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QUEENSLAND

ANNUAL REPORT

OF THE

DEPARTMENT OF FORESTRY

FOR THE

YEAR 1957-58

PRESENTED TO PARLIAMENT BY COMMAND

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AN HISTORIC OCCASION.

The Minister for Lands and Irrigation (Hon. A. G. Müller, M.L.A.) unveils a tablet to commemorate the 50th anniversary of the proclamation of the first National Park in Queensland—at Witches' Falls, Tamborine Mountain.

Report of the Director of Forests for the Year ended 30th June, 1958.

INTRODUCTION.

In the December of this year Forestry was again made a full Department, after being a Sub-Department of the Department of Public Lands for 26 years. For many years, excepting in minor matters; the Sub-Department actually functioned as a Department.

The Sub-Department has a record of achievement of which it can be proud and it is felt that this recognition of the scope and responsibility of the work will stimulate officers to further endeavours.

The record, or near record, drought that was experienced during the year caused an acutely serious fire season, and placed a great strain on the officers and men of the Department. Their untiring efforts must be recorded with gratitude. The area of protected forest which was burned during the year was only 3 per cent., which, in itself, is a tribute to the efficiency and reliability of the staff. It is hoped that they will not be called upon to face similar conditions again for many years.

It is important that the experiences of such an intense fire season should be fully used in improving procedures and practices. With this object a conference of senior officers was held at the end of the fire season, following which a Fire Protection Officer was appointed to follow up the pertinent points raised at the conference.

The drought also applied an acid test on the ability of introduced conifers to withstand prolonged dry conditions, which are not experienced in their native environment. The very limited drought losses experienced with these species are reported with satisfaction.

As a result of research work in the North Queensland Rain Forest, minor modifications were made in the rules for treatment of these forests. The results from both experimental and routine treatment have been little short of spectacular and it is the intention to increase work in this field as soon as a suitable wages staff can be built up.

Previous reports have stressed the desirability of making further State Forests in North Queensland, with the object of perpetuating the important North Queensland Timber Industry. The extremely good results from silvicultural treatment in these forests are an additional reason. Work carried out in these forests will yield a handsome return on the cost.

The degree of unmerchantable thinning of exotic plantations was increased during the year, in consonance with the results of research on the problem. As an outcome, the proportion of very small logs from plantations should be greatly reduced within a few years. These small logs have been productive of most of the problems of using plantation thinnings.

A large gathering of National Parks enthusiasts and nature-lovers attended a function arranged by the Department at Witches' Falls National Park, Tamborine Mountain, on 30th March, 1958, to commemorate the 50th anniversary of the proclamation of the first National Park in Queensland. During the afternoon the Hon. A. G. Müller, M.L.A., unveiled a commemorative tablet housed in an attractive roadside alcove.

During the year the Seventh British Commonwealth Forestry Conference was held in Australia and New Zealand. Queensland was favoured by two visits, one a pre-conference tour of North Queensland, and the other a visit by the main conference to Beerwah and Imbil. The opportunity of discussing problems with the able and experienced foresters attending the conference was greatly appreciated by officers of the Department. The interchange of ideas and the co-operation promoted by such conferences are of great value.

REFORESTATION.

Management.

In spite of an additional allocation of funds voted for the relief of unemployment, and which allowed staff on reforestation work to be increased by 200 men in March and the total expenditure on such works to exceed the 1956-57 figure by £75,000, the total amount of effective work achieved for the year was somewhat less, because of the 150 man years of employment that had to be expended in firefighting in one of the most severe and protracted fire seasons yet experienced. In certain respects it was worse than 1951; this is discussed more fully under "Fire Protection" below.

Forest resources work continued at a reasonable rate, and details of the camps engaged and work done are given in the surveys section of the report. During the year, permanent plots sampling 104,000 acres of Cypress Pine—inland hardwood forest and 15,000 acres of coastal hardwoods were installed and some remeasurement undertaken. In addition, random sampling on a non-permanent basis was done on Fraser Island and Tin Can Bay areas, to secure urgent information on merchantable stands.

The total area of natural forest (all State Forests) on which permanent plots have been installed to date is—

	Acres.
Cypress Pine—inland hardwood forest	1,130,000
Coastal hardwood forest	210,000
Rain forest	22,000

For each area inventoried, cut on a sustained basis has been determined and prescribed and, with the management detail that is now being secured from the inventory work, a start has been made on the compilation of policy statements for each area. These are, in effect, a much abbreviated form of the old working plan, made the more simple here because of the issued standard prescriptions for many operations.

It will be necessary, next year, to resume inventory plot work in the softwood plantations as no work of this nature has been done in post-war plantings.

The collection and collation of information from old and new timber inspections on Crown areas other than State Forests was continued, and the merchantable timber cover on a further 600,000 acres was mapped in the effort towards producing a complete forest atlas for the State.

With a cut of plantation thinnings of 18,917,000 superficial feet for the past year, the total output from plantations to 30-6-58 was 142,110,000 superficial feet, for which the Department has received a stumpage of approximately £430,000. The difficulty being experienced by the trade in disposing of the small first thinnings, particularly exotic species, strongly supports the action taken a few years ago, of instituting very early unmerchantable thinning.

Silviculture.

A feature of the financial year just closed was the continuation of the dry conditions of the latter half of last financial year until well into January, 1958. A study of the rainfall for the calendar year 1957 reveals some astonishingly low totals for the twelve-month period. The range of yearly totals for the various forest types was—(Average rainfalls are given in parenthesis)—

Hoop pine areas	1,561 (3,013) points to 2,324 (4,517) points
Coastal Exotic Areas	1,829 (5,700) points to 2,574 (6,200) points
Inland Exotic Areas	1,708 (3,309) points to 1,959 (3,630) points
Cypress Pine—Hardwood Areas	1,383 (2,458) points to 1,770 (2,593) points

In practically all cases these figures are record lows for a twelve-month period since the recording of rainfall figures for the various forest stations began.

In contrast, the latter half of the financial year has been characterised by some very heavy falls and nearly all stations finished the financial year with a rainfall above average, e.g., at Beerwah the first six months of the financial year yielded 1,210 points whilst the total for the last six months was 5,523 points, giving a total for the year of 6,733 points.

The drought conditions of the first half of the financial year had a serious effect on the survival of winter plantings at Pechey and at Passchendaele. Heavy losses were also incurred in stands of up to three years of age at these centres. Losses in the coastal exotic areas were negligible both in the newly planted areas and in the younger age classes. Deaths in stands of 18 years of age occurred chiefly on shallow soils of poor drainage and it is possible that a build up of *Phytophthora cinnamoni* during the previous wet years, with a consequent reduction in the feeding roots of the pines, contributed in no small way to these deaths.

Some heavy losses occurred in young Hoop pine plantations of up to three years of age but, all told, the total losses have been remarkably light.

Weather conditions were favourable for tending, pruning and clearing site operations in the first half of the year, but were unfavourable for Hoop pine plantings. Since December, rain has interfered considerably with the works programme and has produced a prolific crop of weeds on all plantation areas.

The rains in the latter half of the year were accompanied by mild temperatures and even at Yarraman no frost had been recorded by the end of the financial year. These mild temperatures prevented the "hardening off" of the exotic pine planting stock and the winter planting of these species was delayed until mid-June, despite the fact that soil conditions were excellent for some months prior to the commencement date. Even with the mid-June start, large numbers of "blue tops" or soft plants had to be heeled-in in the nurseries for later planting.

Details of the year's work are as follows: Information for 1956-57 is also given:—

	1956-57.	1957-58.
	Acres.	Acres.
Area of natural forest treated	15,829	15,977
Area of plantation established	5,344	4,994
Area covered in pruning	9,276	8,507
Area tended	61,274	62,630
Area thinned merchantably	2,651	3,790
Area thinned unmerchantably	3,918	3,384

The amount of work completed for the year is satisfactory and it is pleasing to note that there has been a slight increase in the acreage of natural forest treated. It is proposed to reduce the annual acreage of exotic pines so as to make more labour available for treatment work on natural forests.

Plantations.

Appendix I. shows, by districts and by species, the areas planted from 1st April, 1957, to 31st March, 1958. The area planted for the period is 4,994.2 acres, made up as follows:—

	Acres.
Native Conifers (chiefly Hoop Pine)	1,783.5
Exotic Conifers (mainly Slash Pine, <i>Pinus patula</i> , <i>Pinus caribaea</i> and <i>Pinus radiata</i>)	3,147.2
Broadleaved species	3.0
Eucalypts	60.5
	<hr/> 4,994.2

As mentioned previously, survival, except for inland exotic pine areas and some Hoop pine areas, has been good but the dry conditions have had some effect on early growth. The total area of effective plantations, all species, established to 31st March, 1958, is 83,810 acres, of which native conifers account for 42,815 acres and exotic conifers for 36,743 acres.

Sufficient contractors were available to complete the brushing and falling of all areas on time and no difficulty was experienced in securing good scrub and forest burns. Dry and hot conditions called for the exercise of considerable care in burning off and, generally speaking, all burns were carried through with the minimum amount of damage.

Further trials of pushing scrub areas with a dozer were carried out in the Yarraman district. In this area no brushing was done over an area of 20 acres and it was found that the machine worked just as satisfactorily in the unbrushed as in the brushed area and after the burn it was difficult to tell one area from the other. The total area pushed was 122 acres and an excellent burn was secured. A small trial was also carried out, over an area of 10 acres, using two machines and a heavy chain to pull the scrub down. Due to the dry and hot conditions an excellent burn was secured, but it is considered that this method is inferior to pushing, as the chain rides over a great deal of the area without uprooting the trees and undergrowth.

Pushing by dozers fitted with pusher bars was also introduced into the coastal hardwood areas which are being cleared for planting with exotic pines. One area of 58 acres was successfully handled at Beerburum and also a second area, of approximately 370 acres, in the Maryborough district. It is expected that greater use will be made of machines in clearing these coastal areas.

Planting conditions for the exotic pines in the winter of 1957 were reasonably good, but drought conditions in the spring and summer caused heavy losses at Pechey and Passchendaele. For the Hoop pine areas, soil moisture conditions following the burns were far from good and refilling was called for in one or two areas. The stocking of all Hoop areas is now satisfactory but some refilling is still necessary at the two inland exotic pine areas.

The dry, hot weather was very helpful in reducing the amount of weed growth on all plantation areas, but the mild wet conditions of the latter half of the year called for heavy and extensive tendings, particularly in the Hoop pine areas. The drought of 1957 helped to keep the White Moth Vine (*Araujia cerasifera*) somewhat in check but, to date, no efficient and economical method for its eradication has been found. Experimental work on the control, by spraying with selected weedicides, of dense wattle in exotic pine plantations is giving most promising results.

The area tended for 1957-58 was 62,630 acres, an increase of 1,356 acres on the area covered in 1956-57.

Pruning in all districts is up to date and details of the areas covered during the year are as follows:—

	Acres.
First operation	3,513
Second operation	2,602
Third operation	1,433
Fourth operation	959
	<hr/>
	8,507
	<hr/>

In addition, 135 acres of plantations were covered for the removal of epicormic shoots and re-marking of select stems was completed over 198 acres. Towards the end of the financial year instructions were issued that the number of stems selected for high pruning was to be reduced from 160 stems per acre to 120. Even with heavy unmerchantable thinning, experiments indicate that it is uneconomic to carry up pruning on more than 120 trees per acre.

As mentioned in previous reports, unmerchantable thinnings in exotic pine plantations to 400 stems per acre at age 4 have become standard practice. Towards the end of this report period instructions were issued to further thin these stands to 300 stems per acre at about eight years of age. This procedure is based on experimental data and it has as its object the production of larger size material of better quality at the time of first merchantable thinning. Apart from being economically sound this heavier unmerchantable thinning has the advantage of reducing the quantity of very small sized merchantable thinnings. The timber trade has found the product of these small thinnings difficult to utilise. It is intended to introduce unmerchantable thinning into the Hoop pine areas during 1958-59.

During the year unmerchantable thinning to 400 stems per acre was applied to 3,384 acres.

It is pleasing to report that there has been a great reduction in the amount of rat damage suffered. Damage, on a reduced scale, was experienced in the Kalpowar areas, but all other Hoop pine areas were practically free of damage. The opinion of the experts from the Department of Agriculture and Stock, towards the end of last year, that the plague was passing and that very little damage would be sustained during 1957-58, has proved correct.

Regeneration Treatment of Natural Forest.

Despite a prolonged and severe fire season in the western Cypress pine and hardwood areas it was still possible to treat approximately the same total acreage of natural forest as in 1956-57.

Details of the acreage of various forest types treated for 1957-58 and for the previous year are as follows:—

	1956-57.	1957-58.
	Acres.	Acres.
Eucalypt forest	9,329	11,292
Cypress Pine	6,322	4,451
Tropical rain forest	178	234
Natural Hoop Pine	—	—
	<hr/>	<hr/>
	15,829	15,977
	<hr/>	<hr/>



A 17-YEAR OLD KAURI PINE (AGATHIS ROBUSTA) PLANTATION,
IMBIL STATE FOREST.

A Queensland native which produces an excellent softwood timber.
During 1957-58 a further 4,934 acres of softwood plantations were
established.



A 22-YEAR OLD STAND OF HOOP PINE SHOWING ROAD FOR EXTRACTION OF THINNINGS,
KALPOWAR STATE FOREST.

By 31st March, 1958, the Department had planted 80,959 acres with softwood species.

Seed Collection and Stocks.

(a) *Araucaria cunninghamii*.—Inspections and cone counts made in October, 1957, confirmed opinions that a large collection would be possible from the December, 1957, seed crop. The minimum collection necessary for Departmental and export requirements was estimated at 50,000 lb. and a total of 60,656 lb. was, in fact, collected at an average cost of 14·8 pence per pound, approximately the same cost as the 1953 collection, in spite of the general increases in wages, etc., in the interim. See Table below for details.

Collection commenced in most areas in the second week in December and was completed within a fortnight. Departmental employees collected 11,211 lb., by climbing, from final crop trees and other trees of good form in plantations, and 49,445 lb. was collected from scrub trees fallen by timber getters.

Over 620 lb. of seed was collected from seed trees specially selected and permanently marked in Mary Valley plantations.

L.G.C. values were generally satisfactory and no seed from this collection was discarded because of low viability.

L.G.C.	Amount. lb.
-20 per cent	491
20-30 per cent.	6,312
30-40 per cent.	12,389
40-50 per cent.	16,114
50 + per cent.	25,350
	<u>60,656</u>

The Departmental cold store at Rocklea was repainted in May and storage of the new collection commenced, using a new system of numbered bins to facilitate location of seed batches. It is anticipated this collection will meet Departmental and export requirements for at least eight years.

There now remains in stock 1,800 lb. of seed from the 1953 collection which has an L.G.C. of over 30 per cent. The balance, less than 20 per cent. L.G.C., has been discarded to make room for the new collection.

A total of 176 lb. of *Araucaria cunninghamii* seed was exported.

HOOP PINE SEED COLLECTION 1957.

District of Collection.	Amount (lb.).	Cost per lb. (pence).
Gympie—		
Mary Valley Scrub	2,210	25·9
Mary Valley Plantation	6,303	17·7
Total	8,513	19·8 mean
Maryborough—		
Scrub	4,442	17·4
Plantation	228	6·05
Total	4,670	16·8 mean
Monto—		
Scrub	12,144	7·5
Murgon—		
Scrub	10,401	9·7
Yarraman—		
Scrub	20,248	19·3
Plantation	4,680	13·9
Total	24,928	18·3 mean
Total Collection—		
Scrub	49,445	14·5
Plantation	11,211	15·9
Grand Total	60,656	14·8 mean

SEED MOVEMENTS, 1957-58.

Species.	Intake.						Distribution.						Stock 30-6-58.
	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.			
<i>Araucaria bidwillii</i>	..	..	..	..	3,037 0	..	1 0	10 0	77 3	..	1,027 4
<i>Araucaria cunninghamii</i>	..	..	..	..	6,281 8	..	86 0	8 9	81 12	64 0	62,354 0
<i>Agathis palmerstoni</i>	..	..	..	..	1 4	..	..	..	1 10	0 4	0 2
<i>Agathis robusta</i>	..	..	..	..	35 3	..	..	..	2 11	0 4	104 0
Miscellaneous <i>Pinus</i> species	..	..	..	..	2 4	..	0 4	7 4	1 14	..	50 15
Miscellaneous species	..	2 3	6 0	210 15	12 8	183 8	2 3	38 4	75 5	4 7	1,300 4		
Eucalypts ..	68 6	..	0 14	..	1 11	1 14	3 1	3 2	18 14	..	138 12		
<i>Pinus eliottii</i>	1,172 7	..	..	..	653 15	..	37 8	169 4	181 10	1 12	1,056 13
<i>Pinus caribaea</i>	..	..	..	60 0	31 6	..	0 6	..	5 8	0 4	50 14
<i>Pinus patula</i>	39 0	..	..	..	14 11	..	..	11 4	1 0	0 2	77 13
<i>Pinus radiata</i>	67 11	..	..	..	47 10	..	25 8	..	1 3	0 6	31 4
<i>Pinus taeda</i>	21 0	..	..	..	3 12	..	..	1 8	73 0	0 4	530 7
Totals	67,281 11	2 3	6 14	270 15	10,122 12	185 6	155 14	249 3	521 10	71 11	66,722 8		

(b) *Araucaria bidwillii*.—An exceptionally heavy crop of seed was produced and a total of 4,512 lb. was collected in December and January, 2,412 lb. from plantation grown trees and 1,740 lb. from scrub trees in the Mary Valley.

The bulk of this collection was sown immediately at Imbil and Amamoor, while 152 lb. was retained in cold storage at Rocklea to supply export orders.

(c) *Agathis robusta* and *Agathis palmerstoni*.—A total of 148½ lb. was collected in December from plantation trees at Imbil, comprising 145 lb. of *Agathis robusta* and 3½ lb. of *Agathis palmerstoni*.

Tests of *Agathis robusta* carried out in January, 1958, gave L.G.C. of over 70 per cent., by far the highest yet obtained in any collection of this species.

Thirty pounds of *Agathis robusta* was sown, shortly after collection, in Departmental nurseries, the balance being stored in sealed tins at 17 deg. F. by courtesy of Peters Ice Cream Company Ltd. An experiment has been commenced to determine the best method of storage for this seed, which normally loses viability very rapidly.

(d) *Pinus species*.—A total collection of 1,300 lb. was made from Departmental plantations, mainly of *Pinus elliottii* var. *elliottii*. Of this collection, 230 lb. came from the specially selected seed trees which have been permanently marked and located on maps.

Tests of trial collections of *Pinus caribaea* seed made in North Queensland indicate that Departmental requirements in this species will have to be imported for some years.

There was an increased demand for seed of *Pinus* species from local, interstate, and overseas buyers, and a total of 507 lb. was exported.

(e) *Eucalyptus spp. and miscellaneous species*.—Demand from local and overseas buyers remained high and a collection of just under 1,025 lb. was made for export and Departmental requirements.

A total of 26 lb. of Eucalyptus seed was exported, plus 208 lb. of miscellaneous species, including Kauri and Bunya Pine.

Seed of all species to a total value of £870 was exported.

Nurseries.

The 26 nurseries in production functioned efficiently and at 30-6-58 the number of trees on hand totalled 6,260,743, whilst during the year 4,322,187 trees were despatched to Departmental plantations, School Forest plots and supplied to the public.

The 26 nurseries comprised 17 engaged in the production of Hoop pine stock, 7 exotic pine nurseries, one producing Eucalypts and one in Brisbane producing stock of various species for supply to the public.

The quality of the stock produced during the year was satisfactory but considerable trouble was again experienced at the Passchendaele nursery by "chlorosis" amongst seedlings of *Pinus elliottii*. In the same nursery some small amount of root rot occurred in seedlings of *Pinus radiata* but losses were not serious. At this nursery, it has been decided to revert to the use of cow manure in lieu of filter press with the object of overcoming these troubles. Experiments using various inorganic fertilizers have not been successful in overcoming the troubles.

Supply of Trees to the Public.

Sales to the public totalled 304,895, an increase of 117,255 on the number sold last year. The increase is largely due to sales of 117,000 *Pinus elliottii* to Australian Paper Mills and of 10,000 *Pinus radiata* to Hancock and Gore Ltd.

Distribution of sales, by species and by type of planting, is as follows:—

By Species.			By Type of Planting.	
<i>Pinus elliottii</i>	..	.. 196,561	School Plots	.. 5,907
<i>Pinus taeda</i>	..	.. 1,411	Ornamental, etc.	70,340
<i>Pinus patula</i>	..	.. 1,786	Government	
<i>Pinus radiata</i>	..	.. 34,842	Departments	5,391
Hoop Pine	..	.. 27,405	Forest formation	223,257
Miscellaneous	..	.. 42,890		
		<u>304,895</u>		<u>304,895</u>

Sales of miscellaneous species from Rocklea nursery totalled 31,820, of a cash value of £1,553 2s. 10d.

Silvicultural Research.

Staff.—The number of trained officers engaged full time on Silvicultural Research increased to 11 with the return to the Department of B. N. Richards after two years' work at the University of Queensland under a Services Canteen Trust Fund Scholarship. He has continued in Brisbane the work on nutrition of *Pinus taeda* and the distribution of the staff is:—North Queensland (3), Mary Valley (1), Beerwah (2), Brisbane Valley (1), Dalby (1), Head Office (2), Brisbane (1).

During the year R. Florence was granted two years' leave to permit him to take up a scholarship with the C.S.I.R.O. He will undertake research work on the ecology of *Eucalyptus pilularis*.

Field Work.—(i.) *North Queensland.* The chief work in this centre continues to be the maintenance and measurement of treatment plots in the rain forests and it is proposed to summarise the observations made in this connection following working up of data from the 1958 measure.

During the year, rules were formulated to assist in the follow up treatment of areas which were initially treated some years previously. In most areas, notably Kuranda and R. 99 Western, the regeneration of better class species (Group A) has been highly satisfactory.

Earlier experiments involving preparation of a seed bed around parent trees of Maple (*Flindersia brayleyana*), Silver Ash (*Flindersia bourjotiana*) and Red Cedar (*Cedrela australis*) have been eminently successful. Treatment applied has been brushing, to a radius of 1 chain, of all weed species and the raking of the debris into heaps. This is done, immediately before seed-fall, around trees of excellent development bearing a reasonable seed crop. It is intended to extend this work to embrace all Group A species and, this year, an experiment covering an area of 1½ acres was commenced with *Cardwellia sublimis* which produced a good seed crop maturing in December, 1957. Within the area there were 17 *Cardwellia sublimis* seed trees. In February the area was sampled systematically by a series of 106 milliacre plots.

No. of <i>Cardwellia sublimis</i> regeneration per milliacre	0	1	2	3	4	5-9	10-29	30-50
No. of plots	9	6	10	9	8	15	39	10

Experiments on interplanting with various species have shown that Maple is the most satisfactory species for use. It is the most valuable species in the rain forests of the North, is very tolerant and makes reasonable growth. Plots are under observation in a number of localities. Typical of the early growth of these experiments are:—

Experiment.	Location.	Planted.	Survival.	Age.	Average Height.
178	R. 1073 Smithfield ..	April, 1955 ..	Per Cent. 85	2 years	7 ft. 3 in.
137	R. 99 Western ..	January, 1954 ..	85	3½ years	6 ft. 10 in.

Experiment 178 is located in an area where very little of the original canopy remains, while in Experiment 137 about 60 square feet of Basal Area was retained in larger stems of desirable species.

An early interplanting on R. 310 Gadgarra, established in 1925, shows that satisfactory growth of Maple can be maintained. At measure in 1957 the tallest stems were just over 100 feet in height and the Basal Area standing in 164 selected Maple per acre was 97.2 square feet with an average g.b.h. of 33 inches.

At the 1953 measure of this plot it was estimated that the merchantable volume of Maple standing per acre was 1,725 cubic feet and over the four years 1953-1957 the average annual increment per acre of the Maple has been 85 cubic feet.

As stated in previous reports, regeneration of the stinging tree (*Laportea moroides*) is readily controlled by use of hormone weedicides, in particular the sodium salt of 2,4-D. The appearance of further crops of *Laportea* seedlings, following the destruction of the first, has made it necessary to embark on a series of experiments designed to throw light on the germination behaviour of this serious pest.

During the year, a small glass house was erected in the grounds of the Forest Office at Atherton. This will facilitate the establishment of grafts from highly figured Maple trees and of Red Cedar, in the search for a borer-resistant strain.

Pinus caribaea in trial plots along coastal North Queensland continues to make excellent growth on all sites other than poorly drained.

(ii.) *Central Coastal Queensland (Bowenia)*.—Work at this centre covered the maintenance of experiments on use of phosphatic fertilizers, on preparation of site by mounding and drainage and of trial plots of various species. It is proposed, in the near future, to establish thinning experiments with *Pinus caribaea* which has become the major species being planted at this centre.

(iii.) *South Queensland (a) Tree Breeding—Slash Pine*.—Scions for grafting were restricted to those trees selected for use in the second seed orchard. In all, 527 grafts were attempted giving a take of 78 per cent. Where possible, bottle grafts were made and these gave a take of 84 per cent. as against 50 per cent. from side-veneer. This establishment permitted the completion of planting in the first seed orchard with a carry over of nearly 200 grafts for planting in the second, which is being prepared.

Caribbean Pine.—In August, 1957, with the co-operation of the New South Wales Forestry Commission, 128 scions were collected from 5 trees planted in 1933 at Banyabba. Largest tree represented was 51 inches g.b.h. and 75 feet high. Source of seed was Pinar del Rio, Cuba, and, for the species, the form of the trees is very good. Successful grafts numbered 98—a take of 77 per cent.—and have been established in the field at Bowenia.

During the year, a start was made on the critical appraisal of plus stems which have been the source of scions in previous years and the work will extend to the sizeable routine plantings of this species at Bowenia, in an effort to locate stems worthy of use in a Seed Orchard at that centre.

Pinus radiata.—The main work with this species is directed towards development of a strain resistant to *Diplodia*, which restricts planting of *Pinus radiata* in areas of summer rainfall.

In May, 1958, following some die-back of leaders and laterals during the previous two years, an assessment was made of progeny derived from open pollination of 10 parents selected from a *Diplodia* affected stand at Peehey. A control of routine seed origin was included. There were two replications—one planted in 1951, one in 1952.

Percentage of trees of good health are shown in the following:—

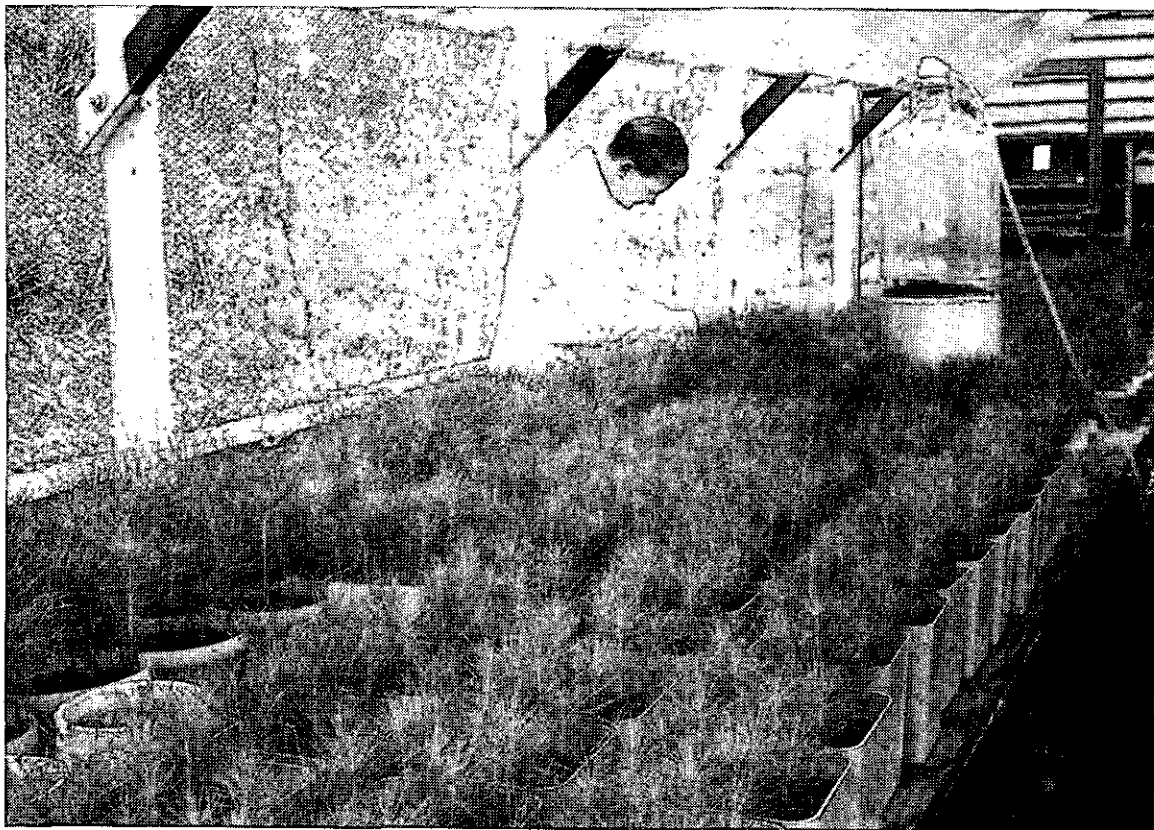
Parent.	Percentage—Good Health.									
	9	4	6	10	3	7	2	8	1	Routine.
Replication 1951	70	62	58	56	62	52	52	38	44	34
Replication 1952	84	82	82	70	54	60	52	66	36	—*
Average	77	72	70	63	58	56	52	52	40	34

* No routine plot in 1952 planting.

The cause of disease in these plots has not been definitely identified as *Diplodia*, but the above figures indicate differences between parents which are encouraging in view of the main objective with the species.

Hoop Pine—Kauri Pine.—Work is proceeding in the selection of Elite trees of both species. With bottle grafts in the new glass house takes of 90 to 100 per cent. are obtained with both species and the development of grafts planted out in 1956 is being observed before initiating work on establishment of a seed orchard, for which a suitable site has been located near the Imbil Forest Station.

(b) *Exotic Pines*.—Experiments on thinning of Slash, Loblolly, and Caribbean Pine were maintained and a number of new experiments dealing with the application of early unmerchantable thinnings were initiated.



NUTRITION STUDIES—PINUS TAEDA.

Pot experiments under controlled glasshouse conditions aim at providing information on the nutritional requirements of *P. taeda*, *P. elliottii* and Hoop Pine.



P. ELLIOTTII—VOLUME TABLE COMPILATION.

Field party measuring sample trees of *P. elliottii* for use in compilation of volume tables.

During the year, experimental use was made of aircraft in the application of fertilizer and in the use of hormone weedicides. As a result of the former, tenders have been called for the treatment of more than 600 acres at Tuan at the rate of $2\frac{1}{2}$ cwt. Nauru phosphate per acre. The hormone spraying was carried out with the co-operation of Timbrol Division, Union Carbide of Australia Ltd. and this assistance is greatly appreciated. Results from initial trials using 2,4,5-T in distillate during June, 1957, were sufficiently promising to justify further work on a larger scale in June, 1958. Trials this year involve application, to a 1-year old area of Slash pine heavily infested with wattle, of $1\frac{1}{2}$ lb. 2,4,5-T acid equivalent in 3 gallons of distillate per acre. Other trials on unplanted areas were designed at comparing results from the application of 4 lb. 2,4,5-T acid equivalent in 6 gallons of distillate per acre, single and double runs, with use of the same amount of acid in 6 gallons of water and distillate per acre. Two weeks after treatment, results appear promising in all applications and no adverse effect is apparent with the 1-year Slash.

A point of interest which has emerged from the hormone spray trials (ground application) with heavy wattle, referred to in the 1957 report, is the better growth of the Slash Pine in the sprayed plot. The advantage over the routine brush tended control is the equivalent of approximately one year's growth. (See photos. facing page 12.)

Persistent coppice (mainly Eucalypt) on firelines involves an expenditure of 15s. per acre for brushing each second year. Results of a series of experiments conducted over the past 5 years show that 95-100 per cent. control can be obtained by 2 or 3 knapsack foliar applications of 1 per cent. 2,4,5-T in water at an average cost of £6 per acre.

In the nursery, trials with "Crag" herbicide No. 1, Alanap 3, EMID and M83 were unsuccessful in the control of weeds for the period of 4 to 6 weeks immediately following germination when white spirits cannot be used.

Since 1953, when winter drought delayed the commencement of planting until early spring, an experiment has been put out each year involving various methods of holding the planting stock in the nursery and covering the months September, October, November, and December.

Results show that heeling-in of stock is preferable to root-wrenching. Field survival of heeled-in stock is 10 per cent. better than that of wrenched. Survival in the field is largely dependent on soil conditions at planting and climatic influences after. With favourable conditions survivals of 90 per cent. + may be achieved in any of the months covered by the trials.

With the increased use of *Pinus caribaea* in the planting programme, experiments were commenced in 1956 to determine whether open root planting is feasible and to compare the growth of open root stock with that of tubed plants. Results to date suggest that *Pinus caribaea* might be handled as open root stock planted in the winter following sowing in early spring. Double wrenching or wrenching followed by heeling-in gives improved survival in the field.

Tree nutrition studies, commenced by an officer holding a Services Canteen Trust Fund Scholarship, were continued during the year. In the previous report mention was made of poorer germination, higher mortality and depressed growth associated with growth of *Pinus taeda* in Beerburum soils with high levels of nitrate. A pot experiment was established with four levels of nitrate (NaNO_3) superimposed on a basal dressing of phosphate. Sown on 27-7-57 with 6 replications, three replicates were harvested on 16-12-57 and three on 6-6-58. Survivals were tallied on 17-10-57 when plants were thinned to 12 per pot. These figures, as well as those for mean dry weight of plants at time of harvest, the mean number of mycorrhizal seedlings per pot, and the percentage of the short roots which bore mycorrhiza are shown in the following table:—

Treatment.	Mean No. Survivors per Pot.	Mean Yield.		Mean No. Mycorrhizal Seedlings.		Mycorrhiza Percentage.	
		Grams per Pot.		16-12-57	6-6-58	16-12-57	6-6-58
		17-10-57	16-12-57					6-6-58
N_0	41.2	1.53	5.90	12.0	12	20.2	30.5
N_1	36.2	1.73	6.84	10.3	12	5.6	35.7
N_2	32.7	1.61	8.20	8.7	12	5.9	44.6
N_4	22.8	1.22	8.04	2.0	12	.2	19.8
L.S.D. for $p < .05$..	4.0	.38	1.12	1.7	N.S.	11.1	N.S.
L.S.D. for $p < .01$..	5.6	.58	1.70	2.5	..	16.7	..

N_1 = .275 gm. NaNO_3 per pot equivalent to .18 mg. N per 100 gm. oven dry soil.

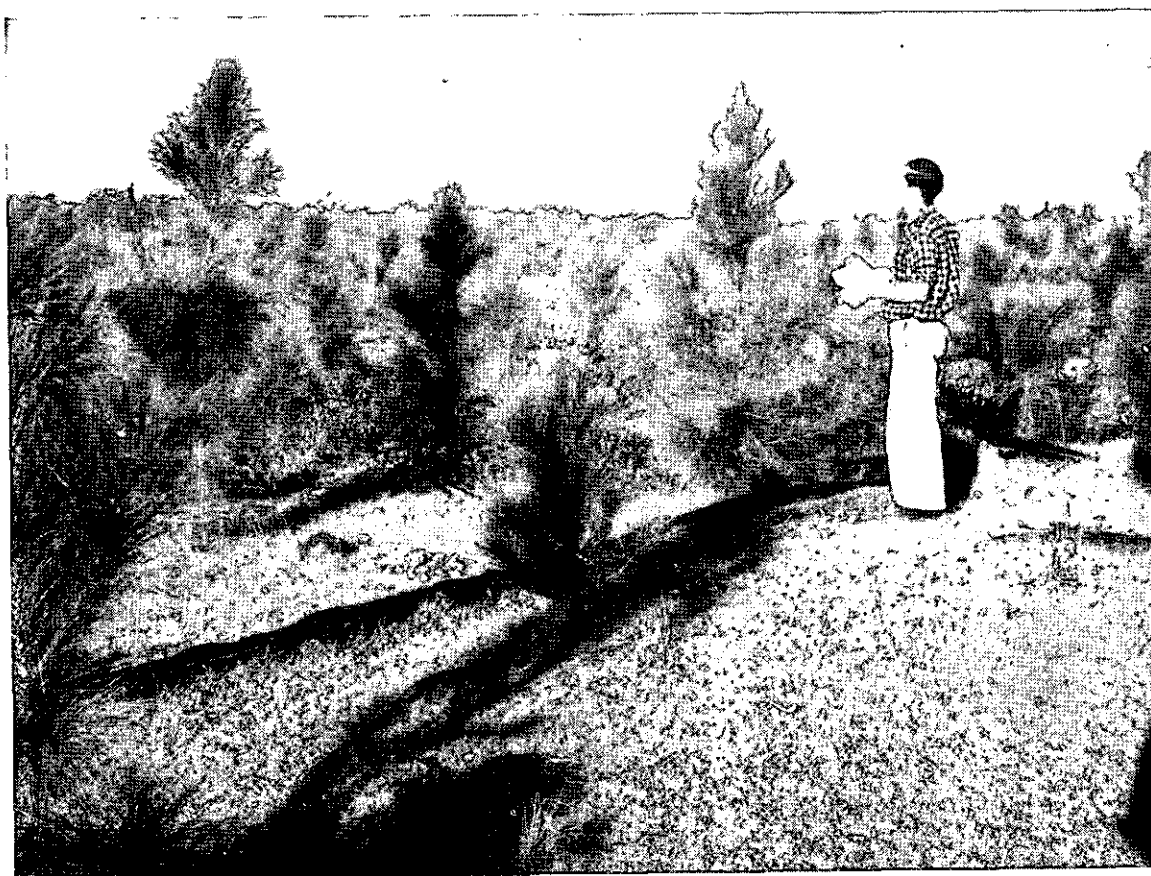
Germinations and deaths were not recorded. From dead seedlings a number of fungi (*Fusarium* spp.) were isolated but no one species was consistently present. It is possible that the deaths result from the attack of soil fungi on plants weakened by the effects of addition of NaNO_3 .

CONTROL OF WATTLE IN SLASH PINE PLANTATIONS WITH 2,4,5-T.



SLASH PINE, TWO YEARS AFTER PLANTING IN A DENSE WATTLE AREA,
BEERBURRUM STATE FOREST.

Wattle was brushed prior to planting and again a year later. A further tending is urgently required at present.



AN AREA IN THE SAME PLANTATION IN WHICH WATTLE WAS SPRAYED WITH 2,4,5-T
PRIOR TO PLANTING.

The few surviving wattle were brushed shortly before this photograph was taken.
The effect of wattle on the early growth of pine is evident.

The highest level of N decreased the yield at the first but increased it at the second harvest. At the same time there was a marked increase in mycorrhizal development. This does not necessarily mean that the mycorrhizal development is the cause of the improved growth. The depressive effect shown above of added N on survival and growth may be the result of nutrient imbalance. Evidence that an N/P interaction influences the response of *Pinus taeda* to added N has been obtained with Beerburrum soils. It is likely that there are interactions between other elements which are equally important.

The work is to be continued and arrangements are in hand to construct a glasshouse and laboratory at Beerwah.

During the year a number of field experiments based on the results of the earlier glasshouse work were established in the field. As yet no results are available.

(c) *Hoop Pine*.—Investigations continued of the possibility of growing Hoop pine on the poor coastal soils which are being planted to Slash pine. Three experiments have been established in the field. A half-replicate factorial experiment to test N, P, K, S, Cu + Zn, B + Mo, and Ca, to date has shown no significant differences due to treatment but it was observed that where the soil had been disturbed in preparation of the site the growth of Hoop was improved.

At the same time an experiment designed to test the response of Hoop pine to various levels of added phosphate was commenced. Here, too, the effect of soil disturbance incidental to site preparation was in evidence.

As a result, there has been established an experiment designed to cover the effect of site preparation with various nutrient combinations.

This work on Hoop pine is to be continued and supplemented by glasshouse studies.

The principal work with Hoop pine remains the maintenance and expansion of the series of thinning experiments at Yarraman and Imbil with the object of determining the most desirable thinning schedule to apply to plantations.

The value of experiments with a Basal Area control is becoming increasingly evident. They have advantages in ease and definiteness of control. Results can be converted to numbers of trees per acre and the evidence is steadily mounting of the strong relationship that exists between standing basal area and basal area increment.

Experiment 1332, established in November, 1951, on Compartment 5, Rocky Logging Area, R. 289 Yarraman, is an example of this type of experiment. The area was planted in December, 1936, and was unthinned at the time of commencement of the experiment.

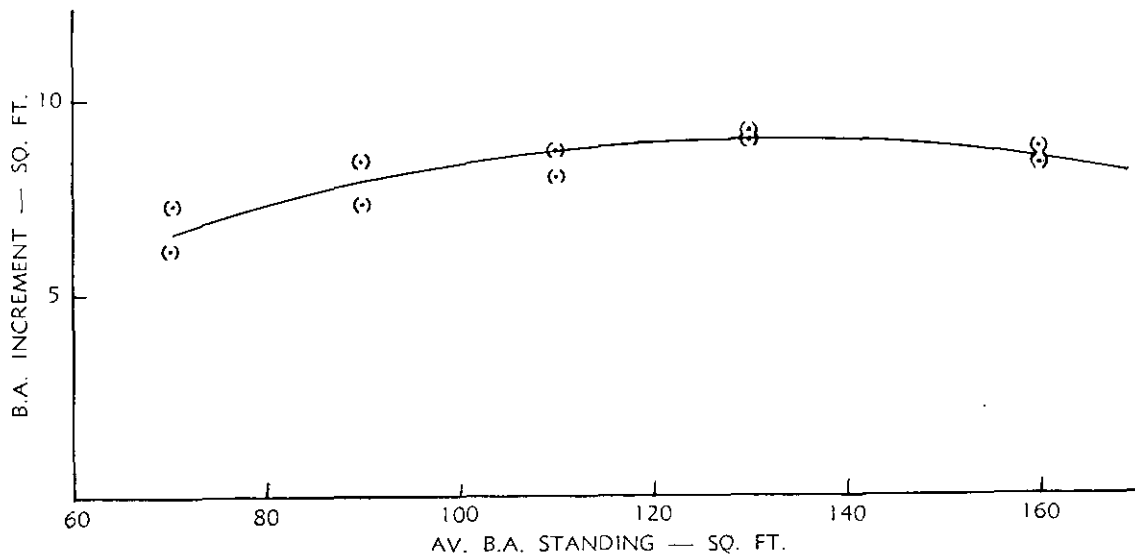
Thinnings have been carried out in November, 1951, August, 1954, August, 1956, and will be made in the 1958 winter. The aim at each thinning is to thin so that the average Basal Area standing for the following two years will be close to the desired control. In this experiment the Basal Areas aimed at are 160 square feet, 130 square feet, 110 square feet, 90 square feet and 70 square feet. Two plots are allotted to each intensity.

Basal Area increments, by years, are shown in the following table:—

B.A. Control.	Plot.	B.A. Increment—Square Feet.						Total 1952-8.
		1952-3.	1953-4.	1954-5.	1955-6.	1956-7.	1957-8.	
160 square feet	3	6.1	9.1	12.0	9.7	7.7	5.8	50.4
	6	7.4	10.1	12.4	9.9	6.7	6.5	53.0
	Average	6.75	9.6	12.2	9.8	7.2	6.15	51.7
130 square feet	7	7.2	10.7	12.8	11.0	7.3	6.4	55.4
	8	7.2	10.6	12.5	10.3	7.1	6.5	54.2
	Average	7.2	10.65	12.65	10.65	7.2	6.45	54.8
110 square feet	1	6.0	9.4	10.6	9.9	7.6	5.2	48.7
	9	6.9	10.6	11.9	9.8	7.6	6.7	53.5
	Average	6.45	10.0	11.2	9.85	7.6	6.05	51.1
90 square feet	2	6.9	7.4	10.2	8.0	7.7	4.7	44.9
	10	7.3	13.2	9.6	9.1	6.6	5.7	51.5
	Average	7.1	10.3	9.9	8.55	7.15	5.2	48.2
70 square feet	4	6.5	7.4	8.1	7.3	4.4	4.3	38.0
	5	8.1	8.1	9.4	9.2	5.5	4.8	45.1
	Average	7.3	7.75	8.75	8.25	4.95	4.55	41.55

The average annual Basal Area increment is shown graphically below and it is seen that, for the period 1952-1958 (age $15\frac{1}{2}$ — $21\frac{1}{2}$ years), the maximum Basal Area increment is about 9 square feet and is associated with a standing Basal Area of 120-140 square feet.

HOOP PINE—EXPERIMENT 1332, YARRAMAN.
AVERAGE BASAL AREA INCREMENT PER YEAR 1952-1958.



Numbers per acre corresponding to the Basal Areas being worked to have been:—

Year of Thinning.	No. per Acre after Thinning.									
	160 Square Feet.		130 Square Feet.		110 Square Feet.		90 Square Feet.		70 Square Feet.	
	3	6	7	8	1	9	2	10	4	5
1951	525	550	525	570	420	420	330	310	225	225
1954	525	550	425	460	345	330	250	215	145	130
1956	460	475	340	365	275	265	145	130	115	100

Observations on the natural regeneration of Hoop pine at R. 169 St. Agnes have continued, but results in all experiments have been most disappointing during the period under review. Seedlings from the late 1953 seedfall, which appeared to be reasonably well established, suffered severe losses during the dry spring and summer, and now only a few survive. Brushing of competing undergrowth did not improve survival.

Further experiments were established to take advantage of the good seedfall at the end of 1957, but, although germination was satisfactory, survival during the first few months of 1958 has been very low. Insect attack, rather than soil moisture conditions, has been the major factor responsible for the heavy losses.

Underplanting experiments with Hoop pine now cover a period of five years and further large scale work is not envisaged in the immediate future. Survival in the underplanting experiments has been generally poor, except in an area of dense wattle resulting from a fire in 1942. As browsing by wallabies appears to be a major factor in survival of underplants, a number of small fencing experiments are to be established.

(d) *Coastal Hardwoods*.—A sixth annual burn was carried out in the prescribed burning experiment at R. 958 Gundiah. On this occasion the proportion of the compartment burnt rose to 87 per cent., compared with 63 per cent. in 1956. This extensive burn resulted from the grass being well cured by drought conditions, rather than any increase in accumulation of fuel.

Following the second burn at R. 57 St. Mary in 1956, silvicultural treatment has been completed, and the area will now be protected until the next cutting cycle.

Girth increments in these two experiments for 1957-58 were:—

Species.	G.B.H. Increment 1957-58—Inches.			
	R. 958 Gundiah.		R. 57 St. Mary.	
	Unburnt.	Burnt.	Unburnt.	Burnt.
Spotted Gum	0.25	0.21	0.26	0.33
Grey Ironbark	0.47	0.48	0.41	0.64
Red Ironbark	0.72	0.48	0.54	0.69

This year, for the first time, the burnt compartment has failed to show an advantage in G.B.H. increment at R. 958 Gundiah although it is still evident in the figures for R. 57.

Height increments on the smaller stems for the same period show a trend similar to that revealed in the G.B.H. increments.

Girths were again measured at 15 feet on comparable stems in each compartment to check on possible form changes induced by regular burning. This year increments for Spotted Gum show an apparent decrease in buttswell on the burnt compartment, which is sufficient to account for the apparent increase of previous years. Similar measurements on Grey Ironbark also indicate no change in form with burning.

For the first time since the inception of these experiments, natural regeneration of Spotted Gum has developed following the production of a moderate seed crop. The seedlings are present in sufficient numbers for future observations on their behaviour under prescribed burning conditions. This is a most important aspect of the experiments, since the ability of the seedlings to survive and grow when subject to annual burning will largely determine the feasibility of such a treatment on a long term basis.

The trial enrichment plantings with various Eucalypts in high quality hardwood forests, mentioned in the previous report, now show considerable promise. The early severe wallaby attack virtually ceased with the development of dense weed cover on the planted areas, and even the most severely damaged plants have been able to recover and make good growth. A very light tending was given to free the plants from immediate competition, but with a minimum of disturbance which might encourage further annual attack.

(iv.) *South-West Queensland.*—During the year, standing tree values for Cypress pine were derived from mill study data, and these will prove extremely useful in the interpretation of thinning experiments. A general review of such experiments, some of which cover periods of up to twenty years, is at present in progress. The results of one series of thinning plots, established in 1937 on R. 16 Malcolm, are briefly summarised in the table below. At the time of establishment height of dominants was 30-40 feet, indicating a routine spacing of 20 feet x 20 feet.

Plot.	Spacing— Feet.	Stems per Acre 1957.	Average G.B.H. (from B.A.)— Inches.		B.A. per Acre— Square Feet.		Merch. Vol. per Acre— Cubic Feet.		Standing Value per Acre—Pounds.	
			1957.	M.A.I. 1937-57.	1957.	M.A.I. 1937-57.	1957.	M.A.I. 1937-57.	1957.	M.A.I. 1937-57.
1	25 x 25	62	27.67	.65	26.3	0.9	398	19	26.0	1.30
2	20 x 20	111	25.05	.46	38.6	1.2	516	23	30.0	1.44
3	15 x 15	187	21.97	.35	49.7	1.3	568	23	26.1	1.13
4	Unthinned ..	662	13.84	.15	70.1	0.9	328	13	8.9	0.45
5	20 x 20	107	24.77	.48	36.2	1.1	438	20	25.6	1.27
6	10 x 10	387	17.28	.25	63.7	1.4	462	19	16.5	0.63
7	16 x 16	164	22.00	.52	43.9	1.6	441	22	18.4	0.92
8	20 x 20	98	24.77	.61	33.2	1.2	436	21	23.8	1.19
9	12 x 12	262	18.10	.34	47.5	1.3	354	16	11.6	0.58

Value increments over the twenty-year period are shown on the graph facing page 16. This group of plots supports the present routine spacing (20 ft. x 20 ft.) for this sized material, in that near maximum value increment has been produced, with a substantial advantage in volume production over the wider spacing.

Effective control of undergrowth and coppice of unwanted species is an essential part of thinning operations in these areas, and experiments covering this aspect are being continued. As yet, no recommendations for routine practice can be made, but a number of promising leads have been obtained.

Results obtained to date from the experimental plantings on the black soil areas of the Darling Downs were published in the "Queensland Agricultural Journal" for June, 1958, under the title "What Trees to Plant on the Downs." This work is being continued as new species become available for trial. The drought conditions, which prevailed from February, 1957, to May, 1958, prevented new plantings, and thoroughly tested the drought resistance of species already established. Most species withstood the drought conditions well, but made little growth. The species which suffered most severely from drought effects were *Pinus taeda*, *Pinus patula*, *Cedrus deodara*, *Salix babylonica*, *Eucalyptus scopahia*, *Eucalyptus torquata*, and *Junipenus virginiana*.

Protection.

The total area of State Forest protected by standard systems of firebreaks and/or fire roads at the commencement of the year was 1,448,100 acres.

Table "A" shows the construction and maintenance work carried out on this protection system during the year.

CYPRESS PINE — STANDING VALUE INCREMENT 1937-57

Experiments 5, 6, and 7, Dalby.

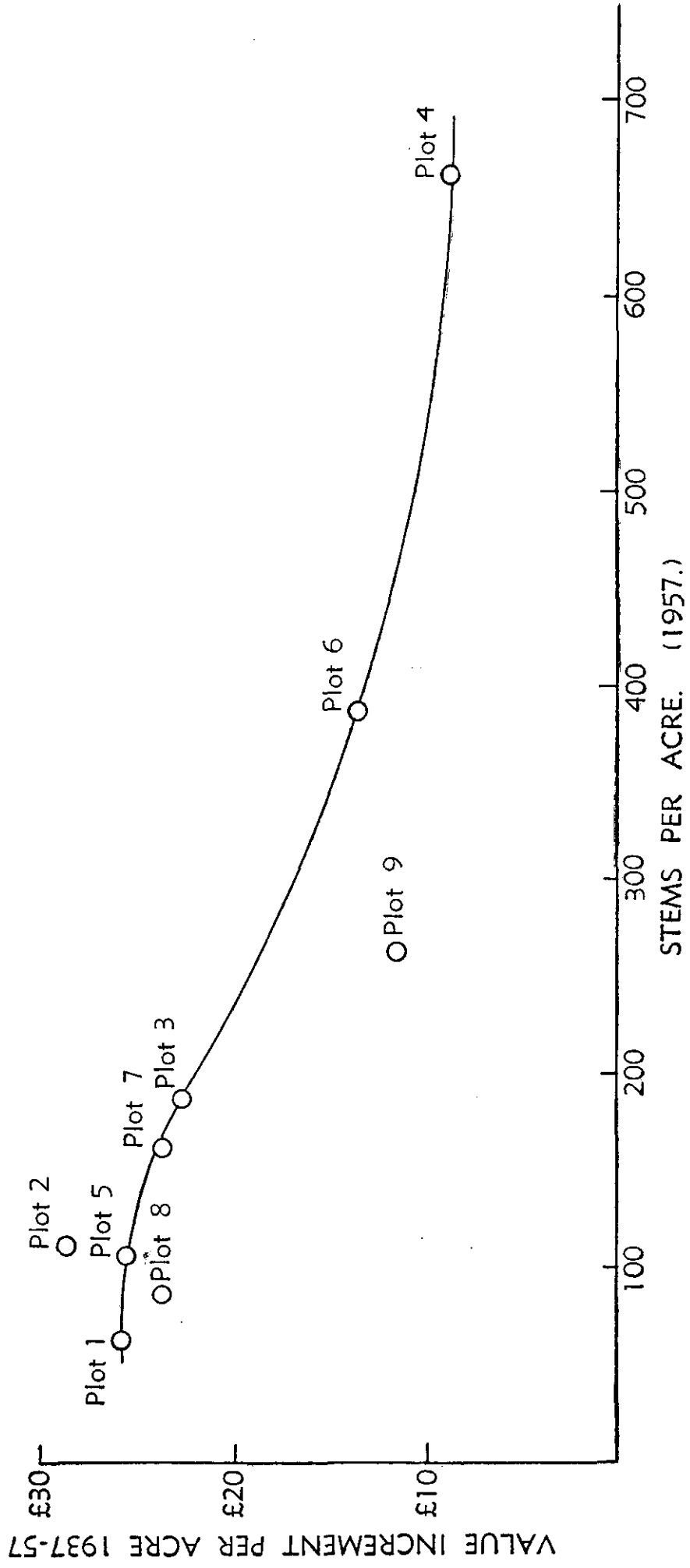


TABLE "A".

CLEARED BREAKS—PLANTATIONS.									
Construction—									Miles.
Temporary Breaks	..	..	..	..	..	..	..	..	77.9
Clear	..	..	..	..	..	..	..	..	76.8
Rotary Hoe	..	..	..	..	..	..	..	..	59.3
Grade	..	..	..	..	..	..	..	..	72.7
Scrub Break Improvements	..	..	..	..	..	..	..	..	153.2
Maintenance—									
Chip	..	..	..	..	..	..	..	..	186.4
Burn	..	..	..	..	..	..	..	..	220.5
Rotary Hoe	..	..	..	..	..	..	..	..	218.2
Grade	..	..	..	..	..	..	..	..	843.7
CLEARED BREAKS—WESTERN FORESTS.									
Construction—									
Cut and Grub	..	..	..	..	..	..	..	..	3.8
Improvements—									
Grub Roads	..	..	..	..	..	..	..	..	58.6
Grade	..	..	..	..	..	..	..	..	231.2
Stump	..	..	..	..	..	..	..	..	229.5
Green Strips	..	..	..	..	..	..	..	..	357.7
Maintenance—									
Sucker and Burn	..	..	..	..	..	..	..	..	242.1
Grade	..	..	..	..	..	..	..	..	710.4
Rotary Hoe	..	..	..	..	..	..	..	..	196.2
GREEN BREAKS—COASTAL HARDWOOD AREAS.									
Construction—									Miles.
Fell Dangerous Trees	..	..	..	..	..	..	..	..	11.3
Stack and Burn	..	..	..	..	..	..	..	..	33.1
Improvements	..	..	..	..	..	..	..	..	55.5
Roads	..	..	..	..	..	..	..	..	46.8
Maintenance—									
Chip and/or Plough	..	..	..	..	..	..	..	..	1,272.6
Burn	..	..	..	..	..	..	..	..	733.1
Roads	..	..	..	..	..	..	..	..	352.5
Grade	..	..	..	..	..	..	..	..	95.8

£111,421 was expended on firebreaks and firebreak road construction and an amount of £97,684 on maintenance of these items.

In addition, a sum of £128,067 was spent on observation, patrol and firefighting. The greater part of this expenditure was incurred in preventing fires from entering protected Reserves from adjacent alienated or leased land.

The fire season had already commenced, in most parts of the State, at the beginning of the financial year. Early burning and preparation of breaks and protective zones was carried out during July and August.

By September, the effects of the dry spell (some 8 months) were becoming severe and heavy leaf fall occurred in many rain forest areas. This factor, combined with strong westerly winds and low humidities (e.g., 9 per cent. R.H. and 91 degrees F. at Imbil on 22-9-57), contributed to severe fires menacing plantations in mid-September.

By mid-October, conditions had deteriorated still further and "extreme" fire danger conditions were experienced in the south-eastern part of the State on October 10-11-12-13th, culminating in fires of "blow-up" intensity on a number of hardwood reserves.

Despite occasional temporary relief, the conditions of high danger continued in coastal areas until February, while the inland areas remained inflammable until the outset of the cooler weather in April and May.

Table "B" shows the success achieved in protecting the forests as a whole.

TABLE "B".

Area of State Forest under Protection. (Acres).		Area of Protected Forest Burnt—1957-8 Fire Season.			Area of Unprotected Forest Burnt. (Acres).
Type of Forest.	Area. (Acres).	Number of Fires.	Area Burnt. (Acres).	Percentage of Total Area.	
Plantations	83,600	14	114	0.1	..
Rain Forest	51,100	1	400	0.8	5,400
Eucalypt Forest	407,000	73	27,500	6.8	449,200
Cypress Pine and Eucalypts ..	906,400	32	26,000	2.9	157,100
	1,448,100	120	54,000	3.7	611,700

In addition to the areas listed above, an estimated 250,000 acres of unprotected State Forests and Timber Reserves were burnt early in the season.

The overall loss of 3.7 per cent. of the protected area compares very favourably with the figure of 15 per cent. (143,000 acres out of 956,000) burnt during the 1951-52 fire season.

The Luke (N.S.W.) System of calculating fire danger rating was applied in all areas with reasonable consistency and success, in conjunction with Fire Weather Forecasts issued by the Brisbane Office of the Commonwealth Bureau of Meteorology. These forecasts are based on noon reports from a number of selected representative recording stations equipped with standard instruments. Further work on this valuable aid is being done.

A conference of all District Officers was held in April to discuss, in detail, the successes and shortcomings of the fire season. The conference made a number of recommendations for improving training, techniques and equipment. These recommendations are now being implemented.

One decision worthy of comment was the replacement of internal "green firebreaks" in hardwood forests by an improved system of fire access roads, to enable more rapid and effective transport of men and equipment to fire faces. It is not proposed, at this stage, to abandon the existing external firebreak system, which will be still further improved in areas of high risk.

The appointment of a full-time Fire Protection Officer was approved and an appointment has been made.

Capital Improvements.

During the year a start was made on improvement of accommodation for married men living on the job with their families.

It is to be regretted that, because of the attractiveness of camping allowance, the majority of married men prefer to live under camping conditions rather than forfeit the camping allowance in return for modern cottages to house their families.

An amount of £36,348 was expended in maintenance of improvements and £40,862 in the construction of new items, the chief of which are listed below. An item of major interest was the erection of a new office and cottage at Beerburum which, in future, will be the headquarters of that sub-district in lieu of Beerwah. At the latter centre a new office and cottage, primarily for the research staff, was also built.

Item.	Completed 1957-58.
Offices	1
Married Quarters	14
Prefab. Huts	15
Cottages	1
Garage/Workshop/Storeroom	8
Galley/Showers/Laundry	12
Fire Lookout Towers	1
Fire Huts	1
Firetank Loading Facilities	10
Explosive Magazines	2
Culverts and Grids	23
Bridges and Crossings	15
Telephone Line	28 miles.

Expenditure and Labour.

The total expenditure under reforestation headings was £1,444,540. Details are given in Appendix "H" but major headings involved the following:—

	1957-58	£
Plantations		290,408
Natural Regeneration		21,043
Nursery Expenses		40,248
Research		26,891
Surveys		20,794
Protection		366,321
Capital Improvements		77,211
Tools, Tents, Supervision, etc.		267,557
Wet time, Holidays, Leave		157,602
Cartage of Rations		14,646
Camping Allowance		91,807
Pay-Roll Tax		1,691
Workers' Compensation		22,179
Seed Collection and Storage		6,969
Miscellaneous		14,760
		<u>£1,444,540</u>

Labour employed on reforestation works rose from 1,247 in July, 1957, to 1,430 at the close of the year, the increase being, as previously mentioned, an unemployment relief measure in March, 1958.

Plant.

Expenditure on plant (including trucks) for the year was—repairs, maintenance and operating costs £130,487, purchase of new items £97,988.

Consideration is being given to increasing plant hire rates, which have not been reviewed for about six years.

A census of the main items at 30-6-58 showed—

	Purchased 1957-58.	Number at 30/6/58.
Motor Trucks—		
Capacity under 1 ton	35	177
Capacity 1-2 tons	—	11
Capacity 2 tons	5	113
Capacity 3-4 tons	—	6
Capacity 5 tons	1	11
Tractors (D.B.H.P.)—		
(a) Track type—		
50 h.p. with dozer	—	4
50 h.p. without dozer	—	24
50-100 h.p. with dozer	1	25
100 h.p. + with dozer	2	5
(b) Wheel type (End Loaders, Rotary Hoes, etc.)		
	5	36
Graders—		
Drawn	—	24
Powered to 40 h.p.	—	9
Powered 40-80 h.p.	—	5
Powered 80-100 h.p.	—	6
Powered 100 + h.p.	1	2
Road Compressors	1	11
Rippers	3	23
Rotary Hoes	1	29
Fire slip on type tank units (standard type)	—	72
Fire tank units (various types)	—	27
Water tank trailers (324 gallon)	—	40
Road Rollers	—	6
Road Scoops	—	18
Front End Loaders	4	8

ACQUISITION OF LAND.

During the year 1957-58, an amount of £4,246 5s. 11d. was expended on the acquisition of land for Forestry purposes as follows:—

	£	s.	d.
Purchase of land	2,299	15	0
Compensation paid for Resumptions	112	17	1
Survey and Real Property Fees	1,373	12	2
Miscellaneous	460	1	8
	<u>£4,246</u>	<u>5</u>	<u>11</u>

Five properties, covering an area of 340 acres 0 roods 14 perches, were purchased and two areas totalling 144 acres 1 rood 33 perches were resumed.

FIRES.

During the year, 317 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.
25	51	91	106	44

Causes.—In 151 cases the cause of the fire is unknown but in the others reports show a diversity of reasons, as follows—42 caused by lightning, 37 spread from adjoining properties, 20 occurred from smouldering logs or stumps, 15 were deliberately lighted, 12 were from sparks burning firebreaks, 8 from camp or billy fires, 5 from grass fires, 5 from burning rubbish, 5 from dropped matches or cigarette butts, 4 started by shooting or picnic parties, 3 resulted from sparks or dropped embers from passing trains, 3 from burning sawmill waste, 2 from burning carcasses, 1 from spark from explosives being used in scrub falling, 1 from spark from buzz saw, 1 from spark from tractor, 1 from burning ear after crash, whilst one is reported to have occurred from a glass water bottle acting as a lens; total 317.

FOREST SURVEYS.

Twelve fully equipped camps operated during the year, while nine smaller camps were also occupied with miscellaneous district surveys almost continuously. Of the twelve fully equipped camps, six were totally engaged on Forest Inventory surveys.

Total expenditure for survey work amounted to £55,658 0s. 8d., of which £34,863 13s. 10d. was chargeable to Harvesting and Marketing projects and the balance, £20,794 6s. 10d., against Reforestation projects.

As a result, 185,046 acres were assessed; 43,422 acres were subjected to either firebreak, compartment, or soil survey; 125,089 acres were covered by forest inventory survey, entailing the establishment of 1,029 plots; 1,030 plots were remeasured, whilst 598,398 acres were closely inspected (Class I Survey).

Mileage completed was:—

	Miles.	Chains.
Theodolite and chain	59	25
Compass and chain	759	74
Strip survey	1,345	67
Old boundaries	34	76
Road investigation and survey	116	8
Levels	36	—

Briefly, operations in each district were:—

Atherton.—Two camps operated in North Queensland, the greater part of their work being in the nature of road location and access.

The first camp opened up approximately 36 miles of the contour line of the inundation level at Koomboolomba Dam at Culpa, later shifting to re-open 5 miles of boundary survey in vacant Crown land, parish of Whyanbeel.

Approximately 58 miles of road access investigation was completed in the Cooktown area, followed by inspection for reservation purposes of hardwood stands to the west of State Forest 772 Danbulla. Four miles of access road in the Freshwater area on R. 607 Dinden, plus 15 miles of grade line, were then completed and the camp is now engaged on access roading, with associated compartment and scrub firebreak surveys, on State Forest 1073 Smithfield.

The second camp, apart from a soil type and vegetation survey on R. 343 Meunga and a timber assessment of part of the Mount Graham area, devoted the balance of the year to access road work, summary of which is shown hereunder:—

Reserve.	Road.	Miles.	Chains.
344 Bankton	Kirrama-Culpa service track	11	68
344 Blencoe	Dingo Mountain	2	0
350 Niagara	Carron Creek	4	26
350 Niagara	Jones and Lahey	2	62
350 Niagara	Sullivan	1	60
350 Niagara	McLean, South Yamanie	2	20
350 Niagara	North Yamanie, Buckridge	2	0
441 Mount Spec	Francis Creek	5	5
441 Mount Spec	Waterfall, Coolbie	2	40
441 Mount Spec	Watts	2	67
458 Ashton	Mount Fox Sawmill road	8	0
458 Ashton	Control Henrietta Creek	4	20
343 Glenbora	Meunga Creek	2	0

Mackay.—Class 2 assessment survey of the Goomally areas was continued and a considerable area had been stripped by September. In addition, the following portions were dealt with by assessment survey:—

Portions 2 Blackboy (Box Gully Holding) ..	14,139 acres.
Portions 3, 4 Davey	62,981 acres.
Portion 5 Wooroona	12,012 acres.
Portion 1 Waratah (Walter Creek)	17,635 acres.

Total chainage was 546 miles 28 chains.

At the end of the report period, camp was shifted to Blackdown to assist the Road Engineer on the location and survey of access road to the tableland.

In the Theodore area, a second camp stripped approximately 48,200 acres in the Coorada area, viz., Coorada Holding, Timber Reserve 29 and portion 2 Coorada, by the end of December. The location and traverse of a road, 25 miles in length, from Coorada Holding to Quakit was also effected in conjunction with the Road Engineer.

From January onwards, compartment and firebreak survey of a 900-acre section of State Forest 20 Maryvale to the south of Compartment 14, Stony Logging Area, was carried out. In addition, an area of 950 acres was similarly dealt with on the recently acquired sections of portions 26 and 20, parish of Maryvale.

Maryborough.—At Tuan (R. 915), soil survey of 558 acres in the parishes of Bidwell, Poona and Cowra was completed.

Access roads through new areas were located, traversed, and compartments re-designed.

Six compartments on Green Ridge Logging Area were also laid out.

In addition, amendments and surveys were effected on plantable and unplantable areas. Other surveys associated with the planting programme included picketing planting access roads, layout of planting bays, picketing and offsetting roads and firebreaks, experimental plots and other related work.

By the layout of 150 random one-acre plots, forest inventory survey was carried out on Fraser Island by a second camp organised on 4th February. During establishment, forest types were checked and corrected where necessary to give the following type areas:—

	Acre.
Type 1 (Blackbutt)	18,836
Type 2 (Blackbutt)	24,163
Type 3 (Blackbutt)	36,664
Type 4 (Satinay, Box)	27,809
Type 5 (Cypress)	6,216
Total	<u>113,688</u>

Re-measurement of detailed yield plots was then completed and, in addition, four Hoop pine yield plots were established on Compartment 7, Woolaan Logging Area.

Miscellaneous work included the survey of surround of regeneration burn in Pot Hole Logging Area and the re-opening of part of "A" traverse—block 6 Poyungan.

A third camp was also organised in late January to deal with soil, compartment and firebreak surveys on State Forest 779, Gregory. In November, 14½ miles of theodolite control had already been completed in anticipation of this project and for control on adjoining Crown land in the parish of Bingera.

A soil survey of the whole area of 11,650 acres has now been completed, involving 152½ miles of stripping.

Two and a-half miles of access roads and firebreaks have been run, while 18 miles of plantable boundaries have been brushed and pegged, but have yet to be traversed. Three hundred acres in portions 46 and 47, parish of Bingera, were stripped as a basis for a nursery site report.

A fourth camp, transferred from the Brisbane district in March, was engaged on forest inventory survey on State Forest 832, Stanton. At the end of the report period 191 plots had been established, involving 53 miles of strip chainage.

From late January until 30th April, theodolite survey of constructed roads on State Forest 67, Bulburin and Thornhill, was carried out, 21 miles 71 chains being completed.

Miscellaneous surveys, carried out by local district staff, included work on Reserve 426 Tinana, portions 46 and 54 Gigoongan, R. 301 Miva, R. 799 Takalvan, R. 864 Kullogum, R. 832 Cordalba, R. 676 Woocoo and R. 12 Gungahlin. Investigation of 40,000 acres on Fraser Island was made to determine the extent of silvicultural treatment for compartment history data.

Gympie.—Three small camps operated throughout the year—two in the Mary Valley and one in the Gympie area. Surveys of thinning roads in the Derriers, Kenilworth, and Three Hundred Logging Areas, plus miscellaneous and amending surveys, were effected as required.

The second three-man camp in the Mary Valley carried out work as set out hereunder:—

Plantation and Firebreaks in Corby, East Derrier, Mitchell and Cold.

Road location in Corby, East and West Derrier and R. 256 Imbil.

Compartment re-design in Ryan Logging Area.

Plus overburns and thinning roads.

On May 6th, this camp transferred to "M" traverse (R. 135) to continue firebreak and compartment survey.

The Gympie unit was mainly engaged on scrub break survey at R. 82 Brooyar, R. 242 Widgee and R. 124 Glastonbury. In addition, a number of miscellaneous surveys were carried out on R. 1004 Toolara.

A new camp was established for Forest Inventory work at R. 393 Woondum on 6th February, where 56 plots were re-measured. Urgent timber estimate on State Forest 451 Cooloola and Womalah was then required and this camp was engaged here in establishing random plots from 10th March until 10th May. In all, 90 plots were dealt with and measured. This camp returned to Woondum on 6th June.

During the year, at various periods, theodolite controls were laid down at Brooloo, Imbil, Amamoor, and Como.

Murgon.—A small camp operated throughout the year mainly in the Jimna and the Gallangowan forests. Site quality survey was effected in respect of Mill, Eastern, Tungi, Scotchman, Exchange, Jimna, Leahy, and Gooroomgan Logging Areas. Internal, compartment and miscellaneous surveys in Davies Logging Area were completed, plus details of rat-damage and Hoop pine survivals in Davies, Occupation, Winch, and German Logging Areas.

Plantation thinning roads were also completed in Winch, Exchange, Davies, Jimna, and Leahy Logging Areas. Survey of roads and other miscellaneous work was carried out as required.

Up to the end of the report period, 3 miles 6 chains of theodolite control had been run on State Forest 298 Gallangowan.

Monto.—Timber reconnaissance of the Eidsvold areas was completed early in August, an area of approximately 232,700 acres being covered in the Redbank, Dyngie, Cloncoose, Borania, Calrossie, Tireen, and Telemark parishes. Re-measure of 46 plots on State Forest 28 Coomingleh was then carried out, followed by numerous miscellaneous surveys of scrub breaks, access roads, predominant heights, etc., mainly on R. 95 New Cannindah and also on R. 107 Minerva. Road traverse of approximately 8 miles was also effected at R. 28 Coomingleh.

Yarraman.—The usual programme of district survey work, entailing survey of scrub-falling blocks, roads, firebreaks, overburns, species, etc., was completed throughout the year—a total of 68 miles 45 chains being run.

In addition, 7 miles of thinning roads were located mainly on State Forest 120 Neumgna.

Brisbane.—The Beerburrum camp completed new areas for plantations as follows:—

	Acres.
R. 611 Beerwah	850
R. 561 Bribie	120
R. 700 Canning	200
R. 700 Toorbul	600

Other work included boundary, soil, unauthorised operations, &c., throughout the North Coast area.

The Forest Inventory camp completed the survey of R. 370, R. 322 Durundur and Conondale by 16th September, establishing 92 plots. One hundred and eight plots were re-measured on R. 318 Maroochy and camp was then transferred in March to R. 832 Stanton in the Maryborough district.

Nearly 12 miles of survey of that part of the Bellthorpe road through R. 370 Durundur has been completed and it is proposed to use this as a theodolite control in the near future.

Warwick.—Forest inventory of R. 79 Sands was completed by 22nd July and camp transferred to R. 81 Tandan, Beebo, and Bracker. At the end of the report period, 300 plots had been established, involving 293 miles of strip survey. In addition, 74 miles 52 chains of firebreaks and compartment boundaries were run.

The details for the completion of survey on R. 79 Sands were 30 plots installed and 46 miles of strip survey.

Dalby.—Camp established on 20th January was engaged on the re-measurement of all Forest Inventory plots on the Chinchilla State Forest. At the end of the report period, a two-gang team had been organised and 652 plots re-measured.

Reserves dealt with by a second Inventory survey party were as follows:—

R. 180 Yandilla	56 plots established.
R. 150 Wilkie	127 plots established.
R. 154 Brigalow	165 plots re-measured.

In addition, 19 compartments were surveyed on Reserve 150 Wilkie.

General.—Throughout the year, investigations on timber stands were completed by officers of the Harvesting and Marketing Branch as opportunity offered. Although this work was not carried out by, or costed to Survey Camps, a list of areas dealt with has been compiled under Class I. Surveys, giving details for future reference.

NATIONAL PARKS.

Sunday, 30th March, 1958, was an historic occasion for National Parks in Queensland because, on that day, the Minister for Public Lands and Irrigation, the Hon. A. G. Müller, M.L.A., unveiled a tablet at Witches' Falls National Park, Tamborine Mountain, commemorating the 50th anniversary of the proclamation of the first National Park in Queensland.

It was on the 28th March, 1908, that the first National Park was proclaimed in this State, following on representations from the Tamborine Shire Council, which stated at the time—

“The Council is of opinion that this area, owing to its picturesque ruggedness, together with the waterfalls and vast quantities of palms, tree-ferns and other tropical growths which provide an ideal haunt for lyre birds, etc., should be reserved for the protection of the native flora and fauna of the mountain.”

The area is known as Witches' Falls National Park and covers 324 acres of scrub and forest typical of this part of the State.

The Honorary Rangers' and other organisations which have the interests of National Parks at heart, were keen that the occasion should be commemorated in a fitting way and, as a consequence, the Department decided to build an attractive alcove on the roadside at the entrance to the track system for the Park, and housed inside this alcove is a tablet commemorating the 50th anniversary of the proclamation of the first National Park in Queensland.

The Minister, Mr. Müller, addressing a gathering of approximately 200 National Park enthusiasts and nature lovers from surrounding areas and from Brisbane, gave a very interesting resume of the early history of this reservation, stressing the important part played by the members of the Tamborine Shire Council of the day.

Mr. Müller informed the gathering that the Governor at the time was Lord Chelmsford, the Premier of the day the Hon. William Kidston, and the Minister for Public Lands the Hon. Joshua Thomas Bell. In his remarks, the Minister very aptly summed up the policy behind National Park administration in this State when he said—"They are areas to which you neither add anything, nor take anything away," in other words, they are retained in their primeval condition.

The member for Darlington, Mr. R. L. Harrison, M.L.A., moved a vote of thanks to Mr. Müller. The Minister and Mr. Harrison specially commended the work of the Department in the administration of National Parks.

Also to commemorate this 50th anniversary, the Honorary National Parks Rangers' Organisation and the Department sponsored an Essay competition on National Parks, open to children up to and including Grade VIII. of all State and Denominational Primary Schools in Queensland.

The members of the Rangers' Organisation donated £6 6s. as prize money and the Department subsidised it to a like amount.

The prize winners were—

- First—Paul Lewis, Tarome State School.
- Second—Adele Auld, 31 Fisher Avenue, Southport.
- Third—Gloria Denise Nicholson, Homestead.
- Fourth—Jennifer Seib, Beaudesert.
- Fifth—Delma Gill, Beaudesert.

Congratulations to the prize winners and thanks to all the children who submitted essays.

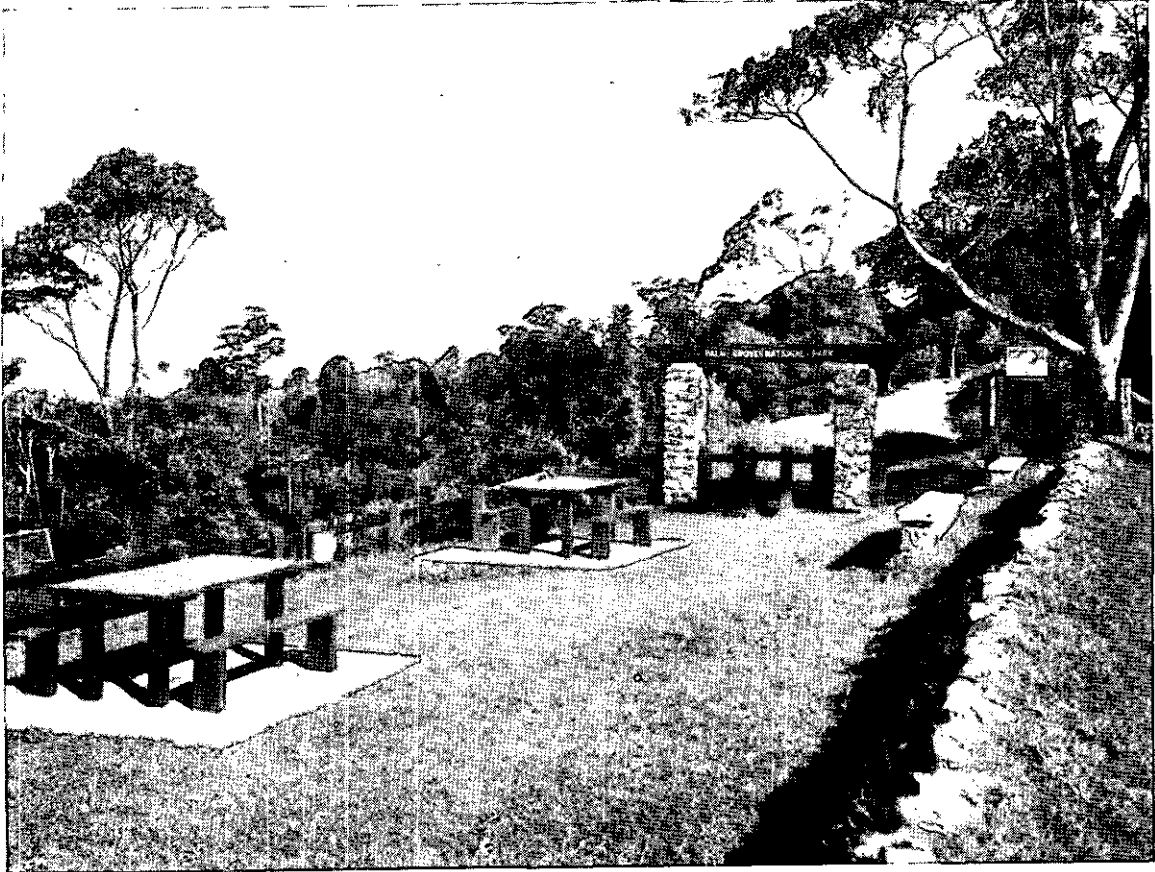
The appreciation of the Department is recorded here of the generosity of the members of the Honorary Rangers' Organisation in making personal contributions towards the prize money.

To Mr. J. Cuthbertson, of 163 Taringa Parade, Taringa, the Honorary Secretary of the Rangers' Organisation, a special word of praise for his efforts in organising the competition.

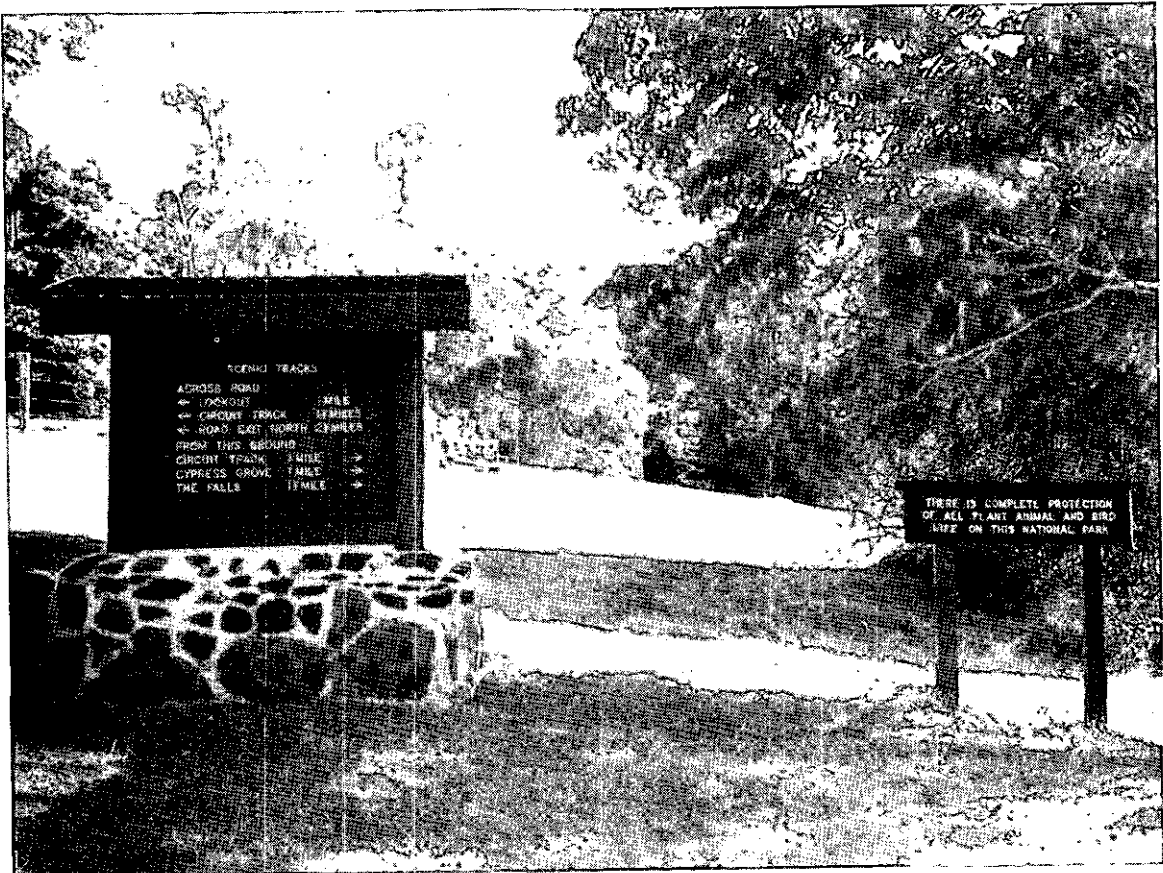
Expenditure on National Parks for the year totalled £45,813, bringing the total expenditure since work commenced on these areas to £515,926.

Work was carried out on the following Parks:—

SOUTH QUEENSLAND.	CENTRAL AND NORTH QUEENSLAND.
Bunya Mountains	Eungella
Burleigh Heads	Hayman Island
Cunningham's Gap	Lindeman Island
Killarney	Long Island
Kondalilla (Montville)	South Molle Island
Lamington	Magnetic Island
Mount Glorious	Dunk Island
Noosa	Green Island
Numinbah	Lake Barrine
Ravensbourne	Lake Eacham
Springbrook	Millstream Falls
Tamborine	Tully Falls
Bald Rock (Stanthorpe)	Palmerston
Mount Coughal (South Coast)	Crater



PICNIC GROUND IMPROVEMENTS, PALM GROVE NATIONAL PARK, TAMBORINE MOUNTAIN.
 All facilities on National Parks are available free of charge to the general public.



TYPICAL NATIONAL PARK SIGNS, MAIALA, MOUNT GLORIOUS.
 Since work commenced on National Parks in 1937 a total of £515,926 has been expended on these areas.

The year's work included general supervision and patrol of National Parks and Beauty Spot Reserves, internal access by means of formed walking tracks including causeways and bridges across watercourses, maintenance and improvement of existing roads and tracks, provision of direction signs on tracks and name plates on specimen trees, erection of ornamental entrances, eradication of lantana, groundsel and other undesirable plants, replanting of reclaimed areas, tending planted trees, improvements to parking areas and picnic grounds, fencing boundaries, provision of cattle grids, installation of guard rails and safety fences, provision of conveniences, swings and other amenities, traversing park boundaries, seed collection, investigation of unauthorised timber operations on roads and reserves in vicinity of National Parks, fire protection, and investigation of proposals for additional National Park reservations.

During the year 4 miles 71 chains of new track were constructed, bringing the total length of constructed track in all reservations to 243 miles 37 chains.

Two new National Parks, totalling 49,140 acres, were proclaimed in 1957-58. These comprised an area of 48,320 acres in Central Queensland (Salvator Rosa) surrendered from Cungelella Pastoral Holding by the Enniskillen Pastoral Co., and a former Scenic Reserve at Mount Edwards in the Ipswich district, of 820 acres, converted to National Park.

Additions to the existing National Park at Ravensbourne comprised an area of 3 acres 3 roods 18 perches donated by the late D. J. Kynoch, and two small parcels of land of 19 acres 2 roods 27 perches purchased from A. B. Case.

At 30-6-1958 there were 252 gazetted National Parks, covering 837,316 acres.

These Parks continue to attract an increasing number of visitors each year. Last year approximately 550,000 persons visited these areas.

Visitors were high in their praise of the standard of work carried out, the attractive signs and ornamental entrances coming in for particular commendation.

The Department acknowledges, with gratitude, the work of the Honorary Rangers and the National Parks Association and its members in promoting and regulating the use of the National Parks and in protecting the natural beauties therein. The work of Honorary Rangers in organised week-end and holiday patrols of the more frequented National Parks was particularly helpful.

HARVESTING AND MARKETING.

General.—The volume of milling timber logged from Crown land during the year amounted to 213,000,000 super. feet net hoppus measure. This was 8,400,000 super. feet less than was logged in the previous year. The reduction was brought about by a decrease of 7,700,000 super. feet in the cut of forest hardwoods and decreased cuts of 1,300,000 super. feet in each of the groups covering cabinetwoods, miscellaneous timbers and plantation thinnings.

On the other hand, the Cypress pine cut increased by 2,700,000 super. feet and there were minor increases in the fellings of natural Hoop and Bunya pine and scrub hardwoods.

Logging conditions were similar to those of the preceding year and the net decrease reflects a slackening of demand for timber for building purposes and the competition of other materials with case timber.

The total cut of plantation thinnings was almost 19,000,000 super. feet. However current sales provide for the logging of 28,500,000 super. feet of thinnings annually. So far, all sales of plantation thinnings which have been offered at auction have found ready purchasers, in some cases after keen competition for the lots.

The Department hopes for more active operation of those current sales which have not been fully operated to date.

The organisation built up for the supply of railway sleepers was affected by the decision, midway through the year under review, not to renew orders for sleepers for the time being. Some hardship to suppliers who had entered into commitments to purchase plant was reported. On previous occasions it has proved difficult to place orders after similar breaks in the continuity of employment in this field, suppliers having transferred to other callings.

Sleeper block supply was resumed on a small scale towards the end of the year.

The programme of road construction within virgin forest areas, which was initiated many years ago by the Public Estate Improvement Branch of the Lands Department, and continued by the Main Roads Department, terminated on 30-6-1958. These roads will be built by this Department in future. Many of them serve other interests than forestry, and it is already obvious that some of these interests seek better standard roads or a more rapid rate of construction than is desired by the Department or consistent with the funds available.

Many miles of roads, which were used for the haulage of log supplies to sawmills in the first place and then either incorporated in settlement plans or used in the construction of large scale hydro-electric works, were constructed under this scheme.

A growing tourist traffic has also taken advantage of the access provided in this way to the scenic attractions associated with the timbered areas.

The Department's own programme of logging road construction will require to be stepped up to replace this work formerly carried out by the Main Roads Department, and to open new areas, from time to time, in order to maintain log supplies.

Over the past 10 years the Department has constructed 780 miles of logging roads.

Log prices remained relatively stable. Increases of 1s. per 100 superficial feet for forest hardwoods, and of 6d. and 3d. for other species, became necessary to cover contributions to road maintenance and increases in felling costs. The new rates applied from February, 1958.

In the previous November, Cypress pine log depot prices had been decreased by amounts of up to 1s. 8d. per 100 superficial feet. These reductions were determined from the data obtained from studies carried out in various Cypress pine mills.

The cost of protecting standing timber against fire and other damaging agents was £152,000 as compared with £77,000 in the year 1956-57. A prolonged fire dangerous period, resulting from the drought conditions in South Queensland, was mainly responsible for the increased protection cost.

Fires caused some damage to millable Hoop pine and Cypress pine, aggravated, in the latter case, by subsequent attack by the Cypress pine Jewel Beetle. In most cases sawmillers co-operated to secure maximum salvage of useful timber.

Demand for constructional timbers was maintained for most lines, although sales of poles and sleepers declined.

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.)									
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	39,238	6,235	20,054	48,411	255,023	31,361	58,990	17,829	477,141
1956-57	44,395	3,643	20,029	51,772	269,226	32,500	48,245	13,993	483,803
1957-58 (estimated)	46,000	3,500	19,000	52,000	258,000	29,000	44,000	14,000	465,500

Mill Logs—Crown Lands.—The following are the annual quantities of mill logs obtained from Crown Lands as from 1946-47 :—

	super. ft.		super. ft.
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
1950-51	187,000,000	1956-57	221,000,000
1951-52	238,000,000	1957-58	213,000,000

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.)								
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
1956-57	42,638	2,851	21,701	76,165	8,781	22,374	26,576	20,280
1957-58	43,124	2,730	24,433	68,456	9,142	20,964	25,234	18,917

The Timber Business.

(a) Mill Logs—	1956-57.	1957-58.
Hoop and Bunya Pine ..	42,638,000 super. feet	43,124,000 super. feet
Forest Hardwoods ..	76,165,000 super. feet	68,456,000 super. feet
Scrub Hardwoods ..	8,781,000 super. feet	9,142,000 super. feet
Cypress Pine	21,701,000 super. feet	24,433,000 super. feet
Kauri Pine	2,851,000 super. feet	2,730,000 super. feet
Cabinet Woods	22,265,000 super. feet	20,897,000 super. feet
Miscellaneous Species ..	26,576,000 super. feet	25,234,000 super. feet
Plantation Timbers ..	20,280,000 super. feet	18,917,000 super. feet
Stumps and Fitches ..	109,000 super. feet	67,000 super. feet
Total Crown Mill Logs ..	221,366,000 super. feet	213,000,000 super. feet
(b) Construction Timbers—		
Headstocks, Transoms, Crossings, Braces, etc.	465,673 super. feet	617,020 super. feet
Sleepers	1,063,036 pieces	649,599 pieces
Girders, Corbels, Piles, Sills and Girder Logs	{ 140,797 lineal feet 766,413 super. feet	208,764 lineal feet 356,038 super. feet
Poles	406,604 lineal feet	312,243 lineal feet
House Blocks	189,754 lineal feet	104,188 lineal feet
Mining Timbers	294,803 lineal feet	431,826 lineal feet
Mining Timbers	45,724 pieces	30,031 pieces
Gross Receipts from Timber Sales	£2,426,077	£2,475,152
Net Revenue	£1,382,954	£1,397,220

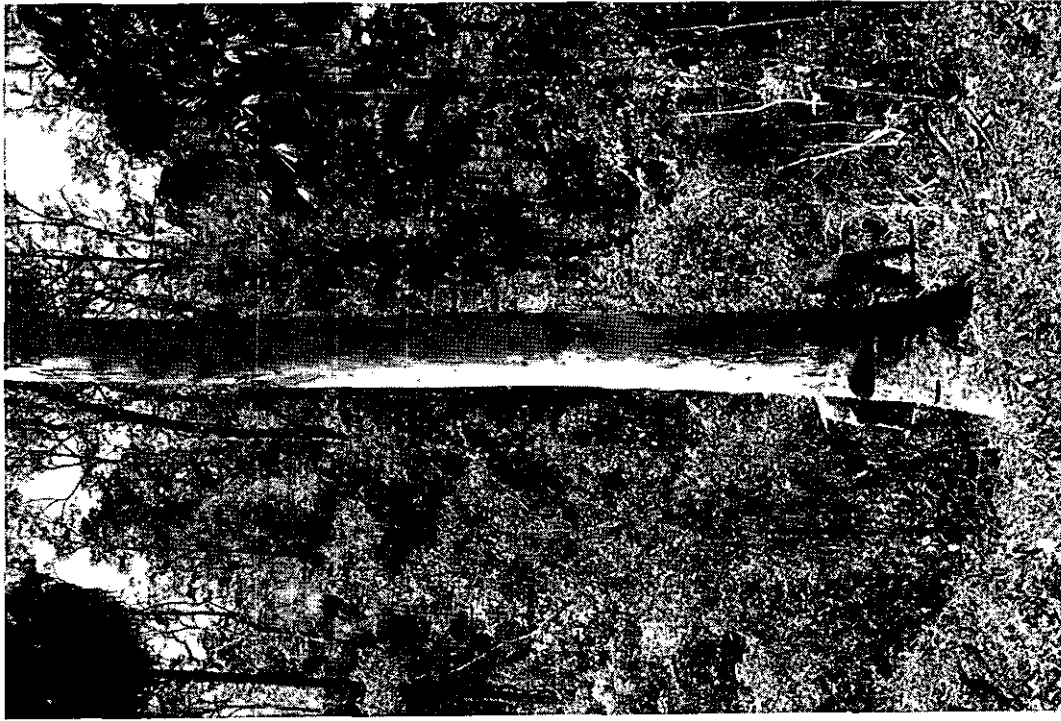
Logging.—During 1957-58 the following quantities were hauled by, and payments made to, contractors to the Department:—

Class.	Quantity.	Expenditure.
	Super. feet.	£ s. d.
South Queensland—		
Hoop and Bunya Pine	22,977,074	
Forest Hardwoods	164,305	
Scrub Hardwoods	143,425	
Miscellaneous	217,710	
Cedar	11,658	
	23,514,172	225,378 12 5
North Queensland—		
Kauri Pine	2,850	
Cabinet Woods	2,165,158	
Forest Hardwoods		
Scrub Hardwoods	422,333	
Miscellaneous	1,302,037	
Cedar	55,841	
	3,948,219	43,855 17 9
Totals	27,462,391	269,234 10 2

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

	Tons	Cwt.	Qrs.
In stock at 1st July, 1957	73	14	0
Purchased during year	—	—	—
	73	14	0
Exported to Hong Kong	56	8	0
On hand at 30th June, 1958	17	6	0

No sandalwood was purchased or exported during the year.



ROSE GUM, 14 ft. 3 in. GIRTH BREST HIGH, 84 FEET TO FIRST LIMB.
The Crown Log Cut of Hardwood for the year was 68,500,000 super. ft.



HARDWOOD FOREST OF THE FUTURE.
Spotted Gum (*Enc. maculata*) regeneration—Gympie District.
To date 338,053 acres of Hardwood forest have received silvicultural treatment.

Hewn Timber Prices.—No price change was made during the year.

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

	£	s.	d.	to	£	s.	d.
On 29th July, 1957	12	12	6	to	12	14	6
On 27th January, 1958	12	14	6	to	12	17	6
On 10th March, 1958	12	17	6	to	13	6	6
On 28th April, 1958	13	6	6	to	13	10	6

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.	1955-56.	1956-57.	1957-58.
Sleepers	457,659 pieces	680,132 pieces	484,716 pieces
Crossings	193,614 super. feet	225,325 super. feet	193,444 super. feet
Transoms	113,154 super. feet	129,493 super. feet	159,492 super. feet
Bridge timber (round)	34,685 lineal feet	38,979 lineal feet	17,944 lineal feet
Bridge timber (square)	51,336 super. feet	39,522 super. feet	71,686 super. feet

Logging Roads—1957-58.

Expenditure by Main Roads Department:—

	£
Construction	33,905
Maintenance	25,398

Forestry Department road programme for the year constituted 69 miles of construction. Location and working surveys covering 107 miles were carried out.

Expenditure from Forestry votes was as follows:—

	£
New Construction	118,339
Maintenance	41,424
Subsidies to Shire Councils	21,125
Workers' Compensation	324
Pay Roll Tax	1,691
Surveys	2,638
Fares and Freights	1,049
	<u>£186,590</u>

SAWMILLS LICENSING.

During the year there was a continued diminution in the number of mills actively engaged in the sawmilling industry.

Those remaining in operation, nevertheless, were able to maintain production at a level not much below that of the previous year.

The policy of examining all applications for new licenses in the light of the timber supplies available and the requirements of existing industry was generally adhered to, but it was considered desirable to grant a number of licenses for sleeper milling purposes on a restricted term basis, as a measure of relief in drought stricken areas.

Within the limits of staff available, regular inspection of mills has been continued. The requirements of the Sawmills Licensing Act are being well observed by the industry generally, although in a few cases it was necessary to issue warnings.

The submission of quarterly returns has greatly improved, but it may become necessary to recommend action against some persistent defaulters. These returns are essential for compilation of basic industry statistics.

The following table sets out the position with regard to sawmill licenses as at 30th June, 1958:—

Number of Licenses as at 30-6-57.	Sawmill Classification.	New Licenses Issued.	Formerly General Now Restricted.		Licenses not Renewed.				Current Licenses as at 30-6-58.	Total 30-6-58.
			Plus	Minus	Refused.	Relinquished.	Under Consideration.	Working—No Application.		
883	General mills ..	..	..	2	38	65	17	7	754	778
22	Case mills ..	1	..	..	6	..	..	2	15	17
40	Sleeper mills ..	36	2	..	4	..	..	..	74	74
20	Other restricted ..	7	..	..	3	3	..	..	21	21
64	Resaw and dressing ..	5	..	..	..	..	..	1	68	69
1,029		49	2	2	51	68	17	10	932	959

OFFENCES.

During the year ended 30th June, 1958, officers reported on 208 breaches of Acts and Regulations administered by the Department.

Proceedings were successfully instituted against 22 persons. Of these, 17 were proceeded against for unauthorised cutting or removal of timber, 2 for unauthorised ringbarking, 2 for breaches of the Rural Fires Act and 1 for breach of the Timber Users' Protection Act. Fines totalling £180 were imposed.

In addition, the Police instituted proceedings against one person for cutting timber on a road, and the Department of Agriculture and Stock against one person for illegal possession of a protected plant.

In 78 cases of unauthorised timber operations where it was considered offences did not warrant proceedings, the value of timber was collected and warnings issued. In 16 other cases not involving timber royalty, warnings were issued.

In 13 cases of unauthorised ringbarking appropriate action was taken.

As a result of action in all cases an amount of £5,866 was recovered by the Crown in timber revenue.

During the year 9 cases of breaches of the Sawmills Licensing Act were investigated. Prosecution actions are pending against two offenders, whilst in the other 7 cases warnings were issued.

The number of complaints received from householders under the Timber Users' Protection Act in respect of the use of lyctus susceptible timber again showed a decrease on the previous year's figures, 43 cases being investigated by officers of the Department as against 58 cases in the previous year and 72 for the year 1955-56.

The Department continued its policy of endeavouring to get the builder to remedy the position and in 15 of these complaints investigated, the defects have been attended to.

In one case it was necessary to take proceedings and a fine of £5 was imposed.

In 16 cases 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.

One conclusion that is evident from the year's activity in extension work in the Timber Industry, is the very great need for that industry to apply the results of 30 years or more of research in Forest Products.

Only too evident is a general lack of appreciation of the value of that research and the necessity for proper technical control of the conversion processes.

Overall, timber supply exceeded demand during the year. The return to competitive trading not only within the industry, but with other materials, is a compelling reason why industry must seek efficiency in all its operations, if wood is to maintain its position as a constructional material.

Progress in research work of basic importance to the Department's reforestation works was limited by failure to recruit suitably qualified staff, and by inadequate laboratory accommodation.

The latter, particularly, is preventing the efficient use of research equipment purchased in recent years.

Close co-operation was maintained with other Government Departments, both State and Commonwealth, and, in particular, with the Division of Forest Products, C.S.I.R.O., to achieve proper co-ordination of research activities. Ready assistance has been given by these organisations, trade associations and individual sawmillers in many and varied problems.

I. Engineering and Economics.

Failure to recruit suitable staff in this field again limited research and extension work to the bare necessities. Requests for assistance by industry on engineering problems could not be satisfied.

Studies in conversion economics were maintained only by assistance from other sections and consequent delay in other work of major importance.

Four major sawmill studies were completed during the year, viz.

Plantation Hoop Pine (*Araucaria cunninghamii*) First Thinnings. Second Thinnings.

Mixed Eucalypt Hardwoods—Two mills.

These studies have two objects—firstly to determine the correct relationship between Crown log timber prices and sawn timber prices in the various market zones, and, secondly, to provide standing values of trees of various sizes and species. This information is essential for the proper orientation of Silvicultural practice—particularly thinning.

Relation of standing values to merchantable tree volumes have been developed for Hoop pine (plantation trees) and Cypress pine in order to evaluate the results of various thinning experiments.

Continuation of work in the field of conversion economics is imperative in order to take account of changes in market conditions, costs and methods of conversion and price of the converted product.

II. Seasoning and Timber Physics.

1. **Seasoning.**—Of necessity, greater attention was paid to extension activities in seasoning in an endeavour to raise the evident unsatisfactory standard.

Nothing is more damaging to the status of wood as a construction material, or the market reputation of individual species, than inadequate seasoning of machined products such as flooring and external sheeting. This can only lead to unsatisfactory service in use and it is as well for all to realise that price goes far beyond the original purchase—the purchaser is entitled to service and he will judge wood by this standard when considering the use of alternative materials.

During the year, 1,686 samples of milled flooring and weatherboards were submitted by users for test of compliance with the Moisture Content range specified by the Timber Users' Protection Act (10–15 per cent. M.C). The results are set out below and are a measure of the Standard of Seasoning in the milling industry.

Moisture Content Range.	Flooring. Percentage of Total Number.	Weatherboards. Percentage of Total Number.
Less than 8 per cent.	0.6	0
8.1–10	4.6	1.5
10.1–12	13.4	6.1
12.1–14	29.9	35.5
14.1–15	16.7	23.5
15.1–17	21.8	13.6
17.1–19	7.4	6.1
19.1–21	3.0	1.5
21.1–23	1.0	0.8
Over 23 per cent.	1.6	11.4
	100.0	100.0

Sixty per cent. of flooring and 65 per cent. of the weatherboard samples lie within the range 10–15 per cent.

It will be noticed that by far the greatest percentage outside this range is above 15 per cent. The inevitable result will be that the materials represented by these samples will undergo further shrinkage after fixing—leading to unsatisfactory service and unsatisfied users.

In 1956–57, 43 per cent. of samples tested were in excess of 15 per cent. M.C. This figure declined to 30 per cent., an improvement, but still unsatisfactory.

An operational check of kiln drying has indicated a general lack of appreciation of the necessity to maintain Kiln instruments and equipment and moisture testing facilities in correct operating condition. It is apparent that much more extension work in seasoning is necessary than can be given by existing staff.

Observation on air drying rates, shrinkage, etc., of lesser known North Queensland species was commenced. Special air seasoning studies of particular refractory species were also laid down in order to determine the quantity and extent of degrade occurring during drying.

This work is fundamental to the proper utilisation of many rain forest hardwoods.

As part of an Australia wide survey of equilibrium moisture content (E.M.C.) of sawn material, observations were commenced on samples at the Rocklea depot. This is a long term experiment and weekly observations will continue for some years.

2. Timber Physics.—Work on physical properties of plantation grown conifers and their relation to growth conditions has continued. Some brief results are:—

Hoop Pine (*Araucaria cunninghamii*).—The variation of basic density within and between trees has been analysed and there is some indication that variation with position in tree is different for different trees.

Observations of the occurrence of spiral grain has been commenced to determine whether there is any relationship with length of internode.

Slash Pine (*Pinus elliottii*).—Samples from 13 selected parent trees being used for the establishment of seed gardens were supplied to Division of Forest Products (C.S.I.R.O.), for assessment of wood qualities.

Honduras Pine (*Pinus caribaea*).—Analysis of variation in basic density of trees from three widely separated geographical locations has given some indication of a geographical effect.

While significant difference exists between the mean basic density of trees from Beerwah and Bowenia (Rockhampton) plantations, the number of samples was small and further confirmation of this difference is desirable. The differences are set out in the following table:—

Locality.	Age of Stems.	Mean Basic Density all Samples.
Beerwah	7 years	22.17 lb./cu. ft.
Bowenia	7½ years	23.09 lb./cu. ft.

The difference between means (5.92 lb./1 cu. ft.) was significant at $P = .05$ level.

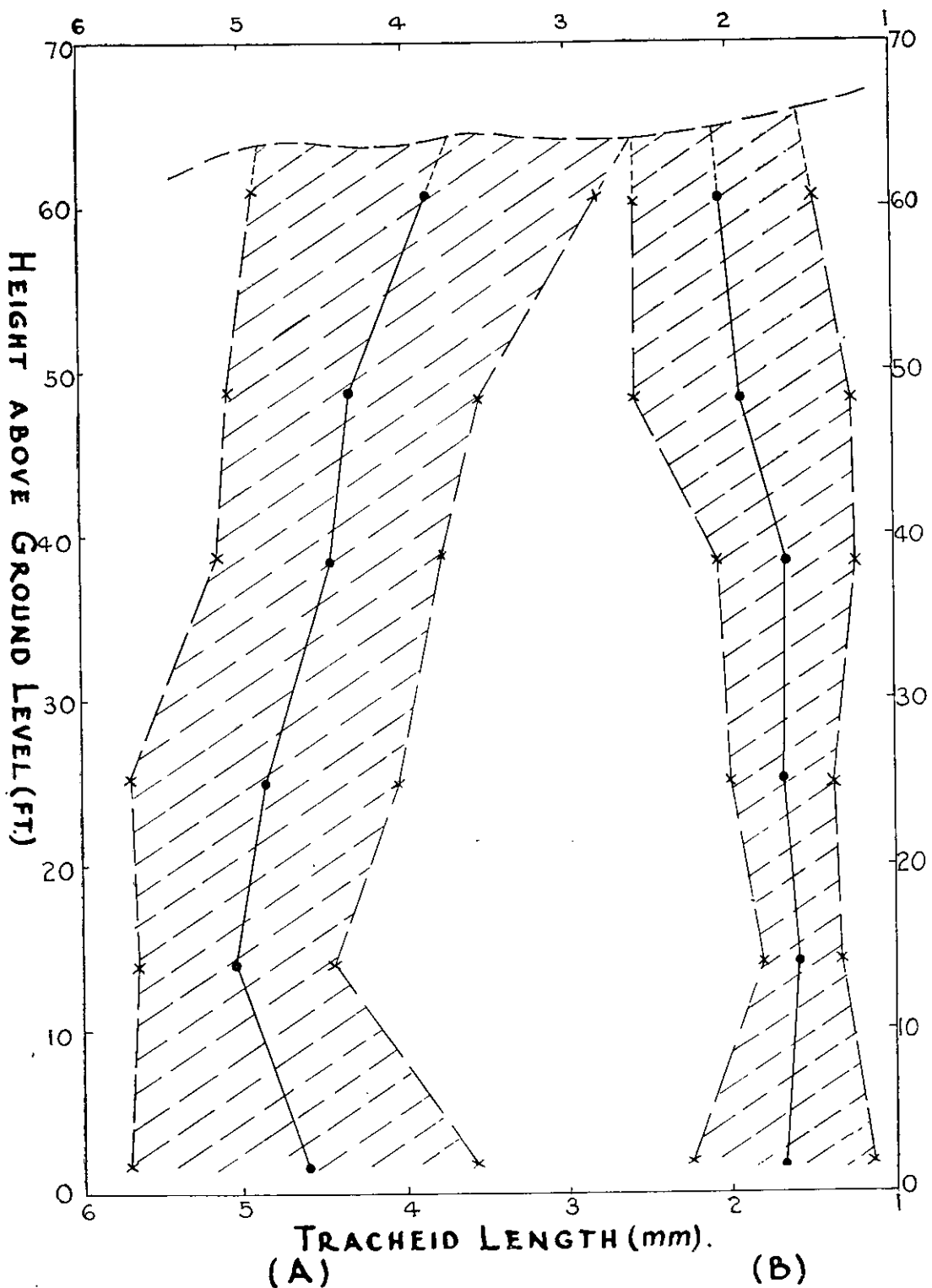
Compression Wood.—Observations on development of compression wood in trees of Slash and Loblolly pines leaning as a result of cyclonic winds in July, 1954, were continued. These trees are, apparently, now stabilised and little further movement of the stem towards the vertical plane occurred during the year.

III. Wood Anatomy and Utilisation.

1. Utilisation.—The public demand for information on identification, properties, and uses of both native and imported timbers continued. Over 800 major enquiries were dealt with and this work, while it is a very necessary function, is a heavy drain on the time of research staff.

Work in development of Australian Standards for timber and plywood continued, and drafts were prepared during the year as a basis for discussion of revision of the following Australian Standards:—

Interim 360	Eastern Australian Hardwoods.
Interim 362	Eastern Australian Brushwoods.
A.S.—059	Waterproof Plywood.
A.S.—060	Plywood for general purposes.



HOOP PINE (*ARAUCARIA CUNNINGHAMII*)

MEAN TRACHEID LENGTH BY HEIGHT ABOVE GROUND.

FOR SEVEN (7) EVEN-AGED (28.6 YRS) TREES FROM A "PLUS" STAND.

(A) = LAST-FORMED GROWTH SHEATH. (WITHIN 3" OF CAMBIUM)

(B) = PITH ZONE (WITHIN 3" OF PITH).

●—● = MEAN TRACHEID LENGTH.

▨ = LIMITS OF 95% PROBABILITY ZONE.

Revision of the material contained in Utilisation Pamphlets Nos. 1 and 2, covering North and South Queensland building timbers, has been completed. Changes in format of these publications to provide greater convenience to users is being made. The pamphlets will be reprinted as one issue.

The reference herbarium and collection of authentic wood specimens were increased by new material from northern rain forests. Over 100 new specimens were added to the herbarium, and close contact with the Government Botanist was maintained.

Arrangements have been made for a large scale service test of Brown Bloodwood railway sleepers to determine their suitability and performance.

2. Wood Anatomy.

(a) *Structure in Relation to Growth.*—Work continued in the investigation of various anatomical features, such as tracheid length, micellar angle, etc., in plantation trees of Hoop pine (*Araucaria cunninghamii*). Some interesting results from examination of 28-year-old trees from a "plus" stand are:—

The trends for mean tracheid length (with height from ground) in the last formed growth sheath and the pith zone are shown on the graph facing page 34. The limits of the 95 per cent. probability zone for the mean tracheid length at each height level are plotted to indicate the variation of individual trees.

In the last formed growth zone, tracheid length rises to a peak at a certain height and then decreases towards the top of the stem.

The maximum length occurs at different heights with different trees, but it is of interest that in the trees observed it always appears in the lower third of the stem.

Within the zone immediately surrounding the pith there is little difference in length of tracheid with increasing height.

In using initial tracheid length at the pith as a criterion for selection of desirable genotypes in tree breeding, little error will be involved in variation of sample position with height in tree.

Hopes that measurement of a single anatomical feature would, through relationship with other anatomical and physical features, be a sufficiently reliable indication of wood quality, have not yet been realised.

An overall rating of trees considering various features will probably be necessary.

Study of the effect of rate of height extension and diameter growth on tracheid length, micellar angle, lumen diameter, and cell wall thickness, has been commenced on selfed seedlings from two parent trees of *Pinus elliottii*.

X-ray diffraction equipment and a projection microscope are being purchased for this anatomical work.

(b) *General.*—Microscopic investigation of ground-wood pulp from a building board mill showed that certain difficulties and variations encountered in the manufacturing process were not due to varying proportions of anatomically different tissues but to variation in ground-wood texture, that is, the fibres had not been separated sufficiently in grinding.

IV. Chemistry Preservation and Plywood.

1. *Preservation.*—(a) *Lyctus Control.*—During the year, a detailed check inspection of treatment plants registered under the Timber Users' Protection Acts was made. Operational standards of treatment with boron were generally satisfactory, but in two cases unsatisfactory standard of treatment was detected and action taken to obtain improvement.

Pilot trials of momentary dip-diffusion methods were commenced. This process is of interest in that it requires a low capital investment in plant.

The Board approved the use of the proprietary preservative "Celcure" as an approved preservative against *Lyctus brunneus*, as required by the Timber Users' Protection Acts.

(b) *European House Borer (Hylotrupes bajulus).*—During the year, eradication of infestation by this damaging insect in State owned houses built of imported coniferous timber was commenced. Whole house fumigation with methyl bromide is employed. The work is being done by contract to the Queensland Housing Commission. At the end of the year some 850 houses had been treated. Check inspection indicates that the treatment has been entirely successful in killing the larvae at present infesting the timber.

Check inspection has not revealed any occurrence of a generation born in Queensland and there is good reason to believe that the fumigation treatment will result in eradication of this insect.

(c) *General*.—Interest in general purpose preservatives has continued and it is likely that pressure treatment processes will extend to Queensland in the near future.

The annual inspection of field service tests of sleepers given preservative treatment with creosote oil confirmed previous evidence in favour of treatment.

Stake tests of various oil borne preservatives were again inspected and results recorded.

2. Plywood.—There has been increasing interest in hot pressing techniques. Current hot press production potential is 5½ million square feet of waterproof plywood and 2½ million square feet of moisture resistant plywood per annum.

Some further improvement in manufacturing techniques occurred during the year, but there is too little appreciation of the necessity for critical control of moisture content of veneers, particularly in a hot pressing process.

Many failures to meet Australian standard tests are due to this alone and assistance given to industry has been largely concerned with this factor.

3. Chemical Laboratory.—The laboratory maintained a reasonable level of work, but with limited accommodation it has not been possible to use certain equipment purchased in recent years.

The provision of sufficient space for this work is an urgent requirement if adequate service is to be given to industry and the Department's own operations.

4. Timber Users' Protection Acts.—43 complaints of breaches of this Act relating to use of Lyctus susceptible and seasoned timber were investigated.

A further 338 routine inspections of building operations, timber yards, etc., were undertaken to bring to the notice of producers and users the general provisions of the Act, and provide some measure of prevention of offences.

The continuance of complaints is an indication of the necessity for continuance of the provisions of the Act.

V. Experimental Yard.

Normal operation of the yard continued at its present location, to provide experimental sawing and seasoning facilities.

Sketch plans have been prepared to cover the transfer of this yard to the Department's Rocklea depot and it is hoped that construction may be commenced in the near future.

Sawn timber totalling 2,260 super. feet was sold from Fancywood Stocks, this almost entirely resulting from experimental sawing projects.

The Kiln facilities were engaged part time in drying timber for Department of Public Works, the charges for this being a substantial offset to operating costs of the yard.

STAFF.

At 30th June, 1958, there were 328 salaried officers on the staff, 4 more than at the same time in 1957. The number of wages men increased from 1,480 to 1,774.

During the year we lost the services of thirty salaried officers. Included in these were five Forest Rangers, who were retired after long and meritorious service, viz. Messrs. R. F. Spiden, A. W. Thompson, J. T. Innis, P. D. Savage and E. W. Shield. We wish them many more years of health and happiness.

It is with deep regret that the death is recorded of Reg. Cummins of Head Office, who passed away, suddenly, on 6th October, 1957, at the age of 45. Reg's charitable nature and disposition endeared him to many officers, not only in Head Office but also throughout the country districts.

It is appropriate to record here the passing of George Gentry on 24th June, 1958. George, although an officer of the Rural Fires Board at the time of his death, served the greater part of his official career with Forestry. He contributed many years of excellent service not only to Forestry but also to National Park administration in Queensland.

The sympathy of all members of the Department is extended to the families of these officers.

ACKNOWLEDGMENT.

I desire to record my appreciation of the valuable assistance given by all members of the Staff during the year.

V. GRENNING,
Director of Forests.

Appendices.

APPENDIX A.

Return of Timber, Etc., Removed from Crown Lands during the Year ended 30th June, 1958.

Species.	Quantity.	
	Super feet.	Super feet.
Milling Timber—		
Hoop and Bunya Pine—		
Ply	4,867,205	
Logs	20,944,799	
Tops	17,311,984	
		43,123,988
Kauri Pine	2,730,303	
Cypress Pine	24,433,331	
Forest Hardwoods	68,456,103	
Scrub Hardwoods	9,142,471	
Cabinet Woods	20,897,029	
Miscellaneous Species	25,234,389	
Limb Logs, Head Logs, Stumps and Flitches	66,932	
		150,960,558
Plantation Thinnings—		
Hoop Pine	13,412,792	
Bunya Pine	59,551	
Kauri Pine	826,026	
Slash Pine	2,053,575	
Loblolly Pine	1,287,851	
Maple	176,651	
<i>Pinus patula</i>	944,715	
<i>Pinus radiata</i>	114,737	
Other species	41,097	
		18,916,995
		213,001,541

Other Classes—	Expressed as Superficial feet (Hoppus) Log Measure.	
Sleepers Hewn	36,066 pieces	1,370,448
Sleepers Sawn—5 ft.	206,190 pieces	5,773,320
Sleepers Sawn—7 ft.	407,343 pieces	15,479,034
Sleeper Blocks (as sleepers contained)	281,339 pieces	10,128,124
Sleeper Edgings	2,009 pieces	20,090
Transoms, Crossings, Headstocks, Longitudinals	617,020 superficial feet	987,232
Girders, Corbels, Piles, Sills, Kerb Logs	208,764 lineal feet	3,757,752
Girder Logs	356,038 superficial feet	356,038
Poles	312,243 lineal feet	2,185,701
House Blocks, Round Posts	104,188 lineal feet	625,128
Fencing Material—Split	524,221 pieces	4,717,989
Fencing Material—Round	253,397 lineal feet	633,492
Mining Timber—Split	30,031 pieces	120,124
Mining Timber—Round	431,826 lineal feet	863,652
Stakes	100 stakes	800
Miscellaneous Sawn Timber (offcuts)	66,808 superficial feet	106,893
Boat Knees	175 pieces	250
		47,126,067
Fuel	67,592 tons	
Charcoal	15,150 bags	
Trees and Plants (Number)	304,895	
Sand, Gravel, Soil, etc.	224,960 cubic yards	
Rosewood	56 tons	
Lawyer Cane	23 tons	
Staghorns and Ferns	1,170 pieces	
Peat	74 bags	
Mulga Wood	75 tons	

APPENDIX B.

Annual Cut—Pine—Financial Year ended 30th June, 1958.

Forestry District.	Ply.	Logs.	Tops.	Total.
	Super. feet.	Super. feet.	Super. feet.	Super. feet.
Atherton .. .. .	.. .. .	.. .. .	7,110	7,110
Brisbane	23,091	264,604	214,087	501,782
Gympie	136,018	1,176,686	872,220	2,184,924
Mackay .. .. .	.. .. .	365,108	409,497	774,605
Maryborough	655,006	1,894,559	1,808,402	4,357,967
Monto	528,926	2,206,765	1,920,900	4,656,591
Murgon	532,947	5,454,198	3,633,131	9,620,276
Warwick .. .. .	.. .. .	847,527	665,075	1,512,602
Yarraman	2,991,217	8,734,222	7,782,692	19,508,131
Total	4,867,205	20,943,669	17,313,114	43,123,988

APPENDIX C.

Receipts under the State Forests and Timber and Quarry Regulations for the year ended 30th June, 1958.

DISTRICTS.	TOTALS.		
	£	s.	d.
Group 1—South Queensland (Beerwah, Brisbane, Bundaberg, Gayndah, Gympie, Imbil, Monto, Maryborough, Murgon, Pechey, Yarraman)	1,330,952	16	4
Group 2—North Queensland (Atherton, Herberton, Cooktown, Port Douglas, Cairns, Innisfail, Ingham, Charters Towers, Ravenswood, Hughenden, Townsville) ..	468,216	14	3
Group 3—Dalby, Roma, Taroom, Charleville, Quilpie	118,414	15	6
Group 4—Warwick, Goondiwindi, Inglewood, St. George, Stanthorpe, Cunnamulla ..	101,053	9	5
Group 5—Mackay, Rockhampton, Clermont, Bowen, Proserpine, Emerald, Springsure, Theodore	35,773	18	2
Group 6—Barcaldine, Blackall, Jundah, Longreach, Muttaburra, Stonehenge, Winton, Aramac, Isisford, Jericho	4,281	4	4
Group 7—Cloncurry, Boulia, Kynuna, Mackinlay	532	6	7
Group 8—Burketown, Coen, Croydon, Georgetown, Normanton, Thursday Island .. ..	..	
	£2,059,225	4	7
Receipts—Forestry and Lumbering	383,692	17	0
Sale of Plants, Material, etc.	22,899	12	8
Licenses† (See note after Appendix D)	2,827	8	2
Rents and Grazing Dues	8,951	16	10
	£2,477,596	19	3
Less Treasury Refunds	2,444	10	9
	£2,475,152	8	6

COMPARISONS WITH TOTALS OF PREVIOUS YEARS.

1953-54.	1954-55.	1955-56.	1956-57.	1957-58.
£2,513,058	£2,046,786	£1,866,437	£2,426,077	£2,475,152

APPENDIX D.

Proceeds of Sales of Timber, Etc., for the Period 1st July, 1954, to 30th June, 1958.

Groups.*	1954-55.**		1955-56.**		1956-57.**		1957-58.	
	£	s. d.	£	s. d.	£	s. d.	£	s. d.
Group 1 .. .. .	..	..	..	..	..	..	1,330,952	16 4
Group 2 .. .. .	..	..	..	..	..	..	468,216	14 3
Group 3 .. .. .	..	..	..	..	..	..	118,414	15 6
Group 4 .. .. .	..	..	..	..	..	..	101,053	9 5
Group 5 .. .. .	..	..	..	..	..	..	35,773	18 2
Group 6 .. .. .	..	..	..	..	..	..	4,281	4 4
Group 7 .. .. .	..	..	..	..	..	..	532	6 7
Group 8 .. .. .	..	..	..	..	..	..	..
Receipts—Forestry and Lumbering	1,822,130	11 7	1,603,476	13 9	2,083,883	0 6	2,059,225	4 7
Sale of Plants, Material, etc.	19,165	15 7	20,225	16 9	15,057	18 3	22,899	12 8
Licenses†	2,186	14 3	2,390	7 11	2,785	17 5	2,827	8 2
Rents and Grazing Dues	6,934	16 5	7,275	2 10	7,849	14 10	8,951	16 10
	2,047,944	15 0	1,870,570	19 9	2,429,895	16 7	2,477,596	19 3
Less Treasury Refunds	1,159	1 6	4,134	5 8	3,819	0 4	2,444	10 9
Total	2,046,785	13 6	1,866,436	14 1	2,426,076	16 3	2,475,152	8 6

* For districts within the groups see Appendix C.

** Districts previously shown in sixteen groups.

† 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, 1957, to 30th June, 1958.

Species—Standard Trade Names. (Botanical names in Brackets.)	Log Class.	Delivery. F.O.R.	Price per 100 super. feet (Hoppus measure).		
			As at 1-7-57.	As at 2-11-57.	As at 21-2-58.
Red Tulip Oak (<i>Argyrodendron peralatum</i>)	8 ft. plus	Cairns	s. d. 41 4	s. d. 41 4	s. d. 41 10
		Townsville	41 4	41 4	41 10
Red Cedar (<i>Cedrela toona</i>)	8 ft. plus	Cairns	71 4	71 4	71 10
	6 ft. plus	Brisbane	77 1	77 1	77 7
North Queensland Kauri Pine (<i>Agathis palmerstoni</i>)	8 ft. plus	Cairns	61 4	61 4	61 10
		Townsville	61 4	61 4	61 10
Queensland Walnut (<i>Endiandra palmerstoni</i>)	8 ft. to 8 ft. 11 in.	Cairns	52 3	52 3	52 9
		Townsville	52 3	52 3	52 9
Northern Silky Oak (<i>Cardwellia sublimis</i>)	8 ft. plus	Cairns	61 4	61 4	61 10
		Townsville	61 4	61 4	61 10
Queensland Maple (<i>Flindersia brayleyana</i>)	8 ft. to 8 ft. 11 in.	Cairns	66 4	66 4	66 10
		Townsville	66 4	66 4	66 10
Black Pine (<i>Podocarpus amara</i>)	8 ft. plus	Cairns	51 4	51 4	51 10
		Townsville	51 4	51 4	51 10
Silver Silkwood (<i>Flindersia acuminata</i>)	8 ft. plus	Cairns	61 4	61 4	61 10
		Townsville	61 4	61 4	61 10
White Beech (<i>Gmelina leichhardtii</i>) (<i>Gmelina fasciculiflora</i>)	8 ft. plus	Cairns	61 4	61 4	61 10
	6 ft. plus	Townsville	61 4	61 4	61 10
	8 ft. plus	Brisbane	62 1	62 1	62 7
Hickory Ash (<i>Flindersia iflora</i>)	8 ft. plus	Cairns	51 4	51 4	51 10
Northern Silver Ash (<i>Flindersia pubescens</i>)	8 ft. plus	Cairns	61 4	61 4	61 10
		Townsville	61 4	61 4	61 10
Queensland Silver Ash (<i>Flindersia bourjotiana</i>)	8 ft. plus	Cairns	61 4	61 4	61 10
		Townsville	61 4	61 4	61 10
Bolly Silkwood (<i>Cryptocarya oblata</i>)	8 ft. plus	Cairns	41 4	41 4	41 10
		Townsville	41 4	41 4	41 10
Satin Sycamore (<i>Ceratopetalum succirubrum</i>)	8 ft. plus	Cairns	41 4	41 4	41 10
		Townsville	41 4	41 4	41 10
Yellow Walnut (<i>Beilschmiedia bancroftii</i>)	8 ft. plus	Cairns	41 4	41 4	41 10
		Townsville	41 4	41 4	41 10
Hardwoods	6 ft. plus	Brisbane	39 8	39 8	40 8
		Warwick	32 10	32 10	33 10
Hardwoods	6 ft. plus	Maryborough	33 6	33 6	34 6
		Bundaberg .. ..	.. ..	.. ..	34 6
Hardwoods	6 ft. plus	Rockhampton	41 0	41 0	42 0
Hardwoods	6 ft. to 6 ft. 11 in.	Townsville	38 10	38 10	39 4
Hardwoods	6 ft. plus	Mackay	38 11	38 11	39 11
Hoop Pine	7 ft. plus	Brisbane	103 10	103 10	104 4
Hoop Pine "A" Quality Logs	7 ft. plus	Brisbane	88 2	88 2	88 8
Bunya Pine Logs	7 ft. plus	Brisbane	86 8	86 8	87 2
Hoop Pine "C" Quality Logs	7 ft. plus	Brisbane	54 8	54 8	55 2
Hoop Pine "D" Quality Logs	7 ft. plus	Brisbane	44 0	44 0	44 6
Bunya Pine Tops	7 ft. plus	Brisbane	44 0	44 0	44 6
Cypress Pine—1st Class	28 in. plus	Brisbane	43 6	41 10	42 5
		Gympie, Maryborough	40 6	38 10	39 5
		Goondiwindi	41 5	40 4	40 11
South Queensland Scrubwoods—					
Case and Building Timbers Group (a)	6 ft. plus	Brisbane	37 4	37 4	37 10
Common Cabinetwoods Group (b)	6 ft. plus	Brisbane	39 3	39 3	39 9
Special Purpose Timbers Group (c)	6 ft. plus	Brisbane	41 2	41 2	41 8
Plantation Timbers—	G.B.H.O.B.				
Hoop Pine	38 in.	Imbil	27 5	27 5	27 8
Slash Pine	38 in.	Beerwah	27 9	27 9	28 0

The following are the most common species included in the respective groups :—

(a) Case and Building Timbers Group—

Southern Satinash (Red Apple) (*Eugenia brachyandra*)
Blush Coondoo (*Planchonella laurifolia*)
Rose Satinash (Watergum) (*Eugenia francisii*)
Mararie (Marara) (*Pseudoweinmannia lachnocarpa*)
Pink Poplar (Blush Cudgerie) (Maiden's Blush) (*Euroschinus falcatus*)
Tulip Plum (Burdakin Plum) (*Pleiogynium cerasiferum*)
White Evodia (*Evodia micrococca*)

Brown Tulip Oak (Crowsfoot Elm) (*Argyrodendron trifoliolatum*)
Rose Walnut (Domatia Tree) (*Endiandra discolor*)
Blush Walnut (Hard Bolly Gum) (*Beilschmiedia obtusifolia*)
Red Almond (Red Ash) (Sarsparilla) (*Alphitonia excelsa*)
Bennett's Ash (*Flindersia bennettiana*)
Southern Penda (Luya's Hardwood) (*Xanthostemon oppositifolius*)

(b) Common Cabinetwoods Group—

Brown Alder (Roseleaf Marara) (*Ackama paniculata*)
Southern Silky Oak (*Grevillea robusta*)
Brush Mahogany (Red Carrobean) (*Geissois benthami*)
Silky Beech (Soap Box) (Churnwood) (*Charissa moorei*)

Rose Mahogany (Rosewood) (*Dysoxylum fraserianum*)
Miva Mahogany (Red Bean) (*Dysoxylum muelleri*)
White Birch (White Cherry) (*Schizomeria ovata*)
Blush Birch (Blush Carrobean) (*Sloanea australis*)
Bollywood (Bolly Gum) (Brown Beech) (*Litsea reticulata*)

(c) Special Purpose Timbers Group—

Crow's Ash (*Flindersia australis*)
Ivorywood (*Siphonodon australe*)
Yellowwood (*Flindersia xanthoxyla*)

Southern Silver Ash (Bumpy Ash) (*Flindersia schottiana*)
Yellow Boxwood (*Planchonella pohlmanniana*)

APPENDIX F.

Constructional Timber supplied during Financial Year 1957-58 under Forestry and Lumbering Operations.

Class of Timber.	Quantity.	Sales Value.	
		£	s. d.
Sawn Crossings	21,275 superficial feet	911	5 6
Hewn Crossings	172,169 superficial feet	7,669	11 8
Headstocks, Longitudinals and Braces	71,686 superficial feet	3,558	17 1
Hewn Transoms	114,331 superficial feet	5,537	17 1
Sawn Transoms	45,161 superficial feet	2,162	1 5
Girders—Dressed	8,569 lineal feet ..	7,109	18 7
Piles	9,347 lineal feet ..	3,862	7 2
Sills	26 lineal feet ..	28	0 0
Poles	309 lineal feet ..	72	5 0
Round Posts	741 lineal feet ..	112	4 4
House Blocks	744 lineal feet ..	127	14 4
Split Posts and Rails	42,307 pieces ..	6,778	1 0
Hewn Sleepers	36,066 pieces ..	22,974	8 6
Sawn Sleepers	167,311 pieces ..	110,470	12 4
Sleeper Blocks (as sleepers contained)	281,339 pieces ..	111,249	16 11
Total .. .. .	..	£282,625	0 11

APPENDIX G.

Comparative Statement of Expenditure for Years 1956-57 and 1957-58.

	1956-57.	1957-58.
	£	£
Revenue—		
Salaries	291,173	303,092
Travelling Expenses and Incidentals	33,502	38,890
Fares, Printing, Stores, etc.	6,758	5,012
Cash Equivalent Extended Leave	1,253	1,856
National Parks	45,540	45,813
Loan—		
Reforestation	1,255,468	1,253,565
Acquisition of Land for Forestry Purposes	6,577	4,246
Access Roads	98,210	70,000
Purchase of Plant	45,940	47,907
Trust—		
Hardwood Supplies to Railway Department and Others	360,097	267,420
Harvesting and Marketing Timber	511,355	502,946
Access Roads—Maintenance and Subsidies	57,744	63,179
Maintenance of Capital Improvements	36,870	39,400
Minor Protection	77,057	151,575
Construction of Access Roads .. .. .	..	53,412
Total	£ 2,827,544	2,848,313

APPENDIX H.

Summary of Reforestation Expenditure, 1957-58.

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.			£	s.	d.
Reserve 69	1,077 16 0			
Reserve 215	1,391 3 4			
Reserve 309	4,461 18 10			
Reserve 359	2,000 0 0			
Reserve 494	1,025 19 0			
Reserve 571	2,847 14 10			
Reserve 593	951 10 8			
Reserve 667	586 2 9			
Reserve 702	1,940 3 6			
Reserve 727	690 0 1			
Reserve 1355	138 8 2			
Reserve 1376	1,364 0 8			
Reserve 1529	1,059 16 6			
Reserve 1635	2,350 16 2			
Administration	358 9 9			
Firefighting and Patrol	7,302 0 9			
Co-operative Burning	73 2 6			
Drum Account	Cr. 20 3 6			
	2,160 5 5	985 7 11	..	..	1 16 9	16,957 11 10	233 3 1	96 15 1	..	3,003 19 3	229 12 2	745 0 6	..	29,599 0 9	
Reserve 870	3,774 17 3			
Reserve 897	10,780 17 8			
Reserve 953	1,446 10 1			
Reserve 993	4,325 14 3			
Administration	1,722 0 8			
Firefighting and Patrol	4 0 4			
Co-operative Burning	13 15 8			
Experiments	13 15 8			
	5,815 9 8	579 0 5	..	..	76 9 0	5,364 14 6	490 13 3	247 1 8	..	2,888 11 3	501 14 11	1,755 15 0	..	21,844 8 7	

BRISBANE WORKING PLAN AREA.

KILCOY 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.			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.
Reserve 60	691 1 7	540 3 0	..	294 14 6	279 15 8	0 12 6	3 5 0	..	1,738 12 3
Reserve 108	528 1 4	603 4 2	62 19 11	97 5 7	69 3 4	..	21 9 0	..	767 1 5
Reserve 173	..	79 9 6	..	..	1,922 14 6	..	..	1,138 14 10	523 18 11	14 12 8	..	..	4,465 19 10
Reserve 249	540 10 7	..	..	77 8 3	148 2 8	..	9 15 0	..	775 16 6
Reserve 313	662 1 4	5 7 0	..	132 18 4	82 8 1	3 10 6	64 13 6	..	950 18 9
Reserve 318	1,945 15 10	272 18 7	..	1,343 9 5	922 9 0	138 2 6	289 4 0	..	4,955 16 7
Reserve 351	47 15 1	..	..	10 1 4	13 19 3	..	..	..	71 15 8
Reserve 368	71 3 5	..	..	10 4 8	16 4 3	..	..	..	97 12 4
Reserve 445	1,271 1 5	83 6 2	..	473 10 0	623 2 9	..	1,350 18 0	..	2,473 6 7
Beerwah State Forest	2,764 6 5	..	1,417 3 8	23 6 3	1,206 16 3	524 11 9	1,558 3 8	3,971 7 0	2,032 18 11	..	..	..	16,024 16 6
Beerburum State Forest	34,386 14 0	..	1,635 1 11	298 10 10	19,023 7 8	4,317 9 3	4,831 6 6	16,924 18 3	10,257 13 10	..	6,094 4 4	..	98,857 12 5
Reserve 682	1,396 16 8	..	..	129 0 6	..	..	..	..	..	129 8 8
Reserve 689	109 9 8	0 16 0	..	11 2 6	76 14 7	..	..	..	197 6 9
Reserve 700	818 12 2	113 19 4	6 4 5	14 4 0	11 3 0	..	..	..	..	958 14 6
Reserve 877	6 4 5
Portions 106/135/816, etc., Beerwah	247 15 1	22 5 6	..	277 10 8	164 16 8	..	82 4 6	..	1,020 6 11
Pay-roll Tax	225 14 6	..	..	..	..	..	..	..	..	..	..	2,440 14 11	2,440 14 11
Administration	812 13 4	..	..	..	..	812 13 4
Freighting and Patrol	19,551 19 1	..	..	..	..	..	..	..	19,551 19 1
Co-operative Burning	505 15 11	..	..	..	..	..	..	..	505 15 11
Experiments	12,505 0 6
Miscellaneous Surveys	43 17 7	..	..	..	..	..	..	..	..	43 17 7
	37,430 12 2	79 9 6	3,042 5 7	2,581 3 6	49,339 8 1	6,437 8 4	6,595 14 7	25,516 9 10	15,211 7 11	146 18 2	8,035 18 4	2,440 14 11	169,352 11 5

NORTH COAST WORKING PLAN AREA.

BRISBANE VALLEY WORKING PLAN AREA.

Reserve 117	..	..	..	..	3 18 4	..	..	..	..	..	..	..	3 18 4
Reserve 118	..	..	..	..	5 2 10	..	..	..	..	..	..	..	5 2 10
Reserve 120	..	..	..	..	2,749 3 8	96 11 10	1,944 13 7	4,379 9 1	1,306 2 4	..	14 8 2	..	21,400 10 4
Reserve 151	..	..	..	..	608 13 8	127 5 4	..	1,434 9 0	511 6 0	146 1 7	446 7 6	..	5,135 5 0
Reserve 257	..	..	..	..	3,410 8 8	1,506 2 7	660 17 1	7,550 3 8	3,999 19 7	..	2,898 17 0	..	32,349 9 3
Reserve 258	..	..	..	..	1,087 4 8	1,122 18 9	911 5 7	3,902 19 8	2,614 3 9	449 5 8	1,507 19 6	..	18,728 19 0
Reserve 283	..	..	..	..	3,540 18 2	8,319 15 9	366 6 9	11,156 7 7	10,064 4 5	..	3,932 8 0	..	60,588 15 3
Reserve 289	..	..	..	..	1,692 2 1	5,393 1 7	326 16 7	4,580 7 11	4,703 8 6	93 0 0	1,967 1 3	..	27,049 4 1
Reserve 316	..	..	..	..	33 5 7	..	..	1 0 0	..	..	..	..	34 5 7
Reserve 328/9/474	..	..	..	..	109 6 7	135 8 5	..	636 2 0	22 11 2	33 12 6	57 17 0	..	1,244 6 6
Reserve 379	..	..	..	..	3,377 8 7	2,478 5 2	288 11 9	1,478 5 2	972 8 1	..	..	..	10,292 6 0
Reserve 509	..	..	..	..	3,346 4 7	609 5 2	752 3 1	2,719 1 7	2,018 16 0	1 14 4	263 13 0	..	12,751 14 10
Reserve 527/8/9	..	..	..	..	931 17 1	359 2 7	..	1,579 19 9	743 2 10	324 9 8	514 3 6	..	5,680 16 5
Reserve 618	..	1,258 1 0	..	..	4,039 5 11	596 10 10	470 6 7	4,404 19 3	3,064 18 2	60 0 0	1,970 4 0	..	26,122 16 9
Maintenance	..	..	..	..	..	100 0 0	..	..	..	..	..	..	100 0 0
Bunya Mountains	..	..	..	..	..	..	..	..	..	..	..	4,267 9 0	4,267 9 0
Pay-roll Tax	..	..	..	..	..	..	..	2,259 18 0	..	..	..	..	2,259 18 0
Administration	..	..	..	..	..	..	..	..	..	..	..	..	6,984 11 4
Freighting and Patrol	..	..	..	..	6,984 11 4	..	..	..	..	..	..	..	6,984 11 4
Co-operative Burning	..	..	..	..	210 13 8	..	..	..	..	..	..	..	210 13 8
Experiments	..	..	..	..	..	..	..	..	..	..	..	..	2,652 7 7
Miscellaneous Surveys	..	..	..	6 11 2	..	..	..	..	..	..	..	..	6 11 2
Drum Account	..	..	..	..	..	..	..	Cr. 84 13 0	..	..	..	..	Cr. 84 13 0
	68,526 14 11	1,258 1 0	12,364 9 2	788 1 6	37,667 7 0	13,838 3 7	5,721 1 0	45,998 9 8	30,021 0 10	1,108 3 9	13,572 18 11	4,267 9 0	237,784 7 11

APPENDIX H—continued.

Reserves.	Reforestation.			Surveys.	Protection, Firefighting, &c.	Maintenance of Capital Improvements.	New Construction of Buildings, &c.	Overhead Expenses.			Pay-roll Tax.	Reserve Total.
	Plantations.	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.
DALBY WORKING PLAN AREA.												
Reserve 4	2,978 7 2	271 2 5	29 12 7	1,279 11 6	444 10 11	493 17 9	455 19 6	5,959 1 10
Reserve 16 (Balloon)	..	4 14 11	..	..	6,599 10 0	193 1 10	578 10 10	4,572 6 7	1,087 1 2	1,080 15 5	1,432 9 6	15,508 10 8
Reserve 16 (Malcolm)	..	1,800 17 8	..	..	5,898 12 7	297 6 0	1,766 18 5	4,122 2 6	1,401 10 11	1,087 15 8	1,599 8 6	17,474 12 3
Reserve 21	27 15 3	..	..	..	17,474 12 3
Reserve 78	4,121 7 6	1,048 17 9	989 9 5	1,472 3 0	15,386 7 7
Reserve 83/106	..	1,454 1 10	..	..	2,856 13 3	146 12 4	497 2 6	1,337 6 11	430 6 0	317 0 11	363 0 6	5,378 12 5
Reserve 93	2,480 12 2	187 7 11	172 5 8	1,622 17 9	423 10 10	242 5 6	439 13 6	5,316 4 3
Reserve 126	2,143 12 2	88 1 0	278 0 10	237 4 3	138 3 2	42 13 4	137 12 6	1,554 15 1
Reserve 150	966 0 10	..	..	237 4 3	631 7 3	85 17 1	760 4 0	7,968 18 2
Reserve 154	4,463 7 9	153 11 11	116 11 2	1,757 19 0	1,485 1 9	798 8 7	1,648 1 6	18,064 5 9
Reserve 155	..	1,465 16 9	..	..	7,403 16 5	318 2 11	820 2 5	4,124 15 5	442 14 5	198 17 4	589 8 0	6,261 7 5
Reserve 158	..	504 19 1	..	..	2,908 8 3	203 19 10	29 17 3	1,380 8 3	187 16 4	20 2 11	109 4 0	502 0 11
Reserve 161	2,111 11 4	21 11 0	6 8 5	187 16 4	65 6 2	58 4 11	160 11 0	1,412 2 10
Reserve 389	834 3 11	..	..	234 2 11	125 0 1	..	..	1,705 13 3
Pay-roll Tax	1,580 8 1	..	..	..	1,580 8 1
Administration	18,185 17 9	..	..	..	..	..	..	18,185 17 9
Firefighting and Patrol	260 0 1	..	..	..	..	..	..	260 0 1
Co-operative Burning	1,420 11 3	..	..	..	..	249 3 0	..	..	..	1,420 11 3
Experiments	249 3 0
Drum Account	..	4,730 10 3	..	..	60,890 13 6	2,106 18 9	4,274 5 5	26,815 0 3	7,793 10 5	5,371 8 10	9,167 15 6	124,216 7 5
GYMPIE WORKING PLAN AREA.												
Reserve 82/242	..	5,592 7 6	..	1,244 18 9	1,115 12 2	139 11 11	1,273 18 7	3,681 12 0	2,821 10 3	191 9 4	1,480 6 6	18,419 7 8
Reserve 324	..	6,424 10 9	..	622 11 6	1,169 8 2	161 13 6	12 7 8	3,456 1 4	2,746 18 1	210 3 4	1,483 18 0	17,077 15 6
Reserve 392	15 1 8	1,536 15 7	250 2 1	14 16 9	1,060 0 6	668 4 8	1 16 4	152 2 0	3,978 16 1
Reserve 393	..	2,823 4 9	..	35 1 3	2,396 9 3	157 19 1	847 6 3	3,326 12 10	2,698 14 5	86 12 5	1,019 17 6	13,546 14 8
Reserve 451	37 15 6	1,717 6 8	15 12 5	..	1,216 4 10	2,918 4 4	121 11 7	427 14 0	4,811 7 2
Reserve 452	14 15 0	..	..	..	..	..	..	..	14 15 0
Reserve 492	..	21 14 1	..	..	1,581 2 8	9 8 5	..	1,280 3 5	743 8 10	69 17 4	471 5 0	4,365 14 7
Reserve 497	714 8 8	..	..	791 6 11	472 1 1	14 4 0	92 6 0	3,117 19 1
Reserve 559	..	308 1 0	..	3 10 6	1,571 13 3	327 10 1	..	1,486 10 7	990 3 6	14 4 3	170 19 0	5,438 15 7
Reserve 650	1,488 12 9	297 5 4	895 9 3	1,216 6 5	554 15 11	35 2 11	7 3 0	4,438 6 1
Reserve 693	749 9 9	57 14 9	..	415 2 11	41 11 2	..	25 7 0	1,801 3 3
Reserve 907	..	1,041 11 10	..	..	220 13 10	0 19 6	..	155 17 5	52 11 1	28 6 8	298 0 6	4,005 17 3
Reserve 1004	..	18,720 10 7	..	730 8 10	20,760 8 11	382 6 8	1,279 10 0	15,876 0 5	8,776 3 9	139 6 8	5,555 8 3	75,023 19 6
Pay-roll Tax	1,668 3 7	..	..	..	2,993 11 0
Administration	17,880 6 5	..	..	..	..	..	..	1,668 3 7
Firefighting and Patrol	815 18 10	..	..	..	..	..	..	1,668 3 7
Co-operative Burning	539 18 6
Experiments	539 18 6
Drum Account	..	34,992 18 6	2,111 0 2	2,704 3 0	54,773 5 11	1,979 15 8	4,663 11 0	36,181 18 6	21,690 7 1	913 4 10	11,184 6 9	179,745 16 1

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.			£	s. d.	£	s. d.	£	s. d.								
MARY VALLEY WORKING PLAN AREA.																												
Reserve 135	13,458	12 6	..	..	1,032	3 8	5,444	15 1	1,917	16 11	464	16 6	19,030	9 7	11,667	7 1	192	2 7	6,350	0 6	61,041	10 4				
Reserve 135/274	11,863	1 9	..	..	302	17 3	3,163	16 11	724	12 5	46 6	0	1,925	3 5	5,088	10 6	115	0 5	3,080	13 6	32,281	7 10				
Reserve 256	4,264	5 3	..	..	371	16 10	3,443	1 4	140	10 2	43 6	1	1,076	1 8	1,266	7 0	375	13 1	84	1 0	9,090	18 6				
Reserve 435	6,220	11 5	..	..	458	2 9	3,002	12 4	331	0 2	74	13 2	8,379	0 6	4,937	15 7	..	..	3,417	13 6	28,186	7 0				
Reserve 546	..	..	..	..	..	..	50	3 0	..	..	..	..	13	2 7	..	..	..	..	..	..	63	5 7				
Reserve 728	..	..	..	..	..	..	122	18 0	..	..	..	..	152	11 3	..	..	..	..	..	..	273	9 3				
Reserve 736	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2881	18 9			
Pay-roll Tax	..	..	..	..	..	..	..	..	..	..	..	..	2,572	0 7	..	..	..	..	..	..	..	..	2,573	0 7		
Administration	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	18,033	11 5		
Firefighting and Patrol	..	..	..	..	..	..	18,033	11 5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	18,033	11 5		
Co-operative Burning	..	..	..	..	..	..	594	13 8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	584	13 8		
Experiments	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3,154	18 1	
	35,836	10 11	..	..	2,160	3 6	31,817	16 10	3,169	11 11	1,029	0 2	38,496	5 7	22,960	1 1	682	16 1	12,872	8 6	158,184	8 2				
MACKAY WORKING PLAN AREA.																												
Pay-roll Tax	..	..	..	..	..	..	..	..	..	..	..	..	222	7 0	..	..	..	..	..	..	..	..	..	1	18 7	
Administration	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	222	7 0
Firefighting and Patrol	..	..	..	..	..	..	15	14 0	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	15	14 0
Experiments	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	183	17 3
Drum Account	60	15 0	60	15 0	
	283	2 0	489	11 10	
CLERMONT WORKING PLAN AREA.																												
Reserve 117	..	..	..	..	..	..	172	0 1	..	..	..	..	81	8 6	5	15 9	..	..	..	..	..	..	..	..	294	10 10
Reserve 127	..	..	..	..	..	..	79	5 2	..	..	..	..	341	8 11	314	1 4	..	..	..	..	..	..	..	..	2,262	2 5
Pay-roll Tax	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	60	1 3
Administration	12	15 5	12	15 5	
Firefighting and Patrol	..	..	..	..	..	..	62	19 2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	62	19 2
	..	..	..	..	..	..	314	4 5	..	..	..	..	435	12 10	319	17 1	81	6 6	238	4 6	60	1 3	..	..	2,692	9 1
ROCKHAMPTON WORKING PLAN AREA.																												
Reserve 20	10,649	14 1	..	..	794	16 2	4,722	19 5	151	3 5	231	14 10	4,488	10 0	3,343	4 1	409	10 0	1,882	15 6	577	15 8	28,739	7 11		
Pay-roll Tax	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	577	15 8
Administration	54	8 1	300	6 3	
Firefighting and Patrol	300	6 3	9	12 10	
Co-operative Burning	2	12 10	268	14 10	
Experiments	268	14 10
	10,649	14 1	..	..	794	16 2	5,025	18 6	151	3 5	231	14 10	4,542	18 1	3,343	4 1	409	10 0	1,882	15 6	577	15 8	29,943	5 7		

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.					Storages, Fodder, Supervision, &c.	Holidays, Wet Time, &c.	Cartage of Rations, &c.	Camping Allowance.			£	s.	d.
MANY PEAKS WORKING PLAN AREA.																	
Reserve 28	541 12 1	1,512 4 8	887 6 9	..	34 17 6	2,935 2 1	41 14 8	17 3 7	2,486 14 5	1,015 19 7	360 11 5	788 4 0	..	9,142 11 11			
Reserve 67	12 7 4	376 14 1	286 5 5	..	481 18 0	694 18 10	224 17 3	485 11 0	..	8,991 10 9			
Reserve 95	11,653 2 0	..	1,757 18 5	..	779 1 6	3,129 17 11	676 9 2	44 1 8	6,792 12 8	4,612 8 0	1 7 0	2,919 12 0	..	33,942 3 8			
Reserve 193	27 4 8	..	..	..	..	940 10 6	27 4 8			
Pay-roll Tax	771 13 8	..	..	..	..	940 10 6			
Administration	9,141 15 0	..	..	..	..	..	..	..	771 13 8			
Firefighting and Patrol	2 0 4	..	..	..	..	..	..	..	2 0 4			
Co-operative Burning			
Experiments	101 4 2	..	..	..	..	..	..	..	..	..	..
Drum Account	24 18 0	..	..	..	..	101 4 2			
	12,194 14 1	1,512 4 8	2,645 5 2	101 4 2	826 6 4	15,585 9 5	1,008 12 3	1,708 4 11	10,557 16 9	6,323 6 5	586 15 8	4,143 7 0	940 10 6	58,133 17 4			
MARYBOROUGH WORKING PLAN AREA.																	
Reserve 8	..	423 15 8	..	..	0 5 10	1,542 8 10	327 11 10	214 14 0	1,977 4 9	597 5 2	120 12 10	322 1 2	..	4,925 14 3	
Reserve 12	..	13 1 9	..	..	..	1,209 7 8	69 0 8	..	555 8 7	317 15 4	71 17 10	127 0 6	..	2,333 18 2
Reserve 57	..	193 11 11	..	..	..	5,367 14 11	351 17 9	33 9 0	2,720 12 9	1,036 15 0	88 15 4	896 7 0	..	10,680 0 6
Reserve 301	0 6 6	1,755 18 2	683 2 9	27 2 9	1,425 3 6	712 12 1	189 9 3	490 3 0	..	5,283 11 6			
Reserve 676	11 5 0	2,728 4 6	23 2 0	..	1,140 19 8	630 14 8	66 4 0	399 17 6	..	5,000 7 4			
Reserve 864	4,979 19 8	10,164 12 4	1,036 0 4	1,691 9 9	13,843 10 8	7,799 19 1	314 0 4	3,982 1 10	..	72,122 15 3			
Reserve 915	25,730 17 9	..	2,619 3 6	..	..	2,581 5 7	240 19 0	30 13 9	1,327 19 2	744 3 5	15 8 11	48 3 0	..	5,314 18 1	
Reserve 958	..	326 5 3	..	..	..	..	..	..	..	..	..	..	2,007 17 10	2,007 17 10
Pay-roll Tax	3,707 7 11	..	..	..	..	3,707 7 11			
Administration	6,333 4 10			
Firefighting and Patrol	6,333 4 10	..	..	..	..	..	..	..	29 0 11			
Co-operative Burning	38 12 8	20 0 11	..	..	..	..	..	..	..	38 12 8			
Miscellaneous Surveys	1,247 18 10	..	..	..	..	..	..	..	..	..	..
Experiments			
Drum Account	Cr. 189 2 0	..	..	..	..	1,247 18 10			
	25,730 17 9	956 14 7	2,619 3 6	1,247 18 10	5,021 9 8	31,711 17 9	2,791 14 4	1,997 9 3	25,939 5 0	11,749 4 9	806 8 6	6,265 14 0	2,007 17 10	118,845 15 9			
BUNDABERG WORKING PLAN AREA.																	
Reserve 80	..	209 9 9	..	..	5 16 7	2,089 3 9	93 8 9	26 18 8	955 14 6	509 11 8	70 6 8	420 11 0	..	4,381 1 4	
Reserve 169	1 9 5	1,491 0 0	58 11 9	98 16 2	801 12 4	491 3 7	52 6 1	315 16 0	..	3,310 15 4			
Reserve 278	..	110 14 9	..	..	1,986 4 3	766 14 1	144 6 4	..	490 5 10	171 19 3	59 17 3	231 14 6	..	1,975 12 0	
Reserve 775	1,986 4 3			
Reserve 832	..	280 13 7	..	..	43 7 3	2,055 11 6	75 2 6	38 5 6	1,212 15 7	643 2 0	72 2 0	525 12 0	..	5,546 11 1	
Pay-roll Tax	294 8 9	294 8 9			
Administration	585 17 0	..	..	..	..	585 17 0			
Firefighting and Patrol	2,844 4 3	..	..	..	..	..	..	..	2,844 4 3			
Co-operative Burning	43 0 2	..	..	..	..	..	..	..	43 0 2			
Miscellaneous Surveys	89 10 1	..	..	..	..	..	..	..	..	89 10 1			
Experiments	358 13 3	..	..	..	..	..	..	..	..	..	358 13 3			
	..	600 18 1	..	..	2,126 7 7	9,889 13 9	371 9 4	164 0 4	4,046 5 3	1,815 16 6	254 12 0	1,493 13 6	294 8 9	21,415 18 4	

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.			£	s.	d.
FRASER ISLAND WORKING PLAN AREA.																	
Reserve 3	579 9 5	..	..	..	38 2 2	2,872 5 3	912 9 9	238 0 2	2,691 7 9	1,207 1 5	314 13 7	1,044 4 0	180 19 4	9,807 13 6
Pay-roll Tax	112 16 6	..	..	..	..	180 19 4			
Administration	291 15 1	..	..	..	..	..	..	..	112 16 6			
Firefighting and Patrol	291 15 1			
Experiments	268 14 11	..	..	..	..	..	..	..	..	..	..	268 14 11		
.. .. .	579 9 5	..	268 14 11	..	38 2 2	3,164 0 4	912 9 9	238 0 2	2,804 4 3	1,207 1 5	314 13 7	1,044 4 0	180 19 4	10,751 19 4			
JIMNA WORKING PLAN AREA.																	
Reserve 26	18,882 5 9	..	..	..	79 8 7	2,246 14 3	986 15 3	9,665 12 1	11,891 19 8	8,317 1 4	14 14 0	6,486 7 6	..	79 8 7
Reserve 137/207	989 16 1	..	..	..	..	..	..	..	..	62,062 18 3			
Reserve 480	269 12 11	..	..	..	..	..	..	..	..	269 12 11			
Reserve 673	11 3 0	..	..	..	..	..	..	..	..	11 3 0			
Pay-roll Tax	592 18 2	..	..	..	1,202 11 9	1,202 11 9			
Administration	2,353 0 7	..	..	..	..	..	..	..	592 18 2			
Firefighting and Patrol	2,353 0 7			
Experiments	27 12 0	..	..	..	..	..	..	..	..	..	..	27 12 0		
.. .. .	18,882 5 9	..	27 12 0	..	1,350 0 7	4,599 14 10	986 15 3	9,665 12 1	12,484 17 10	8,317 1 4	14 14 0	6,486 7 6	1,202 11 9	66,589 5 3			
KILKIVAN WORKING PLAN AREA.																	
Reserve 12/24	855 2 1	..	..	..	5 6 6	1,659 11 10	38 14 4	58 2 5	983 10 1	552 9 3	120 0 0	315 11 6	..	4,524 19 1
Reserve 97/99	7 8 2	343 19 0	36 5 2	..	1,864 4 2	1,985 16 3	121 3 4	1,201 4 0	..	11,413 17 10			
Reserve 129	13 19 11	..	..	36 15 0	25 2 9	..	16 18 0	..	206 16 1			
Reserve 159	44 11 7	854 19 2	95 14 6	16 4 11	1,729 9 1	1,750 2 5	92 12 0	1,493 7 6	..	12,462 9 2			
Reserve 154	1 11 9	180 10 7	14 8 1	5 14 8	825 15 1	559 19 11	421 0 0	344 16 6	..	4,220 14 10			
Reserve 220	211 18 1	47 4 11	3 1 4	280 18 5	320 2 6	104 18 10	169 6 6	..	1,780 16 6			
Reserve 221	3,086 14 10	642 10 0	299 4 6	8,365 5 11	5,871 17 0	312 6 0	4,379 1 3	..	38,537 17 1			
Reserve 298	177 10 2	..	..	..	16 11 2	19 0 3	..	..	..	192 0 2			
Reserve 355	2 17 4	87 13 10	3 2 2	3 1 4	..	7 6 3	103 15 0	34 9 0	..	382 18 7			
Reserve 424	175 19 0	4 15 7	4 12 0	50 15 1	145 8 0	103 15 0	192 1 6	..	1,957 17 8			
Reserve 427	100 9 9	22 10 11	..	129 3 10	..	..	..	..	882 18 7			
Reserve 488	4 4 0	..	..	..	..	..	..	..	1,957 17 8			
Reserve 505	3 6 8	..	..	..	..	4 4 0			
Pay-roll Tax	937 16 9	..	..	..	1,595 10 3	3 6 8			
Administration	5,234 13 2	..	..	..	..	..	..	..	1,595 10 3			
Firefighting and Patrol	37 1 6	..	..	..	..	..	..	..	937 16 9			
Co-operative Burning	5,234 13 2			
Experiments	236 19 11	..	..	..	..	..	..	..	..	..	..	37 1 6		
Drum Account	Cr. 12 4 6	..	..	..	..	236 19 11			
.. .. .	27,386 14 3	1,478 13 0	236 19 11	..	239 5 6	11,991 9 8	905 14 8	390 1 2	15,211 6 9	11,237 5 0	1,079 10 2	8,146 15 9	1,595 10 3	83,695 2 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.	Overhead Expenses.											
					£	s.					d.	£	s.	d.		
Reserve 99	4,034 11 1	888 17 9	1,816 10 6	..	2 13 10	29 3 11	1 7 6	37 6 4	485 18 4	875 6 5	90 8 6	269 2 6	..	2,786 0 1		
Reserve 185	..	309 14 10	..	..	152 0 1	1,383 15 6	66 3 9	706 8 2	2,081 9 10	2,692 15 5	304 12 7	853 9 8	..	14,381 11 7
Reserve 191	..	..	..	..	..	47 14 6	6 17 3	18 2 7	1,297 15 7	32 11 11	12 18 0	5 17 0	..	1,441 4 0
Reserve 310	..	907 4 1	..	..	..	2 6 8	..	..	15 16 8	..	..	..	..	25 3 4
Reserve 815	..	..	..	..	5 6 6	118 10 5	31 13 4	471 3 1	911 5 7	513 5 5	38 13 6	379 4 10	..	3,431 9 3
Reserve 844	..	..	..	..	..	..	..	..	..	..	..	..	..	5 6 6
Reserve 438	..	30 0 2	..	..	..	503 19 4	0 16 11	66 9 11	288 3 8	4 19 0	84 8 3	..	..	444 0 10
Reserve 456	..	..	..	..	..	194 4 2	15 9 1	194 8 1	367 1 8	235 8 4	27 2 3	30 14 11	..	1,167 2 11
Reserve 1073	..	..	..	..	999 8 2	2 15 11	..	..	60 2 10	14 4 9	17 10 0	25 2 0	..	326 12 10
Pay-roll Tax	319 14 6	..	..	..	..	..	..	..	90 18 5	184 7 9	54 5 6	..	..	1,621 10 3
Administration	..	..	..	..	..	..	..	..	..	..	..	..	..	533 1 8
Firefighting and Patrol Experiments	..	..	..	2,960 1 2	..	930 5 6	..	..	748 5 7	..	..	..	..	748 5 7
Drum Account	..	..	..	..	..	..	..	..	159 13 0	..	..	..	..	2,960 1 2
	4,873 17 2	2,295 16 10	1,816 10 6	2,960 1 2	1,129 8 7	3,213 4 11	322 7 10	1,493 18 2	6,231 3 11	4,552 19 0	642 9 6	1,593 10 11	533 1 8	30,958 10 2		

NORTH QUEENSLAND WORKING PLAN AREA.

WARWICK WORKING PLAN AREA.

Reserve 263	1,106 8 3	..	1,184 11 8	..	..	1,751 3 4	635 15 7	1,405 18 6	1,726 14 1	1,815 2 3	106 17 6	846 12 6	..	10,639 3 8
Reserve 316	3,729 10 4	..	..	..	..	2,380 1 4	18 18 0	142 19 6	1,317 16 2	1,171 9 9	106 17 6	732 17 6	..	9,800 10 1
Reserve 321	1,531 6 7	..	..	..	..	2,346 11 9	..	..	602 18 0	211 10 8	..	12 16 7	..	4,705 12 7
Reserve 444	..	44 4 4	..	..	..	356 0 11	90 12 6	151 3 4	249 18 3	151 3 4	83 18 2	2 9 4	..	918 16 10
Reserve 574	..	665 11 8	..	..	..	272 9 6	11 8 7	..	334 16 11	232 8 2	51 1 5	162 16 6	..	1,750 12 9
Pay-roll Tax	..	..	..	..	..	..	..	..	..	..	..	..	546 19 0	1,546 19 0
Administration	..	..	..	..	..	..	..	..	582 13 3	..	..	..	..	582 13 3
Firefighting and Patrol Experiments	..	..	..	237 4 10	..	2,719 6 11	..	..	..	..	..	..	..	2,719 6 11
Co-operative Burning	..	..	..	..	..	339 5 9	..	..	..	..	..	..	..	339 5 9
Drum Account	..	..	..	..	..	..	..	..	104 18 0	..	..	..	..	237 4 10
	6,427 5 2	709 16 0	1,184 11 8	237 4 10	..	10,364 19 6	696 14 8	1,548 18 0	4,919 14 8	3,602 3 2	348 14 7	1,757 12 5	546 19 0	32,344 13 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.	Natural Regeneration.	Nursery Working and Maintenance.	Forest Experiment.					Stores, Fodder, Supervision, &c.	Holidays, Wet Time, &c.	Cartage of Rations, &c.			Camping Allowance.
Reserve 48	87 8 4				822 18 8	4 5 1		384 17 10	206 16 8	340 14 8	225 17 6	2,072 18 4		
Reserve 79	374 8 11				1,607 7 9	13 13 3		814 8 4	391 0 2	849 6 8	269 16 0	3,819 19 7		
Reserve 81	4 12 2			2 18 0	1,483 4 10	4 0 8	703 8 0	763 10 4	341 18 0	162 10 2	386 6 6	3,802 17 8		
Reserve 101					25 15 5	11 14 2	15 11 1	36 2 8			1 19 0	31 2 4		
Reserve 129					452 14 3			180 6 11	112 4 4		49 14 6	741 2 4		
Reserve 152	703 8 8				619 10 8	46 14 0		389 2 11	284 8 5	99 15 0	272 13 6	2,445 13 9		
Reserve 182					24 0 4			4 8 5	17 13 9		27 9 6	2,455 13 9		
Reserve 184	753 5 11				127 4 4	58 14 0	28 0 9	460 10 5	270 15 0	200 17 2	254 17 6	2,154 11 0		
Pay-roll Tax								128 4 1			274 6 2	274 6 2		
Administration												128 4 1		
Firefighting and Patrol				22 4 6	8,410 12 2							8,410 12 2		
Co-operative Burning					60 10 9							60 10 9		
Experiments												22 4 6		
Totals	1,923 4 0			2 18 0	13,633 19 2	189 1 11	747 8 10	3,111 6 11	1,624 15 11	1,153 12 8	1,420 12 0	274 6 2	24,053 10 1	

INGLEWOOD WORKING PLAN AREA.

MISCELLANEOUS.

Pay-roll Tax											3,508 19 6	3,508 19 6	
Experiments												738 15 4	
Photo, Prints and Maps				953 15 0								953 15 0	
Salisbury													
Depot Stock													
Storeroom Expenses													
Maintenance Buildings													
Construction Buildings													
Totals	290,407 19 10	21,043 8 4	40,248 7 1	26,890 12 7	366,921 3 11	36,348 7 5	40,862 9 8	297,557 6 11	157,601 12 6	14,646 5 11	91,807 0 7	26,104 7 2	1,400,633 8 9

SOURCE OF FUNDS.		£	s.	d.
Loan	Trust	1,958	685	1 7
		190,975	10	0
		1,444,540	11	7
		Administration		
		Fares and Freight		
		Workers' Compensation		
		Collection and Storage of Seed		
		3,402	4	0
		11,856	17	9
		22,170	1	3
		6,968	19	10
		£1,444,540	11	7

APPENDIX I.

Net Area of Plantation Established 1st April, 1957, to 31st March, 1958.

Species.	Brisbane.	Gympie.	Mackay.	Maryborough.	Monto.	Murgon.	North Queensland.	Warwick.	Yarraman.	Queensland Totals.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
<i>Softwoods.</i>										
A. Native Conifers—										
Hoop Pine ..	40.5	250.2	..	..	159.3	442.0	57.0	..	834.4	1,783.4
Bunya Pine ..	..	0.1	..	..	..	..	..	..	..	0.1
Other Native Conifers ..	..	..	..	..	..	..	..	..	..	..
B. Exotic Conifers—										
<i>P. elliotii</i> ..	704.1	669.4	212.3	1,104.5	..	..	..	54.0	..	2,744.3
<i>P. taeda</i> ..	12.0	..	..	..	..	..	..	..	..	12.0
<i>P. patula</i> ..	..	..	..	..	..	..	..	..	74.7	74.7
<i>P. caribaea</i> ..	..	..	122.7	..	..	..	9.0	..	..	131.7
<i>P. radiata</i> ..	..	..	..	..	..	..	..	84.4	90.3	174.7
<i>P. palustris</i> ..	..	..	..	..	..	..	..	..	..	..
Others ..	1.0	0.1	6.7	..	..	..	2.0	..	..	9.8
C. Broadleaved Softwoods—										
Silky Oak ..	..	..	..	..	..	..	..	..	..	..
Maple ..	..	..	..	..	..	..	..	..	..	..
Red Cedar ..	..	..	..	..	..	..	..	..	..	..
Others ..	..	3.0	..	..	..	..	..	..	..	3.0
Total Softwoods	757.6	922.8	341.7	1,104.5	159.3	442.0	68.0	138.4	999.4	4,933.7
<i>Eucalypts.</i>										
<i>Euc. saligna</i> ..	..	..	..	..	..	..	..	..	..	..
Other Eucalypts ..	..	60.5	..	..	..	..	..	..	..	60.5
Total—Eucalypts	..	60.5	..	..	..	..	..	..	..	60.5
Total—All species	757.6	983.3	341.7	1,104.5	159.3	442.0	68.0	138.4	999.4	4,994.2

APPENDIX J.

Net Area of Effective Plantation Classified into Forestry Districts to 31st March, 1958.

Species.	Brisbane.	Gympie.	Mackay.	Maryborough.	Monto.	Murgon.	North Queensland.	Warwick.	Yarraman.	Queensland Totals.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
<i>Softwoods.</i>										
A. Native Conifers										
Hoop Pine ..	331.5	14,337.1	15.4	137.6	2,308.1	7,472.0	730.2	..	15,194.6	40,526.5
Kauri Pine ..	1.7	1,471.6	0.7	69.7	..	..	285.0	..	..	1,828.7
Bunya Pine ..	1.5	294.5	1.7	4.7	1.2	37.6	0.8	..	58.0	400.0
Others ..	5.2	51.4	0.6	1.7	..	..	0.6	..	0.4	59.9
B. Exotic Conifers										
<i>P. elliotii</i> ..	9,774.3	6,068.7	1,885.3	7,352.2	70.5	54.3	7.8	602.5	916.4	26,732.0
<i>P. taeda</i> ..	3,239.4	102.1	9.8	54.1	1.0	116.2	13.7	224.7	41.4	3,802.4
<i>P. patula</i> ..	18.7	22.2	7.6	8.1	25.2	123.9	43.6	669.3	2,711.2	3,629.8
<i>P. caribaea</i> ..	4.7	6.4	650.1	17.0	1.0	..	9.0	..	..	688.2
<i>P. radiata</i> ..	..	..	..	..	..	..	..	990.4	388.5	1,378.9
<i>P. palustris</i> ..	252.7	1.8	5.8	1.0	..	..	..	8.7	2.6	272.6
Others ..	83.2	13.1	62.4	16.2	2.7	1.7	10.1	25.8	23.9	239.1
C. Broadleaved Softwoods—										
Silky Oak ..	..	175.9	..	..	..	32.1	31.7	..	675.5	915.2
Maple ..	..	48.0	..	..	..	..	202.3	..	..	250.3
Red Cedar ..	..	12.5	..	..	..	..	29.2	..	..	41.7
Others ..	0.1	99.3	..	0.3	0.8	0.9	92.2	..	..	193.6
Total—Softwoods	13,713.0	22,704.6	2,639.4	7,662.6	2,410.5	7,838.7	1,456.2	2,521.4	20,012.5	80,958.9
<i>Eucalypts.</i>										
<i>Euc. saligna</i> ..	42.2	900.2	..	..	..	33.7	0.7	..	215.7	1,192.5
<i>Euc. paniculata</i> ..	229.2	216.2	..	..	..	76.4	35.6	..	459.3	1,016.7
<i>Euc. microcorys</i> ..	215.4	17.5	..	..	..	..	27.7	..	28.7	289.3
<i>Euc. pitularis</i> ..	160.9	..	..	..	..	..	0.2	..	..	161.1
Other Eucalypts	6.8	155.0	..	..	..	12.8	4.0	..	12.7	191.3
Total—Eucalypts	654.5	1,288.9	..	..	..	122.9	68.2	..	716.4	2,850.9
Total—All Species	14,367.5	23,993.5	2,639.4	7,662.6	2,410.5	7,961.6	1,524.4	2,521.4	20,728.9	83,809.8

79,558
1,401
80959

APPENDIX K.

Net Area of Plantation Effective at 31st March, 1958, 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.	1956-58.	Total.
	Acres.	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	3,437.7	40,526.5
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	19.2	400.0
Others ..	..	3.7	42.6	2.4	4.6	..	..	0.3	6.3	59.9
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	5,838.2	26,732.0
<i>P. taeda</i> ..	..	..	32.5	561.3	550.1	453.0	1,284.7	884.0	30.8	3,802.4
<i>P. patula</i> ..	..	1.0	21.0	160.1	462.4	189.0	1,356.7	1,216.0	223.6	3,629.8
<i>P. caribaea</i> ..	..	..	..	..	..	..	2.1	422.3	263.8	688.2
<i>P. radiata</i> ..	..	0.4	67.8	151.9	1.9	..	131.5	622.4	403.0	1,378.9
<i>P. palustris</i> ..	..	..	0.2	23.1	108.7	44.1	45.8	39.2	6.5	272.6
Others ..	..	1.6	18.8	38.5	20.5	1.0	47.3	99.6	11.8	239.1
C. Broadleaved Softwoods—										
Silky Oak ..	..	3.1	538.8	286.7	86.6	..	..	..	..	915.2
Maple ..	..	0.8	11.0	49.1	33.6	63.4	..	14.0	..	250.3
Red Cedar ..	..	9.0	4.0	0.6	0.6	0.5	..	27.0	..	41.7
Others ..	..	0.7	106.0	35.1	5.7	8.8	1.7	17.5	3.4	193.6
Total Softwoods	44.6	311.4	2,806.9	7,796.5	13,308.3	3,679.0	17,492.1	25,269.8	10,250.3	80,958.9
<i>Eucalypts.</i>										
<i>Euc. saligna</i> ..	..	..	1.0	1.2	145.0	129.3	756.7	150.3	..	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. pitularis</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	88.1	191.3
Total—Eucalypts	..	..	8.4	727.6	820.7	216.0	799.7	190.4	88.1	2,850.9
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	10,338.4	83,809.8

APPENDIX L.

Areas of Natural Forest Treated.

A.—Eucalypts.

Working Plan Area.	Reserve No.	Treated	First	Total as at
		1957-58.	Treatment	30th June,
		Acres.	Acres.	Acres.
Brisbane	571	..	..	73
	69	..	..	1,535
	1,376	..	..	1,480
	215	260	125	1,050
	702	..	..	2,060
	494	..	..	934
	446	..	..	1,094
	667	..	..	914
	309/1526	157	..	3,508
1,355	..	..	1,625	
727	82	..	976	
Total .. .. .	..	499	125	15,249
Bundaberg	80	238	186	9,484
	723	..	..	564
	832/837	355	..	15,903
Total .. .. .	..	593	186	25,951
Clermont	117	..	..	10,820
	127	3,771	3,771	23,055
	..	3,771	3,771	33,875
Total .. .. .	..	3,771	3,771	33,875
Dalby	93	..	..	18,998
	4	..	..	11,063
	83	..	..	4,876
	78	..	..	1,130
	34	..	..	1,270
	16B	..	..	2,004
	16M	..	..	6,576
	106	..	..	1,275
Total .. .. .	..	..	..	47,192
Fraser Island	3/12	153	15	18,378
Total .. .. .	..	153	15	18,378
Gympie	393	214	64	3,084
	234	146	103	1,833
	502	59	..	1,568
	627	384	175	2,660
	700	..	..	3,672
	124	..	..	770
	959	..	..	1,241
	950/1	..	..	1,160
	392	84	84	84
	963	18	18	18
	Total	905	444	16,090
Inglewood	101	..	..	8,512
	81	..	..	7,490
	120	..	..	298
	132	..	..	207
Total .. .. .	..	..	..	16,507
Kilcoy	370	102	102	3,598
	893	126	126	3,663
	637	..	..	1,168
Total .. .. .	..	228	228	8,429
Many Peaks	28	900	900	10,013
	150	..	..	1,811
Total .. .. .	..	900	900	11,824

APPENDIX L—continued.
 Areas of Natural Forest Treated—continued.
 A.—Eucalypts—continued.

Working Plan Area.	Reserve No.	Treated 1957-58.	First Treatment 1957-58.	Total as at 30th June, 1958.
Maryborough	958	Acres. 455	Acres. ..	Acres. 15,926
	57	300	..	23,720
	12	16	..	5,426
	8	350	..	14,483
	27	..	..	7,124
	1	..	..	1,632
	191/864	..	..	13,155
Total .. .. .	..	1,121	..	81,466
Mary Valley.. .. .	135	..	..	159
Total .. .. .	..	..	..	159
Murgon	12/24	700	695	17,426
	221	632	..	2,414
	424/427	..	..	80
Total .. .. .	..	1,332	695	19,920
North Coast	318/583	..	..	9,025
	249	..	..	1,185
	60	..	..	1,601
	173	67	..	3,135
	108	..	..	1,772
	106	..	..	..
	442	..	..	..
	313	..	..	1,650
	531	..	..	200
	351	..	..	580
689	..	..	340	
Total .. .. .	..	67	..	19,488
North Queensland	194	..	..	175
	243	..	..	1,457
	245	..	..	339
	343	..	..	200
	438	..	..	2,637
	461	..	..	1,328
Total .. .. .	..	..	..	6,136
Warwick	444	230	..	4,551
	574	813	..	5,306
Total .. .. .	..	1,043	..	9,857
Yarraman	283	..	..	1,881
	257	..	..	125
	299	..	..	50
	527/8/9	680	..	5,476
Total .. .. .	..	680	..	7,532
Total—Eucalypts .. .. .	..	11,292	6,364	338,053

B.—Cypress Pine.

Working Plan Area.	Reserve No.	Treated 1957-58.	First Treatment 1957-58.	Total as at 30th June, 1958.
Bundaberg	278	Acres. 59	Acres. 59	Acres. 1,313
	Total .. .. .	..	59	1,313
Dalby	106	..	..	346
	93	..	..	2,291
	4	..	..	280
	78	1,132	1,113	62,498
	34	..	..	2,496
	150	..	..	6,454
	16M	652	652	32,936
	16B	3	3	3
	127	..	..	710
	126/135	..	..	3,747
	154	999	238	29,820
	155	353	353	3,464
Total .. .. .	..	3,139	2,359	145,045

APPENDIX L—*continued.*Areas of Natural Forest Treated—*continued.*B.—Cypress Pine—*continued.*

Working Plan Area.	Reserve No.	Treated 1957-58.	First Treatment 1957-58.	Total as at 30th June, 1958.
Fraser Island	3/12	Acres. ..	Acres. ..	Acres. 4,424
Total .. .. .	..	..	..	4,424
Inglewood	79	250	..	31,824
	48	62	62	4,765
	81	4	..	5,525
	101	..	..	540
	122	321	..	18,300
	134	616	..	14,790
	120	..	..	515
Total .. .. .	..	1,253	62	76,259
Total Cypress Pine .. .. .	..	4,451	2,480	227,041

C.—Rain Forest.

Working Plan Area.	Reserve No.	Treated 1957-58.				First Treatment 1957-58.	Total as at 30th June, 1958.
		Brushed.	Ring- barked and Thinned.	Logged under Tree- marking Conditions.	Trees Interplanted.		
		Acres.	Acres.	Acres.	Number.	Acres.	Acres.
Natural Hoop Pine— Bundaberg	169	..	..	..	..	..	9,902
Natural Rain Forest— Northern Queensland ..	99	..	140	160	..	140	1,008
	185	..	27	..	..	27	596
	191	..	..	..	..	..	113
	310	77	67	250	1,275	67	784
	315	..	..	110	..	..	50
	344	..	..	420	..	..	..
	418	..	..	..	..	..	43
	452	..	..	..	..	..	20
	1073	..	..	30	..	..	..
Total .. .. .	..	77	234	970	1,275	234	2,614
Total—Rain Forest ..	..	77	234	970	1,275	234	12,516

Grand Total—	Acres.
Eucalypts	338,053
Cypress Pine	227,041
Rain Forest	12,516
	<u>577,610</u>

APPENDIX M.

Summary of Forest Survey Work, Year ended 30th June, 1958.

Reserve or Portion.	Parish.	Area in Acres.
CLASS 1—INSPECTIONS OF VACANT CROWN LANDS AND TIMBER RESERVES.		
Portions 1, 3, 4, 7, 9, 12	Redbank	65,482
Redbank Holding (part)	Dyngio, Woodbank	20,000
Knockbreak Holding (part)	Calrossie	18,500
Portion 1	Calrossie	7,180
Portions 1, 3, 8 to 11, 13 to 18	Cloncose	26,989
Portions 3, 4, 8	Borania	25,892
Portions 1, 2, 3	Tircon	39,869
Portions 1 to 7	Telemark	64,961
Portions 1, 2, 3	Dyngie	28,744
Portion 13	Cynthia	889
Portion 53v	Eidsvold	3,686
Portions 18, 56	Dalgangal	9,531
Portions 17, 26 to 29	Degalgil	13,017
Portions 6v to 8v, 10v to 15v, 30 to 32, 34	Femberton	36,934
Portion 58	Auburn	2,025
Portions 1v to 4v, 6, 20, 21, 23	O'Connell	21,220
Portion 14	Toolooa	685
Portions 2v to 4v, 7v, 8v	Maxwelton	21,821
Portions 11v, 13v, 14v	Booroom	6,147
Portions 45 to 47, 49, 50, 51, 56 to 59, 8	Barmundoo	24,896
Portions 3, 6v, 12v	Alma	13,617
Portion 13	Nolan	2,927
Portions 2 to 5	Balaclava	18,967
Portions 17, 21	Raglan	4,575
Portions 1, 13	Monal	21,068
Portions 31, 33 to 35	Clonmel	5,217
Portion 63	Bingmann	10,874
Portions 1, 3	Langdale	5,619
Portion 5	Camboon	9,929
Portions 2, 38v to 40v	Rundle, Langmorn	12,557
Portions 7v, 8	Rosslyn	2,203
Portion 1	Eugene	10,482
Portions 31, 32	Tilpal	12,000
Portion 4	Wallbury	29,895
Vacant Crown Land	Danbulla .. .. .	..
	Total	598,398

CLASS 2—ASSESSMENT SURVEYS.

Coorada Holding	Coorada	20,000
Portion 29	Coorada	15,679
Portion 2	Coorada	12,520
Goomally Holding	Blackboy, Barranga	30,080
Portion 2	Blackboy	14,139
Portions 3, 4	Davey	62,981
Portion 5	Wooroona	12,012
Portion 1	Waratah	17,635
	Total	185,046

FOREST INVENTORY SURVEY.

Reserve.	Parish.	Area in Acres.
79 (balance)	Sands, Whetstone	5,680
81	Tandan, Beebo, Bracker	61,575
370, 322 (balance)	Durundur, Conondalo	4,342
318 (remeasure)	Maroochy .. .. .	..
832 (proceeding)	Stanton	11,000
180	Yandilla	14,915
150	Wilkie	22,077
154 (remeasure)	Vignoles, Brigalow .. .. .	..
Fraser Island	Poyungan, Talboor .. .. .	..
393 (remeasure)	Woodum .. .. .	..
451	Cooloola, Wornalah .. .. .	..
28 (part)	Coominglah	5,500
	Total	125,089

APPENDIX M—continued.

Summary of Forest Survey Work, Year ended 30th June, 1958.

COMPARTMENT, FIREBREAK AND SOIL SURVEYS.

Reserve.	Parish.	Type.	Area in acres.
915	Bidwell, Poona	Soil	558
779	Gregory	Soil	11,650
Portions 46, 47	Bingera	Soil	300
426	Tinana	Soil	200
611	Bearwah	Compartment	850
561	Bribie	Compartment	120
700	Canning, Toorbul	Compartment	800
638	Bearwah	Soil	143
1,004	Toolara	Compartment	1,133
82	Brooyar	Scrub Firebreak	1,971
124	Glastonbury	Scrub Firebreak	326
435	Amamoor	Logging Area boundaries .. ..	..
274	Cambroon	Compartment	211
256	Imbil	Compartment	165
135	Brooloo	Compartment, Firebreak .. ..	..
150	Wilkie	Compartment	20,077
95	New Cannindah	Compartment	1,916
20	Maryvale	Compartment	1,850
207	Monsildale	Scrub-falling	162
154	Gallangowan	Compartment	134
637	Kilcoy	Scrub-falling	41
283, 120, 257, 258, 316, 618	Yarraman	Scrub-falling	815
		Total	43,422

APPENDIX N.

State Forests, Timber Reserves and National Parks at 30th June, 1958.

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	46,329	2 26	7	3,574	2 27
Bowen	1	35,860	0 0	7	55,020	0 0	36	118,587	0 0
Brisbane	70	278,071	3 3	40	29,890	1 6	44	79,334	0 22
Bundaberg	17	171,892	1 4	32	154,010	0 11	..	..	..
Cairns	8	158,859	0 36	15	450,464	2 0	20	92,298	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	25	1,034,444	2 4	5	16,360	0 39	1	13,145	0 0
Gayndah	3	41,434	2 0	16	63,511	0 32	..	..	..
Gladstone	6	37,317	2 0	26	86,506	1 14	4	127	0 0
Goondiwindi	6	189,351	1 0	7	51,496	2 20	..	..	..
Gympie	50	450,293	0 24	12	43,480	2 23.8	5	922	2 7
Herberton	6	78,274	1 18	7	72,751	3 39	5	3,361	3 28
Ingham	1	43,620	0 0	4	59,345	0 0	1	16,660	0 0
Inglewood	15	185,942	3 35	5	9,758	0 8	..	..	..
Innisfail	2	65,167	0 0	10	350,533	2 18	26	108,657	1 31
Ipswich	28	178,047	2 27	24	65,980	2 13.2	5	6,433	0 5
Jundah .. .. .	..	..	..	1	25,600	0 0	..	..	..
Mackay	2	34,055	0 0	19	135,205	3 0	53	149,085	2 29
Maryborough	42	712,897	3 19	18	24,599	1 2	4	8,185	0 0
Monto	11	207,465	0 20	11	75,042	2 32.6	..	..	..
Nanango	28	223,224	2 21	13	8,150	1 26	2	11,116	1 18
Rockhampton	9	208,718	1 0	15	114,873	2 22	15	2,597	0 0
Roma	14	178,546	2 37	1	8,600	0 0	..	..	..
Springsure .. .. .	..	..	..	5	115,888	1 0	2	114,800	0 0
Stanthorpe	4	13,733	2 36	..	..	..	6	12,604	3 0
Taroom	3	22,186	0 0	5	46,462	2 0	1	11,400	0 0
Toowoomba	21	260,222	0 2	16	31,270	1 15	5	3,214	3 0
Townsville	1	23,123	0 0	2	17,199	1 31	3	70,520	0 0
Total	391	5,033,233	2 4	339	3,048,412	1 18.6	252	837,316	0 31

At 30th June, 1958—

Total area reserved for—

State Forests .. .. .	..	..	..	..	..	..	..	5,033,233	2 4
Timber Reserves .. .. .	..	..	..	..	..	..	..	3,048,412	1 18.6
National Parks .. .. .	..	..	..	..	..	..	..	837,316	0 31

Total Reservations 8,918,962 0 13.6

Figures for Cabinet (N. Parks only) See
New Let. at 30/12/58

APPENDIX O.

Reservations for the Year ended 30th June, 1958.

State Forests.—Five (5) new State Forests, with a total of 20,803 acres, were proclaimed during the year. These are as follows:—

Acres.		Land Agent's District.
14,200	Reserve 652, Cauley and Macartney	Mackay
4,163	Reserve 144, Barabanbel	Roma
1,038	Reserve 723, Yandaran	Bundaberg
922	Reserve 788, Kilcoy	Brisbane
480	Reserve 511, Ravenshoe and Woodleigh	Herberton

4,400 acres were added to existing reserves. Thirteen reserves were cancelled for inclusion in adjoining State Forests.

Timber Reserves.—At 30th June, 1958, the number of Timber Reserves was 339 compared with 345 at 30th June, 1957.

Three (3) new areas, with a total of 9,621 acres, were reserved, the largest being:—

Acres.		Land Agent's District.
9,602	Reserve 41, Kinkora	Goondiwindi

Six (6) reserves totalling 14,541 acres were converted to State Forests, and 17,743 acres were released.

National Parks.—Two (2) new National Parks of 49,140 acres were proclaimed during the year and 24 acres were added to existing reserves.

1ST JULY, 1957, TO 30TH JUNE, 1958.

STATE FORESTS.

	No.	A.	R.	P.
At 1st July, 1957	399	5,008,030	2	12
Proclaimed 1-7-57 to 30-6-58	5	20,803	0	18
V.C.L. added to existing reserves .. .. .	..	4,397	2	35
Recomputation of areas .. .. .	..	2	0	19
	404	5,033,233	2	4
Reserves cancelled for inclusion in adjoining State Forests	13			
Total at 30th June, 1958	391	5,033,233	2	4

TIMBER RESERVES.

	No.	A.	R.	P.
At 1st July, 1957	345	3,071,075	0	21.6
Proclaimed 1-7-57 to 30-6-58	3	9,621	0	3
	348	3,080,696	0	24.6

	A.	R.	P.
Reserves converted to State Forests	14,540	3	6
Reserves cancelled, areas released, recomputation of boundaries	17,743	0	0
	9	32,283	3 6
Total at 30th June, 1958	339	3,048,412	1 18.6

NATIONAL PARKS.

	No.	A.	R.	P.
At 1st July, 1957	250	788,152	0	26
Proclaimed 1-7-57 to 30-6-58	2	49,140	2	0
V.C.L. added to existing reserves .. .. .	..	23	2	5
Total at 30th June, 1958	252	837,316	0	31
Total reservations at 30th June, 1958	982	8,918,962	0	13.6

APPENDIX P.

Expenditure, Surveys, Year ended 30th June, 1958.

Particulars of Survey—	£	s.	d.	£	s.	d.
Harvesting and Marketing Project—						
Forest Inventory Surveys—						
Reserve 215, Brisbane		17	16	3		
Reserve 779, Bundaberg		15	13	9		
Reserve 832, Bundaberg	2,626	11	5			
Reserve 16 M, Dalby	2,028	18	7			
Reserve 150, Dalby	2,329	15	8			
Reserve 154, Dalby	2,921	5	9			
Reserve 3, Fraser Island	2,339	12	10			
Reserve 392, Gympie		7	17	10		
Reserve 393, Gympie	489	18	6			
Reserve 451, Gympie	1,112	7	2			
Reserve 370, Kilooy	2,725	15	7			
Reserve 28, Many Peaks	163	14	4			
Reserve 173, North Coast		1	16	0		
Reserve 318, North Coast	1,545	11	7			
Reserve 81, Inglewood	3,966	12	11			
Dalby	116	12	7			
Maryborough	166	8	7			
					22,576	9 4
Class I. Surveys—						
Eidsvold					403	1 8
Class II. Surveys—						
Coorada, Theodore	1,881	3	1			
Duaringa	2,270	16	3			
Goomally	1,243	6	2			
					5,395	5 6
Class III. Surveys—						
Reserve 607, North Queensland					1,947	1 3
Soil and Type Surveys—						
North Queensland					142	0 0
Theodolite Surveys—						
South Queensland					213	12 2
Road Location Surveys—						
V.C.L. Tinaroo, North Queensland	673	18	0			
V.C.L. Blencoe, North Queensland	16	7	8			
Reserve 28, North Queensland	44	18	4			
Reserve 106, North Queensland	87	14	4			
Reserve 268, North Queensland	78	8	11			
Reserve 344, North Queensland	95	15	3			
Reserve 350, North Queensland	298	5	11			
Reserve 441, North Queensland	38	12	2			
Reserve 458, North Queensland	111	6	2			
					1,445	6 9
Boundary Surveys—						
V.C.L. North Queensland	190	8	4			
Reserve 443, Dulanban, North Queensland	283	0	0			
					473	8 4
Miscellaneous Surveys—						
Brisbane Valley	35	4	6			
Gympie	2	14	11			
Jimna	58	9	7			
Kilkivan	31	4	6			
Many Peaks	63	3	0			
Mary Valley	5	3	0			
North Queensland	261	9	2			
North Queensland (Inundated area, V.C.L. Ramleh)	922	9	9			
					1,379	18 5
Survey Prints, Maps and Mountings					887	10 5
					£34,863	13 10
Reforestation Branch Projects—						
As detailed in Appendix H					20,794	6 10
Total Expenditure					£55,658	0 8

APPENDIX Q.

Distribution of Personnel, 30th June, 1958.

Salaried officers	..	..	..	..	..	..	..	..	..	328
Other employees	..	..	..	..	..	..	..	..	..	<u>1,774</u>
										<u>2,102</u>