QUEENSLAND.

# ANNUAL REPORT

OF THE

# SUB-DEPARTMENT OF FORESTRY

FOR THE

YEAR 1949-50.

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## CONTENTS.

											PAGE.
Introduction	••	••	••		••	••	••	••	••	••	1
Reforestation	•••	••	••			••			••	• •	2-9
Acquisition of Land	••	••			••		••	••	••		10
Fires					••	••	••	••			· 10
Forest Surveys	••			••	••	••	••		••	1	10-11
National Parks		••		••						,. I	1-12
Harvesting and Marke	ting					••			••	1	3-17
Sawmill Licenses							••	••	••	••	17
Offences	••				••					1	7–18
Forest Products Resea	$\mathbf{rch}$	••	••			••			••	1	8-21
Staff and General	••	••				••		••			21

## TABLE OF APPENDICES.

Å

÷

				PAGE.
Appendix	A.—Return of Timber, &c., removed from Crown Lands			22
,,	B.—Annual Cut, Pine	·· ·		<b>22</b>
"	C.—Receipts under the State Forests and Timber and Qua for the year ended 30th June, 1950	arry Reg	ulations	23
	DProceeds of Sale of Timber, &c., from 1st July, 1946, to	o 30th Ju	ne, 1950	23
**	EMarket Prices of Logs			2 <b>4</b>
,,	F.—Constructional Timbers supplied under Forestry a Operations	and Lu	mbering	25
** *	C.—Comparative Statement of Expenditure for year 1949-50	s 1948– 	49 and • ••	25
"	H.—Summary of Loan Reforestation Expenditure			26 - 32
**	I.—Areas of Plantations Established	•••••	• ••	33-34
**	J.—Areas of Natural Forest Treated		• ••	35-36
1)	K Summary of Forest Survey Work	•• •	• ••	37-38
,,	LState Forests, Timber Reserves and National Parks at	30th Ju	ne, 1950	39
"	M.—Reservations for the year ended 30th June, 1950	•••••		40
•,	NExpenditure, Surveys, Financial year 1949-50		• • •	41
*1	ODistribution of Personnel		• ••	41



TO-DAY'S PICTURE OF NORTH QUEENSLAND'S FIRST EXPERIMENTAL PLANTING. Hoop Pine, Wongabel, N.Q. Planted 1917. 人

# Report of the Director of Forests for the Year ended 30th June, 1950.

#### INTRODUCTION.

For the past year forest operations have been seriously affected by an unduly heavy and prolonged wet season. In view of this and the fact that the output of Hoop and Bunya Pine has declined by a further  $11\frac{1}{2}$  million super. feet, the total cut of mill logs from Crown lands of 201,960,000 superficial ft. as compared with 207,600,000 superficial ft. for the previous year, was quite satisfactory.

In 1940-41 the production of Hoop and Bunya Pine from Crown forests reached a peak of 146,000,000 superficial feet and within a period of nine years it has progressively fallen to a cut of 55,200,000 superficial feet (see graph page 5). Whilst the latter figure has been somewhat depressed by adverse weather, the regular downward trend is inevitable because of the limited supplies now remaining.

This is a most significant figure in the State's timber position. The increasing scarcity of these species is enforcing a full realisation of their outstanding qualities. Queensland is now paying the price for past neglect in not initiating and maintaining an adequate softwood planting programme to maintain production to meet our softwood requirements.

The local plywood industry is now importing inferior quality peeler logs at approximately double the price of Hoop Pine logs while sawn softwood of much lower grade is being brought from other countries at a greatly increased price.

Hoop Pine is a fast growing softwood, possibly the fastest growing conifer indigenous to the Southern Hemisphere. Early experimental plots indicate that quality timber can be produced in a relatively short rotation.

Perhaps the most urgent task facing the Forest Service is the rebuilding of the State's softwood resources, the objective being an area of 200,000 acres as soon as possible. In this programme, provision must be made to plant hoop pine to the extent that we have suitable land, filling up with the most satisfactory exotic pines.

Hence a most pleasing feature of the year's work was the establishment of a record area of approximately 5,000 acres of softwood plantation, bringing the total to over 43,000 acres. This planting was 1,140 acres in excess of the previous best, realised 10 years ago.

However, the discontinuance of planting during the war period has resulted in a loss in establishment of some 25,000 acres which must be made good as quickly as possible (see graph page 5). A planting of 5,000 acres should be the absolute minimum annual target of the future, as even at this rate it will take over 30 years to achieve the objective.

Investigation of experimental plantings in North Queensland shows that Hoop Pine is growing rapidly and that Maple is showing such promise that a planting programme is being prepared for the establishment of both species.

The programme of protection and natural regeneration work in the hardwood and Cypress Pine areas was continued, an area of 38,756 acres being treated during the year, of which 19,576 acres were dealt with for the first time.

A very important development during the year was the passing of "The Timber Users' Protection Act," which prohibits the use of lyctus susceptible and unseasoned timber in buildings or furniture where its use would be detrimental.

Fears were expressed that this measure would lessen the supplies of timber for these purposes; but on the contrary it has encouraged the erection of immunisation plants and thereby increased the supply of satisfactory and suitable timber for home building and furnishing.

I would like also, in these introductory remarks, to point out the considerable progress that has been made in the improvement of forest workers' accommodation, 41 additional barracks, accommodating 250 men, having been completed during the year.

#### **REFORESTATION.**

The outstanding feature of the year's operations was the record area of new plantations established. For the first time the annual planting programme has exceeded 5,000 acres.

The total of 5,225 acres, which includes 4,975 acres of Softwoods, is over 1,000 acres larger than the previous highest annual total and approximately 2,000 acres greater than the 1948-49 figure.

The total area of softwood plantations established at 30th June, 1950, was 43,137 acres, of which 13,679 acres have been planted since the end of the war.

Prior to the beginning of the last war an annual planting of 5,000 acres was an objective. The delays of the war and post-war periods have, however, forced the target upwards and satisfaction will not be felt until the nursery capacity of about 8,000 acres per annum can become effective in the field. The improving labour position and the overtaking of lost maintenance work of the war years contribute to the hope that the attaining of this new objective is only a few years ahead. This is the major reforestation task.

The contribution that the plantations are yielding, in thinnings, towards the softwood supply is becoming more appreciated each year. Last year the 8,648,000 superficial feet of thinning yield—the largest to date—represented over 10 per cent. of the total softwood cut. Further sales of thinnings made during the year, equal to a yield of over 2,000,000 superficial feet per annum, have brought the quantity under sale to a figure that should yield at least 1,000,000 superficial feet per month during 1950-51.

Planting was undertaken for the first time on the southern section of the Tin Can Bay country, an operation which it is hoped to maintain at a rate of 1,000 acres per annum.

Of the total softwood plantings for the year 2,625 acres were of the indigenous hoop pine (Araucaria cunninghamii) and 2,350 acres of exotic pinus species (chiefly Pinus caribaea but also Pinus taeda, Pinus patula, Pinus radiata, Pinus insularis and Pinus hondurensis in that order).

This indicates a rise in the exotic proportion from 40 per cent. in 1948-49 to 48 per cent. A further rise is to be expected for, of the total plantation target in South Queensland, only approximately 50 per cent. can be met from land suitable for Hoop Pine. Further, with the urgent need to provide early softwood supplies, the simpler establishment of exotics and their earlier first thinning yields enable most effective use of labour.

Research into the North Queensland problems has now proceeded to a stage at which a decision regarding the silvicultural system for a number of areas can shortly be determined.

Much of the war period leeway of tendings and prunings was overtaken during the year and it is expected that normality will be reached within twelve months.

Concentration of labour on the softwood plantations allowed only little surplus for expansion of operations on the natural hardwoods and cypress pine forests. There was, however, an all-round improvement in work achieved on these areas. Regeneration treatment work of natural forest covered 38,756 acres, an increase of about 7,000 acres on the previous year's total. This rate is, however, far below what should be done since a large area remains untreated. For the first time a number of sales on hardwood areas during the year required removal of marked thinnings down to 48 in. g.b.h. Silvicultural advantage will accrue as this is further developed.

It is many years since such a favourable fire season as that of the past year was experienced. Apart from a brief period in December and early January hazard was well below normal and no fires of any magnitude were experienced, with, accordingly, little loss.

Permanent sample plot inventory work was continued during the year on the inland forests while, in addition, it was possible to extend the work to coastal hardwood areas, this latter being carried out on a 1 per cent. sample basis.

Continued wet weather has hampered the  $2\frac{1}{2}$  per cent. sample plantation yield plot establishment, but this work should be completed within six months, leaving only the areas planted since the end of the war uncovered.

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The work of improved camping facilities was given a high priority in the capital improvements construction programme. The full achievements are given elsewhere but it is gratifying to report that during the year a further 41 barracks were completed and 10 partially completed. Eighty-five barracks, accommodating 500 employees, have now been erected.



ANOTHER FOREST NURSERY STARTS PRODUCTION—THE FIRST SEEDLINGS, BEERBURRUM, MAY, 1950. The Department had 28 nurseries in production at 30-6-50. During the year they produced 3½ million plants; had 7½ million in stock at 30-6-50.

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LUSTY GROWTH OF PINUS CARIBAEA IN PLANTATION, BEERWAH. 17 years ago these trees were like the nursery stock pictured above. To 30th June, 1950, 43,138 acres of softwood plantations have been established, including a record planting of 4,975 acres in the year 1949-50. Details of reforestation operations were--

Plantations.—The total area of new plantations established during the year was 5,225 acres, comprising:—

					Acres
Hoop Pine (Araucaria cunninghamii)	• •	• •	••	 	2,623
Bunya Pine (Araucaria bidwilli)		• •		 	2
Exotics (Pinus spp.)				 	2.350
Hardwoods (Eucalyptus spp.)			••	 	250

At the 30th June, 1950, the totals of established plantations stood at :---

									Acres.
Softwoods	••	••	• •	· · ·	••		• •		43,138
Hardwoods	••	••	••	• •	• •		••		2,886
Other Species	••	••	••	•••	••	••		••,	436
Total	••	• •	••	•••	۰.				46,460

Details appear in Appendix I.

Pruning work completed showed over 50 per cent. increase on the work done last year. The area covered—6,566 acres—comprised :—

	• • • •			•			Acres.
	· First operation	••	 		 	• •	2,935
	Second operation	••	 		 	••	2,141
-	Third operation		 • •	• •	 	• •	1,336
	Fourth operation	••	 	• •	 		154

There is still a lag in this work but much of this should be overtaken during the 1950 winter months.

Weed tending operations were accorded to 22,967 acres.

As indicated above, the yield of merchantable plantation thinnings for the year was 8,648,000 superficial feet. All of this was from first thinning operations and is approximately  $2\frac{1}{2}$  million superficial feet in advance of last year. This quantity was obtained from 1,326 acres.

All areas requiring immediate thinning are now under sale, but a further 2 or 3 areas will enter the programme next year.

The total yield of thinnings to date is 24,507,000 superficial feet.

Required removals under all current sales total over 13,000,000 superficial feet per annum. Every effort is being made to have this obligation fulfilled for many of the sales include areas overdue for thinning. No second thinnings have yet commenced though, in the case of the older areas, standard prescription has been modified to allow heavier removals.

Nurseries.—No further nurseries were established during the year but two nurseries at Beerburrum and at Coondoo Creek—provided planting stock for the first time.

The 28 nurseries in production have a total annual output of stock capacity sufficient for 8,000 acres.

Output for the year totalled over  $3\frac{1}{2}$  million trees. Stock in hand at the close of the year was  $7\frac{1}{2}$  million trees.

Regeneration Treatment of Natural Forests.-The total area treated during the year was 38,756 acres.

Details are shown in Appendix J which, briefly summarised, shows:---

		-							First Treatment.	Other than First Treatment.	Total.
Hardwood Cypress Pine Other Species	•••	••	  	  	•••	•••	•••	 	Acres. 12,812 6,716 48	Acres. 16,273 2,874 33	Acres. 29,085 9,590 81
·	Totals	••	••	••		•••	•••		19,576	19,180	38,756

The total acreage now accorded at least one treatment is 521,605 acres.

Though the year's work is some 7,000 acres greater than last year, the figure is well below what is desirable, particularly in first treatment work which is the operation of greatest value.

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With more stability in labour and, accordingly, the opportunity of training crews, improvement can be expected.

The work listed under "Other Species" is in the North Queensland rain forest types. The results of this, and the probable practices to be adopted, are dealt with under Research.

Protection .-- The year was one of subnormal hazard, and fires were few.

First deliveries of new type radio were received and installed but have not yet had the opportunity of routine trials.

The work of firebreak (and fireroad) construction and maintenance continued at an increased rate. An improving position in the plant supply—particularly dozer-equipped tractors and power graders—should allow of further early increased operations under this heading.

A summary of the work carried out under firebreak headings for the year gives:— 1. Cleared Breaks (Western Forests)—

	Firebreak construction-										Miles.
	Cutting and grubb	ing							••		33-7
	Stacking and burn	ing			• •	• •			۰.	••	21.8
	Cutting auxiliary 1	roads				••		••	••		82
	Firebreak Improvemen	.t—									
	Grubbing roads				<b>.</b> .	••			۰.	••	349-3
	Grading								۰.	••	$214 \cdot 3$
	Green strips			• •	••	••			••	••	243.3
	Firebreak Maintenance	_									
	Suckering and burn	ning						••	٠.		533-9
	Grading	·		••	••		••	••	••		752-5
	Rotary hoe	••	••	• •			••	••	••	••	26.2
2	Green Breaks (Coastal He	boowhra	Areas	)							
	Firebreak Construction	<u> </u>		,							
	Folling Dangerous	Troop									113-8
	Steeking and burn	ing	••	•••		••					$120 \cdot 1$
	Firebreak improve	ment						••	••		315-3
	The second secon		•••								
•	Firebreak Maintenance	— Ionahina							_		1.906-4
	Burning	iouguinț	5 ••	••	••	••	• •	••			758-1
	Boada	••	••	••	••	••					23.0
	Grading	•••	••		••				••		105-1
		,	••	• •							
3.	Cleared Breaks (Plantatic	ons)—									
	Firebreak Construction	<u> </u>									<b>P</b> O 9
	Temporary breaks	for scru	b bu <b>rn</b>	ling	• •	••	• •	;•	••	••	78-3
	Clearing	• •	••	••	• •	• •	••	••	••	••	10.7
	Rotary hoe	• •	••	• •	• •	••	••	• •	••	••	14.3
	Grading	••	••	••	••	••	••	••	••	••	19.0
	Firebreak Maintenance										·
	Chipping		••	••	••	• •	••	••	••	••	47.9
•	Ploughing	••	• •	••	••	••	••	••	••	••	140.0
	Burning	••	••	••	••	••	••	••	••	• •	130.5
	Rotary noe	• •	••	••	••	••	••	••	••	••	65.7
	1 - T 15 / 1 1 1 1 F										

Seed Collection.—No seed fall of Hoop Pine occurred during the year and stocks of seed in cold storage are now sufficient for one year's sowing only—it is hoped to make a record collection of seed during 1950-51.

The increasing planting programme for exotic pine has naturally called for larger quantities of seed and during the year the following quantities of seed were collected :---

Reserves 561-589.—

*Pinus caribaea*—629 lbs. 8 ozs. of which 90 lbs. were from select seed trees. *Pinus taeda*—90 lbs. 10 ozs. all from select trees.

Pinus palustris-80 lbs.

Pinus echinata-6 lbs. 3 ozs.

RESERVE 263.—Pinus radiata—20 lbs. 6 ozs. from select trees.

RESERVE 509.—Pinus patula—35 lbs. 12 ozs. of which 10 lbs. 4 ozs. were from select trees.

It is gratifying to record the increasing quantities of seed secured from select seed trees.

Supply of Trees to Public.—The public of Queensland is becoming increasingly tree conscious and the demand for trees has not only been maintained but has increased. Requests for advice on tree planting are received from all corners of the State and it is regretted that lack of acquaintance with the site prevents, in a number of cases, the giving of a thoroughly adequate answer.

180 LOG CUT OF SOFTWOODS FROM FOREST AND YOUNG PLANTATIONS NATURAL FROM 160 140 ۱ 12 10 Million Super Feet 40 20 Kauri <u>Pine</u> <u>hínnings</u> <u>Plantation</u> 39.40 401 36 378 41.2 38-5 42.3 43.4 48.9 49.50 46 Financial Years

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A number of sawmillers have initiated planting schemes of their own and one miller established an area of 85 acres during the year. It is hoped that other millers will follow this example.

The number of plants supplied to School Plots increased by 70 per cent. and these plots yield valuable information as to the behaviour of various species under different conditions of soil and climate.

Details of numbers of trees supplied are as follows:-

To Farmers		 			••	 	198,000
School Plots	• •	 	• •	••		 	17,366
General	• •	 	• •	••	••	 • •	19,634
							235,000

Over 900 trees of various species were supplied to "Save the Trees Campaign" for disposal to the general public at the 1949 Brisbane Exhibition.

**Research**—North Queensland.—From information available to this Department it appears that the climatic and soil conditions over a large area of coastal North Queensland are very similar to those that obtain where *Pinus hondurensis* grows naturally in British Honduras. During the year small trial plots of *Pinus hondurensis* were established on State Forests near Cardwell and Silkwood and in a number of school forest plots between Cairns and Ingham.

There is no doubt that most of the rain forests of North Queensland will, by reason of topography alone, be handled by some form of Natural Regeneration. There are areas which are readily accessible and of easy slopes which are possibilities for the establishment of plantations.

These areas, by virtue of their ease of access, have been, or can be, heavily cut over for the more valuable species.

To obtain some indication of the present stands on such areas some 5,000 acres were covered by half-acre plots mechanically located at 30-chain intervals in strips 30 chains apart. The figures from these plots showed—

- (1) That the primary or more valuable species are very poorly represented.
- (2) That of a total basal area of 190 square feet per acre only 40 square feet was in good trees of useful species.
- (3) That the prime cabinet woods, Maple (F. brayleyana), Walnut (E. palmerstoni), and Red Cedar (C. australis), are likely to be ousted by the more vigorous regeneration of Bollywood (Blepharocarya involucrigera) on the grey soils and by Red Tulip Oak (Argyrodendron peralata) on the rich red loams unless this can be corrected by treatment.

Yield plots in Maple (F. brayleyana) plantations show that this is quite a productive plantation tree. Growth is satisfactory, as is shown by the following table, and natural pruning is quite good.

	 Age	3.		Average G.B.H.	Average Pre. Ht.	B.A./Acre. Sq. Ft.	Volume to 4 inches D.U.B. (Cubic ft.)
10 15 20	   	· · · · ·	•••	 ins. 18 23 27	feet, 47 60 70	feet. 70 100 130	1,100 1,900 3,000

Maple thinnings can be used in small sizes and its wood is not susceptible to Lyctus attack.

It is proposed to initiate work on the inheritance of figure with this species.

During the year a number of deaths occurred in a 35-year old plot of Hoop Pine (Araucaria cunninghamii). Root rot is suspected as the cause and an unidentified fungus has been isolated from infected roots.

Byfield—Exotics.—Season of sowing experiments conducted with Pinus caribaea at Byfield nursery have indicated that August is the best month. Earlier sowings produce overlarge stock and later sowings suffer severe losses from insolation.

Experience in the 1949 and 1950 planting has focussed attention on the question of Season of Planting and the associated problem of type of planting stock.

Winter rains are not reliable at Byfield, which is located just within the Tropics, and it appears likely that the present technique of raising open root stock for planting in the winter may have to be abandoned in favour of one involving the planting of tubed stock in the summer wet season. Experiments covering these aspects have been initiated.

Pinus hondurensis established in 1949 has shown promising growth in its first year in the field.

South Queensland—Beerwah-Exotics.—The oldest plots of stock resulting from controlled pollination are now 7 years old—of particular interest is the progeny resulting from selfing. The trees resulting from 'any one selfing are uniform in development and in characteristics, and characters such as size and angle of branches and number of whorls per unit length of stem can be correlated with those of the parent tree.

These plots suggest the lines which work should follow in the establishment of stud plots.

Efforts at establishing cuttings of *Pinus caribaea* and *Pinus taeda* have been unsuccessful even with young trees and the percentage of success with grafting has been very low.

It is therefore proposed to examine critically the progeny of each of the parent trees to determine which have transmitted desirable form characteristics and to concentrate work on the selfing of these trees. The progeny from this selfing will be established in plots well away from established trees of the same species.

Observations made in the course of controlled pollination work indicate that there is likely to be a failure of seed crop for March, 1952. This is due to the consistent wet weather, which prevented the pollen from flying at the time when the female cones opened for pollination.

Thinning plots with P. caribaea indicate that at age 17-18 years there is a fairly wide range of stockings over which near maximum basal area increment and maximum merchantable volume per acre is given. They show very little variation between 270 to 500 per acre. Routine thinning prescriptions aim at hitting the lowest figure that will give close to maximum merchantable volume increment.

The younger series of Free Growth plots with *P. taeda* has reached its final stage with plots down to 50 per acre at age 9 years.

Though these experiments were handled on somewhat different lines from those outlined in the South African paper to the last Empire Conference "The Silviculture of Exotic Conifers in South Africa" it can be stated that the results are in complete harmony with those given in that paper.

Experiments conducted on the use of "Grodex" (Triphenyl tetrazolium bromide) for rapid determination of viability of *P. caribaea* and *P. taeda* seed gave no useful results with *P. taeda* but were more promising with *P. caribaea*. With *P. caribaea* it was found that a period of 72 hours was necessary for soaking to give deep colouring of the embryo. With *Pinus taeda* longer soaking was necessary.

These tests were conducted with seed one year after collection and showed that with seed of this age the simple cutting test gave a figure for sound seed which approximated very closely to the laboratory germination.

Repetition of the tests with fresh seed from the 1950 collection is proposed.

Yarraman and Imbil—Hoop Pinc—Pregermination Treatment of Hoop Pine Seed with "Ceresan."—"Ceresan" is a proprietary compound in which the active agent is an organic mercury compound. Experiments over a number of years at Yarraman indicated that by dusting with this substance an increase of 25 per cent. in germination can be obtained with Hoop Pine seed. In the sowings of Hoop Pine seed made in Spring 1949 large-scale experiments were laid down in Yarraman and Imbil nurseries and a considerable proportion of the routine sowings were made with treated seed. In both experiments and routine treated seed was sown at  $\frac{3}{4}$  the rate of untreated seed. In the Mary Valley experiment the germination percentage was increased by 85 per cent. and the routine sowings with treated seed gave highly satisfactory results, indicating that the 25 per cent. reduction in rate of sowing was compensated by treatment. Treatment with ceresan at the rate of  $1\frac{1}{2}$  lbs. per 100 lbs. of seed is now routine with Hoop Pine, and further work is being done to find the most efficient treatment and if treatment, given when the seed is being binned for cold storage, is effective when the seed is sown up to 4 years later.

Once again the plantation seed crop was sparse throughout the whole State and was almost completely infertile. Preparatory to embarking on work of tree breeding with Hoop Pine, elite trees are being located and strangulation experiments have been commenced in an effort to stimulate the production of male amenta, which have not yet been produced in quantity in plantations up to 20 years in age.

Response to animal manures in the Brisbane Valley nurseries is marked and general in sharp contrast to earlier experiments. The most likely theory advanced to explain this is that the response is due to the combined influence of the routine treatment of arsenate of lead to control white grubs and the manure. An experiment laid down this year at Benarkin in an untreated bed does not discount the theory. Whilst the plots treated with manure alone are superior to the untreated control the best results were given in plots treated with arsenate of lead and manure.

An experiment on the life of tubes, which has been running for 13 years, has shown that lacquered tin was suitable for 10 years and that zinc anneal and galvanised iron were both still in very good condition. Zinc anneal tubes have not been used in routine but this experiment shows that they stand up to use well and observations show that they have no adverse effect on plants.

Work with hormones for the control of weeds in plantation indicates that it is unlikely that they will be used to any extent in normal plantation areas. Low volume spraying with "Weedone" promises to control Inkweed in its early stages but the cost of material and of application is high and the hormone has an adverse effect on Hoop Pine and Pinus Patula.

Based on the results of thinning experiments in the Mary Valley a prescription was laid down in 1947 for the first thinning of Hoop Pine plantations on a merchantable basis. The Schedule adopted was:-

	Averag Talles	e Height t Stems.		Thin to.		Equivalent Spacing.			
45 ft. to 54 55 ft. to 64 65 ft. to 74 75 ft. to 84 85 ft. +	ft ft ft ft	· · · ·	· · · · · · · · · · · · · · · · · · ·	350 per acre 300 per acre 250 per acre 200 per acre 160 per acre	•••	11 ft. by 11 ft. 12 ft. by 12 ft. 13 ft. by 13 ft. 14 ft. by 14 ft. 16 ft. by 16 ft.			

In routine it is desired that thinning should commence when the average height of dominants is about 50 feet.

Concurrent with the adoption of this schedule further experiments were laid down to check on its soundness.

One such experiment was No. 227 (Imbil) which involved six plots. Three plots are unthinned and two reduced to 330 per acre. The other plot was on a better site. The age of the stand was 13 years at commencement, average height of dominants was 50 feet and routine thinning was to 350 per acre. Results to June, 1949, are given in the following table :-WHOLE STAND.

Ave		Basal	Area/Acre—sq. ft.	Merch. Vol./ac. to 4 inches D.U.B (cubic feet.)						
tment.	Average Stand— Acre.	Standing 1949.	Increment.	Standing 1949.	Increment.	Volum Thinne				

7.9

9.5

1 940

1,180

340

230

320

305

11.2

7.0

Volume Thinned.

700

SELECT STEMS (HIGH PRUNED)-160 PER ACRE.

126

76

560

330

Tre

Unthinned

Thinned

				(														
Treatment.		Average		G.B.H. (B.A	)	]	Height (feet	.)	Volum	e in Pruned 22 ft. butt	Section log.							
Treatment.		Stand— Acre.	Stand— Acre,	Stand— Acre.	Stand Acre, 1949.	Stand— Acre.	Stand— Acre.	Stand— Acre.	Stand— Acre.	1949.	Incre	ment.	1949.	Incre	ment.	Standing	Incre	ment.
•						47-8.	48-9.	1010.	47-8,	48-9.	1949,	47-8.	48-9.					
Unthinned Thinned		560 330	ins. 21∙3 22∙6	ins. 1·0 1·3	ins. 0∙7 1∙5	51·7 50·5	ft. 5.0 4.0	ft. 2·0 1·8	c. ft. 583 666	c. ft. 70 87	e. ft. 50 105							

This shows the benefit to the select pruned stems from the 1947 thinning. Plots thinned put on, in 1948-49, more than double the amount of clean wood put on by the unthinned.

Whilst the later results from this experiment are awaited with interest those obtained to date indicate :---

1. That the routine prescription for commencing thinning at 50 feet height is not too early.

2. That the thinned plots will yield a higher financial return than the unthinned if these be left for long in that state.

3. That routine first thinning to 350 per acre at this stage will substantially increase the production of clean wood and have little effect on overall production of merchantable volume.



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From this 26 year old plantation of Hoop Pine 17,500 super. ft. of thinnings per acre are being removed for milling. Remaining stand is 28,000 super. ft. per acre in 140 trees averaging 92 ft. high. In 1949-50 8,648,000 super. ft. of plantation thinnings were cut.

Removal of branches from selected trees ensures production of clear knot-free timber of high quality. In 1949-50 6,566 acres of plantation were pruned.

Staff shortages, accentuated by World War II. are now being partially relieved. It has been necessary, because of these shortages of personnel, to reduce experimental work in many directions to a minimum. During the year it was possible to engage two additional officers on full time research work—one on research on the exotic Pinus species, and one on general research. There is still much leeway to be overtaken.

Capital Improvements.---The major items of construction are listed below.

Apart from urgent essential administrative structures to keep pace with increasing programme, work has been devoted to improvement of accommodation of employees camped on the job.

Generally there has been increase over last year in all items, but the major improvement has been the completion of 41 barracks, while a further 10 were under construction. This brings the total barracks constructed in the past three years to 85---sufficient for the accommodation of 500 men.

In addition two ranches were completed, each capable of providing meal accommodation for from 80 to 100 men. Ranches are in the form of two barracks end to end with single middle kitchen. The Department is contributing the buildings, cooking equipment, and wages of one man. Ranch management is under the control of a committee of employees in each centre.

Approval has been given for further similar buildings to be erected next year.

Cottage construction comprised demolition of substandard structures and re-erection.

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Main	itėms	of	construction	were	-	·	 	·•• ·

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			Item	•	· ·	 	Complete	d.	Partially Completed.	
Cottages						 	2		1	•
Barracks						 ,	41		10	
Bathrooms						 	50			
Gallevs.					•••	 	51			
Lavatories						 	41		2	
Office-tool	sheds					 	9		1	
Garage-stor	erooms					 	5			
Offices						 	. 2			
Lookout cab	ins					 	l ī	Ì		
Nurseries						 	$\overline{2}$			
Phone lines						 	18 mi	les		
Sheds, tubin	g shelte	rs.	&c			 	20	•••	· ···· • • • • • •	· ···· · · · · · · · · ·
Radio masts	75 ft.	•	•	• •		 	3			
Water tower	45 ft.					 .,,	ĺĭ			
Married men	's quar	ers	-			 	67			
Ranches						 	. 2			
						 •••				

**Expenditure and Labour.**—The expenditure on reforestation works totalled £869,574, equal to £177,080 greater than the previous highest expenditure in 1948-49.

Details are given in Appendix H, which, briefly summarised, shows the following:-

								£
Plantations								173.873
Natural regeneration								25.486
Nursery working expen	ses						••	25,764
Protection (including f	ire fig	hting)			••	••	••	158 522
Research				••	• •	••	•••	5 132
Capital improvements	•••	••	•••	••	• •	••	••	60,006
Surveys	••	••	• •	••	••	••		8 408
Wet time holidays lo	970	••	•••	••	• •	••	• •	111 770
Tools tents cortage	are	ricion	•••	••	• •	• •	• •	199 507
Works, tents, cartage,	super	VISIOII	• •	••	• •	••	• •	138,897
Workers compensation	L	. • •	••	• •	••	• •	••	11,822
ray ron tax	• •.	••	••	• •	••	••	• •	17,033
Cartage of rations	••	••	• •	••	• •	••	• •	$7,\!481$
Camping allowance	••	••	• •				• •	38,465
Depot stock, &c.	••	••	••	• •		· · ·		78,213
							-	
								£869.574

While inevitably there has been increase under almost all headings, the major increase has been on plantation work, which shows an increase of over 50 per cent.

The continued wet weather is reflected in the increase of over £30,000 under that heading over the more normal 1948-49.

Wages staffing on reforestation works at the close of the year was 1866—a net increase during the year of 275. The number of New Australians included in the total at 30th June, 1950, was 445, which is equal to the figure at the corresponding time last year. These men have contributed in no small way towards the increased planting acreage for the year, particularly in the more skilled work of scrubfalling in certain districts.

#### ACQUISITION OF LAND.

During the year 1949-50, an amount of £16,446 11s. 1d. was expended on the acquisition of areas for forestry purposes.

Fifteen properties, covering a total area of 20,374 acres, were purchased at a cost of  $\pounds 10,542$  17s. 1d. In three instances resumption action was taken, the total area involved being 435 acres. Compensation paid during the year in respect of areas resumed amounted to  $\pounds 1,788$  5s. 1d.

In several cases lessees of grazing tenures have consented to surrender of their areas for Forest Reservation and subsequent granting of Special Lease under Forestry conditions.

In December, 1949, Mr. W. V. Shelley, of Springbrook, donated for National Park purposes 2 roods 16 perches of his property, portion 82, parish of Numinbah. The Department acknowledges with appreciation this generous gesture.

Compensation amounting to £3,369 17s. 6d. was paid in respect of improvements on an Occupation License and Forest Grazing Lease resumed for Departmental reasons.

#### FIRES.

During 1949-50, 50 outbreaks of fire on or threatening forest reservations were reported and investigated.

These reports are summarised as follows:---

#### Magnitude of Fires.---

h Agre or Less.	🔒 🛓 Acre to 10 Acres.	Over 10 Acres and under 100 Acres.	Over 100 Acres.	- Figures not Known.
••	15	19	6	10

#### Causes.---

Lightning.	Escape from Camp Fire.	Railways.	Burning off Grass.	Buraing Logs.		
2	1	9	2	2		
Break-burning Process getting out of Control.	Deliberate.	Miscellaneou	us.	Unknown.		
1	6	1		26		

#### Prosecution.

One person was prosecuted and a fine of £2 imposed.

#### FOREST SURVEYS.

Fourteen fully equipped survey camps operated for the greater part of the year.

Total expenditure for survey work amounted to  $\pounds 25,740$  3s. 1d., of which  $\pounds 17,331$  12s. 2d. was chargeable against Harvesting and Marketing projects and the balance,  $\pounds 8,408$  10s. 11d., against Reforestation projects.

As a result, 5,950 acres were dealt with by intensive contour and assessment survey (Class 3), 168,127 acres were assessed (Class 2), 27,775 acres were subjected to either firebreak, compartment, or soil survey, 97,220 acres covered by Forest Inventory Survey entailing the establishment of 868 new plots and the remeasurement of 156, whilst 96,304 acres were closely inspected (Class 1 Surveys).

Miscellaneous district surveys, mainly concerned with planting, were carried out as required.

Mileage completed was-

							Miles.	Chains
۰,	• •	••	••		••		14	36
• •	••	••	••		••	••	606	67
۰.		••	•• .	••	••		1,337	<b>20</b>
ons, d	хc.				••		74	76
cks		•• •					26	69
••	••	••	••	••	••		10	76
• •		••	••	••	••		61	71
	ons, a cks	 ons, &c. cks	ons, &c.	ons, &c	ons, &c	ons, &c	.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$



OFF TO A GOOD START—THREE-YEAR-OLD MAPLE, DANBULLA, N.Q. Research staff in North Queensland has been strengthened. Results of experiments will determine future silvicultural policy. Maple already shows promise for future planting.



#### STANDARD BARRACKS-BEERBURRUM.

Provision of barracks at permanent camps is being rapidly accomplished. At 30-6-50 85 barracks had been completed. Just outside the above picture is the new kitchen-dining ha'l, now nearly complete—one of a number being provided at large centres throughout the State.

#### Briefly the operations in each district were :---

Atherton.—Three camps operated—one only for the first six months on Class 1 Survey of Reserves 343 and 353 Meunga. The second completed the Rumula-Mount Lewis road investigation plus the balance of Mount Lewis-Mary River tableland before transferring to the Daintree areas in the New Year. The third camp assessed sections of the Tully and Palmerston areas together with War Service blocks in the parish of Glady, the latter work being carried out for the Lands Department.

Dalby.—For the greater part of report period, two camps continued forest inventory surveys on the Delger, Bembil, Durah, Yuleba, and Combabula Forests, whilst a third party assessed cypress areas on Redford and adjoining areas. A newly organised camp in January was engaged on compartment survey on State Forests 21 and 50, Goldsmith.

**Gympie**.—Three camps operated practically throughout the financial year, one on compartment surveys on R.393, Woondum, the second on Class 3 vacant Crown land, Conondale, and the third on soil and compartment surveys for exotic plantations at Coondoo.

Maryborough.—Soil and firebreak surveys for exotics on R915 Poona (Tuan) were continued throughout the year.

In September, a camp was organised to carry out forest inventory survey on coastal hardwoods, completing operations on R.435, Gundiah, in June.

In January, Class 2 Survey started on R.54 Bania (Mount Perry), while in May, Class 3 commenced at Granite Creek (R.67 Bulburin).

Brisbane and Brisbane Valley.—A two-party camp operated throughout the year, mainly on soil and related surveys on R.638 and 611, Beerwah.

Plantation sample plot establishment was carried out at Jimna and completed also in the Brisbane Valley district.

Miscellaneous surveys were continued throughout the year by local staff.

Warwick.—Survey work was confined to R.263, Pikedale, on which compartment boundaries, species, rock, swamp, &c., were traversed in addition to sample plot establishment.

#### NATIONAL PARKS.

Departmental policy in relation to National Parks continued to have as its keynote the protection and preservation of the animal and plant life and of the natural scenic value of the terrain. Only in this way can the Australian character of the areas be kept and if this should be lost much of the National Park idea is lost. National Parks are reserved not only for recreation, as areas where recuperation can be found from the stress and strain of everyday city life, but also for education, as living museums representative as nearly as possible of the original Australian bushland and its denizens.

The Department is often urged to exploit the natural resources of the parks—timber, it is alleged, is going to waste, &c., &c. The Department does not hold this view. It feels, on the contrary, that the virgin bushland serves the people amply in providing a haven of rest, recreation, interest, and education and will continue to do so. Timber removal operations cause irreparable damage. Falling trees open great scars, logging roads and snig tracks disfigure the scene, lantana and other foreign plants are introduced and the areas are rendered vulnerable to fire. Untouched bushland can and does uplift and re-create the jaded worker, but a scarred and marred countryside has only a depressing effect.

In the interests of national health alone, the preservation of National Parks is more than justified, apart altogether from educational and other values.

From the tourist viewpoint, it will surely be conceded that, to continue to attract visitors from other lands, our areas must be unique and must have character. If we remove our best trees and disfigure the landscape, we make our parks less than second-rate, and cannot hope to interest and delight visitors. These considerations make it more than ever desirable to preserve the essence of Australia represented in the parks. We can sell our "wasted trees" over and over again to visitors.

Hence the Department during the past year has devoted its energies largely to the construction and maintenance of walking tracks which, whilst making accessible spots of particular scenic charm, interfere to a minimum extent with the general character and scenery of the park.

Parks on which work was carried out in 1949-50 were:-

North Queensland.—Lake Barrine, Lake Eacham, The Crater (near Atherton), Millstream and Little Millstream Falls (near Ravenshoe), \*Palmerston Highway, and \*Dunk Island.

Central Queensland.—Eungella (Broken River and Clarke Range), \*Finch Hatton, South Molle Island and Long Island.

South Queensland.—Lamington, Tamborine Mountain, Springbrook, Cunningham's Gap, Bunya Mountains. Mounts Nebo and Glorious, Burleigh Heads, Noosa, \*Numinbah Valley. \*Killarney, and \*Montville.

On areas marked with an asterisk work was commenced during the year.

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Altogether £34,685 was expended in National Parks works on which 82 men were employed at 30th June, 1950 (at which date 182 miles of graded track had been constructed). Estimates made by National Parks Rangers indicate that parks under development were visited by 200,000 persons during the year.

Recently the Victorian State Development Committee, consisting of Hon. C. E. McNally, M.L.C. (Chairman), Messrs. Dawnay-Mould, Barclay, Fraser, and Shepherd, Ms.L.A., and Mr. J. Gillies (Secretary), visited Queensland for the purpose of inquiring into the Queensland policy concerning National Parks. They were good enough to express approbation of the lines followed in this State.

Extracts from annual reports of National Parks Rangers, principally relating to new work undertaken, are appended:

North Queensland.—The year has been somewhat disappointing as regards work on National Parks in North Queensland. Very heavy and almost continuous rains, together with an acute labour shortage, have greatly retarded progress.

Graded track work was commenced from the "K" tree, on the Palmerston Highway, to Wallacha, and Tchupala Falls, continuing down into Henrietta gorge. The gorge below Tchupala Falls is very steep, broken, and rocky, and some difficulty was experienced in getting down.

Work was also started at Dunk Island on a graded track to the top of Koo-Tal-oo, 890 feet, the highest point on the island. Some very fine views of ocean, island, and mainland scencry are to be had from the track; many most favourable reports have been received from visitors to Dunk Island. A few seats constructed from small hardwood timbers will be provided at different spots for the benefit of elderly visitors.

Re the Tully Falls Hydro-Electric Scheme, it is thought that with the damming of the river, and diversion of much water through a tunnel above the falls to the power house at the foot of the range, Tully Falls, like the Barron Falls, will lose much of its scenic attraction, particularly during a dry spell, when water may cease to flow down the fall.

Central Queensland.-Development of one National Park (Finch Hatton Gorge) was commenced during the year under review.

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Due to the extremely long wet season, track construction was somewhat curtailed, Eungella and Finch Hatton being the chief sufferers in this regard. 105.87 inches of rain, spread over 91 wet days, were recorded at Eungella from 1st January, 1950, to 30th June, 1950; the total rainfall for the financial year being 119.28 inches spread over 127 wet days. Finch Hatton also recorded 95 inches for the period 1st January, 1950, to 30th June, 1950. This long wet season has been responsible for considerable damage to constructed tracks, involving heavy maintenance costs.

At Finch Hatton Gorge the track winds through rain forest to the first falls in the gorge, thence across the gorge and along the left bank—affording visitors beautiful views of a series of small falls—to the main falls about 250 feet in height.

South Queensland.—During the year work was commenced at Boombana National Park (Mount Glorious), Numinbah Valley National Park, Queen Mary Falls (Killarney National Park), Montville National Park, and Ravensbourne National Park.

On Boombana National Park, a circuit track of about one mile adjoining the Jolly's Lookout Reserve has been built through high forest and across a pretty gully. A similar circuit is under construction two miles to the north, commencing near the main road and proceeding through dense rain forest.

The old track to the Numinbah Natural Arch has been regraded and a loop extension is under construction.

At Killarney a short loop track to the Lookout at the top of Queen Mary Falls is nearing completion.

Montville is a very popular tourist centre, and the few chains of track recently built, being part of a large circuit to embrace the upper and lower falls, have been greatly appreciated by the many visitors. Negotiations are in progress to acquire a small area near the Flaxton road to improve the present very poor access to the National Park.

Towards the end of the year a camp was established on the Ravensbourne National Park, and location was commenced of the main track route through the picturesque palm and tree-fern groves on the headwaters of Buaraba Creek.

Straying stock are a nuisance on some of our National Parks, but owing to lack of fencing wire we may have to endure the nuisance a little longer.

Maintenance of tracks entailed greater effort than ever this year, due to abnormal wet weather.

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From my personal observation I would say that generally speaking people are now more National Park conscious. This is particularly noticeable at Mount Glorious and Springbrook, where the very many day visitors make the trip purposely to see and enjoy the natural beauty.

During the year two meetings of Honorary Rangers were held and a circular to Honorary Rangers was issued by the Department. I feel sure that from this beginning more effective co-operation with our Honorary Ranger Force will ensue,



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#### HARVESTING AND MARKETING.

**General.**—This year torrential and persistent rains have drenched all forests within the State for longer periods than has been experienced in any year for more than half a century. In the jungle forests, snigging tracks have been transformed into rivers of slush and mud, lorry roads have been eroded and made untrafficable, and temporary bridges have been carried away by flood waters. The main arterial roads have also suffered from the abnormal wet and great difficulty has been experienced by the various authorities in maintaining these roads to a standard necessary for heavy timber traffic.

Flooding in the western Cypress pine forests has been general since the New Year. These level stretches of land have been so saturated by rain that transport of log timber by timber lorries has been difficult and in some instances impossible.

Due to the extreme wet weather the harvesting of timber from many forests within the State was at a standstill for prolonged periods. Logs cut during these periods have remained in the bush, with the result that borers and blue stain depreciated the quality of logs of many softwood species before marketing was possible.

To earry on financially, a number of logging contractors were forced to other avenues of employment where working conditions were more favourable. In North Queensland contractors diverted their machinery to the clearing of lands for tobacco and sugar-cane cultivation; others have undertaken work for the Main Roads Commission. In the south, contractors were attracted to the pastoral areas on dam sinking and clearing projects, and others undertook contract and piecework jobs on road construction. It is anticipated that some of these logging plants will be permanently lost to the timber industry.

The weather conditions have driven cutters and machinery operators from the timber industry to the more congenial work offering in the towns, and it is feared many of these men will not return to their old occupations when drier weather prevails.

The coal strike early in the financial year disorganised the transport of log timber by rail and caused congestion of logs on railway ramps, thereby slowing up log deliveries from the forests.

Increases for wages, plant equipment, oils and fuel added to the cost of log production. No action was taken to increase Key Market prices for logs to compensate for this additional logging expenditure, which has therefore been borne by the Department.

Notwithstanding the adverse working conditions encountered throughout the year, the volume of Crown logs marketed was approximately 202,000,000 superficial feet, a reduction on the previous year's figures of only 6,000,000 superficial feet. Considering all factors, this performance was most satisfactory, and credit is mainly due to those timber workers who persisted in their activities under such trying and abnormal circumstances.

The Hoop and Bunya pine log output showed a decline of 11,524,000 superficial feet in comparison with the previous year. An increase in softwood plantation thinnings and Kauri Pine log deliveries of 3,300,000 superficial feet compensated to a degree for the decrease in Hoop and Bunya pine logs.

Building hardwoods and scrubwoods showed a small increase over previous year's figures, but there was a decrease of 1,296,000 superficial feet in production of Cypress pine logs.

The indications are that the total mill cut of logs from Crown and private lands will approach last year's figures. Not all sawmill returns are to hand, but for the first nine months to 31st March, 1950, the utilisation of logs by mills showed an increase of 10,708,000 superficial feet in comparison with a similar period for the previous year. Against this, however, must be set the effect of the virtually continuous rains of the last quarter in reducing log supplies.

The requirements of the Railway Department and the Main Roads Commission for constructional timbers were given special attention during the year. A marked improvement in deliveries of sleepers, girders, piles, and girder logs has resulted. The production of sleepers has increased over the previous year's supply by 87,000 pieces, and the organisation established recently by the Forestry Department will continue to improve supplies to both Departments for all constructional timbers.

The demand for log timber throughout the year was keen. Blocks of standing timber offered by auction were readily sold and in some instances competition resulted in increases to upset rates.

Tenders called for cutting, hauling, and delivery of log timber met with poor response and little competition. Many contracts were arranged by negotiation after closure of tenders, The gross revenue from timber sales for the year was  $\pounds 1,010,460$  and the net revenue after meeting logging and other costs was  $\pounds 288,135$ .

Mill Logs Cut—Crown and Private Lands.—This table shows figures of quantity of logs cut by all mills in the State for a period of five years—

			Qu	eensland Grow	/ <b>n.</b> .			Im-	Total
rear.	Hoop and Bunya Pine.	Kauri Pine.	Plantation Thinnings.	Cypress Pine.	Hardwood.	Cabinet Woods.	Miscel- lancous.	ported.	
				(1.000	superficial	feet}			
1944-45	107,672	7,252		12,653	119,219	14,868	26,084	• •	287,748
1945-46	98,690	9,265		13,919	131,054	19,283	26,749	46	299,006
1946-47	95,874	8,706		22,270	158,227	25,038	38,515	180	348,810
1947-48	82,336	6,072	2,739	28,711	186,444	23,371	45,903	2,432	378,008
1948-49	69,104	4,406	6,626	33,524	211,553	23,117	55,564	5,964	409,858

Details of mill logs cut during the entire year 1949-50 are not available as not all mill returns are yet to hand. However, for the first nine months' operations the intake of logs again showed an increase, being 10,000,000 superficial feet over the figure for a similar period of 1948-49. This promise of another record year may not be fulfilled in view of the very adverse weather towards the end of the year.

Year.	Hoop and Bunya Pine.	Kauri Pine.	Plantation Thinnings.	Cypress Pine.	Hardwoods.	Cabinet Woods.	Miscel- laneous.	Im- ported.	Total.
1948–49 1949–50	53,770 45,400	3,640 3,890	4,540 5,660	(100 24,690 28,640	0 superficial 156,070 163,230	feet) 17,730 18,970	42,200 43,960	3,540 7,130	306,180 316,880
Movement +	·'.	250	1,120	3,950	7,160	1,240	1,760	3,590	10,700
. –	8,370	••	•••				•••	••	

Logs cut by all mills from 1st July to 31st March:-

Mill Logs (Crown Lands).—The following are the annual quantities delivered from Crown Lands as from 1939-40:—

										Super. feet.
	1939-40			••		••	·	••	••	212,000,000
	1940-41	••	••			••				228,000,000
	1941-42	••	••			••	·			232,000,000
•	1942-43						·		••	199,000,000
	1943-44		••	••	••			••	••	202,000,000
	1944-45		.:	•	••	••			• •	193,000,000
•	1945-46		••	••	••	•••	•••	••		190,000,000
· · ;	1946-47	•••	•••	• ••	••		•••	••	• • •	220,000,000
	1947-48		••		••				. <b></b> .	204,000,000
	1948-49	.:		•••	•••	- •		·	••	· 208,000,000
	1949-50	••			••		· ·	••	••	202,000,000
	.· ·									

A comparison of quantities of the various species of log timbers 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.	Miscel- laneous.	Plantation Timbers.
194546 194647 194748 194849 194950	   	  93,703 94,119 78,811 66,739 55,215	7,798 8,957 5,418 3,986 4,906	(1, 7,532 12,375 14,851 19,612 18,317	000 superfict 42,393 51,029 52,148 58,727 59,272	ial feet) 5,643 8,228 9,145 10,006 11,417	$16,315 \\ 22,927 \\ 15,956 \\ 15,376 \\ 16,452$	15,258 20,618 24,735 26,889 27,735	907 2,005 3,021 6,268 8,648



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Protection and improvement of the natural forests is an important task of the Department. By 30-6-50 521,605 acres of natural forest had been given regenerative treatment.

(-)		10/9 /0	1949_50
(a)	Mill Logs-	1770-17, BB 790 000 cuper feet	55 215 000 super feet
	Hoop and Bunya Fine	59 797 000 super. feet	59 272.000 super fee
	Forest Hardwoods	10 006 000 super. feet	11 417,000 super fee
	Surup Haruwoous	10 819 000 super. feet	18 316 000 super. fee
	Cypress rine	2 086 000 super. feet	4 906 000 super fee
	Cohinet Woods	15 376 000 super. feet	16 452 000 super. feet
	Miscollancous Species	28 889 000 super feet	27.735.000 super, fee
	Plantation Timbers	6 968 000 super. feet	8.648.000 super. fee
•			
I	Cotal Crown Mill Logs	207,603,000 super. feet	201,961,000 super. fee
	Headstocks, Transoms,	369 000 super feet	940.000 super, fee
	Grossings, Braces	362.000 super. feet	240,000 super. fee
	Sleepers	439,000 pieces	526,000 pieces
	Girders, Corbels, Piles,		
	Sills, Girder Logs	125,000 lineal feet	151,000 lineal fee
	Poles	390,000 lineal feet	371,000 lineal fee
	House Blocks	265,000 lineal feet	195,000 lineal fee
	Mining Timbers	522,000 lineal feet	367,000 lineal fee
	Mining Timbers	102,000 pieces	88,000 pieces
Gre	oss Receipts from Timber Sal	les £1,029,282	£1,010,480

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Logging.—During 1949-50 the following quantities were hauled by and payments made to contractors to the Department:—

			Class.						Quantity.	Expenditure.
<u></u>									Super. feet.	£
South Queensland—								1	01010	
Hoop and Bunya P	ine	••	• •	••	••	••	••	• •	35,910,476	
Forest hardwoods	••	••	• •	••	••	••	• •	•••	3,283,946	
Scrub hardwoods		• •	••	••	••	••	••	· · ·	351,815	
Miscellaneous	••	••	••	••	••	••	••	•••	1,807,604	
Red Cedar	·	••	••	••	••	• •	• •		78,569	5
								ľ	40,932,410	192,755
North Queensland—										
Kauri Pine		••		••	••	••	••		3,407,594	
Cabinet-woods		• •	••	••	••	••	••	•••	13,399,564	
Forest hardwoods	•••	• •	••	••	••	••	••	•••	2,138,032	
Scrub hardwoods	••		· • •	• •	••	• •	••	• • •	5,887,074	
Miscellaneous		••	••	••	••	••	••	•••	15,572,712	
Red Cedar		••	••	••	••	• •	••	•••	133,550	
									40,538,526	221,329
Total	s			••	••				81,470,936	414,084

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**Plantation Timbers.**—The quantities of plantation timbers cut since 1941-42 are shown hereunder; the 1949-50 figures show 38 per cent. increase over the year 1948-49:---

										Super. feet.
1941-42		۰.		• •	••	• •	••			188,000
1942-43		••	••	• •		••				1,252,000
1943-44	• •	••		••		••			••	1,261,000
1944-45		••		••	••	•••				955,000
1945-46		••	•••	••		••	••			907,000
1946-47		۰.		••		••	••			2,005,000
1947-48	••	••		••				۰.	••	3,021,000
1948-49		••			••		••	••		6,268,000
1949-50	••	••	••	• •		••	••			8,648,000

The Plywood Industry.-Returns from plywood and veneer mills covering the quantities of logs treated during the year 1949-50 are not yet available. However, manufactured deliveries were as follows :-

> Through the Southern Board-60,940,499 sq. ft. to a value of £1,005,518 Through the Northern Board-30,118,220 sq. ft. to a value of £406,596

91,058,719 sq.	ft.	£1,412,11

The distribution of the production was as follows:-

					Southern Board	Northern Board	Total
Queensland Interstate	 •••	 •••	••	 ••	21,650,397 39,290,102	16,009,443 14,108,777	37,659,840 53,398,879
					60,940,499	30,118,220	91,058,719

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

On 1st August, 1949—From £6 9s. to £6 12s.

On 31st October, 1949—From £6 12s. to £6 15s. On 30th January, 1950—From £6 15s. to £6 17s.

On 1st May, 1950-From £6 17s. to £6 19s.

Piecework cutting rates were adjusted to conform with variations in the set-to-earn cutting rates and hauling and snigging allowances were adjusted to conform with variations in the owner-truckdriver rate and tractor driver-offsider rates as provided in this award and the Engine Drivers' Award. Stumpage prices to purchasers were reduced in proportion to the increases granted.

Hewn Timber Prices .-- The abovementioned increases in award rates have affected the prices of hewn timber as follows :-

	Prices at—								
Class of Timber.	1-8-49.	1-11-49.	1-2-50.	1~5~50.					
Sleepers—squared 7 feet per 100 pieces Sleepers—hogback 7 feet per 100 pieces Crossing timbers per 100 super feet Transoms per 100 super feet Headstocks 9 inches by 6 inches per 100 sup. ft. Headstocks 12 inches by 6 inches per 100 sup. ft.	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$					

Key Market Rises .-- There were no increases in Key Market prices during the year under review.

Logging Roads.—The employment of two forestry road engineers resulted in the expan-sion of forestry road constructional work in both North and South Queensland.

The policy laid down is that for road projects in excess of  $\pounds 5,000$  the constructing authority is to be the Main Roads Commission, the Forestry Department to be responsible for location and working surveys. For projects under  $\pounds 5,000$  the Forestry Department is to be responsible for both survey and construction.

For the year the Main Roads Commission undertook work on 60 road projects within the State for an expenditure of £165,398 on construction and £23,207 on maintenance. These roads are being built to a very high standard and will give service under all weather conditions.

The Forestry Department established 52 miles of new logging roads for the year and carried out location and working surveys for 93 miles.

17

Maintenance of existing Forestry roads was also given attention and Shire Councils were subsidised where heavy log transport created damage on Shire roads.

Expenditure from Forestry Votes was as follows:----

								£
Construction	••			••	••		• •	$49,\!182$
Maintenance	••	•••	••	••			••	18,815
Subsidies to Shire Cou	incils	••		••			• •	$7,\!252$
Investigation Surveys	• •	• •	• •		••		••	1,583
Workers' Compensation	1	••			••			374
Pay Roll Tax		••	••	••	••	••	••	1,058
v								000 001
								z78,204

**Constructional Timbers—Departmental Contracts.**—A comparison of supply of constructional timber from Crown lands with the two previous years is as follows:—

							1947-48.	1948-49.	1949–50.
Sleepers Crossings Transoms Bridge tin Bridge tin	 nbers nbers	  (round) (square	  ) ed)	· · · · · · ·	• • • • • • • •	· · · · · ·	294,663 pieces 129,280 super. feet 268,205 super. feet 91,531 lineal feet 57,666 lineal feet	285,067 pieces 138,550 super. fect 151,039 super. feet 61,963 lineal feet 65,509 lineal feet	341,898 pieces 97,621 super. feet 114,537 super. feet 83,372 lineal feet 46,560 lineal feet

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

					Tons.	cwt.	qr.	1b.
							-	
uly, 1949	• •		••		122	4	0	0
hina	••	••	••	••	50	0	0	0
lune, 1950		••	••	• •	72	4	0	0
ıly, 1949	••	• •			6	1	1	4
	••	••	••	••		Nil	l <b>.</b>	
lune, 1950	• •		••		6	1	1	4
	uly, 1949 hina Tune, 1950 Ily, 1949  Tune, 1950	uly, 1949 hina Tune, 1950 ly, 1949  Tune, 1950	uly, 1949 hina Tune, 1950 ly, 1949 Tune, 1950	uly, 1949 hina Tune, 1950 ly, 1949 Tune, 1950	uly, 1949 hina Tune, 1950 ly, 1949 Tune, 1950	Tons.         uly, 1949         122         hina         50         Tune, 1950          72         uly, 1949          6            6            6         fune, 1950	Tons. cwt.         uly, 1949 $122$ 4         hina $50$ 0         Tune, 1950 $72$ 4         dy, 1949 $6$ 1 $6$ 1 $6$ 1         Yune, 1950 $6$ 1	Tons. cwt. qr.         uly, 1949 $122$ 4       0         hina $50$ 0       0         Tune, 1950 $72$ 4       0         dly, 1949 $6$ 1       1 $6$ 1       1 $6$ 1       1         Fune, 1950 $6$ 1       1

#### SAWMILL LICENSES.

New sawmill licenses were issued during the year to-

- (a) Applicants stating that they had supplies of private timber available for sawing; licenses in such cases were restricted to the sawing of private timber only (134 such licenses granted).
- (b) Applicants who had purchased at auction Crown timber sales conditioned to the effect that a sawmill license would be granted to purchaser (there were 5 such cases).

Гhe	following	table	indicates	the	position at	the	beginning ar	id t	he end	of	the	year :-	
-----	-----------	-------	-----------	-----	-------------	-----	--------------	------	--------	----	-----	---------	--

Number of Licenses as at 30–6–49.	Sawmill Classificati	on.	New Licenses Granted.	Number Ceasing to Operate,	Mills Re-licensed.	Restrictions Withdrawn.	Formerly Restricted now Unre- stricted.	As at .30-6-50.
821 60 25 20 53	General mills Case mills Sleeper mills Other restricted . Resaw and processing	· · · · · · · · · · · · · · · · · · ·	102 10 14 4 9	41 8 2 2 2 2	· · · • · • ·	2.3	ยี   	887 60 37 19 60
979			139	55		5	5	1,063

#### OFFENCES.

During the year 1949-50 157 cases of offences against Acts and Regulations administered by the Department were reported.

These were dealt with as follows:---

Eighteen prosecutions (involving 27 people), with fines totalling £108 and proceeds from the sale of timber involved amounting to £214 12s. 2d;

Two cases of prosecution are pending;

In eighty-two cases the value of the timber was collected and warnings issued; In seven cases insufficient evidence was available; Fourteen minor offences occurred and no action was taken;

Thirty-four cases are receiving attention but action has not been completed.

The total value of timber recovered in all cases amounted to £1,437 9s. 2d.

Five instances of timber cut, without authority, on. Main Roads were investigated by officers of the Department and referred to the Main Roads Commission for action.

#### FOREST PRODUCTS RESEARCH.

General.—The annually reducing cut of Hoop pine has forced all sections of timber industry to search vigorously for the best available substitute woods.

The successful use of such timbers depends in a large measure on improved sawmill efficiency and factory practices, but also, in a substantial degree, to a judicious application of each timber to its appropriate uses. It is in this direction that Forest Products Research is endeavouring to contribute to the maintenance and further development of the timber and allied industries in this State.

The proclamation of the Timber Users' Protection Act in January, 1950, greatly. increased public and trade inquiries covering all aspects of the preservation, seasoning and utilisation of our many miscellaneous timbers.

In the preparation of data and reports for the Timber Inquiry Commission officers contributed substantially, while they also assisted at field inspections of sawmills, timber yards and various timber-using industries.

Utilisation.—In the field of wood anatomy and identification of timber the principal work was in the identification of and reports upon 1,322 timber samples, representing 210 different species, for workers in the timber industry and sawmills and from the public.

Co-operation has been maintained with the Division of Forest Products, C.S.I.R.O., in fundamental growth studies of trees and of sapwood—truewood relationships. Reports on Silver Ash and Yellow Walnut from North Queensland indicate that within any one year there is a period of active growth and one of dormancy—the dormant period coinciding with periods of high rainfall and high temperatures. This is an unexpected result.

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The botanical survey of Queensland trees has been maintained in collaboration with the Government Botanist, to whom the Department is greatly indebted for his identification of specimens submitted.

Personal inquiries by telephone and interviews totalling 1,052 occupied a considerable amount of our officers' time; this service to industry is one that is being widely accepted by the trade and the public and is one which, it is felt, should not be reduced.

Renewed efforts have been made to establish an adequate reference collection of exotic woods. Such a collection is necessary because of the increasing importation of plywood logs from the Pacific Islands and sawn timbers from Sweden and New Zealand.

Work on grading rules is now proceeding, through the Standards Queensland Joint Timber Committee on Timber, to smooth out some practical difficulties regarding the acceptance of a greater proportion of sapwood which is immune to, or has been immunised from, attacks of the Lyctus beetle. A number of grading classes were held in sawmillers' yards to instruct sawmillers and others interested in the application of Standards grades for hardwoods.

The co-operative project for the testing of a number of scrub timbers for use in veneered butter boxes was completed during the year. Commonwealth butter graders reported the presence of wood taint in the butter from most of the timbers after three months' cold storage, but some of the timbers in which wood taint was reported have been in general use for butter boxes for the past two years. In view of the increasing scarcity of plywood for joinery and furniture it is probable that the best solution to the butter-box problem lies in the general use of fibreboard for both sides and ends, with timber only in the supporting end cleats.

The rate of growth of our plantation timbers has raised the question whether timber is being deleteriously affected by fast growth. Observations made on Hoop pine ex Atherton indicate that density is not substantially different from that obtained from scrub-grown Hoop pine. Observations on nine Pinus species and on *Callitris cupressiformis* from Beerwah have now been completed and the results are being tabulated for report. Similar studies have been made on hardwoods from naturally regenerated areas in the Gympie district, and though final conclusions have not yet been arrived at there are indications that there is no significant difference between fast and slow-grown timbers with respect to density.

**Preservation**.—Assistance was given in the preservation field in connection with the general features of decay, timber borers, termites, and marine organisms.

Considerable amount of time has been spent in connection with the operation of the Timber Users' Protection Act, which came into operation in January, 1950. As at 30th June, 1950, twenty-seven firms had applied for registration and had been granted approval under the Act. Examination of the applications involves a review of the design of the plant and investigation of the ability of plant operators to control schedules and solution concentrations. Apart from the 27 plants already approved, information, advice and designs for plant have been supplied to a total of 80 firms in Queensland and it is expected that in the next twelve months the number of plants operating in this State will be substantially increased. The



RAW MATERIAL FOR HIGH QUALITY FURNISHINGS. CABINETWOODS IN RAVENSHOE (N.Q.) RAILWAY YARD. The yield of cabinetwoods from North Queensland forests was well maintained in 1949-50. These fine woods will make handsome furniture for Australia-wide use.

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PROTECTION FOR THE HOMEBUILDER.

Lyctus susceptible timber can be immunised by chemical treatment. Pictured is a small simple plant with a 300 s.ft. capacity. At 30-6-50 28 preservation plants, with a total capacity of 11,000,000 s.ft. of sawn timber, had sought registration under "The Timber Users' Protection Act." aggregate capacity of all plants installed in Queensland at the present moment is of the order of 11,000,000 super. feet of 1 inch sawn timber per year, in addition to which most of the plywood firms have installed momentary dip plants for the treatment of yeneers.

The suitability of other processes and other preservatives has been under review during the year in collaboration with officers of the Division of Forest Products, C.S.I.R.O., particularly the processes which have been developed in South Africa and which are now being used extensively in that country. At the present moment, however, it is felt that the borax and boric acid treatment plants, as developed in Australia, have advantages over the processes which have been used and are being used in other countries.

A substantial volume of laboratory work has been carried out during the twelve months as indicated by the fact that 973 analyses for boric acid and/or borax were made. Lectures and addresses were given to several hundred trainees and instructors of the Post War Reconstruction Training School and to pupils and staff of the Central Technical College as well as to various groups of sawmillers. Such lectures do much to remove doubts and misunderstandings regarding preservative methods and the habits of the Lyctus beetle.

The use of an 0.5 per cent. solution of sodium pentachlorphenate as a control of blue stain in Pinus species has generally been successful, but some failures have been reported. It is believed that these failures were primarily due to adulteration of the solution below the recommended strength, but the possibility of the presence of a resistant type of blue stain fungus is being investigated.

The effect of anti-fungus preservative on the tainting of foodstuffs was subjected to a series of tests in collaboration with officers of the Department of Health and Home Affairs. Preservatives included in the test were Sodium Pentachlorphenate, DDM and Shirlan, all of which were found to be satisfactory in the concentrations officially recommended for the treatment schedule.

**Veneers** and **Gluing.**—The possibility of shortages of lactic casein glues for plywood has necessitated the search for suitable substitutes. The problem was investigated satisfactorily in the laboratory with the result that, during an acute shortage of lactic casein, hydrochloric acid casein was used by the trade generally and with satisfaction.

Tension tests on plywood submitted by the trade were continued during the year, a total of 250 such tests being made. Generally speaking, results were satisfactory, but on a number of occasions poor results were obtained due, primarily, to insufficient seasoning of the veneers or to the use of inferior quality material in the manufacture of glue, particularly lime, which from one manufacturer consistently contained an abnormally high percentage of ash.

Studies in the veneering and gluing of plantation grown Hoop pine and Pinus species were continued during the year in collaboration with local plymills. Previous results had indicated that, due to grain distortion around pruned knots in Hoop pine and to the occurrence of summerwood in Pinus species, these plantation timbers would not be satisfactory for plywood.

Some attention had already been given to the possibilities of the manufacture of veneer from Queensland Eucalypts by two firms, but the results of these tests had generally not been satisfactory, due to the low recovery obtained and also to fairly heavy degrade which occurred during drying of the veneers. The Department has now supplied to Division of Forest Products, C.S.I.R.O., seven logs each of Blackbutt, Spotted Gum, and Rose Gum.

Mill Studies.—Mill studies in collaboration with the Queensland Timber Stabilisation Board were continued, studies being conducted this year on thinnings from pine plantations and from naturally regenerated hardwoods.

Hardwood studies were made over a period of six weeks on some 1,500 logs totalling 160,000 super. feet, the average of the tree being 229 super. feet hoppus. Species studied included Turpentine, Brush Box, Messmate, Red Mahogany, Spotted Gum, Grey Gum, and Ironbark, approximately 25 trees in each of four girth classes being taken, viz., 42 inches and less, 43 inches to 48 inches, 49 inches to 54 inches, and 55 inches to 60 inches. This study was undertaken to determine the value of hardwood thinnings as commercial mill logs. The product of the logs is being subject to a study on seasoning and also a study of the machine recovery from seasoned timbers.

Seasoning has been delayed on account of the unusually wet weather. Figures available with respect to recovery per cent. and grade recovery of green off-saw boards is shown in the table below :---

Species.				Average Volume of	Overall	Grade Recovery-Per Cent. of Total.						
	pecies.	•		Trce. Super. Feet.	Recovery. Per Cent.	Select.	Select. First.		Reject.			
Turpentine Messmate Grey Gum Ironbark Spotted Gum	••• •• ••	••• •• •• ••	••• ••• •••	174 318 206 224 266	52.761.158.557.960.9	23.43.88.020.97.8	52·8 44·5 42·3 45·3 26·4 30·0*	22.0 51;2 47.3 25.5 10.4 25:4*	1.8 0.5 2.4 8.3			

The Division marked \* in the case of Spotted Gum indicates the grade percentages which would be classed as reject if untreated but as either first or second grade when treated.

Grading was carried out according to Standards specifications modified with respect to non-susceptible sapwood (see following table):---

Grade.			S.A.A. Specification.	Study Specification.				
Select First Second			  No sapwood allowed Sapwood on back of quarter of board Sapwood on face of quarter of board	No sapwood allowed Sapwood quarter on face, on back no limit Sapwood on face or back no limit				

Only a small sample of  $\frac{5}{6}$  inch stock has been studied after machining. Of approximately 6,000 super. feet machined 5 per cent. was graded as select, 52 per cent. as firsts, 36 per cent. as seconds and 7 per cent. reject.

The study on Pine plantation thinnings covered approximately 30,000 super. feet of logs of *Pinus taeda* and *Pinus caribaea*. The average percentage recovery was 56 per cent. (*taeda* 58 per cent., *caribaea* 52 per cent.) This study was carried out under a working plan design which necessitates a critical statistical analysis to determine the results. Such an analysis has not yet been possible.

A short study in Rose Mahogany was also conducted, some 12,366 s. ft. (log) being milled to give an average recovery of 63.7 per cent. This figure favourably agrees with the 60.5 per cent. apparently used as a basis of costs by the Timber Commission.

**Sawmill Engineering.**—Greater interest is being shown by the trade in improving engineering practices and many enquiries for advice in these matters were received during the year. The question of waste disposal in mills located on plantations has demanded a thorough examination of the design of incinerators for handling sawdust and edgings. The general practice, at present, is to burn such waste in open dumps which are a potential fire hazard in the dry season.

Compilation of pamphlets on several aspects of sawmill engineering is in hand. These pamphlets are to form the nucleus of a Manual of Sawmill Engineering.

Increasing interest is being shown in the efficient use of special alloy steels (e.g., tungsten carbide) in wood-machining operations. If production times of up to 8 hours between set-ups are to be achieved in abrasive timbers such as Brush Box and Turpentine, the use of special alloys becomes essential. Close contact between the manufacturer and trade has been maintained on these problems.

Seasoning.—The importance of kilns has been demonstrated by the unprecedented wet season for the whole of the first six months of 1950. It is a common practice in Queensland to air dry timber in the open, but for almost the whole of the last four months of 1950 it has not been possible generally to air dry such timber below 20 per cent. moisture content—some of our observations indicated a figure of 25 per cent.

Moisture content requests were received from 95 enquirers during the year and 272 moisture content determinations were made.

Studies of the drying rates, shrinkage, and general behaviour in air drying of nine Pinus species and *Callitris cupressiformis* were completed. Air seasoning observations on seven common Eucalypts indicated that there was no advantage obtained by leaving spaces between boards even in stacks as wide as 10 feet.

The kiln drying of 29 charges of timber in the experimental kilns was completed—a total of approximately 120,000 super. feet of timber in sizes from 1 inch to 3 inches being kiln dried. Species handled were Hoop pine, Kauri pine, Tallowwood, Crow's Ash, Blush Tulip Oak, Maple, Yellowwood, Red Silkwood, Miva Mahogany, and mixed hardwoods.

Statements on the cost of kiln and air drying Hoop pine, Silky Oak, and hardwoods were given to the Timber Inquiry Commission and reports on the seasoning of hardwoods and on the effect of quality of Brush Box logs on degrade in the dry product were issued.

**Fancywoods.**—The activities of the Fancywoods Section have been maintained at a reduced level, sales for the year totalling £676, comprised of 3,060 super. feet of sawn timber, 7,000 lineal feet of mouldings, 83 lb. of Black Palm, and 1,030 Saffron Heart rod pieces.

There is a steady demand for fishing-rod timbers, and during the year 3,000 s. ft. (log) of Saffron Heart and Brigalow were purchased. Brigalow proved very disappointing while Saffron Heart from North Queensland was also of poor quality.

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Miscellaneous.—Collaboration with other research institutions has been continued during the year, the chief activities in this direction being indicated below.

A further 124 samples for termite and durability resistance have been supplied to the Division of Economic Entomology, C.S.I.R.O., the species represented being Forest Red Gum, Grey Ironbark, Narrow Leaved Ironbark, Scribbly Gum, Rose Gum and Turpentine, and four exotic conifers. Following previous unsatisfactory tests on Pinus species for veneering and gluing, a further ten logs each of *Pinus caribaca* and *Pinus tacda* were forwarded to the Division of Forest Products, C.S.I.R.O., for exhaustive studies. Veneers in thicknesses of 1/16 inch and 1/8 inch are to be manufactured, dried, glued, and tested under laboratory conditions.

Samples of leaves, bark, seeds and/or wood from 34 species of Queensland trees, ranging in size from a few ounces to several hundredweight, were supplied to members of the chemical groups co-operating with C.S.I.R.O. in the Australian Phytochemical Survey. Substances of chemical interest yielded by certain of these species include new alkaloids, saponins, coumarins, chromenes, and terpenes. Several of the species contain principles which have powerful physiological activity and are promising from a therapeutic point of view. Some commercial timbers are being examined with a view to discovering the chemical basis of borer resistance and the substances in certain sawdust responsible for dermatitis and alergic disturbances. Assistance in this field has also been provided to C.S.I.R.O. collectors in several districts.

At the request of the Director of the Museum of Technology and Applied Science, leaves from fifty trees of *Eucalyptus citriodora*, selected in the Maryborough district, have been forwarded regularly to Sydney. Dr. Penfold is endeavouring to determine the reason for the variation in oil yield and in oil quality as between individual trees. Analyses of the oil obtained from these samples showed a variation in yield from 0.2 per cent. to 2 per cent. Examination of the essential oils showed that the majority are of normal high aldehyde type and of excellent commercial quality. A few trees showed a low aldehyde content and oil from these trees has practically no commercial value.

Further experiments are planned to determine the effect on oil yield and quality of cross breeding between parent trees of different oil yield and quality. This work is a long-time project but is one which it is hoped will lead to significant economic developments.

#### STAFF AND GENERAL

Staff.—It is with regret that the death is recorded of Mr. W. H. Harding Wilson, Forester Division II., Atherton, who had given many years' valuable service to the Department.

There were no retirements during the year, but there were 42 resignations from the permanent staff and 3 transfers to other Departments.

The field staff was increased by 12 to a total of 96, bringing the total number of salaried employees to 293. Wages staff increased from 1,901 at 30th June, 1949, to 2,186 at 30th June, 1950.

Award Amenities.—A ranch mess system has been operating at the Tuan Creek Reserve for some time now and has proved very popular with the employees on that reserve, a big majority of them having joined it.

It was agreed in March, 1950, that where a gang of 20 men or more preferred the mess system the Department would allow the wage of one man, at the minimum rate, towards the expense of a cook and this agreement has been put into effect at Tuan.

Another ranch is almost ready to start operations at Beerburrum, and here again a large percentage of the employees have signified their desire to take advantage of its amenities.

Approval has been given recently for the provision of ranches at Coondoo Creek, Reserve 220 Kilkivan, Reserve 154 Gallangowan, Reserve 257 Cooyar, and Stables Camp (Yarraman District) and it is anticipated these will be ready in the near future.

#### ACKNOWLEDGMENT.

I would like to acknowledge the assistance of all ranks, which has enabled me to present this record of achievement.

V. GRENNING, Director of Forests.

23rd August, 1950.

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# Appendices.

## APPENDIX A.

## Return of Timber, &c., removed from Crown Lands during the year ended 30th June, 1950.

		•										$\mathbf{Qu}$	antity.
		Snee	ies.									Super. ft.	Super. ft.
Mill	ing Timber_	-	10.04				•					-	-
DTIT	Hoon and B	unva.	Pine	_									
	Plv	, any a									••	7,414,239	
	Lorge	•	•;	••								24,358,858	
	Tongo ,	•	••	••	••	••					÷.	23,441,699	
	TOP2 .	•	••	••	••	••	••	••	••		_		55,214,796
	Kauri Dina											4,905,864	
	Chroman Din	•	• •	••	••	••	••	•••	••			18.316.572	
	Forest Hand	o Imooda	••	••	• •	••	••	••	••			59.272.131	
	Someh Hard	mooda	•	••	••	••	••	••	••			11.417.008	
	Gabinet We	woous		•••	••	••	••	••	••	••		16.451.603	
	Mine llane	ous .	••	••	••	••	••	••	••	••	••	27.735.243	
	Miscellaneou	us spec	165	••	••	••	••	••	••	••	••		138.098.421
	TOT	m • . •											
	Plantation 3	ininnii	ngs—									4 993 395	
	Hoob L	ine .	• •	••	••	••	••	••	••	••	••	15 322	
	Bunya	Pine .	••	••	••	••	••	••	••	••	••	86 840	
	Silky O	ak	• •	••	• •	• •	••	••	••	••	••	07 198	
	Maple		••	••	•••	••	••	••	••	••	••	9 891 103	
	Pinus c	aribae	а.	••	••	••	••	••	••	••	••	2,021,103	
	Pinus r	adiata		••	••	••	••	••	••	••	••	41,000	
	Pinus ta	aeda –	••	••	••	• •	••	••	••	••	••	420,000	
	Pinus p	atula	••	` <b></b>	••	••	••	••	••	••	• •	07 000	
	Cedrela	mexic	ana	••	••	••	••	••	••	••	••	37,000	
	Cedrela	odora	ta	••		••		••	••	••	••	5,351	
	Miscella	aneous	(abor	eta)		- •	••	• •		• •	• •	18,874	0 044 010
													201 961.029
													201,001,020
~	<b>C1</b>												
Oth	er Classes—							•				224.371	nieces
	Sleepers .	:	••.	••		·· · ·	••	•••	-••	••	••	301 868	nieces
	Sleeper Bloc	cks (as	s sieeb	Hers (	ontaine	a)	••	••	••	••		239 597	superficial feet
	Headstocks,	Trans	soms,	UTOS	sings, D	races	••	••	••	••	••	150 534	lineal feet
	Girders, Cor	beis, E	1108, 1	SIIIS	••	••	••	••	••	••	••	370,861	lineal feet
	Poles	•	•• • • •	. • ;	<b>m</b> 1.a.	· · · · · · · · · · · · · · · · · · ·		••	••	••	••	195 304	lineal feet
	House Block	ks, Ro	und P	'ost,	Tank S	tana P	osts	••	••	••	••	164 425	lineal foet
	Round Tim	bers	••	••	••	••	••	••	••	••	••	336 046	nieces
	Fencing Ma	teriais		••	••	••	••	••	••	••	••	179 913	lines feet
	Fencing Ma	terials		••	••	••	••	••	••	••	••	96 991	superficial feet
	Decking .		••	••	••	••	••	••	••	••	••	199.465	superficial feet
	Hown and H	Bridge	Timb	ors	• •	••	••	••	••	••	••	120,905	lineal feat
	Bridge Tim	bers	••	••	••		••	••	••	••	• •	1,400	apportion foot
	Keel Logs .		• •	••	••	• •		••	* *	••	••	1,801	supernetar too
	Mining Tim	bers	••	••	••	••	••	••	••	••	• •	01,049	Dieces
	Mining Tim	bers '	••	••	••	••	••	••	•••	••	••	300,977	Tinear 1000
	Stakes .		••	••	••	• •	••	••	••	••	••	10,470	pieces
	Fuel .		••	••	••	• •	••	••	••	••	••	82,420	tons
	Charcoal .		• •	••	••	••	••	• •	••	••	••	63,308	bags
	Trees and P	lants	••		••	••	••	••	••	••	••	235,000	plants
	Sand, Grave	and and	Soil	••		••		••	••	••		56,899	cubic yards
	Sandalwood							••	••	• •		169	tons
	Mulga Woo	d						••	÷.	••		12	tons
	Kauri Gum						••		• •	••		5	tons 10 cwt.
												97	tong 10 and
	Lawver Can	ie .						••	••	••		•••	tons to ewe.
	Lawyer Can Shell Grit	le .	••	•••	••	•••		•••	••	•••		195	tons
	Lawyer Can Shell Grit Leaves		••	· · ·	 	 	  	••• ••	  	•••	•••	195 700	tons lbs.
	Lawyer Can Shell Grit Leaves Sawdust		••	  	• • • • • •	  	  	••• ••	  	  	   	195 700 40	tons lbs. tons
	Lawyer Can Shell Grit Leaves Sawdust Offcuts, etc.	100 ···	  	  	• • • • • •	• • • • • •	· · · · · · ·	••• •• ••	· · · · · · ·	  	•• •• ••	195 700 40 2,000	tons lbs. tons superficial feet

APPENDIX B.

Annual	Cut	-Pine-	-Financial	Year	ended	30th	lune,	1950
	L.111	-11116		TOUL	enaca	vuu		

Work	ing Pl	an Are	a.		Ply.	Logs.	Tops.	Total.
Atherton Bowen Brisbane Valley Bundaberg Gympie Kilkivan Mackay Many Peaks Maryborough Mary Valley North Coast Townsville Warwick	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	··· ··· ··· ··· ··· ···	· · · · · ·	Super. ft. Nil Nil 940,384 1,570,138 81,966 16,072 1,979,817 Nil 2,219,243 203,360 403,259 Nil Nil Nil	$\begin{array}{c} \text{Super. ft.} \\ 46,036\\ 209,437\\ 4,101,228\\ 6,842,207\\ 391,777\\ 610,781\\ 4,649,731\\ 285,205\\ 4,219,884\\ 1,036,833\\ 1,480,391\\ 182\\ 211,362\\ 273,804 \end{array}$	$\begin{array}{c} \text{Super. ft.} \\ 46,036 \\ 200,260 \\ 3,901,819 \\ 7,088,556 \\ 345,757 \\ 425,229 \\ 4,510,077 \\ 163,019 \\ 4,415,026 \\ 1,074,729 \\ 932,759 \\ 160 \\ 109,814 \\ 228,458 \end{array}$	Super. ft. 92,072 409,697 8,943,431 15,500,901' 819,500 1,052,082 11,139,625 448,224 10,854,153 2,314,922 2,816,409 342 321,176 502,262
Т	otal		••		7,414,239	24,358,858	23,441,699	55,214,796

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## APPENDIX : C.

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<u>, 1953 - 1953</u> -

#### Receipts under the State Forests and Timber and Quarry Regulations for the Year ended 30th June, 1950.

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	Districts		· To	tais	i.
			£	8.	d.
Group	1South Queensland (Brisbane, Bundaberg, Gympie, Monto, Maryborough	, Toowoomba			
	Warwick, Yarraman)		490,429	- 4	0
Group	2-Goondiwindi, Inglewood, St. George, Stanthorpe		13,638	14	9
Group	3-Dalby		. 24,516	5	1
Group	4-Charleville, Cunnamulla, Boma, Quilnie		. 602	7	6
Group	5-Barcaldine, Blackall Jundah Longreach Muttaburra, Stonehenge, Wil	nton. Aramac	3.		
oroup	Isisford Jericho		. 707	3	11
Group	6_Clement Emerald Springure		2.525	4	8
Group	7 Gaundah Cladstone Taroom Theodore Mundubhara		449	18	5
Croup	8 Rockhamnton	• • • •	2 146	1	ĥ
Group	0 Moderar	• •• •	6 633	î	7
Group	$\frac{3}{10}$		0,000	10	4
Group		• •• •	. 2,227	17	2
Group		• •• •	. 10,030	1	2
Group	12-Unarters Towers, Ravenswood	• •• •	. 102		0 0
Group	13Hughenden		. 219	9 9	, v
Group	14—Cloncurry, Boulia, Kynuna, Mackinlay	: : :	. 340	3	1
Group	15—North Queensland (Atherton, Herberton, Cooktown, Port Douglas, Ca	irns, Innistai	l,		-
	Ingham)		. 333,316	13	0
Group	16—Burketown, Coen, Croydon, Georgetown, Normanton, Thursday Island		. 6	9	6
- •					
			887,961	2	8
Receip	ts—Forestry and Lumbering		. 112,971	1	11
Sale of	Plants, Material, &c.		. 7,586	6	1
Rents a	and Grazing Dues		. 4,821	15	5
			1.013.340	6	1
	Less Treasury Refunds		2,880	14	. 3
	1000 Housing Hounds	• •• •			
			£1 010 459	11	10
					<u> </u>
	COMPARISON WITH TOTALS OF PREVIOUS YEARS.				

1945-46.	1946-47.	1947-48.	1948-49.
£914,824	£988,910	£1,006,797	£1,029,282

## APPENDIX D.

## Proceeds of Sales of Timber, &c., for the Period from 1st July, 1946, to 30th June, 1950.

Districts.		1946-47	•	1947-	48.	1948-4	9.	1949-50.
Group 1          Group 2          Group 3          Group 4          Group 5          Group 6          Group 7          Group 8          Group 10          Group 11          Group 13          Group 14          Group 15	··· ··· ··· ···	$\begin{array}{c} \pounds & s\\ 547,344 & 11\\ 3,981 & \\ 10,373 & 12\\ 485 & \\ 784 & 14\\ 784 & 1\\ 250 & \\ 1,269 & \\ 2,345 & 12\\ 1,885 & 11\\ 1,768 & \\ 854 & 12\\ 385 & \\ 233 & \\ 333,244 & 10\\ \end{array}$	$\begin{array}{c} & d \\ 6 & 7 \\ 9 & 5 \\ 6 \\ 5 \\ 6 \\ 6 \\ 3 \\ 6 \\ 6 \\ 7 \\ 6 \\ 9 \\ 7 \\ 6 \\ 9 \\ 7 \\ 9 \\ 7 \\ 9 \\ 7 \\ 9 \\ 7 \\ 9 \\ 9$	$ \begin{array}{c} & \pounds \\ 555,735 \\ 6,430 \\ 13,007 \\ 767 \\ 639 \\ 1,555 \\ 292 \\ 1,029 \\ 5,032 \\ 1,770 \\ 3,895 \\ 382 \\ 273 \\ 164 \\ 314,343 \\ 314,343 \\ 90 \end{array} $	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} \pounds \\ 542,739 \\ 9,066 \\ 21,697 \\ 438 \\ 743 \\ 2,175 \\ 389 \\ 1,248 \\ 4,253 \\ 4,073 \\ 6,796 \\ 210 \\ 320 \\ 376 \\ 337,624 \\ 17 \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
and provide the state		906,286	5 7	905,342	8 11	932,172	5 9	887,961 2 8
Receipts — Forestry Lumbering Sale of Plants, Materia Rents and Grazing Dues	and  , &c. 	74,673 12 4,035 15 4,678 19	2 4 5 7 9 4	93,890 4,556 4,176	$egin{array}{cccc} 15 & 10 \ 6 & 6 \ 8 & 5 \ \end{array}$	89,083 1 5,685 4,360 1	911 38 92	$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$
Less Treasury Refunds	 £	989,674 12 764 15 988,909 17	10 0 10	1,007,965 1,169 1,006,796	19 8 8 8 11 0	1,031,302 2,019 1 1,029,282	8 6 9 6 9 0	1,013,340 6 1 2,880 14 3 1,010,459 11 10

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## APPENDIX E.

## The following Schedule illustrates the market price of Logs during the Year, 1st July, 1949, to 30th June, 1950.

Species—Standard Trade Names.	Log Class,	Delivery.	Prices per 100 super. feet (Hoppus measure).
(Common Names and Botanical Names in Brackets.)			1-7-1949 to 30-6-1950.
Red Tulip Oak (Argyrodendron peralatum syn, Tarrietia	7 ft. plus	F.o.r. Cairns	<i>s. d.</i> 22 1
Red Cedar (Cedrela toona)	8 ft. plus	F.o.r. Townsville F.o.r. Cairns F.o.r. Townsville	$\begin{array}{cccc} 23 & 1 \\ 46 & 1 \\ 47 & 1 \end{array}$
North Queensland Kauri Pine (Agathis palmerstoni)	8 ft. plus	F.o.r. Netherdale F.o.r. Brisbane F.o.r. Cairns	$   \begin{array}{rrrr}     37 & 5 \\     44 & 8 \\     24 & 6 \\   \end{array} $
Queensland Walnut (Endiandra palmerstoni)	8 ft. to 8 ft. 11 ins.	F.o.r. Townsville F.o.r. Cairns	$\begin{array}{ccc} 25 & 6 \\ 33 & 10 \end{array}$
Northern Silky Oak (Cardwellia sublimis)	8 ft. plus	F.o.r. Townsville F.o.r. Cairns	$\begin{array}{ccc} 34 & 10 \\ 25 & 8 \end{array}$
Queensland Maple (Flindersia brauleyana)	8 ft. to 8 ft 11 ins	F.o.r. Townsville	$   \begin{array}{ccc}     26 & 8 \\     33 & 7   \end{array} $
Black Pine (Podocarnus amara)	9 ft plus	F.o.r. Townsville	34 7
Silver Silver d (Dutte Disc) (222 Jack		F.o.r. Townsville	
Silver Slikwood (Putts Pine) (Flindersia acuminata).	8 ft. plus	F.o.r. Cairns	$\begin{array}{ccc} 27 & 3 \\ 28 & 3 \end{array}$
White Beech (Gmelina leichhardtii) (Gmelina fasciculi- flora)	8 ft. plus	F.o.r. Cairns F.o.r. Townsville	$\begin{array}{ccc} 27 & 8 \\ 28 & 8 \end{array}$
Hickory Ash (Hickory) (Flindersia ifflaigna)	8 ft. plus	F.o.r. Brisbane	$   \begin{array}{ccc}     32 & 2 \\     24 & 1   \end{array} $
Northern Silver Ash (White Ash) (Flindersia pubescens) Queensland Silver Ash (Ash) (Flindersia bour- iotiona)	7 ft. plus	F.o.r. Cairns F.o.r. Townsville	22 10 23 10
Bolly Silkwood (Tarzali Silkwood) (Cryptocarya	7 ft. plus	F.o.r. Cairns	22 1
oblata) Satin Sycamore (Ceratopetalum succirubrum)	7 ft. plus	F.o.r. Townsville F.o.r. Cairns	$\begin{array}{ccc} 23 & 1 \\ 21 & 10 \end{array}$
Yellow Walnut (Beilschmiedia bancroftii)	7 ft. plus	F.o.r. Townsville	$\begin{array}{ccc} 22 & 10 \\ 20 & 0 \end{array}$
Brown Pine (She Pine) (Podecarmus slata)	7 ft nhus	F.o.r. Townsville	21 0
White Cedar (Melia dubia)	7 ft. plus	F.o.r. Brisbane	23 8
Yellowwood (Flindersia oxleyana)	6 ft. plus	F.o.r. Brisbane	$egin{array}{cccc} 24 & 2 \ 24 & 2 \end{array}$
Southern Silver Ash (Bumpy Ash) (Flindersia schot.	6 ft. plus	F.o.r. Brisbane	22 8
Bennett's Ash (Flindersia bennettiana)	6 ft. plus	F.o.r. Brisbane	23 8
Yellow Almond (Bonewood) (Emmenospermum alphi-	6 ft. plus	F.o.r. Brisbane	23 8 21 5
Bollywood (Brown Bollywood) (Bollygum) (Litsea reticulata)	6 ft. plus	F.o.r. Brisbane	19 11
Brown Tulip Oak (Crows Foot Elm) (Argyrodendron trifoliatum syn. Tarrietia argyrodendron)	6 ft. plus	F.o.r. Brisbane	18 5
Yellow Carabeen (Carrobean) (Sloanea woolsii), Brush Mahogany (Red Carrobean) (Geissois benthami) Lycrywood (Sinhondon gustrale)	6 ft. plus	F.o.r. Brisbane	23 8 28 5
Flame Kurrajong (Flame Tree) (Brachychiton aceri- folium)	6 ft. plus	F.o.r. Brisbane	18 5
Pink Poplar (Blush Cudgerie) (Maiden's Blush) (Euroschinus falcatus)	6 ft. plus	F.o.r. Brisbane	14 11 -
Red Silky Oak (Beefwood) (Stenocarpus salignus) Rose Mahogany (Dusoxulum fraseranum)	6 ft. plus 6 ft. plus	F.o.r. Brisbane	$\begin{array}{ccc} 21 & 5 \\ 22 & 5 \end{array}$
Rose Maple (Rose Walnut) (Pigeonberry Ash)	6 ft. plus	F.o.r. Brisbane	21 11
Sassafras (Daphnandra micrantha) (Doryphora sassa- fras)	6 ft. plus	F.o.r. Brisbane	19 11
Silver Quandong (Elaeocarpus grandis)	6 ft. plus	F.o.r. Brisbane	$\begin{array}{ccc} 21 & 11 \\ 25 & 11 \end{array}$
Tulip Plum (Burdekin Plum) (Pleiogynium solandri)	6 ft. plus	F.o.r. Brisbane	23 5
Yellow Boxwood (Planchonella Pohlmanniana)	All sizes	F.o.r. Brisbane	21 9 38 8
Scrubwood Species not elsewhere included in Forestry Sub-Department Log Price Lists-			
Light Scrubwoods	6 ft. plus	F.o.r. Brisbane	14 11
Serubwoods and Hardwoods	6 ft. plus	F.o.r. Cairns	$   \begin{array}{ccccccccccccccccccccccccccccccccccc$
Hardwoods	6 ft. plus	F.o.r. Townsville F.o.r. Brisbane, War-	$\begin{array}{ccc} 23 & 1 \\ 18 & 4 \end{array}$
Hardwoods	6 ft. plus	wick and Gladstone F.o.r. Maryborough, Bundaherg and Too-	17 10
Handwooda	8 St mbro	woomba	10 10
Hardwoods	6 ft. plus	F.o.r. Townsville	23 I
Hardwoods	6 ft. plus	F.o.r. Mackay	18 10 24 e
Hoop Pine "A" Quality Logs	7 ft. plus	F.o.r. Brisbane	54 0 27 6
Bunya Pine Logs	7 ft. plus	F.o.r. Brisbane	$   \begin{array}{ccc}     25 & 0 \\     17 & 0   \end{array} $
Bunya Pine Tops	7 ft. plus .	F.o.r. Brisbane	15 6

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## APPENDIX F.

Constructional Timbers supplied during Financial Year 1949-50 under Forestry and Lumbering Operations.

			Cla	ss of Ti	mber.					Quantity.	Sales Value.
TT o o					··· ·					04.010	£ s. d.
Hewn Crossii	ngs	••	••	••	••	• •	••	• •	•••	94,813 superficial feet	2,047 7 4
Sawn Crossin	iga .		••-	• •	••	••	••	• •	•••	2,808 superficial feet	57 IU Z
Headstocks,	Longi	tudina	is, B	races	• •	••	••	••	••	23,536 superficial feet	00011 0
Hewn Transo	$\mathbf{ms}$		••	••	••	••	••	••	• •	113,103 superficial feet	2,817 8 6
Sawn Transo	$\mathbf{ms}$	••	••	• •	••	••	••	••	• • •	1,434 superficial feet	33 16 3
Sawn Timber	sca	ntlings			••	••	••	••		6,472 superficial feet	245 2 6
Decking .		••				••		••		16,552 superficial feet	635 8 9
Keel Logs .	•	••	••	••	••	••	••	••	••	1,961 superficial feet	30 2 0
Girders and (	Girder	Logs								24.522 lineal feet	8.217 14 5
Pilee	unuor	nogo	••	••	••	••	••	••		57 945 lineal feet	10 133 4 9
Polee .	•	••	••	••	••	••	••	••		2 942 lines feat	482 3 8
Pound and T		••	••	••	••	••	••	••	•••	8 607 lines] feet	765 10 11
cin.	sna r	UNUS	••	••	••		••	••	•••	005 lineal feat	256 10 6
	•	••	••	••	••	••	••	••	•••		
Kerbing .	•.	••	•••	••	• •	••	••	••	••	200 111081 1001	57 17 10
Split Posts a	nd Ra	ils					• •	••		50,895 pieces	5,986 11 3
Hewn Sleepe	rs									106,425 pieces	38,786 3 7
Sawn Sleener	 PR		••							3.927 pieces	1.130 19 10
Sleeper Block	ks (as	sleeper	s)		••	••	••	••	•••	231,546 pieces	57,488 12 8
	To	tal	••	••	••	••	••	••		•••	£129,723 5 5

APPENDIX G.

Comparative	Statement	of	Expenditure	for	Year	1948-49	and	1949-50.
-------------	-----------	----	-------------	-----	------	---------	-----	----------

			<u></u>						1948-49.	1949–50.
								—	£	£
Revenue								1		-
Salaries	••					••	••		111,738	123,585
Travelling and Incidental	s							• • •	11,121	14,445
Extra Living Allowances		• •					••		1,419	1.277
National Parks	••	••	••						179	34.685
Fares, Printing, Stores, &	c.					••			5.837	3.842
Cash Equivalent Extende	d Leav	e (B. §	S. Smith	h)					286	
Cash Equivalent Extende	d Leav	e (W	H. Har	ding-V	Vilson)		••		••	190
-				_						
Loan—								- 1		
Reforestation	• •	••	• •	••	••	••	••	• • [	641,994	807,574
Access Roads .	• •		••	••	••	••	• •	• • •	50,988	52,623
Acquisition of Land for F	orestry	Purp	oses	••	• •	••	• •	•••	15,907	16,447
Purchase of Plant	••	••	••	••	• •	••	••	• • •	••	16,413
Trust.									•	
Hardwood Supplies to Re	ilway I	Depart	ment e	nd Oth	079				78 034	119.140
Harvesting and Marketing	Timb	opart	mene a		1010	••	••	•••	549 975	610.198
The cosmic and him really	5 1 1110	ог ,	••	••	••	••	••	•••	040,070	010,100
Treasury-										
Post-War Reconstruction	and D	evelop	ment F	und						
Reforestation		F							50 500	62.000
National Parks		••					••		34,864	02,000
Access Roads					••		••		17 619	25 641
100003 100003 11	••	••	••	••	••	••	••	•••	17,010	20,041
									*£1.568.855	*£1.881.048
								I	, ·- <b>,</b> •	.

\* Excluding Expenditure Rural Fires Board.

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		Reserve Total,	16	स क	. ,		17,156 3 10	8,348,147 6,714,134 6,714,134 6,714,134 12,003 12,003 15,003 15,003 14,13 8,203 14,11 12,003 14,13 8,203 14,11 12,003 5,535 12,6 8,555 12,6 8,555 12,655 12,655 12,655 12,655 12,655 12,655 12,655 12,655 12,655 12,655 12,655 12,655 12,655 12,655 12,655 12,6555 12,6555 12,6555 12,6555 12,6555 12,6555 12,6555 12,6555 12,6555 12,6555 12,6555 12,6555 12,65555 12,65555 12,65555 12,555555 12,5555555555555555555555
		Total Overhead,	15	£ 8. d.		156         2         9           1682         16         1           7682         16         1           2220         16         0           236         0         8           0         1         1           581         4         1           681         4         1           150         8         1           169         8         1           176         3         4           192         6         1           192         6         6           5,705         10         1	9,877 5 4	56.598         11         9         7         9           56.598         11         1082         8         8         9         9           1         1082         11         1082         8         14         9         9           2         1         1.082         8         11         10         3         14         9           2         1         1.082         8         11         10         3         14         9         11           1         1.032         13         15         14         0         3         14         0         3         14         0         3         14         0         11         10         3         14         0         3         16         10         <
		Camping Allowance.	14	ख * म		9514 1462 1816 1816 18 18 18 18 18 19 19 19 19 19 19 19 19 19 19 19 19 19	265 6 8	3366         15         4           403         15         4           1572         17         4           1572         17         4           1552         12         4           823         15         4           821         5         1           421         5         1           273         16         0           273         16         0           273         16         0           273         16         0           273         15         4           28         15         4           273         16         0           273         15         4           273         15         4           273         15         4           273         15         4           273         15         4           28         15         4           290         15         4
	xpenses.	Cartage of Rations.	13	£ 8. d.		0 12 0 5 15 0 0 5 15 0 0 10 10 10	2.61.88	33         5         4         1           23         4         1         2         3           96         14         4         2         3           96         14         4         4         3           33         5         0         3         5         0           33         11         5         0         0         11         13         14         0           11         5         0         11         5         0         11         5         0         11         13         14         0         11         5         0         11         5         0         11         13         14         0         11         13         14         0         11         13         14         0         11         13         14         0         14
	Overhead E	Holidays, Wet Time, &c,	12	£ 8. d.		79 16 6 3012 19 77 12 4 77 12 4 115 1 11 4 115 1 11 5 255 14 22 15 1 11 15 255 14 22 15 1 15 255 14 22 15 1 15 255 14 22 15 1 15 25 1	1,820 18 10	1,317 4 4 1,008 16 3 1,008 16 3 6,239 16 1,179 12 10 608 11 0 608 11 0 608 11 0 608 11 0 1,185 11 6 1,185 11 6 2,471 17 10 2,471 17 10 2,57 17 10 2,57 17 17 17 10 2,57 17 17 17 17 17 17 17 17 17 17 17 17 17
50.		Stores, Fodder, Supervision, &c.	. 11	£ 8. d.		75         14         3           277         5         14         3           277         5         10         3	7,707 0 3	$\begin{array}{c} 1,033\\ 817\\ 817\\ 817\\ 71\\ 6\\ 772\\ 772\\ 6\\ 772\\ 6\\ 772\\ 74\\ 25,53\\ 742\\ 25,542\\ 124\\ 124\\ 124\\ 124\\ 124\\ 124\\ 124\\ 1$
diture, 1946		Total of Columns 2–9,	10	£ 8. đ.	A.	531         14         2           1,068         18         1           366         18         1           366         15         8           366         15         8           366         15         8           1,536         6         6           1,536         6         6           1,536         6         6           6         16         0           590         5         2           7         8         4           7         8         4	7,278 18 6	A AREA. A AREA. 5,592 199 9 8,579 10 0 8,579 10 2 5,502 189 9 1,405 11 15 7,61 12 2 5,008 14 8 1,405 11 15 1,405 19 1,405 19 1,207 19 1,405 19 1,207 19 1,405 19 1,207 19
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y of Loan		Protection, Firefighting, &c.	7	ક. લે. ક	BRISBAN	279 5 9 68218 9 68218 9 68218 9 458 13 2 0 1255 7 9 7585 7 9 7585 7 9 7585 7 9 7585 7 9 7565 7 9 7565 7 9 7 9 105 13 10	3,922 10 3	BIRISBANE         Constraint           374         15         2           374         15         2           689         15         2           689         15         2           3602         16         1           265         1         2           3602         1         2           265         1         2           265         1         2           265         1         2           265         1         2           265         1         2           265         1         2           266         1         2           265         1         2           266         1         0           303         4         11           303         4         11           1,405         19         4           1         1         1
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		Forest Experiment.	5	£ 8. d.	•	1- 50 44	7 8 4	2327 2327 2327 2327 2327 2327 2327 2327
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APPENDIX H.

APPENDIX H-continued.

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	Reserve Total.	16	ња 19 19		3,322 7 7 6,3322 0 6,3322 0 6,1325 3 4 469 16 3 469 16 3 469 16 3 468 17 4 499 11 1 1,173 18 0 1,173 18 0 1,173 18 0
	Total Overhead.	15	е е е		$\begin{array}{c} 2,194\\ 2,638\\ 2,470\\ 2,470\\ 17\\ 4,17\\ 4,207\\ 4,09\\ 11\\ 4,0\\ 4,0\\ 11\\ 1\\ 4,0\\ 11\\ 1\\ 4,0\\ 11\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1$
	Camping Allowance.	14	£ 8. d.	-	118 1 424 4 0 330 18 5 25 15 0 5 15 0 5 15 0 1 8 1 8
Expenses.	Cartage of Rations.	13	£ 8, d.		$\begin{array}{c} \begin{array}{c} 45 & 12 \\ 62 & 11 & 1 \\ 51 & 85 \\ 51 & 8 & 6 \\ 8 & 8 & 3 \\ 31 & 10 & 8 \\ 31 & 10 & 8 \\ \end{array}$
Overhead I	Holidays, Wet Time, &c.	12	£ 8. đ.		541 1 9 908 1 1 9 921 7 6 921 7 6 1,481 13 7 499 11 1 
	Storea. Fodder, Supervision, &c.	11	£ 8. d.		1,152 1 3 0 1,152 1 3 0 1,166 1 3 0 1,166 1 3 0 1,166 1 3 0 1,166 1 3 0 2,146 8 2 1 0 1 46 4 6
	Total of Columas 2–9.	10	£ 8. đ,	REA.	29 7 7 29 85 3964 15 11 3964 15 11 294 18 10 6240 10 10 6,240 10 10 6,240 10 10 1,173 18 9 1,173 18 9
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	Protection, Firefighting, &c.	~	£ 8. d.	BUNDAB	1,720 6 9 1,20 6 9 1,20 6 9 1,848 15 1 2 1,848 15 1 2 1,848 15 1 2 1,133 14 5 5 1,20 12 1 1,173 18 9 1,173 18 9 1,173 18 9
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	Plantations.	61	£ 8. ď.		::::::::::
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APPENDIX H—continued.

	Reserve Total.	16	£ 8. đ.	7,032 11 8 168 7 8 96 10 6 48 2 1	526 15 4	7,941 15 8		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	8 17 11 19,060 12 3 15,397 19 5 2,418 18 6 15,301 1 2	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2,772 0 10 1,266 19 5 139 10 11 2,017 2 8	17,895 6 5	207 2 8	40,438 7 6		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	150 1 10 1,085 1 9 370 13 11	80 10 9 905 11 2 988 10 0	446 44 446 44 44 44 44 44	7. 70 14 1	11,795 13 8
	Total Overhead.	15	£ 8. d.	3,059 3 0 168 7 8 168 7 8 75 8 5 	526 15 4	3,829 14 5		6,821 13 2 2,134 8 6 8,200 17 7 5	4,949 12 1 5,663 14 6 767 15 4 8.056 6 9	8,903 9 3 0 2 10 1,986 17 9 1,107 18 3	2.772 0 10 1,266 19 5	17,895 6 5	:	66,480 5 10 1	-	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	475 9 0 0	16 12 5 441 10 5	446 4 4	Cr. 70 14 1 C	5,303 17 3
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xpenses.	Cartage of Rations.	13	£ 8, đ,	145 10 3		145 I0 3		$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	42 19 0 129 17 7 132 12 3	135 17 6 3 4 8 16 16 0	::::	:	:	574 19 2	Ī	34 8 4 147 3 8 186 16 1 76 2 5	8 19 2 68 13 6	0 4 6 98 3 0	:::	::	620 10 8
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New	Construction of Nurseries, Buildings, &c.	6	£ s d.	451 1 10	:	401 I 10	PLAN AREA	$ \begin{bmatrix} 263 & 7 & 1 \\ 123 & 19 & 5 \\ 70 & 16 & 11 \\ 1,062 & 9 & 8 \\ \ldots \end{bmatrix} $	5,244 18 3 1,466 19 9 522 2 2 2	570 2 0 284 8 1 338 17 6	::::	:	207. 2 8	10,394 6 9	FLAN AR	20 0 6	4 10 0	5 13 7		::	45 14 1
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		Protection, Firefighting, &c.	2	£ 8, d,	RILCO	81 14 4 904 15 8	:::	3 11 6	9 I 066		KILKIVAI 2,702 19 .5	604 17 5	1011 - 0 103 6 9 580 3 0	1,984 3 2 241 3 8	0 01 02/		241 18 11 0 16 0	10,387 7 8	MANY PE	4,452 7 9	215 12 6	> 4 F :	::	::	RUR 1 9	
-	•	Surveys.	ø	£ 8. d.		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	34 4 10	2 15 7	223 11 2		¢	23 1 10	85 8 10 85 8 10 1 5 0	102 17 7	64 13 6	:::	-	385 11 11	-	50 20 20 20 20 20 20 20 20 20 20 20 20 20	6 13 9 6 13 9 104 14 10	AT 11 101	::		::	:
		Forest Experiment.	5	£ 8. ď.		::	:::	:::::	:		:	::	::	:::	::	193 2 10	::	193 \2 10		:	::	::	:::		::	:
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APPENDIX H—continued.

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APPENDIX H-continued.

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		Reforest	ation.					New			Overhead E	xpenses.				
Reserves.	Plantations.	Regeneration.	Nursery - Working and Maintenance,	Forest Experiment.	Surveys.	Frotection, Firefighting, &c.	Maintenance of Capital Improve- ments,	Construction of Nurseries, Buildings, &c.	Total of Columns 2–9.	Stores, Fodder, Supervision, &c.	Holidays, Wet Time, &c.	Cartage of Rations.	Camping Allowance.	Total Overhead.	Reserve Total.	
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					-	MARYBO	ROUGH WO.	RKING PLA	N AREA.	-		04 10	1 100 40			
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	61 020 17	:	650 0 65		2	308 14 4	235 3 9	493 3 11	7,984 2 0	1,570 0 11	2,264 9 1	10 10 9	802 14 5	4,647 15 2	12,631 17 2
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í APPENDIX H-continued.

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$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	209         3         4         5,230         12         3         9,464         7         4	420 15     9     2,301 14     5     6,764 15     1       167     6     3     167 6     3       2     2     1     8     167 6       3     2     1     1     1       2     1     3     2     3       2     1     3     2     1       3     1     1     1     1       3     1     1     1     1       4     1     1     1     1
27     14     11     59     3     2     10       13     8     7     112     55     2     10     0       58     3     3     157     9     2     117     6       66     8     333     18     9     2     1     4     0       86     6     8     352     7     11     62     17     4       3     1     6     1     5     1     4     0       3     1     6     1     5     1     4     0       3     1     6     1     5     1     4     0       12     11     7     146     1     5     1       12     11     7     146     1     5     1       58     6     5     1     5     1     1       6     0     5     1     5     1     1       6     6     1     5     1     1     1       58     6     5     1     5     1     1       6     6     1     5     1     1     1       6     6     1     5 <td< td=""><td><math display="block">51 \ 9 \ 0 \ 1,240 \ 5 \ 1 \ 129 \ 14 \ 10</math></td><td>27 18 11 986 19 11 65 19 10 2 1 8 167 6 3 2 1 8 2 1 12 10</td></td<>	$51 \ 9 \ 0 \ 1,240 \ 5 \ 1 \ 129 \ 14 \ 10$	27 18 11 986 19 11 65 19 10 2 1 8 167 6 3 2 1 8 2 1 12 10
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2 14 15 10 2 14 15 11 2 2 14 15 10 2 14 15 10 2 14 15 10 2 17 10 10 14 15 11 2 10 2 17 10 14 14 15 11 2 10 14 14 14 14 14 14 14 14 14 14 14 14 14	2 8 2 145 15 9	1 11 3 899 8 2 1 11 3 899 8 2 1 11 3 899 8 2 1 11 3 899 8 2
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R. 185            R. 191            R. 194            R. 456            R. 458            R. 456            R. 456            R. 458            R. 458            R. 704            Administration            Parton Legating and Patrol            Depot Stock Account            Drun Account	•	R. 29 Pay Roll Tax Pay Roll Tax Experiments Depot Stock Account

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		Reforesto	vtion.								Overhead E:	крепвез.				
Reserves.	Plantations.	Natural Regeneration.	Nursery Working and Maintenance.	Experiment.	Surveys.	Protection, Firefighting, &c.	Maintenance of Capital Improve- ments.	New Construction of Nurseries, Buildings,	Total of Columns 2-9.	Stores Fodder, Supervision, &c.	Holidays, Wet Time, &c.	Cartage of Rations.	Camping Allowance,	Total Overhead.	Reserve Total.	1
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	4 4 4	£ 6.		5 8 G	£ 8. d.	£ 8. d.	£ 8. đ.	£ 8. đ.	£ 8. đ.	£ 2. d.	£ 8. đ.	£ 8. d.	£ e. d.	£ 8. đ.	ક કં અ	~
	5 <sup>-</sup> 5	- - -		•		WA'R	WIĊK., WOR	KING PLAN	AREA.				-	-	-	-
R. 41	2,608 17 2	::	429 7 11	::	137.1 2	1,730 11 2	529 19 5	379 10 3 5	5,815 7 1 5 14 7	, 0 1 0 1,926 16 4 0 7 0	795 9 3	25 1 8	499 9 4	3,246 16 7 3,246 16 7 0 7 0	0.062 3	o.ao t⊶ d
R. 444	::	::	::	:::	:::	641 4 10	59 10 5	51 6 5	752 1 8	186 18 9	156 19 5	43 2 3 13 9 4	48 11 8 31 0 0	430 12 1 0 1 9 221 16 10	0 1 0 1 858 6	<u>م</u> م
R. 458	:::	7 19 0	: : :	:::	:::	695-10-5	33 19 10	::	737 9 3	112 17 9	273 5 9	* * : :		273 5 9 117 13 4	273 5 117 13	0.4
Administration Fredighting and Patrol	::::		:::	25 5 10	, ::::	57 10 10	:::	::::	57 10 10 25 5 10	2,478,11 3	::::	::::	:::	2,478 11 3	$\begin{array}{c} 57 & 10 & 1\\ 25 & 5 & 1\\ 2,478 & 11 \end{array}$	<b>ე</b> იიო
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Pay Roll Tax	:	:	:	:	:	:	:	:	;		-			656 7 5	656 7	5
Head Unce-Administra- tion	:	:	 :	94 16 5	:	::	: :	::	24 16 5	656 7 5	::	::	::		24 16 149 9	-00
Experiments Plantations Radio Trials	::	::	::		: ;	149 9 9	:::	::	149 9 9	6,028 6 8	::	::	::	6,028 6 8 885 14 1	6,028 6 685 14	. oo
Fares and Freights	::	::	: : :	:::	: : :	:::	::	::	::	20,282 0 7	::	::	:::	20,282 0 7 348 1 5	20,282 0 348 1	(- <b>1</b> 0
Storeroom Expenses	::	::,		:	:	:	:	:	:	0 1 010	: :	: :	:	026 5 0	626 5	0
Surveys-Prints, Maps,	:	:	:	: :	 363 4 11	: :	: :	: :	363 4 11		:	:	:	819 10 6	363 4 1 819 10	6
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Grand Totals	173,872 14 11	25,486 0 1	25,763 15 6	5,131 10 7	8,408 10 11	158,522 0 1	16,253 0 1	52,752 5 0	466,189 17 2	216,809 12 10	140,627 18 5	7,480 15 9	38,465 9 3	403,353 10 54	et ere ADO	,
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APPENDIX H-continued.

## APPENDIX I.

Areas of Plantations Established.

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Working Plan too	Reserve	Euc (A	alypts. cres.)	Soft (A	woods. cres.)	Other (A	Species. cres.)	All S (Ac	pecies. res.)
working Plan Area.	No.	1949-50.	To 30th June, 1950.	1949-50.	To 30th June, 1950.	1949-50.	To 30th June, 1950.	1949-50.	To 30th June, 1950.
Brisbane Valley and Nanango	283 289	· · · ·	222.0 246.9	236.0 11.0	3,867·4 2,794·0			236.0	4,089 4
-	120		75.0	172.0	1,339.8		•••	172.0	1.414-8
	379			146.0	276.0	· · ·		146.0	276.0
	257		104.5	118-0	1,710.1	]		118.0	1,814-6
	299	••	20.0	57.0	1,591.5		• •	57.0	1,611-5
	500			42.0	349.0		••	42.0	349.0
	258	•••		119.0	1,017.9	••	• •	119.0	1,017.9
	328		••	102.0	418.0	•••	••	162.0	418.0
		····	668.4	1.103.0	13 403.7		9.0	1 103.0	40.0
Fraser Island	3		161.0		749.5				910-5
Kilcoy	893	·	142.5		1.5	 	••		144.0
	137		2.5		721.2		••		723.7
	207	••	13.0	195.0	798-0			195.0	811-0
		·	1.00				·		
Como in		••	158.0	195.0	1,520.7			195.0	1,678.7
Gympie	392	••		88-0	893.5		• •	<b>88</b> ∙0	893-5
	202	17.0	60.0	•••		••	••		60.0
	000 994	17.0	350.0	••	••	••	••	17.0	350.0
	124	••	54.0	80.0	1 001.9	•••	••		54.0
	242	••	••	120.0	1,201-2	••	••	89.0	1,201.2
	Pomon	a 233.0	653-0	109.0	1,490.0	••	••	139.0	1,290.0
*(1)	Coon- doo Ck	••		261.0	261.0		•••	$2350 \\ 261.0$	261.0
		250.0	1.117.0	577.0	3.651.7			827.0	4 768.7
Kilkivan	355	 	8.0		127.5				135.5
	220			49.4	915.2			49.4	915-2
	298		77.4	147.0	1,445.8		••	147.0	1.523-2
	154		14.0	114.0	274.6			114.0	288.6
	138	••	5.0		185-0				190-0
	97-99	··-	0.7	<u>54</u> ·0	160.0			54.0	160.7
24		••	105.1	364·4	3,108.1	·		364.4	3,213.2
Mackay	12			 	30.5	 			30.5
Maryborough *(2)	915	••	· · ·	565·5	923.5	· · ·		565.5	923.5
Dunuaberg	832	••			40.0	· · ·	··	••	40.0
Many Peaks	95 67	••	••	$131 \cdot 2 \\ 39 \cdot 0$	1,284.2 88.4			131.2 39.0	1,284.2 88.4
		· · ·		170.2	1.372.6			170.2	1.372.6
Mary Valley	135		<u> </u>	440.0	6.261.7		1.3	440.0	6.269.0
	435		2.0	238.0	3,046.7			238 0	3,048.7
	256	••			134.2				134-2
	274		 	82.0	411.8	••	•••	82.0	411.8
North Court		••	8.0	760·0	9,854.4		1.3	760.0	9,863.7
North Coast	561				1,187:0				1,187.0
	089 611	•••	12.0	••	3,025.5	•••	••	• •	3,037.5
	1 011 910	h	377-8	••	•••	••	• ••	• •	377.8
	583	}	175-0		43.5			·	218.5
	249		48-0					ŀ	10.0
*(3)	638	••		934-0	1,507.7		-	934-0	1,507-7
	Por						*		
	158 Durun	 dur	• -	1.0	72.0	••	••	1.0	<b>7</b> 2·0
			612.8	935·0	5,835.7	•••		935.0	6,448.5
North Openaland	105								
worm watertstand	100			••	76.2	••	16.1	••	92.3
	104		37.7	••	435.5	••	18-1		491.3
	310	•••	•• 19.0		29.0	••			29.0
	418	•••	19.8		392.9	••	300.0	••	766-7
							4.0	••	4.0
			51.5		933-6		398.2	••	1,383.3
Rockhampton	20	••		131-4	138.4			131-4	138-4

## APPENDIX I.—continued.

Areas of Plantations Established.

Working Dian Area	Reserve	Euc (A	alypts. cres.)	Soft (A	woods. cres.)	Other (A	Species. cres.)	All S (Ac	pecies. res.)
WOINING I KAN AICA.	No.	1949-50.	To 30th June, 1950.	1949-50.	To 30th June, 1950.	1949-50.	To 30th June 1950.	1949-50.	To 30th June, 1950.
Warwick	. 263		0.3	174.0	1,495.0		18.5	174.0	1,513-8
Experimental Are Imbil	as	· · · · · · · · · · · · · · · · · · ·	4·0    	· · · · · · · · · · · · · · · · · · ·	$\begin{array}{c} 47.5 \\ 5.0 \\ 8.0 \\ 0.2 \\ 1.0 \\ 17.9 \\ 0.7 \end{array}$	· · · · · · · · · · · · · · · · · · ·	9.7   	••• ••• ••• •••	$\begin{array}{c} 61 \cdot 2 \\ 5 \cdot 0 \\ 8 \cdot 0 \\ 0 \cdot 2 \\ 1 \cdot 0 \\ 17 \cdot 9 \\ 0 \cdot 7 \end{array}$
		· · · ·	4.0		80.3		9.7		94.0
Grand Totals .		250.0	2,886·1	4,975.5	43,137.7	·   · · · · ·	436.7	5,225.5	46,460.5

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\* Acreage planted (1) Coondoo Creek to 17-6-1950.
(2) Tuan Creek to 25-5-1950.
(3) Beerburrum to 17-6-1950.

## 35

## APPENDIX J.

Areas of Natural Forest Treated.

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			Eucalypts. (Acres.)			- Softwoods. (Acres.)	<u></u>	(	Other Specie (Acres.)	ş.	All Species. (Acres.)
Working Plan Area.	Reserve No.	Treated 1949–50.	First Treatment 1949-50,	Total as at 30th June, 1950.	Treated 1949–50.	First Treatment 1949–50.	Total as at 30th June, 1950.	Treated 1949–50.	First Treatment 1949–50.	Total as at 30th June, 1950.	Total as at 30th June, 1950.
Brisbane	69 1,376 215 702 494	285 359 175 350 209	50 350	$1,548 \\ 1,616 \\ 925 \\ 2,822 \\ 1,040$			· · · · · · ·	· · · · ·	•••	, . , . , . , .	$1,548 \\ 1,616 \\ 925 \\ 2,822 \\ 1,040$
, , , ,	$\begin{array}{r} 446 \\ 667 \\ 309 \\ 1,355 \\ 727 \\ \end{array}$	63   77		980 914 2,444 1,625 732	· · · · · · ·	· · · · · · · · · · · · · · · · · · ·	· · · · · · ·	· · · · · · · · · · · · · · · · · · ·	• • • • • •	· · · · · · ·	980 914 2,444 1,625 732
Totals	••	1,518	477	14,646	 			•••			14,646
Brisbane Valley and Nanango	283 289 257 151 299 509 527 528	   1,616	   1,616	$\begin{array}{c} 2,149\\ 32\\ 125\\ .\\ .\\ 50\\ 1,616\\ 5,045\\ 1,616\end{array}$	· · · · · · ·	· · · · · · · · · · ·	747 25  337 332 51 	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · ·	40 66  	2,936 57 191 337 382 1,667 5,045 1,616
Totals	•••	1,616	1,616	10,633	·		1,492	·		106	12,231
Bundaberg	169 80 etc. 191 864 723	 48 } 3,509	2,010	9,060 12,589 564	· · · · · · · · · · · · · · · · · · ·		9,902  	··· ··	··· ·· ··	, . , . , .	9,902 9,060 12,589 564
<b>140</b> . 4	832	3,561	2,872	9,241			<u> </u>	•••	·		9,241
Totals		7,118	4,882	31,454	 		9,902		· · ·	,. 	41,356
		899 1,403		10,820 18,370		•••	•••	••	••		10,820
Totals		2,302		29,190		•••			• • •		29,190
Dalby	93 141 4 83 78 34 150	965  28 227 	· · · · · · ·	$14,721 \\ 802 \\ 6,485 \\ 5,637 \\ 1,130 \\ 1,270$	125 6 1,704 30	6 6 	1,124 6 41,646 2,496 6,652	•••	••• ••• •••	   	15,8458026,4915,63742,7763,7666,652
	139 - 16M 127 126 154 	• • • • • • • • • • • • • • • • • • •	•••	950 5,229  	1,618 300 2,155	1,588 150 2,155	$\begin{array}{r} 274\\ 23,063\\ 765\\ 3,600\\ 28,517\\ 1,865\end{array}$	•••	• • • • • • • •	··· ·· ··	1,224 28,292 765 3,600 28,517 1,865
· · · · ·	60 328 155 16B 106	··· ·· 325	· · · · · · · · · · · · ·	544 38		80 	2,265 305 1,537 	•••	· · · · · · · ·	· · · · · ·	2,265 305 1,537 544 38
Totals		1,545	325	36,806	6,018	4,376	114,115				150,921
Inglewood			195	19,936	1 500	370	3,956				19,892
	$\begin{array}{c} 79\\ 122\\ 117\\ 101\\ 134\\ 81\\ 76\\ 48\\ 136\\ 132\\ \end{array}$	1,597 	 705 	9,661 10,024 3,511 2,440	1,503 323 384 553  109	1,503  358  109	30,470 19,145 540 15,060  4,068 1,528	· · · · · · · · · · ·	· · · · · · · · · · · ·	· · · · · · · · · ·	30,470 19,145 9,661 10,564 15,060 3,511 2,440 4,068 1,528
	120	··· ··	•••	298		•••	515		 		813
Totals		1,597	705	26,141	2,872	1,970	71,326	···			97,467
Kilcoy	370 893 637	787 370 	500 	3,182 2,557 1,168	••• ••	•••	••	 	  	  	3,182 2,557 1,168
Totals		1,157	500	6,907	<u></u>		<u>  </u>	<u></u>			6,907

## 36

## APPENDIX J.—continued.

## Areas of Natural Forest Treated—continued.

- <u>·····</u> ····			Eucalypts. (Acres.)			Softwoods. (Acres.)		C	)ther Species (Acres.)	8.	All Species. (Acres.)
Working Plan Area.	Reserve No.	Treated 1949 -50.	First Treatment 1949–50.	Total as at 30th June 1950.	Treated 1949–50,	First Treatment 1949–50.	Total as at 30th June, 1950.	Treated 1949–50.	First Treatment 1949–50.	Total as at 30th June, 1950.	Total as at 30th June, 1950.
Kilkivan	. 221	420	··	1,730			560				2,290
	220		••	••			155	••		•••	155
	26		•••	••			150	••			150
	494			1,350							1,350
	24/12	702	702	19,935			••	••			19,935
Totals .		1,122	702	23,095			905	••	- <u></u> 		24,000
Many Peaks	. 28		· · ·	6,711			••	•••			6,711
Totals		· · ·		8 522	··-						8,522
LUtais .	·				  -						
Maryborough	- 287			10,170		••	240	••		••	240 16 158
-	435	2,418	759	10,198			••	••			1,147
	62	1,992	675	5,992	· · · .			••			5,992
	12	1,196		5,130		••	••	••	• • •		5,130
	390	2,830	990	13,000			••	••			13,521
	27			7,736							7,736
	1		· · ·	1,639	•••••		272				
Totals .	•	9,156	2,030	68,983	<u>.</u>		512	· ·	 		69,495
Mary Valley	. 135 435	 	• • •••	159 	•••	 	277 70	•••			436 125
Totals .		 		159			347			55	561
North Coast	218	480	480	4 310	-						4.310
tion coase	313	100		1.824							1,824
	583			1,455				••			1,455
	445	160	160	3,772	· • •		••	••		•••	3,772
	249	•••	••	1,299	••		••	••			1,255
	611			2.223	ł						2,223
	589			53							53
	108			1,750	•••		••				1,750
	531	342	100	2,907		•••		••			2,001
	<u></u>										
Totals .	•	982	778	21,298		•••	· · ·				21,298
Gympie	. 393			3,020		··					3,020
	234	30		1,730	••	1					1,730
	502	··	• • •	1,568			[ · · ·		· · ·	••	2,355
	700			3.672							3,672
1. S.	124	[	· · ·	770	[	· ·	[·	{ ·	1	1	770
•••	959	312	312	793					···	••	793 680
Totals		672	592	14,588				 		····	14,588
	<u> </u>		-					<u> -</u>		<del> </del>	
North Queensland	191					1	·	l		53	53
	- 194		k	175		···					175
· · ·				1 . · ·			•	· · ·		128	128
•	452									20	20
	240			339							339
• •	243			1,457			140	··	··		1,457
•	438		10	1.170		··	103			1	1,170
• •	343	5 I		200			· · ·				200
Totals			10	3,341	81	48	169			299	3,809
								1	1 · 7	·	
Warwick	·· 444	L L 13		2,700 + 4,022	•••						2,700 4,022
Totals		. 13	 	6,722			· · · ·			•••	6,722
Grand Totals		29,085	12,812	318,421	9,671	6,764	202,724		• • •	460	521,605

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## APPENDIX K.

## Summary of Forest Survey Work-Year ended 30th June, 1950.

	Reser	ve.				<u></u>		Area in Acres				
	Class	1—I1	NSPECTION	IS OF	VAC.	ANT CROWN LA	ND 2	AND	TIMBEP.	Reser	ves.	
343, 353						Meunga						3,724
15			• •			Poona		••	• •	••		90,000
Pors. 30, 34						Combabula			• •		(	2,285
or. 209						Bribie		• •	••			19
ors, 442, 451.						Beerwah			• •			95
ors. 719, 686.						Beerwah						141
or. 418			••	••	••	Beerwah	••	••	••			40
						т	otal	••	••			96,304
											•	
				Clas	s 2	Assessment Su	RVE	YS.				
			••	••		Riflemead	• •	• •	• •	• •	1	3,120
acant Lands			• •			Alcock, Ongera	ı		••		• • •	5,894
acant Lands						Palmerston						2.441
11	••			••		Durundur			• •	• •		1.367
4						Bania (proceed	ling)		• •	• •		4,639
edford Holding	(part)					Redford, Sunn	ysid	е		• •		62,140
lillside Holding	part)			•••		Hillside, Copla	nd	• •	••			12.700
ors. 2, 4 (parts)	• • •					Karil		• •	• •	••		6,755
ors. 21, 22			••	• •		Tinowon			• •		1	33.225
ors. 2, 3, 5, 6						Jarrah						14.719
ors. 26, 816, 178	v. etc.					Beerwah						170
ors. 275 to 277	·	•••••••••••••••••••••••••••••••••••••••				Beerwah						77
or. 70v						Canning						73
ors. 435, 4, 13						Toorbul						12
or. 71v						Durundur						110
hinglehut Holdi	ng					Pelham, Quan	lone	r				17.895
or. 57.	-0					Garioch		,			•••	194
ors. 156v. 161v.	163v. 1	61				Noosa			••	••		347
ors. 137v. 438				•••	••	Tuchekoi	••				•••	310
ors. 15v. 16v. 19	iv		••		••	Glady	••		••	••	•••	389
ors. 44v. 46v. 56	)v. 60v.	69v.	76v. 77v	••	••	Glady	••	••	••	••	••	
or. 263 (nart.)	,,	,	,	••	••	Ballendon Kor	••	• •	••	••	••	457
or 363 (nart)	••	••	••	••	••	Bollonden Kor		••	••	• •	••	407 90z
or. 500 (part)	••	••	••	••	••	Denenden IVer		••	••	••	••	
						1 77	otal					168 197

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#### Class 3-Intensive Contour and Assessment Survey.

67 Vacant L	and	•••	• • • •	•••	  ••	•••	Bulburin (p Conondale	roceedin • •	g) •.	 	••	•••	5,950
								Total		••	• •		5,950
<b>-</b>		<u></u>		. <u> </u>	 								

COMPARTMENT, FIREBREAK OR SOIL SURVEYS.

Reserve.					Paris	<b>h.</b>		Type.	Area in Acres.		
915 Vacant Land 393 638 611 589 484 278 951		··· ··· ··· ··· ···	· · · · · · · · ·	· · · · · · · · · · ·	Poons Goomboorian Woondum Beerwah . Beerwah . Beerwah . Hercules . Traveston	· · · · · · · · · · ·	· · · · · · · · ·	Compartment and soil          Compartment and soil          Compartment          Soil          Compartment and soil          Total	2,256 6,840 10,015 3,315 3,323 800 100 1,126 27,775		

## APPENDIX K-continued.

## Summary of Forest Survey Work—Year ended 30th June, 1950.

FOREST INVENTORY SURVEY.

	Reserve.							Parish. Area in Acres.
385 328 368 57 46 (pa 46 (pa	   urt) urt)	  	· · · · · · ·	· · · · · · · ·	· · · · · · ·	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	Amoolee
54 56 302, 6 435, 9	;1  58	•• •• ••	••• ••	•••	••• •• ••	, , , , , ,	•• •• ••	Bernbil
57 257 299 509 263 137	· · · · · ·	• • • • • • • •	• • • • • • • •	••• •• ••	• • • • • • • •	••• •• ••	· · · · · · ·	St. Mary (proceeding)           Cooyar           Avoca           Crows Nest       Sample plantation plots          Pikedale       Yabba          Yabba       Monoithela
207	•••		••	••	••	•• ·	••	Monsudale J Total 97,220

					Μ	ISCELLANEOUS	SURVEYS.	• •			
Reserve	No. an	ıd Pe	rish.			Compartment No.	Logging Area.		Туре.		
220 Kilkivan 256 Imbil 435 Kandanga 951 Traveston 959 Tewantin 951 Poona 135 Cambroon 135 Brooloo 67 Bulburin 95 New Cant 638 Beerwah 137 Yabba 137 Yabba 137 Yabba 298 Gallangow 120 Neumgna 120 Tarong	        	··· ··· ··· ··· ··· ···	····· ··· ··· ··· ··· ···	· · · · · · · · · · · · · · · · · · · ·	· · · · ·	19, 20 1 5, 6 3 5, 6, 7 1 to 9  	Gap Dwyer Allan Archibald Burrum Eastern, Occupation Winch Porter, Pungun Pocket, Neumgna Dean	· · · · · · · · · · · ·	Falling Planting, roads Road centre line Fire tower Fire tower Theodolite control "M" road traverse Falling Falling Extraction routes Firebreak Firebreak Firebreak and road Compartments and		
151 Turcen 289 Cooyar 299 Avoca 316 Cooyar 328–9 Avoca 379 Cooyar 283 Colinton 283 Colinton 283 Colinton 283 Colinton 283 Colinton 283 Colinton 257 Cooyar 258 Cooyar 453 Gundiah	··· ··· ··· ···	· · · · · · · · · · · · · · · · · · ·		··· ··· ··· ··· ···	· · · · · · · · · · · · · · · · · · ·	  48, 10B, 12 to 14 20  4, 13 to 16 4, 5	West Barker Yarraman Nanango, Avoca, Tom Bunya Grimstone Wallaby Muddy South Pennings, Back Creek Opossum, Emu Creek Googa Binga	Tom	breaks Scrub-falling Scrub-falling Firebreaks Falling and breaks Falling, etc. Falling, etc. Scrub edge firebreak Firebreak, etc. Roads, falling, etc. Firelines, falling Boundaries		

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## APPENDIX L.

State Forests, Timber Reserves, and National Parks at 30th June, 1950.

	Т.	L.A.D.		8	itate Foresta	3.	Tir	nber Reserv	·es.	National Parks.				
					No,	Area		No.	Агеа	h.	No.	Агеа	<b>b.</b>	
Atherton Bowen Brisbane Bundaberg Cairns Charleville Charters Towc Clermont Cloneurry Cooktown Dalby Gayndah Gladstone Goondiwindi Gympie Herberton Inglewood Innisfail Ipswich Jundah Mackay Mackay Maryborough Monto Nanango Rockhampton Roma Springsure Stanthorpe St. George	···				No. 12  65 26 7  22  32 1 5 4 4 4 9 1 14  30  1 68 9 466 7 10  11  12  12  13 14  14  14  14  14  14  14  14  14  15  14  14  14  14  15  14  14  15  16  10  17  10    10  	Area A. 49,054 212,979 127,264 108,985  126,500  860,618 4,790 35,490 131,870 291,936 73,959 43,620 185,393  160,997  18,450 682,643 196,130 219,733 172,418 89,434 6,780	R.       P.         1       30         3       23         2       0         0       36         0       0         2       2         0       0         2       2         0       0         2       2         0       0         1       30         3       29         0       0         3       29         0       0         3       20         2       34         1       0         3       22         0       0	No. 8 8 43 35 14 2 2 4 1 8 11 14 25 1 23 9 3 4 12 23 1 19 29 12 12 14 1 3  1 1 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	Area 60,509 99,300 68,874 138,343 488,873 20,037 125,550 49,065 4,290 623,510 68,033 52,562 86,653 3,170 72,643 70,477 68,890 8,407 404,903 66,337 25,600 148,995 32,958 75,133 8,157 101,103 8,600 49,276 3,072	$\begin{array}{c} \textbf{R. P.} \\ 2 & 26 \\ 0 & 0 \\ 3 & 19 \\ 2 & 0 \\ 0 & 0 \\ 2 & 35 \\ 0 & 0 \\ 0 & 0 \\ 2 & 35 \\ 0 & 0 \\ 0 & 0 \\ 1 & 25 \\ 0 & 0 \\ 0 & 0 \\ 1 & 25 \\ 0 & 19 \\ 3 & 14 \\ 0 & 0 \\ 1 & 9 \\ 0 & 24 \\ 0 & 0 \\ 1 & 9 \\ 0 & 24 \\ 0 & 0 \\ 1 & 9 \\ 2 & 24 \\ 0 & 0 \\ 1 & 9 \\ 2 & 24 \\ 0 & 0 \\ 1 & 9 \\ 2 & 24 \\ 0 & 0 \\ 1 & 9 \\ 2 & 22 \\ 0 & 0 $	No. 5 35 37  20  7 1  4  5 5 5 3  20 3  55 4  1 16  16  1 6 	Area A. 3,552 114,467 76,975 92,300  92,300  10,691 13,100  922 3,361 1,835  105,987 5,044 147,516 8,185  9,605 2,813  65,000 12,604 	<b>R.</b> 2003 3300002330010022003	$\begin{array}{c} \mathbf{P}, & 0 \\ 0 & 0 \\ 35 \\ 24 \\ 0 \\ 0 \\ 0 \\ 7 \\ 28 \\ 0 \\ 0 \\ 29 \\ 0 \\ 0 \\ 18 \\ 0$
raroom Foowoomba Fownsville	••• ••• •••	•••	• • • • • •	•••	3 22 1	22,186 256,986 23,123	$     \begin{array}{ccc}       0 & 0 \\       1 & 18 \\       0 & 0     \end{array} $	$\begin{array}{c} 5\\ 16\\ 2\end{array}$	$\begin{array}{r} 48,864 \\ 28,079 \\ 17,199 \end{array}$	$\begin{array}{ccc} 2 & 0 \\ 1 & 19 \\ 1 & 31 \end{array}$	$\frac{.}{5}$	<b>3</b> ,214 62,360	3 0	0 0
		, 			420	4,101,347	24	- 365	3,127,472	2 34	235	739,768	0	$\frac{12}{12}$

At 30th June, 1950-					,							
Total area reserved for-										Α.	R.	Р.
State Forests	• •	••	••	• •	••	••			••	4,101,347	2	4
Timber Reserves	••	••	· • •	••	••	••	••			3,127,472	<b>2</b>	34
National Parks	••	••	••	• •	••	••	••	••	• •	739,768	0	12
<b>Matal D</b>									-			
Total Reserv	ations	۰.	••	••	••	••	••	••	• •	7,968,588	1	10

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#### APPENDIX M.

## Reservations for the year ended 30th June, 1950.

State Forests.—Six (6) State Forests with a total of 20,065 acres were proclaimed during the year. The largest of these are as follows :—

Acres.					Land Agent's District.
7.508	(Reserve 61, Ballon and Burraburri				J Dalby
.,	Reserve 302, Nudley		••	••	
6,450	Reserve 945, Curra	••	••	••	Gympie
4,018	Reserve 571, Barrow and Nerang	• •	••	••	., Brisbane
1,126	Reserve 951, Traveston	••	• •		Gympie

58,762 acres were added to existing reserves and 24 reserves were rescinded for inclusion in adjoining State Forests.

Timber Reserves.—At 30th June, 1950, the number of Timber Reserves is 365 compared with 355 at 30th June, 1949.

Eighteen (18) new areas with a total of 58,682 acres were reserved, the largest being :--

Aores							La	nd Agent's District.
15 679	Reserve 29. Coorada							Taroom
8 901	Reserve 61. Withersfield				••			Springsure
5 076	Reserve 371, Wonbah			••				Bundaberg
4 639	Reserve 234. Bania		•			••		Bundaberg
3 565	Reserve 136, Copperfield				••	• •		Clermont
2 987	Reserve 230, Bania				••			Bundaberg
2,717	Reserve 229. Baywulla			• •	••	۰.		Bundaberg
2.552	Reserve 62. Binkey		••	• •		• •	• •	Dalby
2,492	Reserve 231. Bania					••		Bundaberg
1,992	Reserve 370, Wonbah					••		Bundaberg
1.897	Reserve 127. Dangore	••				••		Nanango
1.861	Reserve 982, Hull			••	••	• •		Innisfail
1.800	Reserve 977, Weyba		• •	••		••		Gympie
1.110	Reserve 134, Copperfield				••	• •		Clermont

Six reserves totalling 54,198 acres were converted to State Forests and 8,174 acres of Crown Land were added to existing reserves. Two reserves were cancelled.

National Parks.—Six (6) new National Parks with a total of 9,114 acres were proclaimed during the year, these being :—

1 0700				I	and Agent's District
2.800	Reserve 760, Melcombe and Palen (Mount)	May)			Brisbane
2,360	Reserve 418, Abbotsford (Mount Burrumb	ush)	• •	••	Townsville
1.758	Reserve 711, Maroochy		•• *	• •	Brisbane
1.620	Reserve 60, Ossa (Cape Hillsborough)		• •	••	Mackay
567	Reserve 616, Ossa (Mount Jukes)	••	••	• •	Mackay
0	Reserve 55. Europella		••		Mackay

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12

#### 1ST JULY, 1949, TO 30TH JUNE, 1950. STATE FORESTS.

At 1st July, 1949 Proclaimed 1st July, 1949 to 30th June V.C.L. added to existing reserves	, 1950 	•••	•••	No. 438 6 	<b>A.</b> 4,022,520 20,065 58,762	в. 1 0 0	Р. 18 6 20
Reserves rescinded		••	• •	444 24			
Total at 30th June, 1950	••	••	•••	420	4,101,347	2	4
Тімі	BER RE	SERVES.					
At 1st July, 1949 Proclaimed 1st July, 1949, to 30th Jun V.C.L. added to existing reserves	.e, 1950	  	•••	355 18	3,117,574 58,681 8,174	1 3 1	9 25 10
2 Reserves cancelled	2,	A. B. 760 0	р. 0	373	3,184,430	2	4
6 Reserves converted to State Forests		197 0			56,957	3	10
- Total at 30th June, 1950		••	••	365	3,127,472	2	34
Na	TIONAL	Parks.					
At 1st July, 1949 Proclaimed 1st July, 1949, to 30th Jur	ne, 1950	•••	••	229	730,653 9,114	3 0	$\frac{31}{21}$
Total at 30th June, 1950	• ••			235	739,768	0	12
Total Reservations at 30	th June	, 1950			* 7,968,588	1	10

## **41**

## APPENDIX N.

## Expenditure, Surveys, year ended 30th June, 1950.

## PARTICULARS OF SURVEY-

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Harvesting and Marketing Project-

	£.	8.	d.
Survey-Prints, Maps, and Mountings-Miscellaneous	363	4	11
Forest Inventory Survey, Brisbane	6	11	7
Forest Inventory Survey, Brisbane Valley	770	13	3
Class 2 Surveys Reserve 54, Bania, Bundaberg	462	18	- 9
Forest Inventory Surveys, Dalby		4	Ğ
Class 2 Surveys, Redford Holding, Dalby		19	Ř
Class 1 Surveys, Fraser Island		3	ıň
Compartment Surveys, Reserve 393, Gympie	. 4	ŏ	ĥ
Forest Inventory Survey, Gympie	 Ā	18	ň
Forest Inventory Survey, Kilcoy	457	-4	10
Forest Inventory Survey, Reserve 435, Gundiah, Maryborough	. 272	ō	10
Forest Inventory Survey, Mary Valley	19	จั	Ř
Class 3 Surveys, Conondale, Mary Valley	1 970	10	5
Forest Inventory Survey, North Queensland	1,010 98	10	- ŭ
Class 2 Surveys, Reserve 353, Ongera	00 9.909	17	9
Class 2 Surveys, Reserve 30, Riflemead	2,202	14	11
Class 1 Surveys, Reserve 353, Meunga	2,190	19	11
Cardwell Survey Camp	1,101	14	U P
Forest Inventory Survey Warwick		12	0
	908	19	Ţ
	£17.331	12	- 2
	217,001	**	
Reforestation Branch Projects			
As Detailed in Appendix H.	. 8,408	10	11
Total Expenditure	£25,740	3	I

#### APPENDIX O.

## Distribution of Personnel, 30th June, 1950.

Salaried Officers Other Employees	••••		••	••	••	••		••	••			293
	••	••	••	••	••	۰.	••	••	••	••	••	2,186
											-	2,479
											-	

## A. H. TUCKER, Government Printer, Brisbane.