..	..	..
Cairns .. .. .	8	158,859	0 36	15	450,464	2 0	20	92,300	3 24
Charleville .. .. .	..	..	..	2	68,397	0 0	..	..	..
Charters Towers .. .. .	..	..	..	1	125,000	0 0	..	..	..
Clermont .. .. .	3	132,378	3 35	4	69,274	1 0	..	..	..
Cloncurry .. .. .	..	..	..	1	3,950	0 0	..	..	..
Cooktown .. .. .	..	..	..	8	623,460	0 0	7	10,691	0 0
Dalby .. .. .	27	1,020,697	2 19	4	16,359	0 0	1	13,145	0 0
Gayndah .. .. .	2	38,639	0 0	16	63,511	0 32	..	..	..
Gladstone .. .. .	6	37,242	0 0	26	86,706	1 14	4	127	0 0
Goondiwindi .. .. .	6	189,351	1 0	6	41,894	2 20	..	..	..
Gympie .. .. .	50	450,231	0 25	13	45,580	0 21	5	922	2 7
Herberton .. .. .	10	76,620	2 36	11	76,635	1 7	5	3,361	3 28
Ingham .. .. .	1	43,620	0 0	3	59,340	0 0	4	18,495	0 0
Inglewood .. .. .	15	185,942	3 35	5	9,758	0 8	..	..	..
Innisfail .. .. .	2	65,167	0 0	11	364,623	2 18	23	106,822	1 31
Ipswich .. .. .	33	171,618	2 14	25	67,758	0 13-2	4	5,589	0 0
Jundah .. .. .	..	..	..	1	25,600	0 0	..	..	..
Mackay .. .. .	1	19,855	0 0	19	148,035	3 0	53	149,085	2 29
Maryborough .. .. .	58	698,902	3 17	25	30,461	0 13	4	8,185	0 0
Monto .. .. .	11	207,465	0 20	11	75,042	2 32-6	..	..	..
Nanango .. .. .	45	222,029	2 34	13	8,182	2 26	2	11,116	1 18
Rockhampton .. .. .	9	208,718	1 0	15	114,873	2 22	15	2,597	0 0
Roma .. .. .	12	165,620	1 22	1	8,600	0 0	..	..	..
Springsure .. .. .	..	..	..	5	115,888	1 0	1	66,480	0 0
Stanthorpe .. .. .	3	11,455	2 14	1	2,269	0 27	6	12,604	3 0
Taroom .. .. .	3	22,186	0 0	5	48,864	2 0	1	11,400	0 0
Toowoomba .. .. .	22	260,222	0 2	16	29,629	1 15	5	3,214	3 0
Townsville .. .. .	1	23,123	0 0	2	17,199	1 31	3	70,520	0 0
<b>Total .. .. .</b>	<b>429</b>	<b>4,958,037</b>	<b>2 6</b>	<b>353</b>	<b>3,083,929</b>	<b>1 32-8</b>	<b>249</b>	<b>788,119</b>	<b>1 32</b>

At 30th June, 1956—

Total area reserved for—

State Forests .. .. .	..	..	..	..	..	4,958,037	2 6
Timber Reserves .. .. .	..	..	..	..	..	3,083,929	1 32-8
National Parks .. .. .	..	..	..	..	..	788,119	1 32

<b>Total Reservations .. .. .</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>8,830,086</b>	<b>1 30-8</b>
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## APPENDIX O.

## Reservations for the Year Ended 30th June, 1956.

*State Forests.*—Eleven (11) new State Forests, with a total of 246,428 acres, were proclaimed during the year. These are as follows:

Acres.		Land Agent's District.
40,000	Reserve 1073, Smithfield, Dulanban and Mona Mona .. .. .	Cairns
39,370	Reserve 175, Uranilla and Merinda .. .. .	Goondiwindi
37,820	Reserve 274, Cambroon and Conondale .. .. .	Brisbane
36,000	Reserve 10, Hillside and Sunnyside .. .. .	Roma
35,860	Reserve 299, Conway and Dryander .. .. .	Bowen
25,665	Reserve 54, Coomooboolaroo .. .. .	Rockhampton
11,650	Reserve 779, Gregory .. .. .	Bundaberg
11,237	Reserve 186, Bingmann, Clonmel and Coppin .. .. .	Monto
5,420	Reserve 700, Curra and Gympie .. .. .	Gympie
2,550	Reserve 1071, Danbulla .. .. .	Atherton
856	Reserve 898, Kinagin .. .. .	Bundaberg

13,144 acres were added to existing reserves, and 43 acres were released for roads. Seven reserves were cancelled for inclusion in adjoining State Forests.

*Timber Reserves.*—At 30th June, 1956, the number of Timber Reserves was 353 compared with 358 at 30th June, 1955.

Five (5) new areas, with a total of 25,708 acres, were reserved, the largest being:—

Acres.		Land Agent's District.
23,950	Reserve 148, Kettle .. .. .	Clermont
1,351	Reserve 150, Wyemo .. .. .	Inglewood
383	Reserve 1740, Redcliffe .. .. .	Brisbane

2,053 acres were added to existing reserves. Ten (10) reserves, totalling 156,356 acres were converted to State Forests, and 325 acres were released.

*National Parks.*—One (1) new National Park of 9 acres was proclaimed during the year and 103 acres were added to existing reserves.

## 1ST JULY, 1955, TO 30TH JUNE, 1956.

STATE FORESTS.		No.	A.	R.	P.
At 1st July, 1955 .. .. .		425	4,698,508	1	26
Proclaimed 1-7-55 to 30-6-56 .. .. .		11	246,428	1	0
V.C.L. added to existing reserves .. .. .		..	13,144	1	15
		<u>436</u>	<u>4,958,081</u>	<u>0</u>	<u>1</u>
Reserves cancelled and areas released .. .. .		7		43	1 35
Total at 30th June, 1956 .. .. .		<u>429</u>	<u>4,958,037</u>	<u>2</u>	<u>6</u>

TIMBER RESERVES.		No.	A.	R.	P.
At 1st July, 1955 .. .. .		358	3,212,848	3	35.8
Proclaimed 1-7-55 to 30-6-56 .. .. .		5	25,708	1	37
V.C.L. added to existing reserves .. .. .		..	2,053	0	0
		<u>363</u>	<u>3,240,610</u>	<u>1</u>	<u>32.8</u>
10 reserves converted to State Forests .. .. .	A.				
areas released .. .. .	R. P.				
			156,356	0	0
			325	0	0
		<u>10</u>			
Total at 30th June, 1956 .. .. .		<u>353</u>	<u>3,083,929</u>	<u>1</u>	<u>32.8</u>

NATIONAL PARKS.		No.	A.	R.	P.
At 1st July, 1955 .. .. .		248	788,007	1	20
Proclaimed 1-7-55 to 30-6-56 .. .. .		1	8	2	33
V.C.L. added to existing reserves .. .. .		..	103	1	19
Total at 30th June, 1956 .. .. .		<u>249</u>	<u>788,119</u>	<u>1</u>	<u>32</u>
Total reservations at 30th June, 1956 .. .. .		<u>1,031</u>	<u>8,830,086</u>	<u>1</u>	<u>30.8</u>

## APPENDIX P.

## Expenditure, Surveys, Year ended 30th June, 1956.

Particulars of Survey—	£	s.	d.
Harvesting and Marketing Project—			
Surveys, Prints, Maps, &c. . . . .	657	14	10
Forest Inventory Survey, Reserve 283, Brisbane Valley . . . . .	4	0	10
Forest Inventory Survey, Reserve 169, Bundaberg . . . . .	159	6	0
Class 2 Surveys, Springsure . . . . .	0	13	6
Forest Inventory Survey, Reserve 4, Dalby . . . . .	60	3	2
Forest Inventory Survey, Reserve 16, Malcolm, Dalby . . . . .	24	8	4
Forest Inventory Survey, Reserve 78, Dalby . . . . .	32	12	5
Forest Inventory Survey, Reserve 93, Dalby . . . . .	1,039	0	10
Forest Inventory Survey, Reserve 150, Dalby . . . . .	15	12	0
Forest Inventory Survey, Reserve 154, Dalby . . . . .	1,697	16	0
Forest Inventory Survey, Reserve 155, Dalby . . . . .	13	11	7
Forest Inventory Survey, Reserve 180, Dalby . . . . .	28	5	5
Forest Inventory Survey, Gympie . . . . .	2	10	6
Forest Inventory Survey, Reserve 392, Gympie . . . . .	6	12	3
Forest Inventory Survey, Reserve 393, Gympie . . . . .	65	4	5
Forest Inventory Survey, Reserve 122, Inglewood . . . . .	2,472	8	4
Forest Inventory Survey, Reserve, 134 Inglewood . . . . .	452	9	8
Forest Inventory Survey, Reserve 274, Kilcoy . . . . .	10	9	10
Class 1 Survey, Reserve 6, Cauley, Mackay . . . . .	2	7	6
Road Survey, Mackay . . . . .	3	5	7
Forest Inventory Survey, Reserve 28, Many Peaks . . . . .	3,000	8	1
Forest Inventory Survey, Reserve 95, Many Peaks . . . . .	2	5	4
Forest Inventory Survey, Reserve 57, Maryborough . . . . .	9	4	0
Forest Inventory Survey, Reserve 915, Maryborough . . . . .	0	4	0
Forest Inventory Survey, Reserve 958, Maryborough . . . . .	179	16	1
Soil and Type Surveys, V.C.L., Bingera, Maryborough . . . . .	61	16	0
Forest Inventory Survey, Reserve 135, Mary Valley . . . . .	6	9	5
Forest Inventory Survey, Reserve 60, North Coast . . . . .	345	12	10
Forest Inventory Survey, Reserve 173, North Coast . . . . .	3,170	13	3
Forest Inventory Survey, Reserve 313, North Coast . . . . .	99	13	4
Forest Inventory Survey, Reserve 445, North Coast . . . . .	4	2	3
Forest Inventory Survey, Reserve 699, North Coast . . . . .	44	10	1
Class 2 Surveys, Reserve 19, Garioch, North Queensland . . . . .	161	3	1
Road Surveys, Reserve 96, Garrawalt, North Queensland . . . . .	33	14	4
Class 3 Surveys, Reserve 99, Western, North Queensland . . . . .	415	0	4
Road Surveys, Reserve 106, Alexandra, North Queensland . . . . .	508	17	7
Miscellaneous Surveys, Reserve 185, North Queensland . . . . .	0	12	8
Miscellaneous Surveys, Reserve 194, North Queensland . . . . .	6	6	0
Road Surveys, Reserve 268, Waterview, North Queensland . . . . .	2	14	0
Class 3 Surveys, Reserve 310, Gadgarra, North Queensland . . . . .	1,610	6	6
Road Surveys, Reserve 344, Kirrama, North Queensland . . . . .	41	5	6
Road Surveys, Reserve 353, Ongera, North Queensland . . . . .	118	9	10
Road Surveys, Reserve 438, North Queensland . . . . .	105	4	4
Road Surveys, Reserve 461, Glenbora, North Queensland . . . . .	15	15	3
Road Survey, V.C.L., Bartle Frere, North Queensland . . . . .	296	8	5
Road Survey, Reserve 755, Bartle Frere, North Queensland . . . . .	627	13	0
Road Surveys, V.C.L., Ramleh, North Queensland . . . . .	1,173	8	5
Class 2 Surveys, Reserve 5, Mimosa, Rockhampton . . . . .	1,935	9	11
Class 2 Surveys, Portions 6v and 9v, Eastbrook, Rockhampton . . . . .	564	8	11
Class 2 Surveys, Baralaba Area, Rockhampton . . . . .	905	9	5
Class 2 Surveys, Duaringa, Rockhampton . . . . .	1,572	8	1
	£23,768	3	3
Reforestation Branch Projects—			
As detailed in Appendix H . . . . .	16,579	2	5
Total Expenditure . . . . .	£40,347	5	8

## APPENDIX Q.

## Distribution of Personnel, 30th June, 1956.

Salaried officers . . . . .	312
Other employees . . . . .	1,985
	2,297